

PN-AB10-895

REPUBLIC OF THE PHILIPPINES

152 96490

TECHNICAL ADVISORY SERVICES
for
PHILIPPINE ASSISTANCE PROGRAM SUPPORT
PROJECT NO. 492-0452

Prepared for:

OFFICE OF CAPITAL PROJECTS
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
MANILA, PHILIPPINES

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CONSULTANT MANAGEMENT
SERVICES, INC.

ERNST & YOUNG

under Contract No. 492-0452-C-00-0099-00
with USAID/MANILA

P2-ABW-895

SCOPING SESSION REPORT

**AURORA ROADS
INFRASTRUCTURE
DEVELOPMENT PROJECT**

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July 31, 1991

Mr. Alex Sundermann, P.E.
Project Officer/Office of Capital Projects
USAID/Manila
18F, Ramon Magsaysay Center
1680 Roxas Boulevard
Manila, Philippines

Subject: **SCOPING SESSION REPORT**

Project: **DELIVERY ORDER NO. LBII-05
FEASIBILITY STUDY ON AURORA ROADS
INFRASTRUCTURE DEVELOPMENT PROJECT
CONTRACT NO. 492-0452-C-00-0099-00**

Dear Mr. Sundermann:

As required by Section 216.3, 22 United States Code of Federal Regulations and pursuant to Section IV E. 2 (b) and IV E 4 (d) of our Contract, we have conducted an Environmental Scoping Session in conjunction with the Aurora Roads Infrastructure Development Project.

We are pleased to submit herewith (5) copies of the Scoping Session Report for your records.

Concurrently, copies are being distributed to the following:

	<u>Name</u>	<u>Agency</u>	<u>No. of Copies</u>
1.	Undersecretary Rogelio L. Singson	Chairman, CODA	3
2.	Mr. Jose B. Gloria	Proj. Manager, PMO	2
3.	Mr. Florante Soriquez	Proj. Director, DPWH	2
4.	Dir. Irma Corales	NEDA, Manila	2
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6.	Dir. Nestor Mijares	NEDA, Region III	2
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9.	Mr. Pat Johnson	CCSC-CODA	3

LOUIS BERGER INTERNATIONAL, INC.

Mr. Alex Sundermann, P.E.

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July 31, 1991

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Should you have any questions, or require further information, please feel free to contact this office.

Very truly yours,
LOUIS BERGER INTERNATIONAL, INC.



WILLIAM J. PARENTE
PAPS Project Manager



WILLIAM L. CUMMINGS
Environmental Studies Coordinator
ARIDP

cc: Pat Quinn, Group Vice President, Louis Berger-Wash., D.C.
Ron Kornell, Reg. Vice President, Louis Berger-Bangkok
Joseph Weiss, Home Office Coord., Louis Berger-East Orange
All Subconsultants

Encs. 5 copies - Scoping Session Report

**SCOPING SESSION REPORT
AURORA ROADS INFRASTRUCTURE DEVELOPMENT PROJECT
ENVIRONMENTAL ASSESSMENT**

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ACRONYMS

AADT	-	Annual Average Daily Traffic
AASHTO	-	American Association of State Highway and Transportation Officials
ADB	-	Asian Development Bank
AIADP	-	Aurora Integrated Area Development Project
AMSL	-	Average Mean Sea Level
ARIDP	-	Aurora Roads Infrastructure Development Project
ASTM	-	American Society of Testing Materials
B-C	-	Benefit-Cost (Ratio)
CENRO	-	Community Environment and Natural Resources Office
CODA	-	Committee on Official Development Assistance
CWI	-	Critical Watershed Index
DA	-	Department of Agriculture
DENR	-	Department of Environment and Natural Resources
DPWH	-	Department of Public Works and Highways
DSWD	-	Department of Social Welfare and Development
EA	-	Environmental Assessment
EIS	-	Environmental Impact Statement
EMB	-	Environmental Management Bureau
ESAL	-	Equivalent Standard Axle Load
FAA	-	Foreign Assistance Act
FMB	-	Forest Management Bureau
GIS	-	Geographic Information System
GOP	-	Government of the Philippines
GSC	-	General Santos City Roads Project
HDM	-	Highway Design and Maintenance Model
IBRD	-	International Bank for Reconstruction and Development (World Bank)
IEE	-	Initial Environmental Examination
IPAS	-	Integrated Protected Area System
ISF	-	Integrated Social Forestry
IRI	-	International Roughness Index
LMU	-	Land Management Unit
LOS	-	Level of Service
NAMRIA	-	National Mapping and Resource Information Authority
NCSO	-	National Census and Statistical Office
NEDA	-	National Economic and Development Authority
NGO	-	Non-Governmental Organization
NIA	-	National Irrigation Administration
NPV	-	Net Present Value
NRIP	-	National Road Improvement Project

NTCP	-	National Traffic Counting Program
NTS	-	Not to Scale
O-D	-	Origin-Destination (Surveys)
OSSC	-	Office of Southern Cultural Communities
PAGASA	-	Philippine Atmospheric, Geophysical and Astronomical Services Administration
PAWB	-	Parks and Wildlife Bureau
PENRO	-	Provincial Environment and Natural Resources Office
PIDS	-	Philippine Institute for Development Studies
PO	-	People's Organization
RIF	-	Rural Infrastructure Fund Project
RRDP	-	Rural Road Development Project
SALT	-	Sloping Land Agricultural Technology
TLA	-	Timber License Agreement
TOR	-	Terms of Reference
TRIPS	-	Third Road Improvement Project
TRRL	-	Transportation Road Research Laboratory
UNDP	-	United Nations Development Programme
USAID	-	United States Agency for International Development
UNIDO	-	United Nations International Development Organization
VOC	-	Vehicle Operation Costs
ZOI	-	Zone of Influence

CHAPTER 1

CHAPTER 1

INTRODUCTION

1.1 "SCOPING" IN THE ENVIRONMENTAL ASSESSMENT PROCESS

Louis Berger International, Inc. (LBII), one of the Consultants providing technical advisory services for the Philippine Assistance Program Support (PAPS) Project, has been recently directed by the United States Agency for International Development (USAID) to conduct Feasibility Studies for approximately 160 km of road improvements and new road construction proposed in the Aurora Roads Infrastructure Development Project (ARIDP).

The ARIDP projects are centered in Aurora but also include significant road upgrading in neighboring Nueva Ecija Province to improve Aurora's southern link to Central Luzon and the National Highway System.

Feasibility studies have begun and are expected to identify the extent and nature of required improvements and construction, determine the economic justification of ARIDP components, and develop an appropriate investment program. The findings of the feasibility studies are intended for use by the Government of the Philippines in seeking local funds or assistance from foreign donor agencies and development institutions.

US Government regulations require environmental studies of USAID - assisted infrastructure projects of the type proposed and the ARIDP Feasibility Studies will include preparation of an Environmental Assessment (EA).

From the U.S. perspective, Section 216, 22 CFR specifies that for US-assisted projects significantly affecting the environment of any foreign country, an environmental assessment must be undertaken. The United States Agency for International Development (USAID) has formalized procedures for consideration of the environmental consequences of its projects. In the ARIDP case a "positive finding" in the Agency's Initial Environmental Examination (IEE) constitutes a threshold decision indicating the potential for significant environmental impacts and requiring preparation of the EA.

Sections 118 and 119 of the U.S. Foreign Assistance Act also direct careful attention in foreign assistance projects to potential impacts on tropical forest and biological diversity concerns. U.S. assistance may be prohibited to road projects which pass through forested areas and which may increase access to or degradation of forest resources. Similar prohibitions deny assistance to actions which degrade National Parks or other protected areas or threaten endangered wildlife and biodiversity resources.

USAID policy also directs attention to project impacts on indigenous cultural communities and Ancestral Land claims of Tribal Filipinos.

Philippine regulations also require environmental studies, and for certain types of projects and project locations, the preparation of either a Project Description or an Environmental Impact Statement (PD/EIS).

For the Philippines, Presidential Decree No. 1586 of June 1978 established an Environmental Impact Statement (EIS) System and implemented administrative mechanisms. EIS Rules and Regulations were promulgated in June 1982 that require a Critical Project/Critical Area Determination by EMB/DENR. In consultations with EMB/DENR, it was determined that the proposed ARIDP occurred in or potentially affected the following areas considered "environmentally critical" under Philippine regulations:

- ◆ Areas declared by law as national parks, watershed reserves, wildlife preserves and sanctuaries
- ◆ Areas set aside as aesthetic potential tourist spots
- ◆ Areas which constitute the habitat for any endangered or threatened species of indigenous Philippine wildlife (flora and fauna)
- ◆ Areas of unique historic, archaeological or scientific interests
- ◆ Areas which are traditionally occupied by cultural communities or tribes
- ◆ Areas frequently visited and/or hard-hit by natural calamities (geological hazards, floods, typhoons, volcanic activity, etc.)
- ◆ Areas with critical slopes
- ◆ Areas classified as prime agricultural lands
- ◆ Recharge areas of aquifers
- ◆ Water bodies characterized by one or any combination of the following conditions:
 - (a) tapped for domestic purposes
 - (b) within the controlled and/or protected areas declared by appropriate authorities
 - (c) which support wildlife and fishery activities

It is also likely that ARIDP is one of a class of projects considered "critical". In light of the high levels of public concern with environmental issues that characterize the Project Area and the national significance of proposed ARIDP actions, it was agreed that the Consultant would prepare a full Environmental Impact Statement (EIS) under Philippine requirements rather than the less-detailed Project Description.

These preliminary findings and determinations are discussed in Chapter 4.

Louis Berger International, Inc. has mobilized an Environmental Team of five professionals to design, organize and carry out the environmental studies called for by each government and to prepare a consolidated EA/EIS meeting the statutory, administrative, and documentary requirements of both. These studies are programmed over the next four months and will include research, field studies, analyses, and consultation necessary to:

- ◆ characterize the existing environment of the Project Area in Aurora and Nueva Ecija Provinces;
- ◆ identify and assess potential environmental impacts of proposed ARIDP road improvement and construction;
- ◆ evaluate and recommend alternatives, and
- ◆ design and develop an Environmental Plan of Action specifying environmental management, mitigation, and monitoring measures and mechanisms required.

These environmental studies are discussed in Chapter 3 and the ARIDP Environmental Studies Work Plan is provided in Appendix A.

Environmental assessment is a process by which environmental considerations are taken into account during the planning stage of a project. The early consideration of the environment enables planners and designers to modify a project to ensure either that it has no adverse effect on the environment or that, if there are effects, they are minimal. If some negative effects are inevitable, these can be identified and mitigated or compensated for, or the project can be rejected on environmental grounds.

The ARIDP EA/EIS will be reviewed by USAID and EMB/DENR. Project implementation requires both USAID approval if US assistance is involved and issuance of an Environmental Compliance Certificate (ECC) by EMB/DENR.

In order to contribute most effectively the Environmental Assessment should begin early in the planning process. In the case of the proposed ARIDP, the Environmental Assessment is being conducted at the same time as Feasibility Studies. Therefore, an examination of economic, technical and environmental feasibility is being undertaken prior to any decisions being reached on the proposed project.

A key feature of this process, required by US law, is early and sustained consultation with government officials, scientific experts and other knowledgeable authorities, involved international and Philippine national and local non-governmental and people's organizations (NGOs and POs), and interested citizens of Project Area communities. These consultations contribute important insights and perspectives and help initially to define key environmental concerns and determine the scope of environmental studies to be conducted. Formal consultations called Scoping Sessions occur in the beginning of the Environmental Assessment process at the project's outset.

1.2 ARIDP SCOPING SESSION/CONSULTATIONS

The Environmental Scoping Session is one of the first steps in an Environmental Assessment. Experience has shown that environmental scoping is invaluable in providing an opportunity to identify local concerns and planning conflicts that may result in potentially significant delays in project implementation or serious negative impacts as a result of project completion, if not addressed.

The purpose of the Scoping Sessions for the proposed ARIDP are to aid in the conduct of the Environmental Assessment by:

- ◆ starting the process of communication early in project planning,
- ◆ involving parties that may be potentially affected by the project,
- ◆ identifying local concerns,
- ◆ focusing on those issues that require in depth-study and
- ◆ identifying issues of a lesser significance

The Scoping Sessions will also initiate a process of dialogue and consultation with Project Area residents, the scientific community, and interested and involved Non-Governmental Organizations that will continue through subsequent phases of the project.

Several hundred government officials, experts and other authorities, representatives of involved international, national, and local non-governmental and people's organizations, and citizens were invited to participate in Scoping Sessions to identify environmental issues and impacts of the proposed ARIDP road improvements and new construction and refine the scope and emphasis of environmental studies required. To ensure both maximum opportunity for participation and the fullest range of perspectives four (4) Scoping Sessions were planned:

- ◆ National Scoping Session
1:30 pm, Tuesday, June 25, 1991
Mercedes Conception Seminar Room
Philippine Social Science Center
Don Mariano Marcos Avenue, Quezon City
- ◆ Local Scoping Session/Consultation # 1
1:30 pm, Thursday, June 27, 1991
Baler Municipal Hall
Baler, Aurora
- ◆ Local Scoping Session/Consultation # 2
1:30 pm, Saturday, June 29, 1991
Dingalan Municipal Hall
Dingalan, Aurora
- ◆ Local Scoping Session/Consultation # 3
1:30 pm, Monday, July 1, 1991
Gabaldon Barangay Hall
Gabaldon, Nueva Ecija

Extensive background materials describing the ARIDP and its potential environmental impacts were provided to invitees. Scoping Session preparations are discussed in Section 3.4 and Scoping Session Invitations and background materials supplied may be found in Appendix B. Scoping Session/Consultations invitation lists are provided in Appendix C.

Participation was invited in the form of attendance and verbal comments on environmental issues and concerns associated with the proposed ARIDP and Environmental Assessment studies or through the submission of written comments. Invitees were also requested to call or visit the offices of the Environmental Studies Team for further information or discussion.

More than 300 participants representing all the above groups and sectors took part in the Scoping Session/Consultations. Agendas, transcripts, of the four sessions are provided in Appendix E, and lists of attendees are supplied in Appendix D.

Eighteen (18) written or other communications were also received during the Scoping period. These and the overall results of the Scoping Sessions are discussed in Chapter 5.

A EMB/DENR Perception Survey required in EIS preparation was also undertaken during the Scoping process to provide additional perspectives on Project Area community concerns. Chapter 5 also describes the results of the survey. The survey and a tabulation of results are provided in Appendix H.

1.3 PURPOSE OF THE SCOPING REPORT

This Scoping Report, required by USAID environmental regulations, describes the process and results of the Consultant's review of potential environmental impacts, issues, and concerns identified during the ARIDP Scoping period. It also presents revisions in the scope, emphasis, work plan and methodologies of ARIDP Environmental Studies initially proposed that have been made in response to Scoping Session recommendations and other additional information. This Report will be provided for USAID review and made available for participant and other public comment.

The early stage of the ARIDP Environmental Assessment also included review of all available literature and establishment of contacts with agencies, institutions and individuals that could provide information relevant to the study area.

Reconnaissance visits and initial field studies to profile the existing Project-Area environment were also carried out, including aerial overflights and ground and marine surveys to supplement information available as a result of other current studies in the area and existing literature. A report describing some of those activities is provided in Appendix K.

Through careful consultation with the Feasibility Studies project team, the scope of the proposed project, including activities required in construction and operation and the timing of these activities were determined. From this information potential impacts on the environment were identified.

From this initial evaluation of the proposed project, a matrix identifying selected activities associated with ARIDP components and the environmental areas or aspects they may impact was developed. This preliminary matrix of activities and potential impacts was to be expanded or reduced based on the results of the Scoping Session/Consultations.

Results of the Consultant's review of Scoping Session/Consultations and other information collected in the Scoping Period are summarized in Chapter 6 which provides a relative ranking of potential ARIDP environmental impacts and discusses the applicability of US Foreign Assistance Act Sections 118 and 119.

On the basis of these potential ARIDP impacts the Consultant also reviewed identified Project Alternatives and ranked them by degree of significant impact potential. This preliminary environmental review of ARIDP Project Alternatives is presented in Chapter 7.

Revisions to the ARIDP Environmental Studies Work Plan and incorporation of Scoping period findings in upcoming field studies and environmental analyses are outlined in Chapter 8. The revised ARIDP EA/EIS outline is provided in Appendix J. Chapter 8 also describes planned activities to produce a Preliminary EA/EIS; design and develop environmental management, mitigation, and monitoring measures; and prepare Draft and Final EA/EIS documents and associated E.C.C. documentation. The revised ARIDP Environmental Studies Work Plan is provided in Appendix L.

CHAPTER 2

CHAPTER 2

PROJECT DESCRIPTION

2.1 AURORA ROADS INFRASTRUCTURE DEVELOPMENT PROJECT (ARIDP)

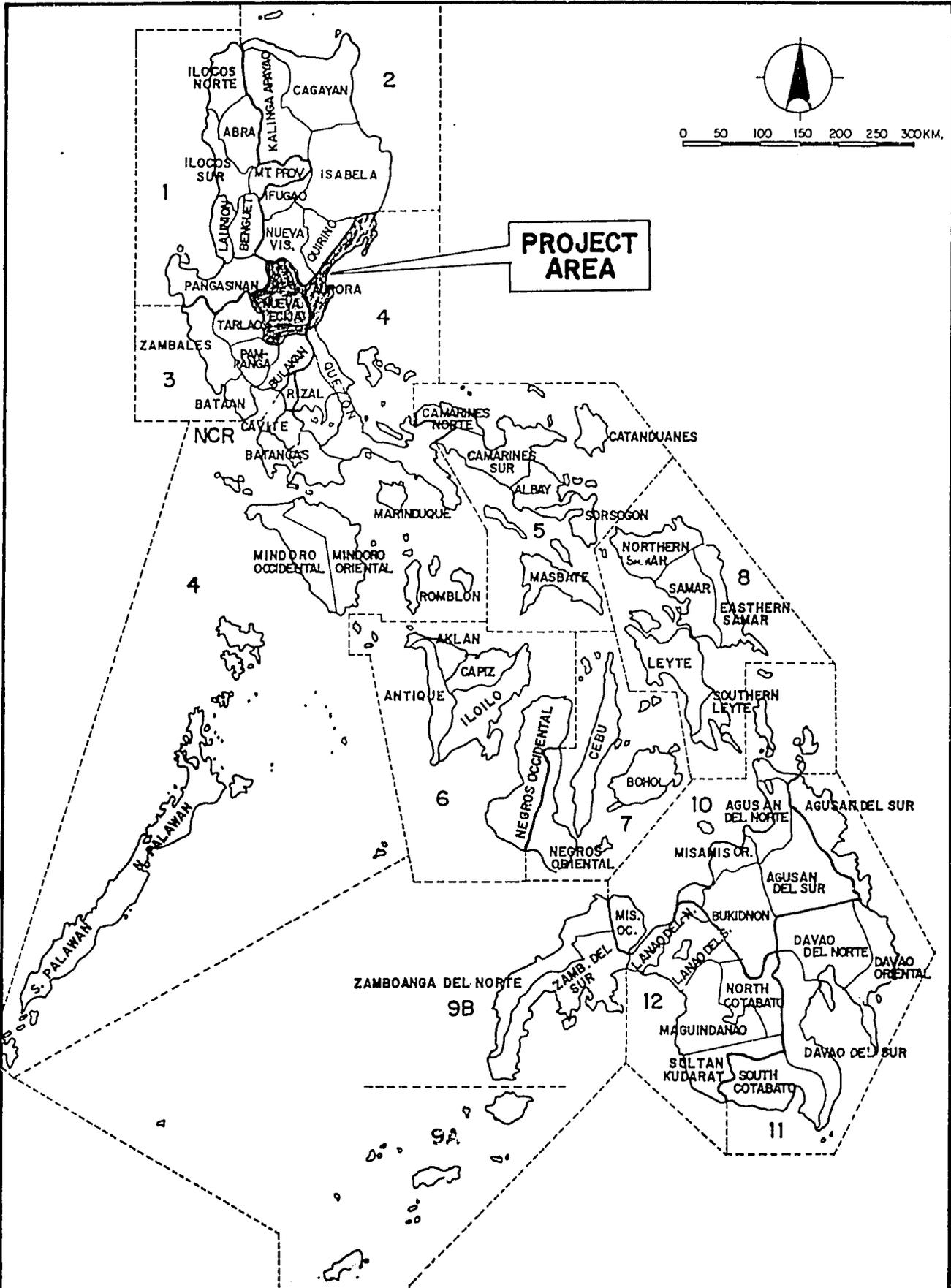
The Aurora Roads Infrastructure Development Project (ARIDP) is a technical and economic feasibility study of the investment needs to improve land access to and within Aurora Province in Northern Luzon. Figure 2-1 displays the project location in the Philippines. The study is financed by the United States Agency for International Development (USAID) under Project Number 492-0452.

The purpose of the project is to improve physical infrastructure in the transport sector in general and to improve the movement of passengers and goods between Aurora Province and market centers in Nueva Ecija Province (and Manila via the Maharlika Highway) in particular. Achievement of this goal implies improved opportunities for job creation, increased income, and more investment by private, public and donor sources. Given the limitations on available investment capital for projects such as ARIDP, the feasibility of ARIDP will be evaluated using benefit-cost and internal rate of return analysis.

The projects are intended to induce economic development, remove existing transportation constraints, and contribute to the achievement of the Government of the Philippines' national, regional and provincial development objectives. ARIDP is envisioned to support balanced agro-industrial development, increased national productivity and economic recovery, and improved distribution of income and development benefits.

The ARIDP Feasibility Study Terms of Reference (TOR) specified study of the following:

- ◆ A new link between Palayan City, in Nueva Ecija Province, and Baler, the provincial capital of Aurora Province by upgrading the existing road from Palayan to Dingalan (48.7 km.), by constructing a new road from Dingalan to San Luis (70.8 km.) and by upgrading the existing road from San Luis to Baler (7.3 km.).
- ◆ Improved links between Baler, San Luis and two nearby municipalities via an upgraded circumferential road which in addition to the Baler-San Luis section above, includes a San Luis-Maria Aurora segment (12.6 km), a Maria Aurora-Dipaculao (8.9 km.) segment and a Dipaculao-Baler (11.7 km) segment.



AURORA ROADS INFRASTRUCTURE
DEVELOPMENT PROJECT
FEASIBILITY STUDY

PROJECT
LOCATION MAP

Figure
2-1

The length of the circumferential road (including Baler-San Luis) is approximately 40.5 km and the total of all project roads proposed for initial study is 160.0 km.

During preliminary feasibility analysis, it was found that two earlier final reports, Rural Roads Development Program II - Aurora, 1982 and the ADB-assisted Third Road Improvement Project - Aurora (1985) considered that upgrading an interprovincial link to Nueva Ecija Province was essential to establish the feasibility of an improved road system within Aurora. The TOR instructed the Consultants to consider all previous studies, to analyze existing major highway networks, and propose alternative routes.

There are three (3) geographical zones in Aurora province - north around Casiguran, central around Baler and south around Dingalan. Casiguran is connected to Baler by a coastal track, frequently impassable, and has no link with neighboring Quirino province, except a former logging track via Madela. No study is anticipated in this area although the Consultant has recommended a Phase II study to consider the linking of Casiguran with Baler.

The central Baler zone has two roads linking it to Nueva Ecija Province, both of them subject to closure in wet weather, and neither of them suitable for sustained traffic owing to their geometric conditions.

The easterly portion of the southern zone (Dingalan) has no road at all linking it with the central zone. It is linked only to Nueva Ecija by a mainly gravel surface road via Gabaldon, Laur, and Palayan City. This road suffered major damage to road sections and structures in the 1990 earthquake. It is frequently interrupted in wet weather due to flooding of the Coronel River whose valley it follows.

The existing roads in the Project Area are:

- ◆ The existing circumferential road linking Baler - San Luis - Ma. Aurora - Dipaculao - Baler, in the central flood-plain (38 km.). This is mainly a gravel road, with short stretches (6.9 km.) of two-lane and one-lane Portland cement concrete pavement (PCCP), and a short asphalt section (5.7 km.)

The gravel sections are in fair to poor condition, with long stretches subject to flooding during the rainy season, the PCCP is in good condition, and 1.9 km. of the asphalt section has deteriorated.

- ◆ Baler - San Luis - Bongabon - Palayan City National Highway (99.5 km.). This road connects Aurora with Nueva Ecija along a tortuous horizontal alignment with many sharp curves and horseshoe bends, rising to a maximum elevation of about 700 meter AMSL. Back slopes are cut in almost vertical sections and are prone to land slides which close the road to traffic during heavy rains. The geometric conditions make this road hazardous to traffic. Travel times under good driving conditions approach 4 hours.

- ◆ Ma. Aurora - Canili - Pantabangan - Rizal (73.65 kms.) This road also connects Aurora and Nueva Ecija provinces. It passes mainly flat to rolling terrain, with a mountainous sector of about 22.4 km. rising to a maximum elevation of about 370 meters AMSL, between Bazal and Canili. This section has recently been constructed by the Department of Local Government, while road sections west of Canili were constructed by the National Irrigation Authority (NIA). Portions of this road west of Pantabangan were damaged by the 1990 earthquake. The entire road is gravel surface in fair to poor condition. Slope protection and side ditches were not provided on the Bazal - Canili section, which includes six (6) major structures. This section has some vertical gradients of about 14 to 15 percent.
- ◆ Palayan City - Dingalan (48.7 km.). 39.2 km. is gravel surface in fair to poor condition. PCCP (7.85 km.) is mostly in good condition; 1.65 km. of asphalt pavement is in poor condition. The road passes rolling to flat terrain following the Coronel River valley to the town of Gabaldon, then from Barangay Sawmill over mountainous terrain to Dingalan. The road crosses a watershed of about 270 meters AMSL dividing the Coronel and Dingalan Rivers. There are 15 waterway crossings on the total road sector. Between Laur and Gabaldon several road sections and three (3) bridges suffered extensive damage in the 1990 earthquake. Current travel time during good driving conditions averages 2 hours.

Therefore in addition to the southern inter-provincial link provided by the Palayan City - Dingalan road two inter-provincial links between Nueva Ecija and the central zone of Aurora in which the capital, Baler is situated have been selected for study. These are:

- ◆ Baler - San Luis - Bongabon - Palayan (99.5 km.) the existing National Highway, including the following alternatives:
 - (a) a northerly alignment which leaves the National Highway at the west boundary of Aurora Province (also west boundary of the Aurora Memorial Park), then follows the Cabatangan and Malupa River valleys and ties in with the Ma. Aurora - Canili Pantabangan road.
 - (b) the upgrading of the existing alignment through the Aurora Memorial Park; and
- ◆ Baler - San Luis - Ma. Aurora - Canili - Pantabangan - Rizal (93.6 km.)

2.2 ARIDP PROJECT ALTERNATIVES

Six (6) Project Alternatives have been identified for ARIDP Feasibility Study. These are described below in Sections 2.2.1 - 2.2.6. Additional Project Alternatives considered in ARIDP Environmental Studies are discussed in Section 7.7.

2.2.1 Circumferential Road (Segments 1A, 1B, 1C, & 1D)

Alignment of the existing circumferential road is well established and with the exception of minor adjustments will be left as is. See Figure 2-2. Any improved alignments through the urban areas would require excessive and costly relocations. Three (3) alternate alignments between Maria Aurora and San Luis are being considered with the express purpose of shortening the length of bridges and ultimate cost of this portion of roadway. Two of the alternate alignments considered would involve some new construction.

2.2.2 Inter-provincial Link; Maria Aurora - Canili - Pantabangan - Rizal (Segments 2A, 2B, 2C & 2D)

This alternative would consist of improvements to a Department of Local Government/NIA - constructed road, portions of which are currently being rebuilt. See Figure 2-3. The Department of Local Government is currently making horizontal and vertical improvements and installing some drainage structures between Canili - Maria Aurora and plans have been completed for similar improvements westerly to Pantabangan. Design plans call for some vertical gradients up to 19 percent but discussions with on-site construction representatives reveal that these have now been lowered to less than 15 percent. Numerous horizontal curves between Canili - Bazal have also been constructed which do not meet the recommendations of DPWH (i.e., less than 50 m radius).

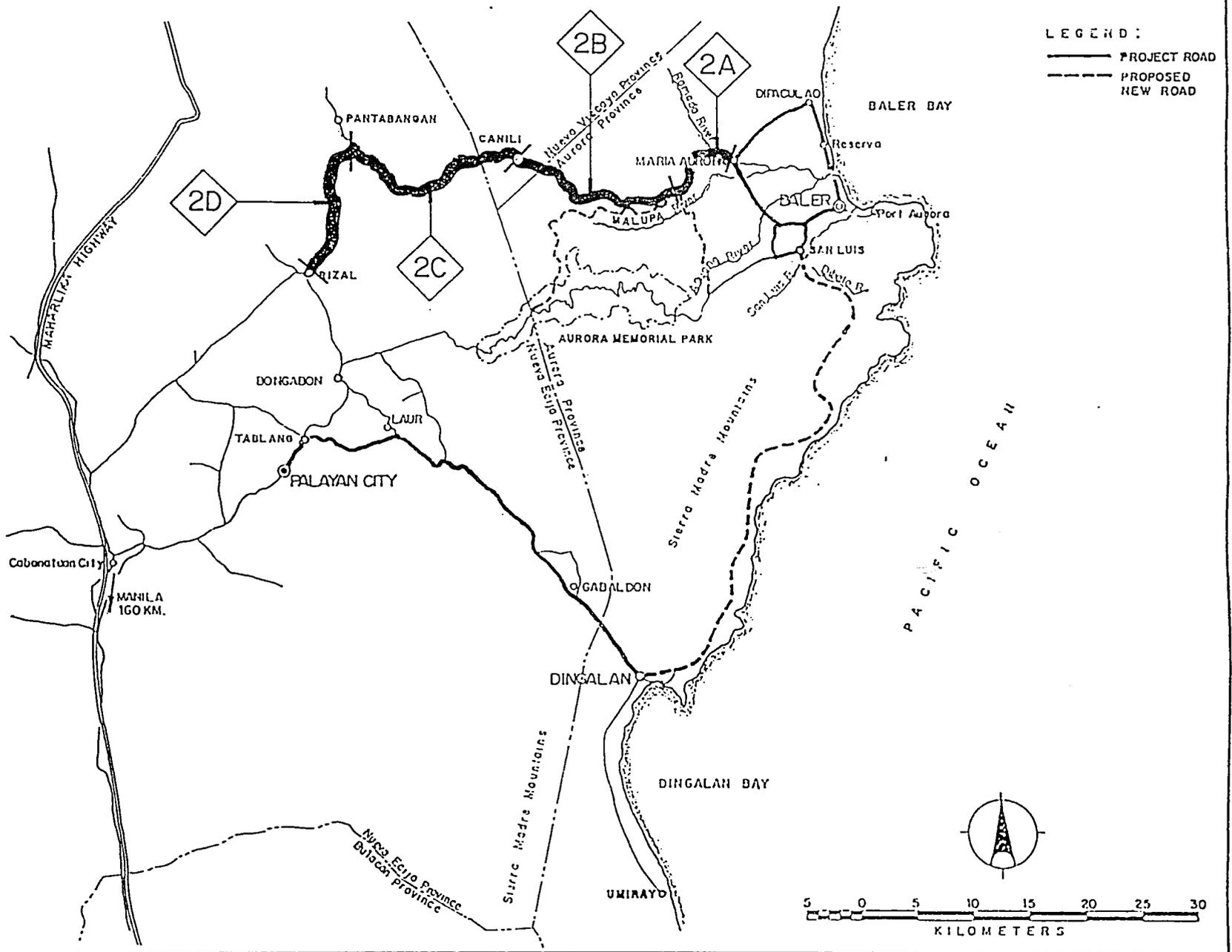
No adequate slope protection or erosion mitigation measures have been provided on any of the recently constructed works. The existing surface is gravel of rounded (not crushed) river rock with an estimated thickness of 6 cm. Absence of adequate drainage ditches and letdown structures is already causing this surfacing to be washed away. Paving on this segment would need to be accompanied with some additional geometric improvements and erosion mitigation measures consisting of better cross drainage and letdown structures. A number of bridges along this segment provide only one lane traffic and need to be widened to recommended DPWH standards.

Segment 2A and a portion of 2B are common with the routing of Segment 5.

AURORA ROADS INFRASTRUCTURE
DEVELOPMENT PROJECT
FEASIBILITY STUDY

MARIA AURORA-CANILI-PANTABANGAN-RIZAL
LOCATION MAP
SEGMENT 2

Figure
2-3



2.2.3 Dingalan - San Luis (Segment 3)

This segment of roadway is currently nonexistent except for portions which serve as logging trails. See Figure 2-4. These logging trails extend northward from Barangay Paltic in Dingalan and southward from Real, San Luis. There are also several trails extending northwesterly up river valleys from the coast north of, south of and at Dicapinisan. Because of extremely steep mountain slopes between these river valleys, none of these logging trails are interconnected throughout the entire 71+ km. segment.

A proposed alignment was developed at 1:20,000 scale from existing topography maps since rugged terrain and forest cover precluded the sending of survey crews into the area as part of Feasibility Study. Members of the environmental team walked portions of the proposed route from Real, San Luis southward as far as Barangay Dibayabay and reported extremely rugged topography for construction. Population statistics for this segment reveal a total population base of less than 5,000.

In the ARIDP Inception Report on June 11, 1991, the Consultant indicated that he would do an initial cost analysis of this proposed road segment and based on that preliminary finding continue with the feasibility analysis or redirect his efforts to other proposed roadways. The Consultant determined that heavy grading would be required to construct the road. He also concluded that because of its close proximity to the seacoast and its construction on steep mountain slopes, Portland Cement Concrete Pavement would be the only effective typhoon resistant road construction. Initial cost estimates reflect a total cost of nearly one billion pesos for the 71.5 km. of construction. This equates to nearly 14 million pesos per kilometer as compared to normal construction costs of 4-6 million pesos per kilometer. The Consultant has recently concluded that costs would be prohibitive as compared to any potential long term economic benefits achieved as a result of the project. This conclusion is presented and discussed in the ARIDP Preliminary Feasibility Report.

As a result, Segment 3 was dropped as a viable alternative and no further feasibility study of road construction will be done. As this segment remained under consideration during the Scoping Session/Consultations, comments and discussions associated with it are presented in this Scoping Report. On-going assessment of potential environmental impacts and necessary mitigations will be completed and included in the EA/EIS for future reference.

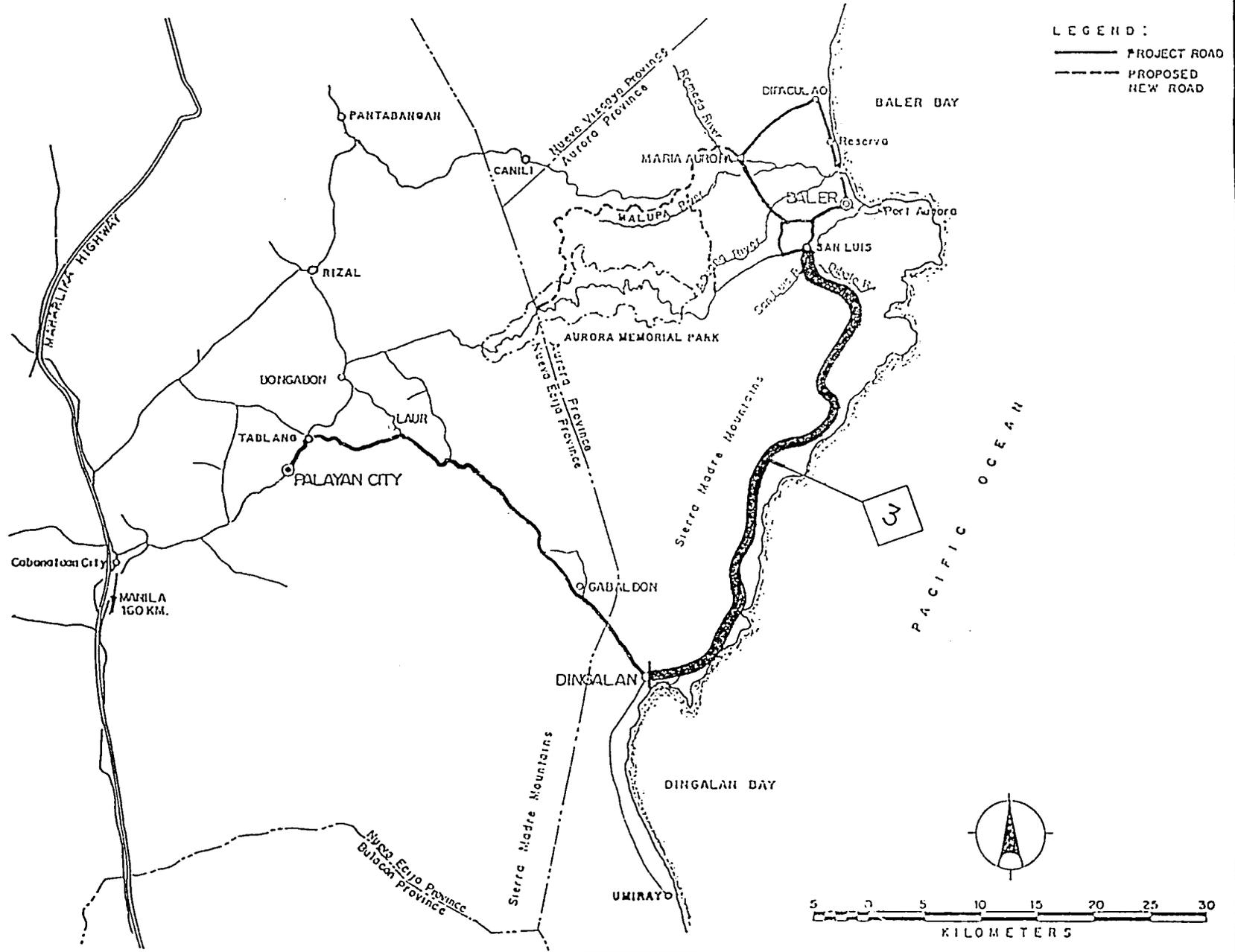
2.2.4 Palayan City - Dingalan (Segments 4A, 4B, & 4C)

As with the circumferential road, this segment will follow the existing roadway alignment. See Figure 2-5. Several portions of this roadway are paved and several kilometers between Palayan - Laur are currently being surfaced. The July 1990 earthquake caused substantial damage to portions of the roadway west of Gabaldon and three major bridges were also damaged. The Consultant has determined that special consideration should be given to slope protection especially through areas where soils have been loosened as a result of the earthquake. Two of

AURORA ROADS INFRASTRUCTURE
DEVELOPMENT PROJECT
FEASIBILITY STUDY

DINGALAN - SAN LUIS
LOCATION MAP
SEGMENT 3

Figure
2-4



20

2.9

the damaged bridges must be rehabilitated in an early stage of overall roadway improvements. The third damaged bridge is already being reconstructed near Gabaldon.

Survey traverses and cross sections were obtained on this segment in order that revisions to horizontal and vertical alignments could be made and that grades and curves would meet DPWH standards.

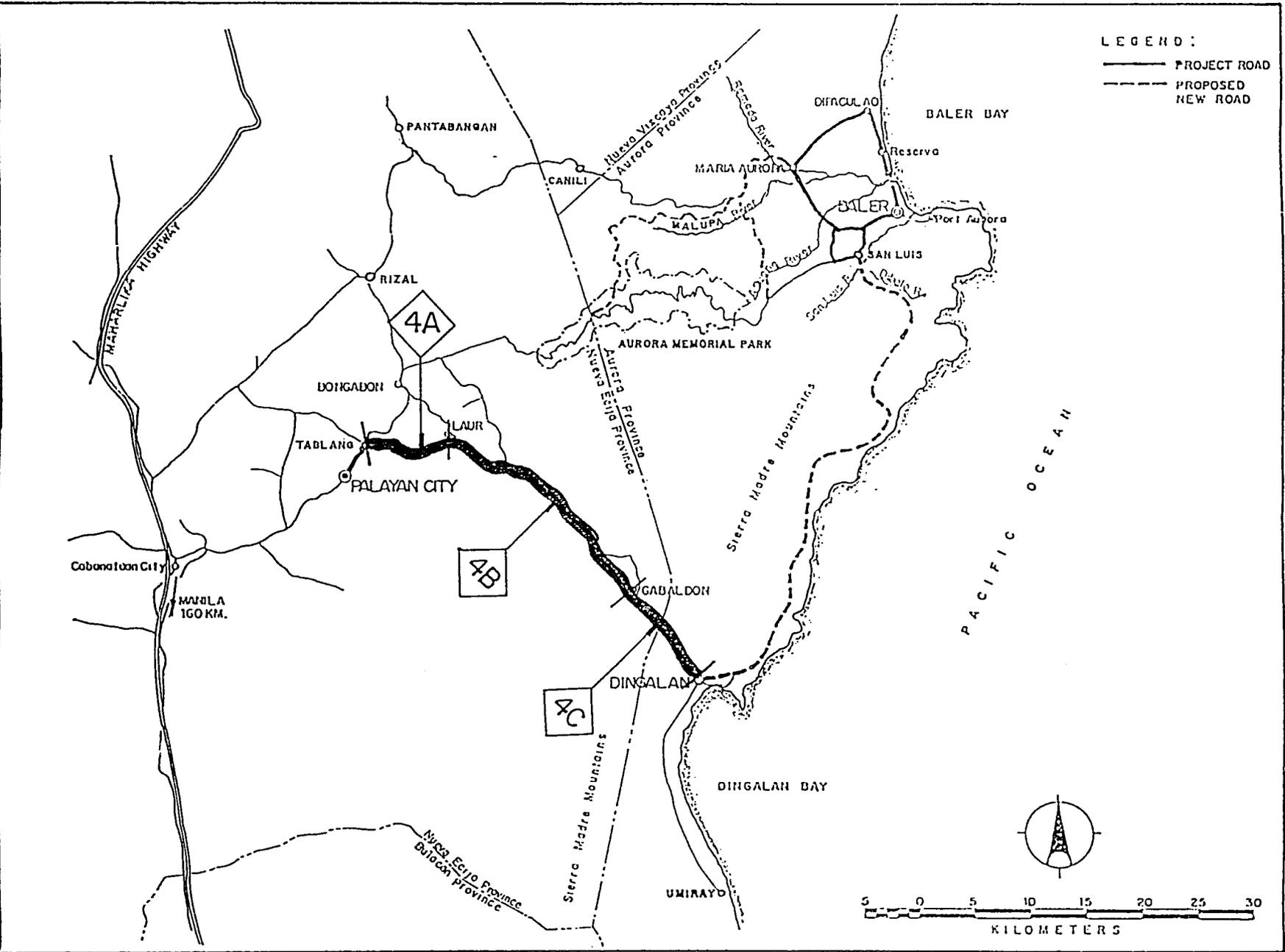
2.2.5 Inter-provincial Link; Tablang - Bongabon - West edge of Aurora Memorial Park Cabatangan/Malupa River Valley - Maria Aurora (Segments 5C, 5B, 5A easterly portion of 2B, 2A)

This routing alternative became a consideration as a result of discussion at the presentation of the Inception Report on June 11, 1991. See Figure 2-6. This alternative follows the existing National Highway eastward from Bongabon to the boundary between Aurora Province and Nueva Ecija Province. This boundary is also near west boundary of the Aurora Memorial Park, a 5676 ha. National Park administered by DENR. The proposed route then follows the courses of the Cabatangan and the Malupa Rivers and connects to Segment 2B of the proposed Maria Aurora-Canili route. Even though approximately 17 km. of new road would be required from the Provincial boundary to the connection with the Maria Aurora - Canili road, the horizontal and vertical alignments are much more conducive to road construction than trying to improve the National Highway through the Aurora Memorial Park. Two major bridges would have to be constructed, one across the Cabatangan River and the other across the Malupa River.

Alignments and cross sections for this segment were obtained from 1:20,000 topographic maps as in the case of Segment 3.

2.2.6 Inter-provincial Link; Tablang - Bongabon - through the Aurora Memorial Park - San Luis (Segments 5C, 5B & 6)

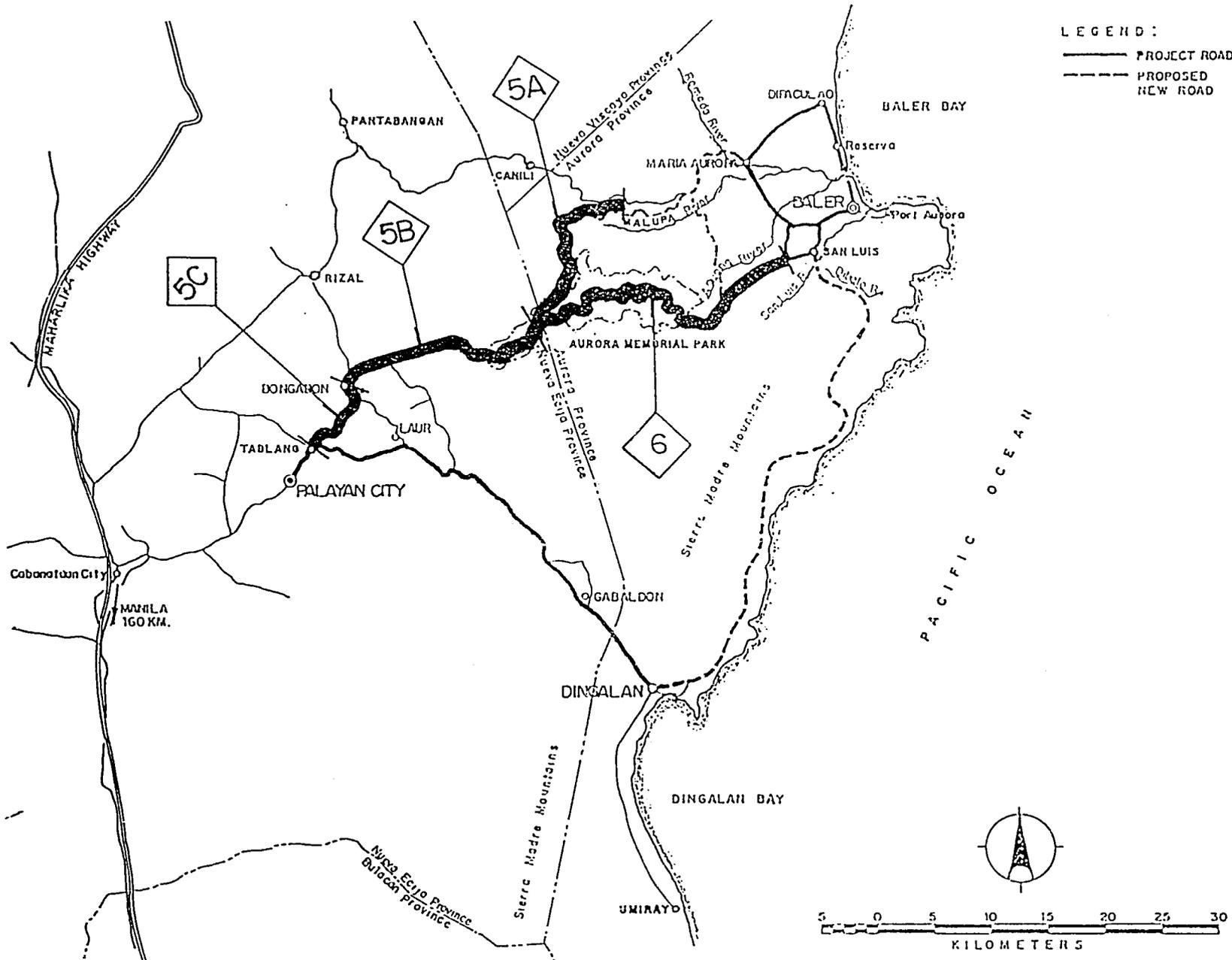
This route follows the Existing National Highway from Bongabon through the Aurora Memorial Park to San Luis where it connects with the Circumferential Road (Segment 1D). See Figure 2-6. The existing alignment through the Memorial Park consists of torturous hairpin curves and nearly vertical cross slopes. The road is subject to frequent mudslides which close the road. Opportunities to improve the horizontal alignments would require extensive cuts and fills and the construction of numerous bridges.



AURORA ROADS INFRASTRUCTURE
DEVELOPMENT PROJECT
FEASIBILITY STUDY

NATIONAL HIGHWAY ROUTE
LOCATION MAP
SEGMENT 5A6

Figure
2-6



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CHAPTER 3

CHAPTER 3

ARIDP ENVIRONMENTAL STUDIES

3.1 TERMS OF REFERENCE

The ARIDP Terms of Reference (TOR) direct the Consultant both to incorporate environmental considerations into overall feasibility analysis of the proposed project and to prepare a detailed environmental assessment of its impacts conforming to U.S. and Philippine environmental regulations and procedures.

The TOR specifies that the Consultant "prepare a detailed environmental assessment for areas served by the ARIDP" placing "special emphasis on adverse environmental effects on the forest reserves that may be traversed with the construction of the new highway, and recommended mitigation measures which may be appropriate" (TOR III-E). Mitigations and other environmental management and monitoring components of an Environmental Plan of Action to be developed in the ARIDP Environmental Assessment are considered by the Consultant to comprise potential elements of the "complementary investments needed to assure the success of the initial investments" (TOR I, paragraph 2) which may be recommended in the ARIDP project package evaluated by the Feasibility Study.

The Consultant is further directed to "conduct the overall study in two stages, to be developed in progressive order: (i) preliminary general gathering of data, field reconnaissance, and review of all available information to develop, (ii) a comprehensive feasibility study of the ARIDP based on analyses of economic, engineering or technical, environmental, financial factors and implementation concerns" (TOR III.F).

Section IV of the TOR, "Scope of the Study", outlines the general, economic, engineering and technical, financial and environmental considerations to be included in the Feasibility Study itself and directs the Consultant to:

- ◆ subject the proposed and alternative routes to an initial determination of environmental impact;
- ◆ provide a "sampling" of identified alternative routes and compare these with the proposed route in terms of environmental effects, technical or engineering soundness and cost effectiveness; and
- ◆ provide an opinion based on technical, economic, and environmental aspects as to the practicality and complexity of constructing the ARIDP.

Section IV of the TOR also details the scope, content and procedural aspects of the Environmental Assessment and directs the Consultant to:

- ◆ prepare a Final Work Plan based on consultation with DENR/EMB, CODA, and USAID;
- ◆ coordinate with local representatives of DENR/EMB, CODA and USAID concerning the Critical Project/Area designation, the USAID Threshold Decision, Initial Environmental Examination, the holding of Scoping Sessions, and the preparation of the EA/EIS as required by US and Philippine regulations;
- ◆ gather data and perform field work necessary to determine existing environmental conditions and effect a Critical Project/Area determination;
- ◆ develop a matrix and criteria for evaluation of project alternatives which identifies generic environmental problems and provides the basis for both an Initial Environmental Examination (IEE) of selected alternatives and a Scoping Session to focus on primary issues;
- ◆ prepare a Preliminary-Draft EA/EIS addressing topics and containing discussions as specified in TOR Sections IV E.5 and 6;
- ◆ screen and review, on the basis of the preliminary environmental assessment, engineering and design options and determine if revisions of preliminary designs are needed to mitigate impacts;
- ◆ develop a detailed mitigation plan;
- ◆ revise the Draft EA/EIS in response to Agency comment and prepare a Final EA/EIS; and
- ◆ prepare necessary documentation for use by the DENR/EMB EIS Review Committee to obtain an Environmental Compliance Certificate (ECC).

In response to these requirements the Consultant met with USAID and DENR/EMB and prepared an eight (8) step Final Work Plan specifying associated tasks, staffing, schedules, and deliverables. This Final Work Plan was submitted to USAID in the ARIDP Inception Report for Agency, DENR/EMB, and CODA comment (See Appendix A).

The status of ARIDP Environmental Studies and activities and progress to date in each of the major tasks identified in the Final Work Plan which had begun at the time of writing are described below in Sections 3.2 - 3.4. Three (3) of eight (8) major tasks defined in the Final Work Plan for ARIDP Environmental Studies were completed or underway at the time of writing. Field studies to assess the potential environmental impacts of ARIDP activities began

on July 17, 1991 guided by results of the Scoping Session/Consultations and the Consultant's review of existing information.

3.2 ORGANIZATION OF ENVIRONMENTAL STUDIES

Detailed consultation with the Feasibility Study Team Leader and ARIDP economic, engineering, and technical staff established the interface between environmental and other dimensions of the feasibility analysis and determined the desired timing and content of environmental study inputs to the Feasibility Study.

Initial review of the ARIDP TOR and reconnaissance of the Project Area guided Environmental Study Team staffing and mobilization, creation of project environmental files and database and the collection and review of existing information.

Initial liaison was established with USAID and DENR/EMB to clarify procedures and requirements. Notice of prior USAID Threshold Decision and IEE determination of a "positive finding" requiring an Environmental Assessment under Section 216.5, 22 CFR was received. In Critical Project/Area determination discussions with DENR/EMB it was agreed that ARIDP would require a full EIS pursuant to PD 1586 and other Philippine regulations.

A draft Consolidated Environmental Assessment/Environmental Impact Statement Format was developed to comply with US and Philippine regulations and submitted for review by appropriate agencies in the ARIDP Inception Report. Associated data requirements determined initial scope and appropriate methodologies for field studies and environmental analysis.

Liaison with key national-level NGOs, appropriate line agencies, and local government officials, agencies, NGOs and communities in the Project Area was established to prepare for field studies and Scoping Sessions.

Scoping Session dates, venues, and preliminary invitation lists were determined, and English and Pilipino invitations, background materials including an ARIDP project description, a summary of US and Philippine environmental regulations and procedures, project location and vegetation maps, and an initial matrix of potential ARIDP environmental impacts was prepared and distributed to an initial list of more than 80 invitees in Manila and the Project Area (See Appendices B and C).

3.3 FIELD STUDIES OF EXISTING ENVIRONMENT

Reconnaissance survey by helicopter overflight and video documentation was carried out by a combined team of ARIDP Environmental and Feasibility study staff on June 3, 1991.

Field studies by the Environmental Study Team were conducted from June 4-15, 1991 to survey the Project Area and review initial ARIDP Project Alternatives, profile the existing environment, validate the accuracy of existing information, establish a baseline for subsequent impact assessment, and identify trends.

To facilitate NGO participation in ARIDP Scoping Sessions and liaison with NGOs and POs in the Project Area the ARIDP Environmental Studies Team was accompanied during field studies by two representatives of Tanggol Kalikasan, the Environmental Defense Law Office of the Haribon Foundation for the Conservation of Natural Resources, a major Philippine Conservation NGO and active member of Green Forum, a national coalition of several hundred Philippine environmental organizations. A report on initial field survey activities is provided in Appendix K.

Consultation with local governments, provincial and municipal representatives of national agencies, NGOs, and affected communities in the Project Area were conducted to disseminate information on the project, collect data, confirm dates and locations of local Scoping Sessions, and identify additional prospective invitees. Several hundred Scoping Session invitations were distributed directly or provided to local governments and NGOs for subsequent distribution. The Scoping Session/Consultations were also publicized in Project Area news media.

3.4 SCOPING SESSION PREPARATIONS

Consultations with USAID were held to determine overall Scoping Session requirements and ascertain the principal environmental issues identified in the Agency's positive IEE determination that would form the nucleus of the Scoping Session agenda. In addition to these technical and content-related findings USAID recommendations highlighted the significance of the Scoping Session and its role in the environmental assessment process. USAID's process-related concerns emphasized the establishment of genuine consultation between the ARIDP Environmental Studies Team and interested, involved, or affected sectors, institutions and agencies; and included concerns addressing representation of relevant experts, collaborative interaction with NGOs, and participation of local communities.

Philippine EIS procedures also emphasize attention to public concerns and perspectives in affected communities, and it was determined that the DENR/EMB-required Perception Survey could provide a valuable complement to the Scoping process if employed in conjunction with Scoping Session discussions in the Project Area.

In response to these concerns the Consultant designed and implemented a Scoping process that provided access to pre-identified and potential local, national, and international representatives and encouraged their informed participation. Four Scoping Session/Consultations were organized; one in the Manila area and the remainder in the central communities of the Project Area's three subregions: Baler and Dingalan, Aurora and Gabaldon, Nueva Ecija.

The purpose of the Scoping Session/Consultations for the proposed ARIDP were to aid in the conduct of the environmental assessment by:

- ◆ starting the process of communication early in project planning,
- ◆ involving parties that might be potentially affected by the project,
- ◆ identifying local concerns,
- ◆ focusing on those issues that require in depth-study and
- ◆ identifying issues of a lesser significance

The Scoping Session/Consultation also were intended to initiate a process of dialogue and consultation with project area residents, the scientific community, and interested and involved Non-Governmental Organizations that would continue through subsequent phases of the project.

Representatives of Manila-based national and international NGOs were provided the opportunity to contribute to Scoping Session/Consultations preparations, invited to accompany the Consultant's Environmental Studies Team as observer/participants in the three local sessions, and offered assistance in coordinating transportation to and accommodations in the Project Area. DENR/EMB, USAID and CODA representatives were offered similar assistance.

In addition to detailed information provided with the Scoping Session invitation, extensive background materials including audio-visual aids, flipcharts, handouts, and exhibits were developed to support the Manila and local meetings. For the sessions in the Project Area many of the materials, the text of exhibits, and the DENR/EMB Perception Survey were prepared in both Pilipino and English versions. Two-way translation between Pilipino and English was also arranged for each of meetings.

All sessions were structured to provide a review of initially defined ARIDP potential environmental impacts, to identify additional potential impacts and environmental issues, and to elicit comment on and discussion of the relative significance of impacts identified. The planned

agenda of each session included the introduction of all participants, an explanation of the purposes and objectives of the Scoping Session/Consultations, a review of USAID and Philippine environmental regulations and procedures, an ARIDP project description provided by the Feasibility Study Team Leader, an overview of proposed ARIDP Environmental Studies, a summary of environmental impacts and issues identified to date, and open discussion and public comment. To accommodate the potentially large number of attendees in the local Scoping Session/Consultations it was planned to divide participants into small groups to complete the Perception Survey and encourage discussion. Environmental Study Team members were prepared to facilitate small group discussions and assist each group in selecting a spokesperson to report to the session as a whole when it reconvened for open discussion.

The Baler, Aurora Scoping Session/Consultation was held on June 27, 1991 at the Baler Municipal Hall with 81 participants including representatives of local and regional offices of government line agencies; provincial, municipal, and barangay officials; Project Area NGOs, citizens of affected communities, and the press. At the request of Project Area NGOs an additional meeting was held the following day, June 28, 1991, to discuss NGO concerns. To permit further NGO study and review of ARIDP impacts, consultations with membership, and the preparation of organization comments a follow-up session was scheduled and held on July 17, 1991 at Mt. Carmel College in Baler, Aurora. Representatives of the Haribon Foundation and Green Forum were invited to attend this session and were offered assistance in coordinating transportation and accommodations in the Project Area.

The Dingalan, Aurora Scoping Session/Consultation was held on June 29, 1991 at the lobby of the Dingalan Municipal building with 89 participants including municipal officials and employees, barangay leaders, local representatives of national government agencies, NGO, church, and civic representatives, representatives of the Dumagat community of Matawe, Dingalan, professionals, and citizens of affected communities.

The Gabaldon, Nueva Ecija Scoping Session/Consultation was held on July 1, 1991 at the Gabaldon Barangay Hall with 74 participants including representatives of local government, local offices of national line agencies, cooperatives, NGOs, church and other civic organizations, and citizens of affected communities. Discussion of each of these Sessions and their results is found in Sections 5.1 - 5.4.

The Environmental Studies Team returned to Manila on July 2, 1991 upon completion of the local Sessions and began tabulation of Perception Survey responses and processing and review of comments from the Scoping Session/Consultations. In addition to the verbal comments and presentations recorded at the Scoping Session/Consultations a large number of written submissions and other communications were also received during the Scoping period from provincial, national, and international conservation and social justice NGOs, People's Organizations in the Project Area, local officials, government agencies, research institutions and scientific organizations. These are provided in Appendix G and discussed in Section 5.6.

CHAPTER 4

CHAPTER 4

PRELIMINARY FINDINGS

4.1 USAID INITIAL ENVIRONMENTAL EXAMINATION

In the Initial Environmental Examination (IEE) by USAID the proposed ARIDP project package received a "positive finding" in the Threshold Decision. Penetration road building or road improvements, new lands development, and activities affecting endangered plant and animal species and their critical habitat (wetlands, tropical forests, protected areas, etc.) are classed as actions normally affecting the environment which require Environmental Assessments. The principal environmental concerns identified in the IEE by USAID and communicated to the Consultant were potential ARIDP impacts on tropical forest and Tribal Filipinos including land-tenure insecurity, the displacement of indigenous communities and project impacts on Ancestral Land claims. A vegetation map of the Project Area indicating forest types and cover is provided in Figure 4-1. A preliminary and approximate map of Tribal Filipino groups and indigenous peoples in the Project Area is provided in Figure 4-2.

4.2 EMB/DENR CRITICAL PROJECT/AREA DETERMINATION

Presidential Decree No. 1586 established the Philippine Environmental Impact Statement System. This system is founded and based on the environmental impact statement required, under Section 4 of Presidential Decree No. 1151, of all agencies and instrumentalities of the national government, including government-owned or controlled corporations, as well as private corporations, firms and entities, for every proposed project and undertaking which significantly affect the quality of the environment.

Section 4 of PD 1585 empowered the President of the Philippines to proclaim certain projects, undertakings, or areas of the country as environmentally critical and specified that no person, partnership or corporation shall undertake or operate any such declared environmentally critical project or area without first securing an Environmental Compliance Certificate issued by the President or his duly authorized representative.

Presidential Proclamation 2146 proclaimed the following as environmentally critical projects and within the scope of the Environmental Impact Statement System:

LEGEND:

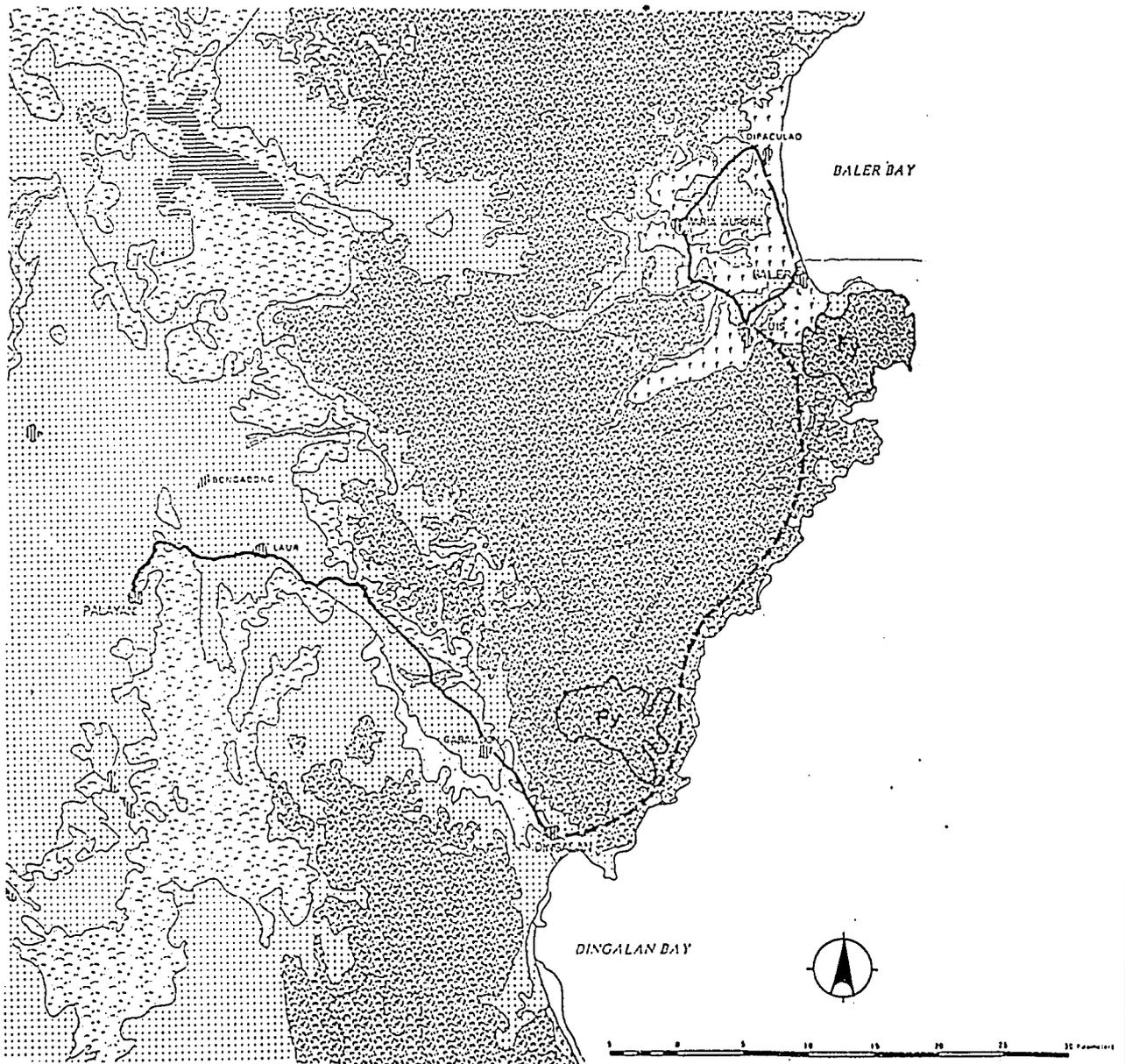
- | | | |
|---|---|--|
| <p>F FOREST
Forest trees and reproduction brush
< 10% cultivated and other open areas</p> <p>Fp pine forest
Fm mossy forest
Fdc dipterocarp and/or other broad leaved forest
Fdc closed canopy, mature trees covering > 50%
Fdc open canopy, mature trees covering < 50%
Fm mangrove vegetation</p> <p>I INTENSIVE LAND USE
cultivated areas in uplands and grasslands
> 70% cultivated and other open areas
< 70% cultivated area</p> <p>A cultivated and other open areas in forest, each symbol representing 50 hectares
Ec cultivated area mixed with grassland and grassland
Eg grassland, grass covering > 70%</p> | <p>I INTENSIVE LAND USE
crop lands, plantations and fisheries
> 70% cultivated area
plantations larger than 100 hectares
crop land plantations
other plantations
arable land, crops mainly rice and corn
mixed intensive cultivated forest and other plantations less than 100 hectares
crop land mixed with customary plantations
crop land mixed with other primary forest
fishponds
fishponds closed from mangrove
other fishponds</p> | <p>N NON-VEGETATED LAND
Hn wooded area
Hs symbol for non-eroded soil
Hq quarry
Hr symbol for mineral quarry
Ho other barren land
Hs interbeds</p> <p>B BUILT UP AREA</p> <p>M MARSHY AREA AND SWAMP</p> <p>L LAKE</p> <p>S SILTATION PATTERNS IN LAKE OR ALONG THE COAST</p> <p>C CORAL REEF</p> |
|---|---|--|

SOURCE:

NATIONAL MAPPING AND RESOURCE INFORMATION AUTHORITY, August 1984. Interpreted from 1987 SPOT Satellite images by the Swedish Space Corporation in cooperation with the Natural Resources Management Center. Ground truth from May to June 1987.

ARIDP PROPOSED PROJECTS

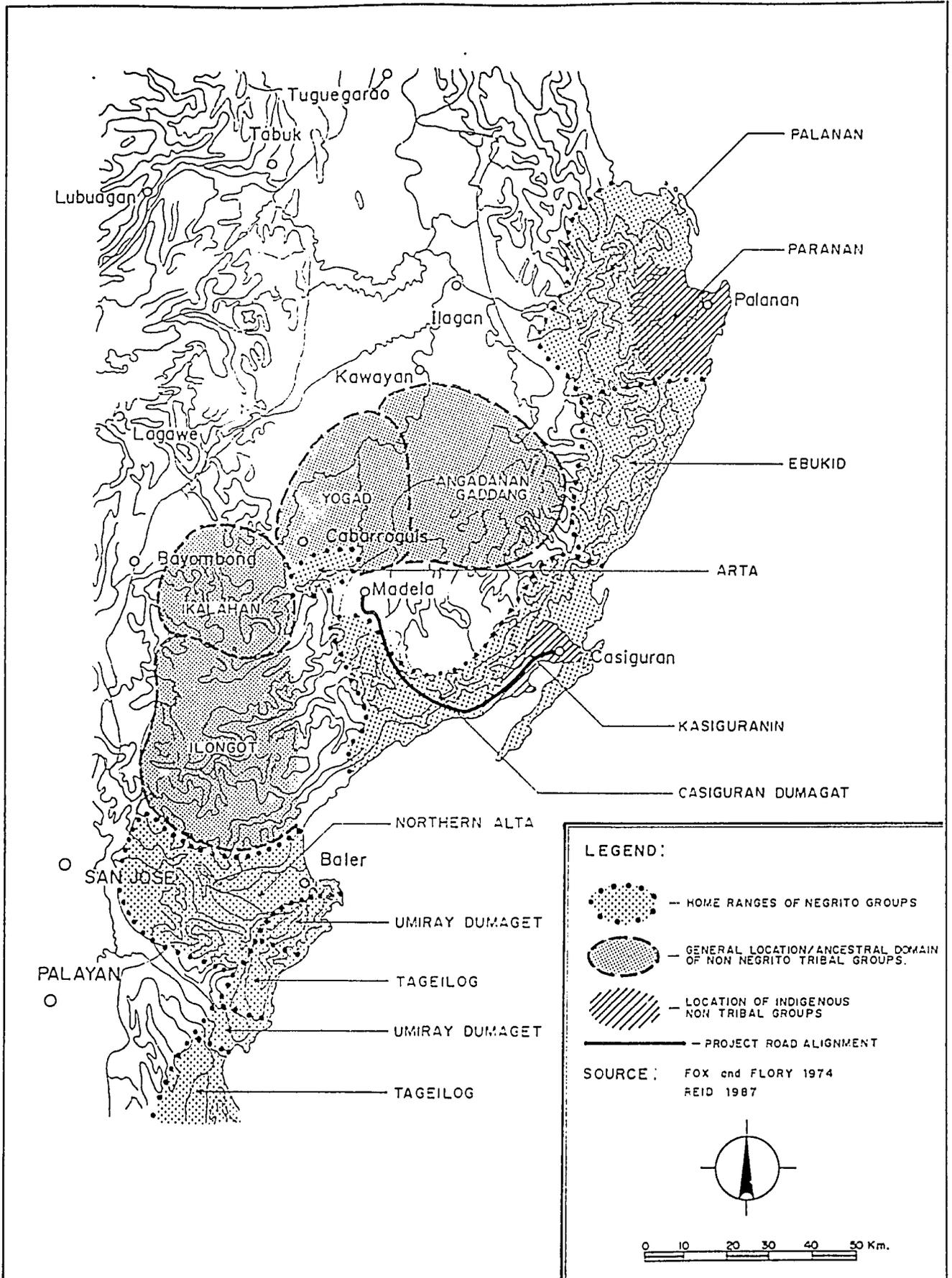
- EXISTING ROAD
- - - - NEW ROAD



**AURORA ROADS INFRASTRUCTURE
DEVELOPMENT PROJECT
FEASIBILITY STUDY**

VEGETATION MAP

**Figure
4-1**



AURORA ROADS INFRASTRUCTURE
DEVELOPMENT PROJECT
FEASIBILITY STUDY

APPROXIMATE LOCATIONS AND
HOME RANGES OF TRIBAL FILIPINO
GROUPS AND INDIGENOUS PEOPLES
OF THE PROJECT AREA

FIGURE 4-2

13

1. Major dams
2. Major power plants, whether fossil-fueled, nuclear-fueled, hydroelectric, or geothermal
3. Major reclamation projects
4. Major roads and bridges

Major roads and bridges have been defined as new constructions, roads and bridges which will traverse highly developed urban area, and those which will significantly affect traffic flow.

Presidential Proclamation 2146 also proclaimed the following as environmentally critical areas; projects partly or wholly located in said areas are within the scope of the Environmental Impact Statement System:

- ◆ All areas declared by law as national parks, watershed reserves, wildlife preserves and sanctuaries;
- ◆ Areas set aside as aesthetic potential tourist spots;
- ◆ Areas which constitute the habitat for any endangered or threatened species of indigenous Philippine wildlife (flora and fauna);
- ◆ Areas of unique historic, archaeological or scientific interests;
- ◆ Areas which are traditionally occupied by cultural communities or tribes;
- ◆ Areas frequently visited and/or hard-hit by natural calamities (geological hazards, floods, typhoon, volcanic activity, etc.);
- ◆ Areas with critical slopes.
- ◆ Areas classified as prime agricultural lands.
- ◆ Recharge areas of aquifers.
- ◆ Water bodies characterized by one or any combination of the following conditions:

- a. tapped for domestic purposes;
 - b. within the controlled and/or protected areas declared by appropriate authorities;
 - c. which support wildlife and fishery activities.
- ◆ Mangrove areas characterized by one or any combination of the following conditions:
 - a. with primary pristine and dense young growth;
 - b. adjoining mouths of river systems;
 - c. near or adjacent to traditional productive fry or fishing ground;
 - d. which act as natural buffers against shore erosion, strong winds and storm floods;
 - e. on which people are dependent for their livelihood.
 - ◆ Coral reefs characterized by one or any combination of the following conditions:
 - a. with 50% and above live coralline cover;
 - b. spawning and nursery grounds for fish;
 - c. which act as natural breakwater of coastlines.

The Environmental Management Bureau of the Department of Environmental and Natural Resources (EMB/DENR) is designated as the agency administering the Philippine Environmental Impact Statement System. EMB/DENR is charged with project environmental review and issuance of an Environmental Compliance Certificate (ECC) for those projects determined to be "major" or which occur in an environmentally critical area. EMB/DENR guidelines require preparation of an Environmental Impact Statement (EIS) for critical projects or, for projects which are not major but which are located in or affect environmentally critical areas, a Project Description (PD).

In discussions with EMB/DENR officials it was agreed that the proposed ARIDP was likely to meet criteria of a major project. It was further agreed that the proposed ARIDP occurred in areas likely to be considered environmentally critical potentially including at least areas 1 through 10 listed above and possibly area number 12.

For these reasons and in response to high levels of public concern it was determined that the proposed ARIDP was subject to the Philippine Environmental Impact Statement System. Based on these discussions the Consultant elected to prepare an EIS under the Philippine System rather than the less-detailed PD. This decision was made in order to ensure adequate data collection during field studies and impact assessment and to avoid the need for additional work should it be subsequently determined that an EIS was required.

4.3 PRELIMINARY IDENTIFICATION OF ENVIRONMENTAL IMPACTS

The environmental concerns identified by USAID in the IEE, the ARIDP TOR specification of "special emphasis on adverse environmental effects on the forest reserves that may be traversed", and the EMB/DENR Critical Project/Area Determination provided the initial set of potential environment impacts to be considered in ARIDP Environmental Studies.

Review of literature and standard environmental checklists for impacts assessment established typical "generic" impacts of rural road construction and improvement which were also consulted. Recent experience of the Consultant in the Environmental Studies of 37 Philippine road projects in the USAID - supported Rural Infrastructure Fund Project and the General Santos City/South Cotabato Development Project, including assessment of the proposed Madela - Casiguran road project in Aurora were also reviewed for guidance and provided valuable assistance.

Consultation with ARIDP Feasibility Study engineering and technical staff identified the scope of the proposed project and project design, construction, and operation activities with potential impacts on the environment. On the basis of this evaluation and the above information, the Consultant prepared an initial matrix of potential ARIDP environmental impacts (See Figure 4-3) which assessed potential effects of 22 project activities and components in ARIDP design, construction, and operation phases on 47 environmental components representing key features or concerns of the physical and biological environment, natural resources, and the socio-economic and cultural/aesthetic environment. Analysis of interactions in this initial matrix and simple ranking of impacting project activities and potentially impacted environmental components was performed.

ARIDP activities and components expected to exert major impacts included planning and design phase decisions on project routing and the location of new alignments; design standards for erosion control, slope stability, type of construction, and labor methods. Right-of-way clearing, borrow pits, siting and operation of construction camps, and potential relocation/displacements were identified as major impacting activities of the construction phase. Aspects of ARIDP project operation phase expected to have major impacts included increases in traffic and overall access and egress, maintenance, and erosion control. Secondary impacts associated with increased access/egress, routing and alignment of new roads, increased traffic, construction camps, and right-of-way clearing ranked highest in significance.

Project Area physical, biological and natural resource environmental components expected to receive major impacts from ARIDP project activities included soils, slope stability, surface water, hydrology/drainage, forests/vegetation, wildlife, coastal ecosystems, river and stream ecosystems, and natural hazards. Environmental health and aesthetic resources were the principal components of socio-economic and cultural/aesthetic environment expected to receive significant impacts closely followed by impacts on transportation, tourism, agriculture, ethnic and tribal conditions, solid and hazardous wastes, cultural communities and Ancestral Land claims. Potential impacts on surface water; aesthetic resources; soils; and river, stream and coastal ecosystems ranked highest in significance.

Where cells in the initial matrix contained question marks insufficient information existed to determine potential impacts. Additional study of these components was considered an immediate priority and was the focus of subsequent data collection, consultation, and field survey.

This matrix was provided to Scoping Session invitees in background materials which accompanied the Scoping Session invitation. It was also provided to participants in materials supplied at the Scoping Session/Consultations themselves.

CHAPTER 5

CHAPTER 5

RESULTS OF SCOPING SESSIONS

5.1 SUMMARY OF SCOPING SESSION/CONSULTATIONS ACTIVITIES

The National Scoping Session was held on June 25, 1991 at the Philippine Social Science Center in Quezon City. Twenty-five participants representing national and international scientific and conservation NGOs; government agencies including DPWH, OSCC, AIADP, and CODA; local governments, and the press attended.

The Baler, Aurora Scoping Session/Consultation was held on June 27, 1991 at the Baler Municipal Hall with 81 participants including representatives of local and regional offices of government line agencies; provincial, municipal, and barangay officials; Project Areas NGOs, citizens of affected communities, and the press. At the request of Project Area NGOs an additional meeting was held the following day, June 28, 1991, to discuss NGO concerns. To permit further NGO study and review of ARIDP impacts, consultations with membership, and the preparation of organization comments a follow-up session was scheduled and held on July 17, 1991 at Mt. Carmel College in Baler, Aurora. Representatives of the Haribon Foundation and Green Forum were invited to attend this session and were offered assistance in coordinating transportation and accommodations in the Project Area.

The Dingalan, Aurora Scoping Session/Consultation was held on June 29, 1991 in the lobby of the Dingalan Municipal building with 89 participants including municipal officials and employees; barangay leaders; local representatives of national government agencies; NGO, church, and civic representatives; representatives of the Dumagat community of Matawe, Dingalan; professionals; and citizens of affected communities.

The Gabaldon, Nueva Ecija Scoping Session/Consultation was held on July 1, 1991 in the Gabaldon Barangay Hall with 74 participants including representatives of local government, local offices of national line agencies, cooperatives, NGO's, church and other civic organizations, and citizens of affected communities. Discussion of each of these Sessions and their results follows in Sections 5.2 - 5.5.

The Environmental Studies Team returned to Manila on July 2, 1991 upon completion of the local Sessions and began tabulation of Perception Survey responses and processing and review of comments from the Scoping Session/Consultations. In addition to the verbal comments and presentations recorded at the Scoping Session/Consultations a large number of written submissions and other communications were also received during the Scoping period from provincial, national, and international conservation and social justice NGOs, People's

Organizations in the Project Area, local officials, government agencies, research institutions and scientific organizations. These are provided in Appendix G and discussed in Section 5.6.

Environmental considerations identified in the initial matrix of potential ARIDP environmental impacts were re-evaluated, refined, and revised to incorporate the additional impacts, insights, approaches and other recommendations provided by the Scoping Session/Consultations and the DENR/EMB Perception Survey. Potential impacts were ranked by frequency of identification, severity, magnitude, and sensitivity. A preliminary comparative environmental review of ARIDP alternatives was also performed. Results of these analyses helped to focus and prioritize field work objectives and guided the final design of field studies and selection of methodologies to assess ARIDP environmental impacts. They are discussed in Section 5.7 and Chapters 6, 7 and 8.

As required by USAID regulations, results of the Scoping Session/Consultations and supporting documentation, including video and audio recordings have been compiled. Associated analyses, minutes of the sessions and transcripts of discussions, invitation and attendance lists, submissions, and other exhibits are provided in the Appendices of this Report.

5.2 NATIONAL SCOPING SESSION; QUEZON CITY

A welcome and opening remarks were given by Mr. William Cummings, Coordinator of ARIDP Environmental Studies. Mr. Cummings also presented the purposes and objectives of the Scoping Session and reviewed USAID environmental regulations and procedures. Mr. Mabini E. Arevalo, ARIDP Environmental Team environmental planning specialist presented Philippine regulations and procedures and discussed the Environmental Impact Statement System of the Philippines.

Mr. Kent O. Lande, Team Leader of the ARIDP Feasibility Study described proposed ARIDP road improvements and new construction, detailing ARIDP objectives and design, engineering and cost considerations.

Mr. Cummings narrated a slide presentation depicting generic environmental impacts of road-building and construction and illustrating potential environmental impacts, issues, and concerns in the Project Area. With this introduction to the initial matrix of potential ARIDP environmental impacts Mr. M.R. Caleda, biodiversity specialist of the ARIDP Environmental Studies Team, reviewed potential ARIDP impacts on the physical and biological environment and natural resources. Ms. Ma. Sirikit Posadas, ARIDP socio-cultural specialist, reviewed potential ARIDP impacts on the socio-economic and cultural environments and discussed issues associated with project impacts on the cultural communities in the Project Area.

Mr. Cummings introduced into the record written submissions and other communications received from interested parties who could not attend the Session.

In the general discussion which followed a number of the potential ARIDP impacts introduced by the ARIDP Environmental Studies Team and the initial matrix were addressed. Potential alternative routes to those presented in the project description were also discussed.

Mr. N. Calderon of the Office of Southern Cultural Communities (OSCC) applauded the inclusion of Tribal Filipino concerns in proposed ARIDP Environmental Studies, expressed hopes that settlements or other protection of cultural communities Ancestral Land claims could be affected in the Dibut, Dibayabay, and Dicapinisan areas, and emphasized potential impacts of an influx of migrants into these areas which could accompany construction of the proposed new Dingalan-San Luis road.

Mr. F. Castañeda and Ms. L. Cabebe representing the Aurora Integrated Area Development Project (AIADP) expressed concerns on potential watershed impacts of the proposed Dingalan-San Luis road, drew attention to impending Presidential declaration of critical watersheds in the area, and provided additional comments on ARIDP proposals.

Mr. Arne Jensen of the International Council for Bird Preservation (ICBP) reviewed recent research on Philippine and Sierra Madre biological diversity and emphasized the critical significance of the Project Area. Jensen raised wildlife concerns, noting that the Sierra Madre, including the roadless Baler-Dingalan coast contains the highest levels of endemic species diversity in the Philippines and Southeast Asia. Twenty-six (26) endemic and eight (8) non-endemic avian species, including the Philippine Eagle are threatened by destruction of habitat and rapid deforestation. Jensen reminded the group that bird species provide an excellent indication of the status of other plant and animal species many of which have not been studied or even identified. He also drew attention of the critical status of lowland virgin/primary forest which is now the rarest habitat type in the Philippines and is confined to the eastern slopes of Sierra Madre. Considering the importance of this habitat type, the proposed ARIDP new construction may jeopardize the survival of threatened species in the area.

Mr. Chip Fay representing Friends of the Earth commented on the evident lack of sustainable natural resource management in the Project Area and the implications of the proposed ARIDP for illegal and legal logging and accelerated forest destruction. He strongly urged that the proposed road ARIDP improvements and new construction be undertaken only in conjunction with, and as elements of, a more comprehensive and locally responsive program addressing the overall development needs and desires of the Project Area. Fay also expressed that Friends of the Earth and other international conservation NGOs would oppose the ARIDP Project as presently conceived and urged reevaluation of its objectives to contribute to sustainable development and community-based forest management.

Representatives of the Haribon Foundation and Green Forum seconded concerns of Mr. Fay. Haribon Foundation provided a written statement which is reproduced in Appendix G. Green Forum also expressed concerns with the adequacy of NGO participation and the involvement of other sectors in the Scoping process.

Mayor Pacifico Fajardo of Palayan City commented on the importance of the Palayan City-Dingalan road proposed for improvement and Palayan City and Regional Development Council plans to establish an industrial estate in the area. Road improvements would hasten proposed developments, increase incomes in the area, and complement proposed major port development in Dingalan.

Alternative routes to central Aurora and Baler were discussed. Mayor Fajardo proposed that the existing National Highway between Bongabon and Baler be included as an ARIDP Project Alternative. Dr. J. Gotangco, planning consultant to Palayan City supported this recommendation and proposed that the site of the ambush where Ma. Aurora Quezon was killed be declared a national historical shrine. Mr. F. Castañeda recommended consideration of the Maria Aurora-Canili-Pantabangan-Rizal route as a more appropriate ARIDP Project Alternative.

Dr. Gotangco disagreed with Castañeda's comments, arguing that the ARIDP Program would include environmental and natural resource protection which would bring positive benefits, provide protection against illegal logging, and permit implementation of reforestation programs.

Mr. Corman Davila of CODA/CCSC explained the origins of the ARIDP project package. He and other CODA/CCSC representatives shared their environmental concerns and expressed the intent of ensuring that ARIDP Environmental Studies would be thorough, comprehensive, and responsive to issues and impacts identified in the Scoping Session.

An agenda, partial transcript of these discussions and a complete list of attendees are provided in Appendices D and E.

5.3 BALER SCOPING SESSION/CONSULTATION; BALER, AURORA

The ARIDP Environmental Scoping Session/Consultation in Baler started at 2:00 pm and ended at 6:00 pm on June 27, 1991. The format of the Session was as follows:

- ◆ Welcome and Opening Remarks (William Cummings)
- ◆ Introduction of LBII Team and Participants
- ◆ Project Description of the Proposed ARIDP (Kent O. Lande with Tagalog translation by M. Aguilera)

- ◆ USAID Environmental Requirements and Procedures
(W. Cummings with Tagalog translation by M. Aguilera)
- ◆ GOP Environmental Requirements and Procedures
(Mabini Arevalo, Jr.)
- ◆ Distribution of EMB/DENR Perception Survey Forms and Small Group Discussions
- ◆ Reports from the Small Group Discussions
- ◆ General Discussion

For small group discussion and the Perception Survey, a total of 5 groups were formed, namely; citizens and municipal officials of Baler, San Luis, and Maria Aurora; representatives of NGOs and Provincial Officials. Perception Survey results indicated numerous major environmental changes over the past five years were observed by respondents. These environmental changes were included:

- ◆ Flooding of the lowland areas.
- ◆ Deforestation.
- ◆ State of fishing ground (sea/river).
- ◆ Quantity of fish and shellfish harvest.
- ◆ Number of factories/sawmills.
- ◆ Pollution.

Flooding of lowland areas and deforestation of the mountain range were the main issues and concerns raised by respondents. Some mentioned other major changes that occurred in addition to those identified. These were increased erosion, landslides, and other destructive natural hazards. During the past 10 years, respondents from areas within the proposed Circumferential road noted increases in sawmills and iceplant construction.

Each group presented a variety of views and opinions when asked about the perceived effects (positive and negative) of the proposed ARIDP road projects. For example, the Baler group and the NGOs identified more potential negative effects of the San Luis-Dingalan Road than positive, while the San Luis group reported the opposite. Additional income and job opportunities leading to economic growth were the two main reasons the majority of the respondents favored the proposed road projects.

Several respondents from the Municipalities that will be affected by the proposed ARIDP projects responded to the last question (number 10) of the Perception Survey. Below are representative comments/suggestions:

- ◆ *"Ang Pagkakaroon ng mga kalsada ay tanda ng kaunlaran ng isang bayan o' lugar, kaya nga lang ito ay may epekto sa kapaligiran lalo't higit kung ito ay dadaan sa kabundukan. Subalit sa masusing pag-aaral at pagmimintina nito ang lahat ng mga makakasama sa kapaligiran ay maiiwasan."*
(The roads are signs of progress of a Municipality or a place, however, it has effects on the environment especially if it passes through the forest. But for a more detailed study and proper maintenance, all the bad effects to the environment can be avoided.)
- ◆ *"Sana ito ay maisakatuparan sa lalong madaling panahon upang maging kapaki-pakinabang sa mamamayan at ganap na umunlad and lalawigan ng Aurora."*
(I hope that this will be implemented at the earliest possible time so that it will be beneficial to the people and the Province of Aurora will be progressive.)
- ◆ *"Dapat isama and Baler-Casiguran Road."*
(The Baler-Casiguran Road should be included in the feasibility study.)
- ◆ *"Ang proyektong ito ay makakatulong sa kapwa."*
(This project will be beneficial to our fellowmen.)
- ◆ *"Ipagpatuloy and kaunlaran ng proyekto."*
(Continue the progress of the project)
- ◆ *"Ikauunlad ng barangay."*
(Progress for the barangay.)
- ◆ *"Pangalagaan ang ilog, kabundukan at dagat."*
(Protect the rivers, mountains and the sea.)
- ◆ *"Dadali and paglalakbay ukol sa negosyo."*
(Speed-up transport of business.)
- ◆ *"Paglilinaw sa sambayanan ukol sa pagsusuri."*
(Improve Information dissemination about the study.)

NGO respondents as a group believed that more explanation and consultation is needed about ARIDP. However, 22% stated the road project will bring progress to their barangays and many said the project will help the people. Others commented that the Baler-Casiguran Road should be included in ARIDP Feasibility Studies.

During the small group discussions, several issues and concerns on proposed ARIDP projects (Baler-Dipaculao-Ma. Aurora-San Luis Circumferential Road and San Luis-Dingalan) were presented. The NGOs asserted that further environmental study is required to identify and address the real issues and pertinent concerns associated with the projects.

The Baler group presented both negative and positive effects of the proposed ARIDP. The proposed circumferential road will be less impacting since this road is already existing; however, the proposed San Luis-Dingalan Road is perceived to have great impact (both positive and negative) on the physical, biological and cultural environment.

AIADP presented several issues/problems concerning the San Luis-Dingalan Road. According to AIADP the proposed San Luis-Dingalan Road will pass through 14 watersheds making the area vulnerable to illegal logging and other degradation. The proposed road will also invite the influx of forest squatters. The positive effects, as discussed by the Baler group, included greater ease of transport and hastened economic growth of the Municipalities concerned and the Province of Aurora as a whole.

The group of Provincial officials reported that the proposed Circumferential road will have no negative effects since the road is already existing. Likewise, the proposed San Luis-Dingalan Road will have no negative effects on the forest since the road will pass through logged-over areas. Provincial Board Member R. Rubio, explained that the reason why there was a lobby for the San Luis-Dingalan Road was because Dingalan was trying to "break-away" from the province of Aurora to join Nueva Ecija.

The San Luis group headed by Mayor Annabelle Tangson strongly emphasized the need for the San Luis-Dingalan Road. The group was fully aware of the effects of the proposed road on the environment, however, the economic welfare of the people on the coastal barangays comprising of 25 % of the total population of San Luis was considered of great urgency. According to Mayor Tangson, without the San Luis-Dingalan Road, the coastal Barangays of San Luis will remain depressed and isolated, insurgency will remain a problem and economic growth will be hampered. The San Luis group also discussed commitments to preserve the environment, proposing a joint Resolution with the Provincial and National Government protecting the forest from illegal logging.

The Ma. Aurora group headed by Mr. Napoleon Calderon commented on the significance of the proposed Circumferential Road and suggested that the road be complemented with bridges. The Ma. Aurora group also commented on possible displacement of cultural minorities and the loss of Ancestral Land once the proposed circumferential road is built.

The general consensus of the groups belonging to the Municipalities of Baler, San Luis, Ma. Aurora and the Provincial Office on the proposed Baler-Dipaculao-Ma. Aurora-San Luis Circumferential Road and the San Luis-Dingalan Road was positive for reasons of economic growth and stability. However, these groups were also apprehensive of the negative effects of the proposed road projects such as deforestation and degradation of the mountain range, and other potential negative socio-economic and socio-cultural impacts. The ARIDP Environmental Studies Team was requested to make a fast but careful study so that all aspects are looked into. The NGOs represented deferred formal comment on ARIDP pending further study of project materials and consultation with their respective memberships.

5.4 DINGALAN SCOPING SESSION/CONSULTATION; DINGALAN, AURORA

The Scoping Session/Consultation in Dingalan, Aurora was held on June 29, 1991 in the lobby of the municipal building. Registration began at 1:30 p.m. and a total of 89 participants signed in. Government officials and employees accounted for 75% of the total participants, broken down as follows:

Municipal officials (mayor, vice-mayor, councilors, etc.)	9
Municipal employees	12
Barangay captains	8
Barangay councilmen	32
Local representatives of national agencies (DSWD, DILG, DAR, DECS, PNP)	6 ---
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NGOs, professionals and private citizen were represented by 14 people.

Representatives of church groups including Roman Catholic, Methodist, Pentecostal, Iglesia ni Cristo and the Masonic Lodge accounted for 6 people. A special delegation from the Dumagat community in Barangay Matawe was represented by the Dumagat captain and one of his councilmen.

The meeting began at 2 p.m. with a welcome by Mayor Galvez who thanked the ARIDP Team for introducing the project to the remote municipality of Dingalan.

Ms. Ningning dela Cruz, the Municipal Secretary presided over the introduction of participants.

Mr. William Cummings, ARIDP Environmental Studies Coordinator presented the objectives of the Scoping Session/Consultation and reviewed USAID environmental regulations and procedures. He also described the scope and workplan of proposed ARIDP Environmental Studies. Mr. Mabini Arevalo, Jr., Environmental Planning Specialist, provided an overview of Philippines environmental regulations and procedures. This was followed by a description and explanation of the ARIDP project by the Feasibility Study Team Leader, Mr. Kent Lande. Mr. Cummings outlined the environmental impacts and issues that had been initially identified. Finally, Mr. Melchor Aguilera presided over the division into small groups and the designation of small group leaders.

Participants divided themselves into 4 groups. Each group was facilitated by one of the Environmental Studies Team Filipino specialists. Group members appointed a spokesperson responsible for presenting the results of their discussion. The beginning of each small group session was devoted to answering the EMB/DENR Perception Survey.

Questioned on perceived changes in their environment at the barangay, municipal and provincial level over the past 5 years, all respondents except one noted the occurrence of environmental changes. They observed greatest change in the following areas:

- ◆ the number of factories/industries or sawmills
- ◆ the quantity and quality of fishing/shellfish harvest
- ◆ the state of fishing grounds
- ◆ forest cover
- ◆ flooding in the lowlands

Water pollution was perceived to occur least among environmental changes.

When asked to rank the three (3) most important changes they observed, respondents reported change in forest cover as most important, followed by flooding and changes in fishing/shellfish harvest.

In addition to the pre-listed environmental changes, some respondents added other environmentally-related concerns such as reduction of streamflow, erosion of mountain slopes and riverbanks, natural resource degradation, burning of forests, and increased transport of illegal logs.

Some respondents also reported changes in the area's physical/economic and social conditions. These included power supply introduction, construction of segments of concrete roads and bridges, new infrastructure such as public markets, municipal buildings, health centers, and a more beautiful and peaceful town.

A majority of respondents also observed an increase in sawmills in the area over the last 10 years.

Regarding respondent awareness of the ARIDP project, an overwhelming majority reported they were aware of the proposed roads. Information sources reported included general knowledge in the town and provinces, barangay officials, the radio, the church, and family members.

Another set of questions dealt with perceived potential positive and negative effects of the ARIDP project. Cited as positive effects in order of importance were:

- ◆ employment
- ◆ income
- ◆ power supply
- ◆ community solidarity
- ◆ housing

Some Dingalan residents added that the proposed roads will result in improved marketing of the town's produce and new commercial establishments.

Perceived negative effects and potential impacts of ARIDP road improvements and new construction reported included:

- ❖ depletion of forest cover
- ❖ flooding
- ❖ decrease in crop harvest
- ❖ decrease in fish/shellfish harvest
- ❖ water pollution

The last set of questions pertained to aspirations. When asked whether or not they would work for the project if given the chance, the majority answered yes. Cited as main reasons were additional income and jobs for the unemployed.

A final question invited the respondent opinions and comments on the ARIDP project. Representative responses included:

- ❖ *"Makakabuti sa bayan o mamamayan"*
(The roads will be beneficial to the town and people).
- ❖ *"Gawin sa lalong madaling panahon"*
(Let the project start as soon as possible)
- ❖ *"Isa lamang drama dahil ma'apit nang mawala and US bases"*
(It is only a drama in the wake of the eventual phase-out of the US bases)
- ❖ *"Mapapabilis ang pagkapanat ng kagubatan dahil sa madaling pag-tatransport ng illegal logs"*
(Forest denudation will accelerate due to improved transport of illegal logs)
- ❖ *"Hindi kaya ito isang paraan ng treasure-hunting?"*
(Isn't it just a form of treasure-hunting?)

During the small group discussions, many issues were raised and elaborated on, and most groups deliberated on both the positive and negative effects/implications of the project. One group also presented solutions and remedial measures recommended as mitigative of the negative impacts.

Presentation of group reports followed. Ms. Ningning de la Cruz summarized her group's findings and recommendations. The second group was represented by Mr. Ildefonso Evangelista, DILG representative who reminded the audience that the project is still in its feasibility study stage and that, once a careful study had been done, problems like soil erosion and improper road construction could be avoided. Group III was represented by Mr. Rodrigo de la Cruz, a teacher;

and Group IV by Mr. Elmer Palmares.

There was a consensus in each of the discussions that the ARIDP would positively contribute to the economic development of the town and the region traversed by proposed road improvement and new construction. On the other hand, the projects were recognized to have potentially adverse impacts on the environment such as further deforestation, soil erosion, flooding, and increased in-migration with its attendant problems of decreased sanitation and inadequate government services.

The small group containing the Mayor and other local officials suggested ways of dealing with the negative impacts, such as strict monitoring of compliance to engineering design and specifications by road contractors, "people power" and citizen vigilance in ensuring implementation of forest protection laws, generation of alternative sources of income for kaingeros and improved government services in anticipation of increased population increase.

Following the presentation of group reports, Mr. Eli Arcega, a member of the local Masonic Lodge and Mr. Emerito San Juan, a Sangguniang Bayan member urged the team to quickly finish the study so that the project could be implemented soon. They cited the benefits the roads will bring to the people of the area. Mr. Kent Lande mentioned the likely need for more local contractors and competent laborers during the construction phase to speed the completion of the project.

Mr. Evangelista asked how the project will be financed. Mr. Lande explained that inquiries of this nature should be directed to Undersecretary Rogelio Singson of the Committee on Official Development Assistance (CODA). Mr. Lande also observed that local governments could adopt resolutions expressing both the peoples' desire to have the roads constructed and their concerns as a way of communicating with decision-makers.

5.5 GABALDON SCOPING SESSION/CONSULTATION; GABALDON, NUEVA ECIJA

The Scoping Session was held on July 1, 1991 in the Session Room, Barangay Hall in Gabaldon. 74 participated in the session with the largest participation coming from area cooperatives and associations. Other participants included municipal employees, Barangay Captains, teachers, representatives of government agencies, NGOs, and the religious sector, SB members, Barangay secretaries and interested individuals.

The meeting began with introductions of the Team Leader and the ARIDP Environmental Studies Team. Participants were requested to introduce themselves and identify the organizations they represented. Mr. Cummings, ARIDP Environmental Studies Coordinator, reviewed the agenda, explained the purpose and objectives of the Scoping Session/Consultation, and outlined USAID

environmental regulations and procedures. Philippine Environmental Regulations were reviewed by Mr. Arevalo of the ARIDP Environmental Studies Team. Mr. Lande described the proposed ARIDP. Translation was provided for Messrs. Lande and Cummings. The 3 mayors present (Palayan City, Laur and Gabaldon) also addressed the Session. Participants were then divided into 4 groups: NGOs and Associations; cooperatives; mayors and provincial officials; and barangay captains and municipal employees. Agency/representatives and interested individuals joined each of the groups. The groups were facilitated by the Environmental Studies Team Filipino Specialists.

Small group activity was divided into two parts. First was the EMB/DENR Perception Survey followed by discussion of impacts and effects of ARIDP Projects. Group leaders were assigned to report and present the discussions. Following small group reports the reconvened assembly was opened for general discussion.

The majority of Perception Survey respondents reported their environment had undergone significant changes, especially in forest cover, flooding of lowlands, the state and harvest of their sea/marine resources and water pollution. Many mentioned landslides along the mountain roads during the rainy season since the 1990 earthquake. Concern with the drying-up of riverbeds and springs which supply drinking water was frequently expressed. Respondents also reported an increase in mini-sawmills within the last ten years.

A majority welcomed the upgrading of the Palayan City-Dingalan road. They felt ARIDP would provide a much needed boost from current economic hardship. One respondent felt that the project was timely since it would support proposed development of a commercial port in Dingalan. NGO and some other respondents, however, identified potential negative impacts of the environment particularly on remaining forest cover. One person said that he would not want to participate in a program which would only destroy the forest. Another pointed out her fears that if the road was designed for the heavy traffic it currently bears from logging trucks, this would only support the logging concessionaires and facilitate the easy transport of their products. She added that citizens could no longer call for a truck ban since the improved road would be suited for heavy trucks. This would eliminate a current control on log and lumber transport. Still another concern reported was industrialization accompanied by pollution and the decline of moral values.

Typical comments and opinions expressed in the surveys open-ended section included:

- ◆ *"Nagpapasalamat po ako ng marami sa lahat ng mga tutulong upang ang proyektong ito ay maisasakatuparan sa lalong madaling panahon."*
(Thank you very much to all those who would help to see this project implemented as soon as possible)
- ◆ *"Sana ay maging katuparan sa lalong madaling panahon upang magkaroon din kaagad ng pag-unlad ang pamayanan in terms of socio-economic, better means of transportation. Sa pagtagal ng magandang kalsada magkakaroon ng pag-*

aalaga sa mga hillsides upang maiwasan ang soil erosion na maaaring tumabon sa kalsada. Reforestation is necessary. "

(It is hoped that soon this will be realized immediately to bring programs to the community in terms of socio-economics, and better means of transportation. With good roads there will be management of hillsides to prevent soil erosion that will cover the roads. Reforestation is necessary.)

- ◆ *"Ang lugar na may konkretong lansangan o daan ay malaki ang pag-unlad kung kaya ay iminungkahi po namin na gawing totoo ito upang ang matagal ng pangarap ng mga mamamayan na umunlad pa ang bayang ito ay matupad."*
(A place with concrete roads has big potential to progress, that is why we are appealing to make this true to realize an old dream of the people of this town that progress can still be achieved.)
- ◆ *"Kung magkakaroon po tayo ng konkretong daan ay makakabuti sa nasasakupan ng proyektong ito. Dahil magiging maganda ang transportasyon, komunikasyon at hanapbuhay. Dahil po dito ako ay lubos na sumusuporta."*
(Having concrete roads will be beneficial to the area. There will be improved transportation, communication and livelihood sources. Because of these I fully support the project.)
- ◆ *"Maaari bang magkaroon ng konsultasyon na hindi politiko ang front?"*
(Can we have a consultation without politics as a front?)
- ◆ *"Mabuti ang proyektong ito upang umunlad ang negosyo at pag-umunlad ang negosyo tiyak na maaangat ang kabuhayan ng bawat mamamayan."*
(This project is good to uplift business and if this progress happens the livelihood of every citizen will be upgraded.)
- ◆ *"Ito ay makakapagbigay ng maaaring tulong at mapapadali ang aming vegetable business."*
(This project will provide a big help and will facilitate a vegetable business.)
- ◆ *"Kung maaari po idamay pati mga barangay sa pagpapagawa ng kalsada."*
(If possible please include the barangays in the construction of the road.)
- ◆ *"Pagkayari ng kalsada ng aming kagubatan, dahil sa walang mahigpit na pagpapatupad ng batas sa pagkakahuyan at kabundukan."*
(If the road has been built, will this not bring about the lack of strict implementation of law regarding logging in the mountains?)

Group leaders presented the group's discussion and solicited reactions on each group findings.

Group I, the NGOs and Associations, felt that upgrading of the Palayan City-Dingalan road would encourage and hasten logging activities in the Project Area. While the mountains of Nueva Ecija would no longer be affected since they are logged-over and largely denuded, the road could serve as the gateway to Aurora which still has primary forest. Another concern frequently raised was the flooding of flatlands which renders the road impassable during rainy season. Gabaldon, according to them, is like a bowl that receives the excess water from the mountains around it. As it has been logged-over, the water comes down very quickly which has and might again destroy the road. They felt however that the solution was not improved drainage but planting more trees.

As to the San Luis-Dingalan road, this group felt building a road across this area would destroy the remaining forest of Aurora province. They also felt that this road was not a priority project as Aurora can already be reached from the outside by both the Baler-Bongabon National Highway and the Maria Aurora-Canili-Pantabangan road. They suggested that funding for the road should be diverted to other priorities particularly environmental protection.

Concerns were also raised on possible relocation of houses along the alignment if road widening occurred, and on compensation for farmlands which could be affected.

Participants also reacted to the proposed Dingalan commercial port which, although not part of the ARIDP project, had been linked to its benefits by the Mayor of Palayan City. They felt that massive relocations could potentially result if such a plan was implemented. They also raised the possibility of water pollution and a decline of moral values and insisted that consultation on the port project should be held in Dingalan where the concerned people are living and fishermen live and not in Gabaldon.

The group also questioned whether the ARIDP project is a grant or loan, and expressed concern with the plans of LBH following the Scoping Session/Consultation and with who decides the solutions to the problems raised. One person commented that the session could simply be a device to gain public support for project approval.

Group II, composed of representatives of the cooperatives, felt that the road would bring economic gain to the area. It would be easier to transport their products to other provinces and businessmen would enter the area to invest which would provide sources of livelihood to the people. Government services would be more accessible and communication would be faster. If the need arose, they could more easily bring out their sick to the hospital. For jeepney operators, a good road would mean less maintenance and more income.

Group III, the mayors and provincial officials divided effects and impacts into positive and negative. As positive benefits they felt that the road would make it easier to bring out agricultural and marine products to other provinces. The proposed ARIDP would also improve communications with other provinces, access to health services, and peace and order and help to unite the community. Potential negative consequences included the problem of compensation for farms and residents affected by road widening and increases in road-related accidents. The

project could also encourage migrants and aggravate or add to the problem of illegal logging and illegal fishing.

Group IV, composed of barangay captains and municipal employees also divided potential ARIDP effects into positive and negative. Positive effects included accelerated economic growth and countryside development. They felt that the road could complement the proposed industrial zone of Palayan City and the proposed Dingalan commercial port. It could also improve marketing of products, reduce transportation expenses, and increase agricultural productivity which could create job opportunities for residents and enable them to travel farther for employment. The road could also enhance implementation of environmental protection measures including monitoring and reforestation. Countryside development in the Project Area, could also help decongest over-populated cities.

As to potential negative effects, the road could adversely affect the culture and lifestyle of the tribal communities; but it could also provide them other sources of income and help them market their products. The road would also open the area to in-migration and urbanization with potential negative impacts. Anticipated loss of lives due to traffic hazards were also cited. The road would also be vulnerable to hazards like earthquakes and floods. The group also suggested remedies to the negative effects including recommendations that the settlements of the cultural communities be respected, that the distribution of land titles be accelerated, and that traffic signs and information dissemination accompany the project.

Mr. Cummings answered the question raised by Group I as to whether the proposed project would be a grant or loan and explained that the Feasibility Study and associated ARIDP Environmental Studies were a grant from the USAID that preceded and were independent of Philippine government decisions later on project funding. Participants observed that the project would be very expensive and that the Philippines would forever be in debt. They also wanted to know why the study was being done by Americans while the design/construction would be done by Filipinos and whether LBII had Filipino counterparts. It was explained that the ARIDP Study has Filipino counterparts, among them the Filipino members of the Environmental Studies Team.

Mr. Cummings also explained that workshops will be held with community participation to discuss potential solutions to problems raised by the groups. He also clarified that the Dingalan port is not part of the ARIDP Project but that comments related to it would be documented for future consideration. The Mayor of Palayan City reacted to the report of Group I that the road could hasten logging. He felt that this is not a problem as there are no more trees to cut. Instead, he pointed out, the road could contribute to reforestation as it would make this activity easier to carry out. Group I responded that while it would not do much for logging activity in Nueva Ecija, the road would make it easier for logs to be transported from Dingalan to outside provinces, and in that sense, be instrumental in the rapid deforestation of Aurora province.

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5.6 SUBMISSIONS AND OTHER COMMUNICATIONS

In addition to the verbal comments and presentations recorded in the Scoping Session/Consultations a substantial number of written submissions and other communications were also received during the Scoping period from provincial, national, and international conservation and social justice NGOs, People's Organizations in the Project Area, local officials, government agencies, research institutions and scientific organizations. The eighteen (18) submissions or other communications include:

- ◆ APA/Alyansa ng mga Pesante sa Aurora (Alliance of Peasants in Aurora), an umbrella association of P.O.'s in Aurora representing peasants, women, youth, tribal peoples, and fishermen.
- ◆ Environmental Research Division of the Manila Observatory, Ateneo University, Quezon City.
- ◆ Protected Areas and Wildlife Bureau of the Department of Environment and Natural Resources, Quezon City
- ◆ Mayor of Palayan City, Nueva Ecija.
- ◆ Columbian Father's Peace and Justice Office/Philippine Development Forum, Washington D.C.
- ◆ Indigenous Community Division, Special Concerns, Office of the Department of Environment and Natural Resources, Quezon City
- ◆ Aurora Integrated Area Development Project, Baler, Aurora
- ◆ Haribon Foundation - Tanggol Kalikasan, Manila
- ◆ UGAT (Anthropological Association of the Philippines), Quezon City
- ◆ Conservation International, Manila
- ◆ Green Forum, Manila
- ◆ Aurora Chapter, Lingkod Tao-Kalikasan (In the Service of Man and Earth Community); Baler, Aurora
- ◆ PANLIPI/Tanggapang Panligal ng Katutubong Pilipino, Legal Office of Tribal Filipinos, Manila

- ◆ San Luis, Aurora Chapter of the League of Barangay Councilmen of the Philippines
- ◆ Barangay Council of Real; San Luis, Aurora
- ◆ International Council for Bird Preservations (ICBP)
- ◆ SKSM/Samahan ng mga Katutubo sa Sierra Madre (Organization of Tribal Filipinos in Sierra Madre); Baler, Aurora
- ◆ International Center for Living Aquatic Resources Management (ICLARM), Manila

Copies of written submissions are provided in Appendix G.

The Alliance of Peasants in Aurora (APA) opposed the proposed Dingalan-San Luis road on grounds of its potential contribution to forest and wildlife destruction, reduced livelihood, watershed degradation, soil erosion and destruction of agricultural and coastal resources, displacement of Tribal Filipinos, and increased foreign debt. APA favored improvements to existing roads rather than new construction and recommended ARIDP consideration of upgrades to the Bongabon-Baler National Highway and the Maria Aurora-Canili-Pantabangan-Rizal road.

The Environmental Research Division of the Manila Observatory also raised concerns with the Dingalan-San Luis road emphasizing that forests critical to the ecological well being of the entire Sierra Madre including important stands of old growth Dipterocarps and mossy forest, among the last on Luzon, occur along the proposed alignment. In addition to serious and extremely significant threats to the unique and barely studied biodiversity of these rare forests, the Environmental Research Division questioned the need of the road and suggested the project would enhance accessibility of legal and illegal loggers, exacerbate natural hazards, and increase erosion. Concerns general to ARIDP as a whole were also expressed including impacts on cultural communities, and the vulnerability of infrastructure investments in the Project Area to impacts of environmental degradation such as flooding.

The Protected Areas and Wildlife Bureau (PAWB) also identified potential impacts of Dingalan-San Luis road construction. PAWB concerns included forest-clearing, wildlife and biodiversity losses and possible threats to the Philippine Eagle.

The Mayor of Palayan City enthusiastically endorsed the ARIDP and the League of Barangay Councilmen of San Luis, Aurora and Barangay Council of Real, San Luis strongly supported the Dingalan-San Luis road and urged its approval and construction.

The Columbian Fathers Peace and Justice Office/ Philippine Development Forum recommended consultation with Conservation International. Conservation International requested addition information on ARIDP and registered preliminary diversity, illegal logging and overall natural

resource management concerns.

The Indigenous Community Division of DENR's Special Concerns Office identified potential Dingalan-San Luis and ARIDP impacts on indigenous cultural communities including displacement and exploitation as significant concerns. Delineation of Ancestral Lands and measures to increase tenure security of Tribal Filipinos were recommended.

PANLIPI also recommended recognition of indigenous land and resource rights and tenure and security for forest occupants prior to road construction, an identified major potential impacts on cultural communities in Aurora and Nueva Ecija associated with ARIDP.

AIADP provided information on the Project Area environment and drew attention to potential watershed degradation, deforestation, illegal logging and log transport, squatter influx, and natural hazard/landslide impacts of the Dingalan-San Luis road.

Green Forum endorsed the Haribon Foundation - Tanggol Kalikasan recommendations and expressed an additional concern with the ARIDP Scoping process and the extent to which the NGO community and other interested sectors were represented and provided the opportunity to participate .

UGAT also emphasized the significance of indigenous cultural community, NGO, and PO participation in ARIDP planning highlighting potential ARIDP impacts and the need for adequate field studies to ensure protection of the right to Ancestral Domain of communities affected.

The Aurora chapter of Lingkod Tao-Kalikasan registered opposition to the Dingalan-San Luis road and expressed biodiversity, forest-destruction, watershed degradation, illegal logging, cultural community, soil erosion, and flooding/natural hazard concerns with ARIDP proposals.

The Organization of Tribal Filipinos in Sierra Madre also opposed Dingalan-San Luis and expressed general concern with ARIDP impacts on Ancestral Land rights.

The International Council for Bird Preservation underscored overall diversity concerns expressed at the National Scoping Session and recommended caution with both Dingalan-San Luis construction and ARIDP and other infrastructure development in the Sierra Madre.

The International Center for Living Aquatic Resources Management acknowledged receipt of the Scoping Session invitation and apologized for being unable to participate on the date scheduled.

Written submissions to the Scoping Session/Consultations are provided in Appendix G.

5.7 OVERALL RESULTS OF THE SCOPING SESSION/CONSULTATIONS

Under U.S. environmental regulations the Scoping Session is one of the first steps in an Environmental Assessment. It provides an opportunity to identify local concerns and planning conflicts that may result in potentially significant delays in project implementation or serious negative impacts as a result of project completion if not addressed. It also initiates a process of communications, consultation, and dialogue with Project Area residents, the scientific community, interested and involved agencies and NGOs, and others that may be potentially affected by the project. With respect to preparation of the Environmental Assessment, the Scoping Session, under U.S. regulations, helps to identify and define the significant issues relating to the proposed project actions and to determine the scope of issues to be addressed. It thus functions to focus EA analysis on primary and major issues, narrowing its scope by eliminating those issues which are insignificant from detailed study.

Philippine environmental procedures do not employ a scoping mechanism enabling a similar narrowing of focus. Under Philippine regulations EIS scope and data requirements are universal and not project-specific. As the Consultant is obliged to comply with requirements of both governments and will prepare a consolidated EA/EIS, the specific utility of the Scoping Session in delimiting the EA Scope of Work is somewhat reduced. As a means of communication and of initiating consultation and dialogue, however, and as a way of identifying both local concerns and important issues that might otherwise be missed or neglected Scoping remains a valuable tool that contributes to the determination of emphasis and relative allocation of effort in environmental impact study and analysis.

In the ARIDP case environmental studies are occurring concurrently with the project Feasibility Study. Remoteness of the Project Area, distance from Manila, the unreliability of the postal service and a variety of other logistical considerations necessitated that Scoping Session arrangements be commenced at the project's outset. Preparation of the project description and other background materials, therefore, occurred prior to the completion of preliminary economic, technical, and engineering investigations and the full identification of the Project Alternatives that have been recently presented in the ARIDP Feasibility Study Preliminary Report. Materials prepared for the Scoping Session profiled only the three primary proposed road improvements or new constructions initially identified for study in the ARIDP TOR. Recognizing that additional alternatives were likely to be identified and that the mix of subprojects that would comprise the final project package to be proposed was subject to change in the course of the study the Consultant's initial environmental approach was to treat ARIDP as package or whole rather than as a set of discrete or unrelated projects. Preliminary identification of potential impacts therefore began with typical or generic impacts generally associated with rural road projects and then addressed the range of potential impacts that could be expected from either improvements to existing roads or new road construction in the Project Area environment itself. It was this set of potential impacts, as presented in the initial matrix of potential ARIDP impacts described in the previous Section, that was provided to Scoping Session participants for review and comment.

Subsequent determination by the ARIDP Feasibility Study of the need to address in greater detail the provision of an improved inter-provincial link or "outlet" to central Aurora and the identification of the Maria Aurora-Canili-Pantabangan-Rizal road, the Bongabon-San Luis National Highway, and the Aurora Memorial Park-Cabatangan/Malupa River Valley alignment as potential alternatives had not yet occurred. Scoping Session discussions therefore were not explicitly directed toward these possibilities although some comments related to them were received.

While many comments were directed at particular elements of the original three road set with, not unexpectedly, proposed new construction of the Dingalan - San Luis road attracting most attention, much of the discussions were more general addressing conditions and concerns common to the Project Area rather than specifics of the individual component projects.

Discussions in the three local Scoping Session/Consultations, moreover, were surprisingly unparochial. Participants did not restrict their comments to only that subproject in their immediate locality and frequently addressed the entire ARIDP package and its intent.

In addition to the above, the DENR/EMB Perception Survey was not structured to elicit separate comments on individual ARIDP components. For these reasons, evaluation and analysis of comments specific to the three subprojects is incorporated in the preliminary review of ARIDP Project Alternatives presented in Chapter 7, where the complete set of current Project Alternatives is discussed.

The remainder of this section summarizes discussions, comments, and submissions received during the four Scoping Session/Consultations as a whole and relevant aspects of the EMB/DENR Perception Survey administered in the three local sessions. It presents local concerns, highlights new impacts or issues which were identified, and assesses the completeness of preliminary identification of ARIDP impacts and the relative significance of the environmental concerns and issues depicted therein.

The primary environmental concerns, issues or potential impacts associated with ARIDP raised in the Scoping Session/Consultations listed in declining order by frequency with which they were expressed were:

- ◆ forest destruction
- ◆ illegal and legal logging
- ◆ displacement of tribal communities
- ◆ accelerated in-migration
- ◆ watershed degradation, hydrological changes, and flooding
- ◆ soil erosion, sedimentation
- ◆ vulnerability to natural hazards
- ◆ need for reforestation/environmental rehabilitation
- ◆ destruction of wildlife/biodiversity losses
- ◆ improvement in project selection process and public consultation

- ◆ slope stability/landslides
- ◆ degradation of coastal ecosystems
- ◆ loss of agricultural lands and reduced productivity

Potential forest destruction and a variety of forest-related issues were by far the most frequently raised concerns. Impacts of new road construction through forested areas were most noted with concern less on direct impacts of construction itself and more on secondary impacts associated with increased access to forest areas. Increased access to illegal logging, provided by both new roads and road improvements was identified as a major issue as were the benefits to the logging industry ARIDP might provide. Migration made possible by both road-related access and development induced by the project was a related concern with consequent increased settlement in upland areas, forest-clearing and kaingin.

Increase in-migration associated with expanded forest access and induced development were viewed as major threats to the indigenous tribal communities in the Project Areas which lack both land security and right to Ancestral Lands. Potential displacement of these groups, increased poverty, and a deterioration of inter-ethnic relations received considerable comment.

Another major nexus of interrelated concerns and potential impacts was associated with the effects of forest destruction, most prominent among them watershed degradation. Again, concern was predominantly with secondary or indirect effects of ARIDP. Hydrological and drainage impacts resulting in accelerated run-off and increased flooding were often expressed, closely followed by related increased erosion, soil loss, and downstream sedimentation with destructive consequences on lowland agricultural areas. The relation of road alignments to designated or proposed critical watersheds drew attention.

The relation of proposed ARIDP projects to natural hazards was another foci of comment. In addition to flooding, concern with road construction impacts on slope stability and incidence of landslides was expressed. Many comments also addressed the vulnerability of both proposed infrastructure and potential settlement and development associated with them to flooding, typhoons, and earthquakes. In this regard a frequent comment was the need for reforestation, environmental rehabilitation, and more effective environmental management; in several cases accompanied by the suggestion that such measures were of greater immediate urgency to the Project Area than the road improvements.

Potential impacts on wildlife and biodiversity were noted by many both as a result of habitat loss associated with forest destruction, and expanded access leading to overexploitation. Commentators emphasized the area's rich wildlife and biodiversity resources and urged consideration of the cumulative impacts of development including ARIDP on the Sierra Madre system as a whole.

Numerous concerns associated with the process of project identification, public participation, and project funding were expressed. "Who" was behind the project, how and why it had been selected for study, the role of the United States, and how a decision about its feasibility and

possible construction would be made were common. Skepticism of the Scoping process and sincerity of the consultations was also expressed with some comments alleging that they were only a formality or a charade. Criticisms of Scoping Session notification, selection of invitees, and the time given to participants to study the issues and consult memberships in the case of NGO's and other organizations were also received. Considerable concerns also surrounded potential ARIDP funding with many comments expressing reservations about loans which would increase Philippine indebtedness.

Potential adverse impacts on coastal ecosystems associated with river and stream flow alterations were noted as was the potential impact of expanded exploitation and illegal fishing associated with improved coastal access. Potential impacts of port development in Dingalan which might ensue with road improvements were expressed, particularly with respect to displacement of communities in the possible port site and the impacts of industrialization on the quality of life.

Impacts on agricultural lands from road construction or widening and compensation concerns were also stated.

The EMB/DENR Perception Survey administered by the Consultant in the Project Area in conjunction with Baler, Dingalan, and Gabaldon Scoping Session/Consultations provides a complementary perspective on many of these concerns.

Nearly all respondents reported observing significant recent environmental change in their communities. Paralleling concerns discussed in the Scoping Session/Consultations, citizens ranked loss of forest cover, lowland flooding, and deteriorating marine and coastal resources as the three most important changes observed. Most indicated an awareness of the proposed ARIDP. More respondents reported positive than negative expectations of the project, but overall results were mixed. Increased employment, income, community solidarity, and improved power supply were perceived ARIDP benefits.

Major potential negative impacts perceived if the project was implemented were depletion of forest cover; flooding; water pollution; decrease in crop, fish and shellfish harvest; and human health hazards. The vast majority also held the opinion that the proposed ARIDP would help the community and local residents and indicated that, given the chance, they would work for the project. The Perception Survey questionnaire and a tabulation are provided in Appendix H-1.

In relation to the preliminary identification of potential ARIDP impacts developed in the initial matrix (Figure 4-3) the Scoping Session/Consultations and DENR/EMB Perception Survey generally confirmed those impacts identified by USAID in the Threshold Decision/IEE and ARIDP TOR and by the Consultant. Scoping results also introduced new impacts, issues, and concerns. Illegal logging, for example, was not recognized initially to be as significant an aspect of potential ARIDP-related forest degradation as it now appears. Indicative of potential impacts, public concerns and the complexity of the illegal logging issue are a set of recent newspaper reports published during the Scoping period. These are provided as Appendix F.

Scoping recommendations suggest that forest-related impacts and issues generally should be at the center of ARIDP environmental studies, and that forest access concerns associated with ARIDP road construction and road improvement are extremely significant. Many of the other potential impacts identified are less products of the road and more the indirect consequence of its effect on forest accessibility. Scoping Session/Consultation comments on the inadequacies of current natural resource management suggest an important dimension of the access issue.

Another determinant of the potential impacts of increased access highlighted in Scoping comments is the degree of security enjoyed by current residents. Like the forest, the indigenous communities in the Project Area are highly vulnerable. They and most other residents lack security of tenure. Scoping recommendations confirm initial attention to Ancestral Lands, cultural communities, and tribal and ethnic relations and would elevate the significance of potential tribal displacements.

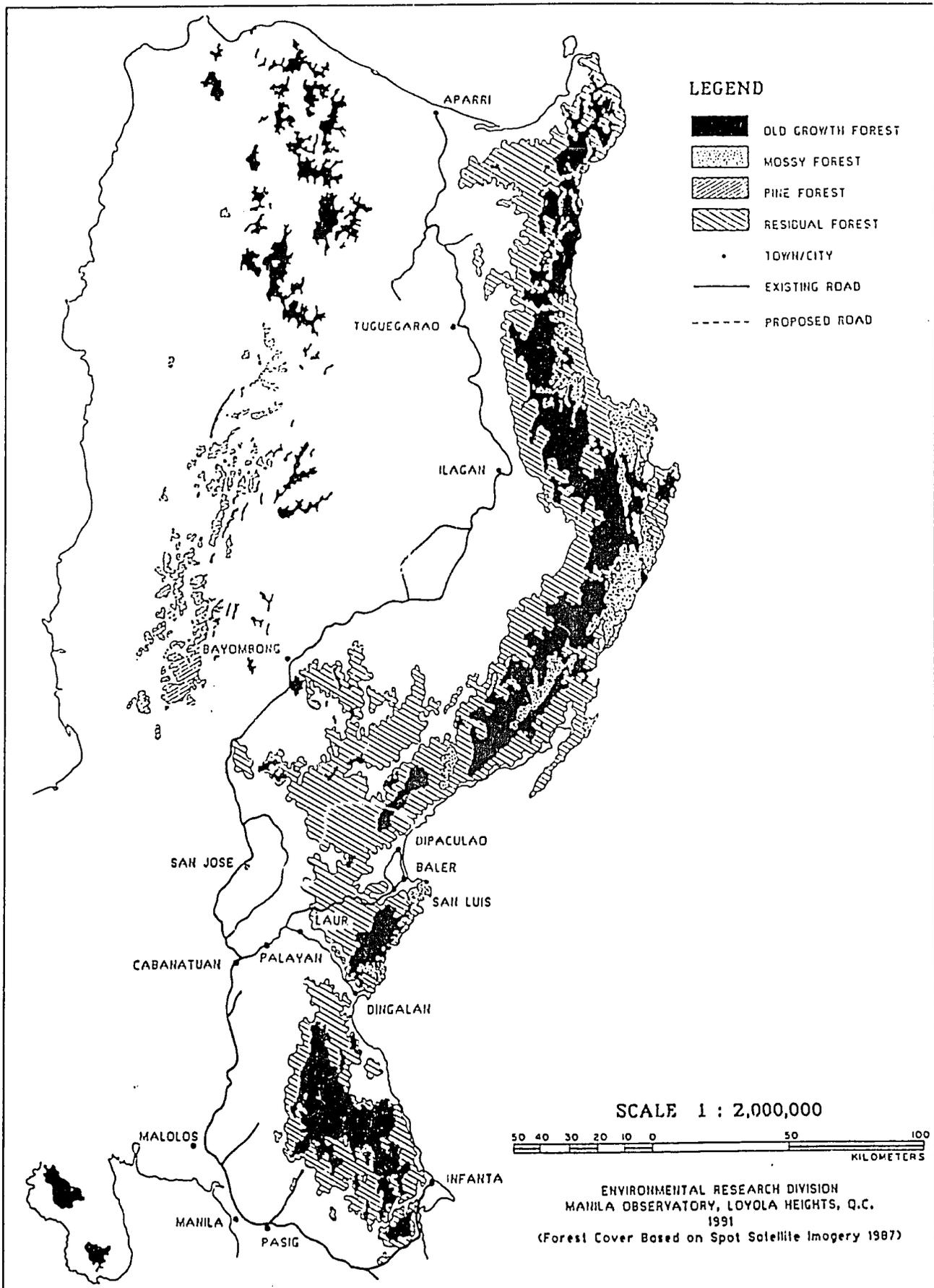
Coastal concerns and potential impacts would also rise in relative ranking while environmental health and aesthetic resources would fall. Wildlife and biological diversity concerns were amplified by Scoping comments and also assume much greater significance. Aurora is the Philippine's most heavily forested province. The Project Area contains habitat of many threatened avian and other species and verified recent sightings of the Philippine Eagle have been recorded. It also contains substantial stands of old growth, mossy, and relatively undegraded residual forest which may be essential to maintaining the biodiversity of the entire Sierra Madre. A map displaying Forests and Infrastructure provided by the Environmental Research Division of the Manila Observatory in the Sierra Madre is provided in Figure 5-1.

Scoping results also suggested that the direct impacts of the road project while not insignificant are less impacting than its potential secondary and indirect consequences. While not minimizing design and construction concerns and impacts, Scoping comments directed attention to the project's operation and suggested increased additional emphasis to the social environment. The relocation/compensation issue and land speculation would rise in significance reflecting local concerns and potential project impacts on agricultural and other lands.

Natural hazards issues were underscored by Scoping comments, in particular the potential hazards to proposed infrastructure posed by environmental change in the Project Area. Scoping comments recommending reforestation and environmental restoration to protect the road investment were instructive.

Impacts on upland area and potential in-migration associated with ARIDP received greater significance from Scoping comments. Another concern that was reinforced was that of cumulative impacts of collateral developments induced by or associated with ARIDP. The Dingalan port and Palayan City plans to establish an industrial estate are good examples.

Other major concerns introduced in the Scoping Sessions, although less associated with project impacts, require consideration in the design and conduct of the EA/EIS. Principal among them are the process-related concerns which suggest that greater attention be paid to ensuring full, fair, and informed participation by citizens and communities in the Project Area and the NGO community.



AURORA ROADS INFRASTRUCTURE
DEVELOPMENT PROJECT
FEASIBILITY STUDY

FORESTS AND
INFRASTRUCTURE IN THE
SIERRA MADRE

FIGURE 5-1

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CHAPTER 6

CHAPTER 6

MAJOR POTENTIAL ENVIRONMENTAL IMPACTS AND ISSUES IDENTIFIED TO DATE

6.1 SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS

The Consultant carefully considered the Scoping Session/Consultation comments and the results of the DENR/EMB Perception Survey and re-evaluated the preliminary identification of potential ARIDP impacts and original scope of studies and work plan derived from it. The Consultant also considered;

- ◆ data collected by the Environmental Studies Team in field studies of the existing Project Area environment,
- ◆ interviews with citizens and experts outside the Scoping process itself,
- ◆ numerous direct observations by project staff,
- ◆ A second series of helicopter overflights, and
- ◆ findings of a preliminary coastal survey conducted after the Scoping Session/Consultations.

Upon a thorough review of this information the Consultant improved and strengthened his identification of potential impacts of ARIDP road improvements, produced a revised ranking of impact significance and carried out a preliminary environmental review of proposed Project Alternatives. This preliminary review is provided in Chapter 7. Additional potential impacts associated with those Project Alternatives determined since the Scoping Sessions were also identified and considered.

A revised ranking of environmental components receiving potential ARIDP impacts is presented below in declining order and grouped into classes of high, moderate, and low relative significance. Significance was determined on the basis of magnitude and severity of potential impacts; legislative and legal requirements such as Sections 118 and 119 of the U.S. Foreign Assistance Act and degree of public and community concern.

Potentially impacted environmental components of high relative significance were identified as:

- ◆ wildlife and biodiversity
- ◆ national parks and protected areas
- ◆ forest cover, plant communities, and vegetation
- ◆ population distribution and migration
- ◆ land use, proposed land uses and regional planning
- ◆ cultural communities and Ancestral Lands
- ◆ agriculture
- ◆ aesthetic resources and tourism
- ◆ private employment
- ◆ archaeological and historical resources
- ◆ watersheds
- ◆ environmental services

Potentially impacted environmental components of **moderate** relative significance were identified as:

- ◆ transportation
- ◆ quality of life
- ◆ soils
- ◆ river and streams ecology
- ◆ hydrology and drainage
- ◆ occupational distribution
- ◆ energy resources
- ◆ livelihood
- ◆ ethnic and tribal factors
- ◆ slope stability
- ◆ public services
- ◆ communication
- ◆ income

Potentially impacted environmental components of **low** relative significance were identified as:

- ◆ solid/hazardous/toxic waste
- ◆ environmental health/mobility and mortality
- ◆ coastal ecosystems
- ◆ wetlands
- ◆ fisheries
- ◆ mangroves
- ◆ coral
- ◆ geology
- ◆ mineral resources
- ◆ income distribution

- ◆ education
- ◆ public employment
- ◆ air quality
- ◆ housing
- ◆ groundwater
- ◆ noise
- ◆ climate

On the basis of this final identification of potential ARIDP impacts derived from consideration of Scoping Session results, review of the preliminary impact identification, the TOR, and the IEE the Consultant essentially completed the primary tasks of the Scoping phase of the ARIDP Environmental Studies Work Plan. Effort and activities shifted from impact identification to impact assessment on July 17, 1991 when impact assessment field studies were commenced. Approach, scope, research priorities, methodologies and level of effort in these on-going field investigations is guided by these findings.

Upcoming work plan tasks, staffing and schedules were also revised to reflect new understandings. Adjustments in projected environmental analysis and preparation of the preliminary EA/EIS; design and development of an appropriate environmental management, mitigation and monitoring plan; and the Draft and Final EA/EIS are outlined in Chapter 8.

Although the Scoping phase has concluded, the process of communication, consultation and dialogue if initiated will continue and has been enhanced in response to public concerns. The ARIDP Environmental Studies Team will participate in a public forum on ARIDP impacts to be held in Baler, Aurora early in August and has agreed to meet with representatives of Project Area tribal groups. Review of Preliminary, Draft, and Final EA/EIS findings is structured to include the participation of interested, involved, and affected parties; and collaborative workshops incorporating this participation in the design and development of management, mitigation and monitoring measures are planned in both Manila and the Project Area.

6.2 TROPICAL FOREST AND BIODIVERSITY CONCERNS

6.2.1 US Foreign Assistance Act Section 118

In 1986 the US Foreign Assistance Act was amended by Congress to reflect increasing concern about the environment and natural resources. In particular the Congress recognized the importance of forests and tree cover to the developing countries and expressed concern for continuing and accelerating alteration, destruction, and loss of tropical forests and the threat thereby posed to the environment and sustainable development. These concerns were stated in

a new section added to the FAA numbered 118 and entitled "Tropical Forest" which requires the President to place a high priority on conservation and sustainable management of tropical forests and the protection and preservation of biological diversity.

Section 118 recommends a number of positive actions in response to forest destruction in the developing countries that bear consideration in the proposed ARIDP. More significantly it also explicitly specifies in 118(c)(14)(B) that the President deny assistance to "actions which significantly degrade national parks or similar protected areas which contain tropical forest."

Further, Section 118(c)(15) requires the President to:

- ◆ "Deny assistance under this chapter for the following activities unless an environmental assessment indicates that the proposed activity will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner which supports sustainable development:
 - (a) Activities which would result in the conversion of forest lands to the rearing of livestock.
 - (b) The construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undegraded forest lands.
 - (c) The colonization of forest lands.
 - (d) The construction of dams or other water control structures which flood relatively undegraded forest lands.

Based on the identification of potential ARIDP impacts and preliminary environmental review of Project Alternatives, the Consultant finds a significant likelihood that Sections 118(c)(14)(B) and 118(c)(15)(B) and (C) may apply to proposed ARIDP actions. Planned Field studies to assess ARIDP impacts and environmental analysis will address these concerns.

6.3.2 US Foreign Assistance Act Section 119

In 1983 Congress added Section 119, entitled "Endangered Species", to the Foreign Assistance Act. This section stated that the preservation of animal and plant species through the regulation of hunting and trade, limitations on pollution, and the protection of wildlife habitats should be an important objective of US development assistance. Protection of endangered species was also emphasized. In 1986 Section 119 was amended to encourage the participation of local people in all stages of project design and development relating to biodiversity. USAID is required to

enter into long-term arrangements in which the recipient country agrees to protect ecosystems, support research, and deny assistance for actions which significantly degrade protected areas.

Section 119(g)(8) requires the USAID Administrator to "deny any direct or indirect assistance under this Chapter for actions which significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas."

Based on the identification of potential ARIDP impacts and preliminary environmental review of Project Alternatives, the Consultant finds a significant likelihood that Sections 119(g)(8) and (10) may apply to proposed ARIDP actions. Planned field studies to assess ARIDP impacts and environmental analysis will also address this concern.

CHAPTER 7

CHAPTER 7

PRELIMINARY ENVIRONMENTAL REVIEW OF ARIDP PROJECT ALTERNATIVES

The impacts identification phase of ARIDP Environmental Studies concluded July 17, 1991 when review and analyses of Scoping period comments and information was completed. Field studies to assess impacts have been initiated but are not completed. Moreover, many of the ARIDP Alternates as presented in the Preliminary Report (July 22, 1991) were identified only recently. For these reasons only a very preliminary review of the set of Project Alternatives can be provided at present. Pending additional study the Consultant tentatively ranked nine (9) identified Alternatives by significance of potential environmental impacts. Significance was determined on the basis of impact magnitude, severity, legal/legislative sensitivity and public concern. Listed in descending order of impact significance, these are:

- ◆ Dingalan - San Luis (Alternative 3)
- ◆ Inter-provincial Link; Tablang - Bongabon - West Edge of Aurora Memorial Park - Cabatangan/Malupa River Valley - Ma. Aurora (Alternative 5)
- ◆ Inter-provincial Link; Tablang - Bongabon - through the Aurora Memorial Park - San Luis (Alternative 6)
- ◆ Inter-provincial Link; Ma. Aurora - Canili - Pantabangan - Rizal (Alternative 2)
- ◆ Inter-provincial Link; Palayan City - Dingalan (Alternative 4)
- ◆ Circumferential Road (Alternative 1)
- ◆ Staged Implementation/Construction and Labor Choice (Alternative 8)
- ◆ Improved Boat Service (Alternative 7)
- ◆ No Action (Alternative 9)

Highly significant potential impacts on environmental components in the Project Area are associated with all Project Alternatives involving road improvement and construction. U.S. Foreign Assistance Act Section 118 or 119 concerns also can not be discounted at this time from any of the Alternatives. To the extent that available information permits, Project Alternatives are each discussed briefly in Sections that follow which provide a partial and preliminary review of the problematic environmental features associated with them.

7.1 Circumferential Road (Alternative 1)

Upstream conditions in the watersheds of Ma. Aurora and San Luis eventually and continually affect the landscape and settlements downstream. Affected area is the Baler basin, the perimeter of which roughly corresponds to that of the existing circumferential road system linking the municipalities of Baler, San Luis, Ma. Aurora and Dipaculao.

Nine (9) watershed groups (AIADP classification) directly affect the lowland municipalities. Two of these, the Bazal and Diteki watersheds are presently recommended as watershed forest reserves. Conditions of these watersheds must be carefully managed to avert negative environmental consequences in the region downstream.

To date, there have been notable changes in both upper and lower watershed areas. These occurred primarily as a result of the removal of forest cover. They include:

- ◆ Mass wasting in terms of landslides and erosion.
- ◆ Loss of fertile topsoil.
- ◆ Expansion of riverwash and loss/displacement of productive agricultural lowlands.
- ◆ Alteration of natural drainage patterns.
- ◆ Flood susceptibility due to:
 - High run-off (overflow) rates
 - Low infiltration/percolation and poor soil drainage
 - Reduced concentration times
 - High sediment load of drainage systems
- ◆ Sediment transport and deposition/siltation

Proposed improvement of the circumferential road system will not directly contribute to these changes. Assuming, however, that the roads may accelerate population growth in the municipalities, the project could predispose future settlements to the effects of erosion, riverwash expansion, floods and siltation (unless there is an effective strategy of watershed management).

One of the only direct impacts all-weather (concrete or asphalt) circumferential roads will produce is a minimal increase in impervious surface which is expected to cause only a slight increase in surface run-off. Alternatives 1C₁ and 1C₂ pose more serious potential impacts as they, in part, will involve new construction and are sited closer to forested areas.

Grading and widening of the road will directly affect the soil, and impact air quality by fugitive dust. Noise will be generated from the operation of equipment, and from the traffic brought about by the increase on upgraded road.

The Vice-Mayor of Ma. Aurora, among others, expressed concern that road improvement could lead to easy access for logging activities. Often mentioned by citizens and community leaders were needs for better forestry management. Loss of habitat was also raised by AIADP as a potential impact in the San Luis and Ma. Aurora areas.

Much of Aurora is Dumagat Ancestral Domain. Municipalities where cultural communities are concentrated are Ma. Aurora and San Luis. While upgrading of the road itself is not expected to have a major impact on the cultural communities, a wave of settlers could accelerate the displacement the cultural communities have already been exposed to and push them further into the upper slopes of the mountains. While there are various programs like ISF, settlements and reservations for the Dumagats, Ilongots, and Igorots, land security continues to be a problem. Impacts of this road on these cultural communities must be studied carefully.

7.2 Inter-provincial Link; Ma. Aurora - Canili - Pantabangan - Rizal (Alternative 2)

Review and evaluation of this Alternative is incomplete. Road improvements of these segments could contribute positive environmental benefits by arresting the current road's deterioration and direct contribution to environmental degradation of its corridor. Road improvements alone without extensive additional mitigations, however, could accelerate and increase the negative secondary impacts the existing road has begun to generate since its construction.

7.3 Dingalan - San Luis (Alternative 3)

The proposed alignment will cut through twelve (12) major watersheds (AIADP classification). New roads will produce abrupt changes on the condition and behavior of these watersheds. Major immediate potential impacts would be mass wasting in the form of landslides and soil erosion, and alteration of drainage patterns.

Building a road along the coast would open the area to migrants. The area is still rich in forest reserves and logging would be attractive to settlers. Population would be expected to rise rapidly. Flatlands, however, are very limited. Although agricultural lands remain under-utilized at the moment, a steady arrival of migrants could quickly consume this resource and force settlers into the steeper slopes.

How government could manage the rise of population and accompanying needs for public services remains to be determined.

More data is also needed on problems currently facing the coastal cultural communities. While known as a Dumagat area, there is lack of data on the issue and location of Ancestral Lands.

AIADP also raised the issue of impacts on the cultural communities which would be affected by the alignment. They reported that this area was inhabited by Ilongots and Dumagats especially along the coastal barangays of San Luis from Calapnit to Dimanayat. Interviews with residents along the coastal area revealed the long-standing presence of the Dumagats. Coconut trees abound in the settlements which were planted by the Dumagats before the settlers came in displacing them. Others suggest that the Dumagats were gathered by the government years ago and placed in Dibut. While it is the general belief that Dibut is a Dumagat reserve, none of the Dumagats have seen any legal title to it and follow-ups to concerned line agencies have not resulted in action. Clear knowledge of the boundaries of the reservation does not exist. Given these conditions, the road could cause displacement as the Dumagats do not have legal right to protect their land should settlers decide to occupy the area.

Land tenure is another major issue (for both cultural communities and lowlanders) as a very small percentage of Project Area citizens have title. Settlers are also threatened by displacement should they improve portions of the lowland for agriculture.

Formerly undisturbed forest lands will be transformed to hill farms, kaingin areas and pioneer settlements as the migrant population begins to move in. This, in turn, will trigger further deleterious effects on the physical and biological environment. The potential impacts of this Project Alternative include:

- ◆ Further deforestation from legal and illegal logging activities associated with better access and eased transport of logs, lumber, and other forest products.
- ◆ Erosion: Kaingin and other unsustainable practices are likely to induce soil erosion from the slopes degrading river and stream ecosystems through siltation and sedimentation.
- ◆ Pollution: Slight pollution of the air, noise and water are minor potential impacts of road construction. Sediment and silt primarily due to soil erosion brought about by slash-and-burn farming will find its way to rivers and ultimately to coastal waters.

7.4 Inter-provincial Link; Palayan City - Dingalan (Alternative 4)

Much of the alignment traverses the Coronel River Valley which is in an advanced state of degradation due to massive deforestation in the watersheds on both sides of the river.

The gradually sloping river which is a tributary of the Pampanga River system has become a favored deposition site for gravel and sand. This deposition has glutted the river channel, reducing its capacity to carry large flows and allowing the accumulation of more gravel and sand. Riverwash expansion has resulted from this process and caused streambank erosion, destruction of adjoining agricultural lands and further expansion of flood-vulnerable areas.

These environmental changes account for much of the flooding during the rainy months of August, September, October and November. The extent and outer limits of the affected floodplain has yet to be assessed. Interviews with local officials indicate that flood flows affect the low-lying agricultural lands and settlements. Existing roads traversing these areas are submerged during the flood season rendering them impassable. Small boats and rafts must be employed to transport people and products from one side of the road to the other.

While the roads could be built beyond the reach of the flood flow, this will require new and higher-impacting alignments. The settlements and agricultural lowlands will remain flooded during periods of high precipitation. One remedy to this is relocation of flood-prone land use; which would be both financially and sociologically costly. Flood control, another alternative, has its own potentially adverse effects on the environment.

In addition to flooding problems, the Coronel river valley is also subject to geological hazards. This lowland region lies on a fault zone called the Laur - Dingalan fault. The 1990 earthquake which registered a magnitude of more than seven in the Richter scale caused massive ground slumping and subsidence in some of the agricultural lands in Gabaldon and Laur. One farmer testified that a portion of his farmland sank to a depth of approximately six feet. The dwellings of 11 families in sitio Bateria were also destroyed and had to be relocated to safer places with financial assistance from the Department of Social Welfare and Development (DSWD). Moreover, damage was caused to infrastructure including road sections and bridges.

This Project Alternative, while an existing alignment, also remains controversial because of the nature of its use. While considered a National Highway, it is also perceived as a logging road. As many as 30 logging trucks carrying lumber are said to pass daily. Others quote a much higher number of up to 100 logging trucks per day. The logs are believed to come either from the coast of Aurora or Quezon. Towed by bancas from either province, the logs are brought to Dingalan to be transferred to other places. A year ago, a group of residents in Gabaldon staged a live-in at the central office of DENR in protest against the daily movement of these trucks and the continuing deforestation of adjacent watersheds.

The road could also support industrial and port developments with potentially negative environmental impacts.

Some residents feel that the road could cause rapid migration and an increase in population. This may, however, be optimistic.

7.5 Inter-provincial Link; Tablang - Bongabon - West Edge of Aurora Memorial Park Cabatangan/Malupa River Valley - Ma. Aurora (Alternative 5)

This Project Alternative has only recently been identified. It involves new construction through forested areas with potential impacts similar to those identified in the Dingalan - San Luis Alternative. Impacts on Tribal Filipinos and Ancestral Land claims could also occur. Highly significant Section 118 and 119 concerns are raised by its proximity to Aurora Memorial Park. Field studies assessing potential impacts of this Alternative are underway.

7.6 Inter-provincial Link; Tablang - Bongabon through the Aurora Memorial Park - San Luis (Alternative 6)

Environmental review of this Alternative is incomplete. Although less impacting than new construction, topography along the alignment will mean that even road improvements could have major adverse impacts on the National Park. Section 118 and 119 may also apply.

7.7 Other Alternatives

Other Alternatives identified but not yet evaluated include:

- ◆ Alternative 7 Improved Boat Service to Coastal communities between San Luis and Dingalan
- ◆ Alternative 8 Staged Implementation/Construction and Labor Choice
- ◆ Alternative 9 No Action.

These Alternatives are currently the subject of field studies which will develop full assessments of their potential impacts.

Improving public services in the Dingalan to San Luis coastal areas by expanding and enhancing boat service is not likely to generate impacts of the magnitude, severity, and sensitivity of road-based Project Alternatives. Engineering and technical identification of landings and other facilities associated with this Alternative is incomplete.

Staged implementation, construction type, and degree of labor-intensive methods employed in construction offer potential benefits and mitigative opportunities. Additional study of this Project Alternative will occur once Feasibility Study results and recommendations are available.

Analysis of current trends and possible future in the Project Area is underway. The "no action" Alternative may have high environmental impacts and costs; and, in some cases, e.g. Alternative 2, preliminary review suggests that "no action" could carry greater impacts than improvement proposed.

CHAPTER 8

CHAPTER 8

REMAINING ENVIRONMENTAL STUDIES ACTIVITIES

8.1 Field Studies

Field studies to complete ARIDP impact assessment and review of Project Alternatives began July 17, 1991 and are expected to conclude in the first week of August. These studies are designed to address those potential impacts identified as significant in the Scoping period. Results of these investigations will be presented in the Preliminary EA/EIS. The ARIDP Environmental Studies revised Work Plan is provided in Appendix L.

8.2 Environmental Analysis and Preliminary EA/EIS

Environmental analysis to evaluate ARIDP impacts and evaluate project Alternatives will begin at the conclusion of field studies. The Consultant will review comments received on the ARIDP Scoping Report and prepare a Preliminary EA/EIS containing a profile of the existing Project Area environment and potential ARIDP impacts associated with each Project Alternative and the ARIDP project package as a whole. This document will be provided for review and comment. This phase of ARIDP Environmental Studies is expected to conclude by the end of August.

8.3 Design and Development of Environmental Management, Mitigation, and Monitoring Plan

The Consultant will consider comments received on the Preliminary EA/EIS and conduct inter-agency/NGO/community representatives workshops in both Manila and the Project Area to explore management, mitigation, and monitoring requirements and possibilities. The Consultant will evaluate workshop recommendations and prepare a Draft Environmental Plan of Action outlining recommendations and management, mitigation, and monitoring plans. This phase of ARIDP Environmental Studies is expected to conclude in mid-September 1991.

8.4 Draft EA/EIS

The Consultant will revise the Preliminary EA/EIS in response to comments received from its review and incorporate the Environmental Plan of Action to compose the Draft EA/EIS which will be submitted for review. This phase of ARIDP Environmental Studies is expected to conclude by the end of September, 1991.

8.5 Final EA/EIS

The Consultant will respond to comments received from the review of the Draft EA/EIS and revise it as necessary to produce the ARIDP Final EA/EIS. Timing of this phase of ARIDP Environmental Studies will depend on the receipt of comments.

8.6 Environmental Compliance Certificate/Public Hearings

The Consultant will prepare documentation required for EMB/DENR Review Committee action and issuance of the Environmental Compliance Certificate (ECC). Public Hearings associated with the ARIDP ECC may be recommended by EMB/DENR.

APPENDIX A

Appendix A

**ARIDP ENVIRONMENTAL STUDIES WORK PLAN,
STAFFING, KEY OUTPUTS/DELIVERABLES**

29

**AURORA ROADS INFRASTRUCTURE DEVELOPMENT PROJECT
ENVIRONMENTAL STUDIES
PROPOSED FINAL WORK PLAN, STAFFING, KEY OUTPUTS/DELIVERABLES**

WORK PLAN	MAY					JUNE					JULY					AUGUST					SEPTEMBER					OCTOBER					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	13/115	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131	11/131
ASK																															
1. ORGANIZE ENVIRONMENTAL STUDIES																															
1.1. Consult with Feasibility Team Leader																															
1.2. Program and initiate Environmental Studies Team																															
1.3. Establish environmental file, database, review existing information																															
1.4. Establish liaison with USAID/CODAS/EMS and Key Partner NGO's																															
1.5. Establish liaison with local government agencies; initiate arrangements for field work and Scoping Sessions																															
1.6. Develop study methodology: aerial survey, field work agents																															
1.7. Prepare Final Work Plan - Initial Environmental Examination (USAID) - Critical Area/Critical Project Determination (DEN/EM3) - Schedule Scoping Sessions; Prepare Final Short-Term/Concurrent Environmental Lines																															
1.8. Prepare consultation to ARDP Inception Report																															
2. FIELD STUDIES: EXISTING ENVIRONMENT																															
2.1. Initial consultation with local government, NGO's, affected communities																															
2.2. Verify accuracy of existing information																															
2.3. Assess existing environment; identify trends; establish baseline																															
3. CONDUCT SCOPING SESSIONS																															
3.1. Prepare Scoping Session Background Document; complete site arrangements																															
3.2. Conduct Scoping Sessions: - Manila - Boracay - Digos - Cebu City																															
3.3. Prepare summary and recommendations; prepare and circulate Scoping Session Report																															
3.4. Refine impact assessment field studies agents and methodology																															
4. FIELD STUDIES: ARIDP IMPACTS ASSESSMENT																															
4.1. Conduct impact assessment field studies																															
4.2. Evaluate ARIDP Alternatives																															
4.3. Prepare Contribution to Preliminary Feasibility Report																															
5. ANALYSIS/PRODUCE PRELIMINARY EA/EIS																															
5.1. Complete environmental analysis; incorporate comments on Scoping Report																															
5.2. Produce/Develop Preliminary EA/EIS (with Environmental Plan of Action)																															
6. DESIGN/DEVELOP MANAGEMENT, MITIGATION, AND MONITORING PLAN																															
6.1. Conduct review comments																															
6.2. Conduct meetings/NGO community representative workshops																															
6.3. Evaluate workshop recommendations/conclusions																															
6.4. Prepare Environmental Plan of Action																															
6.5. Contribute to Draft Feasibility Report																															
7. PRODUCE DRAFT EA/EIS																															
7.1. Revise Preliminary EA/EIS																															
7.2. Conduct/develop Draft Feasibility Report																															
7.3. Produce/Develop Draft EA/EIS																															
8. PRODUCE FINAL EA/EIS (to Base Proposed Final EA/EIS to complete 1/1)																															
8.1. Respond to comments on Draft EA/EIS																															
8.2. Revise Draft as necessary																															
8.3. Produce/Develop Final EA/EIS																															
ARIDP FEASIBILITY STUDY MILESTONES																															
ENVIRONMENTAL STUDIES STAFFING																															
1. William Cummings, Environmental Section Coordinator; Visayas - US\$ 102,000 (13.5 weeks)																															
2. M. Arceles, Environmental Planner; Visayas with EMBA/ADDP/PAH 13.5 weeks																															
3. Sarah Peralta, Socio-cultural Specialist; Tribal Fieldwork, Visayas - US\$ 110,000 (11 weeks)																															
4. Marlene Calde, Biochemistry Specialist; Visayas with scientific organizations, DENR field office 8 weeks																															
5. Melchor Aguirre, Cultural Resources Specialist; Visayas with local government 7 weeks																															

APPENDIX B

Appendix B

SCOPING SESSION/CONSULTATIONS INVITATIONS AND BACKGROUND MATERIALS PROVIDED

- B-1 SCOPING SESSION INVITATION (ENGLISH)**
- B-2 SCOPING SESSION/CONSULTATIONS
INVITATION (PILIPINO)**
- B-3 ARIDP ENVIRONMENTAL STUDIES
FACT SHEET ON ARIDP**

Appendix B-1

**SCOPING SESSION INVITATION
(English)**

LOUIS BERGER INTERNATIONAL, INC.

TM-8910, Mile Long Center
Amorsolo St., Legaspi Village
Makati, Metro Manila, PHILIPPINES



Architects • Engineers • Economists • Planners

Telephone: 63 (2) 88-06-80
88-06-90
817-0405
Telefax 63 (2) 819-3965

June 3, 1991

Dear Colleague:

Louis Berger International, Inc. (LBII), one of the Consultants providing technical advisory services for the Philippine Assistance Program Support (PAPS) Project, has been recently directed by the United States Agency for International Development (USAID) to conduct Feasibility Studies for 160 km of road improvements and new road construction proposed in the Aurora Roads Infrastructure Development Project (ARIDP).

US Government regulations require environmental studies of USAID - assisted infrastructure projects of the type proposed and the Feasibility Studies will include preparation of an Environmental Assessment (EA). Philippine regulations also require environmental studies, and the preparation of a Project Description/Environmental Impact Statement (PD/EIS). LBII has mobilized an Environmental Team of five professionals to design, organize and carry out the environmental studies called for by each government and to prepare a consolidated EA/EIS meeting the statutory, administrative, and documentary requirements of both. These studies are programmed over the next four months and will include research, field studies, analyses, and consultation necessary:

- ◆ to characterize the existing environment of the project area in Aurora and Nueva Ecija Provinces;
- ◆ identify and assess potential environmental impacts of the proposed ARIDP road improvement and construction;
- ◆ evaluate and recommend alternatives; and
- ◆ design and develop an Environmental Plan of Action specifying environmental management, mitigation, and monitoring measures and mechanisms required.

A key feature of this process, required by US law, is early and sustained consultation with government officials, scientific experts and other knowledgeable authorities, involved international and Philippine national and local non-governmental and people's organizations (NGO's and POs), and interested citizens of project-area communities. These consultations contribute important insights and perspectives and help initially to define key environmental concerns and determine the scope of environmental studies to be conducted. Formal consultations called Scoping Sessions occur in the beginning of the Environmental Assessment process at the Project's outset.

LOUIS BERGER INTERNATIONAL, INC.

You and others who may be known to you are invited to participate in Scoping Sessions to identify environmental issues and impacts of the proposed ARIDP road improvements and new construction and refine the scope and emphasis of environmental studies required. To ensure both maximum opportunity for participation and the fullest range of perspectives four (4) Scoping Sessions are planned:

- ◆ National Scoping Session
1:30 pm, Tuesday, June 25, 1991
Mercedes Conception Seminar Room
Philippine Social Science Center
Don Mariano Marcos Avenue, Quezon City
- ◆ Local Scoping Session/Consultation # 1
1:30 pm, Thursday, June 27, 1991
Baler Municipal Hall
Baler, Aurora
- ◆ Local Scoping Session/Consultation # 2
1:30 pm, Saturday, June 29, 1991
Dingalan Municipal Hall
Dingalan, Aurora
- ◆ Local Scoping Session/Consultation # 3
1:30 pm, Monday, July 1, 1991
Gabaldon Municipal Hall
Gabaldon, Nueva Ecija

Participation can take the form of attendance and verbal comments on environmental issues and concerns associated with the proposed ARIDP and Environmental Assessment studies or may occur through the submission of written comments on or before the dates indicated to the address below.

Attached to this invitation are the following related materials:

- ◆ Draft Scoping Session/Consultations Agenda;
- ◆ ARIDP Fact Sheet including Initial Matrix of Potential ARIDP Environmental Impacts, Project Location Map, ARIDP Location Map, and Project-area Vegetation Map; and
- ◆ Directions to the National Scoping Session at PSSC in Quezon City.

LOUIS BERGER INTERNATIONAL, INC.

If you have questions or require additional information please contact us. We hope you will share with us any information which you feel may warrant incorporation in the Environmental Assessment or specific issues which you feel should be addressed. Please feel free to call, visit or contact the Environmental Studies Coordinator so that your concern may be taken into consideration:

William L. Cummings
Environmental Studies Coordinator
Aurora Roads Infrastructure Development Project
Louis Berger International, Inc.
TM-8910, Mile Long Center
Amorsolo St., Legaspi Village
Makati, Metro Manila, Philippines
Tel. # 88-0680; 88-0690; 817-0405
Fax # 819-3965

Sincerely,
LOUIS BERGER INTERNATIONAL, INC.

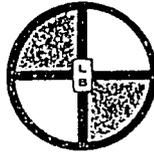


WILLIAM J. PARENTE
PAPS Project Manager



KENT O. LANDE
Team Leader
Aurora Roads Infrastructure Dev't. Project
Feasibility Study

Appendix B-2
SCOPING SESSION/CONSULTATION INVITATION
(Pilipino)



Ref. No. WLC/152E/91-893/epc

June 3, 1991

Sa Mga Mamamayan ng Lalawigan ng Aurora at Nueva Ecija,

Ang Louis Berger International, Inc. (LBII), ay isa sa mga kasangguni na nagbibigay payo o konseho ukol sa mga teknikal na serbisyo para sa Philippine Assistance Program Support (PAPS). Ito ay naatasan ng United States Agency for International Development (USAID, isang ahensiya ng pamahalaan ng Estados Unidos na nagbibigay tulong para sa internasyonal na paglilinang) upang gumawa ng pag-aaral ukol sa pagpapasaayos o konstruksiyon ng 191 km mga daan pati na ang mga tulay sa inyong bayan at baranggay.

Alinsunod sa pangangailangan ng Pamahalaan ng Pilipinas at Estados Unidos ang proyektong ito ay nangangailangan ng mga pag-aaral upang malaman ang posibilidad na ipatupad ang pagpapasaayos o konstruksiyon ng 191 km mga daan kasama na rin dito ang environmental assessment na ang layunin ay ang pagtiyak na walang mapipinsala o masamang maidudulot ang nasabing proyekto sa mga tao at sa kapaligiran pati na rin sa mga buhay-ilang.

Ang Environmental Team ng LBII ay inatasang mag-organisa at isagawa ang environmental studies na kailangan ng pamahalaan ng Pilipinas at ng Estados Unidos. Kabilang sa pag-aaral na ito ay ang mga sumusunod:

1. pangkasalukuyang kapaligiran ng pook o lugar ng proyekto sa lalawigan ng Aurora at Nueva Ecija,
2. alamin at suriin ang mga masamang maidudulot ng pagpapasaayos o konstruksiyon,
3. pahalagahan at magrekomenda ng alternatibo at
4. gumawa ng nauukol na Environmental Plan na nagsasaad ng pangangasiwa.

Isa sa mga proseso ng pag-aaral ay ang konsultasyon o pagsangguni sa mamamayan, mga opisyal ng pamahalaan, mga dalubhasa, at mga pribadong organisasyon na may layunin sa kapakanan ng tao at kapaligiran. Ang sangguniang ito ay makakatulong at dagdag katalasan at pananaw sa suliranin na maaaring mangyari sa kapaligiran at sa mamamayan dulot ng proyektong nabanggit.

LOUIS BERGER INTERNATIONAL, INC.

Ikaw at ang iyong mga kasamahan at mga kaibigan ay inaanyayahang dumalo at makibahagi sa konsultasyon o pagsangguni na gaganapin sa mga sumusunod na bayan:

ika 27 ng Hunyo 1991
1:30 N.H. Baler Municipal Hall
Baler, Aurora

29 ng Hunyo 1991
1:30 N.H. Dingalan Municipal Hall
Dingalan, Aurora

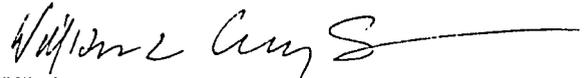
1 ng Hulyo 1991
1:30 N.H. Gabaldon Municipal Hall
Gabaldon, Nueva Ecija

Magkitakita po tayo sa nakatakdang iskedyul o talatakdan at isangguni ninyo ang inyong kurukuro o anumang problema ukol sa proyektong nabanggit.

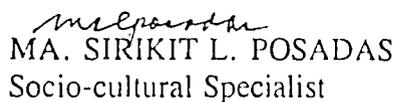
Sumasainyo,
LOUIS BERGER INTERNATIONAL, INC.



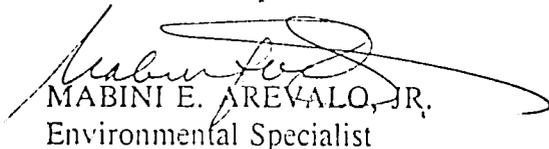
KENT O. LANDE
Team Leader
Aurora Roads Infrastructure Project



WILLIAM L. CUMMINGS
Environmental Studies Coordinator
Aurora Roads Infrastructure Project



MA. SIRIKIT L. POSADAS
Socio-cultural Specialist



MABINI E. AREVALO, JR.
Environmental Specialist



MELCHOR L. AGUILERA
Cultural Resource Specialist



MARCELO R. CALEDA
Biodiversity Specialist

Appendix B-3

**ARIDP ENVIRONMENTAL STUDIES FACT SHEET
ON THE AURORA ROAD INFRASTRUCTURE DEVELOPMENT
PROJECT IN AURORA AND NUEVA ECIJA PROVINCES**

ARIDP ENVIRONMENTAL STUDIES
FACT SHEET ON THE AURORA ROAD INFRASTRUCTURE DEVELOPMENT
PROJECT IN AURORA AND NUEVA ECIJA PROVINCES

A. BACKGROUND

Louis Berger International, Inc. (LBII), one of the Consultants providing technical advisory services for the Philippine Assistance Program Support Project, has been recently directed by the United States Agency for International Development (USAID) to conduct Feasibility Studies for some 160 km of road improvement and new road construction proposed in the Aurora Road Infrastructure Development Project (ARIDP). Proposed road improvements and new construction are based on recommendations of two earlier transportation studies:

- ◆ Rural Road Development Program II, Final Report (Aurora), October 1982 by Norconsult, et al./DPWH
- ◆ ADB-assisted Third Improvement Project/T.A., February 1985 by Norconsult, et al./DPWH

The ARIDP projects are centered in Aurora but also include significant upgrading in neighboring Nueva Ecija Province to improve Aurora's southern link to Central Luzon and the national highway system.

The projects are intended to induce economic development, remove existing transportation constraints, and contribute to the achievement of the Government of the Philippines' national, regional and provincial development objectives. ARIDP is envisioned to support balanced agro-industrial development, increased national productivity and economic recovery, and improved distribution of income and development benefits.

B. ARIDP COMPONENTS

ARIDP consists of three primary components totalling approximately 160 km and potential alternatives to each which will be identified and evaluated during Feasibility Studies. These primary components are shown in Figure 1-2. Project-area vegetation is shown in Figure 1-3. Proposed ARIDP components include:

- ◆ Baler-San Luis-Maria Aurora-Dipaculao Circumferential Road
This proposed road improvement is approximately 40.50 km in length and consists of four segments:
 1. Baler-Dipaculao (11.7 km)
 2. Dipaculao-Maria Aurora (8.9 km)

3. **Maria Aurora-San Luis (12.6 km)**
4. **San Luis-Baler (7.3 km)**

All of these segments are existing and are in bad to poor condition. They traverse grasslands and coastal-plain agricultural areas planted to rice, coconut and bananas and grasslands.

◆ **Baler-Dingalan Road**

This component is non-existent and would involve in addition to improvement of the Baler-San Luis road described above new construction of approximately 70.8 km. The alignment is likely to be partly coastal from San Luis south to Dingalan and much of the proposed road would traverse forested areas.

◆ **Dingalan-Palayan Road**

This component would involve upgrading and improvements to approximately 48.7 km of existing roads between Aurora and Nueva Ecija passing primarily through agriculturally developed areas.

Feasibility Studies have begun and are expected to identify the extent and nature of required improvements and construction, determine the economic justification of ARIDP components, and develop an appropriate investment program. The findings of the feasibility studies are intended for use by the Government of the Philippines in seeking local funds or assistance from foreign donor agencies and development institutions.

C. ENVIRONMENTAL ASSESSMENT AND ENVIRONMENTAL STUDIES

Environmental Assessment is the process by which environmental considerations are taken into account during the planning stage of a project. The early consideration of the environment enables planners and designers to modify a project to ensure either that it has no adverse effect on the environment or that, if there are effects, they are minimal. If some negative effects are inevitable, these can be identified and mitigated or compensated for.

In order to do this, the Environmental Assessment must begin early in the planning process. In the case of the proposed ARIDP, the Environmental Assessment is being conducted at the same time as Feasibility Studies. Therefore, an examination of economic, technical and environmental feasibility is being undertaken prior to any decisions being reached on the proposed project.

The Environmental Assessment is also required to fulfill both legislative and policy requirements of the Philippines and the United States. For the Philippines, Presidential Decree No. 1586 of June 1978 established an environmental impact statement (EIS) system and implemented administrative mechanisms. EIS Rules and Regulations were promulgated in June 1982.

From the U.S. perspective, Section 216, 22 CFR specifies that for US-assisted projects significantly affecting the environment of any foreign country, an environmental assessment must be undertaken. The United States Agency for International Development (USAID) has formalized procedures for consideration of the environmental consequences of its projects.

Sections 118 and 119 of the Foreign Assistance Act direct careful attention in foreign assistance projects to potential impacts on tropical forest and biological diversity concerns. U.S. assistance may be prohibited to road projects which pass through forested areas and which may increase access to or degradation of forest resources.

USAID policy also directs attention to project impacts on Indigenous Cultural Communities and Ancestral Land claims of Tribal Filipinos.

Role of Scoping Sessions/Consultations

The Environmental Scoping Session is one of the first steps in an Environmental Assessment. Experience has shown that environmental scoping is invaluable in providing an opportunity to identify local concerns and planning conflicts that may result in potentially significant delays in project implementation or serious negative impacts as a result of project completion, if not addressed.

The purpose of the scoping sessions for the proposed ARIDP are to aid in the conduct of the environmental assessment by:

- ◆ starting the process of communication early in project planning,
- ◆ involving parties that may be potentially affected by the project,
- ◆ identifying local concerns,
- ◆ focussing on those issues that require in depth-study and
- ◆ identifying issues of a lesser significance

The Scoping Sessions will also initiate a process of dialogue and consultation with project area residents, the scientific community, and interested and involved Non-Governmental Organizations that will continue through subsequent phases of the project.

Anticipated Environmental Studies

A five member environmental team has been assembled to examine the environmental effects of proposed ARIDP components and the various activities which may be identified. This examination will include both direct and indirect impacts on key features of the physical, biological, socio-economic, and cultural, environments and natural resources.

Activities of the Environmental Team will include:

◆ Literature Review/Contacts/Reconnaissance

An early stage of an Environmental Assessment includes the review of all available literature and establishment of contacts with agencies, institutions and individuals that can provide information that is relevant to the study area.

Field studies including aerial overflights and ground and marine survey will supplement existing information available as a result of other current studies in the area and existing literature. Field studies will include examination of the forest resources, biodiversity, water quality, coastal resources, cultural resources and socio-economic aspects of the project.

Field studies will be designed so that they may be modified to become monitoring programs during construction and eventual operation of ARIDP components.

◆ Identification of Impacts and Potential Mitigation Measures

Through careful consultation with the Feasibility Studies project team, the scope of the proposed project, including activities required in construction and operation and the timing of these activities will be determined. From this information, potential impacts on the environment can be identified and mitigation measures determined that will reduce or eliminate these impacts.

From the initial evaluation of the proposed project, a number of potential impacts have been identified and are listed below. A diagram showing potential impacts is shown in Figure 1-4. This matrix identifies selected activities associated with ARIDP development and the environmental areas or aspects they may impact. The preliminary list of activities and potential impacts shown in Figure may be expanded or reduced based on the results of our Scoping Session/Consultations, data collection and analysis and will serve as a guide to field studies and areas of emphasis in the Environmental Assessment. Where cells in the matrix contain question marks insufficient information exists at present to determine potential impacts and additional study is a priority.

◆ Identification of Alternatives to the Project

Potential alternatives to the project will be identified and considered. Other alternatives may also be determined in the course of the Scoping Sessions/Consultations meetings or studies. Alternatives to the project may include no action, the possibility of alternative types or scale of facilities, and the staged implementation of facilities. The environmental implications of all alternatives will be examined and assessed.

❖ Environmental Plan of Action

A recommended Environmental Plan of Action will be included in the Environmental Assessment. The plan will prioritize actions to be taken to mitigate against impacts resulting from ARIDP road improvement and construction, outline methods by which recommended actions may be undertaken, and identify the time frame for each of the recommended actions.

Potential Environmental Issues Identified to Date

As a result of initial reconnaissance and literature review number of potential environmental impacts and issues have been identified. A preliminary depiction of these potential impacts is shown in Figure 1-4. ARIDP activities and components exerting significant impacts include planning and design phase decisions on project routing and the location of new alignments; design standards for erosion control, slope stability, and choice of construction and labor methods. Right-of-Way clearing, borrow pits, siting and operation of construction camps, and potential relocation/displacements are major impacting activities of the construction phase. Key aspects of future ARIDP operations include increases in traffic and overall access and egress, maintenance and erosion control.

Among significant potential environmental impacts and issues associated with these project aspects and activities are the following:

- ❖ soil erosion associated with road construction and subsequent land use changes the project may induce;
- ❖ slope stability problems (e.g. landsliding) associated with construction operation and maintenance;
- ❖ hydrology and drainage impacts and the contribution of the project to increased run-off and seasonal flooding;
- ❖ surface water and river and stream ecosystem impacts associated with water crossings, drainage structures, and effects of changing land-uses on sedimentation.
- ❖ deforestation associated with road construction, migration and overall increased access. Road construction and improvement could also contribute to increased illegal logging;
- ❖ Wildlife/biodiversity impacts. Aurora Province, as part of the Sierra Madre mountains, is a center of Philippine biodiversity known for high levels of rare and endemic species which may be affected. The Dingalan forested area is a known habitat of the rare and endangered Philippine Eagle which could be impacted by the proposed project;
- ❖ natural hazards impacts associated with the area's high seismic load, typhoon activity and potential vulnerability of project-induced settlements and development activities;
- ❖ coastal ecosystem impacts associated with construction and operation including sedimentation, degradation, and other effects on coastal resources;

- ◆ socio-economic effects and impacts associated with accelerated in-migration, additional pioneer settlement of upland areas, increased insecurity of land-tenure ethnic and tribal factors, and the overall effect of the project on demand for public services, agriculture, and environmental health . Potential tourism resources may also be impacted.
- ◆ land use and regional planning effects on existing and proposed regional and provincial plans.
- ◆ cultural and aesthetic effects including potential displacement of the region's Indigenous Cultural Communities, impacts on Ancestral Lands, and degradation of aesthetic and scenic resources.

Public Comment on ARIDP

Public comment on ARIDP environmental impacts, issues, and studies is welcomed. Participation in Scoping Session/Consultations is encouraged by those who wish to share information or contribute to the identification of both additional concerns and potential mitigations. To submit written comments or request additional information, please contact either:

Mr. Kent O. Lande; Team Leader, ARIDP Feasibility Study

Mr. William L. Cummings; Environmental Studies Coordinator, ARIDP

Louis Berger International, Inc.
TM-8910, Mile Long Center, Amoroso St.
Legaspi Village, Makati, Metro Manila
Tel.#: 88-06-80
88-06-90
817-04-05
Fax #: 819-3965

APPENDIX C

Appendix C

SCOPING SESSION/CONSULTATIONS INVITATION LISTS

- C-1 LIST OF INVITATIONS TO NATIONAL SCOPING SESSION
- C-2 LIST OF INVITATIONS TO LOCAL SCOPING SESSION/CONSULTATIONS

Appendix C-1

LIST OF INVITATIONS TO
NATIONAL SCOPING SESSION

Dr. Chua Zhia-Eng, Director
Coastal Area Management Program
ICLARM
205 Salcedo St., Bloomingdale Bldg.
Makati, Metro Manila 1299

Atty. Marvic Leonen
Legal Rights and Natural Resources Centre, Inc.
Rm. 106, Philippine Social Science Center Bldg.,
Don Marianos Marcos Ave.
Quezon City

Chip Fay
Executive Director
Environmental Policy Institute
Room 100-D
Philippine Social Science Center Building
Don Mariano Marcos Avenue
Quezon City

Dr. Amor Torres
Participatory Res., Org. of Com. & Edu.
Towards Struggle for Self-Reliance
(PROCESS)
54 Estrella St.,
Makati, Metro Manila

Atty. Blessing Norman Kalagayan
Haribon Foundation
Richbelt Tower
17 Annapolis St., Greenhills
San Juan, M.M.

Danilo Balete
Science Program Officer
Haribon Foundation for the
Conservation of Natural Resources, Inc.
17 Annapolis St., Greenhills
San Juan, M.M.

Mr. John Starnes
Office of Capital Projects, USAID
Ramon Magsaysay Bldg.
Roxas Boulevard
Manila

Mr. Kevin Rushing
USAID
Ramon Magsaysay Bldg.
Roxas Boulevard
Manila

Dr. D. J. Ganapin, Jr.
Assistant Secretary
Dept. of Environment and Natural Resources
Visayas Avenue,
Quezon City

Fr. Busch
Environmental Officer
Columban Fathers
1857 Singalong (corner Remedios and Singalong)
Manila

Acting Director, EMB
Dept. of Environmental and Natural Resources
6th Floor, Philippine Heart Center
East Avenue, Diliman
Quezon City

Mr. Pons Naanep
Office of Capital Projects
USAID/Manila
Ramon Magsaysay Center Bldg.
Roxas Blvd., Manila

Jun Sales
Planning, Monitoring and Evaluation Division
Philippine Rural Reconstruction Movement (PRRM)
940 Kayumangi Press Building
Quezon Boulevard Extension

Pablo Santos
Secretary General
Consultative Assembly of Minority People
of the Philippines (KAMPP)
Webjet Building
Banaue St., Quezon Avenue

Les Plett
New Tribes Mission
359 Shaw Boulevard
Mandaluyong, M.M.

ESDEC
Webjet Building
Banaue St., Quezon Avenue

Robb, Fr. Peter, CSSR
Redemptorist Fathers Convent
Baclaran, Parañaque

Sammy Balinghawang
Philippine Association for Intercultural
Development (PAFID)
71 Malakas St.,
UP Village, Quezon City

Episcopal Commission on Tribal Filipinos
CAP Building, Rm. 15
372 Cabello St., Intramuros

Tunay na Alyansa ng Bayan
Alay sa Katutubo (TABAK)
1098 Hermosa St., cor del Monte Avenue,
Quezon City

Gabriela
35 Sct. Delgado - Roces District
Quezon City

Corman Davila
CCSC/CODA (Committee on Official Development Assistance)
CB Complex, 14th Flr.

Gregory Carmichael Ph.D. M.B.A., P.E.
Construction Control Services Corporation (CCSC)
c/o CODA
14th Floor, Central Bank Building
Manila, Philippines

Jose Daproza
Director - Region 4
OSCC
3rd Floor, Sandoval Building
cor. Shaw Boulevard
Oranbo Drive, Pasig
Metro Manila

Domingo Nagahangan
Staff Director Policy and Planning Service
Office of Southern Cultural Communities
2nd Floor, N. de la Merced Bldg.
cor., West and Quezon Avenue
Quezon City

Mr. Wilbur Dee
Program Director
Integrated Protected Area System
NAPWNC, Ninoy Aquino Parks & Wildlife Nature Center)
Quezon City

Mr. Domingo Maddulid
National Museum
Botany Division
Executive House Building
P. Burgos St., Manila

Mr. Arne Jensen
Program Director, ICBP
c/o Haribon Foundation
Richbelt Tower
17 Annapolis St., Greenhills
San Juan, M.M.

Com. Nathaniel Von Einsiedel
Philippine Institute of
Environmental Planners (PIEP)
c/o SURP, UP, Diliman
Quezon City

Chairman
Philippine Federation for Environmental Concern (PFEC)
c/o College of forestry
UP Los Baños, Laguna

President
Samahang-Ekolohiya (SAMA EKO)
FBS Dept. College of Forestry
UPLB College, Laguna

Dr. Robert Salazar
De la Salle University Research Center
(DLSU-RC)
2401 Taft Avenue, Manila

Green Coalition, Inc.
Suite 241 Equitable Bank II,
Ortigas Ave., San Juan, M.M.

Cristi Nozawa
Haribon Foundation for the Conservation
on Natural Resources (HARIBON)
Richbelt Tower
17 Annapolis St., Greenhills
San Juan, M.M.

Chairman
Philippine Wood Products Association
3rd Floor, LTA Building
118 Perea St., Legaspi Village
Makati, Metro Manila

Mr. Ponciano Bennagen
c/o UGAT
Philippine Social Science Center Bldg.
Don Mariano Marcos Avenue
Quezon City

Dir. Florante Soriquez
Motorpool
Dept. of Public Works And Highways
Port Area, Manila

Mr. Rey Alcances
Project Coordinator on Environment
AIADP - EMB/DENR
6th Flr. Philippine Heart Center Bldg.
East Avenue, Q.C.

Lorenzo Agaloos
Chief, Parks Divison
Protected Areas and Wildlife Bureau
Ninoy Aquino Parks and Wildlife Nature Center
Quezon Avenue, Diliman
Quezon City

Herman Ongkiko
Director, AIADP
Rm. 302 Cabrera Bldg.
130 Timog Ave. Q.C.

Rita Villadiego
PDI Correspondent
1006 D. Romualdez St.,
Ermita, Manila

Regional Technical Director - Environment
DENR R-IV
L and S Building, Roxas Boulevard,
Manila

Dr. Fernina T. Rivera
Lingap Tao-Kalikasan
6 CLSU
Muños, Nueva Ecija

Ma. Anna de Rosas Ignacio
Foundation for Development,
Alternatives Inc. (FDA)
c/o Division of Continuing Education
Bacobo Hall, U.P. Diliman, Q.C.

Mr. Jake Tan
President
Center for Alternatives Development Initiative (CADI)
110 Sct-Rallos
Quezon City

Sr. Aida Velasquez
Lingkod Tao-Kalikasan
Secretariat for an Ecologically
Sound Philippines
P.O. Box 2734, Manila
Philippines, 1099

The Center for Environmental Concern
3rd Flr., Constanca Building
71-E Timog Avenue, Q.C.

Maximo T. Kalaw, Jr.
Philippine Institute of Alternative
Future (PIAF)
3rd Floor, Liberty Bldg.,
Pasay Road, Makati

Philippine Upland Resources Center (PURC)
De La Salle University Research Center
De La Salle University
Taft Avenue, Manila

Gregorio Nisperos
Provincial Environment and Natural Resources Officer
DENR, Cabanatuan City

Angie Meniado
Parks Division
Protected Area and Wildlife Bureau
Ninoy Aquino Parks and Wildlife Nature Center
Quezon Avenue, Diliman
Quezon City

Mrs. Luisa Llanado
BIOREGION - Philippines (BIOREGION)
60 Antipolo St.
Mandaluyong, Metro Manila

Ms. Charley Barretto
World - Ecologists (WE)
15 Annapolis St., Greenhills
San Juan, Metro Manila

Philippine Eagle Conservation
Program Foundation (PECPF)
Suite 201 L & F Building
Aguirre St., Legaspi Village
Makati, Metro Manila

UP - Mountaineers
Northwing, UP Main Library
UP Diliman, Quezon City

Antonio Principe
OIC - Regional Executive Director
DENR Region III
San Fernando, Pampanga

Honey Roxas
Executive Secretary
Panlipi
Unit I, TCD Building
Elsie Gatches cor. Balanca St.
BF Parañaque

Executive Director
NCCP
879 EDSA
Quezon City

PWPA
3rd Flr. LTA Building
Legaspi Village
Makati, Metro Manila

Thomas Headland
Summer Institute of Linguistics
7500 Co. Camp Wisdom Road
Dallas, Texas

Jennifer Smith
Philippine Development Forum
Box 22
1400 16th St., N.W.
Washington D.C. 20036

Chris Coburn
Columbian Fathers Justice and Peace Office
P.O. Box 29151
Washington D.C. 20017

Julio Galvez Tan
Executive Director
CERD
2-A San Pablo Road
Philam Homes, Q.C.

Nathaniel Von Einsiedel
Solid Alliance of Vigilant Environmentalists (SAVE)
5th Floor, Makati Hotel
Edsa, Guadalupe, M.M.

Appendix C-2

**LIST OF INVITATIONS TO
LOCAL SCOPING SESSIONS**

Fr. Israel Gabriel
Lingkod Tao-Kalikasan
Parish Priest of Dingalan
Dingalan, Aurora Province

Community Environment and Natural Resources Officer
DENR, Bongabon,
Nueva Ecija

Community Environment and Natural Resources Officer
DENR, Palayan City
Nueva Ecija

Pedro Calixto
PENRO
DENR, Baler
Aurora

Community Environment and Natural Resources Officer
DENR, Dingalan,
Aurora

Community Environment and Natural Resources Officer
DENR, Ma. Aurora
Aurora

Community Environment and Natural Resources Officer
DENR, Baler
Aurora

Community Environment and Natural Resources Officer
DENR, Laur
Nueva Ecija

Community Environment and Natural Resources Officer
DENR, San Luis,
Aurora

Mr. Hans Peter Jespersen
Consultant ADIAP
Baler

Hon. Salvador Velasco
Mayor
Municipality of Dipaculao
Aurora

Hon. Luis Querijero
Mayor
Municipality of Dipaculao
Aurora

Hon. Narciso Nario
Governor
Province of Nueva Ecija
Cabanatuan

Hon. Edgardo Ong
Governor
Province of Aurora
Baler, Aurora

Hon. Adriano Bitong
Mayor
Municipality of Ma. Aurora
Aurora

Hon. Annabel Tangson
Mayor
Municipality of San Luis
Aurora

Cecile Ruiz/William Geertman
BATARIS Formation Center
Baler, Aurora

Fr. Mario Establecida
Parish Priest - Baler
Aurora Province

APPENDIX D

Appendix D

SCOPING SESSION/CONSULTATIONS ATTENDANCE LISTS

- D-1 NATIONAL SCOPING SESSION**
- D-2 BALER SCOPING SESSION/CONSULTATION**
- D-3 DINGALAN SCOPING
SESSION/CONSULTATION**
- D-4 GABALDON SCOPING
SESSION/CONSULTATION**
- D-5 ACRONYMS**

Appendix D-1

AURORA ROADS INFRASTRUCTURE DEVELOPMENT PROJECT
ENVIRONMENTAL SCOPING SESSION

PHILIPPINE SOCIAL SCIENCE CENTER, Q.C.
PLACE

JUNE 25, 1991
DATE

NAME	ORGANIZATION	ADDRESS
LILIBETH CABEBE	Aurora Integrated Area Development Project (AIADP)	Baler, Aurora
FLORENTINO CASTAÑEDA	Aurora Integrated Area Development Project (AIADP)	Baler, Aurora
EDISON CORTEZ	Aurora Integrated Area Development Project (AIADP)	Baler, Aurora
PAUL SORENSEN	Louis Berger International, Inc. (LBII)	116 ALSCO Bldg., Herrera Street, Legaspi Village, Makati
ARNE JENSEN	International Council for Bird Preservation (ICBP)	Richbelt Towers, Annapolis Street, Greenhills, San Juan, M.M.
RITA VILLADIEGO	Philippine Daily Inquirer	1006 D. Romualdez Street, Ermita, Manila
MARGARITA D. FURISCAL	TAP-LBII	Mile Long Center, Amorsolo Street, Makati
SHARON MA. S. ESPOSO	GREEN FORUM-PHILIPPINES	Liberty Bldg., Pasay Road Makati, M.M.
RAMON CACATIAN	Department of Public Works and Highways RIF-PRO	Chicago Street, Port Area Manila
JOSE S. DAPROSA	Office of the Southern Cultural Communities (OSSC)	OSSCR-IV, Pasig Metro Manila
NAPOLEON CALDERON	Office of the Southern Cultural Communities (OSSC)	-do-
GREG CARMICHAEL	Committee on Official Development Assistance (CODA)	Central Bank Complex Malate, Manila
JUN VARELA	Construction Control Services Corporation (CCSC/CODA)	Central Bank Complex Malate, Manila
B.N.V. KALAGAYAN	The Haribon Foundation	Richbelt Towers, Annapolis Street, Greenhills, San Juan, M.M.
RUDY CRUZ	The Haribon Foundation	Richbelt Towers, Annapolis Street, Greenhills, San Juan, M.M.
PACIFICO FAJARDO	Office of the Mayor Palayan City	Palayan City, Nueva Ecija
DR. J. GOTANGCO	Office of the Mayor Palayan City	Palayan City, Nueva Ecija
CHIP FAY	Friends of the Earth	Philippine Social Science Center Bldg., Don Mariano Marcos Ave. Quezon City
CORMAN DAVILA	Construction Control Services Corporation (CCSC/CODA)	Central Bank Complex, Malate, Manila

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Appendix D-2

AURORA ROADS INFRASTRUCTURE DEVELOPMENT PROJECT
ENVIRONMENTAL SCOPING SESSION

Date: June 27, 1991

Place: Baler, Aurora, Quezon (Municipal Hall)

page 1

	NAME	ORGANIZATION	ADDRESS
1.	Emic Angara	DAWN	Baler, Aurora
2.	Romulo Cuente	PAGASA	Baler, Aurora
3.	Miguel Barribal, Jr.	PNP	Baler, Aurora
4.	Lino Domingo	DENR	PENRO, Baler, Aurora
5.	Restituto Salazar	DENR	PENRO, Baler, Aurora
6.	Rogelio Carbadura	LTK	Baler, Aurora
7.	Carlos Rivera	MCC	Baler, Aurora
8.	Bernardo Tuzon	DA-Aurora	Baler, Aurora
9.	Alex Camino	AIADP	Baler, Aurora
10.	Florentino Castaneda	-do-	Baler, Aurora
11.	Ed Canivel	AIADP-TA	Baler, Aurora
12.	Edison Cortes	AIADP	Baler, Aurora
13.	Cuy Tuzon	AIADP	Baler, Aurora
14.	Joebel Molina	Barangay I, Treasurer	Baler, Aurora
15.	Angeles Marigmen	DECS, Baler	Molina St., Baler, Aurora
16.	Creselia Marzan	DA-Baler-MAO	Baler, Aurora
17.	Isidro Turgo	Barangay Council	Baler, Aurora
18.	Tomas Querijero	Barangay Captain	Dibayabay, San Luis, Aurora
19.	Fernando Mercado		Dibayabay, San Luis, Aurora
20.	Corazon Raniola	Treasurer	Dibayabay, San Luis, Aurora
21.	Sotero Cuaranto	Kagawad	Dibayabay, San Luis, Aurora
22.	Jose Ascurgo	Kagawad	Dibayabay, San Luis, Aurora
23.	Jchen Villareal	Municipal Councilor	Baler, Aurora
24.	Pablo Cagatoc	PBO, Aurora	Baler, Aurora
25.	A. P. Dulay	SP	Baler, Aurora
26.	L. Bihasa	SP	Baler, Aurora
27.	R. Rubio	SP	Baler, Aurora
28.	Lucita G. C.	MCTC (Trial Court)	Baler, Aurora
29.	Lorenza Querijero	MTO (Treasurer's Office)	Baler, Aurora
30.	Lucia Bitong	MTO (Treasurer's Office)	Baler, Aurora
31.	Joel dela Cruz		Baler, Aurora
32.	Jun Dinong	Municipal Government	Baler, Aurora
33.	Annabelle C. Tangson	Mayor, San Luis	San Luis, Aurora
34.	Benigno Olivar	San Luis, Aurora	San Luis, Aurora
35.	Bernabe Santos	Punong Barangay, Habala	San Luis, Aurora
36.	Virgilio Donato	Barangay Captain	San Luis, Aurora
37.	Julita Hakam	Baler Institute	Baler, Aurora
38.	Benigno Laureta	LBCP	Diteki, San Luis, Aurora
39.	Salvador Velasco	Mayor, Dipaculao	Dipaculao, Aurora
40.	Rodolfo Palmero	Barangay Captain	Bahangin, Baler, Aurora
41.	Benny Sindac	BEC	Baler, Aurora
42.	Angel Mendoza	DILG	Baler, Aurora
43.	Eliezer G. Pasion	Barangay Captain	

(Continuation)

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NAME	ORGANIZATION	ADDRESS
4. Pablo S. Cruz	D P W I I	Baler, Aurora
5. Napoleon Calderon	O S C C--Region IV, Aurora	Ma. Aurora, Aurora
6. Eddielito Sumangil	O S C C--Region IV, Pasig, M.M.	Pasig, M.M.
7. Ma. Adoracion Balleza	O S C C--Region IV, Pasig, M.M.	Pasig, M.M.
8. Jesus A. C.	SB-member	Ma. Aurora, Aurora
9. Eufronio Glemao	Association of Barangay Council (ABC)	Baler, Aurora (President)
10. Manuel Hernandez	MPDC-Baler	Baler, Aurora
11. Ariel Avendano	Leader-Manila/DAWN	Baler, Aurora
12. Cris Yambot	D A W N	Baler, Aurora
13. Andalicio Gomez	Barangay Captain, Barangay II	Baler, Aurora
14. Mildred Marino	SAKA-Aurora	Baler, Aurora
15. Vhonnaie Garcia	S A S C	Baler, Aurora
16. Vangie Marino	Social Action	Baler, Aurora
17. Melchor Paborian	BATARIS Formation Center	Baler, Aurora
18. Cora Marino	SAMAKA	Baler, Aurora
19. Janing Diaz	D E N R	Baler, Aurora
20. Rogelio Diaz	AKMA	Baler, Aurora
21. Marina Domingo	S A S C	Baler, Aurora
22. Aurora Fernando		Baler, Aurora
23. Elsa A.	Kagawad	Barangay Buhangin, Baler, Aurora
24. Mel Agustin	BATARIS Formation Center	Barangay Buhangin, Baler, Aurora
25. Ching	SAMAKA	Barangay Buhangin, Baler, Aurora
26. Dickson Almeda	D E N R	CENRO, Maria Aurora, Aurora
27. Noel Dulay	M C C	Baler, Aurora
28. Leopoldo Gonzales	Postal Service Office	Baler, Aurora
29. Edilberto Hanallo		Real, San Luis, Aurora
30. Rizalina Gadayan	RIC Secretary	Barangay Bacong, San Luis
31. Feliciano Gutierrez	Barangay Councilman	Bagong Sikat
32. Herminia Sison	Barangay Captain	Dibut, San Luis, Aurora
33. Zenaida Querijero	SB-member	Baler, Aurora
34. Larry Lorente	M P D O	Baler, Aurora
35. RM Porquerino	D P M A O	Baler, Aurora
36. Melanio Sindac	Mayor's Office	Baler, Aurora
37. Sanchito Cabana	D P W I I	Baler, Aurora
38. Alegria Cansino	SB Office-Municipal Secretary	Baler, Aurora
39. Juanito Porquerino	Office of the Municipal Budget	Baler, Aurora
40. Ivellia Montevedo	Kagawad	Dicapinisan, San Luis, Aurora
41. Rosalina Julio	SB Office	Baler, Aurora

LBII-ARIIDP TEAM:

- | | |
|------------------------|--------------------------------------|
| 1. Kent O. Lande | Team Leader, Feasibility Study, LBII |
| 2. William Cummings | Environmental Coordinator, LBII |
| 3. Mabini Arevalo, Jr. | Environmental Planner, GIFT |
| 4. Sirikit Posadas | Socio-Cultural Specialist, LBII |
| 5. Marcelo Caleda | Bio-diversity Specialist, LBII |
| 6. Melchor Aguilera | Cultural Resources Specialist, LBII |
| 7. Marian Villafior | Economic Research, LBII |
| 8. Marian Samson | Admin. Assistant |
| 9. Marites Parungao | Secretary |

Appendix D-3

AURORA ROADS INFRASTRUCTURE DEVELOPMENT PROJECT ENVIRONMENTAL SCOPING SESSION LIST OF PARTICIPANTS

Date: June 29, 1991

Place: Dingalan

page 1

Name	Organization	Address	
1.	Virgilio V. Reñon	Barangay Council	Caragsacan, Dingalan
2.	Armando C. Ordoñez	Barangay Captain	Caragsacan, Dingalan
3.	Teofilo M. V.	Butas na Bato	Caragsacan, Dingalan
4.	Ramon B. Valdez	Sangguniang Bayan	Dingalan, Aurora
5.	Apolonio Corpuz	Barangay Council	Tanawan, Dingalan
6.	Flora A. Pajarillo	Methodist Pastor	Poblacion, Dingalan
7.	Pedro L. Dimla	Sangguniang Bayan	Dingalan, Aurora
8.	Eli Arcega	Lodge 203	Dingalan, Aurora
9.	Felixberto Cena	Barangay Captain	Dingalan, Aurora
10.	Rogelio B. Tadyi		Davildavilan
11.	Maximo M. Aguilar	Sangguniang Barangay (SB)	Cabog, Dingalan
12.	Romy Yumul	Sangguniang Secretary	Cabog, Dingalan
13.	Bayani A. Ritual	Barangay Captain	Cabog, Dingalan
14.	Domingo Z. Israel	Barangay Captain	Paltic
15.	Rodolfo B. Valdez	Barangay Captain	Davildavilan
16.	Patnubay Mariano	Barangay Treasurer	Caragsacan, Dingalan
17.	Moises T. Razon, Jr.	Assessor Office	Poblacion, Dingalan
18.	Harry R. Callos, Sr.	Barangay Treasurer	Cabog, Dingalan
19.	Bernardo M. Roque	Barangay Secretary	Caragsacan, Dingalan
20.	Ningning B. dela Cruz	Mun. Secretary	Poblacion, Dingalan
21.	Lilibeth F. Severo	Mun. Casual	Poblacion, Dingalan
22.	Baby D. Roque	Poblacion Utility	Poblacion, Dingalan
23.	Benjamin Tanguni		Dingalan, Aurora
24.	Atty. Crisostomo V. Gonzales	Mun. Judge	Poblacion, Dingalan
25.	Ursula L. Gonzales	SB member	Poblacion, Dingalan
26.	Serafio Quezon	SB member	Tanawan, Dingalan
27.	Gil Walicar	SB member	Tanawan, Dingalan
28.	Jose V. Mangalus	SB member	Poblacion, Dingalan
29.	Tomas Agustin	Captain-Dumagat	Matawe, Cabog
30.	Reynaldo del Rosario	Barangay Secretary	Tanawan
31.	Semion Modesto	SB member	Ibona
32.	Rudy Guzman	Kagawad-dumagat	Matawe, Cabog
33.	Rene Alpajora	PNP	Poblacion, Dingalan
34.	Adriano Marquez	Barangay kagawad	Davildavilan
35.	Antonio Guillermo	Kagawad	Tanawan

Appendix D-3

AURORA ROADS INFRASTRUCTURE DEVELOPMENT PROJECT ENVIRONMENTAL SCOPING SESSION LIST OF PARTICIPANTS

Date: June 29, 1991

Place: Dingalan

page 2

Name	Organization	Address
16. Benito Repato	Barangay Captain	Tanawan
17. Manuel Quezora	Barangay kagawad	Tanawan
18. Renato Manansala	NGO	Paltic
19. Rolando Matias	Barangay Secretary	Poblacion, Dingalan
20. Henry Lozano	Mun. Assessor	Caragsacan
21. Sonny Canicosa	Minister INC	Poblacion, Dingalan
22. Ben de Jesus	INC	Poblacion, Dingalan
23. Raul G. Tomboc	Mun. Health Officer	Poblacion, Dingalan
24. Narciso F. Ignacio	Vice Mayor	Paltic
25. Virgilio Manalang	SPA – representative	Paltic
26. Luis Borreo	SB member	Paltic
27. Ireneo Tan	OIC – Butil	Poblacion, Dingalan
28. Elena Fabros	Barangay kagawad	Caragsacan
29. Romeo Ebuenga	Barangay kagawad	Caragsacan
30. Monaliza Ralucz	Market Inspector	Poblacion, Dingalan
31. Adoralinda Tabangay	Librarian	Poblacion, Dingalan
32. Ma. Edwina	DSWD – Social Worker	Poblacion, Dingalan
33. Roseby Ramos	PNP	Poblacion, Dingalan
34. Elmer S. Palmares	Treasurer	Paltic
35. Rommel Lacatan		525 Ibona
36. Angel Palacios	Contractor	Poblacion, Dingalan
37. Mario Maniaul	Mun. employee	Paltic
38. Edgardo Mangahas	Mun. employee	Poblacion, Dingalan
39. Bonifacio Severo	Barangay Treasurer	Poblacion, Dingalan
40. Cifriano Pajarillo	Mun. employee	Poblacion, Dingalan
41. Norberto P. Galvez	Mun. Mayor	Poblacion, Dingalan
42. Antonio P. Rupac	MPDO	Poblacion, Dingalan
43. Mario Garcia	Barangay Captain	Poblacion, Dingalan
44. Antonio P. Abat	Barangay Council	
45. Wildredo Tayon	Barangay Council	
46. Josephine S. Domingo	Provincial Health Nurse	Dingalan, Aurora
47. Conrado de Guzman	SB member	Davildavilan
48. Julian A. Villa	Farmers Org.	Caragsacan
49. Merly L. Tan	DAR	Poblacion, Dingalan

Appendix D-3

AURORA ROADS INFRASTRUCTURE DEVELOPMENT PROJECT ENVIRONMENTAL SCOPING SESSION LIST OF PARTICIPANTS

Date: June 29, 1991

Place: Dingalan

page 3

Name	Organization	Address
70. Emerito San Juan	SB member	Poblacion, Dingalan
71. Simplicio C.		Paltic
72. Ildy M. Evangelista	DILG	Dingalan, Aurora
73. Rodrigo R. dela Cruz	DECS	Dingalan, Aurora
74. Macario B. Valdez	Barangay kagawad	Butas na Bato
75. Rheyinaldo R. Labasan	Barangay Secretary	Butas na Bato
76. Eugenio Curamin	Executive Officer	Butas na Bato
77. Sixto H. Gaspar	Barangay Captain	Butas na Bato
78. Eugenio Pascua	Barangay Council	Butas na Bato
79. Vic Maneja	Holy Place Pentecostal Church	Caragsacan
80. Jaime C. Domingo	Mun. e nployee	Poblacion, Dingalan
81. Godofredo B. Tajeda	KASAMAKA	Dingalan, Aurora
82. L. A. de Loima	Employee	Dingalan, Aurora
83. Jose G. Tabos	Barangay Council	Caragsacan
84. Lamberto M. dela Cruz	Barangay Council	
85. Marianito M.	Kagawad	Poblacion, Dingalan
86. Regelio Marquez	Kagawad	Dingalan, Aurora
87. Demetrio A. Jesusa	Post master	Poblacion, Dingalan
88. Ando Pangilinan	Farmer	Poblacion, Dingalan
89. Boy Ignacio		Poblacion, Dingalan

Appendix D-4

AURORA ROADS INFRASTRUCTURE DEVELOPMENT PROJECT
ENVIRONMENTAL SCOPING SESSION

Date: July 01, 1991

Place: Gabaldon, Nueva Ecija (Municipal Hall)

Name	Organization	Address
1. Francisco Elileo	Barangay Secretary	Gabaldon, Nueva Ecija
2. Liliw Balbido	Barangay Captain	Calabasa, Nueva Ecija
3. Agustin Reynarip	Barangay Captain	Pugnon, Nueva Ecija
4. Severando B. Maliksi	Elem. School Principal	Gabaldon Central School
5. Antonio Simuti	Employee	Gabaldon, Nueva Ecija
6. Ricky Bumacas	Barangay Secretary	Calabasa, Gabaldon, Nueva Ecija
7. Yolanda Sibayan	Barangay Kagawad	Calabasa, Gabaldon, Nueva Ecija
8. Felix Mercado	DECS	Gabaldon, Nueva Ecija
9. Beth Nage	Barangay Council	Calabasa, Gabaldon, Nueva Ecija
10. Aldo Manaois	Barangay Kagawad	Calabasa, Gabaldon, Nueva Ecija
11. Diego Tabios	Barangay Kagawad	Bantog
12. Carlito Gaspar	PNP	Gabaldon, Nueva Ecija
13. Rodolfo Gamit	Barangay Kagawad	Calabasa, Gabaldon, Nueva Ecija
14. Estanislao Bernabe	OIC GABAIODA	Gabaldon, Nueva Ecija
15. Gregoria Paulo	Barangay Samahan ng Kababaihan	Calabasa, Gabaldon, Nueva Ecija
16. Andres Villagarcia	PNP	Gabaldon, Nueva Ecija
17. Wilfredo Aquino	Municipal Employee	Poblacion
18. Mayor Dominador Mandia	Mayor, Gabaldon	Gabaldon, Nueva Ecija
19. Mayor Tolentino	Mayor, Laur	Laur, Nueva Ecija
20. Mayor Pacifico Fajardo	Mayor, Palayan City	Palayan City, Nueva Ecija
21. Remigio Lope	DENR Representative	
22. Miguel Nangan	Malinao Spring Development Corp.	Gabaldon, Nueva Ecija
23. Joey Ledesma	Municipal Employee	Gabaldon, Nueva Ecija
24. Alejandro Pascua	Market Vendors Association	Gabaldon, Nueva Ecija
25. Dr. Gotangco	Municipal Employee	Palayan City, Nueva Ecija
26. Manuel Parungao	MNCP Cooperatives	Gabaldon, Nueva Ecija
27. Francisco Padilla	MNCP Cooperatives	Gabaldon, Nueva Ecija
28. Arsenio Ilag	Religious Sector	Gabaldon, Nueva Ecija
29. Banny Domingo	San Pablo Apostle Parish	
30. Leo Sablayan	NGO Upland	Paltic
31. Manuel Mallari	NGO Cooperatives	Paltic
32. Eddie Pujada	NGO	Paltic
33. Exequiel de Leon	Barangay Councilman	Poblacion
34. Marcelo Pertin	Municipal Employee	Gabaldon, Nueva Ecija
35. Manuel Malabante	Barangay Captain, Sawmill	Gabaldon, Nueva Ecija
36. Igmedio Domingo	Chairman, South Basigo	Poblacion
37. Feliciano Bahecod	Barangay Bagong Sikat Coop.	Gabaldon, Nueva Ecija
38. Jake Garde	Barangay Bagong Sikat Coop.	Gabaldon, Nueva Ecija
39. Francisco de Luna	President, People's Economic Council	Gabaldon, Nueva Ecija
40. Reynaldo Rafael	President, Gabaldon Furniture Asso.	Gabaldon, Nueva Ecija
41. Narciso Ringor, Jr.	DECS	Gabaldon, Nueva Ecija
42. Juan Hudenciad	DOH	Gabaldon, Nueva Ecija
43. Guillermo Espiritu	Barangay Captain, Kuyapi	Gabaldon, Nueva Ecija
44. Isidro Pagadigan	MPKB	Ligaya, Gabaldon
45. Joaquin Renato	Barangay Captain, Makisandil	Gabaldon, Nueva Ecija
46. Teresita Fajardo	Treasurer's Office	Gabaldon, Nueva Ecija
47. Greg Paltaw	MPWH, District II	Gabaldon, Nueva Ecija
48. Rodrigo Danao	Barangay Captain, North Poblacion	Gabaldon, Nueva Ecija
49. Rogelio Alvad	Barangay Kagawad	Bagong Sikat
50. Roberto Mungcal	Retired Principal	Gabaldon, Nueva Ecija
51. Raymundo Gonzales	Municipal Employee	Gabaldon, Nueva Ecija
52. Eugenio Dalakad	Veterans	Gabaldon, Nueva Ecija
53. Manuel Garcia	ISF-Upland Coop.	Gabaldon, Nueva Ecija
54. Joaquin Balot	ISF-Upland Coop.	Kuyapi, Gabaldon, Nueva Ecija
55. Apolonia Brabiles	BIDANS-Nutrition Improvement	Gabaldon, Nueva Ecija
56. Polly Parungao	Taldon Irrigation	Gabaldon, Nueva Ecija
57. Dominador Coarisma	Barangay Captain, Pantok	Gabaldon, Nueva Ecija
58. Pining Sawit	Legal Aide	Palayan City
59. Rozaldo Barcelo	PNP	Pantabangan, Nueva Ecija
60. Ricardo Carde	Barangay Captain, Bagong Sikat	Gabaldon, Nueva Ecija

Appendix D-4

AURORA ROADS INFRASTRUCTURE DEVELOPMENT PROJECT
ENVIRONMENTAL SCOPING SESSION

Date: July 01, 1991

Place: Gabaldon, Nueva Ecija (Municipal Hall)

Name	Organization	Address
61. Orgy Pineda	DECS, Principal	Gabaldon, Nueva Ecija
62. Paulino Opena	Barangay Captain, Bagting	Gabaldon, Nueva Ecija
63. Severino Felix	Bagong Sikat	Gabaldon, Nueva Ecija
64. Lucio Pineda	Sangguniang Bayan	Gabaldon, Nueva Ecija
65. Veron Handencial	ASNEF-NGO	Gabaldon, Nueva Ecija
66. Teodoro Dulay	Market Vendors Association	Gabaldon, Nueva Ecija
67. Rudolfo Aguilar	Market Vendors Association	Gabaldon, Nueva Ecija
68. Rogelio Jornadal	Municipal Employee	Poblacion South
69. Milagros Ordonez	Teacher	
70. Bienvenido Sumawang	Sangguniang Bayan	Gabaldon, Nueva Ecija
71. Margarita Pineda	Municipal Employee	Gabaldon, Nueva Ecija
72. Teresita Rivera	Municipal Employee	Gabaldon, Nueva Ecija
73. Adrew C. Tolentino	Ozone Cell Inc.	Gabaldon, Nueva Ecija
74. Eligio Nage	ASNEF	Gabaldon, Nueva Ecija

ACRONYMS

ABC	-	Association of Barangay Council
AIADP	-	Aurora Integrated Area Development Project
AKMA	-	Anihang Kilusang Magbubukid ng Aurora
ASNEF	-	Alay Sambayanan sa Nueva Ecija Foundation
CENRO	-	Community Environmental and Natural Resources
DECS	-	Department of Education, Culture and Sports
DENR	-	Department of Environment and Natural Resources
DILG	-	Department of Interior and Local Government
DOH	-	Department of Health
DPWH	-	Department of Public Works and Highways
INC	-	Iglesia ni Cristo
ISF	-	Integrated Social Forestry
LBCP	-	League of Barangay Captains in the Philippines
LTK	-	Lingkod Tao-Kalikasan
MCC	-	Mount Carmel College
MCTC	-	Municipal Circuit Trial Court
MPDO	-	Municipal Planning and Development Office
MPWH	-	Ministry (now Department) of Public Works and Highways
MTO	-	Municipal Treasurer's Office
NGO	-	Non-government Organization
OIC	-	Officer-in-Charge
OSCC	-	Office of the Southern Cultural Communities
PAGASA	-	Philippine Atmospheric and Geophysical Services Administration
PENRO	-	Provincial Environment and Natural Resources Office
PNP	-	Philippine National Police
SAMAKA	-	Samahan ng mga Magbubukid sa Kababaihan ng Aurora
SAKA	-	Samahan ng mga Kabataan sa Aurora
SASC	-	Social Action Sub-Center
SB	-	Sangguniang Bayan/Barangay
SKSM	-	Samahan ng mga Katutubo ng Sierra Madre
SP	-	Sangguniang Panlalawigan

APPENDIX E

Appendix E

AGENDAS AND TRANSCRIPTS OF SCOPING SESSION/CONSULTATIONS DISCUSSIONS

- E-1 NATIONAL SCOPING SESSION AGENDA**
- E-2 LOCAL SCOPING SESSION/CONSULTATIONS
AGENDA**
- E-3 NATIONAL SCOPING SESSION**
- E-4 BALER SCOPING SESSION**
- E-5 DINGALAN SCOPING SESSION**
- E-6 GABALDON SCOPING SESSION**

Appendix E-1

**SCOPING SESSION
CONSULTATIONS AGENDA**

**AURORA ROADS INFRASTRUCTURE DEVELOPMENT PROJECT
FEASIBILITY STUDIES**

Appendix E-1

SCOPING SESSION
CONSULTATIONS AGENDA

AURORA ROADS INFRASTRUCTURE DEVELOPMENT PROJECT
FEASIBILITY STUDIES

Quezon City

1:30 pm

June 25, 1991

- ◆ Welcome and opening remarks
- ◆ Introduction of participants
- ◆ Purpose and objectives of the Scoping Session/Consultations
- ◆ USAID environmental regulations and procedures
- ◆ Philippine environmental regulations and procedures
- ◆ Description of Aurora Roads Infrastructure Development Project
- ◆ Overview of proposed ARIDP environmental studies
- ◆ Summary of environmental impacts and issues identified to date
- ◆ Discussion period for participant questions, comments and recommendations on environmental issues, scope of proposed ARIDP environmental studies and other concerns
- ◆ Conclusions and closing remarks
- ◆ Merienda.

Appendix E-2

**SCOPING SESSION
CONSULTATIONS AGENDA**

**AURORA ROADS INFRASTRUCTURE DEVELOPMENT PROJECT
FEASIBILITY STUDIES**

Appendix E-2

SCOPING SESSION CONSULTATIONS AGENDA

AURORA ROADS INFRASTRUCTURE DEVELOPMENT PROJECT FEASIBILITY STUDIES

Baler, Aurora	1:30 pm	June 27, 1991
Dingalan, Aurora	1:30 pm	June 29, 1991
Gabaldon, Nueva Ecija	1:30 pm	July 01, 1991

- ◆ Welcome and opening remarks
- ◆ Introduction of participants
- ◆ Purpose and objectives of the Scoping Session/Consultations
- ◆ USAID environmental regulations and procedures
- ◆ Philippine environmental regulations and procedures
- ◆ Description of Aurora Roads Infrastructure Development Project
- ◆ Overview of proposed ARIDP environmental studies
- ◆ Summary of environmental impacts and issues identified to date
- ◆ Break into small groups
 - DENR/EMB Perception Survey
 - Small group discussions
- ◆ Reports from the small groups
- ◆ Merienda
- ◆ Discussion period for additional participant questions, comments and recommendations on environmental issues, scope of proposed ARIDP environmental studies and other concerns
- ◆ Conclusion and closing remarks.

Appendix E-3

**NATIONAL SCOPING SESSION, QUEZON CITY
TRANSCRIPT OF DISCUSSION**

Appendix E-3

NATIONAL SCOPING SESSION, QUEZON CITY TRANSCRIPT OF DISCUSSION

Mayor Fajardo (Mayor, Palayan City):

There were some studies made, I'm just wondering, first, the title itself, because I believe it's starting from Nueva Ecija, why is Aurora only, or why is it Aurora Road Infrastructure Development Project? Because, as I mentioned, actually, I am the mayor of Palayan City, and it is starting from Palayan City, but in the name itself why is it Aurora only, why not Aurora-Nueva Ecija? That's one, aside from that, you mentioned that Aurora is the most depressed province in that part of the area, but I beg to disagree with that because actually part of Nueva Ecija also is a depressed area and that is starting from Palayan City, Laur, Bongabon, Gabaldon is a part of Nueva Ecija, so that one I'd like to know if that can be corrected.

LBII Response (Cummings):

Well perhaps, Mr. Carmichael (CODA) can answer that.

CODA Response (Mr. Carmichael):

I will answer why is it called Aurora Roads Infrastructure Development Project. When we first got that project at CODA, it wasn't one project, it was 3 to 4 or 5 projects for small segments of the roads and generally on a funding mechanism we're working for a good size of the project and not 4 or 5 smaller projects. So we try to come up with the name and one of the people in the office said we call out a name with 3 to 4 lines, so we just called it Aurora Road Infrastructure Development Project (ARIDP). We didn't have any connotation that it only implied one town or one area.

Mayor Fajardo:

Another thing, I'd like to say to you whether this would be very helpful that there is now a move that a Dingalan Port be made into a commercial port. I think we should be very careful.

LBII Response (Kent):

This is something in our economic analysis we will have to address: If some type of port facilities are put in Dingalan, what impact will this have over a 20-year time period on the roads, the population, on the whole culture of the region.

Mayor Fajardo:

Because of the Mt. Pinatubo eruption, we are now foreseeing the Zambales and Olongapo area which is now dumped with sand, we are foreseeing some migration from that area to Nueva Ecija especially since this Dingalan Port and also that the road network will be put in place. This was just an observation, thank you very much.

Napoleon Calderon:

I just want to make comments and supply additional information about socio-cultural concerns. Thanks you for including us, especially the cultural communities which will be directly affected upon realization of the project. It's true that the Dibut Settlement was one of the identified areas that may be traversed by the proposed road or the proposed construction of San Luis-Dingalan in Aurora, but there are also some settlements like Dibayabay, Dicapinisan until reaching Magawe before Dingalan proper. One thing that I would want to add or see included on this coming proposed project is I am anticipating actually the influx of some non-cultural minorities upon the completion, if it would be realized, in the areas settled to cultural communities like the combination

of five settlements. Maybe through this study, maybe included, that settlements identified based on a community basis, right from the Dumagats themselves, will identify certain portions or area that can be settled by them permanently, because as what your associate planning officer is saying, there are about only 3 to 5 who have titled properties in Dibut settlement. All the rest are only owning it by ancestral land or ancestral domain. Petitions have been made through the office of DENR in Dibut to declare these portions so that these people will not be infiltrated by the traversed road. At least they will be settled in a proper place that can be called their own.

Lilibeth Cabebe (AIADP):

I would like to point out that Aurora province still has 75% forest cover and right now, if the Dingalan-San Luis will push through, it will directly traverse 12 watersheds, this is about 4,000 hectares and two (2) of these watersheds are proposed to be declared as the protected watershed. Most of them are situated in San Luis.

Florentino Castañeda (AIADP):

What Ms. Cabebe saying is that there are 12 watersheds that will be affected by the construction of proposed new road in San Luis-Dingalan including Dingalan watershed and it will open the floodgates for illegal logging and "kaingeros". Since this is a thickly forested there will be depletion of forest cover. Besides, the rivers and seas will be affected by the sediments which will come from the area. This is what we are concerned with. She also mentioned the 2 watersheds, the San Luis watershed and the watershed which are now near endorsement for proclamation, in the Office of the Secretary of DENR and probably these watersheds will be declared critical soon. With regard to the circumferential road, this is approximately 40.5 kms the length of the perimeter and there are 3 river crossings the Malupa River, Ma. Aurora Creek, the Dipaculao River which discharge into the Aguang River. This is a good project because it will help the 4 municipalities connected. Travel will be facilitated especially during rainy season.

Regarding the Dingalan-Palayan City road, if we will compare the distance travelled by the residents of Aurora from Baler-Dingalan that is approximately 127 kms. And taking this route this is around 70 kms. There will be 56 kms length of the road that will be saved. As I've said a while ago, the impact of watershed is our concern.

Lilibeth Cabebe (AIADP):

It has been pointed out that watersheds 56 and 59 which is the Agria watershed has a critical watershed Index of .5 to .6, that means the erosion level is moderately high. The rest of the watersheds that will be affected has an average watershed index of .38 which means a moderately low risk area. But those areas that we have pointed out like Agria area have high erosion risk.

LBII Response (Cummings):

Well, this is very helpful.....

Lilibeth Cabebe (AIADP):

As far as the Gabaldon area is concern. Maybe you can contract Peter Walpole of the Manila Observatory.

Mayor Fajardo:

In your pamphlet, there are only 3 components and I was just discussing that the component of Bongabon-Baler is not included, only Baler-Dipaculao, Baler-Dingalan road, Dingalan-Palayan City road. I think that the road from Bongabon-Baler.....

LBII Response (Cummings):

Are you recommending that it be considered as a potential alternative?

Mayor Fajardo:

I think I'm recommending that. That might be an alternative as the lady is saying, because that is a road already, the Baler-Bongabon road.

LBII Response (Cummings):

Recently, we decided to look at the Canili-Pantabangan road as a possible alternative, and I take it as that is a recommended that we also evaluate the Bongabon-Baler route San Luis-Gabaldon and try to look at their relationship to each other and to where investments will be properly employed.

Mayor Fajardo:

May I add, for the benefit of everybody, Palayan City is the capital of Nueva Ecija and we are now proposing, as I mentioned, that Palayan City be an industrial area in the eastern part of Luzon. Because we believe, I, myself as a businessman, I'm in a shipping company, that's why I believe that area should have a port. Dingalan port will be a commercial port. As a matter of fact, it was identified by NEDA, to be an industrial area. I just want to put it in record that Palayan City is a proposed commercial industrial area zone of that part of Luzon already identified by NEDA.

LBII Response (Cummings):

So you are saying that much as the proposed road gives access to Aurora, that it also gives access to the sea or to the port for these products.

Mayor Fajardo:

That's right. It will hasten the development of the city.

Arne Jensen (ICBP): *[problems in both video and audio recording prevented transcription of the remainder of this Session. What follows is partial and incomplete]*

You might remember that we spend 3 months in Aurora, not exactly, but north of there and the reasons than we have to look at the greater global context of the importance of the Sierra Madre ranks much higher than we even thought. To give you just a few examples: we are using birds as key indicators because its one of the fastest way to measure bio-diversity in general. It's proven in so many places, that where you have high rank and variety of birds species you also have thousands of other species. 26 species of birds confined to these mountains are threatened worldwide. The reason why they are there together with 234 other species are simply that this area ranks 6th in the matter of endemism and the size area threatened birds species in all the South Asia that they are completely isolated, we are talking about the pacific, everywhere up from highest. And I would like to show you contrary to what the lady is saying, shows that what is virgin lowland forest, is the most rare habitat in the Philippines are actually now this small land spot. Everything else around is now degraded to some degree or they are special kind of forest like ultra basic forest or those monsoonal or typhoon forest. Even if it is assumed that it is still there that this is a product of man's man-made without any development on the eastern slopes or the lowland forest shows clearly that the relation between high enduism, the relation with all others threatened species this have to make to this remaining forest areas. So, between end puts in a higher context anything from out here, lets put in a smaller scale. Now there are ready improved projects of the DPWH a road connection from the South Ilagan into the Palanan wilderness circle then down to the south and we have already shown this examples meaning that we have kind drawn a circle going on. Well, we predict that its not possible to maintain a high rank of endenism the entire rank of species and at the same time push a development. We

don't say a negative development but we request a very, very detailed impact study on the road.

Chip Fay:

The significance of this presentation is quite extra ordinary, as one's lived several years in the area, there are little virgin forest left. It's really quite scary. In my own experience, I lived four years in the early 80s in Cagayan Valley, I watched the forest destruction there which was quite devastating. Now a lot of business interests are looking to the Sierra Madre and put their pressures on the resources there. So from the environmental point of view, Friends of your the Earth, looks at the situation with concern for its great severity. We see that the overall impact on the Sierra Madre is quite disturbing. Our work here as an international agency is to look at the impacts of official development assistance on the Philippine social and environmental concerns working in partnership with Philippine NGOs. One comment that I'd like to make today is, maybe Bill, what's your own impression in resource management system that are in order in that area and take from there.....

LBII Response (Cummings):

We have not done extensive field work, so its kind of preliminary but I our impression
.....

There's no capacity right now to effectively manage the resource. There are indigenous
..... even in areas in Baler.

Chip Fay (Friends of the Earth Internationa):

Basically, you are saying in short that there are no resource management system beyond mining and destructive approaches in the entire area. As you said diplomatically, the

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impact on the overall environment would be very, very serious. You said diplomatically that from the cultural side, from the bio-diversity side there are issues We're talking about development in this area not destruction

Appendix E-4

**BALER SCOPING SESSION/CONSULTATION
TRANSCRIPT OF DISCUSSION**

Appendix E-4

**BALER SCOPING SESSION/CONSULTATION
TRANSCRIPT OF DISCUSSION**

Carlos Rivera:

Paano daw malalaman na ang NGOs na inimbata ay nagriripresent ng malaking grupo ng NGO na siyang maaapektuhan ng project.

(How do we know that the NGOs invited represent the big group of NGOs that will be affected by the project?)

LBII Response (Cummings):

The only way that we can assure this beyond the meeting itself is to, in the course of our future field work and studies, to talk to as many people as we can, and to take your recommendations. If you feel that the representation is not complete, we will encourage you to help us identify those groups that we should talk to. I should also say that on the back of your agenda is our address. We will be happy to receive written comments at any stage. If someone feels for example, that there are something they want to say, but they are reluctant to say it in public, we will encourage them to write it down and they can send it anonymously. We are open and receptive to inputs from all sectors and we want to encourage them. Anyway you can assist us, we will appreciate that very much.

Carlos Rivera:

Shall we say it is a preliminary....?

LBII Response (Cummings):

Yes, we can say that.

LBII Response (Aguilera):

Kami po ay babalik dito, para matukoy kung anu-ano po ang mga problema ninyo. Ito po ay preliminary lamang.

(We are coming back to determine what are your problems. This is just preliminary.)

Carlos Rivera:

So, do we expect other sessions?

LBII Response (William Cummings):

Yes, this meeting is one of four. Last Tuesday (June 25) we held a similar meeting in Manila (Phil. Social Science Center) and on June 29, Saturday, we will be going to Dingalan and on July 1, Monday, at Gabaldon, Nueva Ecija. Then we will prepare a report that will be available for your review and in the month of August, we will be returning to hold workshops with the NGOs and with the municipal and provincial officials to review the recommendations and to design mitigation plans. We hope that there will be more opportunities for consultation with all sectors and for the involvement of any interested citizens, NGOs, or government officials.

Dante Rubio:

Kent, you said earlier, that you acknowledge that at this time, it is not definite yet, as to who will be the one who funds this project; and yet we are now talking already about the proposed project.

LBII Response (Lande):

Well, the proposed project in our study will go to the Philippine government and they will then say "Alright, can we put this project in to several small instruments that someone will fund, in 1991, in 1992, in 1993. But obviously this will be a several year project and probably involve a combination of funding source."

Dante Rubio:

So there is no time frame of when it is...?

LBII Response (Lande):

There is no time frame but we will be asked to give a suggested time frame.

Dante Rubio:

So, what your group is trying to undertake now is to come up with the Feasibility Study.

LBII Response (Lande):

Feasibility Study, yes.

Angeles Marigmen:

Granting that these funds are granted to us, will it be considered as an additional loan of the Philippine government or it is a dole out of whatever source to the Province of Aurora.

LBII Response (Lande):

That's why I am an Engineer. I can tell you how wide, how thick, how steep, but I can't tell you if it is a loan or grant. You must talk to an economist or a politician I guess, and CODA should be contacted.

Angeles Marigmen:

In addition to the question of the Board Member (Dante Rubio). He made mention that there is no time frame as when it will be finished, How many years will it take to study the problem, supposed to be encountered in all the projects that you made mention of in Aurora?

LBII Response (Lande):

There, I can always say that time stretches out beyond even what we can comprehend. There were studies done in 1982, in 1985 and again in 1989. Now USAID comes, in 1991. There have been four studies, but each of the studies took a little different part or segment of the roadways and none of them have totally said that "this is the package that needs to be built". In the 1982 study, some roads were not feasible, in 1985 other roads were not feasible. In 1989, and now we may find that there are one or more roads non-feasible. It is difficult to understand, I realize that and I appreciate it because there have been times when engineers have spoken to me and said I don't know when its going to be built and I raised my hand just like you.

Our study itself will be turned over to the government to CODA, in October this year, and after October, it will be up to whoever will fund it. What, more questions?

Annabelle Tangson (Mayor, Municipality of San Luis):

I have here with me the officials four (4) barangays that will be future beneficiaries of the Dingalan - San Luis proposed road. I was listening a while ago when you used an adjective as a "controversial" road. Any information at this point, since most of the engineers and your men have been there last two weeks ago, so that they will know the status of study?

LBII Response (Lande):

As I indicated, we know from our maps, topographical maps, the grades would be very steep, the slope would be very steep and would be very costly to built. Our environmental team knows that there are wildlife and timber, that some people would love to cut and some people not. There are probably geological or minerals, that some people want to extract and some don't want to extract and there are local tribes that some people want to be displaced and some don't want to be displaced. So that is all a controversial line-up and there are many, many more. I will leave them to the environmentalist to tell me, "don't build the road, Mr. Lande, or we have this problem".

Florentino Castañeda (AIADP):

Ako po ay humingi ng pahintulot sa aming grupo upang basahin ang mga "existing situation in the area. Bayaan po ninyong basahin ko:

(I am asking the permission from the group to read the existing situation in the area. Let me read:)

The Aurora Road Improvement Development Project (ARIDP) is located in the central and southern zone of Aurora province. The central zone comprises the municipalities of Dipaculao, Maria Aurora, San Luis and Baler which are connected by an existing circumferential road that is proposed for improvement while the southern zone has

Dingalan as its lone municipality serving as the end point for the proposed Dingalan-San Luis road and the existing Dingalan-Palayan City road.

The perimeter of the circumferential road is approximately 40.5 kms., while the length of the Dingalan-Palayan City road and the Dingalan-San Luis road are 48.7 and 63.5 kilometers, respectively.

Several river crossings are traversed by the circumferential road, notable of which are found along the San Luis-Maria Aurora road like the Diteki river in barangay Dikildit, Maria Aurora creek between barangays Detailen and Dikildit, and the Malupa river between barangays Sta. Lucia and San Jose.

The project location with area of 146,641 hectares is the home of an estimated 103,233 persons (NCSO census, 1990) broken down into 69,626 and 18,928 persons for the central and southern zone respectively.

Two cultural minority centers are found in the proposed project location. One is in Bayanihan, Maria Aurora populated mostly with Ilongots and the other one is in Dibut, San Luis for Dumagats. All the coastal barangays of San Luis from Calapnit down to Dimanayat are with Dumagat populations, whereas, in Diteki and Cabatangan, Alta dominates and the central area especially Reserva, the Igorots found their place residents.

The population depends mostly on the agricultural crops for their economic life obtained from cultivated areas of about 18,512 hectares of which 35 percent of 6,552 hectares is under rice cultivation and the rest are planted with coconut and other crops.

The existing forest cover of the area which is affected by the proposed project is about 127,785 hectares of which 6,044 hectares remains as virgin forest while 94,758 hectares is under residual dipterocarp forest or logged-over areas having less commercial value

of standing timber (old growth forest).

The Aurora Memorial Park which serves as sanctuary for the different wildlife covers a total land area of 4,227.5 hectares formed from the mountainous area of San Luis and Maria Aurora except area outside province.

Three logging concessionaires (two TLA holders and one Private Titled Land) are operating within the proposed project location. They have a combined area of 92,109 hectares broken down to 40,300 hectares for VAFDC in Dipaculao, 50,008 hectares for IFRC in San Luis and Dingalan and SETIC has 1,809 hectares in the southern part Dingalan municipality.

There are 571 hectares of hill farms based on the study (kaingin) mainly concentrated in Dipaculao and the Dingalan watershed.

The proposed new road connecting Dingalan and San Luis traverses or passes through 14 watersheds along the coast which are still thickly forested and this may open the floodgates to illegal logging and transporting of logs and may also invite the influx of forest squatters in the area.

There are 444 landslides recorded in the project location prior to the occurrence of a strong earthquake last July 16, 1990 with area equivalent to 613 hectares. These landslides caused sedimentation on rivers and creeks as well as siltation on the low lying areas particularly areas along river courses.

There are 139 landslide recorded from Diteki-Boundary. These are the effects of logging activities and kaingin (deforestation).

Along the coastal roads - there are 12 watersheds that will be affected by the proposed road. We endorsed San Luis as well Bingit, Malayan, Dibalut, Sabani watersheds as a

reservation areas, and aming pong endorsement ay nasa office na ni Secretary Factoran at ito po ay maapektuhan, kung magkakaroon po ng daan dito. Although we are not against in the construction of the road which will induce economic development. But we have here some recommendations which the group should taken into consideration.

1. Community participation in the protection/preservation/conservation of the forest.
2. NGOs, provincial officers, local government and concern authorities should work hand in hand.
3. Strict enforcement of forestry laws by the concerned government agencies.
4. Intensive information campaign dissemination on forest protection and management.
5. Preserve the culture of the indigenous cultural communities.

Napoleon Calderon - (OSCC-Ma. Aurora):

"Good Afternoon to everybody. I want to start, tell the problem of the cultural communities (CC), I am speaking on their behalf, the office of which we are most concern of them but those CC who are under is in our office. Who are we anyway to reject such kind of a project which will traverse our cultural communities in the province of Aurora, but only with a request of our assurance that we will be again displaced because since time immemorial historically speaking from Ma. Aurora-Dipaculao up to the recent time we were displaced. Because of some, not necessarily I would blame you my fellow people who are with us as this audience but because mainly of the ignorance of our cultural communities and forefathers. We were the first who cultivated the municipalities of Dipaculao, Ma. Aurora and now we are already near at the foot of the

mountains. Now the road would have to be constructed if it would be realigned, what we would want to be incorporated and I have said it already, nasabi ko na po doon sa Philippine Social Science sa Maynila dahil doon kami unang nagmiting, na siguraduhin lamang po ng pangulo ng ating bansa dahil kami na po kaming mga petition lalo na ang Dibut. Mayroon ng petisyong dumaan sa DENR at naghihintay hanggang ngayon ang mga Dumagats katulad din namin na mga Ilongots ang reserbasyon na ideklara at wala nang problema. Because actually population pressure was discussed by the supervisor, kanina hindi ho natin maiiwasan, our brothers in the lowlands will influx this settlement and land grabbing will have to exist. So I would want that to be incorporated and I am reiterating only this one because I have said it again and another view one is that their rights must be respected. What I mean there is that specific lands that will be traversed by certain roads should be compensated in favor of cultural communities, their lands, and all of these things and as well as the labor force - because we have a very bad experience in Rizal (although it is not my coverage), in Rizal, we have a very bad experience. They are only utilizing the cultural communities in their payroll especially contractors, not necessarily I am throwing dirty words against contractors but it happens usually and they are not being paid and not being hired. Maski na kayang-kaya po nilang magpala diyan, hindi naman po nirerespeto, so I am speaking on the side of the cultural communities. Thank you very much."

Councilor Calderon (Maria Aurora):

Ako po ay ipinadala ni Mayor Bitong upang makinig at makipagkaisa sa mga babalakin sa proyekto, ang masasabi ko po dito sa proyektong circumferential road sa apat na bayan ay makakabuti sa pamumuhay ng tao gawa nong ang mga kalsada ay mabubuksan at ang mga tao na nasa liblib na mayroon produkto ay mailalabas nila dun at mai-tratransport dun sa pamilihan. Ang magiging problema po ay makakahadlang lang ay ang mga ilog na malalaki lalo kung babaha, kami po ay sang-ayon sa plano ng pagdugtong-dugtong ng mga kalsada sapagkat malaking kaginhawaan ng mamamayan, sila'y nangangailangan ng kalinga ng gobyerno para ang produkto ay mailabas. Ngunit

sa aming bayan apat sa malalaking ilog. Kapag hindi nagkaroon ng tulay ay wala ring silbi ang kalsada, kung iyan ay tutulungan ng pamahalaan.

Malaki and pag-asa ng mamamayan na ang lugar ay umunlad. Lahat ng aanihin ay madaling ipunta sa pamilihing bayan. Mayroon pang pangyayari sa Reserva sa Alcala, mayroon pong kalsada na ibig dugtungan mula dito sa Reserba lampas ng kalsada na papuntang Dipaculao sa Alcala. Nakita ko po nung minsang nag-ani, na pinapasan ang isang sakong palay ay pinapasan mula doon sa gitna, inilalabas sa kalsada at ang bayad ay limang (5) piso, siya ay nakakatanggap ng P 25.00 pasan isang araw pero ang natanggap niyang pera ay kulang pang panggamot nung siya'y madisgrasya, siya au tumutulay sa Pilapil na halos isang dangkal, na ang pasan niya ay 50 kilong bigas, napasama ang hakbang, at nahulog siya sa pilapil, nabalian ang likod, sa halip na ang mayroong mahihilak na ₱ 25.00 ay nadoble pa sa pagpapagamot.

(I was sent by Mayor Bitong to listen and support the proposed project (ARIDP). What I can say with this project at the circumferential road for the four (4) Municipalities is that it will be good for the livelihood of the people because the road opens the way to remote areas where people could transport their products to the market. The problem will be the river that becomes big especially when there is flood. We are in favor of the plan to connect the roads because it will be a great convenience for the people who needs assistance from the government so that their products are brought out. However, in our municipality (Ma. Aurora) there are four (4) big rivers and if these are not complimented with bridges, the road will be useless.... that is, if the government will help.

There is big hope of the people that the area will prosper. All farm products will be easier to bring to the market. There was an event that happened in Reserba on the road that they like to connect to Dipaculao. I saw a farmer carrying a sack of palay walking on a narrow dike of the rice field and was being paid P 5.00 earning him P25.00 in one day. However, the money that he earned was not enough for medical treatment when he broke his back while carrying 50 kilograms of rice. Instead of earning P25.00 he has to spend twice more for the medical treatment.)

Dante Rubio:

(Reason why for the construction of the project). Alam po ninyo yung mga nasa provincial officials lalo na inihalal ng taong bayan, ang unang nasa isip niyan ay kung papaano matutulungan ang taong bayan. It has been very traditional among government officials. Ito hong idea na pagkakaroon ng road connecting Dingalan-San Luis, there was a time when the municipal government of Dingalan, try to get out and be far from Nueva Ecija because before your reached Dingalan today you have to travel for about 8-9 hours and the seat of government is here in Baler and so the people of Dingalan finds it difficult to make contacts. communications to the provincial capitol. So immediately after we assume office, and I was part of the group who rapid for the construction of the road, that will connect so that to prevent the municipality of Dingalan from pursuing its desire, sessiving (hihiwalay) ang iniisip ko o noon ay ganoon lang, I didn't realized that this project would be controversial, what I have in mind by putting up this road it will contribute to the development of the entire province of Aurora, so, yun po ang nakita ko diyan.

Because this is a sectoral consultation, I think as a representative of the people, I will abide by whatever the sectoral group will come up with which the interest of the people will be benefitted. I will never be a part of the project, whom the people rejects. Because in the first place I am here to represent the interest of the people.

LBII Response (Cummings):

Any additional comments?

Mr. Angeles Marigmen:

Kung maari, habang pinag-aaralan yung mga problema upang maisagawa yung mga proyekto na ilalagay sa Aurora ay padaliin yung pag-aaral ninyo at yung mga dapat

isagawa ay magawa na, para masimulan na yung proyekto sa ikabubuti ng Aurora.
(If possible, while studying the problems of the project for Aurora, can you speed-up the study and do the things that needs to be done to start the project right away for the good of Aurora.)

LBII Response (Aguilera):

Ang aming pong pag-aaral ay matatapos po sa Setyembre, magkakaroon na po kami ng Final Report base po sa mga pag-aaral na ginagawa dito po sa kalsada. Setyembre po.
(Our study will be finished on September. There will be a Final Report based on the study that we conducted for the road.)

Taong-bayan(Observer):

Kung sakaling tapos na iyan, mayroon po kayang perang gagastusin?
(If the study is finished, is there money to spend?)

LBII Response (Cummings):

I think when Mr. Kent Lande told you that he wasn't sure where the money would come from, he did not want to make a commitment that he might not be able to give. I can tell you many of us have worked together on other road projects that were similar to this and many of them have already been funded. So, while we can make no promises because its up to your government and my government and higher levels than us. Many of the projects that have been looked at over the last year and completed our studies have been funded and beginning to developed.

As in any democracy, if the people are going to be heard, they have to speak. We thank you for playing an important role, its for you to work thru your elected officials as well as the CODA to let them know that you want the projects. Your governor and provincial

boards, can make inquiries, make representations in Manila, of course that it will help.

Herminia Sison:

Tungkol po sa illegal logging, maski na po walang kalsada, magaganap po ang illegal, ang makakagamot po sa illegal logging, kami pong mga Sangguniang Barangay at tutulungan po naman kami ng Sangguniang Barangay, lalo na po ang mga taga-DENR, lalo na yung mga army diyan. Dahil marami pong mga illegal logging na hindi taga-Aurora, mga taga-Mauban. Tayo-tayo rin po ang makagagaling diyan.

(With regards to illegal logging, even without the road, illegal logging will still happen. The solution for illegal logging is for us from the Sangguniang Bayan and the people from DNR and the Army to help us. Most of the illegal loggers are not from Aurora, they are from Mauban. Only us can remedy that(illegal logging.)

LBII Response (Cummings):

That's a very good comment. What we will do in the next few months beginning now, is make a study of what would the impacts be. We will return to manila to make our report, then we will come back to (Aurora) the province again and we will say these are the problems, these are the impacts, how can we make a solution? So we will make part of our report an environmental plan of action. That is, the barangays will do this, the municipalities will do this, the provincial governor will do this, the DENR will help this, the military will help this way. We'll try to make a plan and greatly appreciate your ideas and your commitment of local government to participate in solutions to the problems because that could make the difference whether the road is approved or rejected.

Rogelio Carbadura:

Ito po ay sang-ayon sa inyong liham na isa sa inyong pag-aaral ay ang konsultasyon o pagsangguni sa mamamayan, mga opisyal ng pamahalaan, mga dalubhasa ng pribadong organisasyon, so kung titingnan po natin itong grupo natin ay hindi nagri-represent ng mga pribadong organisasyon, iilan lamang ang mamamayan dito, iilan din lamang ang mga opisyal ng pamahalaan pero ang tinitingnan natin dito ay yung mga pribadong organisasyon ay kakaunti lamang ang nandito so kinakailangan, sa proseso ng pag-aaral isama sila, ako po ay mayroong proposal na kung pupuwede ay makipag-ugnayan din kami sa inyo sa buwan ng Agosto.

(This is with regards to your letter that part of your study is the consultation to the people, government officials, experts from private organizations. So, if we look on this group, it does not represent the private organizations, there are only few people here, only few government officials but if we take a look, only few of the private organization are here so it is necessary during the process of the study to include them. I have a proposal, it is possible to have a consultation with you (LBII) during the month of August.

LBII Response (Aguilera):

Sa katotohanan pong iyan, ngayong Agosto ay babalik kami at kami ay magkakaroon po ng "workshop", ito daw po ay napakagandang oportunidad para sa ganyang mga bagay pagkakataon o bagay. Siguro po ay makikipag-ugnayan kami sa inyo para malaman ninyo ang exact date ng aming pagdating at kung papaano natin gagawin ang pakikipag-ugnayang iyon.

Meron po kami ritong nakuhang "local counterpart" si Marian Villaflor, lahat po ng komunikasyon namin habang kami'y nasa Maynila ay puwede pong ipahatid sa kanya, at siya po ang aming "direct link" dito sa Aurora papunta sa amin sa Maynila.

(The truth is, this coming August we are coming back and we will have a workshop

that will give a good opportunity for that purpose (consultation). We may be communicating with you to determine the exact date of our arrival and how to conduct the consultation. We have a local counterpart, Marian Villaflor. all your communications can be coursed through her while we are in Manila. She is our direct link here at Aurora to Manila.)

Dickeson Almeda:

Nais ko sanang malaman sa kasalukuyan, ito bang Louis Berger International ay sa ngayon ang nag-pipinans ba ay ang gobyerno na po o private entity?

(I would like to know at present, Is the Louis Berger International being funded by the government or private entity?)

LBII Response (Cummings):

Louis Berger was given a contract by the USAID through the Philippine Assistance Program to carry out this study, so Louis Berger is a consultant to the Philippine Assistance Program. Thats how it works and the money there comes from USAID, to the Philippine Assistance Program and then to Louis Berger International.

If there no further comments - I would like to thank each and everyone of you.
Maraming salamat po.

Appendix E-5

**DINGALAN SCOPING SESSION/CONSULTATION
TRANSCRIPT OF DISCUSSION**

Appendix E-5

DINGALAN SCOPING SESSION/CONSULTATION TRANSCRIPT OF DISCUSSION

Eli Arcega:

If the feasibility study will materialize and since the municipality of Dingalan is considered the "most depressed" municipality in Aurora, then in behalf of the residents of Dingalan, may we request that this project commence in Dingalan going to Palayan City and Dingalan going to San Luis. Thank you.

LBII Response (Mel Aguilera):

Meron pa ho ba? (Is there anything else?)

Emerito San Juan:

Sa palagay ko po ay walang magiging sagabal para hindi ituloy itong proyekto. Dahil kung ito'y matutuloy, higit sa lahat ay mapapaunlad namin ang aming bayan at higit sa lahat magkakaroon tayo ng magandang kinabukasan. Dapat lang dito sa ating bayan. Maraming salamat. (In my mind, there's no reason why this project shouldn't push through. For sure, this will be for our town's progress and most of all. for a better future. It's time that all these good things happened to our town. Thanks a lot.)

Participant:

Kailan ang posibilidad na mauumpisahan ang daan, at kailan matatapos ang feasibility study? (When will they possibly start building the roads - and when will the feasibility study be completed?)

LBII Response (Cummings):

Well, the feasibility will continue over the next three (3) months, probably toward the beginning of October when we finish our report. Our environmental studies probably will take about the same amount of time. We'll be coming back in two (2) weeks for initial period of about two weeks of study. We will be returning to Manila to write our preliminary report, then we'll be coming back once more to work with you again to prepare a plan of action, and begin considering a range of solutions. So almost all of our work will be done by October. At that point, our report will be submitted to the Philippine government with some of the points initially made in your comments. So right now we can't answer you that question in detail as to when the road will be funded and when the construction might begin. I can tell you that our team have worked on maybe 14 roads from Luzon to Mindanao over the last one year. Many of these roads have studies that have been completed and the projects have begun.

Kent Lande (additional comments):

I meant to explain in my earlier comments about some things that are of interest to you, and certainly of interest to me because they are part of the engineering elements of the project. And that's : "How can we put more people from your area to work in the construction or re-construction of the road?" Certainly, there are contractors in your area that do paving. I see here on the wall up that some of the elements on your benefits list include encouraging business, increasing your livelihood, increasing income of your people. Well, there are paving, there are certain road aspects, that you people, through your contractors, can do, but there are certain elements like the technical aspects of bridge building that maybe are beyond your capabilities that we have to bring a contractor in perhaps from Manila, unless we can train people here. One of the things that I encourage, that I feel very strongly about, is continued training of people. I feel that if you are properly trained you're gonna do it right. If it is done by you, you have to look at it today and tomorrow and also at your neighbor today and tomorrow. If you

don't do it right, you know what your neighbor is gonna tell you. So I feel very strongly, personally, that we'll be looking at: "How can we get the most number of people from your area building your road, the most number of people from the Baler area, building their roads. But an interesting thing came up the other day in the Baler meeting. And that is I asked the question: "How much paving can a contractor, a typical contractor do in one day? And I was told 3 meters wide by 36 meters long. Yet I think I indicated to you that it's about 45 kilometers all the way from Palayan. Even if the road is 30 km., paving at the rate of three different contractors working everyday of the year, 36 meters by 3 meters wide, that paving will take about four years. So to do it faster, it needs more contractors or faster production methods or some combination. That of course deals with you and your desire to improve your livelihood. Making a pipe - I know on the way down here there's someone manufacturing round pipe for covers on the roads. I think that's very good! It's something that you can do and create, and I will be writing in my report that we need to have businesses who are willing to manufacture pipes and make them available for the roads to be built, because we need them for drainage on the roads. Then, if we can improve skills by training, maybe you have some technicians who are interested in engineering then we could send them to school for training in the Manila area. That would also be a benefit. But it's a team effort. I guess it's you and your effort, it's me and my team's efforts, it's a funding agency and their effort, all related in the project. With that I'm gonna sit down but I want to personally say, "Deep in my heart, in 25 years that I've been in engineering business, I have very few public meetings that I've been to that have been so sincere as yours today. My deep gratitude to your people and your community in this area and with attitudes like that you'll get your roads soon, I'm sure. Special thanks to Ning and her group, to Ilde and his group, to Rod and his group, to Elmer and your group. Thank you very much.

Salamat po!

Ildfonso Evangelista:

Let us make some things clear. Sometimes projects or proposals like these, build only "false hopes". *Ang ibig kong sabihin, linawin po natin mga kababayan, sapagkat ang mga pangyayaring kagaya nito ay kung minsan ay nagpapalutang lamang ng isang "false hope" - yung paniniwalang maaaring matupad at maaaring hindi.* (Let us make things clear, my townmates, because sometimes these things raise some false hopes - either it materializes or it does not). Now we believe that this Feasibility Study is a persuasive document subject for approval or disapproval of whoever agencies are going to finance or fund this. According to you, it is only Mr. Rogelio Singson who will finance/fund the project. Will the finances be coming from or fund will be coming from USAID or from the European community?

Kent Lande:

I think, I sound like a politician when I answer because I say that perhaps it will come from all of those sources. To take as many roads, as many pesos, as will be necessary, may take, 25% from this funding group, 20% from another group, 5% from this group, and it may take a combination of them. Now, when I talked about the team, I can't emphasize strongly the power that you people can have through your local elected representatives in their resolution and letters to people like Mr. Singson and other government officials. This one I received leaving Baler the other day. Comes from the League of Barangays and Councilors of the Philippines - the San Luis-Diteki, Aurora chapter, signed by its president and they wrote a letter and a resolution saying - "We want the roads." So things like these are very valuable to get the attention of your Senators and Legislators.

Appendix E-6

**GABALDON SCOPING SESSION CONSULTATION
TRANSCRIPT OF DISCUSSION**

Appendix E-6

GABALDON SCOPING SESSION CONSULTATION TRANSCRIPT OF DISCUSSION

Mayor Mandia (Gabaldon):

Good afternoon everybody. First of all, we would like to extend our welcome to International Berger of which start this consultative conference, to all their companions and of course our sincerest thanks for coming to this municipality to bring us good news in terms of development. So let us give them a big hands. I would like also to ask, [gusto ko ring tanungin kayo ngayon] if you want that we pass a resolution by all association present in this room that we pass a resolution requesting that we are really interested in the reconstruction of our existing road in the municipality. Malalaman natin iyon kung kayo ay papalampak. [We will know it if you clap your hands.] Nakita natin na ang mga kaibigan natin,[We have seen that out friends here], they will not only construct our road for simple reason that they want to construct. Hindi sila gumagawa ng kalsada para kalsada lamang na gawin.[They are not doing the road for the sake of doing it.] They are doing it for economic development with emphasis in the environment impact of this project in the different vicinities that this road will pass. Kaya maganda ang kanilang nilalapit sa atin at isang development ito para umunlad ang ating pamamayanan mula Dingalan, Palayan at Laur at palagay ko if we will have this road right on time, [They have a good agenda for us and this is the kind of development which would mean the economic improvement of our fellowmen from Dingalan, Palayan and Laur and if we will have this road on time] we will have a very good socio-economic upliftment of this municipality and probably all municipalities in the province of Nueva Ecija. So we want to thank the US Government through the USAID and other financial institution ng different parts of the world who would like to assist the Philippine government kaya inaasahan ko na [and I am hoping that] this project will be a realization

in the future. Even if it will take many years as long as this project will push through and will finish, we will appreciate it very much. Thank you.

Mayor Fajardo (Palayan City):

Magandang hapon po sa inyong lahat. [Good afternoon to all of you.] As mentioned by Mayor Mandia of Gabaldon, we are very thankful for the staff of Louis Berger International and on their staff especially Kent here. Actually as they've mentioned inumpisahan na po nila ito mga ilang linggo na ang nakaraan. [Actually as they've mentioned, they started their study a few weeks ago.] Yesterday they were in Palayan city, now in Gabaldon. And as I told them, we are very glad that this will again, hopefully before time, as mentioned by Kent yesterday, I hope that national government will be very, very eager already or sincere because apat na beses na pong pinag-aralan ito. [because this is the fourth time this is being studied.] This 1991 is the 4th study they've been making and hopefully this will be the final study for the completion or at least a portion if not a total of the road network of this project. I've mentioned in Manila cause I have attended this regularly para malaman po ninyo, sa Manila po ay sinusundan ko na ito. [For your information, in Manila I have attended and followed this up regularly.] I have attended this in Manila and we have made some suggestions. One suggestion that I made to Bill in Manila ay dapat siguro hindi lang Aurora Integrated road network and tatawag dito but I told Bill in Manila that I think it should be not only Aurora it should be Nueva Ecija-Aurora road network because a portion is coming from Palayan City. So it not only Aurora but Palayan-Nueva Ecija as a whole because some of the municipalities in the city is part of the road network, specifically Palayan City which is the capital of Nueva Ecija. That's why I told Bill that in Manila. I gave that input also, binigay ko rin sa kanila ang mga future plans ng Palayan City probably sapagkat napakahalaga na po nito in estimating and making the design, its very important that different inputs should be put in the study. [I also provided them the future plans of Palayan City because this input is very important in estimating and making the design.] Kamukha po noon we have a plan, [Like when we have a plan] I have started

it hope next year it will maternalize, I have a plan for putting that Dingalan port. If you remember in 1987 that's one of my number one platform of government when I run for the Congress. Iyon po ang isang pinagpupursige ko when that [One of my main objective is that] Dingalan port will be developed because I myself is in a shipping company/business (mga barko po) ang business ko before I ventured into politics kaya Dingalan port to be a commercial port will help and hasten the development of this area, specifically, Palayan City. In as much as in Palayan City we intent to put up an industrial zone and residential subdivisions. Ang Palayan City po ay may balak kami, may plano kami na [In Palayan City, we have a plan where] I was able to get from the President na 1,2000 hectares of which we will be developing 300 hectares for industrial zone just like Bataan. Dito po [This is where] we will be needing the port for export of this products. Dito ho sa mga ganitong bagay ay pag meron kayong industrial zone kailangan mo ng isang commercial port. [In planning things like on industrial zone, you need a commercial port.] Kaya nga, [That is why] this is very timely project that is why when I was informed about it, I made it a point to follow it up and please forgive me Kent and Bill if I be always following it up because this will enhance the development of the City itself, not only Gabaldon and other areas because when Dingalan port this will be a complementary, iyon po kalsada ng mga gagawing mga konkreto na ito, complementary sa port ng Dingalan. [The road which would be concreted is complementary to the port of Dingalan] Iyan po ay isa sa pangarap ko na matupad sa mga darating na araw at tamang-tama pag nagkaroon na tayo po ng port ay bibilis ang transportation going to Palayan City and going to Manila and it will create job opportunities and other economic activities in this part of Luzon. [This is one of my dreams which will hopefully be realized in the near future and if we have a port, transportation would be fast going to Palayan and Manila and this will create job opportunities and other economic activities in this part of Luzon.] I've been telling our friends here that this part of Nueva Ecija and Aurora is the most depressed area in this part of Luzon. I've been telling them inputs that its really timing that this should be developed because this is a forgotten area and I've been telling that and I've been telling them also that 20 years ago, Nueva Ecija is the number one in Central Luzon. Now we

are the number 6 in this part of Central Luzon. Why? Because we don't have provisions for industrialization. We remain agriculture area. Naiwan po tayo ng agriculture. [We were left behind in agriculture. Our farmer are always left behind in the agricultural scene. We all know that I am a farmer]. Ang ating magsasaka parating naiwan sa agriculture na kalaban lahat. [Our farmer are always left behind in the agricultural scene]. Alam natin na farmer din ako nagtatanim din ako kaya, [We all know that I am a farmer and that I also plant] I've been telling them, I'm a farmer myself that's why I've been briefing them about the condition in Nueva Ecija that's why we have to have provision for industrialization and dito po napakahalaga [and this where] this road network is very important in the development of the area. Kaya nga mga kasama kagaya nitong sabi ni Mayor Mandia, siguro po immediately magpagawa tayo ng resolution at magtulong-tulong tayong lahat; [And so my friends, just like what mayor Mandia had said, it would be better is we make a resolution and help each other;] Laur, Palayan, Gabaldon, and other areas that will be affected and I will follow up something in Malacanang as soon as possible so that we can help each other. We can help Louis Berger to finalize this and to be immediately funded. In Palayan, I've been telling them that Palayan road is included in the study about 3 or 4 years ago but now it has been concreted, kaya nagpagagawa po ako ng bagong road. [and so I constructed a new road] I would like to ask Louis Berger to include alternative road not only that of Palayan city which is already partly paved. Nakakuha no ho ako ng pondo noon hanggang matapos ang Laur at hanggang Bongabon. [I was able to secure funds for concreteing until Laur and Bongabon.] Naikonkreto ko nang lahat iyon. Actually, kaya siguro yun na lang ho ang masasabi ko. [And this is all I have to say.] Again I would like to thank our friends here and hopefully this will materialize with our help, kailangan ho kaming mga mayors din dito ay magtulong-tulong. [we mayors have to help each other] We mayors owe to you, we really follow it up with the government agency so that his will materialize, I think it's about time that tayong mga mamamayan magkaisa na ngayon para itong mga ganitong proyekto, [I think its about time that we should be united for projects like this], I think its about time that we people, we really voice out our opinion so that this project will materialize immediately. Pagka wala ho tayo, hindi tayo kumikibo. [We

don't have any because we do not say anything] I feel so vocal. Ako po ay maingay sa Malacañang parati. [I am quite vocal in Malacañang] Ako po kapag kaharap si President Aquino, [Whenever I am in front of President Aquino] I've been telling her that this is the most depressed area in this part of Nueva Ecija, this Gabaldon, Laur, Bongabon, Natividad, Palayan. Also Aurora is the most depressed area in this part of Luzon. Yun na lang po at magandang hapon and thank you. [that is all and good afternoon]

Mayor Tolentino (Laur):

Magandang hapon. [Good afternoon] I would like to extend my thanks to the group of Louis Berger at binigyan tayo ng pagkakataon na tayo ay magpulong ngayong hapon na ito dito sa proposed project from Palayan City to Laur and Gabaldon and then Dingalan. [I would like to extend my thanks to LBII that they gave us an opportunity to attend their meeting this afternoon regarding the proposed project from Palayan City to Laur and Gabaldon and then Dingalan.] Thank you and umaasa ako na sana ano man ang ating maitutulong tungkol sa ikabubuti nitong project na ito ay pagtulong-tulungan natin. [Thank you and I am hoping that we would all pool our help for the betterment of the project.] Kagaya nga kahapon [yesterday] I was able to meet this group headed by Kent in Palayan City and we are talking about several problems regarding the road. Mula po dito sa amin sa Bato Ferry kanina tinuro ko sa kanila na iyong lugar pagdating ng Bato Perry kako lumulubog diyan, kailangan natin ng bridge na mataas para diretso tayo diyan sa Bagting at pagdating natin diyan Kalabasa, [At Bato Ferry, I pointed out the area which would be flooded during rainy season. The mayor is proposing for high bridge which would go all the way to Bagting and Kalabasa.] Sabi ko na mula doon kailangan mag construct tayo ng mataas na kalsada hanggang doon sa lumagpas tayo sa Ligaya dahil doon lumulubog din. [At Bato Ferry, until Ligaya the road must be elevated since the area is prone to floodings.] That portion where we stopped, I showed them that the road should be elevated or either diverted because during rainy season these roads is being under water and iyon nga ho ang isang bagay na bagamat ay sakop na ng Gabaldon komo akong kasama kanina ng grupo ipinaliwanag ko na po lahat na bagay na

iyon at makatulong dahil kasi ang kanilang pag-aaral ay kinakailangang matapos kaagad. As soon as possible this study should be finished. Kasi this is the 4th time na gumawa ng pag-aaral kaya gustung-gusto na po nila na magkaroon tayo ng kalsada to build a road para sa mabibigat hindi lang maliliit na sasakyan kundi sa mabibigat na sasakyan dahil karamihan nga sasakyan dito na dumadaan dito ay talagang mabibigat. [This is the 4th time a study regarding the road has been done and the present staff would prefer to build the road for heavy traffic not just for light vehicles since majority road which passes here are heavy] Kaya iyon ang gusto nilang gawin. [This is what they want to do] At kung ito ay ating mapagtulong-tulungan at hopefully the study will be finished soon and we can maybe ask the national government and US government to help us in this part of the world to construct this road. [And if everybody would help, we may seek the help of the national or US government to construct the road.] Hindi ho natin sila inaapura maaari ng ito ho ay abutin ng 3 to 6 years. [Let us not rush them since the study might take 3 to 6 years.] Tayo ay hindi po dapat mainip pagkat tayo po ay nasanay sa ganoon na kalsada hanggang sa ngayon ay sanay naman sa ganitong kalsada. [We should not be demanding since we have been used to this kind of road.] Kung tayo ay bibigyan ng kalsada na mas maganda ay mas lalong mahirap sa atin. [And if we would be given a road, it would be easier for them.] [And as mentioned during the speech] Kaya nga ng sinabi kanina, during the speech of Kent that we cannot construct the road tomorrow, a months after or a year after because continuous ang study, tuluy-tuloy po ang pag-aaral bago maponduhan, kaya dito sa gagawin siguro na tayo ay paghahati-hatiin maaring meron kaming hindi nasabi sa kanila tungkol doon sa problema regarding this road. Maaring may problema kayong alam na hindi namin alam iyon ang kinakailangan malaman nila. [And during the speech of Kent, we cannot immediately construct the road tomorrow, months after, years after since the study is continuous until the project would be funded.] In the part where we would be grouped you may know of problem that we are unaware of. They need to know this.] Lahat ng maaring alam ninyo na makakasagabal para sa konstruksyon nitong kalsadang ito, iyon ang kinakailangan natin na maibigay sa kanila at nang ang kalsada na maitayo sa atin ay isang kalsadang matibay na mapakinabangan natin sa mahabang panahon. [Everything that you know which could

cause a delay in the construction of the road should be said now so that the road which would be constructed later would last for years to come.] I'd like to extend my thanks personally to the municipal mayor of Laur because of that this group insist in the development of our area. Hoping that this plan will materialize in the years to come in order to uplift the social and economic development of the people here in the part of Nueva Ecija. Thank you very much.

(Banny Domingo):

After the consultation, what will happen next?

LBII Response: (Cummings):

I tried to explain earlier that this is just the beginning of the scoping session. We will study both your comments, from here in Gabaldon, in Baler and Dingalan. We will return to Manila and prepare our report on the Scoping Session. We will endeavor to get copies of that report and distribute it back to those of you who have attended. We have close to 300 people so I am not quite sure how we are going to do it. We might send various copies back to various representatives/sectors to receive the results of this and what we will be doing as we design our environmental studies. We laid out environmental studies in a provisional way last month and planned our time and budget. But we will now be able to revise what we have planned in relation to what you have recommended and we will be making reconsidering our priorities. We'll be saying for example, that many people have identified perhaps traffic hazards, as an the area that we needs attention. So that we will then try too map where all the schools are and were there are likely to be hazards encountered when the roads are built. Also many people have said illegal logging, a difficult and controversial subject but it has great bearing on the roads and I suppose will have to look harder at it, and I hope we have your help in looking at it in greater detail. Right now requirements of USAID are that if the road will contribute to more illegal logging, it cannot be funded.



Juan Hudenciad:

The question is, is there a Filipino counterpart on the USAID?

LBII Response (Cummings):

During the studies we have 4 to 5 counterparts, we have Trans-Asia, Consultancy Group, CMSI, and others.

Juan Hudenciad:

Feasibility study, pag-aaral iyon eh. Nakasalalay lahat doon. Nakasalalay lahat sa USAID. Wala na bang bahagi ang Pilipino roon. Its clear - FS-USAID. [The future (of the road) lie in the result of the Feasibility Study. Since FS is by the USAID, what role do the Pilipino do?]

LBII Response (Aguilera):

USAID po ang nag fi-finance. Hindi po ang USAID lahat ang technical services. Iyon po iyon. Environmental study ay grant na binibigay ng USAID. So kung Filipino counterpart, meron din. [USAID finances the study, not just technical aspects of the road. The funding of the Feasibility Study is a grant by USAID. There are also Filipino counterparts.]

Juan Hudenciad:

Then I should suggest that should appear right there because if you look specifically FS-USAID, specific po yon. Samantalang, [However] design, construction, maintenance Undersecretary of DPWH. Bakit feasibility study should be entrusted to USAID. Wala bang Filipino counterpart doon? [Why should FS be constructed to USAID. Is there no

Filipino counterpart?]

Mayor Fajardo:

Yung pera nanggaling sa USAID but actually design, construction, maintenance na ginagawa nila ay kasama na tayo doon. At meron ng mga engineer under Rogelio Singson which is the Undersecretary of DPWH. Ang totoo po noon nang kami ay nasa Manila, we were having a dialogue with some people in Manila, there are lots of engineer from DPWH, environmental for AIADP, humaharang pa nga po roon sa paggawa sa Bongabon-Baler. When I suggested that alternative road should be made, the road from Bongabon-Baler hinaharang nila ayaw nila ng ipatuloy ang kalsada. [Although money/funding comes from USAID, we have an input in the design, construction, maintenance (of the road) and there are engineer under Rogelio Singson and DPWH. The truth is while we were having a dialogue with some people in Manila, there were engineers from DPWH, environmental (members) from AIADP who were against the upgrading of the Baler-Bongabon road which I was suggesting as an alternative route.]

Francisco Padilla:

Pero ito pong kagubatan na nanditong sinisira ngayon ng ating tinatawag na lisensiyadong tao. Saan po pumupunta ang tubig ngayon? Totoo po lahat ng kagubatan nasasakop nila ang 80% ng watershed ng Gabaldon, saan pong pupunta ang tubig diyan kung iyan ay mauubos? Ito pong kahabaan na kailugan na kailangan na kasalukuyang ngayon ay maaring sinasabi na sinisiira ng mga ilog. Iyong sinasabi talaga, pero madaling mauubos iyon. [But the forest is currently being destroyed by what we call the licensed people. Where would the water go now? While it is true that the 80% of the watershed of Gabaldon is still forested, where would the water go when everything is finished?]

Mayor Fajardo:

Ang ibig ko pong sabihin pagka't gumanda po ang kalye ay mabilis ang pagkakaroon ng reforestation. Alam ninyo ho kasi ang isang reforestation project ay mas mabilis na ma-implement pagkat po maganda ang kalye. Kaya reverse po iyong mabilis na pagkaubos ng kagubatan. Pagmaganda ang kalye ay marami tayong reforestation project na makukuha. Kagaya po ng highway nagkakaroon po iyon pag nacemento ang mga gilid po ng kalsada definitely magkakaroon ng mga reforestation. Hindi naman po iyon ang ibig kong sabihin. [What I mean is if the road is fixed, we would have reforestation. As you will know, are forestation project would be easier to implement if we have a good road. That is why, I think the portion (of Group I which states taht one effect of the road is) the fast rate in which forest cover will be cut, should be in reverse. A good road would mean more reforestation. Like when a highway with cmented side would be constructed reforestation would definetly take place.]

Arsenio Ilag:

Iyon po ba ay makakapigil, iyong highway na iyon doon sa mga tubig na nanggagaling sa mga watershed pag iyon ay naubos eh. Hindi makakapigil iyon pag iyon watershed na iyon maubos. [Would that highway stop the water which would come from the watershed when the watershed is completely logged? I don't think it would stop the waters from the watershed.]

Mayor Fajardo:

Hindi ho maintindihan ang ibig ninyong sabihin. [I cannot understand what he is trying to say.]

LBII Response (Posadas):

Ako ho kasi member ako ng grupo. Basically po ang sinasabi nila, mabilis ang pagkaubos sa kagubatan is that ang pag logging ho dito around Dingalan, I mean, higher Dingalan sa Aurora, iyong logging trucks dito ho dumadaan. Sa isang araw ho estimate 30 trucks ang dumadaan araw-araw so ang mas masaklap ho doon, alam ho ng engineer design na ang dumadaan diyan ay logging trucks ay ang idesign po nila na road ay those which can withstand the logging trucks. So hindi masisira agad ang daan kaya maging mabilis at mabilis ang pagkaubos ng kagubatan. Tapos ang sinasabi rin ho nila sa ngayon wala hong reforestation diyan, ang tubig mahuhulog po dito kasi parang bowl ho ito masisira pa rin ho yung daan kaagad kasi bababa ang gravel. Parang ganoon ho. [If I may clarify the issue since I was part of the group. Basically what the group was trying to say when they felt that the issue is the fast rate of deforestation is that the road is used to transfer the logs which are taken from Dingalan or on the higher portion of Dingalan. They have estimated that as much as 30 logging trucks pass everyday and what would make it worst is that since the engineer would know that traffic (on this area) is meant for heavy trucks then they would design a road meant to withstand the logging trucks. What happens is that the road would not be destroyed immediately, then logging would go on at a much faster rate. Their other point is that since there is no reforestation activity going on right now, (excess) water (from the rain) would fall on this area which is like a bowl. Thus the road would be destroyed by the sediments (gravel) which would erode from the mountain or something like this.]

Mayor Fajardo:

Kaya may solusyon ako diyan gaya ng reforestation at talagang bantayan natin ang illegal loggers. [And I have a solution there like reforestation and a vigilant watch over those illegal logging.]

Mayor Mandia:

Kung pakinggan lang natin ang mga illegal logging at saka iyon reforestation iyan ay depende. Maari mangyari ang sinasabi ng kabilang panig, maaring mangyari rin ang kay Mayor Fajardo at nangyayari naman talaga na nagrereforest na tayo. At ang DENR ay nagkakaroon na rin ng malaking improvement. They are more on reforestation and pag nakapasa na siguro ang bill sa Congress ay itong logging na ito ang masosolve na rin sa madaling panahon. Ang importante palagay ko ay mamamatay na tayo ay hindi natin matiknan maging sementado ang daan ng Gabaldon-Palayan. Ke loan, ke grant, I think makaparte tayo sa utang ng gobierno na mapaganda itong daan. [It depends on whose side are we when we listen about illegal logging and reforestation. What the other side said could come true while what Mayor Fajardo said could also come true. And the truth is, reforestation activity is going on. DENR right now has undergone lots of improvement. There are more on reforestation and that problem could only be solved when that Bill pending in Congress would be passed. What is important right now is that people (in Gabaldon) would die without seeing the road cemented. Whether it is a loan or grant, I think we should take part (benefit) in the debt of the government to upgrade the road.]

We are thanking the Louis Berger International Incorporated team na sana ay matulungan ninyo kami. Makakarating ang resolution ng mamamayan na maaring maging grant ito sa halip na loan kasi malaking tulong kung grant. And I think everybody ay magkakaroon ng mabilis na pag-uunlad - sa pamilya, sa barangay, sa bayan, sa probinsya at sa bansa. Maiaayos ng luisto oyan dahil ibang dumiskarte ang ating mga kaibigan, tatal kasama rin sa pamamahala ang Undersecretary ng Public Works and Highways. Napakaganda ng palitan ng kuru-kuro at lalo na yong grupo ng NGO na at least nakapagbigay ng magandang panukala, magandang problema at magandang solusyon. Kaya sana lahat na iyon ay nai-record ng grupo at sa August mapapunta dito sapagkat sa August doon you can actually see the condition of the road in the municipality during rainy season. You don't have to ask us. You can actually see what

area should be improved very well that means drainage, flood control, so on to maintain the roads at their durable condition at all times. Thank you. [We are thinking the LBII team and hope they can help us. We, the residents would also make a resolution asking that this would be in the form of a grant instead of loan since a grant would definitely help us more. After this, everybody would progress - the family, barangay, country, province and the whole world. (The road would be) constructed well since our friends would do it together with the head of the Undersecretary of DPWH. We had a very good exchange of thoughts, perception especially the NGO group who gave good comments, problem and solution. I hope everything was recorded by the group and that the group could come here in August since this is the time where we can see the actual condition of the road. You don;t have to ask us. You can actually see what area should be improved very well that means drainage, flood, control, so on to maintain the roads at their durable condition at all time.]

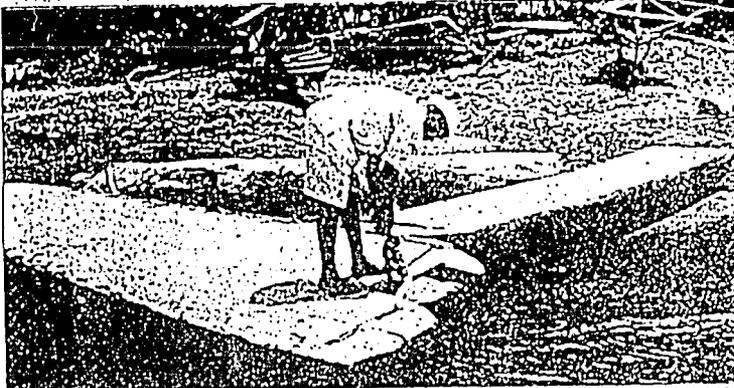
APPENDIX F

Appendix F

ARIDP/PROJECT-AREA ASSOCIATED NEWSPAPER ARTICLES

- F-1 Philippine Daily Inquirer 6/17/91
*"Big Firms, Residents Engaged in
Illegal Logging"*
- F-2 Philippine Daily Inquirer 6/18/91
"Soldiers Linked to Illegal Logging"
- F-3 Philippine Daily Inquirer 6/24/91
*"66 Government Men Charged with
Illegal Logging"*
- F-4 Philippine Daily Inquirer 6/25/91
"31 Logging Firms Face Closure"
- F-5 Philippine Daily Inquirer 7/03/91
*"Environmentalists Protest Proposed
Roads in Aurora"*
- F-6 Philippine Daily Inquirer 7/07/91
"War on Illegal Loggers"
- F-7 Philippine Daily Inquirer 7/11/91
"Cory Asked to Protect Aurora Forest"
- F- 8 DAWN 7/15-21/91
"Virgin Forest No More"
- F-9 DAWN 7/15-21/91
"Narra, Troso Nasabat" (Narra, Logs Confiscated)

Big firms, residents engaged in illegal logging



A MAN binds illegally cut Luanon logs on the Uniray river

By RITA VILLADIEGO
(First of two parts)

(The once majestic Sierra Madre may soon go the way of the rest of our denuded mountains. Big firms, the military and even residents themselves are to blame. Rita Villadiego, INQUIRER correspondent, went there on a grant from the Philippine Center for Investigative Journalism and filed this report. -- ED)

ning Angara, a Dumagat tribal councilman, says. Residents here say about 100 motorboats fetch illegally cut luanon logs transported through rivers every 10 to 15 days. "Kami'y sasama na rin kayo maibos ang kahoy na mga diyos"

SPECIAL REPORT

ling ang nakililabang (It's better to join in the fray than let settlers alone benefit from our forests)," Ruperto Ruzol, 49, barangay captain of Maligaya, says.

At least 18 barangays on the slopes of the Sierra Madre are being logged indiscriminately not only by residents of the area but

GENERAL NAKAR, Quezon -- Twenty years ago, residents of Infanta and General Nakar towns used to wake up to the calls of lulan birds (green bill).

Today, only the roar of power chainsaws echoes in the forests of the Sierra Madre.

"Wala nang Lihoy na nathapanan ang lala (Clockbirds have no more trees to rest on)," De-

See BIG FIRMS, P. 7

Big firms, residents into illegal logging

(From page 1)

also by settlers from Aurora, Nueva Ecija, and Infanta, Real and Mauban, Quezon. The timber is ferried aboard watercraft and sold to 37 legal and illegal Real and Mauban sawmills.

Although most of the sawmills are permitted only by the Department of Environment and Natural Resources to buy logs from licensed timber concessionaires in Aurora province, some sawmills get their timber from "carabao loggers" -- so-called because these animals are used to haul timber. Barangay officials in General Nakar say more than 3,000 men are regularly engaged in "carabao logging."

A report of the DENR last month said forest guards have seen heavily armed soldiers escorting watercraft here. The report said because the areas have been the sites of frequent military operations against the New People's Army (NPA), forestry officers cannot enforce forestry laws there.

Parks, watersheds

National parks and watershed areas have not been spared.

The DENR said unabated charcoal making, kaingin (slash-and-burn farming), illegal cutting of trees and limestone mining have denuded the 983,000-hectare Quezon National Park in Atimonan.

Watersheds in Barangay Agos-Agos and Banugao in Infanta, Cawayan, Real town and barangays of Magsaysay, Dinigman, Uniray and General Nakar have been logged over.

A Swedish study on the Philippine forest cover said only 22 percent of Quezon forests remained in 1988. The remaining forests are mostly found in General Nakar town.

If people here seem deaf to warnings aired by environmentalists, they say they should not entirely be blamed because of the lack of other means of livelihood.

"Paano kang wala kaming pagaari na itabubuhay (What if we don't have any source of livelihood)?" Ruzol says.

He says 90 percent of General Nakar's population depend on logging for survival. A logger who cuts 10 trees a month usually earns P5,000 to P20,000 net income.

Fr. Israel Gabriel, parish priest of Dingalan and adviser of Lingkod-Tao Kalikasan (LTK), says that 80 percent of 15,000 people in Dingalan depend on the logs and forest products.

Social research

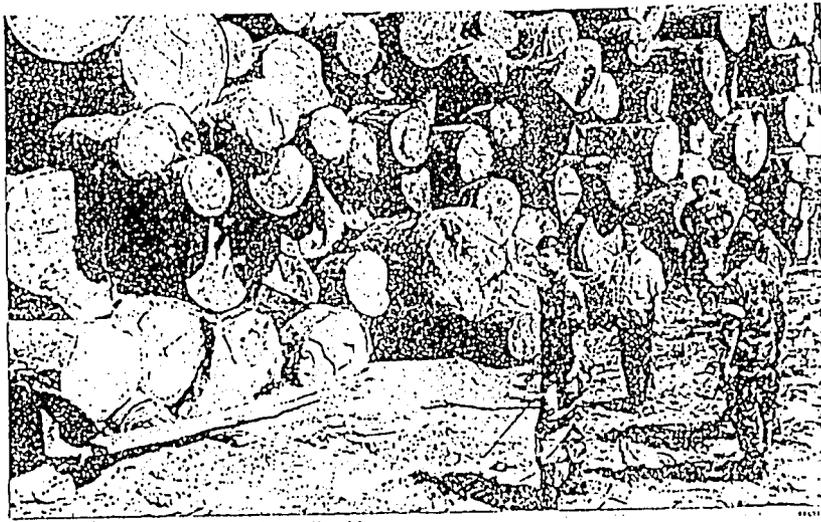
A participatory social research conducted in 1990 by the premiere of Infanta under-Bishop Julio Labayan, showed that 316 of the 1,370 respondents would not give up illegal logging unless the government gave them alternative livelihood, or until operations of big-time logging and lumber outlets like sawmills stopped.

The survey also found that 207 of the respondents believe that DENR personnel directly connived with illegal loggers, while 480 said the PNP and the military received money from illegal loggers. Except in Real town's community, social forestry has yet to be carried out in the area.

Projects of the DOW are mostly family-approach contract reforestation, pay-to-contract reforestation, butt plantation and a nursery in Quezon National Park covering only 54 hectares.

Quezon and Aurora provinces account for 71 percent of all forests in Region 4. They also have the highest rate of destruction.

The W.P. German Forest Resources Inventory of 1987 has recorded a forest decline of 79,350 hectares between 1964 and 1984. Of the 130,800 hectares of virgin forest, in 1969, only 44,000 re-



MILITARY officers inspect seized logs at Fort Magsaysay.

7 logging concessionaires

Latest DENR data show that there are seven big logging concessionaires in Quezon and Aurora provinces. One has a private land timber license; six have timber license agreements. They operate in a total of 203,275 hectares and cut some 291,303 cubic meters of trees yearly.

These are International Hardwood and Vencer Co. of the Philippines in Mauban, Quezon; Inter-Pacific Forest Resources Corp., Pacific Timber Export Corp., Industrial Development Corp., RCC Timber Co., Verdant Agro-Forest Development Corp. in Aurora, and South Eastern Timber Inc., the lone firm operating with a private land timber license.

The indiscriminate logging in General Nakar and Real, Quezon has made these areas a target of nature's wrath.

On Oct. 24, 1988, 17 families, mostly Dumagats, were buried alive when landslides hit Barangay Canaway, General Nakar town.

There were warnings. Years before the tragedy, the town of Infanta, Real, and some baangays of General Nakar turned into a sea of mud when a strong typhoon struck.

DZJO, a Catholic-run radio station, said at least 30 barangays in Infanta and General Nakar were submerged in one to three meters of water in 1968. In Sitio Mampopod and Sitio Pundungan, Dingalan, Aurora, floods in 1968 and 1989 rose as high as coconut trees.

Floods, landslides

The floods and the landslides have been blamed on overlogging by Pristine Timber Inc. Its permit was cancelled by the DENR in 1989 after residents of the areas voiced their protest in rallies here.

Pristine, which used to export timber to other countries, operated here for a year under the Timber Production Sharing Agreement with the DENR. Its operation was not renewed after the DENR found out that the firm was over-cutting and operating outside its allowed logging area in General Nakar.

Assistant Natural Resources Secretary Gregorio Magdaraog said the perpetrators, who were mostly Chinese, were never punished and have left the

In Barangay Lagmak, about 45 Dumagat families are facing eviction due to the unabated logging and mining operations of Tantuco Lumber Inc., the government-run Office for Southern Cultural Communities in Infanta (OSCC) said.

Cely Vargas, a staffer of the OSCC, says despite a government order declaring the 1,000-hectare lot at Dumagat ancestral land, the DENR still allowed Tantuco to operate in the area.

Resettlement area

In other barangays of General Nakar and Aurora provinces, Dumagats are still waiting for a permanent resettlement area. Dumagats are also hoping that part of 28,000-hectare land owned by Roberto Gopansay Jr., of South Eastern Timber Inc. (SETIC), a logging concessionaire in Aurora province, would be distributed to the tribe.

Dumagats say their ancestors have lived in the area since time immemorial. In Barangay Dinigman, about 1,420 hectares were declared an ancestral land by the government, but loggers continued to flock to the area.

The encroachment of big-time gold miners in Barangay Angulo also threatens the habitat of Dumagats whose simple, nomadic lives are devoted entirely to survival.

"Sa gulat kami lumilukha ng itabubuhay, kaya sana nanay ay igalang ang lugar namin," Ilene Angara, a tribal councilman, says.

The premiere of Infanta under-Bishop Labayan has set up a Dumagat permanent settlement in Barangay Matawi, Aurora province, where the migrants are taught to read and write and are provided with livelihood aid.

Dumagats (population: 5,000 in Quezon province), which means "from the sea," are often treated as slaves by big-time lumber concessionaires. Their forest products are bought by middlemen at very low prices.

Although Dumagats' kaingin (swidden farming) and "carabao logging" are also blamed for forest destruction, they have learned to plant trees and crops.

(Tomorrow: Military even in illegal logging)

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SIERRA MADRE'S LAST DAYS

Soldiers linked to illegal logging

By RITA VILLADIEGO (Second of two parts)



DINGALAN, Aurora -- Government efforts to stop illegal logging here have failed because the law enforcers themselves protect the loggers.

Last April 14, masked armed men, believed to be soldiers barged into the local office of the Department of Environment and Natural Resources to force the release of about 2,000 board feet of confiscated narra fitches.

Arthur Serna, community environment and natural resources

officer (CENRO), said a big-time illegal logger and narra smuggler based in Butacan has been using soldiers and policemen to

SPECIAL REPORT

"escort" illegally extracted logs from Isabela and nearby provinces where commercial logging has been banned.

The DENR office here could not arrest the suspects because it has no LAW ENFORCERS. P

Law enforcers protecting illegal loggers

(From page 1)

is still gathering evidence.

Serna said the narra fitches were not released to the men despite their "threats and harassment."

He said most of 157 logs they seized this year were cut in Isabela and Nueva Ecija. He added that most of the illegal loggers caught were just using Dingalan road to transport their logs to Manila and to other provinces.

Fr. Israel Gabriel, parish priest of Dingalan and Adviser of Lingsad-Tao Kalikasan (LTK), a Church-based non-government organization, said last year he saw a soldier of the 56th Infantry Battalion on a utility vehicle acting as escort of a truck loaded with narra logs. Residents of Dingalan have reported similar sightings.

Illegal logging

In Quezon national park in Admanan, rampant illegal logging has been blamed on the 1st CAFGU detachment. The DENR, in its May report, urged the pull-out of the CAFGU and the military detachment from the national park to stop illegal logging.

The disappearance last month of 65,000 board feet of logs and narra fitches worth millions of pesos which had been seized by the military in Fort Magaysay, disappointed residents of Umiray, Dingalan. The logs were later found to have been returned to their owner -- South Eastern Timber Inc. (SETIC) -- which stored the narra fitches inside its warehouse in Umiray.

The management of SETIC admitted storing narra fitches inside its warehouse but said these were part of narra trees accidentally cut by its men while bulldozing roads in the forest and, therefore, they could be declared as "felled logs." Hilda Nardo, SETIC paymaster, showed some of the narra fitches and said some of the timber had been stored in the past years and were not for sale.

(SETIC, with a private land timber license, can cut about 10,000 cubic meters of trees yearly in Dingalan, Aurora.)

Collection at checkpoints

Some soldiers also collected money from both legal and illegal loggers passing through checkpoints here, truck drivers said.

barangay captain of Dikapanikian, Dingalan, said he saw some soldiers of the 56th Infantry Battalion cutting trees for their lumber business in Dikapanikian.

Cruz also said the 56th Infantry Battalion has committed many abuses here. One male Dinnagat was snipped naked by soldiers in a mock "baptism" in the river.

Illegal logging remains unabated despite the recent crackdown by the Department of National Defense which discharged 11 soldiers who were linked to illegal logging.

Hard to stop

The LTK said illegal logging is hard to stop here because most government officials, from the provincial to the barangay level, are engaged in logging. While walking on the rough road of Barangay Palde here, this writer saw two blue six-wheeler trucks with plate numbers CEE 567 and CLH 490 and with "DND-DENR" markings lining up to fetch logs from the Fort Magaysay military reservation in Nueva Ecija, about an hour away from Dingalan.

Officials of LTK said the trucks are owned by Isabela Capital Wood Industries, which is no longer allowed to operate in Isabela due to the total commercial logging ban there.

CENRO Arthur Serna denied any knowledge of the entry of Isabela Capital Wood, saying they have not yet approved its application.

But Serna said the DND has endorsed the request of Philippine Veterans Association (PVA) to get 32,000 cubic meters of felled logs in Fort Magaysay.

DND assists PVA

Defense Secretary Fidel V. Ramos said the defense department has "assisted" the PVA in collecting "felled" logs in Fort Magaysay.

A driver of SETIC said a driver has to pay P1,000 to P2,000 per truck at several military and DENR checkpoints before reaching Manila.

Some soldiers are the ones cutting trees, Prudencia Cruz, 57

Ramos said there is nothing illegal about this because under the DND-DENR agreement, schoolhouses and other government offices and the military can use "felled" logs to improve institutional services.

Ramos also said that under the agreement, the defense department helps the natural resources department enforce forestry laws.

Most military men have been assigned to plant trees in Fort Magaysay for three years. Some have been deputized by the DENR to arrest illegal loggers.

However, officials of the LTK said the DENR has repeatedly classified timber as "felled" logs to allow some favored groups like the PVA to transport illegally cut logs.

(A DENR order says "felled" logs should only be hided out in a public auction.)

No knowledge

Natural Resources Secretary Fulgencio Factoran denied any knowledge about the presence of DND-DENR trucks in Dingalan. He said he did not approve the request of the PVA to collect "felled" logs in Dingalan.

The LTK said their volunteers had earlier seen a number of bulldozers and other heavy equipment used in cutting and hauling logs, and with DND-DENR markings, going up the mountainous forests of Fort Magaysay military reservation.

Natural Resources Secretary Fulgencio Factoran said he would investigate the alleged involvement of some DENR personnel in illegal logging.

Factoran dismissed 16 DENR employees in Quezon last year. He said he had not signed any agreement with the defense department waiving DENR jurisdiction over some military reservations.

No prosecution

Rep. Oscar F. Santos (DP, 4th District, Quezon) said that de-

spite many arrests and raids conducted by the DENR, he has yet to see an illegal logger in Quezon prosecuted.

A May 1991 report of the DENR said the morals of some field personnel is low because of the failure of municipal courts to act swiftly on the many criminal complaints they have filed against illegal loggers.

In Infanta, Quezon, five soldiers, including a captain, were relieved from the 59th Infantry Battalion last year for "excusing" illegally cut logs. Lt. Col. Jolly Rico, 59th Infantry Battalion commander, said.

Rico, however, declined to give the names of the soldiers involved.

T/Sgt. Eduardo Felipe of the 56th Infantry Battalion's Alpha Company, denied military involvement in illegal logging. He said soldiers seen riding on trucks carrying logs were just "hitchhiking" rides.

'Hitchhiking rides'

"Nakikilalay lang kami, hindi kami nag-escort. (We're just hitchhiking rides; we're not escorting)," said Felipe.

Lt. Col. Roberto Cuzay of the 31st Infantry Battalion, whose CAFGU and military detachment is located in the Quezon national park in Admanan, said he would investigate if some of his men were involved in illegal logging.

Last February, a Southern Luzon Command sergeant was dismissed from the service after he was caught by the Philippine National Police in Admanan escorting illegally cut logs.

Since commercial logging is banned in provinces like Quezon, Nueva Ecija, Isabela, Bukidnon and others, loggers here have flocked to Dingalan, Aurora.

The DENR authorized SETIC and the Inter-Pacific Forest Resources Corp. to operate in Dingalan. But the two companies

were reported to be responsible for denuding watersheds in Barangay Madlim, the LTK said.

LTK proposals

Although the LTK has submitted proposals to classify about 3,000 hectares of Dingalan as an essential watershed, the DENR has failed to officially recognize the watershed, thereby allowing IIRC to log in the area.

The LTK also said the companies are cutting young growth forests, are overlogging and are contributing very little to reforestation.

But what worries people in Dingalan and nearby Gabaldon in Nueva Ecija is the denudation of watersheds in Aurora province which may not be able to sustain agricultural production in the lowlands.

Based on a study of the environmental research division of the Manila observatory, Gabaldon may experience devastating flash floods if watersheds in Aurora are further denuded.

Not enough money

"We don't have enough money for reforestation," Assistant Natural Resources Secretary Delfin Garapin said.

"It is difficult to convince some people to plant trees instead of cutting them," a CENRO forest ranger based in Real says.

In Real-Infanta-General Nakar, the DENR cannot stop motorboats hauling logs because they do not have their own pumpboats to apprehend offenders.

Forestry guards say cutting areas are not accessible. The guards do not have their own horses or vehicles.

Assistant Secretary Gregorio L. Magdarang said the DENR is finalizing next month its \$250-million grant from the World

Bank to be used to protect forests, draw up policy, improve institutional services and develop forest land.

Additional loan

Magdarang said the DENR expects an additional \$400-million loan from the Asian Development Bank to finance reforestation projects in the country.

But the most effective solution to stop illegal logging and save the remaining virgin forest is the people's participation in the campaign.

In Infanta, Real, General Nakar, Polillo islands and part of Aurora province, the province of Infanta has started organizing the people for environmental awareness and protection.

Oscar Castillo, coordinator of the church-based National Community Organization for Philippine Enterprise, said most of their officials have been deputized by the DENR to arrest illegal loggers.

"It's the people who should do reforestation," said Bishop Julio Labayan of Infanta.

(This story was made possible by a grant from the Philippine Center for Investigative Journalism)

KEEP THE ELECTION CLEAN KEEP THE EMPLOYMENT SAFE. ELECTIONS REGULATIONS. CANDIDATE IS BANNED FROM... NO BUNS IN PUBLIC PLACES... OFFICE OF THE LATTI OF THE PHILIPPINES

66 gov't men charged with illegal logging

By RITA VILLADIEGO

AT LEAST 66 personnel of the Department of Environment and Natural Resources are facing either criminal or administrative charges for their alleged involvement in illegal logging, DENR Secretary Fulgencio S. Factoran yesterday said.

In a letter to the INQUIRER, Factoran said a DENR employe had been charged administratively and another was suspended following an investigation into illegal logging in Aurora and Quezon provinces.

"So you see, we have gone beyond the promise to investigate," Factoran said.

An INQUIRER two-part series exposed the involvement of big firms, military personnel and residents in illegal logging at the Sierra Madre in Quezon and Aurora provinces.

In the article, a Church-based social survey last year revealed that 207 respondents believe that DENR personnel were in cahoots with illegal loggers. Another 480 respondents said policemen and military men receive money from illegal loggers.

Factoran admitted that illegal logging operations have not been wiped out due to limited DENR resources. But, he added, illegal logging operations have been minimized.

Before, illegal loggers use large mechanized tractors. Now the modus operandi has been replaced by "more discreet" poaching and carabao logging, he added.

Factoran said it is unfair to accuse the DENR with indifference when its personnel stand in the firing line and continually receive death threats from armed illegal loggers.

Factoran, however, said the problem is economic and cannot be solved overnight.

He explained that as long as there is insufficient supply of wood in the market, timber theft, poaching and smuggling will continue.

The market is hungry because we have restricted logging operations and economic preda-



FACTORAN

tors have taken advantage of the situation by engaging in timber theft," Factoran said.

Factoran listed several measures undertaken by his department.

- A memoranda of agreement had been forged with the defense and justice departments to assist DENR in forest protection and in the prosecution of illegal logging cases.

- Community-based socio-economic programs and projects are being implemented to provide alternative livelihood for the upland dwellers. Among these are the Community Forestry Program, Integrated Social Forestry Program, family and community contracts, reforestation projects and rattan cutting contracts for indigenous cultural communities.

- Exports of logs and lumber have been banned.

- Aerial surveillance of forest lands have been conducted, resulting in the confiscation of logs and logging equipment worth tens of millions of pesos.

- Confiscation of illegal forest products in 1990 reached 70,808 cubic meters of logs, 1,398 cubic meters of finished wood products and about 4 million linear meters of rattan. About 400 sawmills have been closed since 1987 for violation of forestry laws.

31 logging firms face closure

By RITA VILLADIEGO

TAYABAS, Quezon -- The Department of Environment and Natural Resources (DENR) will cancel the licenses of 31 more logging firms operating in the country's virgin forests.

DENR Secretary Fulencio Factoran Jr. said the timber license agreements (TLAs) of these firms will be cancelled within the next six months, reducing to 30 the number of companies that will still be allowed to log.

"Cutting of trees will no longer be a privilege," Factoran said in a dialog yesterday with Quezon officials and DENR personnel.

See 31 LOGGING, P. 10

*Phil
Inquirer
6-25-91*

31 logging . . . (From page 1)

The DENR also distributed 124 tree patents to 21 towns in the province. Factoran inspected some 500 mahogany and narra trees planted in Tayabas.

The secretary explained that most of the TLAs to be cancelled cover Northern Luzon, including Isabela, Quirino and Aurora where overlogging has been reported.

Logging will continue to become selective but sustainable, he added. The country has only 700,000-900,000 hectares of virgin forests remaining.

These forests will be managed by people's organizations and residents of the areas under the DENR's integrated social forestry program.

Factoran said it would take about 30 years before secondary growth forests can be cut in most logged over areas.

In 1987, 143 logging firms were allowed to operate by the government. The number was reduced early this year to 61 as several logging firms were shut down for over-cutting.

Residents of Guinyangan, also in Quezon, complained to Factoran that a big sawmill was operating illegally in their area two months ago.

They said the sawmill was buying logs cut illegally in Del Gallego, Camarines Sur.

The DENR, however, denied issuing the sawmill's permit.

Environmentalists protest proposed roads in Aurora

By RITA VILLADIEGO

CONTROVERSY threatens to engulf a US-assisted P900 million proposed Aurora road network improvement project which environmentalists contend is hazardous and would traverse portions of virgin forests in the Sierra Madre ranges.

During a public consultation meeting, representatives of Haribon Foundation, Green Forum and the European-backed Aurora Road Improvement Development Project (ARIDP) cautioned the government against pursuing the project. They said the project would cause massive dislocation of tribal groups, soil erosion, loss of wildlife and could open the floodgates to illegal logging.

Representatives from Louis Berger International, Inc. (LBI),

one of the US-based consultants providing technical advisory services for the Philippine Assistance Program (PAP), who met with the environmentalists said more "scoping" sessions were needed in the local level before the project could get off the ground.

Engineer Kent Lande, team leader of Aurora roads project said the roads which would link depressed areas in Aurora province to nearby provinces are expected to spur development in the province.

Lande said the government will be spending about P2 million to P5 million per kilometer or a total of P900 million to complete the road network in five to ten

years.

But environmentalists are ready to oppose the project to protect remaining tropical rain forests and residual logged over areas.

Lawyer Norman Kalagayan of the Haribon Foundation told the INQUIRER they are in favor of improving the circumferential road that would link Baler, Maria Aurora and San Luis but they are up in arms against the Dingalan-San Luis road that would traverse virgin forests.

ARIDP said the proposed Dingalan-San Luis roads would pass through 14 watersheds along the coast which are still thickly forested and may invite the influx of illegal loggers to the area.

The project is risky because over-logging in Aurora has caused 552 landslides prior to the occurrence of July 16, 1990 killer earthquake. These landslides caused sedimentation in rivers and creeks as well as siltation in the low-lying areas.

Arne Jensen, Executive Director of the Danish Ornithological Society and a member of the World Wildlife Fund claimed that 26 birds species, including the rare Philippine Eagle, would vanish if the project pushed on.

But the biggest casualties would be the Dumagats, Igorots and Ilongots and other tribal groups who have nowhere to go if the roads pierced through their ancestral land.

LETTERS

War on illegal loggers

THIS has reference to the two-part series on illegal logging in the Sierra Madres written by *PDI* correspondent Rita Villadiego. The editorial of June 19, sums it up thus: "The first paragraph of Villadiego's final article tells it all: 'Government efforts to stop illegal logging here have failed because law-enforcers themselves protect the loggers.' She means not only soldiers and policemen but also personnel of the Department of Environment and Natural Resources."

This department was also made to appear as countenancing wrongdoings of its personnel when the same editorial stated that "we might wind up with exactly a big fat zero if we try to count how many errant soldiers and policemen engaged in illegal logging have been punished, and we mean, really punished."

For the record and in response to the said series, let me state that the Department of National Defense -- Department of Environment and Natural Resources (DND-DENR) combined efforts to curb illegal logging is a continuing and committed campaign. To date, a total of 516.36 cubic meters of forest products have been confiscated as a result of the campaign.

The allegation that law-enforcers themselves are protecting illegal loggers is a generalization that tends to put to public ridicule and distrust the vast majority of law enforcers who have unselfishly committed themselves to public service. While there may be some military men linked/tured to these nefarious activities, these are isolated incidents and the DND-AFP is ever-watchful of these sealaws in uniform, ready to impose punitive sanctions against those found culpable therefore. As of this date, eleven AFP personnel were dismissed from the service, seven were summarily transferred to other units and fifteen are still under custody pending the result of the investigation.

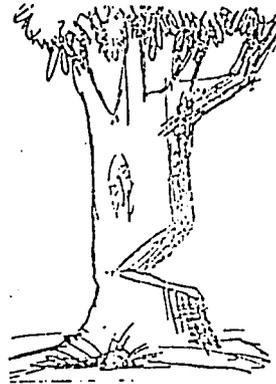
As regards the allegation that the DND "assisted" the Philippine Veterans Association (PVA) in collecting "felled" logs in Fort Magsaysay, records will show that in a letter dated Oct. 3, 1990, Mr. Alfredo D. Santos, Deputy National Commander for Luzon, Philippine Veterans Legion (PVL), submitted to this Office a copy of the PVL Nueva Ecija Chapter Resolution seeking authority to collect some of the confiscated felled logs to restore/rehabilitate the houses of veterans damaged/destroyed during the July 16 earthquake.

The said resolution was favorably considered by this office provided that the logs will be properly marked and prudently distributed to the Nueva Ecija veterans-beneficiaries, and that the necessary permits to haul and transport the same should be secured from the DENR. Thereafter, Mr. Santos never appeared at the 7th Infantry Division Headquarters in Fort Magsaysay for a coordinating conference. Instead, this office received a letter dated May 16, 1991 from Mr. Prisco A. Afos, Sr., National Commander, PVL, protesting the alleged "blunders" committed by Mr. Santos against the Nueva Ecija veterans in regard to the proposed award of some logs to the Nueva Ecija PVL Chapter, mentioning an alleged financial deal with a third party.

The award secured by Mr. Santos was immediately suspended and is now under thorough inquiry by this Office, while the 7th Infantry Division authorities are conducting an inventory of the logs at the Fort Magsaysay Military Reservation (FMAR). As of this date therefore, not a single piece of log has been released to, or collected by the Nueva Ecija PVL Chapter (not PVA).

On the alleged disappearance of 65,000 board feet of logs from the FMAR where two PA officers were allegedly involved, please be informed that one was recommended to face the PA Efficiency and Separation Board, while the other is still facing investigation in this log scam. The AFP is presently conducting further investigation on this matter and you will be informed accordingly of its result.

With regard to the report on the alleged collection of money by soldiers from loggers passing through checkpoints, the respective unit commanders in the area have already been repeatedly admonished on the matter and punitive action is invariably imposed against those who exhibit improper decorum. This policy,



however, is tempered by the requirements of due process as it is not uncommon for illegal loggers to resort to unfounded allegations/harassing actions against those who scrupulously enforce the law.

Let me reiterate that in the public interest and as mandated by our sworn duties, this department has never and will never condone any malfeasance or misfeasance in office by any member or functionary of this department and that the President's policy to weed out misfits in the public service is being relentlessly carried out. Towards this end, we sincerely welcome the collaboration of the private sector, particularly the mass media. -- FIDEL V. RAMOS, Defense Secretary

Phil Daily Inquirer 7-11-91

Cory asked to protect Aurora forest

By RITA VILLADIEGO

NATURAL Resources Secretary Fulgenio Factoran Jr. has asked Malabang to protect some 17,375 hectares of land in Aurora province as watershed areas.

In a memorandum furnished to the INQUIRER, Factoran recommended to President Aquino that Ditchi and Bazal River in San Luis and Maria Aurora towns be sealed off as watershed forest reserves.

Factoran said the areas must be preserved to ensure adequate supply of water and prevent the destruction of the forest.

Factoran's action is an off-

shoot of an earlier demand by Aurora Integrated Area Development Project (AIADP), a non-government organization.

Bishop Julio X. Labayan, Prelature of Infanta, and residents of the area to stop the continuous degradation of the watershed.

AIADP had earlier charged that Aurora Timber Corp. (ATICOR) is cutting trees inside the area.

AIADP said 52 percent of ATICOR's logging area falls within the watershed areas.

ATICOR, however, in a letter to the Department of Environment and Natural Resources (DENR)

denied cutting trees inside the watershed saying it is not part of their concession.

Meanwhile, the DENR is ready to block the construction of a 160-kilometer road network in Aurora if it found that the highway would pass through virgin forests and watershed areas.

DENR Assistant Secretary Delin Ganapin told the INQUIRER that the DENR may withhold issuance of Environmental Impact Assessment permit if the project would destroy forests in Aurora.

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DAWN

VOL. I, No. 8 JULY 15 - JULY 21, 1991 P2.00

Peace Stability Manifested



ENRILE

FORT MAGSAYSAY, Palayan City - Philippine Army Chief Maj. Gen. Arturo Enrile, here, told Saturday that the continuous decline of insur-

gency in Central Luzon and in the entire country as well, is a clear manifestation that peace will be obtained in the near future.

Enrile, who was the guest of honor during the "Change of Command" ceremony held at the 7th Infantry (KAUGNAY) Division in Fort Magsaysay, this city, exhorted

Generals Soriano and Batenga to exert their effort to combat insurgency problems in their respective Area of Responsibility (AOE) and serve the people with utmost integrity.

In an exclusive interview with DAWN, regarding the unusual non-occurrence of major encounters

turn to page 3

VIRGIN FOREST

By: Ernie Ang

NO MORE

In a recent interview of the DAWN, SP Member Loreto V. Bihasa revealed that the once verdant tropical rain forest in the hinterlands of San Luis and Dingalan had vanished and the threat of turning the region into a wasteland is imminent.



BURNED - Photo shows the denuded portion of the mountain along Ma. Aurora-Canili Road after it was burned by professional "KAINGEROS."

AURELCO CORNER

In this light

By RODRIGO E. CABRERA

Senator Butz Aquino was vigorous in expressing his own hopeful proposals in the Senate and in his sorties to the provinces "to develop the farmer into a businessman." Instead of simply being mired in his subsistence level of tilling the soil, harvesting his crop but the too dependent on middlemen when it comes to the final value of his harvest.

I'm glad to relay to our readers his proposal for instituting a scheme for barangay equity in infrastructure development. He said that if a barangay can afford to invest a substantial amount in roadbuilding, for instance, this barangay should enjoy priority in allocation of nation-

al funds for the project. And then the barangay can recover its investment through toll collections. But more than the generation of funds, this set-up would make the barangay members more vigilant in supervising the work being done, as well as in monitoring every aspect in project maintenance. If that's a food for thought, here's another prospect that people can actually work on: electric coops can avail themselves (according to Secretary Factoran of a substantial loan for agro-forestry.

The interest of the loan is only 14% per annum. But the best part is in the grace period of seven

turn to page 7

He further said that illegal logging are so intense in the area, and together with the logging operations of Timber Lease Agreement (TLA) holders like the Aurora Timber Corporation (ATICOR) and the Inter-Pacific Forest Resources Corporation (IFRC), the disappearance of the virgin forest will be conclusive.

SP Bihasa was with group of consultants who trekked on foot along the winding route from San Luis to Dingalan to study the feasibility of Aurora Road Project that will connect the two towns. The group passed tortuous logging roads that crisscrossed mountain ranges and witnessed the indiscriminate cutting of timber in the highland and low-lying areas. They have

turn to page 7

Soriano, new 'KAUGNAY' head

PALAYAN CITY - Brigadier General Orlando Soriano of Philippine Army formally took the post as the new Commanding General of 7th Infantry (KAUGNAY) Division, Philippine Army at Fort Magsaysay, this city, last

Saturday (July 06, 10991), in a simple "turnover" ceremony with Philippine Army chief Major General Arturo Enrile as guest of honor.

Gen. Soriano, who was the Commanding General of 5th Infantry Division

based in Isabela province "swapped" position with Brig. Gen. Edgardo Batenga who was then the 7th ID chief before the swapping took place.

Gen. Batenga lauded his men for their combat performance, mission accomplishments and bringing back the old glories of Fort Magsaysay.

Accepting the position

turn to page 3

Aurora, Gumising ka!

Guest House, itatayo

NAGPAHAYAG kamakailan si Dipaculao Mayor Salvador C. Velasco na pasisimulan na ng kaniyang pamunuan ang pagpapagawa ng isang Multi-Purpose building na magisilbi ring "guest house" kung saan ito ay may nakalaan nang pondo mula kay Senador Mamintal Tamano sa ilalim ng Republic Act No. 6831 o mas higit na kilalang Countryside Development Project.

Ayon sa Dipaculao mayor, ang nasabing proyekto ay nagkakahalaga ng P150,000.00 at nakatakdang pasimulan sa buwan ng Agosto ng taong kasalukuyan.

Ilinggil sa mga proyektong isinasakatuparan ng kanyang pamunuan, binanggit ni Velasco ang ilan sa mga ito na kinabibilangan ng Dipaculao Public Market na may pondong P.8 milyon, kung saan P700,000.00 mula rito ay ipiniagkaloob bulat sa National Assistance to Local

Government Unit (NALGU) at P100,000.00 namam ang ibinahagi ng pamahalaang-bayan ng Dipaculao.

Gayundin umano ang pagtatagawa ng konkretong bakod ng Dipaculao municipal plaza na may

Sundan sa pahina 7



Itinaturo ni Army Capt. Rolly Cartagena, Intelligence office ng 70 IB, ang mga narra flitches na kanilang kinumpiska at umano'y pag-aari ng isang tagangangalang Milagros Prado.



"Marami pa sa ilalim" - ito ang wika ni Lt. Col. Ernesto Bedon, Battalion Commander ng 70 IB, habang nakanasid si Capt. Rolly Cartagena. Ang mga narra tablon ay nakumpiska nina Col. Bedon, at umano'y tangkang imulit patungong Mauban, Quezon nang masabat ng mga "Intelligence" ng 70 IB. (Mga larawan kula nina Ariel at Cris)

1'Patay 8 sugatan

Isa katao ang namatay at walo pa ang malubhang nasugatan ng ang isang pampasaherong jeep na kinalululanan ng mga tio ay mahulog sa isang malalim na bangin kamakailan sa sitio Diahayo, Barangay Dimtumabog, San Luis, Aurora.

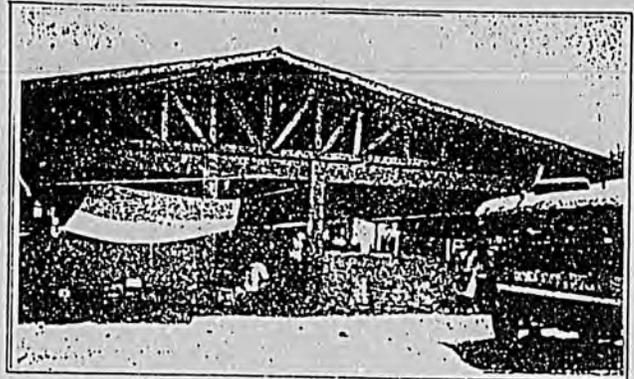
Ayon sa ulat ng San Luis PNP kay Col. Luireto Castricones, Aurora PNP Provincial Director, ang kina na kaagad namatay sa pinangyarihan ng sakuna ay nakilalang si Editha Amatorio, 43 anyos, isang negusyante at residente ng bayan ng San

Luis.

Samantalang ang mga sugatan na kaagad dinala sa Aurora Memorial Hospital ay kinilalang sina Rogelio Gonzales, 37 anyos; Teresita Amatorio, 43 anyos; Haino Francisco, 30

Sundan sa pahina 5

Trahedya sa Bangin



KONGRATULASYON - Ang bagong pamitlang-bayan ng Dipaculao, Aurora na pinagsumikapang maipatayo ng administrasyon ni Dipaculao Mayor Salvador Velasco.

NARRA, TROSO NASABAT

Nina: Cris Yambot at Ariel Avendaño

UMAABOT sa halos 16,000 bd. ft. ng mga narra flitches at tablon at 1,000 bd. ft ng yakal na tinatayang nagkakahalaga ng P498,000.00 at 74 piraso ng round logs ang nakumpiska sa 4 na magkakahiwalay na operasyon ng 70 IB, Phil. Army at Aurora PNP laban sa mga smugglers ng mga kahoy, noong nagdaang linggo.

Sa operasyon na inilunsad ng Phil. Army noong July 5 ay nasabat ng mga elemento ng 70 IB sa pangunguna ni Army 2Lt. Roberto Montemayor ang 3 pumpboat na umano'y pag-aari ng nagangalang Benjamin Camaligan at Teddy Navio sa baybaying-dagat ng Sitio Sablot, Barangay Dibayabay, San Luis, Aurora, kung saan ay nakakumpiska ng 74 na piraso ng troso at 1,000 bd. ft. na yakal na di-umano'y ibibiyahe patungong Mauban, Quezon.

Sa isa pa ring operasyon, nasabat pa rin ng Phil. Army sa pamumuno ni 2Lt. Carlito Rafanan ang isang truck na may plakang BAF-350 na may lulang 2,800 hd. ft. ng narra flitches at umano'y pag-aari ug isang nagangalang ginang Prado.

Noong July 16 umano ay nakumpiska ng mga tauhan ng 70 Infantry Battalion sa ilalim mismo ni Lt. Col. Ernesto Bedon, Commanding Officer ng nabanggit na batalyon kasama rin si Capt. Rolly Cartagena, Intelligence Officer ng 70 IB at mga piling tauhan nito ang 101 piraso ng narra tablon na tinatayang umaabot sa 2,500 bd. ft. sa baybaying-dagat ng Barangay Cemento, Isaler, Aurora kung saan ang isang bangka na nagbulat pa sa Palanan, Isabela at patungo sa Mauban, Quezon ay nasakote ng mga awtoridad habang pansamantalang nakahimpil sa nasabing lugar sanhi ug nagdaang bagyo.

Sa paglilisyat ni Col. Bedon, napag-alaman na pag-aari umano ng mga nagangalang Balazar

Rafa, Maning Guclistar at Jose Chuatico, pawang mga residente ng Infancia, Quezon ang bangkang M/B Marieglan na kinalululanan ng nasabing mga narra tablon nang abutin ng bagyo sa kalagitnaan ng dagat kaya napilitan silang idaong ang bangka kung saan sila ay natuklasan ng mga "Intelligence" ng 70 IB.

Sa pakikipanayam ng DAWN sa mga tripulante ng M/B Marieglan, ipinahayag ng mga ito na ninais na nila ang dumaong sa nasabing lugar at maluli kaysa makipagsapalaran sa nagangalang na mga alon na sanhi ng bagyo.

Sa isa namang spot report na ipinarating ni Capt. Alberto Baraquel, Ex-O ng 119 PNP District

Sundan sa pahina 7



Republic of the Philippines
Department of Public Works & Highways
REGION IV-A
AURORA ENGINEERING DISTRICT
BALER, AURORA

July 5, 1991

INVITATION FOR PREQUALIFICATION TO BID

SEALED BIDS on forms furnished by the Department of Public Works and Highways, Region IV-A, EDSA, Quezon City and Aurora Engineering District, Baler, Aurora, enclosed in two (2) envelopes with each envelope containing the documents enumerated under Section 1B 10.2 of the amended Implementing Rules and Regulations of PD 1594 will be received simultaneously by the Region IV-A PBAC and Aurora Engineering District PBAC pursuant to Department Order No. 100 dated April 24, 1991 until 10:00 AM of August 26, 1991 and then publicly opened immediately thereafter on the same day in the presence of the bidders or their authorized representative for the Construction of Flood Control Project.

NAME OF PROJECT: Construction of Dibucan-Diome River Control, Ma. Aurora, Aurora
Deadline for submission of PRE-C - August 12, 1991
Credit Line - P250,000.00
Calendar Days to complete project - 200 C.D.

The work proposed to be undertaken includes, among others, the furnishing of labor, materials and equipment for the following major items of work, viz.

- SPCL. I - Mobilization and Demobilization
- SPCL. II - Construction of Shed and Bodega
- SPCL. III - Installation and Painting of Steel Check Gate (1.15M x 2.60M)
- SPCL. IV - Backfill
 - Removal of Existing Structures
 - Item 104 - Embankment
 - Item 404 - Reinforcing Steel
 - Item 405 - Structural Concrete
 - Item 504 - Riprap and Grouted Riprap
 - Item 505 - Stone Masonry

Subject to ocular inspection and/or actual verification to determine its availability and condition, prospective bidders, shall submit with their duly accomplished PRE-C the necessary documents of evidence to prove ownership of equipment and duly notarized lease certificate indicating the brand, serial number, capacity and present location.

This invitation is open to accredited and duly registered contractors, and classified by the Inter-Agency Committee on Registration as Small for Flood Control Projects. Contractors who are not classified as of this date are not eligible to apply for prequalification for the above-mentioned project.

All interested contractors are reminded that before award is made to the winning bidder the PBAC will undertake another evaluation and actual verification of the resources they pledged to employ in the successful prosecution of the project.

Bid/Tender Documents for the aforementioned project will be available for the issuance to prequalified bidders upon payment of non-refundable amount of Two Hundred Pesos (P200.00) per set and presentation of the Official Receipt of payment to the PBAC Region IV-A, EDSA, Quezon City and Aurora Engineering District PBAC, Baler Aurora not later than July 22, 1991. Additional information will be furnished upon request during the pre-bid conference to be held on July 23, 1991 at 10:00 AM simultaneously at said offices.

The Implementing Rules and Regulations of PD 1594 as amended effective 13 April 1991 shall govern the evaluation of bids, awarding of contract and implementation thereof.

FIDEL C. AMARILLO
Engineer V
District Engineer

SAVE THE USER - JAIL THE PUSHER

Virgin...

(from page 1)

also seen the devastation wrought by landslides on rivers and streams.

It was observed that logs were towed from the coastal barangays of Dibul, Dibayabay and Dikapinisan to sitio Semento in Baler and were transported by trucks to San Roque Sawmill in San Isidro, San Luis Aurora. But this operation is only a tip of the berg. Bigger operations are known to have towed hundreds of logs from this places to

Dipa-culao for VERDAN and to sawmills in Dingalan. The production of underriver logs was also observed, said SP Bihasa. It could only mean that even the secondary residual forest are being logged and depleted. With the havoc conveyed by burn-up farmers and charcoal makers, our forest will forever be lost.

SP Bihasa said we are killing off the forest that stood fragile and serene for the last hundred years and predicted that in ten to fifteen years this part of Aurora will be a barren land.

Isports...

(Afile sa p. 4)

wa ni Dr. Arthur J. Angara na matagal na panahong nakatulong sa pagtataguyod ng liga sa Basketball sa Baler. Sa koponang ito napasama si Carding Rivera, hanggang sa magsimula ang BSBL sa inter-barangay.

Anupa't sa bawat barangay tuwing may liga ay halos alam na kung sino ang mga pangunahing manlalaro ng kumakatawan.

ng ay si Noel Millares sa Zaball ay si Francisco Paulo sa Barangay 4, si Carding Rivera, sa Buhangin ay si Castor Gonzales; at nang dakong huli'y nagkaroon ng Justina sa Suclayin; at Arnold Tan sa Barangay 1, huwag nang banggitin ang Barangay 2 na nagkaroon nang dakong huli ng Warren

Narra...

mula sa pahina 9

Command key Chief Superintendent Laureto Castoricones, Aurora PNP Provincial Director, habang nagkasagawa umano ng seaborne ang pangkat ni Baraquel ay nasabat ng mga ito ang isang bangka (MB/Gineth/Jhacysel) na umano'y pag-aari ng isang nanggalingang G. Ranon sa karagatan ng Sitio Ceso, Barangay Buso-buso, Casiguran, Aurora at nakumpiska mula sa mga ito ang tinatayang 11,000 bd. ft. ng mga narra stitches na tangka umanong ipuslit mula sa Palanan, Isabela patungo sa mga bayan ng Dingalan, Aurora at Real, Quezon.

Querijero.

Di-mating din ang panahon na nagkaroon ng mga bagong sibol, at mga ligang pang-ahensiya kaya nagkaroon ng mga imports mula sa ibang bayan at lunsod.

Nakilala sa Baler ang mga sumusunod: Ding Guiyab ng Brgy 4 at Zaball, mula sa Forestry; Bong Vega ng Barangay 1 at Barangay 5; Robel Gonzales ng AUS at Sabang, Bob Susada ng Barangay 2, Isid Guzman ng Brgy 5, pawang taga San Luis, M

pawang taga San Luis, Millares ng Pingit, Magalang, Yanggo, at Gonzales ng Calabuanan, at mararami pang ibang mga manlalaro nakapag-iwan ng mahahalagang alala sa mga manonood at manlalaro ng Basketball sa Baler.

(Sa susunod niga pananaw sa pag-unlad ng palakasan sa Baler, lalo na sa Basketball at mga sulitin)

Guest...

mula sa pahina 8

kabuuang P96,000.00 pondo ng salapi mula sa local fund at tulong ng 22 barangay ng nasabing bayan na pinasimulan noong nagdaang taon at tinatayang matatapos sa buwan ng Agosto ng taong ito.

Binanggit pa ni Velasco na nakatakdang ring simulan ng kanyang pamunuan sa taong ito ang pagpapalakon ng konkretong De Asis St. na may habang 100 metro at umano ay may nakalaang pondo na P170,000.00 halaga ng salapi buhat sa pondo ng bayan ng Dipaculao ang gugugulin para sa proyekto.

APPENDIX G

Appendix G

SUBMISSIONS AND OTHER COMMUNICATIONS TO SCOPING SESSION/CONSULTATIONS

- G-1 APA/Alyansa ng mga Pesante sa Aurora (Alliance of Peasants in Aurora), Baler, Aurora
- G-2 Environmental Research Division of the Manila Observatory, Ateneo University, Quezon City
- G-3 Protected Areas and Wildlife Bureau of the Department of Environment and Natural Resources, Quezon City
- G-4 Mayor of Palayan City, Nueva Ecija
- G-5 Columbian Father's Peace and Justice Office/Philippine Development Forum, Washington D.C
- G-6 Aurora Integrated Area Development Project, Baler, Aurora
- G-7 Haribon Foundation - Tanggol Kalikasan, Manila
- G-8 UGAT (Anthropological Association of the Philippines), Quezon City
- G-9 San Luis, Aurora Chapter of the League of Barangay Councilmen of the Philippines
- G-10 Barangay Council of Real, San Luis
- G-11 International Center for Living Aquatic Resources Management (ICLARM), Manila

Appendix G-1

**APA/ALYANSA NG MGA PESANTE SA AURORA
(ALLIANCE OF PEASANTS IN AURORA)
BALER, AURORA**

ALYANSA NG MGA PEBANTE SA AURORA (APA)
Aurora St. Baler, Aurora

Ang Alyansa ng mga Peasante sa Aurora ay binukho ng iba't-ibang samahan dito sa Aurora tulad ng Aniban ng mga Kilusang Magbubukid sa Aurora (AKMA), Samahan ng mga Magbubukid na kababaihan sa Aurora (SAMAKA), Samahan ng mga Kabataan sa Aurora (SAKA), Samahan ng mga Katutubo sa Sierra Madre (SKSM), Samahan ng mga Maliliit na Mangingisda sa Mijares (SMM-Mijares) at Samahan ng mga Maliliit na Mangingisda sa Sabang (SMM-Sabang). Ito ay Pamprobinsyang samahan na kinabibilangan ng mga tao na galing sa iba't-ibang bayan tulad ng Dilasag, Casiguran, Dinalungan, Dipaculao, Maria Aurora, Baler, San Luis at Dingalan, na nagtataguyod ng kagalingan at kaunlaran (kasaganaan) ng buong sambayanan ng Pilipino lalo nadito sa Aurora tulad ng Magkaroon ng Tunay na Reporma sa lupa, pangangalaga sa kalikasan at pangangalaga sa buhay at dangal ng tao na lalang ng Diyos.

K Kaya ayon sa aming napagkasunduan ay ipinahahayag namin ang hindi pagsang-ayon sa konstruksyon ng San Luis-Dingalan road dahil sa mga sumusunod na kadahilanan :

1. Masisira ang likas na kayamanan ng kabundukan, kagubatan dahil mawawala ang mga wild-life, makakalbo ang ating kabundukan, kagubatan, na siyang karugtong ng buhay ng mga mamamayan,

2. Masisira ang mga Water shed,

3. Matatabunana ang mga palayaa at mga pangisdaan (masisira ang bahay ng mga isda) na siyang pangunahing pinagkukunan ng ikabubuhay ng mga maliliit na mangingisda at magsasaka (soil erosion),

4. Labis na makapagtataboy, makapagpapagulo sa ating mga kapatid na katutubo at mawawala ang kanilang mga lupang minana pa sa kanilang mga ninuno, na kinikilala naming mga pangunahing tao sa mundo,

5. Labis na pagtutol namin kung ang badyet na isasagawang daan ay utang nanaman ng bansang Pilipinas sa bansang Amerika na siyang dahilan ng kahirapan ng mga mamamayang Pilipino.

Kaya kami ay nananawagan na sa halip na gumawa nanaman ng panibagong daan ay ayusin na lang, gawing kongreto ang mga dati nang daan tulad ng daan mula Baler-Palayan City at daan Mula Ma. Aurora- Rizal N. E. ng sa ganoon ay maiwasan nanaman ang pagkaxira ng ating kalikasan. Huwag nating payagan na ang ating mga likas na yaman ay sisirain lang ng iilan samantalang ang maapektuhan naman ay buong sambayanan. Lagi nating tandaan na ang kalikasan ay kambal at ugat ng buhay ng tao sa mundong ating ginagalawan.

Mabuhay kayo !

Mabuhay tayong lahat !

Mula sa Alyansa ng mga Pesante sa Aurora (APA)

Florencio Parana
for MR. ROGELIO DIAZ
Provincial chairman-AKMA

by: pp gutierrez
for MR. LAURENTE GUTIERREZ
Provincial Chairman-SAKA

Vergilio Garcia
MR. VERGILIO GARCIA
Chairman-Samahan ng mga
Maliliit na Mangingisda sa
Mijares (SMM-Mijares)

Jude
MRS. JUANA DIAZ
Provincial Chairman-SAMAKA

Corazon
MRS. CORAZON MABINO
PROVINCIAL TREASURER-SKSM

Roberto delos Santos
Samahan ng mga Maliliit
na Mangingisda sa Sabang
(SMM-Sabang)

ALYANSA NG MGA PESANTE SA AURORA (APA)

Aurora St. Baler, Aurora

This alliance of Peasants in Aurora is an umbrella organization of several organizations here in Aurora, like (AKMA) Organization of Peasants in Aurora, (SAMAKA) Women's Organizations in Aurora, (SAKA) Youth Organization in Aurora, (SKSM) Organization of Tribal Filipino in Sierra Madre, (SMM-Mijares) Organization of Small Fishermen in Mijares, (SMM-Sabang) Organization(in) of Fishermen in Sabang. APA is a province-wide organization with membership from all town of Aurora: Dilasag, Casiguran, Dinalungan, Dipaculao, Maria Aurora, Baler, San Luis, and Dingalan that supports the improvement and development of (prosperity) of the whole Filipino Community especially here in Aurora like the implementation of Genuine Land Reform, the protection of natural resources and the protection of wild-life and lover of mankind as creation of God.

Therefore, according to our communication, we inform you that we oppose the construction of the Sn. Luis- Dingalan road and based on the following reasons :

1. The destruction of the natural resources of our forest, mountains and wild-animal of deforestation which will affect the(livelij)livelihood of the people,
2. The watersheds will be destroyed,
3. The ricefield will be covered and the fishingground will be destroyed (the breeding grounds of the fish will be affected), which destroy the main source of income of the small fisherman and farmers (soil erosion),
4. Moreover, the unsettlement and agrivating situation of our brothers the tribal Filipinos, their ancestral lands as the first inhabitants will be taken away,
5. Moreover , we opposed against the recovery used if this increasing the foreign debt of the(Philip) Filipino nation to America or other foreign nation as increases the poverty of the Filipino.

Therefore, We recomended that instead of making a new

road, the existing road will be improved like the Baler-Palayan City and the Maria Aurora - Rizal Nueva Ecija Road, because in this way destruction of the natural resources will be avoided. We should that our natural resources are destroyed by some few while it affects the whole community. We have always (to) bear in mind that the natural resources are one with the life and roots of life of the people in this world.

Your's ,

ALYANSA NG MGA PESANTE SA AURORA (APA)

Appendix G-2

**ENVIRONMENTAL RESEARCH DIVISION OF THE
MANILA OBSERVATORY, ATENEO UNIVERSITY
QUEZON CITY**

ENVIRONMENTAL RESEARCH DIVISION



MANILA OBSERVATORY

Loyola Heights, 1108 Quezon City
P.O. Box 122 U.P. Diliman, 1101 O.C.
P.O. Box 1231, 1099 Manila
Tels.: 99-94-17 & 97-83-49

11 July 1991

William L. Cummings
Environmental Studies Coordinator
Aurora Roads Infrastructure
Development Project
Louis Berger International, Inc.
1M-8910, Mile Long Center
Amorsolo St., Legaspi Village
Makati, Metro Manila, Philippines

Dear Dr. Cummings,

Last week, we received a copy of the material presented at the national scoping session of June 25 on the proposed Baler-Dinggalan-Palayan Road. I regret not being able to attend the meeting but I hope this communication is not too late.

The Environmental Research Division (ERD) of the Manila Observatory is a non-government science institute which has been working with both communities in different parts of the country and government agencies on aspects of watershed management.

The development of the Baler-San Luis-Maria Aurora-Dipaculao circumferential road will improve conditions in these towns by providing better access to and from these municipalities. The proposed improvement of the Dinggalan-Palayan road will also be very beneficial to the dominantly agricultural communities of Gabaldon and to the fishing town of Dingalan. ARIDP in these areas would allow for an intensification of agricultural production. The improved Dinggalan-Palayan road would reduce spoilage of farm products and would allow their transport out of the area even during the rainy season. At present, the main road passing through Gabaldon from Palayan to Dingalan is constantly in need of repair due to poor surface conditions and increased flooding due to deforestation particularly where the Dupinga River flows into the Coronel (see enclosed map).

I would, however, like to express my concern regarding the construction of the 70.8km San Luis-Dingalan road. The proposed road will put a block of old growth and mossy forest of the Sierra Madre in danger. The presence of a road down the length of this block of forest would make it easily accessible to both large and small scale illegal logging which cannot be controlled, placing this particular block of forest in jeopardy. Already, the residual forest has been much reduced since the SPOT satellite image of 1987 (see enclosed map). The old growth including mossy forest has reportedly suffered from even legal operations in the area.

This coastal area is battered by some of the most severe annual typhoons and the forest provides the greatest protection against disasters in the area. The proposed road will be affecting a total of twelve coastal watersheds. The rivers of these steeply sloping eastern watersheds flow directly into the sea which contains almost no corals or mangrove swamps. With the absence of these ecosystems which trap outgoing sediment there will be little indication in future years of the ground disturbance during construction or long term soil loss in these watersheds, other than an eroded uplands. Even sediment deposited in the Coronel lowland of Gabaldon from the adjacent Dupinga watershed already shows us the extent of soil lost due to encroachment into the area and the costs in terms of community stability, infrastructure repair and poorly sustainable agriculture. Is this what we now want to see along the Aurora coast? Furthermore, who is this road really intended to benefit? Why does the request suddenly appear and who has requested for it? Certainly, local communities did not make the request and though local business interests may benefit from its construction and the exploitation of resources, benefits to Baler and Dingalan interests would be limited. The only interest in the area seems to be from the military and if such a road is to be constructed on their behest there would then be a lot of other questions regarding such a program being financed by USAID.

There are no roads along the east coast of Luzon except for the flat coastal road to Infanta and only at three points is the Sierra Madre crossed. To put a road from San Luis to Dingalan would enclose and destroy not only this block of forest but in a critical way destroy the connectivity of the forest of east Luzon (see enclosed map).

This area contains a block of forest critical to the forest ecology of the Sierra Madre which contains approximately 780,000ha (just less than 30%) of the country's remaining old growth and mossy forest. The forest of the Sierra Madre is one of the largest and finest blocks of forest and is of a distinct type. The forest between Baler and Dingalan forms a vital link between the blocks of forest to the north and to the south. Efforts should be made at closing the gap between these blocks of forest by buffering them from any further encroachment and enhancing the remaining residual forest around them. Besides this, there has been far too little investigation of this particular ecosystem and its impact on the stability of local communities.

The presence of cultural communities along the proposed road should likewise be taken into account. We have little information about the upland Dumagat communities, but we are concerned that the opening of the road will displace whatever communities there are. It is very possible that they can be convinced to favor or join any ongoing program, but much more has to be sought on their behalf if we have at heart their

participation and contribution to society.

These are just some of our immediate concerns on the matter and I hope you will find this of some help though you are probably well aware of these concerns. I would also appreciate it if you could provide us with information on your environmental impact statement procedures for our own reference.

In view of my present work schedule, you may find it difficult to get in touch with me so I apologize in advance. I have instructed Mr. J. Andres F. Ignacio to take up further inquiries and discussions with you if I am not around. We are very grateful that such environmental assessment is being done and we look forward to an appropriate development in the area.

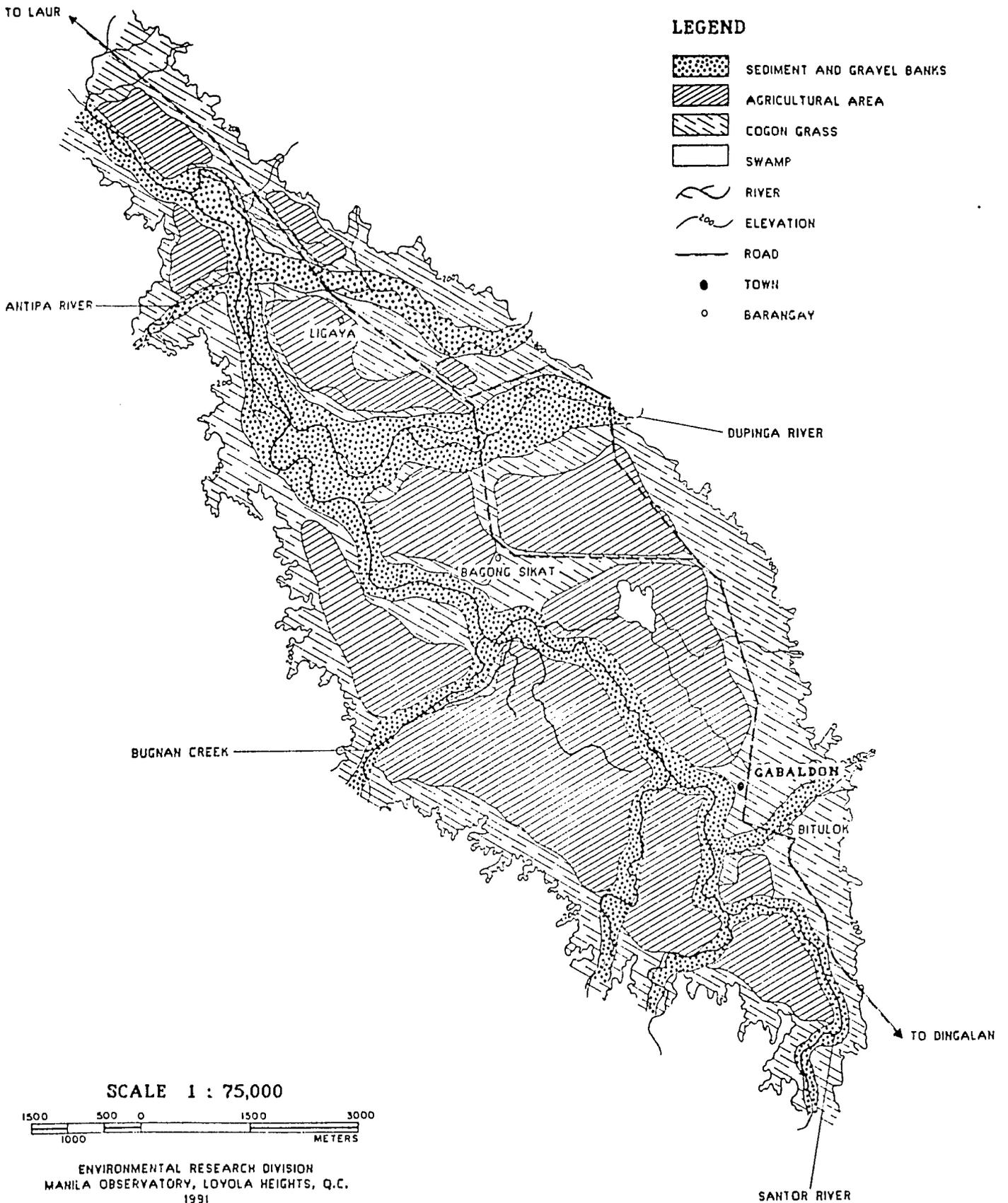
Sincerely yours,



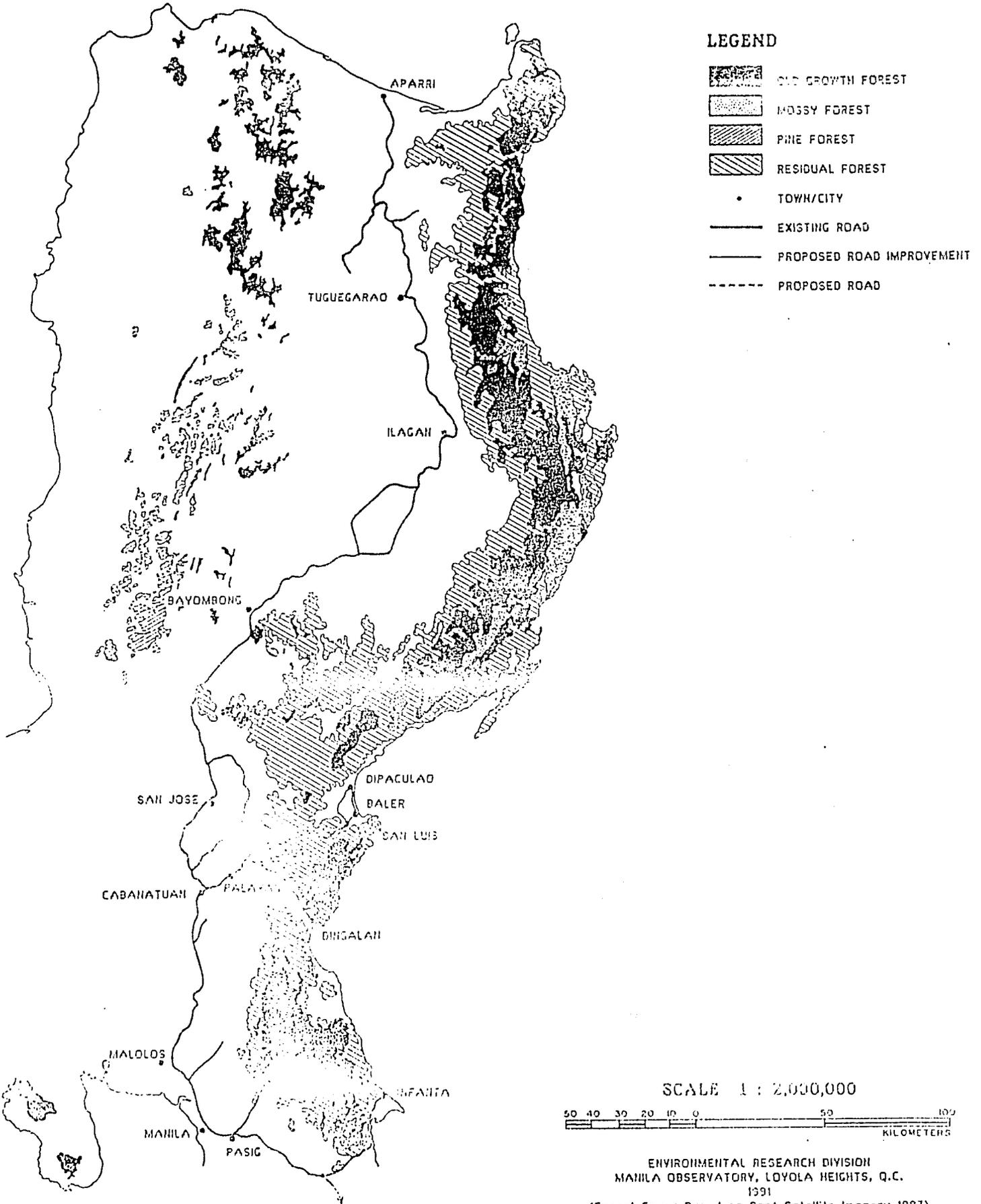
Peter W. Walpole, S.J.

enci.: Map 9 - The Coronel River Lowland
Forests and Infrastructure in the Sierra Madre

MAP 9 THE CORONEL RIVER LOWLAND



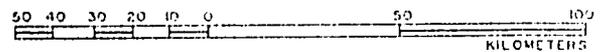
FORESTS AND INFRASTRUCTURE IN THE SIERRA MADRE



LEGEND

- OLD GROWTH FOREST
- MOSSY FOREST
- PINE FOREST
- RESIDUAL FOREST
- TOWN/CITY
- EXISTING ROAD
- PROPOSED ROAD IMPROVEMENT
- PROPOSED ROAD

SCALE 1 : 2,000,000



ENVIRONMENTAL RESEARCH DIVISION
MANILA OBSERVATORY, LOYOLA HEIGHTS, Q.C.
1331
(Forest Cover Based on Spot Satellite Imagery 1987)

211

Appendix G-3

**PROTECTED AREAS AND WILDLIFE BUREAU OF THE
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
QUEZON CITY**



JUN 20 1991

Mr. William L. Cummings
Environmental Studies Coordinator
Aurora Roads Infrastructure Development Project
Louis Berger International, Inc.
TM-8910, Mile Long Center
Ambrosio St., Legaspi Village
Makati, Metro Manila

COMMENTS ON THE ENVIRONMENTAL ASSESSMENT OF ARIOP

Dear Mr. Cummings:

I won't be able to personally attend the scoping session. So I am submitting these comments after going over the documents that you have provided:

1. There is no national park affected by the project.
2. The Dingalan-San Luis portion of the project would entail clearing of forested areas. Care should be taken to ensure the least disturbance on the ecosystem.
3. In the actual assessment, effects of the project on wildlife and biodiversity should be given importance especially if there should be important and/or significant wildlife species affected. It is possible that Philippine eagles are still in the area, Sierra Madre being part of their natural habitat.
4. Should there be unavoidable adverse effects, mitigating measures should be for the long term and not temporary patch-up jobs.

Thank you for giving me the opportunity to make my concerns known.

Very truly yours,


LORENZO C. ABALOS

G - 3 - 1

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Appendix G-4

MAYOR OF PALAYAN CITY, NUEVA ECIJA



Republika ng Pilipinas
Lungsod ng Palayan

Tanggapan ng Punong Lungsod

17 June 1991

MR. WILLIAM L. CUMMINGS
Louis Berger International, Inc.
1M-8910 Mile Long Center
Amorsolo St., Legaspi Village
Makati, Metro Manila

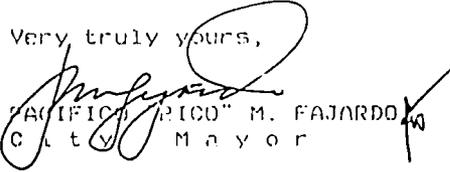
Dear Mr. Cummings:

Allow me to express my deepest appreciation for your visit to Palayan City and for the mutual concerns of both the Philippine government and the USAID to undertake the technical studies of the proposed 191 km. Aurora Road Infrastructure Development Project (ARIDP). This major infrastructure project and the environmental assessment of the area, will provide the needed accessibility and development for Eastern Luzon and to complement the land-locked situation of the Province of Nueva Ecija.

Palayan City for its part, will commit its available resources and support for the full realization of this worthwhile project.

We hope that the on-going environmental studies and consultations shall provide the necessary intervention to qualify for priority funding under the Philippine Assistance Program Support (PAPS). Thank you and regards.

Very truly yours,

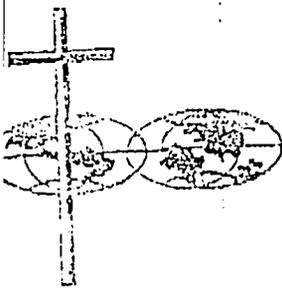

PACIFICO "PICO" M. FAJARDO
City Mayor

JCG/323

G - 4 - 1

Appendix G-5

**COLUMBIAN FATHER'S PEACE AND JUSTICE
OFFICE/PHILIPPINE DEVELOPMENT FORUM
WASHINGTON D.C**



COLUMBAN FATHERS
JUSTICE & PEACE OFFICE
P. O. Box 29151
Washington, D.C. 20017
Tel: (202) 529-5115

201-672-4284

FAX TO: Bill Parente

Please fax Yuss to Bill for us. Andrew Blulloch said to go through you as the 819-3965 fax in Manila but working. Many Thanks

-Chris Cobourn

FACSIMILE TRANSMITTAL COVER SHEET

FROM: Christina Cobourn [FAX no. for reply: (202) 832-5195]

TO: Bill Cummings

OF: Louis Berger Int'l Inc.

FAX NO. 011-632-819-3965

DATE: June 18, 1991

ps., I hope you are all surviving the volcanic ash!

1 PAGES (including cover sheet)

Dear Bill:

88 49 21

Thanks for the information you sent recently. I hope you are in touch with Vic Milan who is the Philippine representative for Conservation International. Vic can be reached at Suite 4E, Value Point Executive Apartments, 227 Salcedo St., Legaspi Village Market, M. Phone: 818-0107. I know that Lee Hannah (CI's Philippine Program Coordinator in Washington) has been quite concerned about various infrastructure projects, so if you haven't already been in touch with them, I am sure they would want to hear from you.

Andrew Blulloch called the other day to set up a meeting between PDF members and Dr. Mike Wallace - the Team Leader for the NRMP policy studies. Congrats, by the way on having won the contract. We look forward to being in touch about the studies. Anyway, the meeting is designed to establish communications channels, and to provide a venue for us to go over any issues about which we have concerns. We shall also be suggesting to him that he meet formally with our NGO partners in Manila who have examined the Forest Master Plan in some detail.

Andrew said he would try to get us some information on the studies to be done in advance of the meeting, but he also said he was going to be travelling, and quite busy, and I am not sure how much he would be able to get to us. Would you have anything which could help us get a better sense of what the studies will be looking at? The only two studies of which Andrew knew off the top of his head were the ones looking at timber concessions, and the one on ancestral domain. We have a copy of the NRMP agreement, but it is quite general, and doesn't give us a sense of the scope of the studies or of the processes involved.

We are delighted that we will be able to have formal communications with the team right from the beginning, and hope this will serve ultimately to save some of the Philippine's forests! Thanks for keeping in touch.

Sincerely,
Chris Cobourn

He gave us AID's Scope of Work. Can you provide us with details of how you plan to handle the ancestral domain studies? Thanks - C

Appendix G-6

**AURORA INTEGRATED AREA DEVELOPMENT PROJECT
BALER, AURORA**

BRIEF PROFILE OF THE PROJECT AREA

The Aurora Road Improvement Development Project (ARIDP) is located in the central and southern zone of Aurora Province. The central zone comprises the municipalities of Dipaculao, Maria Aurora, San Luis and Baler which are connected by an existing circumferential road that is proposed for improvement while the southern zone has Dingalan as its lone municipality serving as the end point for the proposed Dingalan-San Luis road, and the existing Dingalan-Palayan City road.

The perimeter of the circumferential road is approximately 40.5 kms., while the length of the Dingalan-Palayan City road and the Dingalan-San Luis road are 48.7 and 63.5 kilometers, respectively.

Several river crossings are traversed by the circumferential road, notable of which are found along the San Luis-Maria Aurora road like the Diteki river in barangay Dikildit, Maria Aurora creek between barangays Detailen and Dikildit, and the Malupa river between barangays Sta. Lucia and San Jose.

The project location with area of 146,641 hectares is the home of an estimated 103,233 persons (NCSO census, 1990) broken down into 69,626 and 18,928 persons for the central and southern zone.

Two cultural minority centers are found in the proposed project location. One is in Bayanihan, Maria Aurora populated mostly with Ilongots and the other one is in Dibut, San Luis for Dumagats. All the coastal barangays of San Luis from Calapnit down to Dimanayat are with Dumagat populations, whereas, in Diteki and Cabatangan, Alta dominates and the central area especially Reserva, the Igorots found their place of residents.

The population depends mostly on the agricultural crops for their economic life obtained from cultivated areas of about 18,512 has. of which 35 percent of 6,552 ha. is under rice cultivation and the rest are planted with coconut and other crops.

The existing forest cover of the area which is affected by the proposed project is about 127,785 hectares of which 6,044 ha. remains as virgin forest while 94,758 ha. is under residual dipterocarp forest or logged-over areas having less commercial value of standing timber.

The Aurora Memorial Park which serves as sanctuary for the different wildlife covers a total land area of 4,227.5 hectares formed from the mountainous areas of San Luis and Maria Aurora.

Three logging concessionaires (two TLA holders and one Private Titled Land) are operating within the proposed project location. They have a combined area of 92,109 hectares broken down to 40,300 ha. for VAFDC in Dipaculao, 50,008 ha. for IFRC in San Luis and Dingalan and SETIC has 1,809 has. in the southern part of Dingalan municipality.

There are 371 hectares of hill farms (kaingin) mainly concentrated in Dipaculao and the Dingalan watershed.

The proposed new road connecting Dingalan and San Luis traverses or passes through 14 watersheds along the coast which are still thickly forested and this may open the floodgates to illegal logging and transporting of logs and may also invite the influx of forest squatters in the area.

There are 444 landslides recorded in the project location prior to the occurrence of a strong earthquake last July 16, 1990 with area equivalent to 613 hectares. These landslides caused sedimentation on rivers and creeks as well as siltation on the low lying areas particularly areas along river courses.

Appendix G-7

**HARIBON FOUNDATION - TANGGOL KALIKASAN
MANILA**



Tanggol-Kalikasan

The Environmental Defense Law Office
of Haribon Foundation for the Conservation of Natural Resources

25 June 1991

Mr. William L. Cummings
Environmental Studies Coordinator
Aurora Roads Infrastructure
Development Project
Louis Berger International, Inc.

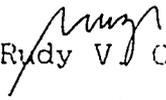
Dear Bill:

Greetings!

Enclosed herewith is the Haribon Foundation-Tanggol Kalikasan report regarding the Environmental Impact Study/Assessment we did together with your group last 4-15 June.

Hoping this opinion will help in your decisions regarding the proposed road projects.

Sincerely yours,


Rudy V. Cruz


J. Eric M. Atienza

aac/let.lbii/wp51

222

ENVIRONMENTAL ASSESSMENT
Aurora Road Infrastructure Development Project
in Aurora and Nueva Ecija Provinces

Background

Last June 4-15, the Louis Berger Inc. and the Haribon Foundation conducted an environmental feasibility study along the Aurora-Nueva Ecija stretch for the planned road project to be funded by the United States Agency for International Development (USAID). The Louis Berger Inc., a consultancy firm was hired by the USAID to conduct the environmental assessment for the project. LBI, in turn, sought the assistance of Haribon, as a representative of non-governmental organizations, in conducting the survey. The road projects to be undertaken are the following:

1. Baler-San Luis-Maria Aurora circumferential road
2. Baler-Dingalan Road
3. Dingalan-Palayan Road

The survey aimed at assessing the environmental impact of the proposed road projects.

Environmental Assessment

The two representatives from Haribon (Rudy Cruz and Atty. Eric Atienza) will assess the Baler-Dingalan Road ahead of the two others because of its complexity. The proposed site of the road is still forested while the two other proposed roads have been long-established trails.

1. Baler-Dingalan Road Project Assessment

While the proposed road site is located along mountainous and forested areas rich with wildlife, the area had been infiltrated by a logging company. Along the proposed stretch of the road, an estimated total of 15-20% has a rugged logging road. The road, however, is not trailing towards the coastal communities thus villagers trek through the narrow paths considered as "short-cut." Since logging concessions in the area has been abandoned by big logging companies, the logging roads have also been deserted; wild grass came in and the roads could no longer be detected. A small portion of the roads, however remained clear and is presently being used for transforming the logs into timber (tabla). The short-cut roads are used by the villager only during rainy season especially during months of September to December. The people from coastal communities usually travel through the sea but during this period when the sea has strong waves, they travel through the narrow paths towards the town proper of Dingalan and Baler to buy their food and other basic necessities.

Presently, small capitalist conduct small logging operations in the area while some villagers also conduct so-called "carabao logging." Even if there are no existing concrete roads, loggers find ways to continue logging. The building of a concrete road in the area could encourage small logging operators to intensify their logging activities while big logging operators may resume their operations. The implementation of the Baler-Dingalan road will attract active logging operations in this rich and forested area. The proposed road is approximately 70.8 kilometers that would traverse through forests lands rich with wildlife. In this vast area, people who are concentrated in coastal communities are immersed in poverty and powerlessness amidst the contending forces of the military, para military units and the leftist insurgents.

Roadbuilding would not ensure significant changes in the livelihood condition of the people in the communities. A deeper analysis is needed since the land in this area mostly do not belong to the people. Some who claimed they own farmlands could not show land titles registered under their names. The road projects would invite people from other areas to resort to land grabbing because of the richness of the soil suitable for various crops, big time logging, and possibly mining and fishing operations. The roads could make some people richer but it might also lead the original settlers in deeper poverty. The natural resources and the villager, in these areas might be exploited by incoming settlers and investors.

Big funding intended for the project could be diverted to other projects that would be beneficial for the conservation of natural resources of the area and for the livelihood of the people residing in the coastal communities. The economic needs of the people should have greater priority because the original settlers in the area will be at the losing end if the road project pushes through without preparing the settlers on its impact.

The road project may lead to the destruction of the natural environment and the depletion of the forested areas where hardwood like apitong, yaka!, lawaan, kamagong and narra and other plants and animal species abound. Since the area is located in the typhoon belt, depletion of the forest areas may lead to soil erosion which will also affect the coral reef in the nearby sea. Degradation of the forest lands will also cause nearby lowlands to flood during the rainy season.

Despite the people's accessibility to health, educational and other services in the event that the project would push through, economic difficulty would still prevent the people from availing of these services.

Present ecological problems in the country calls for sustained conservation and protection of remaining forest lands. It is recommended that the funding intended for project be diverted to the improvement of the existing transportation facility. For long years, the people in the area have been travelling by sea. Bigger

and sturdier motorize ferry boats could be introduced in the area to help the people transport crops to Baler and Dingalan where they sell their products and buy their needs. Motorized boats could also make travel to and from their villages faster and more frequent. Altering the rich forest will have big and long-lasting consequences. Preservation of the remaining forest lands in the country is the urgent need at the present.

2. Baler-San Luis-Maria Aurora-Dipaculao-Circumferential Road Project Assessment

This road project approximately 40.5 kilometers in length should be pursued since this is an established dirt roads long been used by vehicles in traversing along the towns of Baler, San Luis, Maria Aurora and Dipaculao. Transforming this path into concrete road would make travel in the area easy and comfortable and would contribute to the economic and social activities of the people.

3. Dingalan-Palayan Road Project

This proposed 48.7 road improvement project should be pursued since the stretch of the road has long been used by motorists who are crossing through agricultural developed areas along the Dingalan, Aurora and Palayan, Nueva Ecija. No forests will be altered if this project will be implemented.

aac/eia.aur/wp51

Appendix G-8

UGAT (ANTHROPOLOGICAL ASSOCIATION OF THE PHILIPPINES)
QUEZON CITY

25 June 91

To: William L. Cummings
Environmental Studies Coordinator
ARDD, LIB1

Fr: P. L. Bennagen
UGAT, PSSC Building

Re: National Scoping Session ARDD.

Please include in your impact assessment.

The following - adequate field studies to ensure the protection of the right to ancestral domain of the indigenous structured communities in the area.

- active participation of NGOs and POS in the area as well as the ICCs in the field studies, where no NGOs and POS exist in the area, the participation of "external" NGOs with appropriate skills should be tapped.

Very thanks,
P. L. Bennagen

Appendix G-9

**SAN LUIS, AURORA CHAPTER OF THE LEAGUE OF
BARANGAY COUNCILMEN OF THE PHILIPPINES**

LEAGUE OF BARANGAY COUNCILMEN OF THE PHILIPPINES
(LBCP)

San Luis, Aurora Chapter
Diteki, San Luis, Aurora

Hunyo 27, 1991

Mr. Kent O. Lande
Team Leader
Aurora Roads Infrastructure Project
LOUIS BERGER INTERNATIONAL, INC.
TM-8910, Mile Long Center
Amorsolo St., Legaspi Village
Makati, Metro Manila, Philippines

MAHAL NA MISTER LANDE:

Ang League of Barangay Councilmen of the Philippines (LBCP), San Luis, Aurora Chapter, ay nagpapaabot ng lubos na pasasalamat sa USAID at sa LOUIS BERGER INTERNATIONAL, INC. para sa pagkaka-loob ng serbisyong teknikal para sa PAPS at sa pag-aaral ukol sa pagpapaayos o konstruksyon ng 191 km. na daan, pati mga tulay at kasama na rito ang SAN-LUIS-DINGALAN road, na malaon na naming pinayangarap na magkaroon ng katuparan.

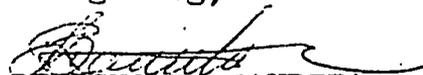
Noong December 27, 1990, ay nabasa namin sa pahayagan na ang Rural Infrastructure Fund (RIF) ay may pondong ₱4.4 bilyon para sa infrastructure projects nationwide. Ito ay bahagi ng United States Agency For International Development (USAID) grant alokasyon na \$ 90 milyon. Kung kaya, noong Inero 13, 1991, ang LBCP, San Luis, Aurora Chapter, ay nagkaroon ng Kapasiyahan Blg. 1, humihingi ng tulong sa RIF II at RIF III ng USAID para sa konstruksyon ng SAN LUIS-DINGALAN road.

Ito ay sinagot ni Secretary Jose Ping de Jesus ng DPWH, sa pamamagitan ni Undersecretary Teodoro T. Encarnacion. Sinabi na kailangang maisama sa priority project ng Regional Development Council (RDC) ng Region IV, gayon din ang feasibility study.

At noong Abril 22, 1991, nagpadala ng sulat sa akin si Director Florante Soriquez, Project Director ng RIF ng USAID, copy furnished ang Kgg. na Senador Edgardo J. Angara; Mr. Leroy Purifoy, Office of Capital Projects, USAID at Asst. Secretary for Planning Manuel Bonoan, DPWH, ipinagbibigay alam na ang SAN LUIS-DINGALAN road ay isinama sa talaan ng mga additional projects na pag-aaralan at ebalwasyon tungkol sa posibleng funding ng USAID-funded RIF projects.

Ang LBCP, San Luis, Aurora ay nanalangin at nakikiusap na sana'y pagkalooban ninyo at ang inyong pangkat ng magandang rekomendasyon tungkol sa konstruksyon ng nabanggit na daan. Batid naman ninyo ang kahalagahan nito. Napakaramigg pook at barangay na papaunlad. Gayon din ang mga mabibiyayaan. Lalo't isaalang-alang makasaysayang pook, ang DIBUT BAY, dito ipinamalas ang mabuting pagkakaibigan ng bansang Filipinas at ng bansang Estados Unidos noong nakaraang digmaan.

Gumagalang,


BENIGNO T. LAURETA
Pangulo

**LEAGUE OF BARANGAY COUNCILMEN OF THE PHILIPPINES
(LBCP)**

**San Luis, Aurora Chapter
Diteki, San Luis, Aurora**

June 27, 1991

Mr. Kent O. Lande
Team Leader
Aurora Roads Infrastructure Project
LOUIS BERGER INTERNATIONAL, INC.
TM-8910, Mile Long Center
Amorsolo St., Legaspi Village
Makati, Metro Manila, Philippines

Dear Mr. Lande:

The League of Barangay Councilmen of the Philippines (LBCP), San Luis, Aurora Chapter, would like to express its gratitude to the USAID and the Louis Berger International, Inc. for having considered in its study the repair/construction of a 191-km roads and bridges network that will include the San Luis-Dingalan road which we have long yearned for realization.

Last December 27, 1990, we have read from the newspaper that the Rural Infrastructure Fund (RIF) has a ₱ 4.4 B fund for rural infrastructure projects nationwide. This forms part of a USAID grant worth \$ 90 M. In January 13, 1991, the LBCP, San Luis, Aurora Chapter passed Resolution No. 1 requesting for assistance from RIF II and RIF III of the USAID for the construction of the San Luis-Dingalan road.

This Resolution earned a response from Secretary Jose Ping de Jesus of the DPWH, thru Undersecretary Teodoro T. Encarnacion. He expressed that this should be included as a priority project of the Region IV and that a feasibility study thereof should be submitted to the Regional Development Council of Region IV.

Last April 22, 1991, Director Florante Soriquez of the RIF sent us a letter, copy furnished the Hon. Senator Edgardo J. Angara; Mr. Leroy Purifoy, Office of Capital Projects, USAID; and Asst. Secretary for Planning Manuel Bonoan of the DPWH informing us that the San Luis-Dingalan road was included in the list of additional projects that is being studied and evaluated for possible funding by the USAID under Rural Infrastructure Project.

The LBCP, San Luis, Aurora is imploring your kindest consideration by highly recommending the construction of the said San Luis-Dingalan Road knowing fully well its importance and the developmental impact it could give to our barangays here in Aurora. It is worth considering the development of a historical place, the Dibut Bay, where the intense friendship between the Philippines and the United States was exhibited during the last World War.

Respectfully,

BENIGNO T. LAURETA
President

Appendix G-10

BARANGAY COUNCIL OF REAL, SAN LUIS

SIPI SA KATITIKAN NG PANGKARANIWA'NG PULONG NG
SANGGUNIANG BARANGAY NG REAL, SAN LUIS, AURORA NA
GINANAP NOONG IKA.28 NG MAYO 1991 SA PULONGANG BARANGAY.

KIHARAP:

G. Arnaldo C. Ruidera	Tagapangulo
G. Hermilino Abonita	Kagawad
G. Edilberto Llanillo	Kagawad
G. Leonardo Gatita	Kagawad
G. Jose Marzan	Kagawad
G. Efren Tena	Kagawad
G. Claro Serrano	Kagawad

Liban;

Wala.

KAPASIYAHAN BLG.08-91

SAPAGKAT, pangunahing layunin ng sangguniang Barangay ng Real, San Luis, Aurora ang kaayusan at kaunlaran, lalo na sa lahat ng ditoy naninirahan gayundin sa lahat ng dito ay nagdaraan.

SAPAGKAT, ang Barangay ng Real, San Luis, Aurora ang siyang sentro ng mga Barangay katulad ng Barangay Dibut, Dibayabay, Dicapihasan, at Dimanayat, at Dibalo na dito dumaraan tuwing duma rating ang pagsama ng panahon.

DAHIL DITO, sa mungkahi ni kagawad Edilberto Llanillo sa pag ikalawa ni kagawad Claro Serrano.

IPINASIYA, na magalang na hinihiling sa Kgg. Punong Lalawigan Kgg. Edgardo L. Ong lampas sa Kgg. na Sangguniang panglalawigan na tulongan ang Barangay ng Real, San Luis, Aurora na dito idaan ang ang kalsadang nag-uugnay sa Barangay Dibalo, at sa lahat ng Coastal Barangay.

Ipinasiya rin, na padalhan ng sipi ng kapisiyahang ito ang Kgg, na punong Lalawigan Kgg. Edgardo L. Ong Baler, Aurora para sa kanyang kaalaman at makatulong sa bagay na ito.

Pinagtibay ng walang tutol.

Pinatutunayan ko ang katamaan ng kapisiyahang nasasaad sa itaas nito.

Randy Ramos
Randy Ramos
Kalihim

Pinagtatibay;

Arnaldo C. Ruidera
Arnaldo C. Ruidera
Punong Barangay

COPY OF THE MINUTES OF SESSION OF THE BARANGAY COUNCIL OF REAL,
SAN LUIS, AURORA HELD LAST 28 MAY 1991 AT THE BARANGAY HALL

PRESENT:

Mr. Arnaldo C. Ruidera	Barangay Chairman
Mr. Hermilino Abonita	Council Member
Mr. Edilberto Llanillo	Council Member
Mr. Leonard Gatita	Council Member
Mr. Jose Marzan	Council Member
Mr. Efren Tena	Council Member
Mr. Claro Serrano	Council Member

ABSENT:

None

RESOLUTION NO. 08-91

WHEREAS, it is the main concern of the Barangay Council of Real, San Luis, Aurora to have order and prosperity for the residents of the barangay, to include those that are travelling through Real;

WHEREAS, the Barangay of Real, San Luis, Aurora is the center of the adjoining Barangays of Dibut, Dibayabay, Dicapinisan, Dimanayat and Dibalo, residents of which are making use of its barangay roads whenever there is an inclement weather in the area;

WHEREFORE, on motion of Council Member Edilberto Llanillo, duly seconded by Council Member Claro Serrano.

RESOLVED, as it is hereby RESOLVED, that it is kindly requested of the Provincial Governor, Hon. Edgardo L. Ong through the Provincial Board, that assistance be extended to the Barangay Real, San Luis, Aurora, in making possible the construction of a road that traverses through the barangay that will serve as a link to the other coastal barangays.

RESOLVED further, that a copy of this Resolution be furnished the Provincial Governor of Baler, Aurora, Hon. Edgardo L. Ong, for his information and possible support.

Unanimously approved.

I CERTIFY to the correctness of the Resolution as above mentioned.

(SGD.) RANDY RAMOS
Secretary

ATTESTED:

ARNALDO C. RUIDERA
Barangay Chairman

Appendix G-11

**INTERNATIONAL CENTER FOR LIVING AQUATIC
RESOURCES MANAGEMENT (ICLARM)
MANILA**



FAX No. 819-3965
Makati

June 7, 1991

Mr. William L. Cummings
Environmental Studies Coordinator
Aurora Roads Infrastructure Development Project
Louis Berger International, Inc.
TM-8910, Mile Long Center
Agnarolo St., Legaspi Village
Makati, Metro Manila

Dear Mr. Cummings,

Thank you for your invitation for me to participate in the Scoping Sessions concerning the proposed Aurora Roads Infrastructure Development Project (ARIDP). Please be advised that I will be on duty travel from June 24 - July 2, 1991 as we are organizing a Waste Management Conference in Singapore.

Once again, I would like to thank you for your invitation and I wish you success in your endeavours.

Sincerely yours,

Cony C. Alvarez
Dr. Chua Thia-Eng
Director
Coastal Area Management Program

ESCQ

2ND FLR., BLOOMINGDALE BLDG.
205 SALCEDO ST., LEGASPI VILLAGE
MAKATI, METRO MANILA 1200
PHILIPPINES

CABLE: ICLARM MANILA
TELEX: (ETPI) 64794 ICLARM PN, 4900010376 ICL UI (USA)
FAX: (63-2) 816-3183
TEL.: 818-0466, 818-9283, 817-5255, 817-5163
E-MAIL: (CGNET)ICLARM, (SCIENCENET) ICLARM.MANILA

TOTAL P.01

APPENDIX H

Appendix H

EMB/DENR PERCEPTION SURVEY

- H-1** **Perception Survey Questionnaire**
- H-2** **Perception Survey Questionnaire
(ARIDP Pilipino Version)**
- H-3** **Tabulation of Perception Survey Results**

Appendix H-1

Part I : Environmental Change

1. Have you observed any changes in your environment (community, town or province) for the past five years?

_____ Yes (proceed to #2) _____ No (Probe, proceed to #2)

2. The observed changes include (encircle M for more, L for less) Rank

Items	Degree of change
- Factories/Power Plants/Industries	M
- Fishing/Shellfish harvest	M
- Fishing grounds	M
- Water pollution	M
- Air pollution	M
- Forest cover	M
- Flooding in lowland	M

3. Using the RANK Column in (#2), ask respondent to rank the three (#3) most important items with a rank score of #1 as the most important.

Part II. Awareness of the proposed project

4. For the past ten (10) years, what industries/projects/factories/power plants were put up/constructed in this town or in adjacent towns?

5. Are you aware of the proposed project on (type or project) of (project proponent)?

_____ Yes (Proceed to #6)

_____ No (Interviewers are expected to give a short description of what the project is all about. ~~Focus~~ Focus shall be on the structures to be built up, the inputs, project outputs and possible environmental impacts. Proceed to #7).

Appendix H-2

MGA KATANUNGAN UKOL SA PAG-AARAL NG ARIDP:
ENVIRONMENTAL IMPACT STATEMENT

Mga Katanungan na may kinalaman sa maaring maging epekto sa tao at kapaligiran na planong proyekto sa daan na mag-uugnay sa mga bayan ng Baler, Dipaculao, Ma. Aurora, San Luis at Dingalan ng lalawigan na Aurora at sa Bayan ng Gabaldon at Lungsod ng Palayan, Nueva Ecija.

I. Pagbabago sa Kapaligiran

BARANGAY _____
BAYAN/LUNGSOD _____
LALAWIGAN _____

1. May napuna ba kayong mga pagbabago sa inyong kapaligiran (Barangay, Bayan o' Probinsiya) nitong nakaraang limang taon?

Meron _____ Wala _____

2. Lagyan ng antas ang mga pagbabago (guhitan ang M sa marami at K sa Kaunti.

	Antas	
Pabrika (o' Pagawaan para sa Industriya (Sawmill)	M	K
Ani ng Isda at Ibang Pagkaing Dagat/Ilog	M	K
Karagatan at Ilog na Pinagkukunan ng Isda	M	K
Polusyon (Karumihan) ng Tubig	M	K
Kahoy sa Kabundukan	M	K
Pagbaha sa Kapatagan	M	K

3. Ukol sa sagot sa tanong #2, iantas ang tatlong pinakamahalagang pagbabago na napuna
- (a)
 - (b)
 - (k)

II. PAGBIBIGAY PANSIN SA PLANONG PROYEKTO

4. Sa nakalipas na 10 taon, ano ang mga Pabrika at Planta na naitayo sa inyong Barangay, Bayan o' karatig na lugar.
5. Alam ba ninyo na mayroon planong proyekto sa daan na mag-uugnay sa mga bayan ng Baler, Dipaculao, Ma. Aurora, San Luis at Dingalan kasama na rin ang Bayan ng Gabaldon at Lungsod ng Palayan sa Nueva Ecija?

Oo _____
 Hindi _____

6. Kung oo, paano ninyo nalaman na may planong proyekto sa daan?

Radyo	_____	Opisyal ng Barangay	_____
Simbahan	_____	Bayan o' Lalawigan	_____
Miyembro ng Pamilya	_____	atbp.	_____

7. Sa inyong palagay, ano and maaring maging epekto ng mga proyekto sa daan sa inyong barangay, bayan at lalawigan? (Guhitan and inyong sagot sa mga sumusunod)

Positibong Epekto (Positive Effects/Impacts)

- (a) Magkakaroon ng hanapbuhay
- (b) Kita (income)
- (k) Elektrisidad (Power Supply)
- (d) Pagkakaisa ng kuminidad o' pamayanan
- (e) Pabahay
- (g) atbp. _____

Negatibong Epekto (Negative Effects/Impacts)

- (a) Mababawasan ang ani ng isda at iba pang pagkaing dagat/ilog
- (b) Polusyon sa tubig (Water Pollution)
- (k) Pagpasok ng tubig alat sa mga ilog
- (d) Mababawasan ang ani (halaman, gulay, atbp.)
- (e) Pagbaha
- (g) Pagkaubos ng mga puno sa bundok
- (h) Panganib sa kalusugan ng tao

8. Sa inyong palagay, ang planong proyekto ay ...

- _____ makakatulong ng malaki sa kumunidad at mga naninirahan
- _____ makakatulong pero hindi masyado
- _____ hindi makakatulong sa kumunidad
- _____ walang magagawang buti sa kumunidad

III. ASPIRASYON

9. Kung mabibigyan ng pagkakataon upang makapagtrabaho sa proyekto, tatanggapin mo ba?

- _____ Oo. Bakit?
- _____ Hindi. Bakit?
- _____ Hindi sigurado. Bakit?

10. Kung meron pa kayong mga kuro-kuro o pananaw ukol sa proyektong ito, maaari ninyo pong isulat sa ibaba. Salamat po.

Appendix H-3

	BALER	SAN LUIS	MARIA AURORA	DINGALAN	GABALDON	LAUR	FALAYAN CITY	N.A.	TOTAL
PART I: ENVIRONMENTAL CHANGE									
1. Have you observed any changes in your environment (community, town or province) for the past five years? Yes (proceed to #2) No (Probe, proceed to #2)									
	42	14	6	82	47				191
				1	2				3
2. The observed changes include (encircle M for more, L for less) Rank									
a. Factories/Power Plants/ Industries									
M	13	0	3	44	12				72
L	24	10	3	29	33				99
b. Fishing/Shellfish Harvest									
M	23	9	3	42	19				96
L	15	3	3	38	27				86
c. Fishing grounds									
M	34	11	3	51	19				118
L	5	1	3	25	26				60
d. Water Pollution									
M	16	2	4	14	19				55
L	18	8	2	58	24				110
e. Forest cover									
M	37	7	6	47	31				128
L	4	6	0	27	13				50
f. Flooding in lowland									
M	34	7	4	44	40				129
L	6	5	11	31	7				60
3. Using the RANK Column in (#2), ask respondent to rank the three (#3) most important items with a rank score of #1 as the most important.									
a.	1		1	21	4				27

H-3-1

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H - 3 - 2

	BALER	SAN LUIS	MARIA AURORA	DINGALAN	GABALDON	LAUR	PALAYAN CITY	N.A.	TOTAL
b.	11		1	27	4				43
c.	11		1	14	5				31
d.	14	1	5	6	5				31
e.	31	2	6	48	33				120
f.	24	4	5	33	25				91
g. Land slides					5				5
Others:									
PART II: AWARENESS OF THE PROPOSED PROJECT									
4. For the past ten (10) years, what industries/projects/factories/power plants were put up/constructed in this town or in adjacent towns?									
none	4	1		20	23				48
sawmill	4		4	23	6				37
ice plant					3				3
furniture				2					2
5. Are you aware of the proposed project on (type of project of (project proponent)?									
Yes (Proceed to #6)	16	11	6	74	28				135
No (Interviewers are expected to give a short description of what the project is all about. Focus shall be on the structures to be built up, the inputs, project outputs and possible environmental impacts. Proceed to #7).	1	2		5	13				21
6. How did you know of the proposed project? (Interviewers are expected to Proceed to #7)									
a. radio		1		10	4				15
b. Town/province	11	6	4	42	14				77
c. parish priest		3		4	4				11

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	BALER	SAN LUIS	MARIA AURORA	DINGALAN	GAB. LUDON	LAUR	PALAYAN CITY	N.A.	TOTAL
d. family member	2		1	2	1				6
e. barangay officials		4	1	20	6				31
f. other LBII				2	7				9
DPWH	1								1
Town	1								1
7. In your opinion, what do you think will be the effects of the proposed project to your community/town/province? (Check the major item and encircle specific)									
Positive Effects/Impacts									
1.a. employment	22	8	5	65	44				144
1.b. income	19	7	5	54	32				117
1.c. power supply	3	8	2	45	23				81
1.d. community solidarity	13	10	11	44	23				101
1.e. housing	2	4		30	13				49
1.g. progress to town	3								3
1.h. good needs/easy travel	3	1	2		4				10
1.i. beneficial to the community					2				2
1.j. economic progress	2		1		1				4
1.k. Aurora will be known			1						1
1.l. peace and order		1							1
1.m. thorough appraisal and study	14								14
1.n. commerce will be facilitated					1				1
1.o. others				5					5
Negative Effects/Impacts									
2.a. decrease in fish/shellfish harvest	17		1	13	3				34
2.b. water pollution	17		2	12	4				35
2.c. salt water intrusion	14			8	5				27
2.d. decrease in crop harvest	17		2	13	3				35
2.e. flooding	23	3	3	24	6				59
2.g. depletion of forest cover	29	4	5	37	11				86
2.h. human health/hazard	16	2	2	8	6				34
8. In your opinion, the proposed project									
_____ will help a lot the community and local residents.	26	13	5	76	45				165
_____ will be able to help but not much.	1		1	5	4				11
_____ will not help at all the community.		1							1
_____ will do no good to the community.									
_____ need more study	13								13

H - 3 - 4

	BALER	SAN LUIS	MARIA AURORA	DINGALAN	GABALDON	LAUR	PALAYAN CITY	N.A.	TOTAL
PART III: ASPIRATION									
9. If given the chance to work for the project, will you take the opportunity?									
9.a Yes. Why?	18	12	1	68	42				141
9.b No. Why?	6		2	5	2				15
9.c Not sure. Why?	15		2	2	1				20
9.a Big help to the family need to earn additional income for progress of town	2	3		15	2				22
					9				9
	5			5	5				15
9.b presently employed others need it more	4		1						5
	1								1
9.c small pay for laborers not clean if beneficial have to be studied more	1								1
	6								6
	8								8
10. If you have any comments/suggestions regarding the project please write on the space provided below.									
Thank you.									
NOTE: Comments/Suggestions elicited by this question (H10) one grouped into:									
a. socio-economic	7			8	24				39
b. environmental	1			1	3				5
c. political				1	1				2
d. information dissemination	14								14
e. community solidarity				1	1				2
f. let the project start as soon as possible									
g. treasure hunting				1					1
h. others	1			1	15				17

2/1/10

APPENDIX I

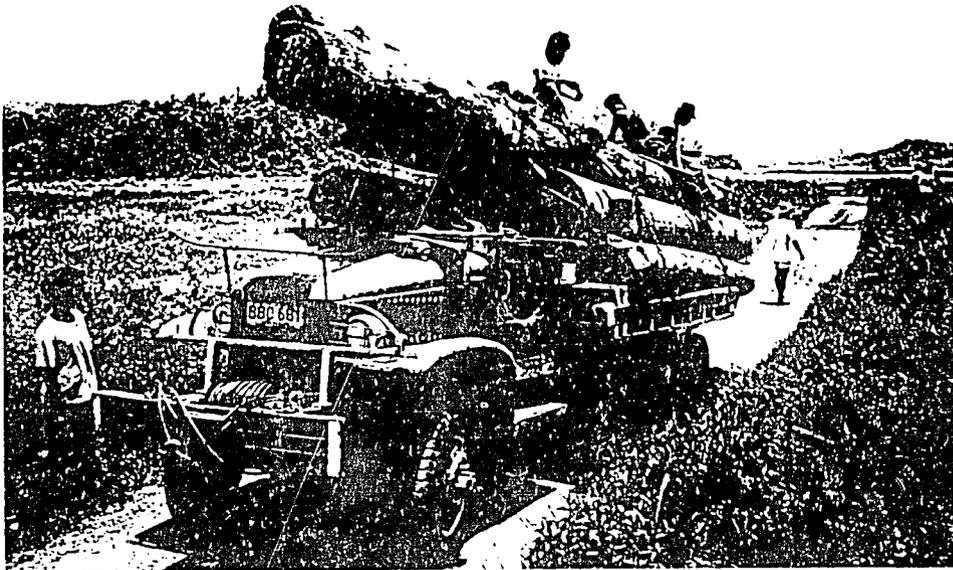
Appendix I

**SCOPING SESSION/CONSULTATIONS AND
PROJECT AREA PHOTOGRAPHS**

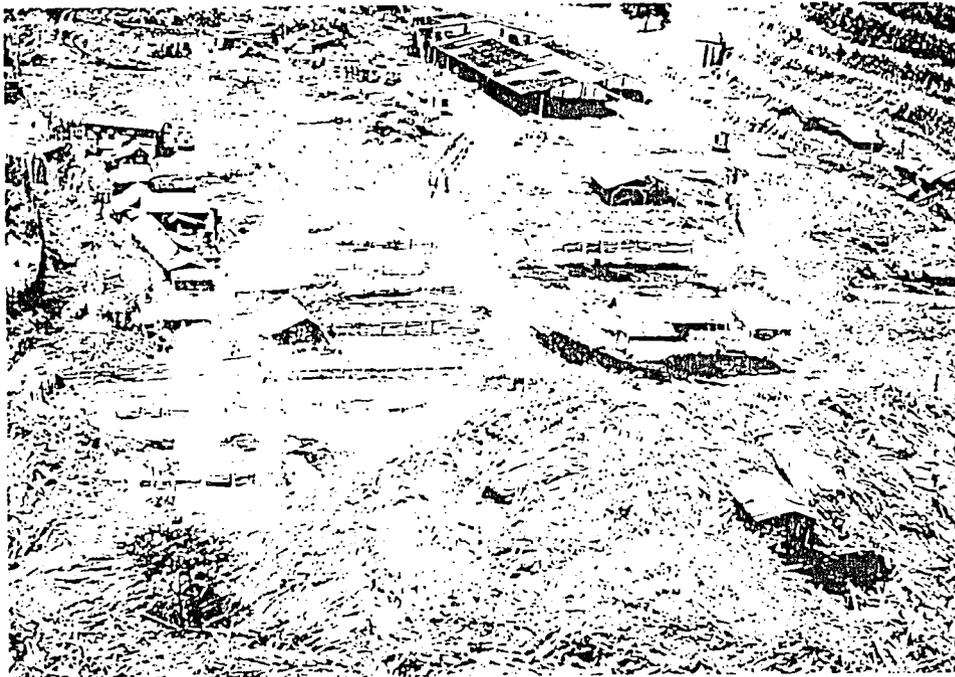


1. *Potential impacts of ARIDP road improvements and new construction on forest cover and indigenous tribal groups were top concerns at the National and local Scoping Session/Consultations (San Luis, Aurora; Baler, Aurora)*

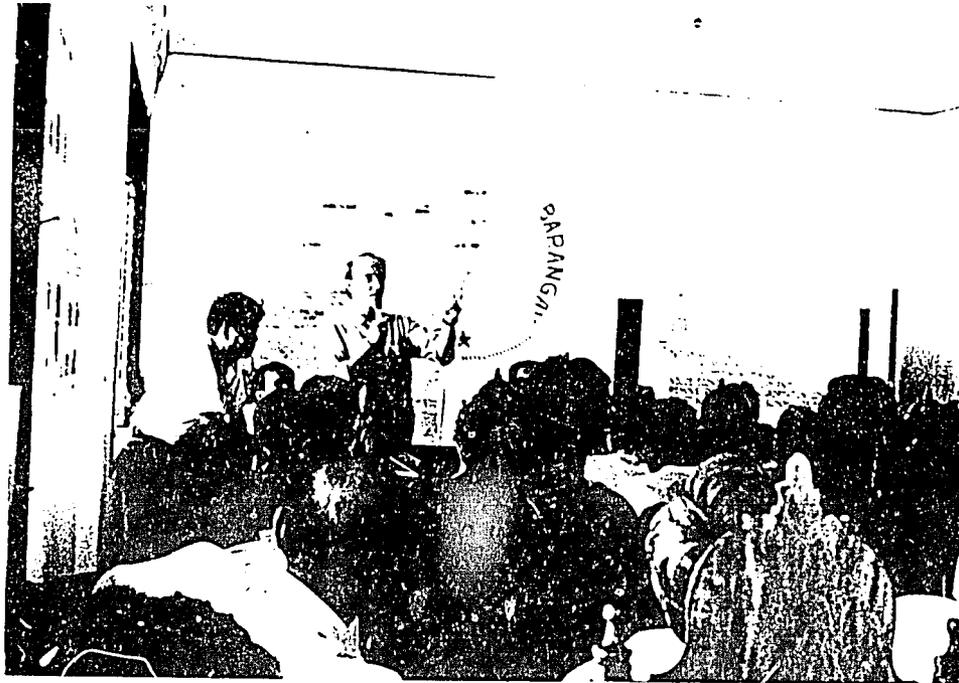




2-A *Legal and illegal logging are the major economic activities in much of the Project Area (Dingalan, Aurora)*



2-B *The potential contribution of road improvements to forest-accessibility and degradation will be assessed in the ARIDP EA/EIS. (Maria Aurora, Aurora)*



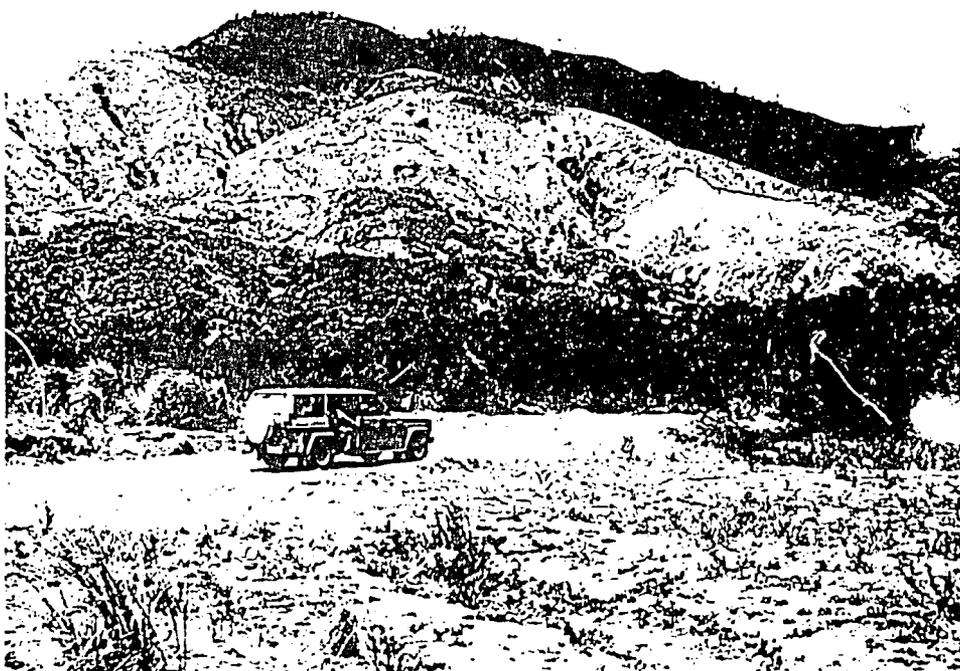
3-A The ARIDP Environmental Studies Team explained US and Philippine environmental regulations and reviewed the scope of potential impacts to be assessed. (Gabaldon, Nueva Ecija)



3-B Potential habitat-destruction and road-associated impacts on wildlife and biodiversity were spotlighted by national and international conservation groups and Project Area NGOs (Maria Aurora - Canili road)



4-A Slope stability was identified as a major concern in the seismically-active and landslide prone region. (Canili/Pantabangan, Nueva Ecija)



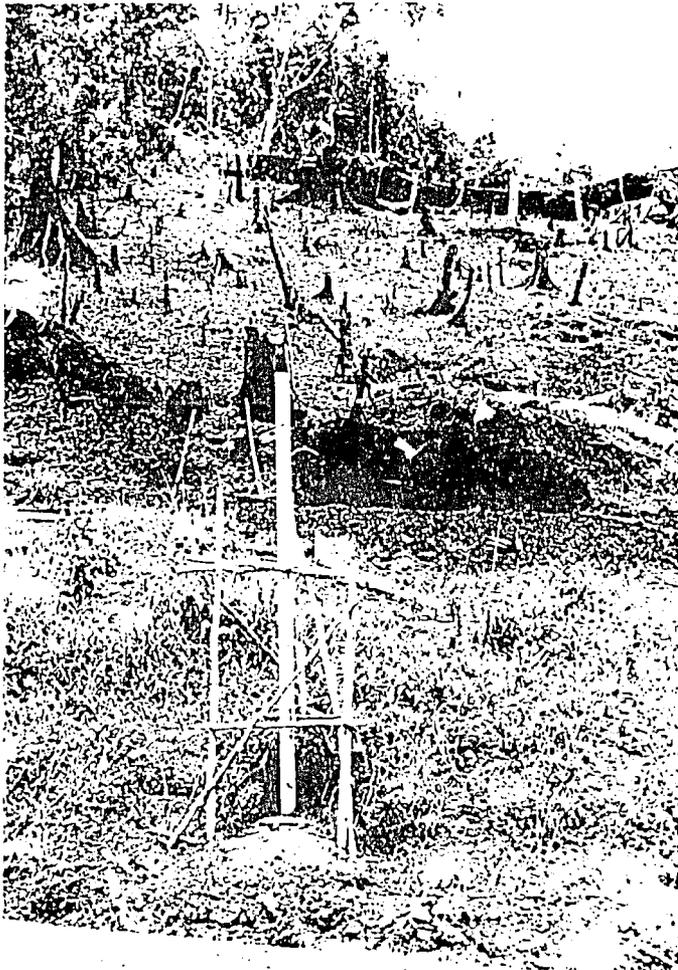
4-B Denuded watersheds and the threats to infrastructure posed by typhoons and heavy flooding were other potential hazards emphasized by Scoping Session/Consultations participants. (Laur, Nueva Ecija)



5 *Field surveys to profile the existing environment of the Project Area and review alternative alignments were undertaken to prepare for ARIDP Scoping Session/ Consultations. (San Luis, Aurora)*



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6 *Other recently constructed roads in the Project Area have encouraged migrant settlement and forest destruction. Here, a recently burned "kaingin" plot smoulders as highway signs for the new road are erected. (Maria Aurora - Canili road)*



7-A *Potential soil erosion from both road construction and land-use changes which might follow and its effects on river and stream ecosystems and down-stream agricultural lands were also considered significant by participants. (Maria Aurora - Canili road)*



7-B *The DENR/EMB Perception Survey provided valuable ecomplement to Scoping Session/Consultations and helped identify community concerns. (Dingalan, Aurora)*



8 *The potential impacts of the proposed Dingalan-San Luis road which would "open" a large forested and still roadless section of the coastal Sierra Madre Range to development received the greatest comment in small group discussions and the Scoping Session/ Consultations as a whole. (San Luis, Aurora; Baler, Aurora)*

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APPENDIX J

Appendix J
REVISED ARIDP EA/EIS OUTLINE

Appendix J

**REVISED 7-25-91
ENVIRONMENTAL ASSESSMENT/ENVIRONMENTAL
IMPACT STATEMENT OUTLINE**

**ENVIRONMENTAL STUDIES OF THE
AURORA ROADS INFRASTRUCTURE DEVELOPMENT PROJECT
IN AURORA AND NUEVA ECIJA PROVINCES**

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Preface
Acknowledgements
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List of Tables
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List of Appendices
Acronyms and Abbreviations
Weights and Measures

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- 2. BACKGROUND**
- 3. GOP ENVIRONMENTAL REQUIREMENTS AND PROCEDURES**
- 4. USAID ENVIRONMENTAL REQUIREMENTS AND PROCEDURES**

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 - 1.1 Location**

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- 1.2 Purpose
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- 2.1 Description of relevant existing facilities

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- 3.2 Construction Activities
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 - 2.2.3 AIADP
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 - Upland settlement
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 - Mortality
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 - 3.2.1 Employment
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 - 3.2.2 Primary and Secondary Sources of Livelihood
 - 3.2.3 Income
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- 3.4 Public Services/Utilities
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 - 3.5.1 Traffic/Density Congestion Levels
 - 3.5.2 Types of Vehicles
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- 3.6.1 DSWD
- 3.6.2 Health Services and Standings
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- 3.6.4 Public and Private Education
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- monthly
- weekly
- daily (if possible)

4.1.2 Precipitation (extremes and mean)

- monthly
- weekly
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4.1.4 Wind Direction

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- 4.2.2 Geologic features
- 4.2.3 Seismology
- 4.2.4 Volcanology

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4.3.1 Soil types

4.3.2 Texture

4.3.3 Drainage

4.3.4 Erosion

4.4 Topography

4.4.1 Slope

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4.5.1 Existing air quality levels/pollution levels

- particulates
- CO
- SO₂, NO₂, etc.

4.5.2 Sources of air pollution

- industries
- vehicles
- area sources

4.5.3 Vibrations

4.5.4 Noise levels

4.6 Water Supply and Quality - Hydrology

4.6.1 Surface water

- quantity (rivers, lakes, streams, impoundments)
- quality (physical, chemical, bacteriological, BOD, DO, turbidity, coliform content, etc.)
- sources of water pollution (residential, industrial)
- natural drainage patterns
- run-off rates
- flood levels

4.6.2 Groundwater

- quantity
- quality
- sources of pollution

4.7 Terrestrial Ecology

4.7.1 Vegetation

- forest cover
- plant communities
- rare or unique vegetation and plant life

4.7.2 Wildlife

- habitat or nesting sites of sensitive species
- wildlife inventory, distribution, relative abundance, importance

4.7.3 Diversity

4.7.4 National Parks/Protected Areas

4.7.5 Forest Exploitation

- legal and illegal logging
- minor forest products

4.8 Aquatic/Marine Ecology

4.8.1 Coastal Ecology

- coastal physiography - shelf, beach, tidal flats, estuarine areas
- inventory of coastal resources
- mangroves
- marsh
- sea grass
- corals
- fish and water fowl
- other aquatic organisms

4.8.2 Riverine Ecology

4.9 Solid and/or Hazardous/Toxic Wastes

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- watershed
- biodiversity
- potential touristic, etc.

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- 5.1.1 Scenic geologic/landform features
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- 5.2.2 Areas of archaeological value/concern
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(As established as significant in Chapters 3 and 4)**

2/26/20

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3. **IMPACTS ON THE PHYSICAL AND BIOLOGICAL ENVIRONMENT AND NATURAL RESOURCES**
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 - 5.1 Short and Long Term Impacts on Resources and Environmental Productivity
 - 5.2 Cross-sectoral Impacts and Effects on Other Projects
 - 5.3 Cumulative and Irreversible Impacts
 - 5.4 US Foreign Assistance Act Sections 118 and 119 Concerns

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Environmental Plan of Action

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(As identified in Chapter 5, Section 3)
2. **MITIGATION AND MONITORING OF SOCIO-ECONOMIC IMPACTS**
(As identified in Chapter 5, Section 3)

3. **MITIGATION AND MONITORING OF CULTURAL IMPACTS**
(As identified in Chapter 5, Section 4)

4. **MITIGATION AND MONITORING OF CUMULATIVE IMPACTS**
(As identified in Chapter 5, Section 1 and 5)

5. **ENVIRONMENTAL PLAN OF ACTION**

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- B. Contact Lists
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- D. Technical Information
- E. Summary of Scoping Reports and other Public Comment
- F. List of Assessment Preparers (qualifications, experience, contact addresses, etc.)
- G. Project Area Photographs

APPENDIX K

Appendix K

**REPORT ON THE ENVIRONMENTAL SURVEY
CONDUCTED IN THE PROVINCES OF AURORA
AND NUEVA ECIJA**

REPORT ON THE ENVIRONMENTAL SURVEY CONDUCTED IN THE PROVINCES OF AURORA AND NUEVA ECIJA

The preliminary environmental survey was conducted on June 4 to 15, 1991 in response to the requirement by the USAID and the Philippine Government with regards to the Aurora Roads Infrastructure Development Project (ARIDP). The team was composed of Mr. William Cummings, the group leader, Mr. Jun Arevalo, Ms. Sirikit Posadas, Mr. Marcelo Caleda and Mr. Melchor Aguilera. Two (2) representatives from Haribon Foundation, Inc., Atty. Eric Atienza and Mr. Rudy Cruz, joined the team during the entire duration of the survey.

4 June '91

The team left Manila for Cabanatuan City. Courtesy calls were made with Hon. Gov. Narciso Nario, and other provincial officials of Nueva Ecija. Likewise, the team closely coordinated with the Provincial Planning and Development Office (PPDO) and provincial offices the Bureau of Soils, Office of the Southern Cultural Communities (OSCC) and the Department of Environment and Natural Resources (DENR).

5 June '91

The team left Cabanatuan City for Baler, Aurora and conducted ocular survey while plying the Bongabong - Baler National Road that traverses the Sierra Madre Mountains. Several stop-overs were made for photo-documentation and observation of the road, bridges, rivers, vegetation, etc. Interviews were also conducted with the personnel of a DENR check point located at the boundary of Nueva Ecija and Aurora and with DENR officials for management of the Aurora National Park. The team was billeted at Ocean View Lodging House in Baler, Aurora.

6 June '91

Prior to the courtesy calls to the Provincial and Municipal officials within the affected areas of the proposed Circumferential Road, discussions were made among team members to plan work activities. Mayor Luis Querijero of Baler committed his municipality to accommodate the Scoping Session on June 27, 1991. Governor Edgardo Ong on the other hand, pledged his support for the Scoping Sessions in Baler and Dingalan. Reconnaissance survey of the proposed Baler - Dipaculao - Ma. Aurora - San Luis Circumferential Road was conducted. Several issues were raised by the Mayors of the affected Municipalities on the proposed circumferential road.

Mayor Salvador Velasco of Dipaculao commented that several feasibility studies were already conducted on the proposed circumferential road and nothing has been done to date. However, the Mayor also suggested that if the proposed circumferential road materializes, the Canili - Pantabangan Road should also be improved. In Ma. Aurora, Mr. Prospero Evangelista of the Municipal Planning and Development office suggested an alternative route able to accommodate the barangays in the remote areas such as Barangays Quirino, Dibucao, Diaman and Suguit.

7 June '91

The team went to the Municipality of San Luis to hear comments regarding the proposed alternative route as suggested by Mr. Prospero Evangelista. In the absence of Mayor Annabelle Tangson, municipal officials of San Luis indicated their agreement with Mr. Evangelista. A reconnaissance survey was conducted on the proposed alternative route. From San Luis proper the team proceeded to Barangay Diteki and passing through a feeder road crossing the Diteki River before reaching the hilly barangay of Suguit.

After the survey of Suguit, the team went to AIADP office and coordinated with Mr. Hans Peter Jespersen, an AIADP consultant on Agriculture. Several data and information were provided by the AIADP personnel to the team.

8 June '91

Reconnaissance survey was conducted by the team on the road leading around the south of Baler Bay to the PAGASA weather station located within the Dibudelan Mountain of the Sierra Madre Range on the Pacific coast.

9 June '91

The team conducted a reconnaissance survey on the Canili - Pantabangan Road. Several new "kaingins" were observed and much of the forest within the immediate vicinity of the road has already been logged. The team was accompanied by two Provincial Board members, namely; Hon. Loreto Binasa and Hon. Artemio Dulay.

10 June '91

From Barangay Real, San. Luis, the team traversed the trails of Magtaca and Dibudelan Mountains to Barangay Dibut. The purpose of the hike was to conduct a reconnaissance survey on the proposed Baler - Dingalan Road. Mr. Edilberto Llanillo of Barangay Rea, San Luis acted as the team's guide and informant. A coastal survey was also conducted by Mr. Aguilera accompanied by Board Member Loreto Bihasa and Mr. Ruben de Leon in a motorized boat.

Dibut is a coastal barangay, sheltered on the north by Susong Dalaga mountain, on the west by the Sierra Madre Range and on the south by the Dibayabay mountain. It has a small lowland delta and faces the Pacific Ocean to the east.

Consultation with the Barangay residents was arranged and several issues and views with regards to the proposed Baler - Dingalan Road were raised. There were also concerns raised on the fast deterioration of the forest as pointed out by Mr. Giton Nabision, a Dumagat and the oldest resident, (90 years old) of Barangay Dibut. Mr. Giton Nobisio was also a former guerilla during World War II (WWII).

Barangay Dibut is considered as a historical place during WWII because it was in the barangay's sheltered bay that an American submarine twice surfaced to unload thousands of firearms and ammunition to support the liberation of the Central Luzon from the Japanese occupation.

Archaeological survey conducted on this barangay yielded negative result.

11 June '91

From Barangay Dibut, a team composed of Ms. Sirikit Posadas, Mr. Marcelo Caleda, Mr. Rudy Cruz and Mr. Melchor Aguilera hiked the mountainous area to reach Barangay Dibayabay. Another team composed by Messrs. William Cummings, Jun Arevalo, Atty. Eric Atienza, Hon. Loreto Bihasa and Ruben de Leon conducted the coastal survey riding the motorized boat. Consultations similar to those of Barangay Dibut were also conducted in Barangay Dibayabay.

Archaeological survey was conducted inland and along the coastal area of Barangay Dibayabay. Due to thick vegetation at the inland areas no surface materials were found. In the coastal area, a porcelain shard attributed to the Ming Dynasty period (14th to 17th centuries A.D.) was found. Another shard, from an earthenware pot (lip portion) was found on the gravel deposit along the beach. Numerous logs were seen along the coastal area ready for shipment. Carabaos were utilized to haul the logs coming from the mountains.

12 June '91

The team proceeded to Barangay Dikapinisan riding the motorized boat. Barangay Captain Arnel Valenzuela assisted the team and accommodated them in his residence. Ms. Cora Valenzuela, an informant, mentioned three (3) major problems that the barangay is presently faced with, namely; economic, transportation and peace and order. In her elaboration, the barangay residents resort to logging instead of farming because there is no market for their farm products. The high cost of fuel made it impossible for them to sell their farm products at profitable prize. The peace and order situation in the barangay is not stable.

Barangay Dikapinisan is a hauling area of logs for shipment owned by San Roque Lumber Company. Several tons of logs stockpiled near the log pond were observed. There were also "under size" logs noticed in this hauling area.

13 June '91

From Barangay Dikapinisan the team proceeded to Barangay Dimanayat. Brief survey and interviews were conducted with the barangay residents. After having lunch, the team proceeded to Sitio Alasanay of Barangay Dikapinisan. Among the coastal areas surveyed, Sitio Alasanay was probably the most deprived community as no basic government help or services have reached them for a long time. Residents of this area sustained their living by cutting trees and fishing.

After the data gathering the team proceeded to the Municipality of Dingalan.

14 June '91

A courtesy call was made to Mayor Norberto Galvez of Dingalan. Discussed with the Mayor was the proposed Scoping Session which will be held on the 29th of June. Two teams were formed, the first team composed of Messrs. William Cummings, Jun Arevalo, Rudy Cruz, Eric Atienza and Ms. Sirikit Posadas. This team conducted a reconnaissance survey of the Dingalan - Palayan City Road and coordinated with Municipal/Barangay officials. The second team was composed by Messrs. Marcelo Caleda and Melchor Aguilera. This team conducted a reconnaissance survey on the logging road from Barangay Paltic to Barangay Dicapanikian. "Logged over" area as well as "kaingins" were commonly seen along the logging road.

Reconnaissance survey was also conducted on the coastal area of Dingalan. On the archaeological aspect of the survey, it yielded negative results. Several interviews were also conducted on the Dumagats catching Bangus fry on the beach.

15 June '91

The team left for Manila via Dingalan - Palayan City Road.

PRELIMINARY PERCEIVED IMPACTS ON ARIDP

1. Baler-San Luis-Maria Aurora-Dipaculao Circumferential Road

This road improvement is approximately 40.50 km. linking the municipalities of Baler, Dipaculao, Maria Aurora and San Luis. The road passes through predominantly agricultural lands planted to rice and coconut.

Potential impacts on the physical and biological environment are low and largely temporary during ARIDP Planning and Design Phase, Improvement Phase and Operation Phase.

On the socio-economic environment, potential impacts are low influencing migration, population, public services, transportation, education, health and quality of life among others.

The Cultural/Aesthetic Environment. Archaeological, historical resources, and aesthetic resources are expected to receive low impacts.

2. Baler-Dingalan Road

The proposed road alignment passes through 20-30 year old logged over forests. In the immediate vicinity of the proposed road are both pockets and substantial tracts of primary forest with a small volume of commercial dipterocarp species, e.g. Mayapis, Tanguile, Lauan, Apitong, Makaasim and Katmon. Makaasim and Katmon are also preferred for furniture making. Rattan a minor forest product is likewise harvested, The stretch of the coast from Baler to Dingalan shows four distinct forest formations, i.e. (1) monsoon forest-characterized by stunted growth of trees similar to a cloud forest or mossy forest, (2) primary forest about 5-7 km. inland, (3) advance second growth (logged-over 20-30 years) and (4) the mossy forest of Mt. Mingan. The coast is drained by numerous rivers emptying into the ocean. These areas provide spawning grounds for the milkfish (Bangus).

Potential impacts on the physical and biological environment are high to moderate during construction and operational phases.

Soils, slope stability, forest vegetation, forest cover, wildlife, biodiversity and coastal ecosystems are to be impacted by the construction phase and these effects may increase during the operation phase.

The socio-economic environment is likewise to be impacted. Construction of the road will influence migration, population, employment, land-use and housing among others. The easy access and population increase would exert more pressure on the existing resources, with accelerated depletion and potential degradation to follow.

Cultural/Aesthetic Environment. Archaeological and historical resources are likely not be impacted. However, impacts on ethnic and tribal conditions, cultural communities, ancestral land claims and potential tourism and aesthetic resources are perceived to be high.

3. Dingalan-Palayan Road

This road improvement is a 48.7 km. of existing road linking the provinces of Nueva Ecija and Aurora. The alignment from Dingalan to Gabaldon traverses lands planted to rice, degraded pasture area and grassland. The Gabaldon to Palayan segment crosses agricultural lands devoted to rice, onions and garlic. Degraded pasture land along the alignment is also extensive as are large river wash areas. Slopes adjacent to the alignment are largely denuded and the road improvements will be vulnerable to flooding, land and mudslides, and other environmental hazards.

The improvement phase and the operation phase will not directly impact the physical and biological environment and its natural resources. Although indirect impacts associated with increased forest access and illegal logging are possible. The socio-economic environment is perceived to be positively impacted. The cultural and aesthetic environment is perceived not be impacted.

APPENDIX L

Appendix L

CURRENT STATUS/PLANNED ACTIVITIES
ARIDP ENVIRONMENTAL STUDIES

Appendix L

CURRENT STATUS/PLANNED ACTIVITIES ARIDP ENVIRONMENTAL STUDIES

Work Plan Tasks Completed:

- ◆ Task A - Organize Environmental Studies
- ◆ Task B - Field Studies: Existing Environment
- ◆ Task C - Conduct Scoping Session (w/ submission Scoping Report 7/30/91)

Work Plan Task In-Progress / Schedule of Planned Activities

- ◆ Task D - Field Studies: ARIDP Impacts Assessment
 - Phase 1 7/17-7/27 Project Area Fieldwork
 - Phase 2 7/28-8/3 Manila Interviews/
Consultations
 - Phase 3 8/4-8/8 Project Area Fieldwork/
Consultations

Work Plan Tasks Remaining / Proposed Schedule of Planned Activities

- ◆ Task E - Environmental Analysis / Preliminary EA/EIS
 - Phase 1 8/9-8/19 Environmental Analysis
 - Phase 2 8/20-8/26 Production of Preliminary
EA/EIS
- ◆ Task F - Design/Develop Environmental Management, Monitoring
and Mitigation Plan

