

Project Administration Manual

Project Number: 41076
Loan Number: {LXXXX}
November 2011

Philippines: Road Improvement and Institutional
Development Project

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Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The executing agency is wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by the executing agency of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At Loan Negotiations the borrower and ADB shall agree to the PAM and ensure consistency with the Loan Agreement. Such agreement shall be reflected in the minutes of the Loan Negotiations. In the event of any discrepancy or contradiction between the PAM and Loan Agreement, the provisions of the Loan Agreement shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP) changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the PAM.

Abbreviations

ADB	=	Asian Development Bank
ADF	=	Asian Development Fund
AFS	=	audited financial statements
CQS	=	consultant qualification selection
DBM	=	Department of Budget and Management
DMF	=	design and monitoring framework
DOF	=	Department of Finance
DPWH	=	Department of Public Works and Highways
EARF	=	environmental assessment and review framework
EIA	=	environmental impact assessment
EMP	=	environmental management plan
ESMS	=	environmental and social management system
GACAP	=	governance and anticorruption action plan
GDP	=	gross domestic product
ICB	=	international competitive bidding
ICD	=	institutional capacity development
IEE	=	initial environmental examination
IPP	=	indigenous people plan
IPPF	=	indigenous people planning framework
JICA	=	Japan International Cooperation Agency
LAR	=	land acquisition and resettlement
LIBOR	=	London interbank offered rate
NEDA	=	National Economic Development Administration
NCB	=	national competitive bidding
NGOs	=	nongovernment organizations
PAI	=	project administration instructions
PAM	=	project administration manual
PMO	=	project management office
PPTA	=	project preparatory technical assistance
QBS	=	quality based selection
QCBS	=	quality- and cost based selection
RRP	=	report and recommendation of the President to the Board
SBD	=	standard bidding documents
SOE	=	statement of expenditure
SPS	=	Safeguard Policy Statement
SPRSS	=	summary poverty reduction and social strategy
TOR	=	terms of reference

I. PROJECT DESCRIPTION

A. Rationale

1. The transport sector is a key sector in the Philippine economy, and the road subsector is the dominant subsector. An efficient road subsector is crucial for economic growth and poverty reduction in the Philippines. The Philippine road subsector faces a number of challenges, including underinvestment, inadequate financing of maintenance of existing infrastructure assets, governance, and weak institutional capacity of government sector agencies. The Project will assist the Government to address these issues, in cooperation with other development partners.

2. Investments under the project will be made throughout the Philippines. The main direct beneficiaries of the project will be road users and communities living in the areas of influence of the roads improved under the Project. Improved governance and stronger institutional capacity will benefit all road users and the Philippine economy in general.

B. Impact, Outcome, and Outputs

3. The impact of the project will be improved mobility, connecting accessibility and safety, and reduced poverty in the project area. The outcome of the project is that transport on and investment in the national road network will become more efficient. The increased efficiency will be measured by reductions in travel time, vehicle operating costs, and road accident rates; improvements in the road surface condition; and improvements in governance in the transport sector and in DPWH's assessment, communications and administration capabilities.

4. The outputs include periodic maintenance of about 340 km of 9 national roads; improved governance and institutional capacity development and preparation of detailed engineering design of roads to be improved under the succeeding project.

1. Asset Preservation

5. Under the project, periodic maintenance will be carried out on about 340 km of 9 national roads consisting of 11 distinct sections. These roads are located in three areas: the west coast of Luzon, the Visayas, and Mindanao.¹ The roads proposed for inclusion in the project were selected through a prioritization exercise carried out by the PPTA consultants in collaboration with the Department of Public Works and Highways (DPWH). The selection was based on economic return and minimization of safeguard issues. The roads selected for the project are part of a major effort to preserve and improve the national road network and are part of a much larger group of roads chosen for improvement by donors including the World Bank and JICA. The roads included and their locations are shown in Table 1.

¹ One road, in Leyte, falls outside of these three locations; however, other national roads in the vicinity have been improved recently and result in a concentration of efforts necessary to maximize benefits.

Table 1: List of Road Projects

Name of Road	Province	Length (Kms)
Bauang-Baguio	La Union, Benguet	31
Olongapo-Bugallon	Zambales	66
Iloilo-Capiz (Old Route)	Iloilo	27
Dumaguete North Road (Manjuyod – La Libertad section and La Libertad – Vallehermosa section)	Negros Oriental	85 (45 and 40)
Palo-Carigara-Ormoc Road	Leyte	21
Daang Maharlika Road (Liloan Naval highway)	Leyte	15
Dipolog-Oroquieta City Road	Zamboanga del Norte	21
Butuan-Cagayan de Oro-Iligan Road	Misamis Oriental	20
Butuan-Cagayan de Oro-Iligan Road	Agusan del Norte	16
Bukidnon-Cotabato Road	North Cotabato	38

2. Institutional Capacity Development and Governance

6. A key output of the Project will be improvement in governance and institutional capacity development (ICD) in DPWH. The ICD activities to be financed under the project are part of a multi-donor effort to improve the capacity of DPWH and efficiency of the road sector. The scopes of the ICD activities have been developed in close cooperation with the other donors and DPWH to ensure that the activities are complementary and that there is no overlap. The ICD activities for this project include (i) institutionalization of the Road Maintenance and Management System (RMMS); (ii) enhancement of the Traffic Accident Recording and Analysis System (TARAS) and improvement of the Road Safety Audit system; (iii) development and installation of a project management information system; (iv) strengthening DPWH's environmental and social assessment capability and mainstreaming gender in DPWH's infrastructure development; (v) improvement of communication between the DPWH Central Office and 47 DPWH District Engineering Offices; (vi) improvement of information technology capacity through procurement of computer equipment and software for 47 DPWH District Engineering Offices; (vii) comprehensive human resource development; and (viii) support for infrastructure development and DPWH's Quality Assurance System.

3. Detailed Design

7. The Project also includes preparation of detailed engineering design and tendering of 848 km of roads proposed to be improved as part of future projects to be proposed for ADB financing (both for asset preservation and road improvement).

B. Project Implementation Plan



III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations – Roles and Responsibilities

Project implementation organizations	Management Roles and Responsibilities
<ul style="list-style-type: none"> • Department of Finance 	➤ Borrower's representative, Loan signatory
<ul style="list-style-type: none"> • Department of Public Works and Highways 	<ul style="list-style-type: none"> ➤ Executing agency ➤ Approve procurement plans, procurement actions such as bid evaluation and contract awards ➤ Approve working drawings, design documents, engineering designs and cost estimates. ➤ Carry out consultant selections for detailed design and construction supervision consultants ➤ Procure civil works contracts ➤ Obtain necessary environmental approval(s) from DENR and other relevant agencies/organizations prior to award of civil works contracts
<ul style="list-style-type: none"> • ADB Project Management Office (PMO) 	<ul style="list-style-type: none"> ➤ Project implementing office ➤ Ensure that Project implementation complies with Government environmental policies and regulations, ADB safeguard policy and provisions of the EMP included in the IEEs cleared by ADB. ➤ Ensure that environmental protection and mitigation measures in the EMP are incorporated in the detailed design, included in bid documents, implemented and monitored ➤ Submit disbursement projections, request budgetary allocations for counterpart funds, ➤ Ensure compliance with Government policies and loan covenants.
<ul style="list-style-type: none"> • ADB 	<ul style="list-style-type: none"> ➤ Provides financing ➤ Project preparation ➤ Implementation monitoring
<ul style="list-style-type: none"> • OFID 	➤ Provides financing

B. Key Persons Involved in Implementation

Executing Agency

Department of Public Works and Highways
Central Office

Officer's Name: Rafael C. Yabut
Position: Undersecretary for PMO Operations
Telephone: 304-3190
Email address: yabutpve@yahoo.com
yabut.rafael@dpwh.gov.ph
Office Address: DPWH Building, Bonifacio Drive, Port Area, Manila

Department of Public Works and Highways
ADB Project Management Office (PMO)

Officer's Name: Estrella Villar
Position: Project Director
Telephone: 304-3619
Email address: villar.estrella@yahoo.com

Office Address: ADB-PMO Bldg, 2nd Street
Port Area, Manila

ADB

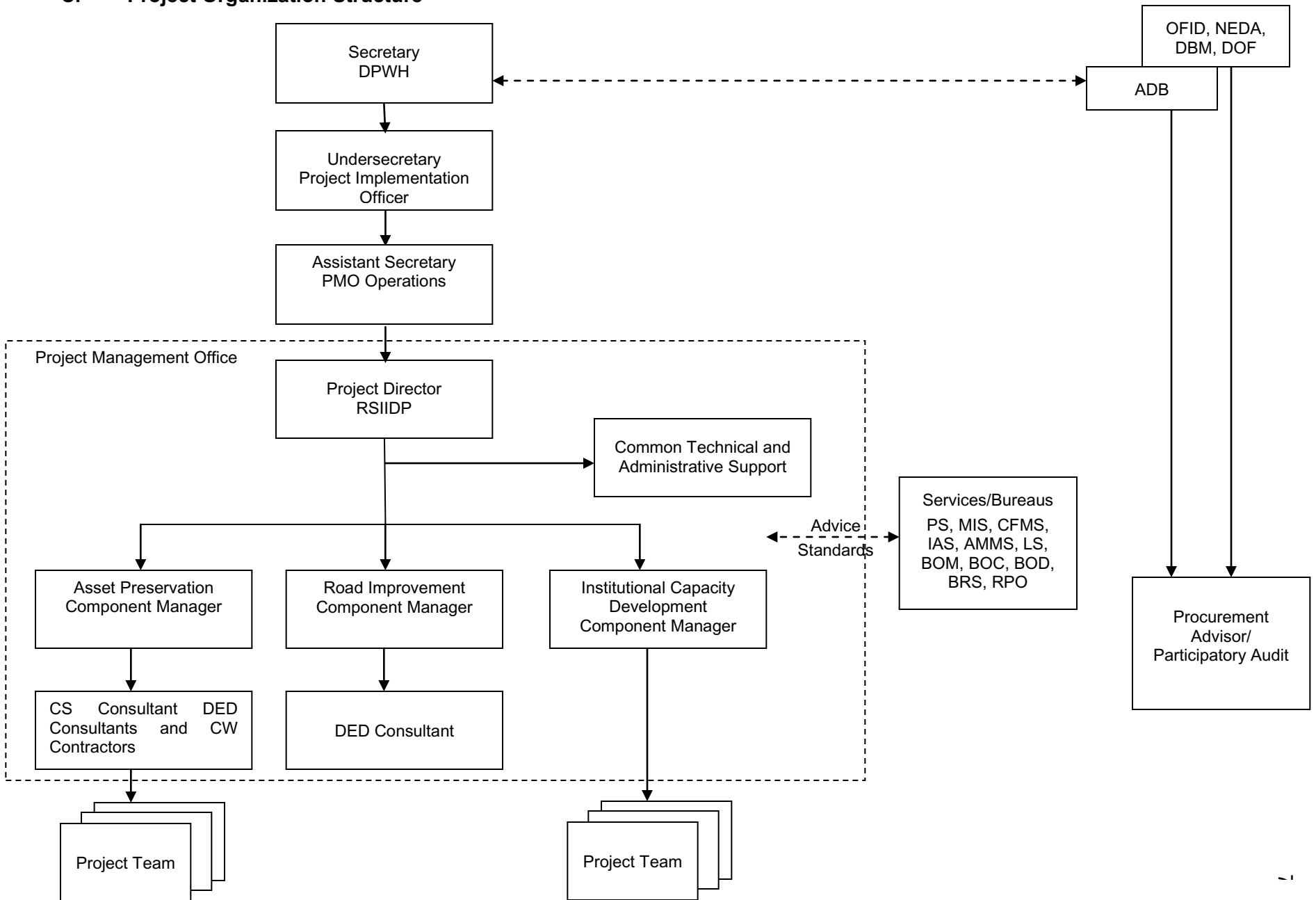
Southeast Asia Department
Transport and Communications Division

Staff Name: James P. Lynch
Position: Director
Telephone No.: 632-6433
Email address: jlynch@adb.org

Mission Leader

Staff Name: Jeffrey M. Miller
Position: Principal Transport Specialist
Telephone No.: 632-6826
Email address: jmiller@adb.org

C. Project Organization Structure



IV. COSTS AND FINANCING

A. Detailed Cost Estimates by Expenditure Category

8. The total cost for the Project is estimated at \$130 million, including taxes and duties of \$16.54 million equivalent (Table 2). The cost estimates are based on quantities derived from engineering designs and market prices for goods and materials, and include the costs of environmental mitigation and monitoring.

Table 2: Project Cost

Item	Amount ^a
A. Base Cost^b	
1 Civil Works	63.77
2 Institutional Capacity Development	18.59
3 Administration Cost	3.17
4 Project Implementation Consultants	13.32
5 Taxes and Duties	16.54
Subtotal (A)	115.40
B. Physical and Price Contingencies^c	11.08
C. Financing Charges During Implementation^d	3.52
Total (A+B+C)	130.00

^a Includes taxes and duties of \$16.54 million to be financed from government resources

^b In mid-2011 prices.

^c Physical contingencies computed as a percentage of base cost, 2% for civil works and 5% for consultancy. Price contingencies computed based on ADB forecast international and domestic inflation rates applied to foreign exchange and local currency costs, includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest and commitment charges. Interest during construction has been computed at the 5-year forward London interbank offered rate plus a spread of 0.40%. Commitment charge is calculated at 0.15% of the undisbursed loan amount.

Sources: PPTA consultants. ADB staff estimates.

9. The financing plan for the Project is in Table 3. The Government has also requested a loan from the OPEC Fund for International Development (OFID) of \$30.0 million equivalent to be provided as joint cofinancing. The OFID loan will be partially administered by ADB. The Government will provide \$38.0 million, including all taxes and duties. The OFID cofinancing will be used exclusively for civil works and contingency for civil works.

Table 3: Financing Plan
(\$ million)

Source	Total	%
ADB	62.0	48
OFID ¹	30.0	23
Government of the Philippines	38.0	29
Total	130.0	100

¹ Cofinancing to be provided by OPEC Fund for International Development.

Sources: PPTA consultants. ADB estimates.

B. Allocation and Withdrawal of Loan Proceeds**Table 4: Loan Category Allocations**

Item	Amount Allocated (\$ million)	ADB FINANCING Percentage and Basis for Withdrawal from the Loan Account
1 Civil works	19.10	30% of total expenditure claimed ^a
2 Consulting Services	13.32	100% of total expenditure claimed ^a
3 ICD	18.59	100% of total expenditure claimed ^a
4 Interest During Construction	3.52	100% of amount due
5 Unallocated		
	7.47	
Total	62.00	

^a net of taxes and duties imposed within the territory of the borrower.

10. Except as ADB may otherwise agree, the items of the Categories listed in Table 4 shall be financed out of the proceeds of the Loan on the basis of the percentages set forth in the Table. 5

11. Notwithstanding the allocation of Loan proceeds and the withdrawal percentages set forth in the Table, (a) if the amount of the Loan allocated to any Category appears to be insufficient to finance all agreed expenditures in that Category, ADB may, by notice to the Borrower, (i) reallocate to such Category, to the extent required to meet the estimated shortfall, amounts of the Loan which have been allocated to another Category but, in the opinion of ADB, are not needed to meet other expenditures, and (ii) if such reallocation cannot fully meet the estimated shortfall, reduce the withdrawal percentage applicable to such expenditures in order that further withdrawals under such Category may continue until all expenditures thereunder shall have been made; and (b) if the amount of the Loan then allocated to any Category appears to exceed all agreed expenditures in that Category, ADB may, by notice to the Borrower, reallocate such excess amount to any other Category.

12. Except as ADB may otherwise agree, the Loan proceeds for financing works, and consulting services and other items shall be disbursed in accordance with ADB's "Loan Disbursement Handbook" dated January 2007 as amended from time to time.

C. Detailed Cost Estimate by Financier

Table 5: Detailed Cost by Financier

Item	ADB	% of Cost Category	OFID	% of Cost Category	Govt	% of Cost Category	Total Cost
A. Base Costs ^a							
1 Civil Works							
a. Asset Preservation	19.1	30%	29.3	46%	15.4	24%	63.8
2 Institutional Capacity Development	18.6	100%	0.0	0%	0.0	0%	18.6
3 Administration Cost ^b	0.0	0%	0.0	0%	3.2	100%	3.2
4 Project Implementation Consultants							
a. Construction Supervision, Asset Preservation	3.9	100%	0.0	0%	0.0	0%	3.9
b. Detailed Engineering Design and Tendering, Asset Preservation	1.2	100%	0.0	0%	0.0	0%	1.2
c. Detailed Engineering and Tendering, Future Asset Preservation and Road Improvement	8.2	100%	0.0	0%	0.0	0%	8.2
5 Taxes and Duties ^c	0.0	0%	0.0	0%	16.5	100%	16.5
Subtotal (A)	51.0	44%	29.3	25%	35.1	30%	115.4
B. Contingencies ^d							
1 Physical Contingency	2.1	56%	0.7	19%	0.9	25%	3.7
2 Price Contingency	5.4	73%		0%	2.0	27%	7.4
Subtotal (B)	7.5	67%	0.7	6%	2.9	26%	11.1
C. Financing Charges During Implementation ^e	3.5	100%	0.0	0%	0.0	0%	3.5
Total	62.0	48%	30.0	23%	38.0	29%	130.0

^a In mid-2011 prices adjusted for inflation based actual price adjustments

^b Includes project management and administration cost of the project management unit under the Department of Public Works and Highways

^c Taxes and duties are allocated to civil works \$14.37 million, institutional capacity development \$1.72 million, and consultants \$0.45 million.

^d Physical contingencies are computed at 2.5% of base costs for civil works and 5% for consultancy. Price contingencies are computed based on ADB forecast international and domestic inflation rates applied to foreign exchange and local currency costs. Includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^e Includes interest charges during construction and commitment charges

ADB = Asian Development Bank, GOP = Government of the Philippines, OFID = OPEC Fund for International Development.

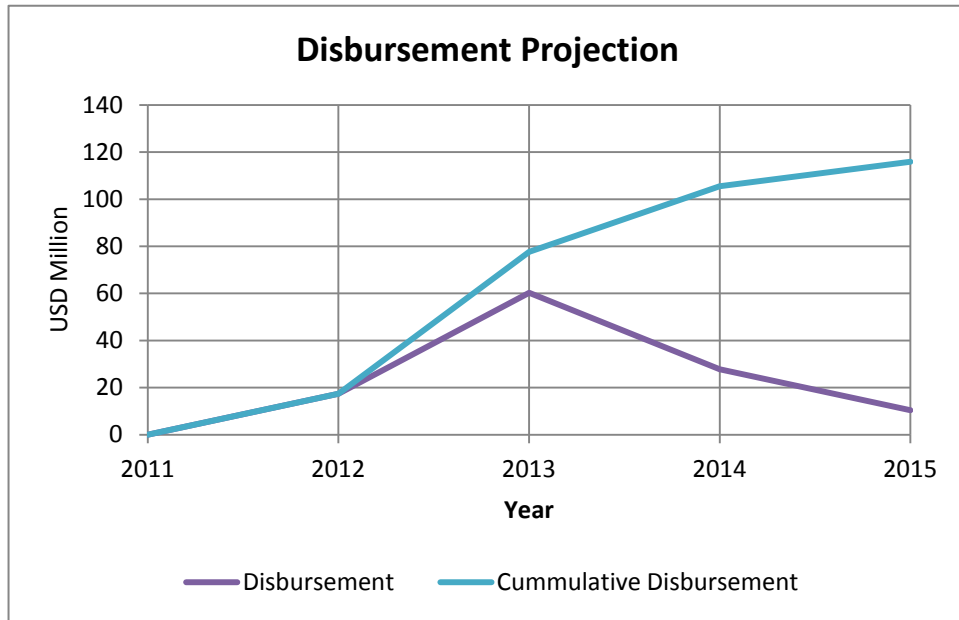
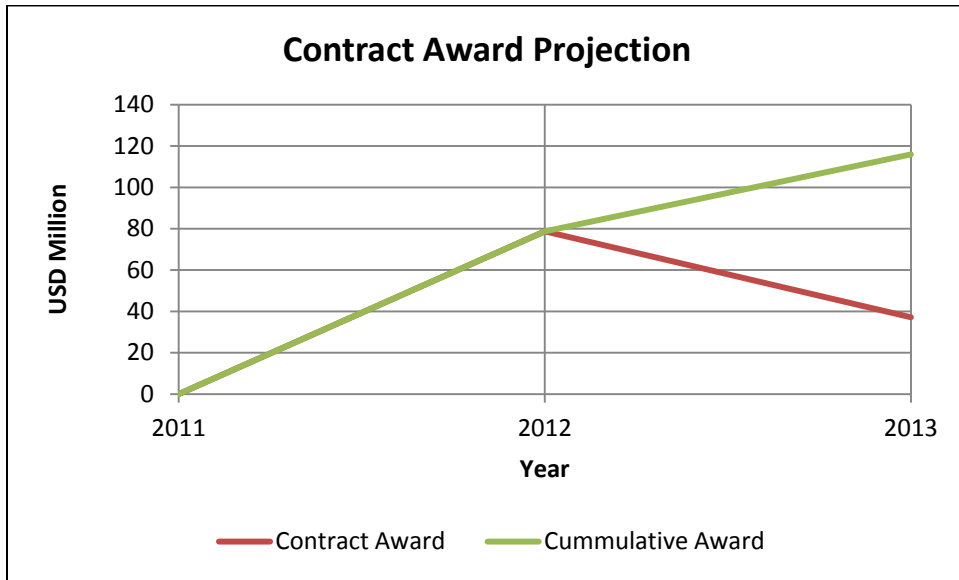
Source: Asian Development Bank estimates

D. Detailed Cost Estimates by Year

Table 6: Detailed Cost Estimates by Year

Item	Total Cost (\$ million)	Year			
		2012	2013	2014	2015
A. Base Costs					
1 Civil Works					
a. Asset Preservation	63.77	12.75	35.08	12.75	3.19
2 Institutional Capacity Development	18.59	0.93	7.44	7.44	2.79
3 Administration Cost	3.17	0.95	1.27	0.63	0.32
4 Project Implementation Consultants			0.00	0.00	0.00
a. Construction Supervision, Asset Preservation	3.92	0.78	1.96	0.78	0.39
b. Detailed Engineering Design and Tendering, Asset Preservation	1.22	0.49	0.73	0.00	0.00
c. Detailed Engineering and Tendering, Future Asset Preservation and Road Improvement	8.19	0.82	5.73	1.64	0.00
5 Taxes and Duties	16.54	3.31	9.10	4.13	0.00
Subtotal (A)	115.4	20.0	61.3	27.4	6.7
B. Contingencies					
1 Physical Contingency	3.70	0.00	0.00	3.70	0.00
2 Price Contingency	7.38	0.00	0.00	3.69	3.69
Subtotal (B)	11.08	0	0	7.39	3.69
C. Financing Charges During Implementation	3.52	0.00	1.06	1.23	1.23
Total	130.0	20.0	62.4	36.0	11.6
% Total Project Cost		15%	48%	28%	9%

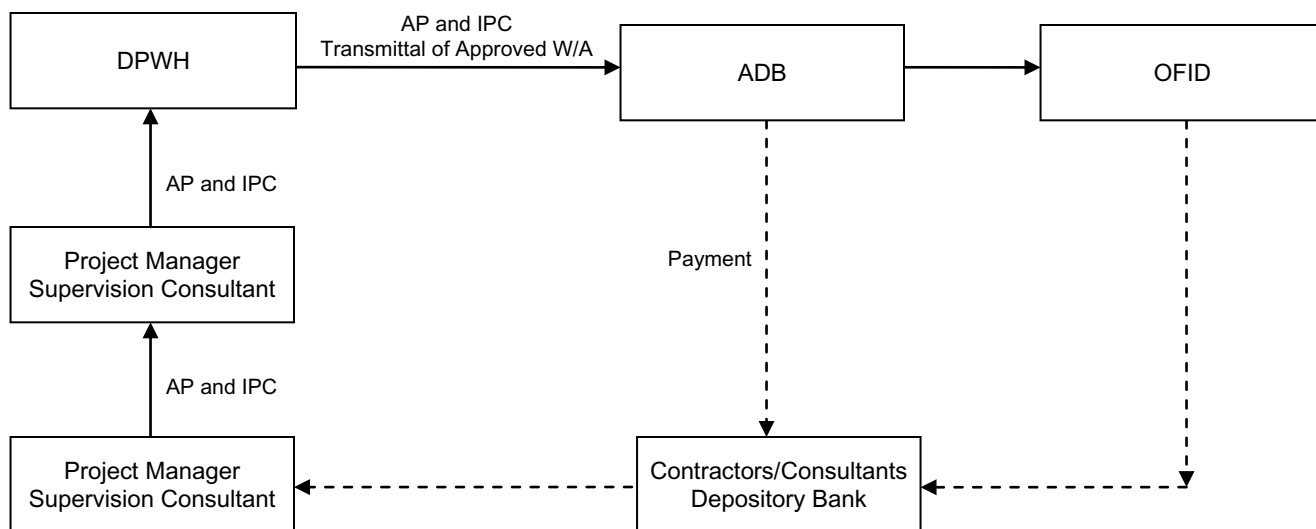
E. Contract and Disbursement S-curve



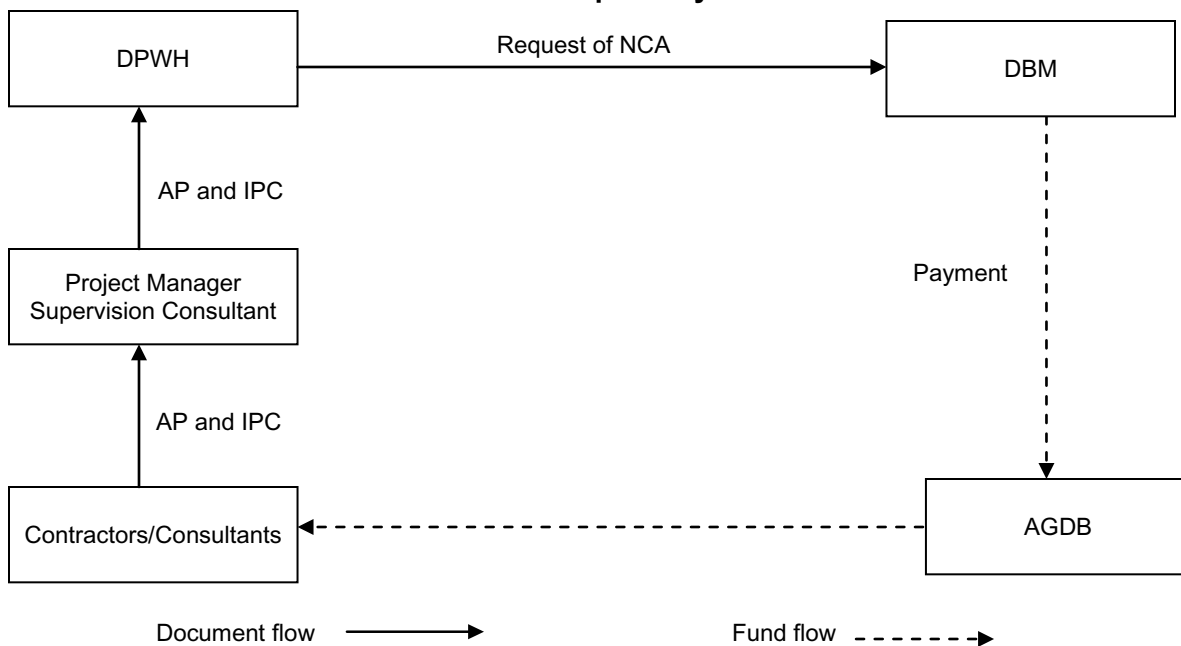
F. Fund Flow Diagram

13. Following show how the funds will flow from ADB, cofinanciers and the Borrower to implement project activities.

**Civil Works and Consultancy Contracts
Loan Proceeds
Direct Payment**



**Civil Works and Consultancy Contracts
GOP Counterpart Payment**



AGDB = authorized government depository bank, AP = advance payment, DBM = Department of Budget and Management, DPWH = Department of Public Works and Highways, IPC = interim payment certificates, NCA = notice of cash allocation.

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

14. The Department of Public Works and Highways' (DPWH) financial management (FM) system consists of one main system supported by a subsystem for foreign-assisted projects. The main FM system is used to maintain the books of accounts, monitor the Designated Accounts (DA), and prepare the required project financial reports. The sub-system under the Project Management Offices (PMOs) conducts initial screening of transactions; prepares disbursement vouchers, Statements of Expenditures (SOEs), and Withdrawal Applications for the DA; manages DAs; and prepares other financial management reports.

15. The Comptrollership and Financial Management Service (CFMS) in DPWH is responsible for financial systems procedure and control and handles the main FM system, while the Internal Audit Service (IAS) is responsible in the conduct of management and control audit. The CFMS is tasked to provide DPWH with coordinated services relating to financial systems and procedures, budget, cash, accounting and all financial housekeeping matters, and to maintain and improve financial management in the internal control system. Its organization structure includes four divisions: the Accounting Division, the Assets and Supplies Management and Control Division, the Budget Division, and the Cash Division.

16. The Internal Audit Service (IAS) is mandated to advise the DPWH Secretary on all matters relating to management control and operations audit; conduct management and operations audit of DPWH activities; review and appraise systems and procedures, organization procedures, assets and management practices, accounting and other records, reports and performance standards such as budgets and standard costs of DPWH's central and regional offices; analyze and evaluate management deficiencies and assist top management in solving problems by recommending realistic courses of actions. IAS has three divisions: Financial Audit Division, in charge of overall financial aspects of the Department; Operations Audit Division "A", in charge of the technical aspects of operations such as engineering and civil works; and Operations Audit Division "B", in charge of administrative aspects such as the procurement of goods, contractors and consultants.

17. The Bidding and Awards Committee (BAC) and the Procurement Office for Civil Works (POCW) are responsible for the procurement and contracting of infrastructure projects; and the price escalation. The price adjustment committee is responsible for the approval/regulation of price adjustments. The Infrastructure Right-of-Way (IROW) office is responsible for monitoring and supervising the compensation of affected families and structure owners due to infrastructure right-of-way acquisition.

18. The transport sector, including DPWH, faces significant governance issues in public expenditure and financial management. One issue is budget capture, in particular, transparency and accountability in the sources and utilization of appropriations by Congress and allotment releases from the Department of Budget and Management (DBM) to DPWH. DPWH budget and project selection is vulnerable to vested interests. Large Priority Development Assistance Fund ('pork barrel'), the allocation, release and utilization of which is outside of the control of DPWH, impacts on internal control and accountability. DBM allotments to field offices and special assignments which are not coordinated with the DPWH Budget Division make expenditure tracking difficult. A second area is weaknesses in internal control. Weak cash management such as un-reconciled bank balances, unrecorded transactions, double recording of

disbursements and improper write off of account balance. Weaknesses in management of cash advances, receivables due from national government agencies or inter-agency receivables, sub allotments to regions and agencies, inventory, property and equipment, accounts payable and expenditures. The summation of all accounting transactions (general ledger) has sizable inaccurate balances with the supporting subsidiary ledgers.

19. DPWH has begun to make significant progress in strengthening its financial management system. DPWH operates in a decentralized financial management environment. Each Regional and District Office is responsible for their respective financial records and books. DPWH utilizes the Commission on Audit (COA)'s electronic New Government Accounting System (e-NGAS) as its financial system. The e-NGAS is designed to follow the COA prescribed financial policies and procedures. DPWH has made significant progress in the introduction of e-NGAS and is currently using 4 of the 11 modules of the system. E-NGAS is either implemented or undergoing implementation in 81 offices, including all 16 regional offices. Through the implementation of e-NGAS and e-Budget the accuracy and reliability of current transactions has increased substantially in offices where the implementation has been completed and institutionalized. The central office began implementation of the e-Budget system developed by COA in 2005. In early March 2008, a new strategy of implementation was adopted requiring that all budgetary transactions utilize e-Budget generated forms. There are 40 offices where e-Budget is being implemented, including all the regional offices. Further progress may be slowed down by COA's late 2008 decision to discontinue further e-NGAS roll-outs to allow for improvements of the system. Progress is beginning to be made on resolving long outstanding un-reconciled general ledger balances. However, the full benefit of the system in terms of accuracy and reliability of the financial information of DPWH offices cannot be obtained until all DPWH offices are effectively utilizing the system and until e-NGAS and e-Budget are fully harmonized. Many of these efforts are being supported by external development partners.

20. In 2008, DPWH developed and implemented a Financial Management Policies and Procedures Manual which provides specific and detailed instructions on the processing, recording and reporting of financial transactions. The manual follows the COA prescribed requirements. DPWH also strongly supports the implementation of the National Guidelines on Internal Control Systems issued by DBM which is evidenced from a series of interventions to enhance the functioning of the Internal Audit Service.

B. Disbursement

21. The Loan proceeds including ADB administered co-financier funds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2007, as amended from time to time),¹ and detailed arrangements agreed upon between the Government and ADB.

22. Pursuant to ADB's Safeguard Policy Statement (2009) (SPS),² ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS. All financial institutions will ensure that their investments are in compliance with applicable national laws and regulations and will apply the prohibited investment activities list (Appendix 5) to subprojects financed by ADB.

23. Unless otherwise agreed between ADB and the Borrower, all disbursements for ADB and OFID financing will be carried out using the direct payment method in accordance with the

¹ Available at: http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf

² Available at: <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf>

ADB Loan Disbursement Handbook.³ DPWH will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) preparing and sending withdrawal applications to ADB. For the OFID fund, the borrower is requested to submit a separate withdrawal application using the cofinancier's form to claim eligible project expenditures

24. Before the submission of the first withdrawal application, the Borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is US\$100,000, unless otherwise approved by ADB. Withdrawal applications and supporting documents will demonstrate, among other things that the goods, and/or services were produced in or from ADB members, and are eligible for ADB financing. For claims against the OFID fund, ADB reviews withdrawal applications and advises OFID to execute payments directly to beneficiaries.

25. Government counterpart funds for the project will be disbursed for payment to the consultants and contractors through an authorized government bank illustrated in Section D of this PAM.

C. Accounting, Auditing and Reporting

26. DPWH will maintain separate records and accounts by funding source for the Project, and have such accounts and related financial statements audited annually by the GOP Commission on Audit (COA) in accordance with auditing standards acceptable to ADB. DPWH will submit to ADB, within 6 months of the close of the fiscal year, certified copies of audited project accounts and financial statements and auditor's reports, all in English. The audit of such financial statements will include (i) an assessment of the adequacy of accounting and internal control systems with respect to project expenditures and other financial transactions, and (ii) an assessment of compliance with financial loan covenants and ADB requirements for project management. The Government and DPWH have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited accounts. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures. For revenue generating projects only, ADB requires audited financial statements (AFS) for each executing and/or implementation agency associated with the project.

27. DPWH will report the progress of project implementation by submitting quarterly progress reports to ADB. The form and content of the progress reports will be agreed with ADB during the project inception mission. DPWH will monitor project implementation in accordance with the project implementation schedule, and will keep ADB and the cofinanciers informed of any significant deviations from the schedule. The quarterly reports will include summary information on basic data, utilization of funds, achievement of immediate development objectives, compliance with covenants, implementation progress, and major issues and problems. Within 3 months of the Project's physical completion, DPWH will submit to ADB a project completion report which will provide a detailed evaluation of the project design, costs, contractors' and consultants' performance, social and economic impact, economic internal rate of return (EIRR), and such other details as may be requested by ADB.

³ ADB. 2007. *Loan Disbursement Handbook*. Manila.

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting

28. Advance contracting has been approved for civil works, goods and services required under the Project.

29. All advance contracting will be undertaken in conformity with ADB's *Procurement Guidelines* (April 2010, as amended from time to time) (ADB's *Procurement Guidelines*)⁴ and ADB's *Guidelines on the Use of Consultants* (2010, as amended from time to time).⁵ The issuance of invitations to bid for civil works and goods or requests for proposals for consulting services under advance contracting will be subject to ADB approval. The borrower and executing agency have been advised that approval of advance contracting does not commit ADB to finance the Project.

30. Recruitment of consultants is envisaged to commence before loan effectiveness. This will in effect advance the design activities required for the project. Due to the change made in financing modality of this Project, the Government expects that the succeeding project will be pursued. The Government therefore requested that detailed design for the succeeding project will be done during this Project and to commence after the corresponding PPTA is completed.

B. Procurement of Goods, Works and Consulting Services

31. All procurement of goods and works will be undertaken in accordance with ADB's *Procurement Guidelines* (2010, as amended from time to time).

32. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C.

33. The civil works contracts will be generally procured using international competitive bidding and will be subject to prior review by ADB. It is anticipated that a total of 10 civil works contract packages will be procured. One of these packages will be procured using NCB based on the threshold in the procurement plan. Each contract package can consist of one or more lots based on geographic location. It is intended to apply the multiple-award criteria to all multi-lot packages. Relevant sections of ADB's anticorruption policy (1998, as amended to date) will be included in all bidding documents and contracts.

34. It is envisaged to procure goods under two contracts using international competitive bidding procedure.

35. All consultants will be recruited according to ADB's *Guidelines on the Use of Consultants by ADB and its Borrowers* (2010, as amended from time to time).⁶ The terms of reference for all consulting services are outlined in Section D.

36. The Government will engage international consulting firms supported by national consultants for construction supervision; detailed design and tendering of roads to be included

⁴ Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

⁵ Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

⁶ Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

in subsequent projects; environmental supervision and management; project performance monitoring; and institutional capacity development. It is estimated that 76 person-months of international consultants and 1,762 person-months of national consultants will be required for construction supervision, and detailed design and tendering. For the ICD component, it is estimated that 173 person-months of international consultants and 532 person-months of national consultants will be required. Project consultants will be recruited using the quality and cost-based selection method and a full technical proposal in accordance with ADB’s *Guidelines on the Use of Consultants by Asian Development Bank and Its Borrowers (2010 as amended from time to time)*. The Government was advised that, for the recruitment of consultants and procurement of works and goods, advance contracting is the normal procedure and that ADB’s support of advance contracting does not commit ADB to approve the project or to finance the recruitment costs. The advance recruitment will not include signing of contracts. Any assets purchased will be procured using ADB Procurement Procedures and upon completion of the project will be handed over to the EA.

C. Procurement Plan

Basic Data

Project Name: PHI: Road Improvement and Institutional Development Project	Executing Agency:
Country: Philippines	Department of Public Works and Highways
Loan Amount: \$92,000,000	Loan (Grant) Number: XXXX
Date of First Procurement Plan {loan approval date}:	Date of this Procurement Plan:

1. Process Thresholds, Review and 18-Month Procurement Plan

a. Project Procurement Thresholds

37. Except as the ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works

Method	Threshold
International Competitive Bidding (ICB) for Works	Above \$5,000,000,
International Competitive Bidding for Goods	Above \$1,000,000
National Competitive Bidding (NCB) for Works	Beneath that stated for ICB, Works
National Competitive Bidding for Goods ¹	Beneath that stated for ICB, Goods
Shopping for Works	Below \$100,000
Shopping for Goods	Below \$100,000

b. ADB Prior or Post Review

38. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the project

Procurement Method	Prior or Post	Comments
Procurement of Goods and Works		
ICB Works	Prior	
ICB Goods	Prior	
NCB Works	Post	Prior review for first document
NCB Goods	Post	Prior review for first document
Shopping for Works	Prior	
Shopping for Goods	Prior	
Recruitment of Consulting Firms		
Quality- and Cost-Based Selection (QCBS)	Prior	

Procurement Method	Prior or Post	Comments
Quality-Based Selection (QBS)	Prior	
Other selection methods: Consultants Qualifications (CQS), Least-Cost Selection (LCS), Fixed Budget (FBS), and Single Source (SSS)	Prior	
Recruitment of Individual Consultants		
Individual Consultants	Prior	

c. Goods and Works Contracts Estimated to Cost More Than \$1 Million

39. The following table lists goods and works contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

General Description	Contract Value (\$ million)	Procurement Method	Prequalification of Bidders (y/n)	Advertisement Date ⁷(quarter/year)	Comments
Asset Preservation Contracts					
Contract Package 1 - Luzon		ICB	N	1Q/2012	Financed by ADB and OFID Loans
Lot 1.1 Bauang - Baguio Road	4.48				
Lot 1.2 Olongapo - Bugallon Road	12.65				
Contract Package 2 - Visayas		ICB	N	2Q/2012	Financed by ADB and OFID Loans
Lot 2.1a Palo - Carigara - Ormoc Road and Daang Maharlika Road	8.33				
Lot 2.1b (Liloan-Naval Highway)					
Lot 2.2 Iloilo - Capiz Road (Old Route)	5.47				
Contract Package 3 – Mindanao		ICB		2Q/2012	Financed by ADB and OFID Loans
Lot 3.1 Dipolog - Oroquieta City Road	3.42				
Lot 3.2 Butuan - Cagayan de Oro City - Iligan Road (Misamis Oriental)	9.20				
Lot 3.3 Bukidnon-Cotabato Road	6.11				
Contract Package 4 - Visayas		ICB	N	2Q/2013	Financed by ADB and OFID Loans
Lot 4.1 Dumaguete North Road (Manjoyud – La Libertad Road)	14.41				
Lot 4.2 Dumaguete North Road (La Libertad – Vallehermoso Road)	11.76				
Contract Package 5 - Mindanao		NCB	N	2Q/2013	Financed by ADB and OFID Loans
Butuan-Cag. De Oro-Iligan Road (Agusan del Norte)	3.88				

⁷ Advertisement on www.adb.org and www.philgeps.net is required for civil works contracts \$500,000

General Description	Contract Value (\$ million)	Procurement Method	Prequalification of Bidders (y/n)	Advertisement Date ⁷(quarter/year)	Comments
Procurement of Goods					
Procurement of DPWH IT Computer and Software for 47 District Engineering Offices	2.15	ICB	N	4 th /2011	Financed by ADB Loan
Procurement of DPWH Communication Network Equipment (Voice and Data) for 47 District Engineering Offices	5.66	ICB	N	4 th /2011	Financed by ADB Loan

d. Consulting Services Contracts Estimated to Cost More Than \$100,000

40. The following table lists consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

General Description	Contract Value (\$ million)	Recruitment Method	Advertisement Date (quarter/year)	International or National Assignment	Comments
Construction Supervision for Asset Preservation Phase 1	4.35	QCBS 80:20	4Q/2011	63 international 543 national	Financed by ADB Loan
Detailed Design for Asset Preservation and Road Improvement Phase 2	10.53	QCBS 80:20	1Q/2012	66 international 142 national	Financed by ADB Loan
Institutionalization of the Road Maintenance and Management System (RMMS)	1.30	QCBS 80:20	3Q/2012	17 international 31 national	Financed by ADB Loan
Enhancement of the Traffic Accident Recording and Analysis System (TARAS)/Improvement of the Road Safety Audit (RSA)	1.39	QCBS 80:20	3Q/2012	16 international 8 national	Financed by ADB Loan
Development and Installation of Project Management Information System (PMIS)	3.38	QCBS 80:20	1Q/2012	42 international 144 national	Financed by ADB Loan
Technical Assistance for Environmental and Social Safeguards/Gender Mainstreaming in Infrastructure Development	1.99	QCBS 80:20	3Q/2012	36 international 90 national	Financed by ADB Loan
Comprehensive Human Resource Development	2.46	QCBS 80:20	3Q/2012	240 national	Financed by ADB Loan
Support to Infra Development and Quality Assurance System	2.99	QCBS 80:20	4Q/2011	72 international 19 national	Financed by ADB Loan

e. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000

41. The following table groups smaller-value goods, works and consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

General Description	Value of Contracts (cumulative)	Number of Contracts	Procurement / Recruitment Method¹	Comments
None				

2. Indicative List of Packages Required Under the Project

42. The following table provides an indicative list of all procurement (goods, works and consulting services) over the life of the project. Contracts financed by the Borrower and others should also be indicated, with an appropriate notation in the comments section.

General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Domestic Preference Applicable	Comments
Goods	7.81	2	ICB	yes	
Works	75.84	9	ICB	yes	
Works	3.88	1	NCB	no	
Consulting Services	28.39	8	QCBS:80:20	Full	

2. National Competitive Bidding

a. General

43. The procedures to be followed for national competitive bidding shall be those provisions referring to open competitive bidding procedures set forth in Republic Act 9184 the Republic of the Philippines, effective 26 January 2003, and its Revised Implementing Rules and Regulations, effective 2 September 2009, with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the Procurement Guidelines, Section I and paras. 3.3 and 3.4 of Section III.

b. Eligibility

- (i) Eligibility screening shall not be applied. However, bids that do not contain any of the following documents will not pass the documentary compliance check: (i) evidence of the required financial, technical or production capability; (ii) audited financial statements; (iii) credit line, or cash deposit certificate; (iv) bid security; and (v) authority of the bid signatory.
- (ii) National sanction lists may be applied only with prior approval of ADB.

c. Advertising

44. Bidding of NCB contracts estimated at \$500,000 or more for goods and related services

or \$1,000,000 or more for civil works shall be advertised concurrently with the general procurement notices on ADB's website.

d. Price of Bidding Document

45. The price of bidding documents should be nominal, covering only reproduction and mailing/courier costs.

e. Price Ceiling

46. The approved budget for the contract (ABC) may be published, but it shall not be stated or implied that bid prices shall not exceed the ABC, or that bid evaluation will in any way take into account the ABC. The ABC, budgetary allocation, ceiling price, or similar estimates of contract value shall not be used to reject bids without prior concurrence of ADB.

f. Preferences

- (i) No preference of any kind shall be given to domestic bidders or for domestically manufactured goods.
- (ii) Suppliers and contractors shall not be required to purchase local goods or supplies or materials.
- (iii) Foreign suppliers and contractors from ADB member countries shall be allowed to participate, if interested, without first being required to associate with, or enter into joint venture with, local firms.
- (iv) Foreign suppliers and contractors from ADB member countries shall be allowed to bid, without registration, licensing, and other government authorizations, leaving compliance with these requirements until after award and before signing of a contract.

g. Experience Qualification

47. For a works contract, the experience qualification requirement shall be: (i) at least one previous contract at 80% of the estimated cost of the contract being procured; and (ii) an annual turnover from all works averaged over the last three years equal to 100% of the estimated cost of the contract being procured.

h. Anticorruption Provisions in Bidding Documents

48. Anticorruption provisions in the Instructions to Bidders section of ADB standard bidding documents (SBDs) shall be incorporated into NCB bidding documents including those under "Corrupt Practices" and "Eligible Bidders" clauses of the SBDs.

i. Bidding Period

49. Bidders shall be given a minimum period to prepare and submit bids of 4 weeks, counted from the date of invitation to bid or the date of availability of bidding documents, whichever is later,

j. Single Bid Submission

50. When a lone bidder obtains a bidding document and submits a bid at the deadline for bid submission under a postqualification bidding, bid opening and evaluation shall not proceed but it shall be considered a failure of bidding. Before taking any alternative procurement action, a proper assessment of the cause of lack of participation shall be made and ADB prior approval shall be sought for any proposed subsequent action.

k. Shopping Method

51. If included as a procurement method in the Procurement Plan, "Shopping" shall be undertaken in accordance with the ADB Procurement Guidelines (April 2010, as amended from time to time).

l. Contract Amendment

52. In case of contracts for prior review, modifications exceeding 15% of contract amount and material changes in the conditions during implementation require prior ADB concurrence.

m. Member Country Restrictions

53. Bidders must be nationals of member countries of ADB, and offered goods must be produced in member countries of ADB.

D. Terms of Reference for Consultants

1. Construction Supervision for the Asset Preservation Component

54. It is envisage that the consulting services for construction supervision of each of project roads will be provided by an international consulting firm in association with local consulting firms. These construction supervision teams will be headed by a Team Leader of the international consultant. It is tentatively estimated that for carrying out the services the international consultant will field about 63 person-month of international key staff plus about 543 person-months of national consulting input. All the above said staff shall be well experienced in the specific fields of competence for which they are proposed.

55. The services as described herein will, in general, be carried out in three phases; pre-construction phase will entail the review, if necessary, of the plans and bid documents as assistance to the DPWH. The construction phase will include supervising, inspecting, measuring and testing of all works and materials to ensure proper construction in conformity with the approved plans and specifications. The post-construction phase will include the submission of the "As-built Plans", prepared by the contractor, for the inspection for the Acceptance Certificate and the Final Report.

a. Pre-construction

- (i) Review all contract documents of each road package such as contract plans/drawings, technical specifications, construction contract and other documents to determine any conflicts in the provisions, details, and lack of or insufficient information that any hinder the smooth execution of the works.

- (ii) Review of network of “Bench Mark” and/or “Operation Stations” previously established by the “Design Consultant” and initiate necessary modification and/or improvements to allow easy execution of the projects.
- (iii) Conduct a pre-construction meeting with the Contractor and all project stakeholders to clarify issues such as environmental problem, construction methodology and initiate coordination with DPWH Field Offices, Environmental and Social Services Office (ESSO) and Local Government Units.
- (iv) Review the environmental plan and resettlement action plan, if any, and clarify to the Contractor of each contract package his responsibilities in the implementation of said plans.
- (v) Supervise the preparation of As stake Drawings, Quantities and other documents, and recommend for approval the required modifications or changes in the design, drawings and quantities due to actual (as staked) field conditions

b. Construction stage

56. The main civil works will be executed under the Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer, Multilateral Development Bank Harmonized Edition June 2010, prepared by the Fédération Internationale des Ingénieurs-Conseil, or FIDIC (FIDIC MDB version 2010). The scope of the consulting services to be carried out together with the local supervisory teams to include but not necessarily limited to the following:

- (i) Organize the supervision of the works with proper allocation of responsibilities to the individual inspectors and supervise their work in order to ensure that it is effectively executed.
- (ii) Review and recommend for approval the Contractor’s work schedule or revision and any such plans or programs that the contractors are obligated to furnish for the Engineers approval. Prepare and submit a disbursement schedule to the DPWH.
- (iii) Inspect and evaluate all Contractors’ installations, such as housing, workshops, warehouses and other accommodations to ensure compliance with the terms and conditions of contract documents.
- (iv) Review the computations of quantities of approved and accepted works and materials and checks and certify the contractor’s monthly payment certificate and final payment certification.
- (v) Arrange for the execution of works related to the provisional sums (if any) in the contract, and determine the value of such work.
- (vi) Maintain a representative at the project site during all times to supervise the contractor’s work and to issue instruction’s as required. Give the notice to the Contractor’s through the DPWH of any defects and deficiencies and recommend appropriate actions.

- (vii) Prepare and maintain inspection and engineering reports and records to adequately document the progress and performance of the works.
- (viii) Inspect the safety and environmental aspects of construction works methods to ensure that all reasonable measures have been taken to protect life, environment and property.
- (ix) Supervise the preparation of efficient traffic management and safety schemes by the Contractors for approval of concerned government agency(ies) during the construction period. The Consultant shall review the traffic management plan prepared during the detailed engineering stage. In coordination with the Contractors, the Consultant shall see to it that an efficient traffic management and safety plan for the Project prepared, approved by concerned agency(ies), observed and implemented accordingly during construction period.
- (x) The Consultant shall facilitate monthly (or as needed) public meetings in conjunction with DPWH and the relevant local government units to address public concerns.
- (xi) Inspects quarries and borrow pits and crushing plants to ensure adherence to specifications.
- (xii) Conduct/perform jointly with the DPWH and the Contractors the stake-out surveys for the horizontal alignment, right-of-way limits, roadway structures and appurtenance location surveys, vertical control bench marks, cross sections surveys and other geometric layout surveys, setting of grade stake; and relocation of permanent monuments in the construction.
- (xiii) Supervise the operation by the Contractors of the materials testing laboratory, witness the performance by the Contractors of all sampling, laboratory testing of materials and products needed to ensure that the quality as required by the plants and specification is obtained and verify the accuracy of the testing results. Inspect works and check materials including testing of materials in accordance with DPWH requirements and maintain proper records of all test performed.
- (xiv) Review and approved all Contractor's working drawings. Shop drawings, erection drawings, and drawings for temporary works.
- (xv) Assess the adequacy of all inputs such as materials and labour provided by the Contractors and his methods of work in relation to the required rate of progress. When required, take appropriate action in order to expedite progress. Keep and regularly update a list of the Contractor's equipment and its condition to ensure compliance with the list of equipment, which the Contractor's provided in his bid.
- (xvi) Propose and present to the DPWH for approval any change in the plans, as result of any change in site condition due to weather and natural calamities, which may be deemed necessary for the completion of works including information or any effect the changes may have on the contract amount and the time of completion of the project, and prepare order including altering plans and specifications and other details. Inform DPWH of any problem or potential

problems which may arise in connection with any construction contract and make recommendations to the DPWH for possible solutions.

- (xvii) Perform initial survey cross-section, periodic and final survey measurement of completed and accepted works or partial works to determine quantities and perform settlement control.
- (xviii) Assure the receipts of, and maintain records of all warrant required under the terms and contract documents for materials incorporation in the Project. All materials incorporated in the project and their sources will also be approved.
- (xix) Monitor the compliance of the project with conditions stated in the Environmental Compliance Certificate (ECC)/Certificate of Non-Coverage (CNC) and make recommendation/s on environment mitigation measures to the DPWH and Contractor of the Project.
- (xx) Ensure that the Environment Management Plan (EMP) and the Resettlement Action Plans (RAPs), if any, are implemented by the proponent office.
- (xxi) Provide timely assistance and direction to the Contractors in all matters related to the interpretation of contract documents, ground survey controls, plans, quality control testing and other matter relating to contract compliance and progress of the project.
- (xxii) The Consultant shall initiate/inquire and ensure that the As-Built Drawings shall be prepared and submitted by the contractors
- (xxiii) Prepare punch list of defects and outstanding works and inspect and provide assistance to DPWH Staff during the assessment of the works at substantial completion as well as during the final acceptance of the completed works.
- (xxiv) Upon 100% completion, the consultant shall inspect the rectified works and inform the contractor in writing the joint inspection by DPWH for the purpose of issuing the taking over Certificate of Completion. Upon completion, the consultant shall prepare for the approval of DPWH the Taking-Over Certificate of Completion stating the date from which the Defects Liability Period of the works shall commence.
- (xxv) The Consultant shall have copies of all contract cost changes, whether for civil works or consultancy and maintain accurate records of total project cost.
- (xxvi) Before the issuance of the Certificate of Completion, the Consultant shall carry out the necessary preparatory inspection, specify and supervise the remedial works to be carried out on any repair of defects or outstanding works.
- (xxvii) Review Contractor's request and recommend issuance of certificates for substantially completion (Taking-over Certificate).

- (xxviii) Perform any and all other items of work not specifically mentioned above, but which are necessary and essential to supervise, control and complete the works in accordance with the plans, specifications and terms of contract.

c. Post-Construction stage

- (i) Recommend and certify any liquidation damages to be imposed to the Contractors whenever appropriate due to his failure to complete the project at the approved contract time.
- (ii) Prepare and submit to ADB-PMO fifteen (15) copies and electronic file of the Project Completion Report/Final Report after completion of each road improvement project (include but not limited to background description/scope, construction phase, disbursement, accomplishments, activities problems encountered during construction and actions taken, change orders/variations, time extension, photographs (before, during and after), conclusion and recommendations, lessons learned and other substantive matters having an effect on the amount, cost and progress of the work. The Report shall be prepared and submitted in a manner acceptable and satisfactory to DPWH and ADB.
- (iii) Assist ADB-PMO in the final inventory and turn-over of facilities, equipment and other project items to appropriate DPWH Offices.
- (iv) Make available its services during the defects liability period of the project.

2. Detailed Engineering Design and Procurement Assistance for Additional Asset Preservation Contracts and Future Projects

57. Implementation plans and bidding documents, for various asset preservation projects and road upgrading projects in Luzon, Visayas and Mindanao. Three of the asset preservation projects have been appraised through feasibility studies done during the implementation of ADB TA 7093-PHI while the rest will be subject to another ADB PPTA scheduled in 2012.

58. The Consultant shall undertake detailed engineering design of the project road sections with a view to having the works implemented by suitably qualified contactors selected through International Competitive Bidding for Civil Works. The works shall also be undertaken in accordance with Department Order No. 50, series of 2002, to obtain uniformity and cohesiveness in the preparation of related documents consistent with the Design Guidelines, Criteria and Standards for Public Works and Highways and other applicable provisions of existing laws, codes and Department Orders.

59. During the design stage, the Consultant shall coordinate as early as possible with the Environmental and Social Services Office (ESSO), Planning Service, DPWH the environmental and social aspects of the road projects. For roads where the ESSO has completed the preparation of the necessary documents for the issuance of Environmental Compliance Certificate or its equivalent, the Consultant shall be responsible in coordinating and integrating the results of the EIS for these road sections in the final design and bidding documents. An independent Environmental Auditor, reporting to ESSO, will also monitor the compliance of the EIS with the various requirements.

60. The Consultant shall carry out Road Safety Audit during the Detailed Design Stage to eliminate “black spots” along the entire alignment of each road section and ensure the safety of road users.

61. The Consultant shall perform Value Engineering Studies during Detailed Design Stage to reduce unnecessary project costs without sacrificing the integrity of the roadway facilities and structures.

62. The Consultant shall provide assistance during the tendering of the Civil Works for the road projects.

63. During the detailed engineering, the consultant shall coordinate and report to the Bureau of Design, DPWH for uniformity and cohesiveness in the preparation of related documents, consistent with the latest edition of the Design Guidelines, Criteria and Standards for Public Works and Highways, AASHTO Guidelines and other applicable provision of existing laws, codes and Departments Orders. The approval by the authorized government officials of detailed engineering surveys and designs undertaken by consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and design nor transfer any part of that responsibility to the approving officials.

64. The Consultant shall conduct preliminary studies to verify and validate the recommendations of the previous Feasibility Studies on the road projects. The Consultant shall gather and review all the necessary pertinent data about the road particularly the physical topography, which often impose limitations upon location and design, and also conduct site inspection on foot jointly with the DPWH.

65. In general the Consultant shall conduct topographic surveys in accordance with the following requirements:

- (i) Road Alignment Survey – Shall be conducted along road segments, which have been proposed for improvements. Cross sections shall be taken at every 20 meters interval including intermediate breaks on the ground and at bridge approaches and extending at least 10 meters on both sides of the road centreline or wider along segments with side hill cut and fill extending up to top of slope and toe of embankment, respectively, as well as with more than two (2) lanes and along areas where drainage outfalls/cascades are to be provided to discharge runoff to existing rivers, creeks, ditches and toe of embankment.
- (ii) Continuity Alignment Survey – Shall be conducted along road segments where there is no improvement proposed or only re-blocking or replacement of pavement slab panels is required. The survey shall include establishment of the existing road horizontal and vertical alignments and taking cross sections at every 100 meters interval along straight sections and at closer intervals along curved segments to allow checking and correction (if required) of the existing pavement cross section and super elevation. Actual locations (stations) of areas where re-blocking or slab replacement is proposed shall be established during the survey.
- (iii) Bridge Sites Survey – shall be conducted along areas where bridge replacement, reconstruction or new bridge structures are proposed. The survey shall cover at

least 250 meters from the bridge centreline of both the downstream and upstream sides of the waterway.

- (iv) Preliminary Road Alignment Survey including Bridge Sites – shall be conducted along road sections that will be subjected to feasibility studies and shall include establishment of the road horizontal and vertical alignments, road centreline profiling at every 100 meters interval or at closer intervals along segments with abrupt change in elevation, and taking representative cross sections at the beginning and end of every change in road topographical and cross sectional features, and pavement of surfacing type and along bridge sites to define the existing waterways to be spanned by the proposed structures.

The detailed survey works shall be undertaken in accordance with common surveying and mapping requirements stipulated in the DPWH Design Guidelines, Criteria and Standards (DGCS) Volume 1,

66. Carry out detailed soil investigations along the road alignment to identify the various soil types. It should not only be limited to the centerline and edge of the pavement but also include side cut sections affected by the widening.

67. Test pits shall be made/located at the centerline (in case of new alignment) and alternately at both edges of the road (for existing and paved road) at an average interval of 250 meters intervals if required in the judgment of the Consultant. In areas of light cut and fill where there are no special problems, the exploration shall extend to a maximum depth of 1.5 meters below the proposed sub-grade. Where deep cuts are to be made, such as large embankment across the marshland or subsurface information that indicate the presence of weak layers, the depth shall depend on the topography and nature of the subsoil.

68. The Consultant shall conduct geological survey and investigation along the entire alignment of each road section, specifically at locations with observed slope failures, tension cracks, landslide scars, and areas with settlement and subsidence and at sinking areas.

69. The Consultant should be able to identify areas with geological problems and difficulties, and water bearing stratum causing subsurface discharge, which could affect the stability of the roadway.

70. Conduct complete and comprehensive studies and evaluation of the existing pavement structure. In the preliminary assessment of the existing pavements, the Consultant shall refer to the method of Classification of Road Works in the Road Planning Service as specified in the HDM-4 model. In close coordination with the DPWH, the Consultant shall assess the condition of the existing roads and classify whether the sections/segments fall under the category of Asset Preservation (Preventive Maintenance) or Improvement/Rehabilitation or New Construction. The Consultant shall submit his assessment and recommendations as part of the Inception Report for the Project for review and approval by the DPWH, prior to proceeding with the detailed engineering design activities.

71. Determine whether flexible (ACP) or rigid (PCCP) pavement type is appropriate to meet the performance targets and to provide the maximum Net Present Value (NPV) of life cycle user benefits and road costs within the project cost estimates. The Consultant shall conduct updating of the economic analysis of the project roads based on the results of the detailed engineering design adopting the HDM-4 project analysis modules.

72. A proper assessment of the existing drainage facilities i.e. pipe and box culverts and ditches will be made on the basis of an adequacy rating which includes functional adequacy (serviceability) and structural adequacy (safety). Functional adequacy relates to the roadway width on the structure as well as to the adequacy of the waterway clearance. The check on the structural adequacy will consist of the rating of the superstructure (decking) and the substructure and foundation. A complete inventory of all the existing cross drainage structures together with remarks with respect to their current condition will be prepared on a format acceptable to the DPWH-BOD.

73. With respect to hydraulic design, carry out hydrological studies on both the proposed and existing drainage facilities with careful analysis of meteorological data and other data such as rainfall, atmospheric temperature, flood records, environmental condition and monthly number of dry weather days, supplemented with preparation of rainfall intensity, duration, and frequency (RIDF) curves for relevant locations/areas and detailed inspection. Catchment areas shall be determined by study of Topographic maps at a scale of 1:50,000m and doubtful or problem areas that can be observed should be noted for investigation or survey in the field. When the survey is intended for the design of slope or subsurface drainage, special attention should be given to landslides, slope failure/erosion, and underground water seepage. The Consultant shall prepare maps indicating locations of all landslides and flooding hazards along the road sections as observed during the surveys. The Consultant shall perform stability analysis and if required, recommend improvement measures for the existing slopes located at cut and embankment sections of the Projects Roads to ensure that these slopes would be protected from erosions, slips, landslides and other failures.

74. Carry out thorough examination of all existing bridges and determine the degree to which rehabilitation is necessary including major preventive maintenance works and retrofitting works to improve the seismic resistance of the structure. The Consultant shall thoroughly investigate the seismic resistance of the existing bridge to conform to the new code and recommend appropriate retrofitting measures.

75. The Consultant shall undertake an inspection of the full length of the roadway from a traffic safety perspective, identify appropriate accident mitigation measures for specific locations and incorporate these into the designs. The Road Safety Audit should be carried out in accordance with the process set out in the Philippines Road Safety Audit Manual, February 2004 Edition. The Consultant could also refer to various guidelines and manuals applicable in the Philippines.

76. The DPWH intends to develop a policy to utilize "value engineering studies" whenever applicable and appropriate, to minimize and/or reduce nonessential procurement and project costs and to reduce the life cycle cost of the Department's construction and acquisition programs and projects without sacrificing quality and integrity of the facilities and structures while attaining their essential functions consistent with the required performance, reliability and safety. In line with this policy, the Consultant shall perform Value Engineering Studies as part of the Detailed Engineering Design scope under this Project. The Consultant shall include social and environmental concerns or impacts as among the factors for consideration in the value engineering studies as well as taking into account environmental risk assessment.

77. The Consultant shall study packaging schemes appropriate for the road sections considering length, scope of work, time frame and the normal periodic project accomplishment of contractors with experience on projects similar in nature.

78. The Consultant shall prepare the Resettlement Action Plan (RAP) for each road section in accordance with Policy Framework for Land Acquisition, Resettlement and Rehabilitation and in close coordination with the ESSO.

79. The assignment is estimated to require about 66 international and 142 national person-months. It is expected that the Consultant shall provide technical and administrative support staff. However, the Consultant may have some flexibility in the constitution of his engineering team and could propose a team based on his assessment of the project requirements and his experience in executing similar projects.

3. Institutionalization of the Road Maintenance and Management System (RMMS)

80. The consultants will support the implementation management of road maintenance more efficient through Institutionalization of the Road Maintenance and Management System (IRMMS). The scope of work for the consultants' include:

- (i) Review/assess the RMMS, including prepared manuals and introduce improvement if warranted.
- (ii) Conduct training to future trainers, to improve their proficiency on the operation of the system.
- (iii) Orient other user groups (regional and district) on the use and operation of the system.
- (iv) Set-up two (2) candidate pilot regions and districts, based on the availability of road and bridge application data.
- (v) Support and monitor RMMS operations in all pilot sites.
- (vi) Assess the operation of the new system and prepare/revise implementation plan
- (vii) Set-up and execute the implementation plan.
- (viii) Support system operations during the roll-out/full implementation.

4. Enhancement of the Traffic Accident Records and Analysis System (TARAS)/improvement of Road Safety Audits (RSA)

81. The consultant will support the improvement of road safety through Enhancement of the Traffic Accident Recording and Analysis System (TARAS) and implementation of the Road Safety Audit (RSA) System.

82. The enhancement of TARAS will improve the current accident data system by reviewing the existing policies, procedures, and practices for collecting and reporting road accident data in DPWH and the Philippine National Police (PNP). The scope of work for the consultants on TARAS includes:

- (i) Make improvements to TARAS by:
 - a. upgrading entry of accident data from manual encoding to direct input from an electronic device;
 - b. upgrading the reporting and analysis module; and
 - c. integrating the road accident data systems of other agencies, e.g., Metro Manila Reporting and Analysis System of the Metro Manila Development Authority and Department of Health into TARAS to provide a unified accident data system in the Philippines.

- (ii) Expand the TARAS application to include deployment to the DPWH District Offices.
- (iii) Conduct training for DPWH and PNP personnel on TARAS operation and accident data collection.
- (iv) Provide recommendations for strengthening the DPWH and PNP Memorandum of Agreement.
- (v) Procurement of required equipment for the implementation of TARAS.
- (vi) Conduct other activities that will be identified to sustain the operation of TARAS e.g., reproduction of Traffic Accident Report Forms, and TARAS Manuals.

83. Implementation of the RSA system will ensure a higher level of safety for new and existing national roads.

84. The scope of work for the RSA consultants on the RSA system includes:

- (i) Review and revise existing RSA policies and procedures.
- (ii) Developing a sustainable accident prevention program for the national road network.
- (iii) Conducting training for personnel from DPWH, other government agencies and private institutions on the revised procedures of RSA.
- (iv) Developing an accreditation system for personnel who have received RSA training.
- (v) Assisting the DPWH Planning Service in the procurement and supervision of 2 pilot road safety projects using the RSA system.

5. Development and Installation of Project Management Information System (PMIS)

85. The consultants will support strengthening of DPWH's project management capabilities through development and installation of Project Management Information System (PMIS). The PMIS will improve the tracking process of projects including procurement, construction, project hand-over, and post evaluation.

86. The scope of work for the consultants includes:

- (i) Development of an effective project management techniques to facilitate the delivery of projects on time and within budget;
- (ii) Development of an automated project record-keeping application that tracks project performance on a daily basis and links with the payment process;
- (iii) Development and procurement of a project management tool, including project management training which employs application of Project Evaluation and Review Technique, and Critical Path Method; project management documentation; and resource utilization for people, equipment, and funds;
- (iv) Development of a project implementation status monitoring application that will replace the Project Monitoring System and Project Management Office Monitoring System;
- (v) Development and implementation of contract turn-over policies and procedures;
- (vi) Develop a DPWH manual for impact/post evaluation of completed projects, applicable to foreign and locally funded projects;
- (vii) Formulate post evaluation framework, procedure, guidelines and manual for assessment of performance of the DPWH versus the Medium Term Public Investment Program (MTPIP) targets; and,

- (viii) Conduct actual impact/post evaluation of 3 pilot projects, including 1 each in Luzon, Visayas and Mindanao.
- (ix) Create an integrated single database on road sector information to facilitate retrieval and analysis of statistics and public access; and
- (x) Enhance the DPWH website to improve provision of information to the public.

6. Assistance for Environmental and Social Safeguards/Gender Mainstreaming in Infrastructure Development

87. The consultants will help to strengthen DPWH's environmental and social assessment capability and mainstreaming gender issues in DPWH's infrastructure project development. Environmental social assessment will be strengthened through improvement of the infrastructure right-of-way (IROW) management and improvement of environmental management.

88. The scope of work for the consultants for IROW management includes:

- (i) Review and study the results of the Geographical Information System (GIS) applications to 3 pilot districts under National Roads Improvement and Management Program Phase 2 (NRIMP-2) and from lessons learned formulate or update the pilot scheme approach for the remaining 13 districts;
- (ii) Conducting training for DPWH staff on IROW management functional areas; and
- (iii) Evaluating present approach in GIS applications in ROW and make recommendations to DPWH to improve its effectiveness.

89. The scope of work for the consultants for environmental management includes:

- (i) Procure EIA instruments such as air, noise, and water samplers, train the ESSO and its counterparts on the usage of the EIA instruments;
- (ii) To broaden the capacity building on EIA by reaching out to the district engineering offices; and
- (iii) Facilitate training abroad and achievement of membership in the International Association for Impact Assessment of ESSO and counterpart staff.

90. The scope of work for the consultants for Gender Mainstreaming in Infrastructure Development will include:

- (i) Identifying gender issues and concerns in infrastructure development;
- (ii) Developing a comprehensive and sustainable gender-based information system
- (iii) Conducting a social gender analysis;
- (iv) Preparing standard gender-sensitive design parameters for various infrastructure projects
- (v) Undertaking gender-sensitive pilot projects;
- (vi) Formulating gender-responsive policies, strategies and initiatives in infrastructure project formulation and implementation;
- (vii) Establishing gender-related monitoring and evaluation indicators and guidelines;
- (viii) Organizing women's group in the DPWH;
- (ix) Conducting training on trainers to enhance knowledge on gender and development; and
- (x) Preparing a six-year gender action plan for DPWH.

7. Comprehensive Human Resource Development

91. The consultants will support the improvement of human resource management in DPWH through development of a Comprehensive Human Resource Development Plan and Strengthening the Organization Culture.

92. The scope of work for the consultants for Strengthening the Organization Culture includes:

- (i) Analysis of the current and determination of the desired organizational culture for DPWH.
- (ii) Development of a roadmap to achieve the desired culture.
- (iii) Implementation of the roadmap strategy by stages.
- (iv) Implementation of an ongoing monitoring system.
- (v) Assessment of the effects of the Organizational Culture Building Program (OCBP) at the end of the Project.

93. The scope of work for the consultants for the Development of a Comprehensive Human Resource Development Plan (CHRDP) includes:

- (i) Establishment of a new standardized performance appraisal system with associated training; and,
- (ii) Development of an application system that supports this process.
- (iii) Establishment of a new selection and hiring process, including criteria, with associated training;
- (iv) Establishment of a feedback mechanism to encourage employee input, including awareness program on grievance procedures; and,
- (v) Improvement of the current training program, including additional training courses and opportunities for employees and trainers, as well as management training;
- (vi) Enhancement of the employee orientation training that will include ethics, accountability, and transparency.

94. The consultants will also support the development and implementation of an integrated Human Resource application system with associated training. This system will link all HR-related policies, procedures and application systems, including those completed under tranches I and II of Component b.

8. Support to Infrastructure Development and Quality Assurance System

95. This subcomponent will improve the quality of DPWH infrastructure project through Quality Assurance (QA) System and Improvement of Materials Testing Capability and Capacity Development of the Quality Assurance System and the upgrading of the DPWH laboratories nationwide and implementation of a sustainable research program to support infrastructure development.

96. The scope of work for the consultants for the development of the Quality Assurance System will include:

- (i) Adoption of the AASHTO QA program;
- (ii) Development of QA/QC management systems
- (iii) Improvement of the quality focus of the DPWH's existing specifications, training, and other services.

97. The scope of work for the consultants for Improvement of the Materials Testing Capability and Capacity will include the procurement of materials testing and quality assurance equipment to upgrade the DPWH District, Subregional, Regional and BRS laboratories.

98. The scope of work for the consultants for the Sustainable Research Program to Support Infrastructure Development will include:

- (i) Preparation of technical reports, guidelines and specifications which can analyze/quantify factors relevant to produce longer life pavements.
- (ii) Developing a performance monitoring procedure and best monitoring practice.
- (iii) Assessment of the international best practices and advance technology that may be suitable in the Philippine setting.
- (iv) Analyzing the impact of alternative/marginal materials on asphalt/concrete mixes.

VII. SAFEGUARDS

99. The Government will ensure that all the requirements in Schedule 5 of the Loan Agreement and the environmental assessment and review framework has been prepared with respect to the project (and of which ADB has provided full copies and are deemed incorporated herein by reference), are complied with during the processing and implementation of the investment project:

100. The safeguard frameworks cover the facility specific information and requirements in accordance with ADB' Safeguard Policy Statement (2009) (SPS):

101. Prior to the implementation of works, the safeguard framework for environmental assessment, will be reviewed and updated by DPWH to ensure relevance and consistency with applicable laws and regulations in the Philippines and ADB SPS, as amended from time to time. In the event that there is a discrepancy between the laws and regulations of the Philippines and ADB SPS, the ADB SPS will prevail.

102. DPWH will review ongoing projects to check on the status of compliance with the environmental plans and frameworks, and submit the review reports to ADB, together with other required safeguard documents relevant to the project. In any case, if major noncompliance is discovered in the course of the review of ongoing projects, a corrective action plan will be prepared and submitted to ADB.

103. Safeguards assurances for the projects will be incorporated into the loan agreement.

A. Resettlement and Indigenous Peoples

104. The Project will have no resettlement impact as it only involves periodic maintenance of the existing pavement. Surveys of the project roads covered indicate that no indigenous peoples specific actions or plan is required..

B. Environmental Assessment

105. The initial environmental examination (IEE) conducted for the Project has not identified any major environmental concerns given that all the proposed civil works are only asset preservation of existing pavement and are located within the existing right-of-way (ROW). There will only be localized short-term impacts during construction activities due to implementation of civil works that will be addressed through application of subproject-specific environmental mitigation measures and monitoring program. These construction related impacts can be mitigated by (i) the contractors' work practices, especially those related to the storage of construction materials and cleanliness of the work sites; (ii) cooperation by the local authorities with the contractor in terms of traffic management and use of public space and utilities; (iii) the incorporation of the environmental mitigation and monitoring measures in the IEE into the bid documents and specifications; and (iv) project management's strict enforcement and monitoring of the correct construction practices, standards and environmental mitigation measures identified in the IEE. Extent of flooding in roadside villages will be reduced by the improvement of drains. Road safety will be improved by stabilizing unstable sections, installing road safety barriers including proper traffic engineering signs and display boards. An environmental capacity building program for the implementing agencies is proposed under the Project.

106. Environment and Social Sector Office (ESSO) of DPWH is responsible for implementation of social and environmental safeguards of the project. Day to day project management will be undertaken by a PMO (Project Management Office). The Project will provide PMO with the assistance of a construction supervision consultant (CSC) to help ensure the implementation of environmental management practices at each stage of the construction. The PMO will submit the following environmental reporting documentation to the ADB: (i) Baseline monitoring report prior to commencement of civil work, (ii) Environmental Monitoring Reports twice annually during the construction period; and (iii) Project Completion Environmental Monitoring Report after completion of construction, summarizing the overall environmental impacts from the Project.

VIII. GENDER AND SOCIAL DIMENSIONS

107. The design and monitoring framework includes social indicators to facilitate the monitoring of social development activities and social impacts during implementation of the Project. DPWH will be responsible for collecting baseline data on this indicators and monitoring changes during implementation of the Project.

108. With respect to labor issues, DPWH will include specific provision in bidding documents to ensure that civil works contractors comply with applicable core labor standards, do not differentiate payment between men and women for work of equal value, do not employ child labor and maximize employment of local poor and disadvantaged.

109. In relation to the potential risk of HIV/AIDS transmission, DPWH will ensure that appropriate entities, such as non-government organizations (NGOs) disseminate information on the risks to sexually transmitted infections to employees of civil works contractors engaged under the Project and to members of local communities adjacent to roads being improved under the Project.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Design and Monitoring Framework

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Improved accessibility of transport infrastructure and services	Weighted average travel time on project roads maintained at 1.2 hours through December 2018 from 1.6 hours in 2009	DPWH Planning Service	
Outcome DPWH manages the road network in the project area more effectively	Average vehicle operating costs for cars on project roads reduced from weighted average of P12.2/km in 2009 to P10.3/km by December 2015	DPWH Planning Service	Assumption Continued commitment by DPWH to improving governance and strengthening capacity Risks Inadequate maintenance of project roads Departure of trained staff from DPWH Axle loads are not controlled on project roads
Outputs 1. National roads on the west coast of Luzon, in the Visayas, and in Mindanao periodically maintained	Periodic maintenance of 340 km of 9 national roads completed by July 2015 Road roughness index of 3.0 attained on 9 national roads by 2015	Supervision consultants' quarterly progress reports DPWH road status reports	Assumptions TA7434-PHI: Strengthening Transparency and Accountability in the Road Subsector TA implemented successfully ^a Sufficient budget for maintenance of new software systems and equipment
2. Detailed engineering design of selected roads to be maintained or improved under the project and future projects	Detailed design drawings and bills of quantities for periodic road maintenance of 466 km of national highways completed by August 2014 Detailed design drawings and bills of quantities for improvement of 482 km of national highways completed by August 2014	DPWH Planning Service DPWH Planning Service	
3. DPWH operations in the road sector are strengthened	National roads in 2 regions are maintained according to plans generated by the improved road maintenance and management system by December 2015 Electronically generated comprehensive road accident data are published by December 2015 Road safety projects are implemented in 2 districts by December 2015 Road sector statistics are available to the public by December 2015 Infrastructure rights-of-way are managed using geographic	DPWH Bureau of Maintenance DPWH Traffic Accident Recording and Analysis System reports DPWH website DPWH Environment and Social Services	

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
	<p>information systems in 13 additional districts by December 2015</p> <p>DPWH adopts gender action plan by December 2015</p> <p>Data on required expenditures are submitted electronically to DPWH headquarters by the 47 DPWH District Engineering Offices by December 2015</p> <p>10 new training courses based on new comprehensive human resource development plan are conducted by December 2015</p> <p>DPWH road construction projects are monitored according to enhanced quality assurance system by December 2015</p>	<p>Office</p> <p>DPWH Planning Service</p> <p>DPWH Comptrollership and Financial Management Service</p> <p>DPWH Administrative and Manpower Management Service</p> <p>DPWH Bureau of Research and Standards</p>	
<p>4. Project completed on time and within budget</p>	<p>Project completed by December 2015</p> <p>Costs for completed project do not exceed \$130 million</p> <p>No cases of misprocurement declared for project procurement</p>	<p>DPWH and project supervision consultant's benefit monitoring report</p>	
Activities with Milestones			
<p>1. Implementation of civil works</p> <p>1.1 Civil works contracts awarded by September 2012 and completed by July 2015</p> <p>2. Detailed engineering design</p> <p>2.1 Consultant recruited by August 2012 and services completed by September 2015</p> <p>3. Implementation of institutional capacity development program</p> <p>3.1 Consultants for institutionalization of the road maintenance and management system recruited by February 2013 and services completed by July 2015</p> <p>3.2 Consultants for enhancement of the traffic accident recording and analysis system and improvement of the road safety audit system recruited by February 2013 and services completed by January 2014</p> <p>3.3 Consultants for development and installation of a project management information system recruited by August 2012 and services completed by December 2015</p> <p>3.4 Consultants for strengthening DPWH's environmental and social assessment capability and mainstreaming gender in DPWH's infrastructure development recruited by January 2013 and services completed by December 2015</p> <p>3.5 Procurement of communications equipment for linking the DPWH central office and 47 DPWH district engineering offices completed by April 2015</p> <p>3.6 Procurement of computer equipment and software for 47 DPWH district engineering offices completed by April 2015</p> <p>3.7 Consultants for comprehensive human resource development recruited by January 2013 and services completed by December 2015</p> <p>3.8 Consultants for support for infrastructure development and DPWH's quality assurance system recruited by July 2012 and services completed by June 2015</p> <p>4. Project implementation</p> <p>4.1 Project supervision consultants recruited by August 2012 and services completed by September 2015</p> <p>4.2 Project anti-corruption action plan implemented by 30 June 2015</p>		<p>Inputs</p> <ul style="list-style-type: none"> ▪ ADB: \$62 million <ul style="list-style-type: none"> – Civil works: \$19.1 million – ICD: \$18.6 million – Supervision and design: \$13.3 million – Other: \$11.0 million ▪ Government: \$38 million <ul style="list-style-type: none"> – Civil works: \$15.4 million – Taxes: \$16.5 million – Other: \$6.1 million ▪ OFID: \$30 million <ul style="list-style-type: none"> – Civil works: \$29.3 million – Other: \$0.7 million 	

ADB = Asian Development Bank, DPWH = Department of Public Works and Highways, ICD = institutional capacity development, km = kilometer, OFID = OPEC Fund for International Development, P = peso, TA = technical assistance.

^a ADB. 2009. *Technical Assistance to the Republic of the Philippines for Strengthening Transparency and Accountability in the Road Subsector*. Manila (TA 7434-PHI, approved 10 December, \$1 million).

Source: Asian Development Bank.

B. Monitoring

110. **Project performance monitoring.** A set of indicators for evaluating project performance in relation to its impacts, outcomes, outputs, and conditions will be agreed to by DPWH and ADB before commencement of civil works. The baseline data will be collected within 6 months of the date of loan effectiveness, including among others (i) economic development and socioeconomic indicators, (ii) transport costs and times, (iii) transport charges, (iv) accident rates, (v) traffic levels, (vi) affected persons' incomes, (vii) access to social services, (viii) jobs created in construction and maintenance, and (ix) incidence of sexually transmitted diseases. At the beginning of project implementation, DPWH will establish baseline and target values for the indicators. The indicators will be measured and compared with the baseline at project inception, completion, and after 3 years. Where relevant, indicators will be disaggregated by gender and ethnicity. The project supervision consultant services will include qualified consultants to help establish the monitoring and evaluation system, and train DPWH staff in its use. The main sources of data will include (i) secondary data from government sources, (ii) a household socioeconomic sample survey, and (iii) participatory rapid appraisal. DPWH will submit a report summarizing the key findings of monitoring at inception, completion, and 3 years after physical completion of the Project to ADB.

C. Evaluation

111. DPWH will report the progress of Project implementation by submitting quarterly progress reports to ADB. The form and content of the progress reports will be agreed with ADB during the Project inception mission. DPWH will monitor Project implementation in accordance with the Project implementation schedule, and will keep ADB and the cofinanciers informed of any significant deviations from the schedule. The quarterly reports will include summary information on basic data, utilization of funds, achievement of immediate development objectives, compliance with covenants, implementation progress, progress with respect to safeguards and social dimensions, and major issues and problems.

112. In addition to annual regular reviews by ADB, the Government, and ADB will jointly undertake a midterm review of the Project in mid-2013 to assess (i) implementation status, (ii) design and construction standards, (iii) performance of consultants and contractors, (iv) project impacts, (v) status of compliance with the covenants stipulated in the loan agreement, and (vi) the need for any changes in the project scope or schedule to achieve the project impact..

113. Within 6 months of the Project's physical completion, DPWH will submit to ADB a project completion report which will provide a detailed evaluation of the project design, costs, contractors' and consultants' performance, social and economic impact, economic internal rate of return (EIRR), and such other details as may be requested by ADB.

D. Reporting

114. The DPWH will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) updated procurement plan and (d) updated implementation plan for next 12 months; and (iii) a project completion report within 6 months of physical completion of the Project. To ensure projects continue to be both viable and sustainable, project accounts and the executing agency AFSs, together with the associated auditor's report, should be adequately reviewed.

E. Stakeholder Communication Strategy

Project Documents	Means of Communication	Responsible Party	Frequency
Project Administration Memorandum	ADB's website	ADB	After loan negotiations
Social and Environmental Monitoring Reports	ADB's website	ADB	Routinely disclosed, no specific requirements
Major Change in Scope	ADB's website	ADB	Within 2 weeks of approval of the change
Completion Reports	ADB's website	ADB	Within 2 weeks of Board or Management approval
Evaluation Reports	ADB's website	ADB	Routinely disclosed, no specific requirements
Performance of the investment project with clearly defined information requirements and indicators, policy on road construction and reconstruction, 5-year investment plan, business opportunities, bidding process and guidelines, results of bidding process, and summary progress reports of the ongoing projects.	DPWH	DPWH	Per project progress, no longer than monthly

X. ANTICORRUPTION POLICY

115. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the Project.⁹ All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all Project contractors, suppliers, consultants and other service providers. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the Project.¹⁰

116. To support these efforts, relevant provisions are included in the loan agreement and the bidding documents for works, services and goods to be procured under the Project.

117. The governance risk assessment, which was carried out as part of project preparation, identified the following as key corruption risks.

Table 7: Summary of Corruption Risks in the Road Sector

Road Sector Risk	Risk Description
a) Corruption	
Fragmented oversight arrangements for audit, financial management, and procurement.	More than one agency (DBM, DOF, COA) is responsible for overseeing the different components of the public financial management system resulting in weak and inconsistent oversight arrangements.
Strong public perception of the DPWH as a corrupt agency.	Perception of DPWH as a highly corrupt agency results in a reputational risk for ADB.
Vulnerability of road sector to vested interests.	The sector is highly vulnerable to vested interests through manipulation of investment choices as well as personnel decisions (such as hiring, selection and movement of personnel) by political influence by politicians and officials. Employees are not insulated from politics and are affected by changes in administration. Even the appointment of the District Engineer needs the recommendation of a politician.
b) Public expenditure and financial management	
Budget capture: Transparency and accountability in the sources and utilization of appropriations by Congress and allotment releases from DBM to DPWH.	<ul style="list-style-type: none"> • DPWH budget and project selection is vulnerable to vested interests. Large Priority Development Assistance Fund ('pork barrel'), the allocation, release and utilization of which is outside of the control of DPWH, impacts on internal control and accountability. • DBM allotments to field offices and special assignments which are not with the DPWH Budget Office make expenditure tracking difficult.
Weaknesses in internal control	<ul style="list-style-type: none"> • Weak cash management such as un-reconciled bank balances, unrecorded transactions, double recording of disbursements and improper write off of account balance. • Weaknesses in management of cash advances, receivables due from national government agencies or inter-agency receivables, sub allotments to regions and agencies, inventory, property and equipment, accounts payable and expenditures. • The summation of all accounting transactions (general ledger) has sizable

⁹ Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

¹⁰ ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>

	inaccurate balances with the supporting subsidiary ledgers.
c) Procurement	
Collusion	Bidders are manipulated by an 'arranger' under the direction of a patron, who for large bids is typically a senior politician or elite, and who for regional or district level bids is typically a local politician.
Bid-rigging	<ul style="list-style-type: none"> • Bid prices are established by the arranger, with a sufficient margin above the cost estimate to pay kickbacks to the patrons, cartel participants and some officials. The margin is often high (up to 36%), but can be reduced with increase controls. The Patron often requires payment at the time of award recommendation. Other payments are usually made from the advance payment. • Bid prices, even if lower than the ABC can be inflated and may not be cost-effective. Quantities of some items are bloated based on faulty surveys and designs, production rates of equipment and labor are understated, material losses are high, unit prices exceed market levels, mark-ups are too liberal, profit margins allowed are high etc. This is possible because price data are submitted by the end users, who are also tasked to establish the ABC.
Bid process	<ul style="list-style-type: none"> • Interference with bid submission, substitution of documents, adding of bids after the bid submission deadline, accommodation of postponement of submission of bids, or mis-reading of bid prices. • In cases of manual screening, bidders may not be informed about their eligibility giving favored contractors lead time over the other contractors. • Some contractors declared to be eligible to purchase bidding documents instead offer themselves to be bought out by the serious contractors.
Contract processing	Bribes to facilitate processing of contract awards and subsequent payments. The approval process has multiple layers and extended delays occur in key offices, i.e. legal services, construction, executive, Project Monitoring Unit.
Contract variations	The size of some variations is inflated through estimates of quantities for pay items which are difficult to confirm or audit, such as repairs, excavation, landslide removal, etc. Usually results from collusion of contractor with officials, but may involve collusion of supervising consultant also.

ABC = Approved Budget for the Contract, DBM = Department of Budget and Management, DOF = Department of Finance, COA = Commission on Audit, DPWH = Department of Public Works and Highways.

Sources: Staff governance risk assessment based on other sources such as National Roads Improvement and Management Program Phase 2 appraisal document and other road sector governance analyses and assessments.

A. Expenditure Planning, Resource Allocation, Reporting, and Auditing

118. The Department of Public Works and Highways (DPWH) will upload information in January of each fiscal year on all funds allocated to DPWH on the DPWH website including the General Appropriations Act (GAA) allocation, the Road Users' Tax, the Priority Development Assistance Fund (PDAF) and Official Development Assistance including a breakdown by district, where possible.

119. DPWH will submit a report on the utilization of the DPWH allocation on an annual basis, including a breakdown of spending by districts, within 6 months of the end of the fiscal year.

120. DPWH and the Department of Budget and Management (DBM) will facilitate all activities of civil society organizations (CSOs) aimed at conducting a comprehensive analysis of financing sources allocated to DPWH. DBM and DPWH will provide learning opportunities to CSOs and DPWH Internal Audit Staff on a regular basis to strengthen their understanding of financing of road sector investments and maintenance.

121. DPWH will recommend an internal policy on the use of the PDAF and Road User's Tax which ensures that financing sources available for the road sector will be used for their intended purposes.

B. Increased Accountability to Oversight Agencies

122. DPWH will undertake best effort to sign an inter-agency agreement on improvement of supervision of anticorruption mechanisms and compliance with rules and regulations of the oversight bodies with the Commission on Audit (COA), DBM, and Office of the Ombudsman (OMB). The agreement will include, among others, the conduct of participatory audit, Integrity Development Review, and corresponding training.

123. DPWH will comply with the required submission of contract documents to COA, and a COA representative will execute the corresponding audit review within the required time as mandated under COA Circular No. 2009-001 of 11 February 2009. A copy of the results of the auditor's review will be given to ADB.

124. DPWH will implement the recommendations included in the Annual Audit Report within one year of the issuance of the report and will take measures to improve any adverse opinions contained in the audit. COA representative will provide ADB a list of the status of implementation of prior years' recommendations.

C. Contract Award and Implementation

125. DPWH will ensure the active participation of a procurement advisor in the conduct of bidding and setting of the Approved Budget for the Contract (ABC). DPWH will provide the procurement advisor access to all relevant bid documents and related data for the setting of the ABC.

126. DPWH will publish the results of selection and awards in its website and that of the Philippine Government Electronic Procurement System (Phil-GEPS).

127. DPWH will facilitate the conduct of a participatory audit which will include:

- (i) Review of contract documents including analysis of bids
- (ii) Inspection prior to payment
- (iii) Review of claims of contractors
- (iv) Inspection and punch listing prior to turnover and acceptance of the project

128. DPWH will (i) facilitate the conduct of training on identifying collusion and irregularities in bid evaluation; and (ii) organize a joint training for COA auditors and other participants in the participatory audit on the conduct of physical inspection and evaluation of status of work accomplished.

129. DPWH will prepare a profile of past auditing cases to the extent possible to identify specific issues on rigged and collusive bidding for the participants in the participatory audit. The profile will be based on past and present Audit Reports and evaluations and reviews carried out by development partners, e.g., the World Bank, and will be an input in the training on bid evaluation.

130. DPWH will acquire and make operational equipment for non-destructive investigation of the soundness of concrete structures, in the event it is necessary.

D. Corruption Assessment

131. The Government will conduct an expanded Corruption Vulnerability Assessment of DPWH to review implementation of the Integrity Development Action Plan prepared in 2005 and to assess whether new areas of vulnerabilities have developed since 2005.

XI. ACCOUNTABILITY MECHANISM

132. People who are, or may in the future be, adversely affected by the project may address complaints to ADB, or request the review of ADB's compliance under the Accountability Mechanism.¹¹

¹¹ For further information see: <http://compliance.adb.org/>.

XII. RECORD OF PAM CHANGES

133. All revisions/updates during course of implementation should be retained/recorded in this Section to provide a chronological history of changes to be implemented arrangements.