



# Technical Assistance Report

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Project Number: 41076  
July 2008

Republic of the Philippines: Preparing the Road  
Sector Improvement Project  
(Financed by the Japan Special Fund)

Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 2 June 2008)

Currency Unit	–	peso (₱)
₱1.00	=	\$0.0230
\$1.00	=	₱43.435

## ABBREVIATIONS

ADB	–	Asian Development Bank
DOF	–	Department of Finance
DPWH	–	Department of Public Works and Highways
JBIC	–	Japan Bank for International Cooperation
MFF	–	multitranchise financing facility
PPTA	–	project preparatory technical assistance

## TECHNICAL ASSISTANCE CLASSIFICATION

<b>Targeting Classification</b>	–	General intervention
<b>Sector</b>	–	Transport and communications
<b>Subsector</b>	–	Roads and highways
<b>Theme</b>	–	Sustainable economic growth
<b>Subtheme</b>	–	Fostering physical infrastructure development

## NOTE

In this report, "\$" refers to US dollars.

<b>Vice President</b>	C. Lawrence Greenwood, Jr., Operations 2
<b>Director General</b>	A. Thapan, Southeast Asia Department (SERD)
<b>Director</b>	J. Cooney, Infrastructure Division, SERD
<b>Team leader</b>	J. Miller, Principal Transport Specialist, SERD
<b>Team members</b>	D. Constantin, Counsel, Office of the General Counsel N. Farrofo, Operations Officer, SERD X. Jia, Senior Project Management Specialist, SERD M. Sultana, Social Development Specialist, SERD R. Valkovic, Senior Transport Specialist, SERD

## I. INTRODUCTION

1. During the 2007 Country Programming Mission, the Government of the Philippines asked the Asian Development Bank (ADB) to provide project preparatory technical assistance (PPTA) to prepare the Road Sector Improvement Project. During 2007 and 2008, ADB missions met with the Department of Public Works and Highways (DPWH), the proposed Executing Agency, to discuss the PPTA and reach an agreement on its impact, outcome, outputs, implementation arrangements, cost, financing arrangements, and terms of reference.<sup>1</sup> The PPTA is included in ADB's *Country Operations Business Plan (2007–2008)* in the indicative pipeline for nonlending products and services for 2008.

## II. ISSUES

2. Road transportation is the dominant transport mode in the Philippines, accounting for 53% of freight ton-kilometers and 89% of passenger ton-kilometers. The Philippines has a total road network of about 200,000 kilometers (km), including about 29,000 km of national roads. About 70% of national roads are paved. National roads include 15,600 km of arterial roads and 13,400 km of secondary roads. About 79% of the national arterial roads are paved, and 48% of these require rehabilitation. In recent years, investment in transport has been well below that needed to support maintenance and moderate improvement;<sup>2</sup> this has hindered the country's economic growth.

3. Inter- and intra-island transport systems have a crucial role in supporting the economic development of the widely dispersed regions of the Philippine archipelago. However, the present inadequate condition of infrastructure facilities and lack of reliable, safe, and efficient transport services significantly hampers the movement of passengers and cargo throughout the country, thus limiting direct internal and external trade links and tourism, and constituting a major constraint to increased regional economic growth. This is particularly true in many poor rural areas of the Philippines, where adequate accessibility could lower marketing costs for local agricultural products, improve access of the local population to social services and economic opportunities, and be the catalyst for investments to develop local resources.

4. A major issue for transport is inadequate funding for maintenance of existing infrastructure assets. The annual requirement for maintaining national roads is estimated at about ₱16 billion.<sup>3</sup> Financing for road maintenance has risen significantly since 2004, due to increased revenues from road user charges; however, these are currently about one-third of estimated needs.<sup>4</sup> Financing for national roads is provided from the general budget. While the country does have the Special Road Support Fund and designated revenues are deposited in the fund, typically in recent budgets only about half of the deposited revenues have been appropriated for national roads. Underinvestment in road maintenance is estimated at about 0.5% of gross domestic product. Official development assistance has accounted for about half of the financing for investment in national roads. DPWH is responsible for maintaining the national road network. It has achieved some improvement of the road network by developing the road information management support system, and establishing the Special Road Support

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<sup>1</sup> The PPTA first appeared in the *ADB Business Opportunities* on 12 November 2007.

<sup>2</sup> United Nations Economic and Social Commission for Asia and the Pacific. 2005. While most developing countries in Asia have experienced significant growth in the length of road network in the last 20 years with the People's Republic of China, India, Indonesia, Pakistan doubling road length, the Philippines has effectively stagnated.

<sup>3</sup> World Bank. 2005. *Philippines: Meeting Infrastructure Challenges*. Washington, DC.

<sup>4</sup> World Bank. 2008. *National Roads Improvement and Management Program (Phase 2) Project Information Document Appraisal Stage*. Washington, DC.

Fund<sup>5</sup> and Road Board. However, inefficient maintenance activities are a major constraint for developing the national highway system. The World Bank has been assisting the Government to improve financing of road infrastructure, including road maintenance, since 2000. The first phase of the National Roads Improvement and Management Program<sup>6</sup> provided assistance for creating the Special Road Support Fund, in addition to financing road upgrading and maintenance. The recently approved second phase of the National Roads Improvement and Management Program<sup>7</sup> will provide further assistance in this area. The sector also suffers from inefficient resource utilization, which is being addressed by the Government and development partners. The World Bank, bilateral donors, and ADB have provided technical assistance for policy and institutional reform. To achieve the objectives of the Medium-Term Infrastructure Development Program (2005–2010), DPWH is working to institutionalize improved planning processes developed under the road information management support system. While some progress has been made, particularly in developing systems for reforming internal processes in DPWH and institutions for road maintenance, additional work is necessary.

5. The Government has a 10-point agenda for development, which for infrastructure covers (i) completing the nautical highways to transport the produce of Mindanao to Luzon and Visayas by paving and improving the remaining unimproved road sections of the western, central, and eastern nautical highways; (ii) decongesting Metro Manila by developing expressways; (iii) addressing critical transport bottlenecks in urban and rural areas; (iv) improving access to major tourist destinations; and (v) improving roads to support peace and development in Muslim Mindanao and other conflict-affected or impoverished areas. The policies and strategies in the DPWH Medium-Term Infrastructure Development Program (2005–2010) include (i) formulating long-range physical master plans by region, (ii) paving all national roads with concrete or asphalt with 95% of national roads paved by 2010, (iii) replacing deficient national bridges, and (iv) prioritizing roads to support the Government's 10-point agenda. Although Government financing for improving road infrastructure has increased substantially in recent years (para. 4), external financing will continue to be necessary to realize the objectives of the Medium-Term Infrastructure Development Program. As a result of the trend of increasing revenues and plans to improve cost recovery, investment in the sector is expected to be sustainable.

6. The World Bank, the Japan Bank for International Cooperation (JBIC), and ADB have provided the largest amounts of external assistance to the road sector historically. The World Bank and ADB have generally focused on improvement of existing roads, either through rehabilitation or through carrying out periodic maintenance, while JBIC has focused on improvement of existing roads and construction of new roads. The World Bank, ADB, and bilateral agencies have provided technical assistance for improvement of operations in the Philippines road sector. The Australian Agency for International Development (AusAID) is currently providing transport sector capacity development assistance in the areas of (i) financial management processes including internal controls and audits; (ii) organizational effectiveness including internal assessment and development of a reorganization plan for DPWH; (iii) road partnerships with nongovernment organizations; and (iv) integrity support including independent procurement assessment and advice and technical audits. The World Bank will provide assistance in road management service delivery and strategic sector reform under its recently approved project. In the area of road management service delivery, support will be provided for a pilot trial of options for commercializing the current operations of district engineering offices to

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<sup>5</sup> Although the road fund was established in 2001 with World Bank assistance and became fully operational in 2004, further improvement in operational efficiency is needed.

<sup>6</sup> World Bank. 2000. *National Roads Improvement and Management Program*. Washington, DC.

<sup>7</sup> World Bank. 2008. *Second National Roads Improvement and Management Program*. Washington, DC.

improve service delivery. To further strategic sector reform, support will be provided to strengthen the operations of the Road Board and update its mandate, review road cost recovery, and revisit options for restructuring the management and delivery of services in the sector.

7. ADB assistance to the Philippines has supported all transport modes, although predominantly the national and provincial road networks. The 2003 country assistance program evaluation for the Philippines<sup>8</sup> found that the core problem of the road sector was the weakness of DPWH, particularly in maintaining and developing the national road network. The country assistance program evaluation highlights the need to conduct adequate preparatory studies, site investigations, and engineering designs prior to project approval, as well as to address institutional weaknesses of the executing agency. ADB's most recent project focusing on national roads was the sixth road project.<sup>9</sup> Difficulties were encountered during implementation, particularly regarding land acquisition and resettlement, which led to the absence of new ADB road projects during the last decade. The difficulties were resolved, however, and the project was completed in 2006. The project completion report<sup>10</sup> rated it as "successful" and recommended advance action and external monitoring for land acquisition and resettlement activities and further assistance for strengthening DPWH's institutional capacity.

8. A new ADB roadmap for the transport sector is being prepared, and the initial findings indicate that improvement is needed in the areas of (i) increasing funding for road maintenance, especially for preventive maintenance; (ii) ensuring the sustainability of the road maintenance funding mechanism; (iii) increasing investment in the upgrading and expansion of the national road network to address the inadequate coverage of the network; and (iv) increasing the priority and financing given to road safety. Going forward, ADB's transport strategy for the Philippines aims at promoting pro-poor economic growth and supports the Government's priority investment program, primarily in the road sector.<sup>11</sup> This objective will be achieved by (i) addressing current deficiencies in transport network maintenance, (ii) adopting an integrated network-oriented approach for transport with emphasis on sustainability, (iii) removing critical bottlenecks in transport infrastructure, (iv) addressing critical governance issues and institution building for transport agencies, and (v) maximizing private sector involvement. Given the development needs and gaps for transport, the current policies, initiatives, and ongoing and proposed activities of other financing institutions, the focus of ADB's transport assistance will be on maintaining and improving existing road network conditions. This will enable ADB to maximize the benefits from previous ADB-financed projects to improve the national road network and supports the strategic emphasis on roads.

### III. THE TECHNICAL ASSISTANCE

#### A. Impact and Outcome

9. The impact of the Project will be that transport on the national road network becomes more efficient. The PPTA outcome is a design for a project, agreed upon by the Government and ADB, to improve national roads in the Philippines and to be financed through a multitranches financing facility, including detailed design of the first phase. The design and monitoring framework for the Project is in Appendix 1.

<sup>8</sup> ADB. 2003. *Country Assistance Program Evaluation for the Philippines*. Manila.

<sup>9</sup> ADB. 1996. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan and Technical Assistance Grant to the Republic of the Philippines for the Sixth Road Project*. Manila.

<sup>10</sup> ADB. 2007. *Project Completion Report for the Sixth Road Project*. Manila.

<sup>11</sup> ADB. 2007. *Transport Sector Road Map for the Philippines (draft)*. Manila.

10. The PPTA will prepare a project to improve the national road network by carrying out periodic road maintenance and rehabilitation of selected national roads and improving institutional capacity. The project is necessary to ensure that the Philippines' road network can support economic growth. The project will consist of three phases and be financed using ADB's multitranche financing facility in three tranches. The first phase will involve periodic road maintenance of selected national roads and design of the works to be undertaken during the second phase. The second and third phases will involve rehabilitation of selected national roads, periodic road maintenance, and design of the works to be undertaken during the subsequent phases. DPWH has completed initial feasibility studies of roads throughout the Philippines and prepared a list of candidate projects for inclusion in the project. New projects, recently approved and under preparation by the World Bank and JBIC, respectively, will also focus on maintenance and improvement of national roads in the Philippines. However, given the large size of the national road network and its needs for improvement, there will not be any overlap with the proposed project. In recent years, investment in transport has been well below that needed to support maintenance and moderate improvement. In addition, the major donors in the transport sector hold regular meetings to coordinate activities and ensure that there is no overlapping.

#### **B. Methodology and Key Activities**

11. To prepare the project, the PPTA will (i) select project roads; (ii) prepare traffic forecasts for the selected roads; (iii) prepare the preliminary design and cost estimates for the preferred option for meeting the traffic forecast; (iv) develop appropriate institutional arrangements for implementing the project; (v) complete an economic analysis of the proposed road improvements and an analysis of the environmental and social impacts of the project, including resettlement effects and poverty analysis (the initial poverty and social analysis is in Appendix 2); and (vi) develop a program of institutional capacity building. The roads will be selected based on maximum economic return and minimum negative environmental and social impact, and will not overlap with road projects being implemented by other external development partners. The PPTA will examine the following areas for possible ADB assistance for institutional capacity building, which are not being covered by other development partners: (i) quality assurance for infrastructure development; (ii) improvement of road safety, (iii) development of institutional capacity to address right-of way management, (iv) implementation of revised postevaluation procedures, (v) development and installation of a project monitoring and information system, and (vi) improvement of human resource management systems.

#### **C. Cost and Financing**

12. The total cost of the PPTA is estimated at \$800,000 equivalent. The Government has asked ADB to provide \$660,000 equivalent. The PPTA will be financed on a grant basis by the Japan Special Fund, funded by the Government of Japan. The Government will finance the balance of \$140,000 equivalent by providing required office accommodation and services, remuneration and per diem for counterpart staff, and other items, mostly in kind. The Government has been advised that approval of the PPTA does not commit ADB to finance any ensuing project. The cost estimates and financing for the PPTA are given in Appendix 3.

#### **D. Implementation Arrangements**

13. DPWH will be the Executing Agency. It has the capacity to implement the PPTA successfully given its prior experience with ADB projects. A DPWH undersecretary will be

responsible for overall coordination of relevant departments and agencies; consultants; and ADB, including extensive consultations with stakeholders. The Government will set up a steering committee to oversee and coordinate all PPTA activities. The steering committee will be chaired by a DPWH undersecretary and comprise representatives from the Department of Finance, DPWH, and National Economic and Development Authority. DPWH's project implementation office for ADB projects will be responsible for PPTA implementation. The Government will make a team of counterpart staff available to help the consultants carry out the PPTA in a timely manner. DPWH will provide office accommodation, local communication facilities, office support staff, and other administrative support.

14. An international consulting firm in association with national consultants will be selected and engaged by ADB, using the quality- and cost-based selection method with a quality-cost weighting of 80:20. ADB will apply its *Guidelines on the Use of Consultants* (2007, as amended from time to time) in engaging consultants. The simplified technical proposal procedure will be used to select the consultants. Advance action for recruitment of consultants was approved on 3 October 2007. A total of about 11 person-months of international and 42 person-months of national consulting services will be required. The consultants will have extensive experience in (i) transport planning, including related financial management; (ii) economic evaluation of road projects; (iii) transport policy institutional arrangements; and (iv) environmental, social, and poverty impact assessments, including resettlement. To facilitate the work and ensure that DPWH gains technical expertise and knowledge, the consultant team will work closely with counterpart technical experts from DPWH, who will assist with the necessary surveys and other work. The outline terms of reference for the consultants are in Appendix 4.

15. The PPTA will be implemented over about 8 months, beginning in July 2008 for completion by March 2009. The consultants will submit (i) an inception report within 1 month of commencing their services; (ii) an interim report within 3 months; (iii) a draft final report within 6 months including the environmental, social, and poverty impact assessment reports and resettlement framework; and (iv) a final report within 3 weeks after receipt of comments from the Government and ADB. DPWH, ADB, and the consultants will meet in Manila to review and endorse the inception, interim, and draft final reports. The consultants will conduct seminars for DPWH staff and any other interested government organizations concerning the PPTA techniques, analysis, and findings. Equipment to be provided under the PPTA will be procured in accordance with ADB's *Procurement Guidelines* (2007, as amended from time to time). Office equipment purchased will be transferred to DPWH upon completion of the PPTA, and thereafter will remain the property of the Government.

#### **IV. THE PRESIDENT'S DECISION**

16. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$660,000 on a grant basis to the Government of the Philippines for Preparing the Road Sector Improvement Project, and hereby reports this action to the Board.

## DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<b>Impact</b> Transport on the national road network becomes more efficient	<ul style="list-style-type: none"> <li>• Traffic increases on project roads</li> <li>• Vehicle operating costs on project roads decrease</li> </ul>	<ul style="list-style-type: none"> <li>• Government statistics</li> <li>• Department of Public Works and Highways traffic statistics</li> </ul>	<b>Assumption</b> <ul style="list-style-type: none"> <li>• Economic growth in project area continues at recent levels</li> </ul>
<b>Outcome</b> <ul style="list-style-type: none"> <li>• Design for overall project and feasibility study for tranche 1 agreed upon by the Asian Development Bank (ADB) and Government</li> </ul>	<ul style="list-style-type: none"> <li>• Memorandum of understanding signed with the Government</li> </ul>	<ul style="list-style-type: none"> <li>• Memorandum of understanding</li> </ul>	<b>Assumption</b> <ul style="list-style-type: none"> <li>• The Government obtains required counterpart funding</li> </ul>
<b>Outputs</b> 1. Technical assessments completed  2. Project design requirements accomplished	<ul style="list-style-type: none"> <li>• Interim report and draft final report submitted to the Government and ADB by September 2008 and December 2008, respectively</li> <li>• Environmental and social (including resettlement and poverty) analyses, and results-based monitoring system submitted to the Government and ADB by December 2008</li> </ul>	<ul style="list-style-type: none"> <li>• ADB document registration</li> <li>• Government document registration</li> <li>• Technical assistance review meetings to report findings of the consultants at inception, interim, and draft final report stages</li> </ul>	<b>Assumption</b> <ul style="list-style-type: none"> <li>• Effective stakeholder participation and ownership are developed</li> </ul>
<b>Activities with Milestones</b> 1.1 Review existing studies, analyze candidate roads, and select those proposed for inclusion in the project (Aug 2008) 1.2 Prepare traffic forecast for project roads (Sep 2008) 1.3 Prepare preliminary design for the project (Sep 2008) 1.4 Conduct economic analysis (Dec 2008) 2.1 Carry out consultations with stakeholders, including government officials, project beneficiaries, and affected people, including women and the poor (Aug 2008) 2.2 Conduct a financial management assessment of the Department of Public Works and Highways (Sep 2008) 2.3 Complete environmental, social, and poverty analyses (Dec 2008) 2.4 Finalize project design, monitoring framework, and results-based monitoring system, including performance indicators (Dec 2008) 2.5 Recommend implementation arrangements for the project (Dec 2008)			<b>Inputs</b> ADB: \$660,000 Consultants International (11 person-months): \$260,000 National (42 person-months): \$254,000 Other: \$146,000 Government: \$140,000 Office accommodation and transport: \$50,000 Counterpart staff: \$70,000 Other: \$20,000

## INITIAL POVERTY AND SOCIAL ANALYSIS

Country/Project Title:	Philippines: Proposed Road Sector Improvement Project		
Lending/Financing Modality:	Multitranche financing facility (MFF)	Department/ Division:	Southeast Asia Department Infrastructure Division

### I. POVERTY ISSUES

#### A. Linkages to the National Poverty Reduction Strategy and Country Partnership Strategy

1. Based on the country poverty assessment, the country partnership strategy, and the sector analysis describe how the project would directly or indirectly contribute to poverty reduction and how it is linked to the poverty reduction strategy of the partner country.

The project will lower the cost of transport thus contributing to poverty reduction by lowering marketing costs for local agricultural products, improving access of the local population to social services and economic opportunities, and serving as a catalyst for investments to develop local resources.

#### B. Targeting Classification

1. Select the targeting classification of the project:

General Intervention    Individual or Household (TI-H);    Geographic (TI-G);    Non-Income MDGs (TI-M1, M2, etc.)

2. Explain the basis for the targeting classification:

The project will rehabilitate national roads, which will impact the national economy in terms of transportation of goods, trade, etc.

#### C. Poverty Analysis

1. If the project is classified as TI-H, or if it is policy-based, what type of poverty impact analysis is needed?
2. What resources are allocated in the project preparatory technical assistance (PPTA)/due diligence? International and national consulting services are allocated in the PPTA for poverty analysis.
3. If GI, is there any opportunity for pro-poor design (e.g., social inclusion subcomponents, cross-subsidy, pro-poor governance, and pro-poor growth)? Road maintenance during the first tranche and rehabilitation work in the second and third tranches could provide opportunities for recruitment of local labor. The PPTA will explore opportunities for local labor recruitment and number of days of employment that could be generated through road maintenance and rehabilitation work. The tourism industry can expand in the regions due to improved roads, and can increase demand for goods and services from the poor. The impact of improved roads and increased access to social services on the poor will be examined under the PPTA.

### II. SOCIAL DEVELOPMENT ISSUES

#### A. Initial Social Analysis

Based on existing information:

1. Who are the potential primary beneficiaries of the project? How do the poor and the socially excluded benefit from the project? Vehicle operators, road users, and traders are the potential primary beneficiaries. The poor will benefit from construction work, roadside vending, and savings in transport time and cost.
2. What are the potential needs of beneficiaries in relation to the proposed project? The beneficiaries need access to adequate transport to employment opportunities, markets, social services, etc. The improved roads will reduce travel time and cost of vehicle operation, and improve road safety access to markets and social services.
3. What are the potential constraints in accessing the proposed benefits and services, and how will the project address them? Existing roads will be improved under the project. No constraints in accessing the benefits and services are anticipated.

**B. Consultation and Participation**

1. Indicate the potential initial stakeholders. The project stakeholders include relevant government agencies, vehicle operators, road users, and people living near the project roads.
2. What type of consultation and participation (C&P) is required during the PPTA or project processing (e.g., workshops, community mobilization, involvement of nongovernment organizations and community-based organizations, etc.)? Consultation through workshops and involvement of nongovernment organizations and community-based organizations will be done with stakeholders during the PPTA.
3. What level of participation is envisaged for project design?  
 Information sharing     Consultation     Collaborative decision making     Empowerment

The project includes road maintenance and rehabilitation, and therefore little opportunity is available for various stakeholders to provide input into the design. The PPTA consultant will conduct consultation with the stakeholders to assess the impact of the improved road on access to markets and social services, travel time, transport cost, and opportunities for local labor recruitment and small-scale trading along the road.

4. Will a C&P plan be prepared?  Yes     No    Please explain. Consultation will be done with stakeholders during the PPTA.

**C. Gender and Development**

1. What are the key gender issues in the sector/subsector that are likely to be relevant to this project/program?

The key gender issues in the road sector are related to increased mobility of men and women, employment opportunities, and market access outside the local community for women. The PPTA consultants will examine the present mobility of men and women living along the road, labor market opportunities, and access to trade and services by men and women; and will assess the potential impact of improvement of roads on men and women.

2. Does the proposed project/program have the potential to promote gender equality and/or women's empowerment by improving women's access to and use of opportunities, services, resources, assets, and participation in decision making?  Yes     No Please explain. Improved roads will increase access to social services by women in terms of better access to higher education and access to medical facilities for women from rural areas; and have a positive impact on women's physical mobility, education, employment, health, and business opportunities.
3. Could the proposed project have an adverse impact on women and/or girls or to widen gender inequality?  
 Yes     No Please explain. All roads to be maintained or improved under the project already exist. The project will not have any adverse impact on women and/or girls and will not widen gender inequality.

**III. SOCIAL SAFEGUARD ISSUES AND OTHER SOCIAL RISKS**

Issue	Nature of Social Issue	Significant/Limited/ No Impact/Not Known	Plan or Other Action Required
<b>Involuntary Resettlement</b>	Phase 1 will comprise only periodic maintenance (resurfacing) of existing roads, causing no or minimal resettlement effects. Specific phase 1 roads and impacts will be identified during the PPTA. If any resettlement effects are likely, resettlement plans will be prepared during the PPTA.	No or marginal impact for phase 1  Impacts unknown for phases 2 and 3	<input type="checkbox"/> Full plan <input checked="" type="checkbox"/> Short plans for phase 1 possible <input checked="" type="checkbox"/> Resettlement framework <input type="checkbox"/> No action <input type="checkbox"/> Uncertain

Issue	Nature of Social Issue	Significant/Limited/ No Impact/Not Known	Plan or Other Action Required
	Specific roads for phases 2 and 3 will not be identified until after the project is approved. A resettlement framework will be prepared during the PPTA. Phases 2 and 3 will comprise road improvements.		
<b>Indigenous Peoples</b>	As all roads to be maintained or improved under the project already exist, no negative impact will be made on indigenous peoples.	No impact	<input type="checkbox"/> Plan <input type="checkbox"/> Other action <input type="checkbox"/> Indigenous peoples framework <input checked="" type="checkbox"/> No action <input type="checkbox"/> Uncertain
<b>Labor</b> <input checked="" type="checkbox"/> Employment Opportunities <input type="checkbox"/> Labor Retrenchment <input checked="" type="checkbox"/> Core Labor Standards	<p>The PPTA will examine possibilities of maximizing local employment in periodic maintenance and road improvement works to be done under the project.</p> <p>Core labor standards will be maintained in the construction sites in terms of safety, basic facilities (water, sanitation), and provision of equal wages for male and female laborers for equal work.</p>	No negative impact	<input type="checkbox"/> Plan <input checked="" type="checkbox"/> Other action <input type="checkbox"/> No action <input type="checkbox"/> Uncertain  Consulting services bidding documents will include provisions for maintaining core labor standards.
<b>Affordability</b>	None of the roads proposed for maintenance or improvement will have tolls. The project will not cause transport tariffs to increase, and may result in a decrease in tariffs.	No impact	<input type="checkbox"/> Action <input checked="" type="checkbox"/> No action <input type="checkbox"/> Uncertain
<b>Other Risks and/or Vulnerabilities</b> <input type="checkbox"/> HIV/AIDS <input type="checkbox"/> Human Trafficking <input type="checkbox"/> Others (conflict, political instability, etc.), please specify	All roads to be maintained or improved under the project already exist, and no other risks or vulnerabilities are anticipated. The PPTA consultant will collect socioeconomic data by gender, ethnicity, and income group and determine if there are any other risks to these groups and if activities to address them need to be included in the project.	Not known	<input type="checkbox"/> Plan <input type="checkbox"/> Other action <input checked="" type="checkbox"/> No action <input type="checkbox"/> Uncertain

#### IV. PPTA/DUE DILIGENCE RESOURCE REQUIREMENT

1. Do the terms of reference for the PPTA (or other due diligence) include poverty, social, and gender analysis and the relevant specialist/s?  
 Yes       No    If no, please explain why.
2. Are resources (consultants, survey budget, and workshop) allocated for conducting poverty, social and/or gender analysis, and C&P during the PPTA/due diligence?     Yes       No    If no, please explain why.

**COST ESTIMATES AND FINANCING PLAN**  
(\$'000)

<b>Item</b>	<b>Total Cost</b>
<b>A. Asian Development Bank Financing<sup>a</sup></b>	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants	260.0
ii. National Consultants	254.0
b. International and Local Travel	30.0
c. Reports and Communications	8.0
2. Equipment <sup>b</sup>	12.0
3. Training, Seminars, and Conferences	6.0
4. Surveys	20.0
5. Miscellaneous Administration and Support Costs	10.0
6. Contingencies	60.0
<b>Subtotal (A)</b>	<b>660.0</b>
<b>B. Government Financing</b>	
1. Office Accommodation and Transport	50.0
2. Remuneration and Per Diem of Counterpart Staff	70.0
3. Others	20.0
<b>Subtotal (B)</b>	<b>140.0</b>
<b>Total</b>	<b>800.0</b>

<sup>a</sup> Financed by the Japan Special Fund, funded by the Government of Japan.

<sup>b</sup> Including computers, printers, and other office equipment.

Source: Asian Development Bank estimates.

## OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

### A. Introduction

1. The TA will prepare a project to improve the national road network by carrying out periodic road maintenance and rehabilitation of selected national roads and improving institutional capacity. The project will consist of three phases and be financed using ADB's multitranche financing facility in three tranches. The first phase will involve periodic road maintenance of selected national roads and design of the works to be undertaken during the second phase. The second and third phases will involve rehabilitation of selected national roads, and periodic road maintenance. The second phase will also include the design of the works to be undertaken during the third phase. The Department of Public Works and Highways (DPWH) will be the executing agency for the project. DPWH has completed initial feasibility studies of roads throughout the Philippines and prepared a list of candidate projects for inclusion in the project. The roads will be selected based on maximum economic return and minimum negative environmental and social impact. The roads selected for inclusion in the project will likely be located in Luzon, the Visayas, and Mindanao.

### B. Design of Overall Project

2. The consultants will have the following responsibilities:

- (i) Prepare the project design for the Road Sector Improvement Project, with a cost of about \$500 million, taking into account the concept paper for the project prepared by DPWH. The design should comprise three phases, with costs of about \$50 million, \$200 million, and \$250 million, respectively, with each phase including periodic maintenance works. The latter two phases will also include road improvement works for existing roads.
- (ii) Prepare the overall design of the second and third phases of the project, including designation of specific periodic maintenance and road improvement works. Prepare preliminary cost estimates; economic analysis; analysis of resettlement, environmental, and social impacts; and broad outline of other work to be implemented.
- (iii) Prepare a draft report and recommendation of the President, in the Asian Development Bank (ADB) format including all relevant appendixes, for submission of the project and its first phase for approval by ADB's Board of Directors. Design a project performance monitoring system in accordance with ADB's *Guidelines for Project Performance Monitoring* (1999). Develop a detailed evaluation and monitoring framework for the project, including impacts, outcomes, and outputs with corresponding measurable performance indicators and targets, monitoring mechanisms, risks, and assumptions. Provide baseline data for all proposed indicators. Identify agencies responsible for monitoring activities and when these activities should be undertaken.
- (iv) Define the project implementation arrangements including organization structure and personnel so that the project is effectively prepared, managed, and implemented.

- (v) Conduct a financial management assessment of DPWH. Describe the accounting and audit processes and procedures. Include document and fund flows with particular attention to the integrity and completeness of auditing.
- (vi) Review the status of financing of road maintenance and conduct a critical analysis of projections for revenues and expenses required to maintain the national road network. Review the status of policy dialogue between development partners and the Government, and recommend actions that can be taken by ADB to further the dialogue.
- (vii) Analyze the status of institutional capacity-building efforts in DPWH, and ongoing and planned efforts of other development partners; and recommend the best use of technical assistance for further institutional capacity building.
- (viii) Review the experience of previous projects financed by ADB and other development partners, including an analysis of procurement issues; provide recommendations for improvement of implementation of future projects; and incorporate the recommendations in the design of the proposed project.

### **C. Design of Phase 1 of the Project**

#### **3. Technical Aspects.** Activities include the following:

- (i) Prepare the detailed design of the first phase of the project, with a cost of about \$50 million, including selection of the roads and analysis and selection of the specific periodic maintenance works.
- (ii) On the basis of traffic counts, projected traffic levels, pavement structure studies, and axle load considerations, determine the most cost-effective maintenance option for each project road section.
- (iii) Develop updated unit rates for periodic maintenance of roads and bridges, if relevant, including taxes and customs duties, taking into account the bid and completion costs of similar works recently undertaken in the Philippines.
- (iv) Prepare the necessary design documents, bills of quantities, and estimates of costs for each road section based on previous studies and analyses conducted by DPWH and the results of engineering investigations. Break the costs down into foreign exchange, local currency, and tax components.
- (v) Prepare contract packages suitable for international competitive bidding.
- (vi) In conjunction with DPWH, prepare construction schedules showing anticipated progress of works and expenditures for the contract packages, as well as timing of environmental mitigation, monitoring, and reporting actions; the schedules will reflect seasonal climatic effects at the work sites, and will take into account typical outputs on recent road projects of a similar nature financed by other development partners.

- (vii) Prepare prequalification documents for the contract packages, based on the ADB *Procurement Guidelines* (2007, as amended from time to time) and standard bidding documents issued in 2006.
- (viii) Prepare final bid documents for the contract packages. The documents will include qualification criteria, invitation and instructions to bidders, standard and particular conditions of contract, specification, drawings, bill of quantities and other supporting documents. The ADB *Procurement Guidelines* and standard bidding documents issued in 2006 will be used, including the Multilateral Development Bank Harmonised Edition of the FIDIC conditions of Contract for Construction.<sup>1</sup>

4. **Traffic and Economic Analysis.** The consultants will undertake the following:

- (i) Conduct traffic counts at appropriate locations; conduct origin–destination and axle-load surveys to establish the pattern and volume of vehicle, passenger, and cargo movements, including details of passenger characteristics and types of freight being shipped. Assess the possibilities of passenger and freight traffic diversion from other routes. Prepare traffic forecasts by representative vehicle type, taking into account economic and population growth, production increase, economic activity, and income in the hinterland of the project road.
- (ii) Calculate economic vehicle operating costs for each road section with and without the proposed improvements, based on estimated changes in road surface roughness. Quantify the benefits using shadow prices for each project road section and for each improvement option, including time savings from improved road conditions, road maintenance savings, and fewer traffic accidents, as appropriate.
- (iii) Assess the economic internal rate of return and net present value by homogenous road section based on ADB's *Guidelines for the Economic Analysis of Projects* (1997). Derive appropriate sensitivity and switching values by varying the major parameters affecting project viability, including a full distribution analysis among project beneficiaries and stakeholders. The economic analysis will evaluate the alternatives using HDM IV<sup>2</sup> or a similar model, and will assess the total life cycle costs. The analysis must identify risks and undertake a risk and sensitivity analysis of the economic internal rate of return in accordance with ADB's *Handbook for Integrating Risk Analysis in the Economic Analysis of Projects* (2002).

**D. Safeguard Issues**

5. The consultants will analyze safeguard issues and prepare the necessary documents for the specified phases of the project, as indicated below:

6. **Environmental Issues.** The first phase of the project is classified as ADB environmental category B. The consultants will undertake the following:

- (i) Prepare an initial environmental examination and the related summary initial environmental examination for phase 1, in accordance with the Government's

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<sup>1</sup> FIDIC. 2006. Construction Contract: Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer (MDB Harmonised Edition). Geneva.

<sup>2</sup> Highway development and management software, version IV.

environmental guidelines, ADB's *Environment Policy* (2002), and ADB's *Environmental Assessment Guidelines* (2003).

- (ii) For phase 1, estimate and provide a breakdown of costs of environmental mitigation measures and project monitoring of environmental impact.
- (iii) Assess the capacity of DPWH to conduct environmental impact assessments and environmental management. Assess training needs and recommend improvements to institutional arrangements, if necessary, and estimate the associated costs.
- (iv) Consistent with the requirements indicated in the ADB *Environmental Assessment Guidelines* (2003) for sector projects, prepare an environmental assessment and review framework for phases 2 and 3.

7. **Poverty, Social, and Ethnic Minority Issues.** Activities of the consultants for phase 1 will include the following:

- (i) Undertake consultation with project stakeholders, collect quantitative and qualitative data in the field, undertake a social and gender analysis and prepare socioeconomic profiles (demographic and income data) of the affected communities in the project areas in accordance with ADB guidelines and publications, including *Handbook on Social Analysis* (2007) and *Poverty Handbook* (2006). Disaggregate the socioeconomic profile data by gender, ethnicity, and income group. Conduct surveys and collect quantitative and qualitative data from various stakeholders as indicated in the initial poverty and social analysis of the TA report and examine the present situation on trade, transportation cost, travel time, access to markets, goods and services, road safety, etc. Examine the potential constraints in accessing the proposed benefits and services, and how the project will address them. Examine the socioeconomic impact of reduced vehicle operating costs resulting from the project. Assess the potential for employment opportunities, markets, and social services; and impact on reduction of traveling time, cost of vehicle operation, road safety, etc. Examine the present status of access of men and women to labor markets and trade and services opportunities. Assess the potential impact of road improvement on men and women in terms of increased employment opportunity and market access for women traders outside the local community.
- (ii) Evaluate poverty and social issues in the project areas based on ADB's *Handbook on Poverty* (2006). Describe the incidence of poverty and assess the causes of poverty and the extent to which the project will address them. Analyze the potential poverty impact of the project, focusing on the impact of the recommended road improvements on the provision of social services, movement of goods and people, and poverty, using ex-ante poverty impact assessment methodologies. Identify potential barriers to the poor benefiting from economic growth and recommend interventions that could maximize poverty reduction (seasonal and long term) for local poor households. Estimate (a) wage job opportunities (person-days) for local poor households during project civil works and in maintenance operations after completion, and (b) general employment opportunities resulting from the improved the transport network.
- (iii) Determine if ethnic minorities or other vulnerable groups are present in the project areas, if they are disadvantaged or vulnerable because of their social or cultural

identity, and any potential impact of the project on these minorities. If negative impacts are identified, develop mitigation measures and estimate their costs, in accordance with ADB's *Policy on Indigenous Peoples* (1998).

- (iv) For phases 2 and 3, provide preliminary information on poverty, social, and ethnic minority issues in the project areas.

8. **Resettlement.** Phase I of the project is expected to have minimal or no resettlement impact. However, should there be some resettlement impact, the consultant will carry out the following tasks:

- (i) Review and assess the impacts of land acquisition or loss of land use on project-affected people by gender and ethnic group (in terms of impact on homes and agricultural and other types of land; or access to current income-generating activities), including impacts caused by permanent or temporary land acquisition. Should the assessment identify any potential resettlement effects from activities under phase 1, prepare a resettlement plan (RP) in accordance with Philippine laws and regulations, ADB's social safeguard and other policies: *Involuntary Resettlement Policy* (1995), *Policy on Indigenous Peoples* (1998), *Policy on Gender and Development* (1998), *Gender Checklist: Resettlement* (2003), *Accountability Mechanism Policy* (2003), and *Public Communications Policy* (2005).
- (ii) For phases 2 and 3, prepare a resettlement framework in accordance with Philippine laws and regulations, ADB's social safeguard and other policies: *Involuntary Resettlement Policy* (1995), *Policy on Indigenous Peoples* (1998), *Policy on Gender and Development* (1998), *Gender Checklist: Resettlement* (2003), *Accountability Mechanism Policy* (2003), and *Public Communications Policy* (2005).
- (iii) For the overall project, assess the capacity of government institutions to plan, manage, implement, finance, and monitor effective land acquisition, compensation, and resettlement. If necessary, identify capacity-building measures for possible inclusion in the project, and estimate the associated costs.