INITIAL ENVIRONMENTAL EXAMINATION

for the

Asphalt Concrete Overlay of

DIGOS - COTABATO ROAD

April 2001

Environmental Impact Assessment Project Office
and
Environmental Impact Assessment Regional Office
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EXECUTIVE SUMMARY

A. Introduction

The Environmental Impact Assessment (EIA) of the proposed Improvement/Overlay of Digos-Cotabato Road is presented in the form of an Initial Environmental Examination (IEE) to secure an Environmental Compliance Certificate (ECC) in accordance with the requirement of the revised rules and regulations of the Environmental Impact Statement System (EISS) embodied in the Department of Environment and Natural Resources - Department Administrative Order (DENR-DAO) 96-37.

Thus, this report covers the result of the said EIA that aims to confirm environmental viability of implementing the proposed project.

B. Brief Description of Methodology

The Project Management Office for International Bank for Reconstruction and Development (PMO-IBRD) requested the Environmental Impact Assessment Project Office (EIAPO) to conduct an Environmental Impact Assessment of the said Digos-Cotabato Road Project. The EIAPO Staff proceeded to the project site:

- to assess the environmental condition of the area
- to coordinate with the Department of Environment and Natural Resources (DENR)-Environmental Management Bureau (EMB), Region XII and other agencies concerned regarding the status of the project
- to gather data/information which may be deemed necessary in the preparation of the EIA.

In August 2000, ocular inspection was carried out by staff from the EIAPO in coordination with the Regional and District Offices of DPWH, Region XII.

Primary and secondary data were obtained from various sources such as environmental reports undertaken by national and local agencies and feasibility studies. Site inspections and actual interviews were conducted within the community and local government units provided first hand information.

An endorsement from the Local Government Units (LGUs) was secured to establish the support needed for the proposed Project.
The site inspection survey, data gathering and consultation meetings with stakeholder were conducted to determine the positive and negative impacts that may arise before, during and after implementation.

C. **EIA Process Documentation**

Process documentation is in accordance with the guidelines embodied in DENR-DAO 96-37.

D. **Project Description**

The proposed project is for the improvement asphalt concrete overlay of about 115.9 km. of the existing 161.3 km Digos-Cotabato Road which would result to un-interruptive vehicular flow and safe pedestrian movements thereby improving vehicle and passengers mobility and accessibility.

The project implementation is being pursued under the IBRD-assisted National Roads Improvement and Management Program (IBRD-NRIMP), Phase II and implementation or construction period will commence in Year 2004 through 2006.

E. **Description of Environmental Conditions**

Presently, the existing land use is a combination of agricultural and urbanized area.

With its vast resources and potentials, the provinces of Maguindanao, North Cotabato and Davao del Sur are now at the crossroads of development and has emerged as one of the gateways to the Mindanao Island primarily due to its location and extensive roadnet. Due to its accessibility to neighboring parts of Mindanao, the road influence area is at the geographic center of commerce and trade.

F. **Environmental and Social Impact Assessment**

The existing highway facility has had major impacts on the social, economic and political life of the provinces of Maguindanao, Cotabato and Davao del Sur and is now established as an essential component of the local economy and a vital strategic link. However, due to fast development, the highway has resulted to deterioration affecting the accessibility of goods and services. To improve the situation, it proves among others that the Improvement/Overlay of the Digos-Cotabato Road plays a vital role to the economic growth of the project area.
Environmental issues for this activities are those associated with normal concreting works and also traffic congestion due to self-width construction techniques and traffic management problems.

Therefore during implementation, the project environment will be relatively disturbed as far as the project is concerned. Hence, disturbance and adverse impacts are only short term in nature.

G. Environmental Management Plan

Although, negative impacts have been identified, these can be contained and remedied during construction through proper mitigating measures as indicated in the attached Environmental Management Plan and proper construction method.

H. Environmental Monitoring Plan

An Environmental Monitoring Plan is also presented in this report that include provisions of measures to minimize possible negative impacts.

I. Proofs of Social Acceptability

As to social acceptability, the process of consultation with the local government units has been pursued to get their endorsement.

J. Conclusion

In conclusion, the implementation of the project will be beneficial in Region XI, XII and ARMM considering that this will improve the traffic flow and delivery of services, thus, contributing to economic growth.

It is environmentally sound considering that the activities to be undertaken during the improvement will have negligible effects to the environment and socially acceptable to all stakeholders of the project including project affected persons.
Introduction
INTRODUCTION

A. PROJECT BACKGROUND

In consonance with the national government's thrust on social reforms through setting up priority sectoral programs and projects for Mindanao Island particularly in Region XI, Region XII and the Autonomous Region for Muslim Mindanao (ARMM), the Improvement/Overlay of Digos-Cotabato Road was taken into consideration as a priority project under the IBRD-assisted NRIMP Phase II.

The Digos-Cotabato Road functions as inter-regional link which starts at the Jct. Pan-Philippine Highway in Digos, the provincial capital of Davao del Sur (Region XI) on the east coast of Mindanao Island and ends at the west coast of Cotabato City, the provincial capital of Maguindanao and also the regional center of the (ARMM). The project road traverses the provincial capital of Kidapawan in North Cotabato (Region XII) and the southern part of Lanao del Sur.

The project road is classified as part of the east-west lateral links of the arterial road network. It interconnects two major roads in Mindanao Island, which are both classified as north-south backbones. These are the Pan Philippine Highway (PPH) and the Gen. Santos City-Cotabato City that leads further to Zamboanga City (Region IX).

The project road has been previously implemented under the 1st International Bank Reconstruction Development (IBRD) Loan Package. However, due to urbanization pressure being experienced in the project area coupled with peace and order problems as a result of the rebellion of some Muslim rebels in the south, the existing highway facilities is now deteriorating.

B. EIA PROCESS/DOCUMENTATION

Pursuant to DENR Administrative Order 37, series of 96, an Environmental Impact Assessment for all projects to be implemented shall be undertaken by the Project Proponent and submit said Environmental Study to DENR-EMB prior to the issuance of Environmental Compliance Certificate (ECC).
An ECC is a document issued by the DENR certifying that based on the representations of the proponent, the proposed project will not cause significant environmental impacts and the proponent has complied with the requirements of the Philippine Environmental Impact Statement System.

With regards to the proposed project, the EIA was documented following an Initial Environmental Examination (IEE) Format considering that this project is not categorized as an Environmentally Critical Project.

C. EIA METHODOLOGY

Staff from the EIAPO and from the Environmental Impact Assessment Regional Office 12 (EIARO) carried out the EIA, in order to determine the positive and negative impacts that may arise before, during and after implementation.

Interviews, site inspection, fieldworks, collection of information from different government agencies, offices of the different provincial government units and the Feasibility Study Report are the common sources of data used in this study.

Photos were taken at strategic points that are attached hereto.

Likewise, the EIA Team also coordinated with the concerned Mayors to get their support and endorsement. The endorsement is a proof of social acceptability. (see annexed)

D. EIA TEAM

The EIA Team who documented this report consist of the following:

EIAPO - DPWH

1. Engr. Charlene B. Blando – Engineer III
2. Dolores M. Viloria – Economist II

EIARO - DPWH

1. Engr. Monarico I-. Maraki
2. Engr. Saidale M. Mitmug
3. Arch. Erlinda Mapa
E. EIA STUDY SCHEDULE

Upon completion of the field survey, further studies were made and target date for submission of the IEE to DENR-EMB Region 12 for evaluation was set on June 15, 2001.
General Information
GENERAL INFORMATION

A. PROJECT NAME

IMPROVEMENT/ASPHALT CONCRETE OVERLAY OF DIGOS – COTABATO ROAD

B. PROJECT RATIONALE

The project is envisioned to provide an efficient and service oriented transport system in support to development activities taking place along the road influence area.

C. PROJECT LOCATION

The 161.3 kms Cotabato-Digos Road is located in the Provinces of Maguindanao, Cotabato and Davao del Sur.

The province of Maguindanao is composed of eighteen (18) municipalities with a total number of 466 barangays. The seat of the provincial government is located at Sultan Kudarat.

Maguindanao is divided into two (2) physiographic units, the Southwest cluster and the Mindanao lowlands. The Southwest mountain cluster includes the two groups of mountain ranges of Binaca and Blit. They are separated by the valleys of the Matuber River which flows Northwest into the Moro Gulf and Liwaig river which flows into the Mindanao Sea.

The province of Cotabato is composed of seventeen (17) municipalities and one (1) city with 544 barangays, with Kidapawan City as its capital. Cotabato has rich vast land resources stretching over an area of 656,590 hectares representing 45.06% of the regional land area. It ranks first in terms of land area among the three provinces of Region XII.

Cotabato lies on the eastern part of Region XII and is strategically located in the central part of Mindanao. It is bounded on the North by the Provinces of Lanao del Sur and Bukidnon, on the east by Davao City, on the Southeast by Davao del Sur, on the west by Maguindanao Province and on the Southwest by Sultan Kudarat Province.
The Province of Cotabato is focusing on Agro-Industrial and Eco-Tourism to accelerate its development.

The Province of Davao del Sur is situated in the Southern tip of Mindanao, the province shares 14.65% of the total land area of Region XI. It is bounded by Davao City on the north, the provinces of Cotabato, Sultan Kudarat and Kidapawan City on the West, Celebes Sea, Sarangani Province and Gen. Santos City on the South and the Davao Gulf on the East.

Davao del Sur occupies an area of 393,401 hectares with 14 municipalities and 1 city. Davao del Sur experience some benefits for its economy due to the close proximity of Davao City to the province. The spill-over development from this area is providing benefit to the province.

D. PROJECT PROPONENT

The Project Proponent is the Department of Public Works and Highways (DPWH), Project Management Office - International Bank for Reconstruction and Development (PMO-IBRD). The Project Director of this office is Dir. Baliamen Mamainte, tel. No. 304-3778 and located in 2nd St. Port Area, Manila.

E. PROJECT CATEGORY AND PROJECT COMPONENT

The road project is categorized under infrastructures (national road) and based on the results of the preliminary engineering analysis and design, the proposed improvements of the project road consist of Improvement/Asphalt Concrete Overlay.

F. PROJECT IMPLEMENTATION PROGRAM

As per NRIMP – Program Implementation Plan, the pre-investment activities will start in 2001 through 2003 and the implementation or construction period will commence in 2004 through 2006.

G. PROJECT COST

Financial Cost (P M) - P 708.4
H. DESCRIPTION OF PROJECT PHASES

1. Pre-Construction Phase

Activities undertaken during this stage includes the confirmation of design and the establishment of the following:

a. location site of construction camps for engineers and laborers
b. operation and location site of asphalt plant
c. location of disposal sites

After all the design, the project will undergo the usual standard bidding procedures for government projects.

The notice to commence work shall be issued to the winning Contractor upon approval of the Contract.

Contractor's management should brief the workers on their respective job assignments, proper use, care and maintenance of equipment and pertinent rules and regulations of the DOH, DOLE, DENR in order to ensure the health and safety of workers to minimize damage to the environment.

2. Construction Phase

During construction period, there will be various temporary uses of land, such as for storage of equipment and materials and borrow sites.

Operation of Asphalt Plant and equipment may create harmful and bothersome noise levels. Manufacturing, handling and storing of aggregate and earth materials will emit large amount of dirt particles into the atmosphere that would affect the residents in the area, trees, crops and animals.

Movement of people to other basic social amenities will be marginally affected by the implementation of the project.

The beneficial effect will be in terms of additional income to the local residents in view of the employment of workers and the increase of economic activity.
Compliance with the mitigating measures and monitoring as embodied in the EIA will be enforced to ensure that the provision in the required ECC will be followed.

3. Operational Phase

The Proponent shall accept the project from the Contractor after final inspection of the completed project and all the environmental requirements have been satisfied.

Vehicular traffic flow is expected to return back to normal. With increased traffic capacity, inter and intra-regional commerce will further perk up due to well maintained accessibility to previously distant municipalities. The projects will greatly enhanced the commerce of Mindanao as well as improve the movement of goods and services between Region XI, XII and ARMM.

The operation and maintenance activities include vegetation control, clearing of side ditches, replacement/repair of traffic signs and repair of rip-rap and other erosion protection works.
Description of Environmental Setting and Receiving Environment
EXISTING ENVIRONMENTAL CONDITION

A. PHYSICAL ENVIRONMENT

1. ROAD CONDITION

The 161.3 kilometer Digos – Cotabato Road is an inter-regional link connecting Regions XI, XII and the Autonomous Region of Muslim Mindanao (ARMM) basically classified as East-West lateral road. The project road starts at the junction of Digos-Makar Road in the Municipality of Digos, Davao del Sur, passing through the provinces of North Cotabato in Region XI and ends at the junction of Cotabato-Lanao Road in the Municipality of Sultan Kudarat in Maguindanao. The road section is divided into eight (8) homogenous section as follows:

Road Section 1. Digos-Provincial Boundary Davao del Sur/North Cotabato

The project road starts at km 1563+600 Junction Digos-Makar Road and ends at km 1593+300 the provincial boundary of Davao del Sur and North Cotabato.

The road section is a National Road with an approximate length of 29.7 km. It traverses in a predominantly flat to rolling terrain with a land use combination of urban and agricultural. The carriageway width is 6.70 m and the gravel shoulder width is 2.50 m.

There are 14 bridges in this section with an aggregate length of approximately 362.5 m. Almost all the bridges are in good condition except for some that need minor repair due to deterioration of components.

Road Section 2. Provincial Boundary Davao del Sur/North Cotabato–Kidapawan

The project road starts at km 1593+300 boundary of Davao del Sur and North Cotabato to km 1616+300 in Kidapawan town proper.
The road section is part of the National Road with an approximate length of 23.0 km. It traverses flat to rolling terrain and some mountainous areas. The land use is mostly agricultural with some areas that are starting to become urbanized. The whole road section is paved with concrete and about 1.0 m is overlayed with asphalt. The carriageway width is 6.70 m and the gravel shoulder ranges from 2.50 to 3.0 m.

There are 10 bridges in this section with an aggregate length of about 275.1 m. Five of the bridges are in good condition while the rest need minor rehabilitation due to structural deterioration.

**Road Section 3. Kidapawan-Junction M'lang**

The project road starts at km 1616+300 in Kidapawan town proper and extends up to km 1640+400 junction M'lang town proper.

The road section is part of the national road with an approximate length of 24.1 km. It traverses flat and rolling terrain. The land use is mostly agricultural with some areas which is starting to become urbanized. The entire stretch is paved with concrete carriageway width of 6.70 m for two lanes and 16.60 m for four lanes. The 16.60 m carriageway width starts at km 1615+400 and extends to about 3.40 km located at the town proper of Kidapawan. The remaining road section is 6.70 m wide with a gravel shoulder of 2.50 m to 3.0 m.

There are three (3) bridges in this section posting an aggregate length of about 48.5 m. Two (2) of the bridges are in good condition while one (1) bridge namely-Manubuan Bridge needs repair due to structural deterioration.
Road Section 4. Junction M'lang-Junction Carmen

The project road starts at km 1610+400 Junction M'lang and ends at km 1651+200 Junction of Carmen at Kayaga town.

The road section is part of the national road with an approximate length of 10.8 km. It traverses predominantly flat to rolling terrain. The land use is a combination of agricultural and urban. The entire stretch is paved with concrete having a carriageway width of 6.70 m throughout. The shoulders are gravel and have a uniform width of 2.50 m.

There is only one (1) bridge in this section that is 17.8 m in length and needs minor repair because of structural deterioration.

Road Section 5. Junction Carmen-Junction Midsayap

The project road starts at km 1651+200 Junction Carmen and stretches up to km 1693+200 at Junction Midsayap about 2.0 km from the town Katingawan.

The road section is part of the national road with an approximate length of 42.0 km. It traverses predominantly flat to rolling terrain with some mountainous areas occurring on the approach to San Mateo Town. The land use is mostly agricultural as evidenced by the rice paddies with some urban area in nearby town proper. The entire stretch is paved with concrete carriageway width of 6.70 m throughout. The shoulders are gravel base with a uniform width of 2.50 m.

There are two sections where water flows across the project road. One is the Panicupan Creek at km 1676+300 where during heavy rains, this creek is not deep and wide enough to handle the volume of water. As result flooding occurs along the upstream sections of the creek.
The other section is at km 1630+300 where storm water flows across the road. This is because the area has small water catchment area and the existing size of drainage structure is inadequate.

The floodwaters flow across the project road at this point resulting in damage to the pavement and sub base of the road. Based on the information received, this particular phenomenon occurs several times per year.

There are eleven (11) bridges in this road section with an aggregate length of 494.1 m. Eight (8) bridges are in good condition and the rest needs repair due to deterioration of structures.

Road Section 6. Junction Midsayap-Libungan

The project road starts at km 1693+200 and ends at km 1698+200 in Libungan town just after Libungan Bridge.

The road section is part of the national road with an approximate length of 5.0 km. It traverses flat terrain with a land use of agricultural and urban area. The entire stretch is paved with concrete carriageway width of 6.70 m throughout. The shoulders are gravel based and have a uniform width of 2.50 m.

There are many rivers and creeks crossing the road alignment along this section. The two areas where river floodwaters flow across the road occur at km 1700 to km 1701 and other in km 1711 to km 1712 respectively.

There are two (2) bridges in this section with an aggregate length of about 77.0 m. The two (2) bridges are in good condition.
Road Section 7. Libungan-Boundary North Cotabato/Maguindanao

The project road section starts at km 1698+200 and ends at km 1716+000 at the boundary of North Cotabato to Maguindanao.

The road section is part of the national road with an approximate length of 17.8 km. It traverses flat to rolling terrain with some mountainous area before reaching the provincial boundary. The land use is mostly agricultural with some urban areas near the town proper. The entire stretch is paved with concrete having a carriageway width of 6.70 m throughout. The shoulders are all gravel and have a uniform width of 2.50 m.

There are five (5) bridges in this road section posting an aggregate length of about 64.9 m. The bridges are in good condition.

Road Section 8. Boundary North Cotabato/Maguindanao Junction Cotabato Lanao

The project road starts at km 1716+000 which is the boundary of North Cotabato /Maguindanao and ends at km 1724+900 Junction of Cotabato-Lanao.

The road section is part of the national road with an aggregate length of 8.9 km. It traverses flat and rolling terrain with mountainous areas starting at km 1714+000. The land use is mostly agricultural. The entire stretch is paved with concrete uniform carriageway width of 6.70 m. The shoulders are gravel based with a constant width of 2.50 m.

There are two (2) bridges in this section with an aggregate length of approximately 24.0 m. Both bridges are in good condition and do not need any repair or rehabilitation. However, both bridges have inadequate hydrological discharge area. During rainy season the
2. CLIMATE

Generally, the project area’s climate is characterized by moderate and has an even distribution of rainfall throughout the year. The area has its dry and wet seasons and is generally spared from typhoons throughout the year.

3. TOPOGRAPHY

The project influence area’s terrain varies from flat, fertile plains to irregular landscape of wide valleys, rolling to scattered hills and extensive mountain ranges.

4. MINERAL RESOURCES

In Maguindanao, the Liguasan marsh has been object of a seismic survey conducted by PETRO-Canada. The marshland in the province has potential for oil deposits.

Metallic and non-metallic mineral resources are found in abundance in Dinaig, Upi, Sultan Kudarat and in Datu Paglas.

Mineral products found in North Cotabato consist of non-metallic products defined as limestone, sand and gravel, and white clay. The first three items are considered as construction materials while the white clay is a good raw materials for porcelain production and is considered as one of the best clay in the country.

There are around 11 mineral resources found in Davao del Sur. These area gold, silver, lead, copper, chromium, limestone, white clay, molybdenum, sulphur, phosphate and guano.

B. BIOLOGICAL/ECOLOGICAL ENVIRONMENT

1. Fishery Production

The province of Maguindanao produced 1,810.31 MT of fish in 1996. There are around six (6) coastal municipalities in the province that are rich in marine life.
Marine fish species common in Maguindanao are salted fish, roundscad, mackerel, anchovies, herring and tuna while freshwater fish species are bangus, lapu-lapu and eel.

North Cotabato has no fishing ground due to its geographical setting.

Davao del Sur has 11 coastal municipalities which are endowed with fine fishing grounds where various species of fish abound. Fish production in the province in 1998 reached 6,437.55 MT.

C. SOCIO ECONOMIC ENVIRONMENT

1. Demographic Characteristics

Population Development

Maguindanao had a total population of 662,130 in 1995, representing about 32.77 percent of the total population of ARMM. The growth rate from 1990 to 1995 was 0.99%.

In North Cotabato, the 1995 total population registered at 862,666 or 41.11% of the total population of Region XI. The province recorded a high growth rate of 2.91% from 1980-1990. In the period 1990-1995 the population growth rate reduced slightly to 2.46%. The Region's population also showed high growth rate at 3.02% during the first census period.

The province of Davao del Sur had a total population of 1,683,909 in 1995, representing about 36.57% of the total population of Region XI. Population of the province exhibited an increase from 1990-1995 with a decelerating rate recorded at 2.63% growth rate annually. However, the Region's population growth rate rose during 1980-1990 and registered at 2.83%.

Population Density

The Province of Maguindanao has a total land area of 5,425.30 sq. km with a population density of 122 persons per square kilometer in 1995. Among the municipalities in the province, Datu Piang registered the highest population density having 319 persons per sq. km.
North Cotabato has a land size of 6,565.90 with about 131 inhabitants per square kilometer in 1995. Among the 17 municipalities, Midsayap remained to be most densely populated at 414 inhabitants per square kilometer while Maget remained to be sparsely populated at 38 persons per sq. km. The City of Kidapawan has a population density of 302 persons per sq. km.

Davao del Sur exhibited a population density of 172 persons per sq. km in 1995. Of the province’s municipalities, Padada had the highest density at 683 persons per km. The lowest populated municipality is Kiblawan with only 57 persons per sq. km. The capital town of Digos City only registered a density of 396 persons per sq. km.

2. Agriculture

Maguindanao has a total land resources area of 542,539 hectares. Of the total land area, about 253,560 hectares or 46.57% is used for agriculture. Corn is the most dominant crop. Followed by palay, occupying 99,880 and 76,800 hectares in 1998, respectively. Coconut also considered as one of the major crop in the province in terms of area and production. Coconut has a planted area of around 53,478 hectares. Their corresponding volumes of production for the three major crops are 145,709 mt/ha for corn; 131,464 mt/ha for palay and 391,199 mt/ha for coconut.

The province of North Cotabato has a total land area of 656,590 hectares with agricultural area comprising 262,482 hectares or 39.98%. Major portion of agricultural area is devoted to corn with an area of 103,408 hectares or 39.40%. The next leading crop is palay with 97,661 hectares or 37.21%. Of the total palay area, 77,152 hectares or 79% is irrigated, 10,472 hectares or 11% are rainfed and the remaining 9,766 hectares or 10% are of the upland.

Davao del Sur has a quite different agricultural distribution. The major crop in the province is coconut having an area of 95,085 hectares. Palay is ranked second followed by sugarcane with total land area of 25,296 and 10,815 hectares in 1998, respectively. The total agricultural land area of the province is about 160,405 hectares.

3. Commerce and Industry

The province of Maguindanao had generated a total of 821 registered business establishments in 1995. Out of the total registered establishments, 322 belong to industry sector like
manufacturing and processing; 499 under services sector. Sultan Kudarat has the highest registered industries with a total of 92 establishments which constitute 28.57% share of the Province's total existing industry.

North Cotabato has a resource base that should promote development in the province with approximate investment. Kidapawan City is the focus of all business establishment and industries and serves as the commercial and trading center of the province with numerous of commercial establishments and 14 commercial and universal banks.

Commerce and industry in Davao del Sur is benefiting due to spillover of development from neighboring provinces and city particularly Davao City. This has resulted in new major industries locating in the province such as Universal Tree Corp., Pryce Gases Inc., Ayala Agri-Dev't Corp., Davao Sugar Central Corp., and Telecommunication Companies. The trading and services sector provided a large contribution to the province’s growing economy followed by the manufacturing sector. Digos City serves as the trading hub of the province.

4. Tourism

Tourism industry in Maguindanao is in its infancy. There are few tourism oriented establishments to accommodate tourists.

There are tourist spots of cultural heritage and educational significance in Cotabato. Notable attractions are Pikit Fort and the University of Southern Mindanao (USM) at Kabaan. The Provincial Capital of the province situated in Kidapawan City and is often referred to as the “Malacanang of the South”.

Davao del Sur has been identified as having potential for tourism. Its strategic location and proximity to the two major cities of Davao and General Santos within the region are acknowledged as one of its strengths.

The province has a vast array of scenic spots which are mostly natural attractions such as hot springs, caves, waterfalls and mountain parks. Also, historical attractions such as fortress remnants, Japanese tunnels and foxholes are found in the province.
Davao del Sur is also claiming Mt. Apo as part of its territorial jurisdiction and the province is planning to develop an economic tourism area at the foot of Mt. Apo in Kapatagan, Digos City.
Future With and Without the Project Scenario
FUTURE WITH AND WITHOUT THE PROJECT
SCENARIOS

Future Environmental Condition Without the Project

For the past years, the flow of industrial investment has been insignificant in Mindanao Island. This is attributed to inefficient transport system and deficiency in skilled manpower and management capabilities that hampers further development.

With this, the Land of Promise has been given attention and the place is now considered as the concentration of development activities. However, the project area had recently experienced social disorder coupled with peace and order problems as a result of the Muslim rebellion.

But despite of the peace and order situation, the direct influence area's existing environmental condition is also experiencing urbanization pressure and as a result the existing transportation and infrastructure facilities is already obsolete.

Socially and environmentally, the pristine conditions in Mindanao Island should continue in the next decade if no infrastructure development takes place in the area. This is a likely scenario, considering that very little change has taken over the influence area for the last several years in spite of vigorous development in the other parts of Mindanao.
FUTURE ENVIRONMENTAL CONDITION WITH THE PROJECT

Taking into account the high development prospects in Region XI, XII and ARMM, it is reasonable to develop the road network to meet the transport demand in the future.

With the existing environment, the implementation of the road project will not directly affect or loss its present features.

Socially, the residents and commuters will experience disturbances in terms of noise, air pollution and traffic flow. However, these are temporary and can be countered by proper mitigating measures discussed in this report.

Economically, the improvement is expected to generate additional investments and generate more jobs. In addition, the macro-economy of the three provinces especially North Cotabato which is at the center of the project road, will experience positive benefits.

With the proclamation of Kidapawan and Digos as cities, the corresponding economic upswing and spill-over development from these areas is expected to benefit the neighboring municipalities.

In Cotabato, the rubber industry provides a strong economic base particularly in Makilala and Kidapawan. Likewise, Eco-Tourism is being encouraged to develop the tourism industry in the area. The location of Mt. Apo within North Cotabato and Davao del Sur provides a base from which the develop tourism related activities within the project area.

With the improvement of the Digos-Cotabato Road, it is expected that the interior municipalities will also receive indirect benefit and a resulting increase in vehicle ownership.

It is to note, that the smooth implementation of the proposed project requires a participatory approach. This involvement is particularly necessary for the monitoring of mitigation measures in order to reduce, if not totally avert the possible negative impacts.
Impact Assessment
IMPACT ASSESSMENT

A. PHYSICAL RESOURCES

Impacts on Project Location

1. Flooding

One of the problems within the Road Influence Area is the occurrence of flooding. This can be attributed partly to the limited drainage facilities along the road and to the clogging of canals and waterways during continuous and heavy rains resulting from the dumping of domestic waste.

2. Solid Waste Management

At present, there is no existing sanitary sewerage system in the province. Majority of the liquid waste disposal facilities are open canals and drains. Thus, water from residential, commercial and industrial establishments flow to open canals, ditches and other water channels.

There is a tendency for the garbage to slide down from the open dumpsite into the intermittent creek and possibly further downstream, especially following a heavy downpour. The most serious part of it is the leachate itself because garbage are literally dumped in the open area.

Impacts on Project Construction

1. Land Use

During construction, the existing land use of the project area will not drastically change. No land intake and no structures will be demolished along the right-of-way considering that no widening will be involved. However, after completion of the project, it is expected that the road will be a catalyst for change, especially in those areas that are accessible through the existing road system.

2. Climate

The general climatic condition within the project area will not likely change although localized micro climatic conditions vary in heavily built-up area along the alignment especially in urban centers or poblacion.
3. Soil Characteristics

The soil characteristics will not probably change however physical landmark will probably change due to the occurrence of erosion from cut slopes, fills, quarries and spoil dumps near cut slopes.

4. Hydrology

It is quite difficult to assess whether there will be changes in the precipitation in the area, including the intensity duration and frequency which may be brought about by the project. But, during construction, the increased stormwater runoffs during periods of heavy rainfall would make the rivers and drainage channels in some sections of the road inadequate to handle gravel, stones and other materials. Low-lying areas may continue to be flooded, and the project will have to designed to handle high flood flows.

The construction activities of the project will affect the quality of the surface water, especially during rainy periods when loose soil materials find their way into the river.

Likewise, water requirements of the project will affect the water supply of the locality. These requirements will include those that will be utilized in concrete mixing, domestic water requirements of the construction workers and staff and watering to control dust emissions.

5. Air Quality

The air quality of the area will be directly affected. It will be a major concern most especially on urban centers or poblacions. This could be caused by the movement of construction materials from and to the construction site. The volume of materials that will be disturbed and handled increases dust particulates during dry construction. During these periods, there will be continuous resuspension of dusts. The equipment required to move these materials including other vehicles passing the construction area will cause this continued resuspension. In addition, the increased equipment movement will also increase the emission of equipment-generated pollutants.

These concerns however, will be co-terminus with the construction activities. Those that will be directly affected will include the office workers and pedestrians within the immediate vicinity of the project area and those commuters in non-airconditioned vehicles. This impact will continue until completion of the project.
B. BIOLOGICAL/ECOLOGICAL RESOURCES

The project will not affect any endangered species in the area.

C. SOCIO ECONOMIC RESOURCES

1. Transportation and Traffic

The character of vehicular transportation will significantly change during implementation.

The direct benefits of saving in travel time and vehicle operating costs, and the promotion of development programs by improved access can be expected from the project.

2. Power Usage

The project will significantly increase the local consumption of electricity. This increase will be contributed by the operation of the asphalt plant, lighting requirements of the warning lights of the construction area; workers' bunkhouses; office equipment and appliances that will be furnished in the engineers' and contractor's offices; and in the field laboratory.

3. Housing

The demand for better housing accommodation during construction could increase to accommodate mostly those occupying senior positions. Project staff may find better accommodation elsewhere. To the extent possible, local labor will be hired to minimize the need to provide housing for the construction crew. Temporary bunkhouses may be provided for those workers that will be hired off-site.

4. Labor and Employment/Economics

The project will cause the generation of local employment particularly for both skilled and unskilled labor, and qualified administrative support from the local population. These employment opportunities will rise during the construction period but may taper off after construction. The salaries and wages of these local hires could circulate in the area and contribute to the consumption of local goods and services.
The project will somehow contribute to migration as accessibility to other parts of the province and its neighboring provinces will ease up.

5. Public Health

All forms of illness will have probability of occurring among the workers and staff of the project. These will contribute to the increase in the morbidity of the barangay as well as the local government units concerned. However, these will not significantly affect the health services of the LGUs concerned because the project area will provide its own primary health care services.

6. Demography

With or without the Project, the immediate influence area will continue to experience increasing population pressures.
Environmental Management Plan
### ENVIRONMENTAL MANAGEMENT PLAN

As the project focuses on improvement / Asphalt Concrete Overlay of the existing road, no serious adverse environmental impacts will be expected. Although, negative impacts are temporary in nature, an Environmental Management Plan is presented in this report. The following are the planned actions or countermeasures.

<table>
<thead>
<tr>
<th>Project Activity</th>
<th>Environmental Issues</th>
<th>Mitigation or Enhancement Measures</th>
<th>Responsible Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Works</td>
<td>Dredging and removal of ground cover is the first activity to be undertaken. (Earthworks)</td>
<td>As soon as the contract for the project has been approved and the notice to proceed is released, management should brief the workers on their respective job assignments, proper use, care and maintenance of equipment and pertinent rules and regulations of the DPWH, DOH, DOLE, DENR in order to ensure the health and safety of laborers and the settlers to minimize damage of the environment.</td>
<td>Contractor</td>
</tr>
<tr>
<td>Haulage of Excess Materials/Transportation of raw materials</td>
<td></td>
<td>Identify suitable dumping site as near as possible to the works where such materials can be safely disposed of.</td>
<td>Contractor</td>
</tr>
<tr>
<td>Dust/Air/Pollution</td>
<td></td>
<td>Waste disposal site should be identified.</td>
<td>Contractor</td>
</tr>
<tr>
<td>Noise Pollution</td>
<td></td>
<td>Controlling the speed and noise of the contractor's vehicles mitigates noise pollution as an effect from equipment mobilization.</td>
<td>Contractor</td>
</tr>
<tr>
<td>Water Pollution</td>
<td></td>
<td>Sewage disposal facilities should be considered to treat the sewage before entering into public water source.</td>
<td>Contractor</td>
</tr>
<tr>
<td>Project Activity</td>
<td>Environmental Issues</td>
<td>Mitigation or Enhancement Measures</td>
<td>Responsible Person</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------</td>
<td>-----------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Flooding</td>
<td></td>
<td>The flooded area will be given attention during the detailed design stage of the project. At this time, work is on going aimed at improving the drainage in some areas along the project road.</td>
<td>DPWH Consultant Contractor</td>
</tr>
<tr>
<td>II. Construction</td>
<td>Dust/Air Pollution</td>
<td>Vehicles delivering materials should be covered to reduce spills.</td>
<td>Contractor</td>
</tr>
<tr>
<td></td>
<td>Noise Generation</td>
<td>Equipment with less noise generation will be used during construction.</td>
<td>Contractor</td>
</tr>
<tr>
<td></td>
<td>Solid Waste Disposal/ Construction Camp</td>
<td>Sufficient measures will be taken in the construction camps, i.e. provision of garbage tanks and sanitation facilities. Waste in septic tanks will be cleared periodically. Garbage will be collected in a tank and disposed periodically.</td>
<td>Contractor</td>
</tr>
<tr>
<td></td>
<td>Risk of increased accident</td>
<td>Effective safety and warning measures will be taken to reduce accidents.</td>
<td>Contractor</td>
</tr>
<tr>
<td>III. Operation and Maintenance</td>
<td>Manpower, Income and Employment</td>
<td>Hiring of local workers during construction period will enhance beneficial impact on local labor employment.</td>
<td>Contractor DPWH</td>
</tr>
<tr>
<td></td>
<td>Population/Socio-economic issues</td>
<td>An improved road will attract tourist and investors coming to the area. Moreover, boost the economy of Region XI, XII and ARMM.</td>
<td>Contractor</td>
</tr>
</tbody>
</table>
ENVIRONMENTAL MONITORING PLAN

The proposed impact monitoring are intended for the continued observation and evaluation of the mitigated impacts during construction and operation phases. The proponent will closely coordinates with the DENR and the LGU's on the monitoring activities. For a smooth implementation of the project, the proponent will appoint a monitoring team for proper coordination with the DENR and the LGU's.

<table>
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<tr>
<th>Environmental Issues</th>
<th>Subject of Monitoring</th>
<th>Remarks/ Measures</th>
<th>Responsibility</th>
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<tbody>
<tr>
<td>Equipment Mobilization</td>
<td>Mobilization of equipment prior to construction</td>
<td>Monitor compliance although effect is only minimal</td>
<td>DPWH, contractor</td>
</tr>
<tr>
<td>Quarries and Borrow Pits</td>
<td>Implementation of erosion control</td>
<td>To indicate there is no evidence of water ponding or presence of fresh gullies and no increase in visual turbidity of surface waters.</td>
<td>DPV /H, Contractor</td>
</tr>
<tr>
<td></td>
<td>Proper Site Closure</td>
<td>The natural contours and vegetation are restored. The Project Engineer must submit report testifying the completion of restoration work.</td>
<td>DPWH, Contractor</td>
</tr>
<tr>
<td>Spoil and Construction Waste Disposal</td>
<td>Stability of spoil area</td>
<td>Monitoring of the presence of slides, scouring, erosion, or destruction of property, disruption of water supply and irrigation systems. Complaints from local residents must be look into.</td>
<td>DPWH, Consultant, DENR LGU</td>
</tr>
<tr>
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<td>----------------</td>
</tr>
<tr>
<td>Vegetative cover is maintained</td>
<td>Monitor the survival rate of plants under new setting.</td>
<td>DENR, DPWH, LGU, NGO</td>
<td></td>
</tr>
<tr>
<td>Self-sufficiency in food, water and fuel</td>
<td>Complaints from local residents should be taken into.</td>
<td>LGU, DENR, DPWH, DGU, LGU, NGO</td>
<td></td>
</tr>
<tr>
<td>Vegetative cover is maintained</td>
<td>Survival rate of plants and watchman on site</td>
<td>DENR, DPWH, LGU</td>
<td></td>
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<tr>
<td>Compliance with requirements</td>
<td>Trenches and ponds are constructed</td>
<td>DPWH Contractor</td>
<td></td>
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<tr>
<td>Local surface waters are protected.</td>
<td>No increased in visual turbidity of surface waters.</td>
<td>DPWH DENR</td>
<td></td>
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<tr>
<td>Noise Level</td>
<td>Complaints from local residents</td>
<td>DENR, LGU, DPWH</td>
<td></td>
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<td>Compliance with air pollution requirements</td>
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<td>Compliance with requirements</td>
<td>No complaints from the local residents</td>
<td>DENR, DPWH</td>
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<td>Vegetative buffer zone is maintained</td>
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<td>Air Pollution level/dust discharge</td>
<td>Schedule operation of equipment at daytime</td>
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<td>Air pollution is only minimal and</td>
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<td>Water Management</td>
<td>Effectiveness of water management measures</td>
<td>temporary but requires contractor to water the project area if dusty.</td>
<td>DENR DPWH</td>
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<tr>
<td></td>
<td>Contractor's compliance w/ design and construction requirement</td>
<td>No evidence of fresh surface erosion or presence of new gullies</td>
<td>Contractor, DPWH DENR</td>
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<tr>
<td>Traffic Management</td>
<td>Detour and warning signs</td>
<td>Only minimal effect</td>
<td>Contractor DPWH</td>
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<tr>
<td>Employment and Socio-Economy</td>
<td>Employment record</td>
<td>To ensure the continuous flow of traffic and minimize traffic disturbance.</td>
<td>Contractor DPWH</td>
</tr>
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<td></td>
<td>Natural Resources</td>
<td>To ensure that the labor force comes from the local residents.</td>
<td>LGU DPWH Contractor</td>
</tr>
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<td></td>
<td>Relocation and New settlement</td>
<td>Determine if any exploitation occurred in the natural resources.</td>
<td>DENR DPWH LGU DPWH NHA</td>
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</tr>
<tr>
<td>Earthworks/ Slope Stabilization</td>
<td>Vegetative cover is maintained</td>
<td>Monitor the survival rate of plants under new setting.</td>
<td>DENR, DPWH, Contractor, LGU, NGO</td>
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<tr>
<td>Stockpiling of Materials</td>
<td>Self-sufficiency in food, water and fuel</td>
<td>Complaints from local residents should be taken into.</td>
<td>LGU, DPWH, DENR</td>
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<tr>
<td>Stone Crushing/Asphalt Plant</td>
<td>Vegetable cover is maintained</td>
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<td>DENR DPWH LGU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evaluate if any negative impacts consequent to road project.</td>
<td>NHA</td>
</tr>
</tbody>
</table>
LOCATION MAP
Name of Project | Types of Map | Scale
---|---|---
DIGOS - COTABATO ROAD | Location Map | 1 : 1,000,000
PHOTOGRAPHS
Beginning of the Project

Existing Condition of the Project
Existing Condition of the Project

Existing Condition of the Project
End of the Project

Coordination Meeting with the Director of the National Commission on Indigenous People (NCIP)
ENDORSEMENT/RESOLUTION
ENDORSEMENT

The undersigned is fully supporting and endorsing the Rehabilitation/improvement of the existing Cabilao-Digos Road proposed under the National Road Improvement Management Program (NRIMP), Phase II – World Bank Assisted Projects.

Done this 20th day of November, at Sultan Kudarat, Maguindanao

__________________________
Municipal Mayor
Municipality of Sultan Kudarat

Subscribe and sworn to me this 20th day of November 2000

at Sultan Kudarat, mag., affiant exhibiting to me his/her Residence Certificate No. 14577139 issued at Sultan Kudarat, Maguindanao on January 08, 2000.

Doc. No. 120
Page No. 25
Book No. III
Series of 2000
ENDORSEMENT

The undersigned is fully supporting and endorsing the Rehabilitation/improvement of the existing Cotabato-Digos Road proposed under the National Road Improvement Management Program (NRIMP), Phase II - World Bank Assisted Projects.

Done this 15th day of November, 2000, at Magsaysay, Davao del Sur

Engr. Arthur D. Davin
Municipal Mayor
Municipality of Magsaysay

Subscribe and sworn to me this 16th day of November, 2000
at Magsaysay, Davao del Sur, Sufficient exhibiting to me his/her
Residence Certificate No. 01353073 issued at Magsaysay,

Davao del Sur on January 27, 2009

Doc. No. 4
Page No. 1
Book No. 15
Series of 2/Sur

OCTAVIO A. FERNANDEZ
Circuit Judge
MCTO-Bansalan, Magsaysay, D/Sur
CERTIFICATION FROM THE LOCAL GOVERNMENT UNITS

This is to certify that the undersigned has read, understood the implications of the rehabilitation/improvement of Cotabato-Digos Road of the Department of Public Works and Highways on the surrounding areas. Further, I interpose no objection whatsoever for the project. Done this ______ day of ___________________________ at ___________________________.

By: LUIs P. MALALUAN, M.D.
City Mayor

SUBSCRIBED AND SWORN to before me this ______ day of ___________________________, Affiant exhibiting to me his/her Tax Identification Number (TIN) and Community Tax Certificate No. ___________________________ issued on ___________________________ at ___________________________.

__________________________
Notary Public

Doc. No. ___________________________
Page No. ___________________________
Book No. ___________________________
Series of ___________________________
CERTIFICATION FROM THE LOCAL GOVERNMENT UNITS

This is to certify that the undersigned has read, understood the implications of the rehabilitation/improvement of Cotabato-Digos Road of the Department of Public Works and Highways on the surrounding areas. Further, I interpose no objection whatsoever for the project. Done this 25th day of September, 2000 at Pigcawayan, Cotabato.

By: ____________________________
   CESAR G.
   Municipal Mayor
   Municipal Mayor, Pigcawayan

SUBSCRIBED AND SWORN to before me this ___ day of __________, affiant exhibiting to me his/her Tax Identification Number (TIN) and Community Tax Certificate No. ___________________ issued on ________________ at ____________________

__________________________
Notary Public

Doc. No. ______
Page No. ______
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Series of ______
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Libungan, Cotabato,

By: ____________

RONALDO B. PADER
Municipal Mayor, Libungan

SUBSCRIBED AND SWORN to before me this ___ day of ____________, affiant exhibiting to me his/her Tax Identification Number (TIN) and Community Tax Certificate No. ____________ issued on ____________ at ____________.

Notary Public

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This is to certify that the undersigned has read, understood the implications of the rehabilitation/improvement of Cotabato-Digos Road of the Department of Public Works and Highways on the surrounding areas. Further, I interpose no objection whatsoever for the project. Done this 5th day of October 2000 at Midsayap, Cotabato.

By: JAMES M. CAYLONG
(Officer-in-Charge)
Municipal Mayor, Midsayap

SUBSCRIBED AND SWORN to before me this day of ________, affiant exhibiting to me his/her Tax Identification Number (TIN) and Community Tax Certificate No. ________ issued on ________ at ________.

Notary Public

Doc. No. ______
Page No. ______
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CERTIFICATION FROM THE LOCAL GOVERNMENT UNITS

This is to certify that the undersigned has read, understood the implications of the rehabilitation/improvement of Cotabato-Digos Road of the Department of Public Works and Highways on the surrounding areas. Further, I interpose no objection whatsoever for the project. Done this 25th day of September, 2000.

By: VICENTE C. SORUITA, JR.

Municipal Mayor, Alocan

SUBSCRIBED AND SWORN to before me this day of __________, affiant exhibiting to me his/her Tax Identification Number (TIN) and Community Tax Certificate No. __________ issued on __________ at __________.

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This is to certify that the undersigned has read, understood the implications of the rehabilitation/improvement of Cotabato-Digos Road of the Department of Public Works and Highways on the surrounding areas. Further, I interpose no objection whatsoever for the project. Done this 25th day of September, 2000 at Pikit, Cotabato.

By: MOTIN A. MALINGCO
Municipal Mayor, Pikit

SUBSCRIBED AND SWORN to before me this ___ day of ____, affiant exhibiting to me his/her Tax Identification Number (TIN) and Community Tax Certificate No. ________ issued on ________ at _________.

Notary Public

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Page No. _____
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Series of _____
This is to certify that the undersigned has read, understood the implications of the rehabilitation/improvement of Cotabato-Digos Road of the Department of Public Works and Highways on the surrounding areas. Further, I interpose no objection whatsoever for the project. Done this 25th day of September, 2000, at Pagalungan, Maguindanao.

By: MAC APALIJANGEN K. KONTAWAL
(Municipal Mayor)
Pagalungan

SUBSCRIBED AND SWORN to before me this _____ day of ______________, affiant exhibiting to me his/her Tax Identification Number (TIN) and Community Tax Certificate No. ______________ issued on ______________ at ______________.

Notary Public
This is to certify that the undersigned has read, understood the implications of the rehabilitation/improvement of Cotabato-Digos Road of the Department of Public Works and Highways on the surrounding areas. Further, I interpose no objection whatsoever for the project. Done this 25th day of September, 2000 at Pagagawan, Maguindanao.

By: BAI ANNIE C. MONTAWAL

(Municipal Mayor)

Pagagawan

SUBSCRIBED AND SWORN to before me this ___ day of ____________, affiant exhibiting to me his/her Tax Identification Number (TIN) and Community Tax Certificate No. ____________ issued on ____________ at _____________.

Notary Public

Doc. No. _____
Page No. _____
Book No. _____
Series of _____
CERTIFICATION FROM THE LOCAL GOVERNMENT UNITS

This is to certify that the undersigned has read, understood the implications of the rehabilitation/improvement of Cotabato-Digos Road of the Department of Public Works and Highways on the surrounding areas. Further, I interpose no objection whatsoever for the project. Done this 25th day of September, 2000

Kabacan, Cotabato

By: WILFREDO V. BATAGA, SR.
Municipal Mayor, Kabacan

SUBSCRIBED AND SWORN to before me this day of , affiant exhibiting to me his/her Tax Identification Number (TIN) and Community Tax Certificate No. issued on at .

Notary Public

Doc. No. 
Page No. 
Book No. 
Series of 
CERTIFICATION FROM THE LOCAL GOVERNMENT UNITS

This is to certify that the undersigned has read, understood the implications of the rehabilitation/improvement of Cotabato-Digos Road of the Department of Public Works and Highways on the surrounding areas. Further, I interpose no objection whatsoever for the project. Done this ______ day of ____________________________

By: OSCAR M. VALDEVIRESO
Municipal Mayor, Matalam

SUBSCRIBED AND SWORN to before me this ______ day of ____________, affiant exhibiting to me his/her Tax Identification Number (TIN) and Community Tax Certificate No. 11677142 issued on January 14, 2000 at Matalam, Cotabato

Notary Public

Doc. No. _____
Page No. _____
Book No. _____
Series of _____
This is to certify that the undersigned has read, understood the implications of the rehabilitation/improvement of Cotabato-Digos Road of the Department of Public Works and Highways on the surrounding areas. Further, I interpose no objection whatsoever for the project. Done this 6th day of November, 2000 at Mnkilinln, Cotabato.

By: ROMUALDO C. CAPARIDA
Municipal Mayor

SUBSCRIBED AND SWORN to before me this 6th day of November, 2000, affiant exhibiting to me his/her Tax Identification Number (TIN) and Community Tax Certificate No. 11592961 issued on January 10, 2000, at MTO Mnkilinln, Cotabato.

Notary Public

Doc. No. _____
Page No. _____
Book No. _____
Series of _____
ENDORSEMENT

The undersigned is fully supporting and endorsing the Rehabilitation/improvement of the existing Cotabato-Digos Road proposed under the National Road Improvement Management Program (NRIMP), Phase II - World Bank Assisted Projects.

Done this 6th day of November, 2000, at Makilina,

Cotabato

[Signature]

ROJALDO E. CAPARAFA
Municipal Mayor
Municipality of Makilina

Subscribe and sworn to me this 6th day of November, 2000

at Makilina, Cotabato, affiant exhibiting to me his/her

Residence Certificate No. 11592986 issued at Makilina


Doc. No. _____
Page No. _____
Book No. _____
Series of _____
ENDORSEMENT

The undersigned is fully supporting and endorsing the Rehabilitation/Improvement of the existing Cotabato-Digos Road proposed under the National Road Improvement Management Program (NRIMP), Phase II-World Bank Assisted Projects.

Done this ______ day of ____________________, at ____________________

__________________

Luis P. Malaluan, M.D.
City Mayor
City of ________________

Subscribe and sworn to me this ______ day of ____________________
at ____________________, affiant exhibiting to me his/her Residence Certificate No. ____________________ issued at ____________________

__________________ on ____________________.

Doc. No. ______
Page No. ______
Book No. ______
Series of ______
ENDORSEMENT

The undersigned is fully supporting and endorsing the Rehabilitation/improvement of the existing Cotabato-Digos Road proposed under the National Road Improvement Management Program (NRIMP), Phase II - World Bank Assisted Projects.

Done this 6th day of November 2000, at Kabacan, Cotabato, Philippines.

[Signature]
Municipal Mayor
Municipality of Kabacan

Subscribe and sworn to me this 6th day of November, 2000 at Kabacan, Cotabato, affiant exhibiting to me his/her Residence Certificate No. 11050503 issued at Kabacan, Cotabato on January 3, 2000.
ENDORSEMENT

The undersigned is fully supporting and endorsing the Rehabilitation/improvement of the existing Cotabato-Digos Road proposed under the National Road Improvement Management Program (NRIMP), Phase II-World Bank Assisted Projects.

Done this 3rd day of November, 2000 at Libungan, Cotabato.

Ronaldo B. Pader, M.D.
Municipal Mayor
Libungan, Cotabato

Subscribed and sworn to me this ______day of __________ at __________.
affiant exhibiting to me his/her Residence Certificate No. ________________
issued at ________________ on ____________________

Doc. No. __________
Page No. __________
Book No. __________
Series of __________
Republic of the Philippines  
Region XII  
Province of Cotabato  
Municipality of Carmen  

OFFICE OF THE MUNICIPAL MAYOR

ENDORSEMENT

The undersigned is fully supporting and endorsing the Rehabilitation/Improvement of the existing Cotabato-Digos Road proposed under the National Road Improvement Management Program (NRIMP), Phase 11 - World Bank Assisted Projects.

Done this 8th day of November, 2000 at Carmen, Cotabato.

[Signature]

MOISES C. ARENDAIN  
Municipal Mayor  
Municipality of Carmen, Cotabato

Subscribe and sworn to me this 8th day of November, 2000 at Carmen, Cotabato, affiant exhibiting to me his Residence Certificate No. 11510859, issued at Carmen, Cotabato on January 5, 2000.
Republic of the Philippines
Department of Public Works and Highways
OFFICE OF THE DISTRICT ENGINEER
Cotabato 1st Engineering District
Lanao, Kidapawan City

November 17, 2000

The Regional Director
12th DPWH Regional Office
Cotabato City

Sir:

In compliance with your Memorandum dated September 18, 2000, submitted is the duly signed Certification of the Provincial Governor, Province of Cotabato in connection with proposed rehabilitation/improvement of Cotabato-Digos Road under the National Road Improvement Management Program (NRIMP) Phase II.

Very truly yours,

LEONARDO M. MARTINEZ, JR.
Engineer IV
CIC-District Engineer
CERTIFICATION

THIS IS TO CERTIFY that the undersigned is aware of the rehabilitation/improvement of the Cotabato-Digos Road implemented by the Department of Public Works and Highways and interposes no objection whatsoever.

Issued this _______ day of __________, in the year of Our Lord 2000 at Amas, Kidapawan City.

EMMANUEL F. PIÑOL
Governor
Cotabato Province

SUBSCRIBED AND SWORN to before me this _______ day of __________, affiant exhibiting to me his/her Tax Identification Number (TIN) and Community Tax Certificate No. 12130477 issued on __________ at ________.

_____________________________________
Notary Public

Doc. No. _______
Page No. _______
Book No. _______
Series of _______
ACCOUNTABILITY STATEMENT
ACCOUNTABILITY
STATEMENT OF
PROPONENT
ACCOUNTABILITY STATEMENT OF THE PROJECT PROPONENT

This is to certify that all the information in the enclosed Initial Environmental Examination (IEE) for the ASPHALT CONCRETE OVERLAY OF DIGOS-COTABATO ROAD are true, accurate and complete. Should I learn of any information, which would make the enclosed IEE inaccurate, I shall bring, said information to the attention of the Environmental Management Bureau (EMB) of the appropriate Department of Environment and Natural Resources (DENR) Regional Office XII.

We hereby bind ourselves jointly and solidarily with the preparers for any penalties that may be imposed arising from any misrepresentations or failure to state material information in the enclosed IEE.

In witness whereof, we hereby set our hands this 15th day of May 2001 at Manila.

BALIYEM MAMAINTE, MNSA
Project Director
PMO-IBRD

SUBSCRIBED AND SWORN to before me this ___ day of June 2001, affiant exhibiting to me his/her Tax Identification Number (TIN) and Community Tax Certificate No. ________ issued on ______ at ________.

JULIET BADELIN
NOTARY PUBLIC
UNTIL DEC. 31, 2001
TIN 132-094 775
PTA NO. 94-80072941
MANILA 1506/01
ACCOUNTABILITY STATEMENT OF PREPARES
ACCOUNTABILITY STATEMENT OF EIA PREPARERS

This is to certify that all the data or information contained in the enclosed Initial Environmental Examination (IEE) for the ASPHALT CONCRETE OVERLAY OF DIGOS-COTABATO ROAD are true to the best of our knowledge and information and that an objective and thorough assessment of the project was undertaken in accordance with the dictates of reasonable and sound judgment. Should we learn of any information, which would make the enclosed IEE inaccurate, we shall bring, said information to the attention of the Environmental Management Bureau (EMB) of the appropriate Department of Environment and Natural Resources (DENR) Regional Office XII.

We hereby bind ourselves jointly and solidarily to answer any penalties that may be imposed for any misrepresentations or failure to state material information in the enclosed IEE.

In witness whereof, we hereby set our hands this 15th day of May 2001 at Manila.

<table>
<thead>
<tr>
<th>NAME</th>
<th>ACCRED. NUMBER</th>
<th>SIGNATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Engr. Charlene B. Blando</td>
<td>C2CBB0023</td>
<td>signatures</td>
</tr>
<tr>
<td>2. Ms. Dolores M. Viloria</td>
<td>C2DMV0064</td>
<td>signatures</td>
</tr>
<tr>
<td>3. Engr. Monarico L. Maraki</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Engr. Saidale M. Mitmug</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Arch. Erlinda Mapa</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SUBSCRIBED AND SWORN to before me this day of , affiants exhibiting to me their Community Tax Certificate (CTC), the number, date and issuance of which are set forth beside their names as herein enumerated.

Notary Public