

1. 相手国からのTOR (要請書)

1) 1987年2月に送付のあった修正TOR

PILOT STUDY FOR THE PHILIPPINE RURAL ROAD
NETWORK DEVELOPMENT PROJECT

BACKGROUND

The present (1985) public road network in the Philippines consist of:

- (a) 26,200 km of national roads which form the main trunkline system,
- (b) 45,200 km of provincial, municipal and city roads, and
- (c) 90,200 km of Barangay of farm-to-market roads.

Responsibility for planning, design, construction and maintenance is divided, with coordinating mechanisms, between the national government and local government agencies.

In the national government, responsibility for National or the main roads in network and Barangay roads is with the Ministry of Public Works and Highways (MPWH). The responsibility for provincial, municipal and city roads which are the secondary roads is with the provincial and local governments supervised by the Ministry of Local Government (MLG).

The Barangay road is considered as the lowest tier in the highway system of the country and functions as a penetration, feeder, or farm-to-market road.

The development program of the main and secondary road system has been pursued with an increased momentum starting in the early 1970's following the completion of the Philippine

Transport Survey (PTS). Since then the implementation of the program is being continued with financial assistance from external sources including the OECF, World Bank, ADB, USAID, OPEC and other donor countries and/or financial organizations. Recently completed is the National Transport Planning Project (NTPP) which has recommended a new highway development program for the country starting in 1983 up to 1992. Presently, the extent of the main and secondary road network could be in general considered quite adequate in so far as providing the basic trunkline system for the country.

Equally important is the need to accelerate the development of other rural and Barangay roads to spread the benefits of transport services to a large segment of the population specially in the rural areas where these are most needed to enhance development. This has gained increased significance in the light of the current thrusts towards agricultural development vis-a-vis improving the socio-economic situation in the countryside.

As an initial step in formulating a systematic plan of implementation in providing the basic road network, with emphasis in the development of rural roads, in the provinces throughout the country, the MPWH has sought a technical assistance from the Japan International Cooperation Agency (JICA) for the conduct of the Pilot Study for the Philippine Rural Road Network Development Project.

OBJECTIVES

The objective of the technical assistance are to:

1. Assess the extent and present function of the road network in the rural area;
2. Establish basic technical and administrative procedures and methods for the functional development of road network in the rural area;
3. Recommend a system and investment program for the implementation of rural road projects.

SCOPE OF WORK

The study will be carried out in three (3) main stages as follows:

Stage I : Assessment of Road Development Potentiality

I-1. Assessment of Regional/Provincial Development Potentiality

I-2. Review of Adequacy of Road Networks

The present function of the rural roads and the adequacy of the network in the provinces shall be reviewed.

I-3. Evaluation of Road Development Potentiality of Provinces

Based on findings from I-1 and I-2, the road development potentiality shall be evaluated.

I-4. Establishment of Prioritization Criteria

Prioritization criteria shall be established adopting simple indicators covering population,

road density, socio-economic activities, among others.

I-5. Determination of Road Development Potentiality of Provinces

I-6. Selection of Provinces for Pilot Study

Stage II : Identification of Road Links for Improvement/Construction

For the provinces selected in Stage I, the road links to be improved and constructed shall be identified in consideration with the road network requirements to promote the development of rural areas.

II-1. Assessment of Present Road Network

- Investigation of present condition of individual road links (class of road, length, width, surface condition, traffic volume, etc.)
- Investigation of role/characteristics of individual road link

II-2. Formulation of Basic Road Network Requirements

The basic road network to support the development of the rural areas shall be formulated based on socio-economic activities, traffic demand, land use, environmental consideration as well as the function of the network.

II-3. Identification of Road Links for Improvement/Construction

II-4. Establishment of Rural Improvement/Construction Criteria and Engineering Standards

Road improvement/construction criteria and engineering standards according to classification of road shall be prepared considering the type of road, traffic demand, road surface, geometrics, travelway width, among others.

II-5. Prioritization of Road Links proposed for Improvement/Construction

Prioritization shall be made establishing appropriate criteria including simple cost-benefit indicators and/or other methods that will be developed for the purpose. Prioritization criteria established shall be applicable to roads in other provinces.

II-6. Selection of Road Links for Feasibility Study

Several road links with high priority shall be selected for detailed Feasibility Study.

Stage III : Feasibility Study

For the road links selected in Stage II, feasibility study shall be conducted covering the major activities below.

III-1. Feasibility Study

- Supplementary Survey
- Preliminary Design and Cost Estimate

- Technical, social, economic, environmental and financial evaluation.

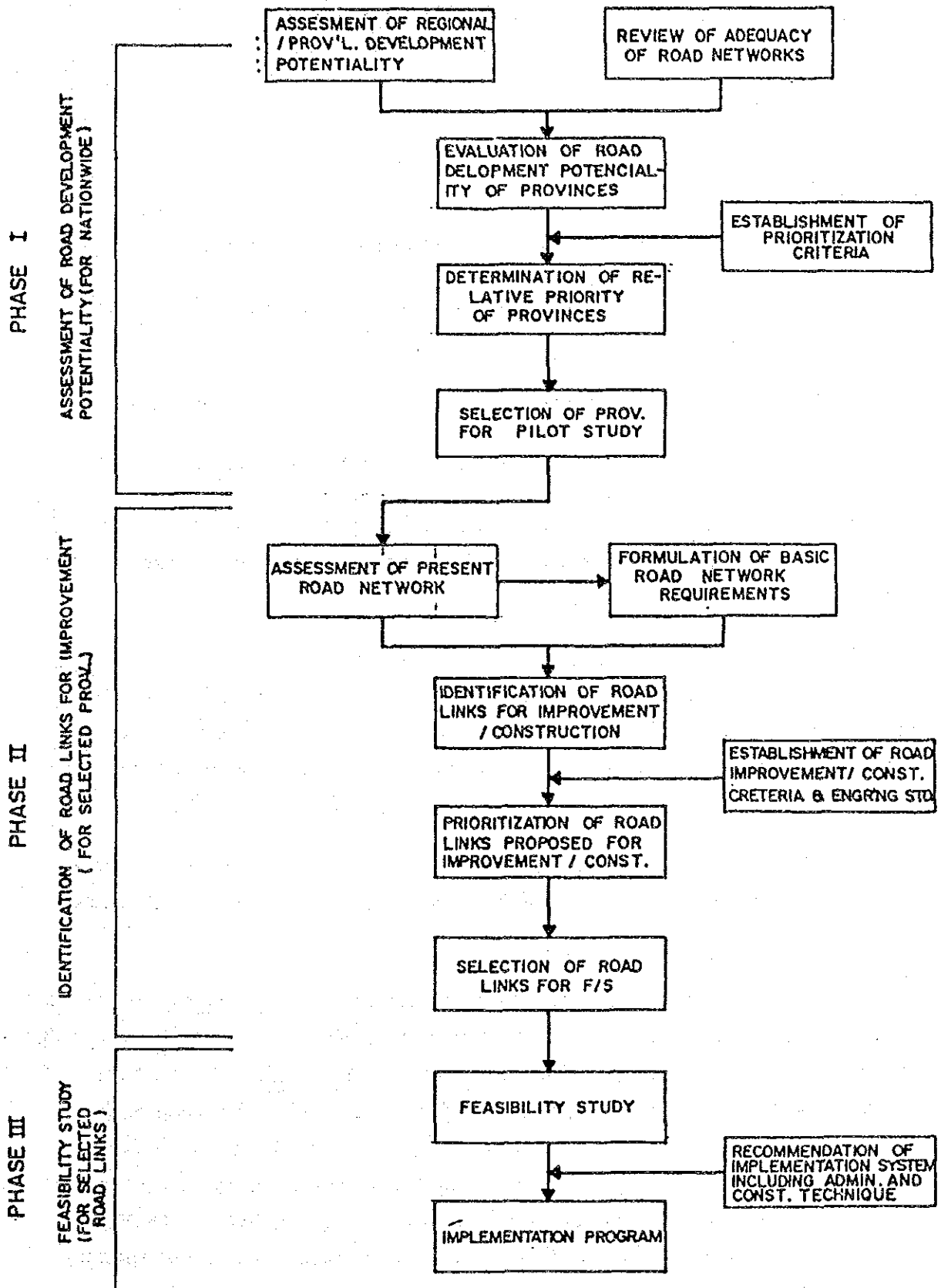
III-2. Recommendation of Implementation System Including Administration and Construction Technique.

On the basis of the assessments and analysis made in Stage I, II and Feasibility Study, a set of recommendations for an effective system of implementation of the proposed rural road projects shall be prepared. These recommendations shall deal with administrative arrangements, maintenance system and construction methods including labor intensive methods, among others.

III-3. Preparation of Implementation Program

Based on the findings through all stages of the study, the comprehensive implementation program shall be prepared. A recommended investment program indicating the extent and yearly requirements for the implementation of the projects identified for improvement/construction shall be prepared.

PROPOSED STUDY FLOW



1. 原TOR

PILOT STUDY FOR THE PHILIPPINE RURAL ROAD NETWORK DEVELOPMENT PROJECT

BACKGROUND

The public road network in the Philippines consist of:

- (a) 23,957 km. of national roads which form the main trunkline system,
- (b) 45,592 km. of provincial, municipal and city roads, and
- (c) 85,264 km. of Barangay of farm-to-market roads.

Responsibility for planning, design, construction and maintenance is divided, with coordinating mechanisms, between the national government and local government agencies.

In the national government, responsibility for National or the main roads in network and Barangay roads is with the Ministry of Public Works and Highways (MPWH). The responsibility for provincial, municipal and city roads which are the secondary roads is with the provincial and local governments supervised by the Ministry of Local Government (MLG).

The Barangay road is considered as the lowest tier in the highway system of the country and functions as a penetration, feeder, or farm-to-market road.

The development program of the main and secondary road system has been pursued with an increased momentum starting in the early 1970's following the completion of the Philippine Transport Survey (PTS). Since then, the implementation of the program is being continued with financial assistance from external sources including the OECF, World Bank, ADB, USAID, OPEC and other donor countries and/or financial organizations. Recently completed is the National Transport Planning Project (NTPP) which has recommended a new highway development program for the country starting in 1983 up to 1992. Presently, the extent of the main and

secondary road network could be in general considered quite adequate in so far as providing the basic trunkline system for the country.

Equally important is the need to accelerate the development of Barangay roads to spread the benefits of transport services to a large segment of the population specially in the rural areas where these are most needed to enhance development. This has gained increased significance in the light of the current thrusts towards agricultural development vis-a-vis improving the socio-economic situation in the countryside.

As an initial step formulating a systematic plan of implementation in providing the basic road network, with emphasis in the development of farm-to-market roads, in the rural areas, the MPWH has sought a technical assistance from the Japan International Cooperation Agency (JICA) for the conduct of the Pilot Study for the Philippine Rural Road Network Development Project.

OBJECTIVES:

1. To assess the extent and present function of the road network in the rural area.
2. To establish basic technical and administrative procedures and methods for the functional development of road network in the rural area.
3. To recommend a system and investment program for the implementation of rural road projects.

SCOPE OF WORK

The Study will be carried out in three (3) main stages for at least five pilot provinces that will be selected representing typical Philippine settings with minimum Study cost.

Stage I: Assessment of the Extent and Present Function of the Road Network.

In the pilot areas, the adequacy of the network and present function of the rural roads in as far as providing the basic network to support the development of the rural areas will be assessed based initially from existing and additional data that will be gathered. The extended and/or widened role of the

roads in the rural area shall be identified and defined.

Existing Data Requirement

- a) Roads inventory
- b) Land use maps and plans
- c) Population statistics
- d) Traffic data -
- e) Location of public and/or private utilities
- f) Road maps indicating also farm-to-market roads

Additional Data Requirements

- a) Vehicle O-D sampling survey
- b) Additional traffic volume counts
- c) Interview surveys
- d) Socio-economic surveys
- e) Road network functional survey

Stage II: Establishment of Basic Technical and Administrative Procedures

Based on the assessment made in Stage I, a suitable and practical methodology for the development and implementation of rural road projects shall be developed and established. Prioritization shall be made adopting a simple cost-benefit analysis and/or other methods that may be developed for the purpose. Engineering requirements for project preparation and actual construction including possible administrative arrangements to promote efficient and effective implementation including labor intensive methods shall be developed.

Data Requirement

- a) Basic vehicle operating cost by vehicle type
- b) Socio-economic profiles
- c) Development plans
- d) Demographic and other technical data
- e) Topographic and other technical data
- f) Construction/improvement costs
- g) Right-of-way costs
- h) Maintenance costs

- i) Equipment inventory
- j) Historical data on rural roads investments

Stage III: Recommendations for a System and Investment Program for Implementation

On the basis of the assessments and analyses made in Stage I and Stage II, a set of recommendations for an effective system of implementation of the proposed rural road projects shall be prepared. These recommendations should deal with the practical adoption of methods and procedures for identification and prioritization, engineering standards, construction methods, maintenance system including equipment requirements, administrative arrangements, among others.

A recommended investment program indicating the extent and yearly requirements for the implementation of the recommended projects shall be prepared.

2. コンタクトミッション M/D



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY
Bonifacio Drive, Port Area, Manila

MINUTES OF DISCUSSIONS

The Meeting between the Japan International Cooperation Agency Preliminary Study Team and the Department of Public Works and Highways regarding the Pilot Study for the Rural Road Network Development Project in the Philippines

In response to the request of the Government of the Republic of the Philippines (hereinafter referred to as "GOP"), the Government of Japan (hereinafter referred to as "GOJ") dispatched the Mission headed by Mr. Motoyuki KIDOKORO, from 24 FEBRUARY to 7 MARCH 1987, through the Japan International Cooperation Agency (hereinafter referred to as "JICA"), to discuss a technical cooperation on the proposed Pilot Study for the Rural Road Network Development Project in the Philippines (hereinafter referred to as "The Study").

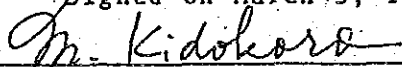
The Mission conducted field surveys and had a series of discussions with authorities of the GOP.

A meeting between officials of the Department of Public Works and Highways (DPWH) and the Mission was held on March 5, 1987. The list of the participants is shown in Annex 3.


The main items discussed and basically agreed upon are as follows:

1. The Study will be focused on rural roads development in the Philippines;
2. The objectives and scope of the Study are as shown in Annex 1.
3. Undertaking of the GOP and GOJ, respectively, are as shown in Annex 2.
4. The Philippine side agreed to organize a steering committee among the concerned Departments and Authorities as the coordinating body of the Study in the Philippines.
5. DPWH shall act as the counterpart agency to the Japanese Study Team and also as coordinating agency in relation with other government and non-governmental organizations concerned for the smooth implementation of the Study.

Signed on March 5, 1987 in Manila, Philippines.



MOTOYUKI KIDOKORO
LEADER OF MISSION



TEODORO T. ENCARNACION
ASSISTANT SECRETARY

JAPAN INTERNATIONAL COOPERATION AGENCY DEPT. OF PUBLIC WORKS AND HIGHWAYS

PILOT STUDY FOR THE RURAL ROAD NETWORK
DEVELOPMENT PROJECT IN THE PHILIPPINES

OBJECTIVE

The objective of the technical assistance are to:

1. Establish basic technical and administrative procedures and methods for the functional development of road network in the rural areas;
2. Recommend a system and investment program for the implementation of rural road projects.

SCOPE OF STUDY

The Study will be carried out in three (3) main stages as follows:

Stage I : Assessment of Road Development Potentiality

I-1. Assessment of Regional/Provincial Development Potentiality

I-2. Review of Adequacy of Road Network

The present function of the rural roads and the adequacy of the network in the provinces shall be reviewed.

I-3. Establishment of Prioritization Criteria

Prioritization criteria shall be established adopting simple indicators covering population, road density, socio-economic activities, among others.

I-4. Evaluation of Road Development Potentiality of Provinces

Based on findings from I-1, I-2 and I-3, the road development potentiality shall be evaluated.

I-5. Selection of Provinces for Pilot Study

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Stage II : Identification of Road Projects

On the pilot provinces selected in Stage I, the road links to be developed, improved and/or constructed shall be identified in consideration with the road network requirements to promote the development of rural areas.

II-1. Assessment of Present Road Network

- Investigation of present condition of individual road links (e.g. class of road, length, width, surface condition, traffic volume, etc.).
- Investigation of role or functional characteristics of the individual road link

II-2. Formulation of Basic Road Network Requirement

The basic road network to support the development of the rural areas shall be formulated considering among other things, development potentials, socio-economic activities, traffic demand, land use, environmental consideration as well as the function of the road link.

II-3. Establishment of Rural Road Improvement/Construction Criteria and Engineering Standards

Road improvement/construction criteria and engineering standards according to classification of road shall be prepared considering the type of road, traffic demand, road surface, geometrics, travelway width, among others.

II-4. Prioritization of Road Links proposed for Improvement/Construction

Prioritization shall be made based on an appropriate criteria including simple cost-benefit indicators and/or other methods that will be developed for the purpose. Prioritization criteria established shall be applicable to roads in other provinces.

II-5. Selection of Road Links for Feasibility Study

Road links with high priority shall be selected for feasibility study.

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Stage III : Feasibility Study and Implementation Program

For the road links selected in Stage II, feasibility study shall be conducted covering the major activities below.

III-1. Feasibility Study

- Supplementary Survey
- Preliminary Design and Cost Estimate
- Technical, social, economic, environmental and financial evaluation.

III-2. Recommendation of Implementation System Including Administration and Construction Techniques.

On the basis of the assessments and analyses made in Stage I, II and Feasibility Study, a set of recommendations for an effective system of implementation of the proposed rural road projects shall be prepared.

Recommendation for the implementation of rural road development program should include, but not limited, to the following:

- . Prioritization method
- . Investment program
- . Administrative procedures
- . Maintenance system
- . Maintenance equipment

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PILOT STUDY FOR THE RURAL ROAD NETWORK
DEVELOPMENT PROJECT IN THE PHILIPPINES

I. UNDERTAKING OF THE GOVERNMENT OF THE PHILIPPINES

In accordance with the Notes Verbales exchanged between GOJ and GOP, GOP shall accord privileges, immunities and other benefits to the Japanese Study Team and, through the authorities concerned, measures to facilitate smooth conduct of the Study.

1. GOP shall be responsible for the dealing with claims which may be brought by third parties against the members in respect to claims or liabilities arising from the course of or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims and liabilities arise from gross negligence or willful misconduct of the above-mentioned members.
2. DPWH shall, at its own expense, provide the Japanese study team in cooperation with other concerned organizations the following:
 - (i) available data and information related to the Study;
 - (ii) counterpart personnel;
 - (iii) suitable office space with necessary equipment in Manila;
 - (iv) credentials or identification cards for the members of the Japanese Study Team.
3. The DPWH shall make necessary arrangements with other government agencies and non-governmental organizations concerned for the following:
 - (i) to secure the safety of the Japanese study team;
 - (ii) to permit the members of the Japanese study team to enter, leave and sojourn in the Philippines for the duration of their assignment therein;
 - (iii) to exempt the members of the Japanese study team from taxes, duties, fees and other charges on equipment, machinery and other materials brought into the Philippines for the conduct of the Study;

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- (iv) to exempt the members of the Japanese study team from income tax and other charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese study team for their services in connection with the implementation of the Study;
- (v) to provide necessary facilities to the Japanese study team for remittances as well as utilization of the funds introduced into the Philippines from Japan in connection with the implementation of the Study;
- (vi) to secure permission for entry into private properties or restricted areas for the conduct of the Study;
- (vii) to secure permission for the Japanese study team to take all data and documents (including photographs) related to the Study out of the Philippines to Japan;
- (viii) to provide medical services as needed and its expenses will be chargeable on the members of the Japanese study team.

II. UNDERTAKING OF GOJ

In accordance with the Notes Verbales exchanged between GOJ and GOP, GOJ through JICA, shall take the following measures for the implementation of the Study:

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

III. CONSULTATION

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

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LIST OF PARTICIPANTSI. JAPANESE DELEGATIONJICA STUDY TEAM

- | | |
|--------------------------|---------------|
| 1. Mr. Motoyuki KIDOKORO | - Team Leader |
| 2. Mr. Osamu SHIMOYASU | - Member |
| 3. Mr. Yuichi OHNO | - Member |
| 4. Dr. Koji KURODA | - Member |
| 5. Mr. Masaru SUZUKI | - Member |

II. PHILIPPINES DELEGATIONDEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

- | | |
|--------------------------------|----------------------------------|
| 1. Mr. Teodoro T. ENCARNACION- | Assistant Secretary |
| 2. Mr. Trino-Trinidad MERIS. | - Chief, Planning Service |
| 3. Mr. Manuel M. BONOAN | - Project Manager |
| 4. Mr. Jose P. GUANZON | - Chief Civil Engineer |
| 5. Mr. Toshiyuki NAKAMURA | - JICA Highway Expert to
DPWH |

NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY

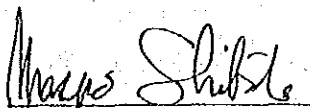
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|---------------------------|----------------------|
| 1. Mr. Ruben REINOSO, JR. | - Transport Division |
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IMPLEMENTING ARRANGEMENT
ON THE TECHNICAL COOPERATION
BETWEEN
THE JAPAN INTERNATIONAL COOPERATION AGENCY,
AND
THE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
FOR
THE PILOT STUDY
FOR
THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
IN THE REPUBLIC OF THE PHILIPPINES

AGREED UPON BETWEEN
THE JAPAN INTERNATIONAL COOPERATION AGENCY
AND
THE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

DATED : JULY 30, 1987



MASAO SHIBATA

LEADER OF MISSION

JICA Preliminary Study Mission



TEODORO T. ENCARNACION

UNDERSECRETARY

Department of Public Works and Highways

IMPLEMENTING ARRANGEMENT
ON THE TECHNICAL COOPERATION
BETWEEN
THE JAPAN INTERNATIONAL COOPERATION AGENCY
AND
THE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
FOR
THE PILOT STUDY
FOR
THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
IN THE REPUBLIC OF THE PHILIPPINES

I. INTRODUCTION

In response to the request of the Government of the Republic of the Philippines (hereinafter referred to as "GRP"), the Government of Japan (hereinafter referred to as "GOJ") has decided to conduct the pilot study for the Rural Road Network Development Project in the Philippines (hereinafter referred to as "the Study") and exchanged the Notes Verbales with GRP concerning the implementation of the Study.

Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of technical cooperation programs of GOJ, will undertake the Study, in accordance with the relevant laws and regulations in force in Japan.

The Department of Public Works and Highways of the GRP (hereinafter referred to as "DPWH") shall act as counterpart agency to the Japanese study team and also as coordinating body in relation with the governmental and non-governmental organizations concerned for the smooth implementation of the Study.

The present document constitutes the implementing arrangement between JICA and DPWH under the above-mentioned Notes Verbales exchanged between the two governments.

II. OBJECTIVES OF THE STUDY

The objectives of the technical assistance are to:

1. Establish basic technical and administrative procedures and methods for the functional development of road network in the rural area;
2. Recommend a system and investment program for the implementation of rural road projects.

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III. SCOPE OF THE STUDY

In order to achieve the objectives mentioned above, the Study shall be carried out in four (4) main stages as follows:

STAGE 1 : Assessment of Road Development Potentiality

1-1. Assessment of Regional/Provincial Development Potentiality

The socio-economic development potentiality of the provinces shall be generally assessed.

1-2. Review of Adequacy of Road Network

The present function of the rural roads and the adequacy of the network in the provinces shall be reviewed.

1-3. Establishment of Prioritization Criteria

Prioritization criteria shall be established adopting simple indicators covering population, road density, socio-economic activities, among others.

1-4. Evaluation of Road Development Potentiality of Provinces

Based on findings from 1-1, 1-2 and 1-3, the road development potentiality shall be evaluated.

1-5. Selection of Provinces for Pilot Study

Pilot provinces shall be selected.

STAGE 2 : Identification of Road Projects

On the pilot provinces selected in Stage 1, the road links to be developed, improved and/or constructed shall be identified in consideration with the road network requirements to promote the development of rural areas.

2-1. Assessment of Present Road Network

- Investigation of present condition of individual road links (e.g. class of road, length, width, surface condition, traffic volume, etc.).

- Investigation of role or functional characteristics of the individual road link.

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2-2. Formulation of Basic Road Network Requirement

The basic road network to support the development of the rural areas shall be formulated considering among other things, development potentials, socio-economic activities, traffic demand, land use, environmental consideration as well as the function of the road link.

2-3. Establishment of Rural Road Improvement/Construction Criteria and Engineering Standards

Road improvement/construction criteria and engineering standards according to classification of road shall be prepared considering the type of road, traffic demand, road surface, geometrics, travelway width, among others.

2-4. Prioritization of Road Links Proposed for Improvement/construction

Prioritization shall be made based on an appropriate criteria including simple cost-benefit indicators and/or other methods that will be developed for the purpose. Prioritization criteria established shall be applicable to roads in other provinces.

2-5. Selection of Road Links for Feasibility Study

Road links with high priority shall be selected for feasibility study.

STAGE 3 : Feasibility Study

For the road links selected in Stage 2, feasibility study shall be conducted covering the major activities below.

- Supplementary Survey
- Preliminary Design and Cost Estimate
- Technical, social, economic, environmental and financial evaluation.

STAGE 4 : Recommendation of Implementation System Including Administration and Construction Techniques

On the basis of the assessments and analyses made in Stages 1, 2, and 3, a set of recommendations for an effective system of implementation of the proposed rural road projects shall be prepared.

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Recommendation for the implementation of rural road development program should include, but not limited to, the following:

- Prioritization method
- Investment program
- Administrative procedures
- Construction methods
- Maintenance system
- Maintenance equipment

IV. STUDY SCHEDULE

The study, in principle, will be carried out within a 15 month period in accordance with the attached tentative schedule (APPENDIX).

V. REPORTS

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

1. Inception Report
Twenty (20) copies.
At the beginning of the field survey.
2. Progress Report
Twenty (20) copies.
At the end of STAGE 1.
3. Interim Report (1)
Twenty (20) copies.
At the end of STAGE 2.
4. Interim Report (2)
Twenty (20) copies.
At the end of STAGE 3 field survey.

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5. Draft Final Report

Twenty (20) copies.

Within four (4) months after submission of the Interim Report (2).

GRP 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 two (2) months after receipt of the comments on the Draft Final Report.

VI. UNDERTAKING OF GRP

In accordance with the Notes Verbales exchanged between GOJ and GRP, GRP shall accord privileges, immunities and other benefits to the Japanese study team, and through the authorities concerned, measures to facilitate smooth conduct of the Study.

1. GRP shall be responsible for the dealing with claims which may be brought by third parties against the members in respect to claims or liabilities arising from the course of or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims and liabilities arise from gross negligence or willful misconduct of the above-mentioned members.
2. DPWH shall at its own expense, provide the Japanese study team in cooperation with other concerned organizations the following:
 - (a) available data and information related to the Study;
 - (b) counterpart personnel;
 - (c) suitable office space with necessary office equipment in Metro Manila;
 - (d) credentials or identification cards for the members of the Japanese study team.
3. The DPWH shall make necessary arrangements with other government agencies and non-governmental organizations concerned for the following:
 - (a) to secure the safety of the Japanese study team;

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- (b) to permit the members of the Japanese study team to enter, leave and sojourn in the Philippines for the duration of their assignment therein;
- (c) to exempt the members of the Japanese study team from taxes, duties, fees and other charges on equipment, machinery and other materials brought into the Philippines for the conduct of the Study;
- (d) to exempt the members of the Japanese study team from income tax and other charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese study team for their services in connection with the implementation of the Study;
- (e) to provide necessary facilities to the Japanese study team for remittances as well as utilization of the funds introduced into the Philippines from Japan in connection with the implementation of the Study;
- (f) to secure permission for entry into private properties or restricted areas for the conduct of the Study;
- (g) to secure permission for the Japanese study team to take all data and documents (including photographs) related to the Study out of the Philippines to Japan;
- (h) to provide medical services as needed and its expenses will be chargeable on the members of the Japanese study team.

VII. UNDERTAKING OF GOJ

In accordance with the Notes Verbales exchanged between GOJ and GRP, GOJ through JICA, shall take the following measures for the implementation of the Study:

1. To dispatch, at its own expense, study teams to the Philippines;
2. To pursue technology transfer to the Philippine counterpart personnel in the course of the Study.

VIII. CONSULTATION

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

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TENTATIVE STUDY SCHEDULE

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
STAGE-1	IC/R	P/R	P/R	P/R	IT/R	IT/R	IT/R	IT/R	IT/R	IT/R	IT/R	IT/R	IT/R	IT/R	IT/R
STAGE-2															
STAGE-3															
STAGE-4															
SUBMISSION OF REPORT	IC/R	P/R	P/R	IT/R(1)	IT/R(2)	IT/R	IT/R	IT/R	IT/R	IT/R	IT/R	IT/R	IT/R	IT/R	IT/R

IC/R...Inception Report P/R...Progress Report IT/R...Interim Report Work in Philippines
 DF/R...Draft Final Report F/R...Final Report Work in Japan

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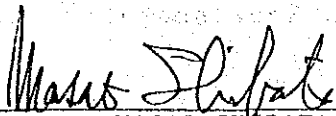


Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY
Bonifacio Drive, Port Area, Manila

MINUTES OF DISCUSSION
BETWEEN THE JAPANESE MISSION AND THE PHILIPPINES PANEL
REGARDING THE PILOT STUDY FOR
THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
IN THE PHILIPPINES

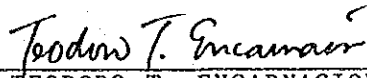
- 1.0 The Japanese Preliminary Study Mission (hereinafter referred to as the Mission) organized by the Japan International Cooperation Agency (hereinafter referred to as JICA) headed by Mr. Masao Shibata visited the Philippines from July 27 to August 2, 1987 and had a series of discussions with the Panel from the Government of the Republic of the Philippines composed of officials from the Department of Public Works and Highways (hereinafter referred to as the GRP Panel), in connection with the Pilot Study for The Rural Road Network Development Project in the Philippines. The list of the members of the Mission and the GRP Panel is shown in Annex A.
- 2.0 The main objectives of the discussion are to set forth an Implementing Arrangement acceptable to both governments and to exchange views on how to carry out in the most professional manner the above-mentioned Study.
- 3.0 After a series of discussions, the GRP Panel and the Mission agreed on the final Implementing Arrangement (dated July 30, 1987) for the Study.
- 4.0 The Mission and the GRP Panel agreed that a maximum of four (4) Pilot Provinces will be selected in accordance with the process specified under Stage I of the Implementing Arrangement.
- 5.0 The Mission and the GRP Panel, likewise, agreed that the length of road links to be studied per province under Stage 2 of the Implementing Arrangement will be limited to not more than 500 kilometers.
- 6.0 The GRP Panel earnestly requested the Mission to arrange with the JICA to provide appropriate number of vehicles ^{and computers} which will be used exclusively in the conduct of the Study. The Mission agreed to convey this request to the JICA and other authorities concerned.
- 7.0 The GRP Panel proposed to the Mission, as part of the technology transfer aspect of the Study, to consider counterpart training in the fields of Highway Engineering and Road Network Planning in Japan. It was also agreed that the Mission will convey this request to the JICA and other authorities concerned.

Signed on 30 July 1987, in Manila, Philippines.



MASAO SHIBATA
Leader

JICA Preliminary Study Mission



TEODORO T. ENCARNACION
Undersecretary

Department of Public Works and Highways

LIST OF PARTICIPANTSI. JICA PRELIMINARY STUDY MISSION

- | | | |
|----------------------|---|-------------|
| 1. Mr. Masao Shibata | - | Team Leader |
| 2. Mr. Minoru Ishida | - | Member |
| 3. Dr. Koji Kuroda | - | Member |
| 4. Mr. Masaru Suzuki | - | Member |

II. DPWH PANEL

- | | | |
|--------------------------------|---|---|
| 1. Mr. Teodoro T. Encarnacion | - | Undersecretary |
| 2. Mr. Manuel M. Bonoan | - | Project Manager IV
PMO-FS |
| 3. Mr. Trino-Trinidad G. Meris | - | Chief, Planning
Service |
| 4. Mr. Jose P. Gloria | - | Project Engineer II
PMO-FS |
| 5. Miss Linda M. Templo | - | Chief, Development and
Planning Division, PS |
| 6. Mr. Ricardo N. Bamero, Jr. | - | Chief Project
Planning Specialist
PMO-FS |
| 7. Mr. Geronimo S. Alonzo | - | Chief Civil Engineer
PMO-FS |
| 8. Mr. Toshiyuki Nakamura | - | JICA Adviser, DPWH |

III. JICA (Philippine Office)

- | | | |
|------------------------|---|---------------------|
| 1. Mr. Katsuhiko Ozawa | - | JICA Representative |
|------------------------|---|---------------------|

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5. 収集資料リスト

1. マニラにおける収集資料

No.	タイトル	形状	備考
1	Road Map of The Philippines	Map	Printed
2	Republic of the Philippines Provincial and regional map	Map	Printed
3	Medium-Term Philippine Development Plan (1987-1992)	A4	Printed
4	Appraisal of the Fourth Road Improvement project in the Republic of the Philippines (by A DB)	A4	Copy
5	Organization Chart MPWH	A4	Copy
6	MPWH Instructure Atlas (1983)	B4	Printed
7	MPWH Instructure Atlas (1986)	B4	Printed
8	Medium Term (1987-1992) Public investment program	A4	Printed
9	Highlights of the draft Medium-term Philippine development plan 1987-1992 (for discussion only)	A5	Printed
10	Climatological data - Part II (by National Institute of climatology)	B5	Copy ・ Average of rainfall amount of Climat/Rain/stations ・ Climatological extremes (upto 1980)
11	Climatological data (1951- 1980) (by National institute of climatology)	B5	Copy
12	Summary of the study on the Devision of maintenance fund allocation by equipment maintenance kilometer (EMK) Method	A4	Copy
13	Number of Establishments, Employment, Compensation and Gross Revenue for Establishment by Region and Economic Sector (1978)	A4	Copy
14	Number of Workers by Industrial Group (1980)	B4	Copy
15	Gross National Product & Gross Regional Domestic Product	A4	Copy
16	Gross Domestic Product by Industrial Origin	A4	
17	Minimum design standard Philippine highway	A4	Copy
18	Planning, Construction and Maintenance of Philippine Roads	A4	Copy
19	Guidance and criteria for the selection of Barangay Roads, Proposed for Funding Under the MPWH Infrastructure Program	A4	Copy
20	Six year planより Chap10, Infrastructure	A4	Copy
21	Population	A4	Copy } F/S Office 作成資料
22	Road	A4	Copy } "

No.	タ イ ト ル	形状	備 考
23	Economy	A4	Copy F/S office 作成資料
24	Climate	A4	Copy "
25	Land use Planning Guidelines	A4	Copy "
26	Traffic	A4	Copy "
27	Land Use Planning Laws of The Philippines	A4	Copy "
28	Enterpriser	A4	Copy "
29	AADT (Annual Average Day Traffic) 1985 より (Region VII, Bohol - 1st)		中村専門家より
30	AADT 計測システム		"
31	AADT 計測ポイント (Region VII, Bohol)		"
32	Philippine Economics Indicators (1986, NEDA)		
33	Philippine Statistical Year Book 1986 (NEDA)	A4	
34	Transport Instructure Study on Small Islands (INTERIM REPORT SUMMARY)	A4	DPWH, Kreditanstalt Fuer Wiederaufbau (KFW)
35	Highway Design Guidelines	A4	DPWH

(2) ブラカンにおける収集資料

No.	タ イ ト ル	形状	備 考
1	MPWH Region III, Straight Line Road Diagram and Bridge List (Province of Bulacan, 1986, National Road)	B3	Blue Printed
2	Organization Chart of Bulacan District Office	B2	
3	Barangay Roads List, 1987 (by Municipality)	A4	Copy
4	National Roads List, 1987	A4	Copy
5	Road Map Municipality of Malolos, Province of Bulacan	B2	Copy
6	Road Diagram and Bridge List (Province of Bulacan)		Blue Printed
7	Regional Map, Region III	Map	Blue Printed
8	Barangay Roads List (each road)	A4	Copy
9	Data for Processing for Rules & Regulation Under DPH MC 88 Dated May 30 (Road/Street Serving Motor Vehicular Traffic)	A4	Copy

(3) ボホール・セブにおける収集資料

No.	タ イ ト ル	形状	備 考
1	Region 7, Regional Map		Blue Printed
2	Bohol Province, Road Map		Blue Printed

No.	タ イ ト ル	形状	備 考
3	Bohol Province, Bohol-I, Road Map		Blue Printed, Colour (2 枚)
4	Straight Line Road Diagram and Bridge List, Province of Bohol		Blue Printed
5	Barangay Road List, Region 7, Bohol-I District	A4	Copy
6	Summary of Provincial Road (Bohol I, II)	A4	
7	General Layout of Service Area (National Irrigation Administration)	A4	Copy
8	Budget/Allocation Comparison (Bohol-I, 1987)	A4	Copy
9	Traffic Volume, Daily Summary Sheet (1987, 1, 26, Tagbilaran City)	A4	Original

6. フィリピン国に対する道路分野協力実績

日 本 に よ る 協 力	広域道路・地方道路
	<u>日比友好道路</u>
	昭和44年 2月 ① 有償資金協力(7,200百万円) L/A 締結
	昭和45年12月 ② 有償資金協力(3,600百万円) L/A 締結
	昭和51年 3月 関連道路改良 有償資金協力(3,800百万円) L/A 締結
	昭和53年 1月 E/S 有償資金協力(332百万円) L/A 締結
	昭和56年 6月 改良事業(Ⅱ) 有償資金協力(332百万円) L/A 締結
	<u>ダルトンバストーンネル計画調査</u>
	国道5号、ダルトンバスを中心とした地域のトンネル計画を含めた改良計画および、法面防災対策に関する計画。
	昭和55～57年度 開発調査(F/S)
	<u>西レイテ道路改良事業</u>
	昭和53年11月 E/S 有償資金協力(177百万円) L/A 締結
	<u>西・北西レイテ道路改良計画</u>
	昭和58年9月 有償資金協力(177百万円) L/A 締結
	<u>イロコス・ノルテ地区道路改良事業</u>
昭和55年6月 有償資金協力(730百万円) L/A 締結	
<u>道路防災計画</u>	
日比友好道路およびバギオ市周辺の主要国道を対象に、災害危険箇所の選定をし、そのうちのルセナ～カラワグ区間、アレン～カルバヨグ区間、ナギリアン道路の3区間の復旧方法、防止対策等に関する計画。	
昭和57～60年度 開発調査(F/S)	
都市内道路(都市交通の項と重複)	
<u>マニラ大都市圏都市交通施設計画</u>	
昭和46～47年度 開発調査	
<u>立体交差建設事業</u>	
昭和49年4月 有償資金協力(1,022百万円) L/A 締結	
<u>南マニラ迂回道路立体交差事業</u>	
昭和52年4月 有償資金協力(300百万円) L/A 締結	

出典：1. 国際協力事業団年報
2. 経済協力の現状と問題点 1985年、通商産業省

日 本 に よ る 協 力 （ つ づ き ）	都市内道路（都市交通の項と重複） — つづき
	<u>マニラ北方道路整備事業</u>
	昭和53年11月 有償資金協力（2,979百万円）L/A 締結
	<u>マニラ首都圏道路計画（R-10 道路建設計画）</u>
	昭和48～50年度 開発調査（F/S）
	<u>マニラ首都圏道路計画（C-3、R-4 道路建設計画）</u>
	C-3（環状道路3号線）およびR-4（放射道路4号線）に関する建設計画。
	昭和51～53年度 開発調査（F/S）
	<u>C-3、R-10 道路建設事業</u>
	昭和53年11月 E/S 有償資金協力（296百万円） L/A 締結
	<u>メトロ・マニラ放射10号線および関連道路建設</u>
	昭和58年9月 有償資金協力（5,400百万円） L/A 締結
	<u>マニラ～パタアンおよびC-5、C-6 道路建設計画</u>
	マニラ首都圏へのアクセス道路として、また工業の地方分散の一方策として、マニラ首都圏とパタアン半島をマニラ湾北岸に沿って結ぶマニラ～パタアン道路計画の一部（約12 km）およびC-5、C-6道路の一部（それぞれ9 km、13 km）の建設計画。
昭和53～55年度 開発調査（F/S）	
<u>C-4（EDSA）道路改良事業</u>	
昭和55年6月 有償資金協力（E/S、150百万円） L/A 締結	
<u>ダバオ都市交通計画</u>	
ミンダナオ島南東部に位置するダバオ・デル・スル州の州都であるダバオ市の将来の都市問題に対処するため、既存の土地利用計画を考慮し、総合道路交通体系を、交通管理システム、街路網計画、公共輸送システムの諸要員を踏まえ、作成する。	
昭和53～56年度 開発調査（M/P）	
<u>マニラ首都圏南部地区幹線道路網計画</u>	
昭和48年に策定されたマニラ大都市圏都市交通計画の一環。マニラ首都圏の交通混雑を解消するため、首都圏南部地区の幹線道路網の建設・改善。	
昭和55～57年度 開発調査（F/S）	
<u>マニラ首都圏北部地区幹線道路網計画</u>	
マニラ首都圏の交通混雑を解消するため、北部環状道路5号線の道路網計画。	
昭和56～58年度 開発調査（F/S）	

出典：1. 国際協力事業団年報
2. 経済協力の現状と問題点 1985年、通商産業省

日 本 に よ る 協 力 （ つ づ き ）	都市内道路（都市交通の項と重複） — つづき
	<u>メトロマニラ都市交通改良事業</u>
	昭和55年6月 有償資金協力（5,410百万円） L/A 締結
	<u>マニラ首都圏交通制御計画</u>
	昭和57年5月 有償資金協力（3,860百万円） L/A 締結
	<u>道路交通訓練センター</u>
	急速な都市化によって惹起された交通問題に対処するため、道路交通技術者の要請を目的とした道路交通訓練センターに対して、交通計画、交通工学、交通管理の3訓練センターを設けて、理論的、実際的な訓練を実施。（技術協力センターによるプロ技協）
	昭和52～56年 協力実施
	昭和56～58年 延長
	昭和58～59年 フォローアップ
その他	
<u>道路機械管理修繕デポ整備事業</u>	
昭和49年4月 有償資金協力（1,809百万円） L/A 締結	

- 出典：1. 国際協力事業団年報
2. 経済協力の現状と問題点 1985年、通商産業省

オーストラリア

Manila Urban Transport Study

マニラ首都圏内の道路公共交通と、自動車輸送管理システムの改善に対する協力。1983年から1984年にかけて総額105万ドルの援助。

出典：経済技術協力国別資料シリーズ フィリピン、1985年8月 国際協力事業団

7. 現地写真



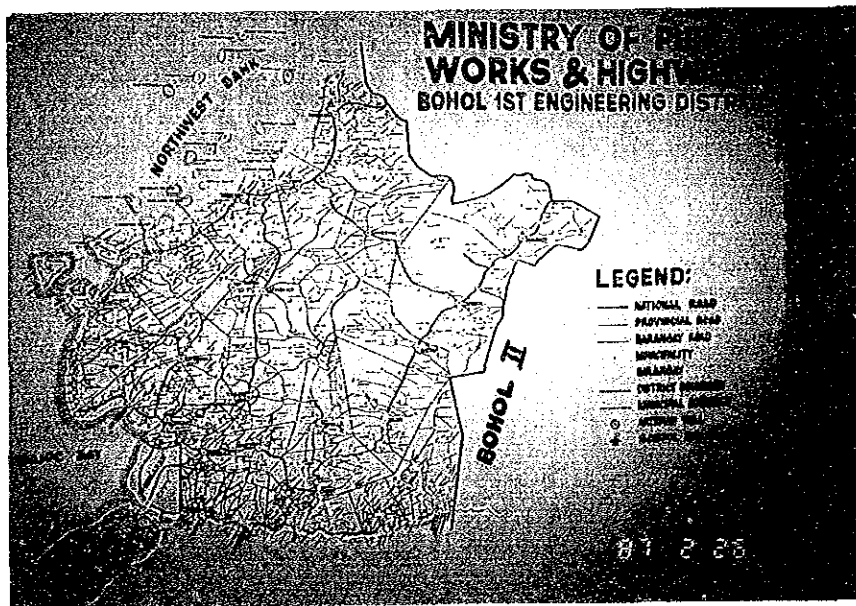
ボホール島のバランガイ道路 (1)



ボホール島のバランガイ道路 (2)



ボホール島の橋梁



DPWH BOHOL 1st Engineering District
のRegional Map



ボホール島のバランガイ道路工事 (1)



バランガイ道路の道路工事現地(拡幅) (2)



ボホール島の道路建設用資材調達現場



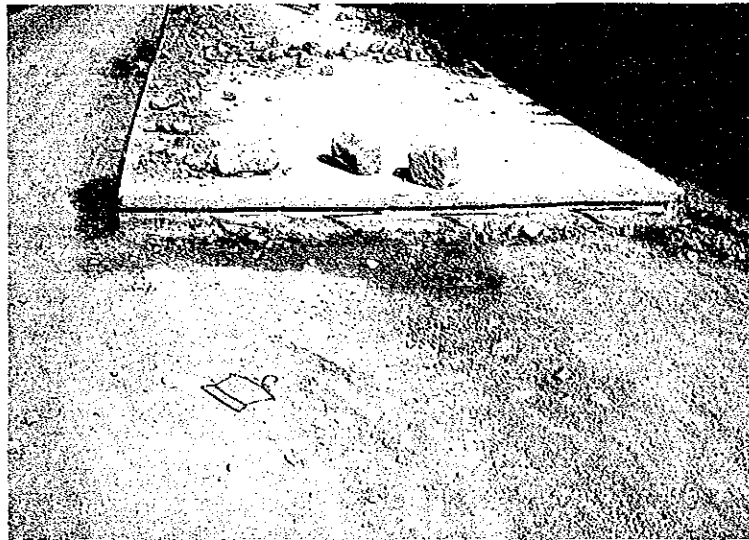
ブラカン州のバランガイ道路 (1)



ブラカン州のバランガイ道路 (2)



ブラカン州の州道舗装工事 (1)



ブラカン州の州道舗装工事 (2)



舗装工事周辺のプラント



公共事業道路省でM/D署名(87.3.5)(コンタクトミッション)



公共事業道路省でI/A 署名(87.7.30)(S/Wミッション)



M/D 署名 (87.7.30) (S/Wミッション)

JICA

