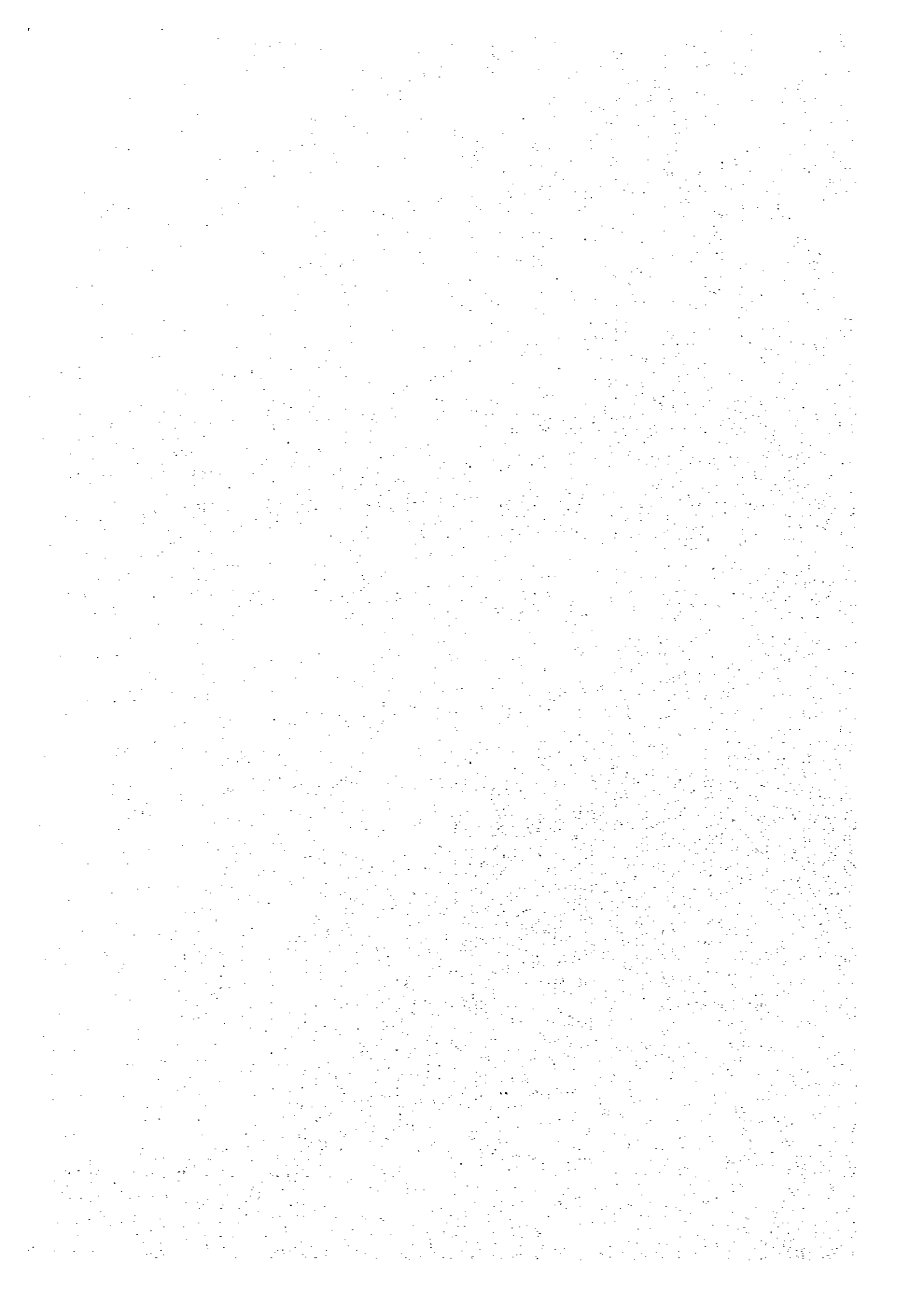


附 属 资 料



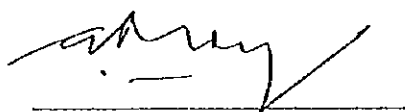
1. SCOPE OF WORK (S/W)

SCOPE OF WORK
FOR
ROAD NETWORK STUDY IN CENTRAL AND SOUTH-EAST SULAWESI
IN
THE REPUBLIC OF INDONESIA

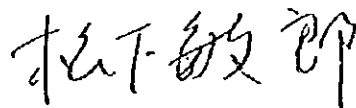
AGREED UPON BETWEEN

MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF HIGHWAYS
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

JAKARTA, 24th October, 1996

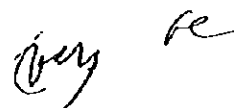


Mr. GANDHI HARAHAHAP
ACTING DIRECTOR OF PLANNING,
DIRECTORATE GENERAL OF HIGHWAYS,
MINISTRY OF PUBLIC WORKS



Mr. TOSHIRO MATSUSHITA
LEADER,
PREPARATORY STUDY TEAM,
JAPAN INTERNATIONAL
COOPERATION AGENCY

1



I. INTRODUCTION

In response to the request of the Government of the Republic of Indonesia, the Government of Japan has decided to conduct "Road Network Study in Central and South-East Sulawesi in the Republic of Indonesia" (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 Japan, will undertake the Study in close cooperation with the authorities concerned of the Government of the Republic of Indonesia.

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

II. OBJECTIVE OF THE STUDY

The objectives of the Study are:

- 1) to prepare the master plan of the road network system about primary arterial and collector 1, 2 and 3 roads including the potential candidate of those roads in Central, South-East Sulawesi Provinces and somepart of South Sulawesi Province of adjacent to the two provinces.
- 2) to select priority projects and to carry out feasibility studies on the selected projects.

III. STUDY AREA

The Study area covers Central, South-East Sulawesi Provinces and somepart of South Sulawesi Province of adjacent to the two provinces.

IV. SCOPE OF THE STUDY

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

- A. Phase I : Master plan of the road network system (Target Year 2018 to be consulted)
 1. Review of the relevant studies and project reports on the Study area
 2. Conduct of the socio-economic studies

- (1) Collection and analysis of existing socio-economic data and information
- (2) Analysis of existing land use pattern and review of urban development plans in the Study area
- (3) Forecast of the future socio-economic framework
3. Conduct of the supplementary surveys and analyses
 - (1) Collection and analysis of basic engineering data and information
 - (2) Road inventory survey
 - (3) Conduct of the supplementary traffic survey
4. Forecast of the future traffic demand
5. Formulation of the future road network development plan
6. Conduct of the Initial Environmental Examination (IEE)
7. Selection of high priority links for pre-feasibility studies for the period up to the year 2003

B. Phase II : Pre-feasibility study (Target Year 2003 to be consulted)

1. Rough engineering design
2. Rough estimation of cost for land acquisition, construction and maintenance
3. Rough economic analysis
4. Route selection for feasibility studies for the period up to the year 2003

C. Phase III : Feasibility study (Target Year 2003 to be consulted)

The Phase III of the Study will be conducted on condition that the necessity and viability of the Project are confirmed through the Phase II of the Study. The draft of the Phase III of the Study is tentatively set as followings, although the details of the Phase III of the Study including the schedule will be discussed and decided when the Phase III of the Study is confirmed to be conducted.

1. Engineering surveys for the selected links
 - (1) Topographic survey (taking of aerial photographs and preparation of photo mosaic, route survey, etc. if necessary)
 - (2) Geological survey
2. Preliminary engineering design
3. Estimation of cost for land acquisition, construction and maintenance (and operation, if necessary)
4. Economic analysis
5. Conduct of Environmental Impact Assessment (EIA)
6. Formulation of project implementation plan
7. Preparation of summary and recommendation

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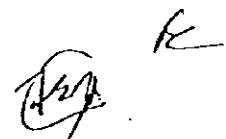
V. STUDY SCHEDULE

The Study shall be carried out in accordance with the attached tentative study schedule shown in APPENDIX. The schedule, including report submission date stated in the next clause (VI), is tentative and subject to be modified when both parties agree upon and any necessity that arises during the course of the Study.

VI. REPORTS

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

1. Inception Report
Twenty (20) copies
Within one (1) month after the commencement of the Study.
2. Progress Report
Ten (10) copies
Within six (6) months after the commencement of the Study.
3. Interim Report(1)
Twenty (20) copies
Within ten (10) months after the commencement of the Study.
4. Interim Report(2)
Twenty (20) copies
Within thirteen (13) months after the commencement of the Study.
5. Draft Final Report
Twenty (20) copies
Within eighteen (18) months after the commencement of the Study.
The Government of the Republic of Indonesia will provide JICA with its comments within one (1) month after the receipt of the Draft Final Report.
6. Final Report
Fifty (50) copies
Within one (1) month after the receipt of the comments on the Draft Final Report.

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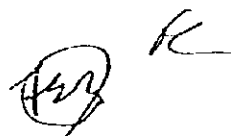
VII. UNDERTAKING OF THE GOVERNMENT OF THE REPUBLIC OF INDONESIA

1. To facilitate smooth conduct of the Study, the Government of the Republic of Indonesia shall take the following 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 Republic of 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, fees and any other charges on equipment, machinery and other materials brought into and out of the Republic of Indonesia for the conduct of the Study ;
- (4) to exempt the members of the Japanese study team from income taxes 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 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 Republic of Indonesia from Japan in connection with the implementation of the Study ;
- (6) to secure permission for entry into private properties and restricted areas for the implementation of the Study ;
- (7) to secure permission for the Japanese study team to take all data and documents including maps, photographs related to the Study out of the Republic of Indonesia ; and
- (8) to provide the medical services as needed. Its expenses will be chargeable on the members of the Japanese study team.

2. The Government of the Republic of Indonesia 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 Japanese study team.

3. Directorate General of Highways, Ministry of Public Works (hereinafter referred to as "Bina Marga"), shall act as a counterpart agency to the Japanese study team and also as a

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coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

4. Bina Marga shall provide, at its own expense, the Japanese study team with the followings, in cooperation with other agencies concerned :

- (1) available data and information related to the Study, including aerial photographs and maps, if they have been existed ;
- (2) counterpart personnel ;
- (3) suitable office space with necessary equipment in Jakarta and at the sites of the Study ;
and
- (4) credentials or identification cards.

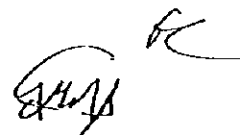
VIII. UNDERTAKING OF JICA

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

- (1) to dispatch, at its own expense, the study team to the Republic of Indonesia ; and
- (2) to pursue technology transfer to the Indonesian counterpart personnel in the course of the Study.

IX. CONSULTATION

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

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APPENDIX

TENTATIVE SCHEDULE OF THE STUDY

month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Work in Indonesia																					
Work in Japan																					
Report																					

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

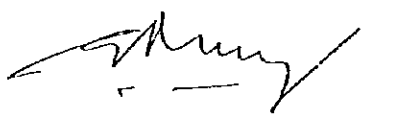
2. MINUTES OF MEETING (M/M)

MINUTES OF MEETING
ON
SCOPE OF WORK
FOR
ROAD NETWORK STUDY IN CENTRAL AND SOUTH-EAST SULAWESI
IN
THE REPUBLIC OF INDONESIA

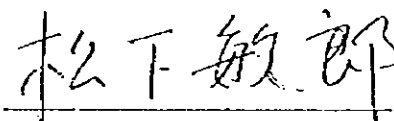
AGREED UPON BETWEEN

MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF HIGHWAYS
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

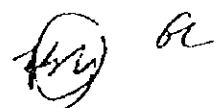
JAKARTA, 24th October , 1996



Mr. GANDHI HARAHAHAP
ACTING DIRECTOR OF PLANNING,
DIRECTORATE GENERAL OF HIGHWAYS,
MINISTRY OF PUBLIC WORKS



Mr. TOSHIRO MATSUSHITA
LEADER,
PREPARATORY STUDY TEAM,
JAPAN INTERNATIONAL
COOPERATION AGENCY



In response to the request of the Government of the Republic of Indonesia, the Government of Japan dispatched the Preparatory Study Team (hereinafter referred to as "the Team") for Road Network Study in Central and South-East Sulawesi (hereinafter referred to as "the Study").


Meetings on the Scope of Work on the Study were held in the Ministry of Public Works, Jakarta, the Republic of Indonesia, on 15th, 23rd, and 24th October, 1996 between the representatives of the Directorate General of Highways, Ministry of Public Works of the Republic of Indonesia (hereinafter referred to as "Bina Marga") and the Team dispatched by the Japan International Cooperation Agency (JICA). Site inspection was carried out from 16th to 22nd October, 1996.

Both parties signed the Scope of Work on 24th October, 1996.

The list of the attendants of the meetings is shown in Appendix.

Bina Marga and JICA agreed to the following items:

- (1) The steering committee for the Study shall be set up for assisting the study team to conduct the Study smoothly.
- (2) Bina Marga shall assign counterpart for supporting implementation of the Study. During the Study, the counterpart shall act with the members of the Study as needed.
- (3) Bina Marga shall provide necessary information and measures including calling an ambulance and/or making arrangement of a hospital as medical services mentioned in the Scope of Work.
- (4) Bina Marga shall provide office space in Jakarta and at the sites of the Study, even though it is difficult.

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LIST OF ATTENDANTS

INDONESIAN SIDE

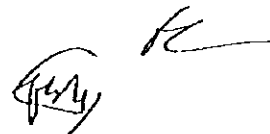
Mr. Gandhi Harahap	Acting Director of Planning
Mr. Machfudz Madjid	Chief of Sub-Directorate Foreign Aid Administration
Mr. Sumaryanto Widayatin	Chief of Sub-Directorate General Planning
Mr. Dikra Caswara	Section Chief of Bilateral Sub-Directorate Foreign Aid Administration
Mr. Arif Nugroho	Section Chief of Traffic Data of Road Network Sub-Directorate General Planning

JAPANESE SIDE

Mr. Toshiro Matsushita	Team Leader
Mr. Masahiro Ono	Member of Team
Mr. Keiichi Ichikawa	Member of Team
Mr. Hiroshi Ibaraki	Member of Team
Mr. Masaaki Uehara	Member of Team

OBSERVERS

Mr. Kenichi Tsukahara	First Secretary, Embassy of Japan
Mr. Hiroyo Sasaki	Deputy Resident Representative, JICA Indonesia Office
Ms. Tomoko Takeuchi	JICA Indonesia Office
Mr. Nozomu Mori	JICA Expert
Mr. Susumu Fukunaga	JICA Expert



3. TERMS OF REFERENCE (T/R)

TERMS OF REFERENCE
FOR
ROAD NETWORK STUDY IN
CENTRAL AND SOUTH-EAST SULAWESI

1995 / 1996

DIRECTORATE GENERAL OF HIGHWAYS
MINISTRY OF PUBLIC WORKS

TERMS OF REFERENCE FOR ROAD NETWORK STUDY IN CENTRAL AND SOUTH-EAST SULAWESI

1. BACKGROUND

The Government of Indonesia has been placing an emphasis on regional economic development in Eastern Indonesia comprising Kalimantan, Sulawesi, Irian Jaya and Eastern Islands in the current Repelita V.

The Eastern Indonesia which shares about 70% of the national area, has major development potentiality region by region as follows :

- Kalimantan : Mining (Oil and LNG in East Kalimantan, potentiality of Bauxite deposit in West Kalimantan) and Forestry
- Sulawesi : Mining (potentiality of Nickel deposit in Southeast Sulawesi) and Agriculture (South Sulawesi and Southeast Sulawesi)
- Irian Jaya : Mining (potentiality of Nickel deposit in Gagu Island and copper)
- Easter Islands : Agriculture (production of food crops and estate crops)

However, due to lack of infrastructures, especially road networks, regional developments mainly based on the above has been limited and lagged behind other advanced areas such as Java and Sumatra. Since the Eastern Indonesia is geographically separated from the major growth centers such as Jakarta and Surabaya, benefits of economic growth being enjoyed by these areas in the recent years have not reached the Eastern Indonesia yet. Self-initiated economic growth has not taken place yet and is unlikely to occur without some form of external stimulus with a number of unfavorable conditions such as low level of fertility, scattered settlement pattern and lack of land and technology.

In fact, the economic situation of the Eastern Indonesia still indicates low levels (the average GRDP per capita in 1988 = 552 thousand Rp.).

On the other hand, the Government also promotes the transmigration policy to Eastern Indonesia for solving the remarkable concentration of inhabitants in Jawa, however, the present population density still indicates a low level of habitation (about 30% of the national figure) due to the same reasons.

Under such situation, the Government of Indonesia has recognized the necessity of formulating road networks covering the whole area and decided to conduct a Road Network Study in light with the Government Policy.

2. OBJECTIVE OF THE STUDY

The objective of the study is to formulate proper road networks and the implementation program for the purpose of promotion of regional economic development on Central and Central and South-East Sulawesi Provinces as the priority area of eastern part of Indonesia to be developed in this stage.

3. SCOPE OF THE STUDY

3.1. Study Area

The following regions shall be covered as the study area :

- * Province of Central Sulawesi
- * Province of South-East Sulawesi

3.2 Road Networks to be studied

The road networks to be studied involves national and provincial roads which are or will be under the Directorate General of Highways (Bina Marga) in the study area.

3.3 Activities of the Study

In order to achieve the objective mentioned above, the study shall be conducted in two phases, the master planning (Phase-I) and pre-feasibility study (Phase-II).

In the master planning, the following items shall be conducted using "GIS System":

- Preparation of data-base.
- Analysis of data regarding topographical, geological and Land use patterns etc.
- Study of road networks.

Each phase shall cover the following activities :

Phase-I : Master Planning

- To conduct pilot study and establish formulation of the Study
- To collect and review the existing data and previous studies covering :

- Socio-economic conditions
- Land-use patterns
- Regional development plans
- Natural resources
- Present road network and traffic conditions
- Present commodity flow
- Environmental conditions
- To identify potentiality of regional economic development
- To define problems on transportation in view of service level of each mode (the insufficiency) and modal split (the suitability)
- To define problems on present road networks by the region in terms of accessibility and road density
- To propose regional development strategy
- To propose policy on road network development
- To identify proposed road network by the region

Phase-II - Pre-feasibility Study

- To establish Socio-economic frame by the region
- To conduct pre-feasibility study for proposed road networks covering :
 - Traffic forecast
 - Engineering study and cost estimation
 - Benefit estimation and economic evaluation
- To evaluate proposed road networks (Establishment of priority ranking)
- To formulate implementation program by the region comprising phasing and recommendation for immediate actions

4. EXECUTION OF THE STUDY

(1) Organization

The executing agency is the Directorate General of Highways (Bina Marga), the Ministry of Public Works of Indonesia.

(2) Expertise and Man-Months

It is estimated that about 75 man-months of foreign experts will be required for the study, including the following:

Phase-I	Phase-II
• 1-Team Leader	• 1-Team Leader
• 1-Transport Planner	• 1-Transport Planner
• 1-Traffic Engineer	• 1-Traffic Engineer
• 1-Systems Analyst	• 1-Systems Analyst
• 1-Sr. Regional Planner	• 1-Sr. Regional Planner
• 1-Regional Planner	• 1-Sr. Highway Engineer
• 1- Sr.Highway Engineer	• 1-Highway Engineer
• 1-Highway Engineer	• 1-Transport Economist
• 1-Transport Economist	• 1-Environmental Specialist
• 1-Agricultural Economist	
• 1-Environmental Specialist	

(3) Study Schedule

The study shall be carried out in accordance with the attached tentative schedule.

5. REPORTS

Following reports shall be submitted to the Government of Indonesia.

- 1) Inception Report (30 copies) to be submitted upon of the Study describing study methodology, study schedule, study organization, etc.
- 2) Interim Report (30 copies) to be submitted within six (6) months after the start of the study covering the results of Phase-I study
- 3) Draft Final Report (30 copies) to be submitted within twelve (12) months after the start of the study showing all the findings of the study, conclusions and recommendations.
- 4) Final Report (50 copies) to be submitted within one (1) month after the receipt of comments on the Draft Final Report from the Government of

Indonesia. The comments are expected to be delivered within one (1) month after submission of the Draft Final Report.

6 UNDERTAKING OF THE GOVERNMENT OF INDONESIA

- (1) To facilitate smooth implementation of the Study, the Government of Indonesia shall take necessary measures :
- (a) To secure the safety of the study team members.
 - (b) To permit the members of the study team to enter, leave and sojourn in Indonesia for the duration of their assignment therein, and exempt them from alien registration requirements and consular fees.
 - (c) To exempt the members of the study team from taxes, duties and any other charges on equipment, machinery and other materials brought into and out of Indonesia for the implementation of the study.
 - (d) To exempt the members of the study team from Income tax and other charge of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Team for their services in connection with the implementation of the Study
 - (e) to provide necessary facilities to the Team for remittances as well as utilization of the funds introduced into Indonesia from Japan in connection with the implementation of the Study.
 - (f) To secure permission for entry into private properties or restricted areas for the implementation of the Study.
 - (g) To secure permission for the Team to take all data and documents (including photographs, maps) related to the Study out of Indonesia to Japan.
- (2) The Government of Indonesia shall bear claims, if any arises against the members of the team resulting from, occurring in the course of, or otherwise connects with the discharge of their duties during the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Team.
- (3) Bina Marga will act as the counterpart agency to the Team and also as the coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth operation of the Study.
- (4) The Government of Indonesia shall provide the study team with the following :
- Available data and information related to the Study
 - Counterpart personnel
 - Suitable office with necessary office equipment in Jakarta

TENTATIVE STUDY SCHEDULE

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Phase 1 [Master Planning]	████████████████████														
Phase 2 [Pre-Feasibility Study]							████████████████████						███		
Report	▲					▲						▲		▲	
	IC/R					IT/R						DF/R		F/R	

- Note :
- IC/R : Inception Report
 - IT/R : Interim Report
 - DF/R : Draft Final Report
 - F/R : Final Report

Month	Month														M/M	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
WORK SCHEDULE																
Pilot study	■															
Data Collection	■	■	■	■	■											
Potentiality			■	■	■	■	■									
Transport Problems			■	■	■	■	■									
Road Network Problems			■	■	■	■	■									
Regional Development Strategy						■										
Policy in Road Network						■										
Identify Proposed Road Network							■	■								
Socio-economic Frame								■	■							
Pre-feasibility Study								■	■	■	■					
Evaluate Network												■	■			
Program													■	■		
MANNING SCHEDULE																
Team Leader	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	12
Transport Planner	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	11
Traffic Engineer	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	4
Systems Analyst	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	6
Sr. Regional Planner	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	7
Regional Planner	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	3
Sr. Highway Engineer	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	11
Highway Engineer	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	5
Transportation Economist	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	7
Agricultural Economist	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	2
Environmental Specialist	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	2
TOTAL																70

The Application Form for Japan's Development Survey

Application The Government of <u>Republic of Indonesia</u>	Project Title: Road Network Study in Central and South East Sulawesi.
Total Project Cost	Y. 163,671,395
Responsible Ministry (Ministry requesting it) Ministry of Public Works	Implementing Agency (Agency in Charge of execution of the project): Directorate General of Highways
Project Description	

1. Background (Please describe in detail)

(1) Current situation of the Sector

The Government of Indonesia has been placing an emphasis on regional economic development in Eastern Indonesia comprising Kalimantan, Sulawesi, Irian Jaya and Eastern Islands in the current Repelita V. The Eastern Indonesia which shares about 70% of the national area, has major development potentiality region by region as follows :

- Kalimantan : Mining (Oil and LNG in East Kalimantan, potentiality of Bauxite deposit in West Kalimantan) and Forestry
- Sulawesi : Mining (potentiality of Nickel deposit in Southeast Sulawesi) and Agriculture (South Sulawesi and Southeast Sulawesi)
- Irian Jaya : Mining (potentiality of Nickel deposit in Gagu Island and copper)
- Eastern Islands : Agriculture (production of food crops and estate crops)

(2) Problems to be solved in the Sector

Due to lack of infrastructures, especially road networks, regional developments mainly based on the above has been limited and lagged behind other advanced areas such as Java and Sumatra.

(3) Necessity and Importance of Improvement in the Sector which lead to the formulation of the project

Since the Eastern Indonesia is geographically separated from the major growth centers such as Jakarta and Surabaya, benefits of economic growth being enjoyed by these areas in the recent years have not reached the Eastern Indonesia yet. Self-initiated economic growth has not taken place yet and is unlikely to occur without some form of external stimulus with a number of unfavorable-conditions such as low level of fertility, scattered settlement

pattern and lack of fund and technology. In fact, the economic situation of the Eastern Indonesia still indicates low levels (the average GRDP per capita in 1988 = 552 thousand Rp.). On the other hand, the Government also promotes the transmigration policy to Eastern Indonesia for solving the remarkable concentration of inhabitants in Jawa, however, the present population density still indicates a low level of habitation (about 30% of the national figure) due to the same reasons.

(4) Relations between the Sector and the Project

The Government of Indonesia has recognized the necessity of formulating road networks covering the whole area and decided to conduct a Road Network Study in line with the Government Policy.

(5) Reasons why Japan's Development Survey is requested for this particular Project

2. Objectives and Outline of the Project

(1) Objectives of the Project.

(i) Short-term Objectives

The objective of the study is to formulate proper road networks and the implementation program for the purpose of promotion of regional economic development in Central and South East Sulawesi.

(ii) Medium and Long-term Objectives

The objective is to implement the Road Network Development for under development area in Central and South East Sulawesi.

(iii) Relations between the project and objectives

To contribute to the efficient and low cost transportation costs of commodities and persons between production centers and internal and external markets, and to national goals of binding and connecting people for stability and equity.

(2) Outline of the Project

The Study will be conducted in two (2) phases, the master plan study (Phase I) and the pre-feasibility study (Phase II).

The all study is to be completed within fourteen (14) months after the commencement of the study, six (6) months for Phase I and eight (8) months for Phase II.

Implementation of the Project will follow after the study.

(3) Location Plan

Central and South East Sulawesi Provinces.

(4) Cost Estimates

It is estimated that about 75 man-months of foreign expatriates (about 40 man-months for Phase I and about 35 man months for Phase II) will be required.

- Expert Service	70M/M	:	Y. 156,671,395
- Fellowship	10M/M	:	Y. 7,000,000
- Survey Cost		:	_____
Total			Y. 163,671,395

3. Other Assistance

(If there was any Assistance in the past from JICA or other donors or request closely related to this project, will fill in below)

- (i) Name of the donors;
None before (Firstly proposed for JICA assistance)
- (ii) Title and outline of the assistance
(Not applicable)
- (iii) Possibilities that the donor will extend the assistance requested
(Not applicable)
- (iv) In the case where other donors do not extend assistance, please describe in detail appropriateness and effectiveness of this project
(Not applicable)

4. Priority

(Please describe priority of this project among other projects for which requests are made to Japan)

High priority is given to this study

(Please attach project lists with priorities)

5. Preparation

(1) Project Site (Please attach photographs and maps if it's possible)

- (i) (a) Address of the site
Eastern part of Indonesia
- (b) Total Area of the Site
- (ii) Land Preparation
 - (a) To which extent has the land been expropriated for the project ?
According to the results of this Study, lands will be secured in due advance of the actual implementation.

- (b) When will the expropriation of the land be completed?
 from the commencement of construction works.

(Please attach the laws and procedures concerning the expropriation of land)

- (2) Electricity, Water Supply, Telephone, Drainage and Other Facilities

(Please describe the extent to which the above mentioned incidental facilities have been prepared)

Facilities required for the study are readily available at DGH head office and regional offices.

- (3) Is there any information, statistics and data regarding geographical, geological, meteorological, oceanographical situations, etc.

(If any, please attach those information)

Geography; Maps in scale of 1/50,000 for entire area.
 Detailed maps for some limited areas
 Geology;
 Meteorology, Hydrology;

6. Improvement Plan (if any, please describe in detail the contents of such a plan that will enable the Agency to handle the project more effectively and efficiently)

7. Operation and Management of the Project

- (1) The number of personnel.

(In the case where necessary personnel are not yet accrued, when and how this is to be done)

Counterpart staff for the study are readily available from DGH.

- (2) Budget (Please fill in the budget in the below table)

	2 years ago (1989)	1 year ago (1990)	Now (1991)	When the Project will be completed (1993)
Supervising Ministry	Ministry of Public Works	-	-	-
Implementing Agency	DGH	-	-	-
Direct Budget of the project	-	-	Not secured yet	Required budget to be secured

(In the case where additional budgetary allocation is needed for the implementation of the project, please answer the following question.)

- (i) Has the additional budget been allocated?

1. Yes No

(ii) If no, how and when will the additional budget be allocated ?

DGH will allocate the necessary counter budget immediately after the agreement of technical assistance programme. The budget will be ready at the beginning phase of the study.

(3) Technical Abilities of Local Staff

(i) Please describe technical abilities of local staff operating the project

DGH staff have sufficient technical abilities accumulated through similar projects.

(ii) Please describe in detail educational background of those who are in charge of the operation and management.

Key counterpart personnel will be of university graduate grade having qualification of "Insinvur".

8. List of Related Projects

(Please fill in below if there is a project executed by another donor country or international organization in related areas.)

(1) Name of Donor

(2) Project Title

(3) Project Outline

(4) Type of Assistance
(grant, loan, technical assistance; etc.)

(5) Project Period

(6) Relations with this Project

QUESTIONNAIRE

OF

JICA PREPARATORY STUDY TEAM

FOR

ROAD NETWORK STUDY IN CENTRAL AND SOUTH-EAST SULAWESI

October, 1996

JAPAN INTERNATIONAL COOPERATION AGENCY

4. QUESTIONNAIRE

The questionnaire is prepared by the Japanese Preparatory Study Team for ROAD NETWORK STUDY IN CENTRAL AND SOUTH-EAST SULAWESI (hereinafter referred to as the Study) so as to obtain basic information and data needed for the Study. Please answer all the questions in English and attach materials requested in this questionnaire. Answers need not be too much in detail but should be brief and precise.

Thank you for your cooperation.

Note : - Please write Y for the Data / Item in the "Availability" which is available.
- Please write N for the Data / Item in the "Availability" which is not available

- If attached materials are not written in English, please write down notes in English on materials for understanding by the mission.

I. ORGANIZATION CONCERNING THE IMPLEMENTATION OF THE STUDY

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS/ AGENCY
		AVAILABILITY	PLACE OF DATA AVAILABLE	
1. Agencies in charge of and/or concerning with the following:				
(A) Permission of aerial photography (Security clearance for flight)	(1) Name of Agencies and Departments (2) Name and position of the responsible persons in charge for the Japanese Study Team to contact	Y	-	SAS ABR I
(B) Permission of printing of aerial photos		Y	-	SAS ABR I
(C) Permission of ground survey works		Y	-	Ditsekol Pemda TKI
(D) Custody of topographic maps, aerial photographs and geodetic data		Y	DAKORSUTANAL	
(E) Regional Planning		Y	BAPPEDA	
(F) Transportation Planning		Y	BAPPEDA	
(G) Road Planning Construction & Maintenance	(1) National Roads (2) Provincial Roads (3) Other Roads (Local Roads)	Y	DITJEN GINA-MALDA	
(H) Vehicle Registration		Y	DINAS GINA-MALDA	
(I) Traffic Control		Y	DINIS PUK	
(J) Traffic Accident Investigation		Y	POLICE	
(K) Protected Area such as Forestry and National Park etc.		Y	DLA JTR POLICE	
		Y	Balai Konservasi Sumbu Daya Alam	

II. LAWS AND REGULATIONS

ITEM:	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAIL- ABILITY	PLACE OF DATA AVAILABLE	
I. Laws and Regulations related to the following: (1) City & Regional Planning (2) Road Planning, Construction & Maintenance (3) Vehicle registration (4) Traffic Control (5) Traffic Accident Investigation (6) Topographic Survey, Geological and Geotechnical Investigations, etc.	Name of Law and/or Regulation	Y	UNNO 5 / 90	
	-ditto-	Y	UNNO 12 / 30	
	-ditto-	Y	UNNO 14	
	-ditto-	N		
	-ditto-	N		
	-ditto-	N		
2. Outline of Regulations for the following: (1) Land Ownership (2) Regulation for Land Acquisition & Registration		Y	PERMIT	
J. Urban and Regional Planning (1) Outline of Regional Planning System (2) Restriction for Regional Development		Y	RT/RUP / RT/RUK	
4. Public Investment (1) Outline of Public Investment System (2) Financial Source for the Urban Development (3) Financial Source for the Transport Development (4) Trend of Public Investment	Availability of Special Fund, etc.	Y	?	

III. TECHNICAL DATA / INFORMATION

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAIL- ABILITY	PLACE OF DATA AVAILABLE	
1. Maps to be used for field investigation	(1) Topographic maps covering the Study area (1:50,000, 1:25,000, 1:100,000, 1:200,000, 1:250,000 scale) w/ Index Map (2) Land Use maps covering the Study area (1:50,000, 1:25,000, 1:100,000, 1:200,000, 1:250,000 scale) w/ Index Map	Y	Colgurutamal	
2. Availability of existing aerial photos to be used for field investigation	(1) Aerial photos - Scale of aerial photos - Date of aerial photography - Photo index map	Y	RTKWP	
3. Geological data to be used for field investigation	(1) Geological and Soil distribution maps covering the Study area (2) Existing report about data / information - Location of soft ground - Results of geological / soil investigation	N	—	
4. Geodetic data	(1) Existing horizontal ground control network such as triangulation, traversing and GPS stations	Y	Dt Geologi	
		N	—	

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAIL-ABILITY	PLACE OF DATA AVAILABLE	
	(2) Existing vertical ground control network such as first and second order leveling	N	-	
	(3) Description of existing horizontal and vertical ground control points mentioned above	U	-	
	(4) Coordinates and elevation data of existing horizontal and vertical ground control points mentioned above	N	-	
5. Meteorological data	(1) Annual, monthly and daily precipitation (2) Temperature (3) Flood information of rivers (4) Others	Y N N N	Badan Meteorologi dan Geofisika - -	
6. Specifications and Standard for the road development projects	(1) Technical Specifications on Topographic Survey and Mapping (2) Technical Specifications on Geological and Geotechnical Investigation (3) Road and Bridge Design Standard (4) Manual/ Guideline for Other Road Facilities	N N Y Y	- - BINA MARGA PINDA MARGA	

IV SOCIO-ECONOMIC DATA/ INFORMATION

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAIL- ABILITY	PLACE OF DATA AVAILABLE	
1. Progress of Economic Restructuring		N		
(1) Economic Restructuring Plan		N		
(2) Major Achievement in Economic Restructuring		N		
(3) Progress of Privatization of State Enterprises		N		
(4) Progress of Deregulation		N		
2. Socio-Economic Information for the last 10 to 20 years		Y	BPS	
(1) Gross National Product (GNP)		Y	BPS	
(2) Gross Regional Domestic Product (GRDP)	by Province	Y	BPS	
(3) Major Products in Agriculture, Industry and Mining by Region		Y	BPS	
(4) Foreign Trade in Quantity and Value		Y	BPS	
(5) Population Trend	(1) by Region in National Level (2) by Kabupaten in the Study area	Y	BPS	
(6) Income Distribution by Province		Y	BPS	

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
3, Development Plans (1) Long Term National Development Plan (2) Five Year Economic Development Plan (3) Transport Development Plan (4) Forecast of Socio-Economic Indicators (5) Progress of Regional development Plan ongoing		Y	Bappenas	
		Y	Bappenas	
		Y	Ministry of Communications	
		Y	Bappenas	
		Y	Bappenas	
4, Financial Performance in the Last 5 years (1) National Budget with breakdown (2) Foreign Trade Balance (3) Foreign Economic Assistance		Y	BPS	
		Y	BPS	
		Y	BPS	

V. REGIONAL DEVELOPMENT IN THE STUDY AREA

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAIL-ABILITY	PLACE OF DATA AVAILABLE	
1. Land Use in the Study area (1) Major Development Plan	(1) Industrial Development Plan	Y	Bappenas	
	(2) Agricultural Development Plan	Y	dikhs	
	(3) Housing Estate Development Plan	Y	dikhs	
	(4) Other Development Plan	Y	dikhs	
(2) Future Land Use Plan	(5) Progress of above mentioned plans	Y	dikhs	
2. National Census Result		Y	BPS	
(1) Population by Kabupaten		Y	BPS	
(2) Number of Household		Y	BPS	
(3) Number of Employment by Sector		Y	BPS	
(4) Other Information		Y	BPS	

V. TRANSPORT SYSTEM INFORMATION

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAIL-ABILITY	PLACE OF DATA AVAILABLE	
1. Road Network				
(1) Present Road Network Map		Y	DGM	
(2) Road Inventory Data for the Study area		Y	DGM	
(3) Classified Length of Road Network for the last 10 to 20 years		Y	DGM	
(4) Type and Condition of Major Structure	(1) by Road Category	Y	DGM	
(5) Traffic Volume on Major Roads	(2) by Road Surface Condition	Y	DGM	
(6) Road Network Development Plan		Y	DGM	
2. Vehicle Registration				
(1) Number of Registered Vehicles by Type, including Motorcycle, for the last 10 to 20 years		Y	RPS	
(2) Procedure of Vehicle Registration				
3. Bus System				
(1) Route Map of Bus System (including locations of bus stop)	(1) Intra-Urban Bus System	N	-	
(2) Number of Bus Passengers for the last 10 years	(2) Inter-Urban Bus System	N	-	

17. ENVIRONMENTAL ISSUES

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
1. Legislation related to Environmental Policies and Standards (1) Responsible Agency/Ministry and Section (2) Laws and Guide Lines (3) Environmental Quality Standards including Emission/ Effluent Standards • Standard Values and Penalties • Monitoring System and its • Responsible Agency	(1) Air Pollution (2) Water Pollution (3) Soil Pollution (4) Noise (5) Vibration (6) Offensive Odor	Y Y Y	MINISTRY OF ENVIRONMENTAL/SAFETY Dep. PU KULH	
(4) Laws/ Guide Lines related to Environmental Impact Assessment(EIA)	(1) Type/ Size of Activities for EIA (2) Procedure	Y	Isappodal /pu	
2. International Convention on Environmental Conservation	(1) Name of International Convention you have affiliated (2) Year of Affiliation	N N	- -	

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
3. Present Situation covering the Study Area (1) Socio-Economic Environment (2) Natural Environment	(1) Plan of Resettlement, if any - Number of People to be resettled - Compensation	Y	PEMBAK	
	(2) Main Industry or Source of Income of Residents	Y	PEMBAK	
	(3) Distribution of Schools, Hospitals, ect. - Public Facilities	Y	PEMBAK	
	(4) Cultural Property or Archaeological Sites	Y	Kanwil Dep. Dik Bud	
	(5) Use of Water Area - Existence of Common Water Area	Y	PDAM	
	(6) Solid Waste Collection/ Disposal System and Waste Water Treatment System	Y	PEMBAK	
	(1) Location of Particular Area officially protected such as National Park and and Natural Park	Y	Kanwil. Dep Kebudayaan	
	(2) Location of Environmentally valuable Area such as Mangrove, Forest and Wetland	Y	Kanwil Dep Hut	
	(3) Species of Precious Animals and Plants	Y	Balai Konservasi Sumber Daya Alam	
	(4) Distribution of Important Historical Spots, Landscape and Scenery	Y	Kanwil Dep. Dik Bud (Balai Arkeologi)	

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAIL- ABILITY	PLACE OF DATA AVAILABLE	
(3) Quality of Life	(1) Present Conditions of Air quality, Water quality, Soil contamination, Noise and Vibration (2) Regulations of Emission Gas, on Effluent, for Prevention of Soil contamination, Noise and Vibration	N		
4, Present Organization executing Environmental Study and Environmental Impact Assessment(EIA)	(1) Organizational Study (2) Organization of EIA	Y	Bapisa	
(3) Experience of execution of Environmental Study and EIA	(1) Governmental Organization/ University (2) Private Sector (1) Governmental Organization/ University (2) Private Sector	Y	Every Ministry /Kamps	
Environmental Impact Assessment(EIA)	(1) Environmental Factors/ Items to be expected affecting Environments (2) Necessity of EIA	Y		

Table 1 Format for Screening (Roads)

No	Environmental Item	Description	Evaluation	Remarks (Action)
Social Environment				
1.	Resettlement	Resettlement due to land occupancy (transfer of rights of residence/land ownership)	(Y)(N)(?)	
2.	Economic Activities	Loss of bases of economic activities, such as land, and change of economic structure	(Y)(N)(?)	
3.	Traffic and Public Facilities	Impacts on schools, hospitals and present traffic conditions such as the increase of traffic congestion and accidents	(Y)(N)(?)	
4.	Split of Communities	Community split due to interruption of area traffic	(Y)(N)(?)	
5.	Cultural Property	Damage to or loss of the value of churches, temples, shrines, archaeological remains or other cultural assets	(Y)(N)(?)	
6.	Water Rights and Rights of Common	Obstruction of fishing rights, water rights, rights of common	(Y)(N)(?)	
7.	Public Health Condition	Deterioration of public health and sanitary conditions due to generation of garbage and the increase of vermin	(Y)(N)(?)	
8.	Waste	Generation of construction and demolition waste, debris and logs	(Y)(N)(?)	
9.	Hazards (Risk)	Increase in risk of landslides, cave-ins, and accidents	(Y)(N)(?)	
Natural Environment				
10.	Topography and Geology	Changes of valuable topography and geology due to excavation or filling work	(Y)(N)(?)	
11.	Soil Erosion	Topsoil erosion by rainfall after reclamation and vegetation removal	(Y)(N)(?)	
12.	Groundwater	Change of distribution of groundwater by large scale excavation	(Y)(N)(?)	
13.	Hydrological Situation	Changes of river discharge and riverbed condition due to landfill and drainage inflow	(Y)(N)(?)	
14.	Coastal Zone	Coastal erosion and sedimentation due to landfill or change in curine condition	(Y)(N)(?)	
15.	Fauna and Flora	Obstruction of breeding and extinction of species due to changes of habitat conditions	(Y)(N)(?)	
16.	Microclimate	Changes of temperature, precipitation, wind, etc due to large-scale land reclamation and building construction	(Y)(N)(?)	
17.	Landscape	Change of topography and vegetation due to reclamation, deterioration of aesthetic scenery by structures	(Y)(N)(?)	
Pollution				
18.	Air Pollution	Pollution caused by exhaust gas or toxic gas from vehicles and factories	(Y)(N)(?)	
19.	Water Pollution	Pollution by inflow of silt, sand and effluent into rivers and groundwater	(Y)(N)(?)	
20.	Soil Contamination	Contamination of soil by dust and chemicals such as herbicides	(Y)(N)(?)	
21.	Noise and Vibration	Noise and vibration generated by vehicles	(Y)(N)(?)	
22.	Land Subsidence	Deformation of land and land subsidence due to the lowering of groundwater table	(Y)(N)(?)	
23.	Offensive Odor	Generation of exhaust gas and offensive odor by facility construction and operation	(Y)(N)(?)	
Overall Evaluation: Either IIA or EIA is necessary for the project implementation.				

Table 2 Format for Scoping (Roads)

No.	Environmental Item	Evaluation	Reason
Social Environment			
1.	Resettlement	C	
2.	Economic Activities	C	
3.	Traffic and Public Facilities	C	
4.	Split of Communities	D	
5.	Cultural Property	D	
6.	Water Rights and Rights of Common	D	
7.	Public Health Condition	D	
8.	Taste	D	
9.	Hazards (Risk)	D	
Natural Environment			
10.	Topography and Geology	A	
11.	Soil Erosion	A	
12.	Groundwater	B	
13.	Hydrological Situation	B	
14.	Coastal Zone	B	
15.	Fauna and Flora	B	
16.	Metereology	D	
	Landscape	B	
Pollution			
18.	Air Pollution	D	
19.	Water Pollution	D	
20.	Soil Contamination	D	
21.	Noise and Vibration	D	
22.	Land Subsidence	D	
23.	Offensive Odor	D	

Note : Evaluation categories :
 A. Serious impact is expected.
 B. Some impact is expected.
 C. Extent of impact is unknown (Examination is needed, impacts may become clear as study progresses.).
 D. No impact is expected. IEE/EIA is not necessary.

ITEM	DESCRIPTION	AVAIL- ABILITY	PLACE OF DATA AVAILABLE	NAME OF MATERIALS
1, List of Registered Consulting Firm	(1) Topographic Survey (2) Geological, Soil and Geotechnical Investigation (3) Hydrogeological Survey (4) Environmental Survey (5) Traffic Survey (6) Socio-Economic Survey (7) Environmental Survey (Water quality, Noise, etc.)	Y	Ministry of Public Works	
2, List of Investigation and Survey	(1) Topographic and Photogrammetric Survey (2) Boring, Sounding, Laboratory Test of Soil and Rock, Riverbed Material Test, In-Site Test, etc. (3) Origin-Destination Survey (4) Socio-Economic Survey (5) Surveyor (6) Geologist, Geotechnical Engineer (7) Environmental Specialist (8) Traffic Engineer (9) Economist, etc. - ditto -	Y	ditto	
3, Salary for Consultants and Surveyor, etc.		N		
4, Didding Rate for Consultants and Surveyor, etc.		Y	Bappepro	

EX. OTHER INFORMATION

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
Specific Accidents	(1) Number of Traffic Accidents and Casualties (2) Major Type of Traffic Accidents	N		
2. Availability of the Government's Equipment/ Instruments/ Apparatus for the Study	(1) Instruments and Facilities for Aerial Photography, Photogrammetry, Geodetic Survey and Geological Investigation	N		

5. 収集資料リスト

収集資料リスト

No	資料の名称	ページ数	オリジナル またはコピー	発行機関
1	Indonesian Country Study on Biological Diversity	209	コピー	MOSPE
2	A Glimps of Nature Conservation	50	コピー	MOF
3	Environmental Statistics of Indonesia 1995	481	オリジナル	BPS
4	Introduction of BAPEDAL	42	オリジナル	BAPEDAL
5	Cleaner Production In Indonesia	19	オリジナル	EIMA
6	An Atlas of Biodiversity In Indonesia	101	コピー	MOE
7	インドネシア年鑑1994	608	オリジナル	BPS
8	インドネシア年鑑 (ポケットブック) 1994	461	オリジナル	BPS
9	経済指標 月間統計 1996年9月	164	オリジナル	BPS
10	ROADS IN INDONESIA 1995	50+32	オリジナル	PJDI
11	INTERURBAN ROAD MANAGEMENT SYSTEM PROGRAMMING MODULE (SULTRA SULTENG)	15&24	コピー	BINA MARGA
12	KONDISI JALAN HASIL SURVEY TAHUN 1996	8	コピー	BINA MARGA
13	1990年 自動車 OD調査 ゾーンコード表	30	コピー	BINA MARGA
14	1990年 自動車 OD調査 OD表サンプル	4	コピー	BINA MARGA
15	地形図 (1/250,000)	8	コピー	BINA MARGA
16	地質図 (1/250,000)	12	オリジナル	DME
17	TECTONIC EVOLUTION OF SOUTHEAST ASIA		コピー	GS
18	LARGE AND MEDIUM MANUFACTURING STATISTICS 1994	37	オリジナル	BPS
19	PRAKTIKSIAN MUSIM KEMARAN 1996 DI INDONESIA	15	コピー	BMGDP
20	SULAWESI TENGAH DALAM ANGKA 1994	3	オリジナル	BAPPEDA
21	KABUPATEN MURA DALAM ANGKA 1994	298	コピー	BPS
22	KABUPATEN KENDARI DALAM ANGKA 1994	296	コピー	BPS

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