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**Operational Risk Assessment (ORA) for Local Government
Engineering Department (LGED) in Bangladesh
Final Report, Volume 1**

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CURRENCY EQUIVALENTS
(Exchange Rate Effective as of October, 2009)

Currency Unit = Bangladeshi Takas (Tk)
USD \$1.00 = Tk 69.200
1 crore = 10 million Tk
1 lakh = 100,000 Tk

Acronyms

AASHTO	American Association of State Highway and Transportation Officials	NCB	National Competitive Bidding
ACC	Anti-Corruption Commission	NGO	Non Governmental Organization
ACE	Additional Chief Engineer	NIMC	National Institute of Mass Communication
ACR	Annual Confidential Report	NRP	National Resettlement Policy
ADB	Asian Development Bank	OP	Operational Policy
ADP	Annual Development Program	ORA	Operational Risk Assessment
AE	Assistant Engineer	PD	Project Director
AEE	Assistant Executive Engineer	PEFA	Public Expenditure and Financial Accountability
ASTM	American Society for Testing and Materials		
BBA	Bangladesh Bridge Authority		
BoQ	Bill of Quantities	PHED	Public Health Engineering Department
BSS	Bangladesh Sangbad Sangstha (National News Agency of Bangladesh)		
BWDB	Bangladesh Water Development Board		
CE	Chief Engineer	PIB	Press Institute of Bangladesh
C&AG	Comptroller and Auditor General	PIC	Project Implementation Committee
CGAD	Controller General of Accounts Department	PMS	Progress Monitoring System
CMS	Central Monitoring System	PMU	Procurement Monitoring Unit
CPAR	Country Procurement Assessment Report		
CPTU	Central Procurement Technical Unit	PPR	Public Procurement Regulation
CUL	Compensation Under Law	PRMF	Procurement Risk Mitigation Framework
DBST	Double Bituminous Surface Treatment		
DC	Deputy Commissioner	PROMIS	Procurement Management Information System
DFID	U.K. Department For International Development	PSC	Public Service Commission
		PWD	Public Works Department
		QC	Quality Control
DFP	Department of Films and Publications		
DPHE	Department of Public Health Engineering		
DSM	Design, Supervision and Monitoring	RAP	Resettlement Action Plan
FORMIP	Fiduciary and Operational Risk Management Improvement Plan	RHD	Roads and Highways Department
		RIMMU	Rural Infrastructure Maintenance Management Unit
GCM	Growth Center Markets		
GIS	Geographical Information System	RPM	Regional Procurement Manager
GoB	Government Of Bangladesh	RRSU	Regional Road Safety Unit
HDM	Highway Development Model	RRMIMP	Rural Roads and Markets Improvement and Maintenance Project
HQ	Head Quarters		
HR	Human Resources		
IBAS	Integrated Budgeting And Accounting System	RTIP	Rural Transport Improvement Project

IAS	International Accounting Standards		
ICB	International Competitive Bidding	SAE	Sub Assistant Engineer
ICT	Information And Communication Technology	SBST	Single Bituminous Surface Treatment
IDSS	Information Decision Support System	SE	Superintending Engineer
IMED	Implementation Monitoring and Evaluation Division	SEPA	Sistema de Ejecución de Planes de Adquisiciones
		SBD	Standard Bidding Document
IPR	Independent Procurement Review	SSR	Standard Schedule of Rates
ISAP	Institutional Strengthening Assessment Program	SUR	Structures in Rural Roads
		Tk	Taka
ISO	Industrial Standards Organization	TNA	Training Needs Assessment
JV	Joint Verification	TPS	Transactions Processing System
LAN	Local Area Network	TSA	Transport Safety Assessment
LG	Local Government	UE	<i>Upazila</i> Engineer
LGD	Local Government Division, Ministry Of Local Government, Rural Development And Cooperatives	UNO	<i>Upazila Nirbhai</i> Officer (Admin Head)
		UP	Union <i>Parishad</i> (Council)
LGEB	Local Government Engineering Bureau	UPO	<i>Upazila</i> Office
LGED	Local Government Engineering Department	UPC	Union <i>Parishad</i> Complex
		UPS	Uninterruptible power supply
		UZR	Improvement of <i>Upazila</i> Roads
M&E	Monitoring and Evaluation	WB	World Bank
MANCAPS	Management Capability Strengthening Project	WPW	Works Program Wing
		XEN	Executive Engineer
MoE	Ministry of Establishment		
MoF	Ministry of Finance		
MIS	Management Information System		
MLGRD&C	Ministry of Local Government Division, Rural Development and Cooperatives		
MS	Microsoft		
MSP	Municipal Support Project		

TABLE OF CONTENTS

Acronyms	i
1 INTRODUCTION.....	4
2 FORMIP: RISKS THAT LGED CAN ADDRESS ON ITS OWN.....	6
2.1 <i>Internal Organization.....</i>	7
a. Background	7
b. Mandate.....	7
c. Structure and Functions.....	7
d. Inter-Agency Relations.....	9
2.2 <i>Risks and risk mitigation measures for Internal Organization</i>	9
a. Organizational Structure.....	9
b. Powers and Authority	10
c. Training and Development	12
d. Work Culture and Performance.....	14
2.3 <i>Information and Communication Technology (ICT).....</i>	16
a. Background	16
b. ICT Infrastructure.....	17
c. Human Resources for ICT.....	17
d. 'Decision-support' and Management Information Systems (MIS)	17
e. Records management	18
f. Geographical Information Systems (GIS)	19
g. ICT Training.....	19
h. Overview	20
2.4 <i>Risks and risk mitigation measures for ICT.....</i>	21
a. Fragmented view caused by disjointed systems	21
b. Limited use of ICT for core functions	23
c. Limited use of GIS	23
d. Technological obsolescence	23
e. Data theft or tampering of data.....	24
2.5 <i>Engineering systems and work practices</i>	25
a. Background	25
2.6 <i>Risks and risk mitigation measures for engineering systems and work practices.....</i>	25
a. Detailed Engineering Design.....	25
b. Schedule of rates and cost estimates.....	26
c. Maintenance and Asset Management	27
d. Monitoring, technical audit and Quality Control of physical works / infrastructure.....	28
e. Road Safety	30
2.7 <i>Financial Management</i>	32
a. Budgeting Procedures.....	32
b. LGED Financial Management and Accounting Staff and Oversight	32
c. Accounting Systems	33
d. Reporting Systems and Procedures	34
e. Audits – Financial and Internal	35
f. Disbursements	35
2.8 <i>Risks and risk mitigation measures for financial management.....</i>	36
a. Internal Audit	37
b. Cash management.....	38
c. Contract and fixed assets registers.....	38
2.9 <i>Procurement.....</i>	40
a. Background	40
2.10 <i>Risks and Risk Mitigation Measures for procurement.....</i>	41
a. Collusion of contractors	41
b. Advertisement of procurement activities.....	42
c. Bid Preparation.....	42
d. Monitoring of Contracts' performance	43
e. Adjudicator.....	43

f.	Anticorruption	44
g.	Qualification of contractors	45
h.	Procurement Risk Mitigation Framework (PRMF)	45
i.	Procurement information	46
j.	Advisory Panel on Procurement or Fiduciary Advisory Panel	47
3	FORMIP: RISKS THAT LGED CAN ADDRESS WITH SUPPORT FROM KEY PARTNERS	49
3.1	<i>Internal Organization</i>	49
a.	Mission and Vision.....	49
b.	Staffing Pattern and Skill Mix	50
c.	Age Profile	52
d.	Vacancies	53
3.2	<i>Information and Communication Technology</i>	54
a.	Lack of permanent in-house ICT skills and capacity	54
b.	Limited usage of ICT for improving transparency	55
3.3	<i>Financial Management</i>	55
a.	Accounting Staff-HQ	56
b.	Accounting staff-Districts	56
c.	Financial Information System	57
3.4	<i>Procurement</i>	58
a.	Bidding documents	58
b.	Multiple dropping of bids	59
c.	The case of the performance security in the smaller contracts	59
d.	Use of Schedule of Rates under contracts below US\$150,000.....	60
e.	Prior and post review of contracts	61
f.	Handling of Complaints	63
3.5	<i>Land Use & Resettlement</i>	65
4	STRATEGY FOR COMMUNICATION AND CIVIL SOCIETY PARTICIPATION	70
4.1	<i>Civil Society Participation</i>	71
4.2	<i>Strategic Communication Intervention</i>	72
4.3	<i>Communication Capacity Building</i>	73
5	CONCLUSIONS AND NEXT STEPS	74
	Annex 1: MIS systems currently in use in LGED.....	75
	Annex 2: Local Government in Bangladesh	81
	<i>Review of LGED in the current context of decentralization</i>	81
	<i>Structure and Functions of Local Government</i>	83
	Annex 3: Communication Based Assessment (CBA) & Strategy for Communication and Civil Society Engagement	85
	<i>Communication Capacity of LGED</i>	86
	<i>Overview of Media and Communication Environment</i>	87
	<i>Stakeholder Analysis and Mapping</i>	89
	<i>Strategy for Civil Society Participation</i>	96
	<i>Outline of Strategic Communication Intervention</i>	105
	<i>Communication Capacity Building of LGED</i>	114
	<i>Communication measures in Operational Risk Mitigation</i>	119
	Annex 4: Scope of Work: Operational Risk Assessment of LGED.....	129
	<i>Background</i>	129
	<i>Operational Risk Assessment</i>	129
	<i>Timing and Reporting</i>	130
	Selected References	132

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Executive Summary

1. The Local Government Division, Ministry of Local Government, Rural Development and Cooperatives (LGD) agreed, as part of the identification of a follow-up project to the on-going Rural Transport Improvement Program (RTIP), to launch an Operational Risk Assessment (ORA) of the Local Government Engineering Department (LGED). The ORA draws on and adapts previous work to develop methodologies to assess and suggest mitigation measures for fiduciary risks, as well as inherent risks linked with road and infrastructure construction and maintenance, administrative control risks, and risks associated with political influence.
2. The ORA team, in consultation with LGED Senior Staff, has produced two interim reports. The first of these, the ORA Inception Report, had the objective of reaching a common factual understanding of LGED's organizational setup for effective policy oversight and vigilance in carrying out its fiduciary and operational responsibilities, and of work practices and processes that seem to present fiduciary and operational risks as well as of mechanisms already in place to mitigate these risks.
3. The second report, the Fiduciary and Operational Risk Management Improvement Plan (FORMIP) built on the first report to: (i) assess fiduciary and operational risks in LGED's management of projects, assets and other resources, and in LGD's oversight function, that are likely to be major factors in possible funds leakages, delays and undue interferences and overall inefficient use of public resources; (ii) prioritize options which are realistic and available to effectively minimize (and where possible, eliminate) the major operational risks identified; and (iii) identify options for mechanisms which (drawing on this ORA as a 'baseline') will facilitate efficient future monitoring of operational risks in LGED and the LGD.
4. An important conclusion of the ORA is that most of the recommended actions are within LGED's authority to take, with support from development partners and routine budgetary spending and staffing authorizations from other agencies. However, the action plan proposed in the report will be greatly enhanced if supported by further development of the Government's, Bank's and development partners' programs to improve governance and reduce overall operational risk in Bangladesh. Individual sub-sector reports such as this ORA can only have a limited impact in the absence of wider and widely supported programs.
5. This ORA confirms LGED's excellent reputation for professionalism, including quality delivery of many contracts on time and on budget. Yet the team also finds many areas where this reputation is being challenged by allegations of roadworks that failed testing, poor finishing on schools, and delayed compensation and payments to landowners. These shortcomings indicate a gap between LGED's advocacy of project management tools, systems and process frameworks at the HQ level, and its weaknesses in contract management, reporting back from field to HQ, and a lack of benchmarking to improve results. Key weaknesses of risk mitigation and control systems include financial management (e.g. weak checks and balances, weak cash control, and lack of skilled staff), land use and resettlement (e.g. weak ordinance, delays in land acquisition, and attempts at making financial gains by acquisition officials), procurement (e.g. lack of procurement supervision system), and engineering contract management systems (e.g. inadequate price escalation clauses in contracts; inadequate practices of cost estimation

variation/revisions, and supervision by field staff and consultants for contract packages, and for effective utilization of annual maintenance budget). Although information and communication systems are relatively advanced in LGED compared to other government departments, the use of many different, non-integrated systems with inadequate supervision by core staff makes it difficult for LGED to gather critical information needed to compare the results of the various projects, and complicates the reporting and control procedures within LGED (e.g. benchmarking, and detecting patterns indicating possible collusion on bids).

6. Given the number of control systems judged to be weak, there has been careful prioritization of reforms, and extensive work done in identifying the prerequisites to make the reforms implementable. As part of this exercise, the ORA Team has prepared a strategy on communications and participation of civil society. Success of development work is dependent upon support from those benefiting from it. In order to mitigate operational risk that often accompanies any development work, the goal of this communication strategy is to build understanding, consensus and commitment among all stakeholders in both the public and private sectors in Bangladesh to address governance issues in provision of rural infrastructure and design and implement the FORMIP.

7. Finally, an ORA Implementation Plan, produced as a separate document but still an integral part of this final report, was prepared jointly by LGED and the ORA team. This Plan is an expansion of the FORMIP with milestones to monitor implementation of risk mitigation measures, deadlines and resources required. The Implementation Plan will be presented and discussed at the ORA Dissemination Workshop tentatively planned for October, 2009, with participants from Government, civil society, and international partner organizations. Following approval by the Local Government Division, Ministry Of Local Government, Rural Development and Cooperatives, LGED will begin implementing the risk mitigating measures according to the schedule provided.

Operational Risk Assessment of Local Government Engineering Department

MAIN REPORT

1 INTRODUCTION

1. Over the last two decades various development partners have entered and continue to enter into long term rural infrastructure programs with the Local Government Engineering Department (LGED) under the Local Government Division (LGD), Ministry of Local Government, Rural Development and Cooperatives (MLGRD&C). LGED receives an annual budget of more than US\$ 700 million each year with about 62 percent from the Government of Bangladesh (GOB) and the remaining 38 percent from development partners. This represents on average 40 percent of the Government Annual Development Program (ADP) for transport.

2. LGED has the reputation as an “island of excellence” in the GOB, with high standards of professionalism, and comparatively robust risk management systems. This reputation stems in part from LGED’s willingness to undergo periodic organizational reviews (e.g. Cole and Palin, 1985; Bangladesh Government, 1989; ISO et al, 1998; Wilbur Smith, 2007), and to implement the recommendations of each review. For example, as recommended by ADB's (2002, p. 16-7) MANCAPS study, LGED got approval for a second Additional Chief Engineer (ACE) position, and six new positions of Superintending Engineers (SEs) at the regional level. A training unit was set up, and new positions of Executive Engineer (XEN), Training, created to perform the tasks of district training officers. A Rural Infrastructure Maintenance Cell was set up, and an institutional and financial action plan on maintenance was prepared. During preparation of the Rural Transport Improvement Project (RTIP) financed by the World Bank, an Institutional Strengthening Action Plan (ISAP) was agreed and subsequently implemented with support from the project. The plan addressed operational risks in procurement, financial management, resettlement, road safety, and planning of investment.

3. However, recent supervision missions of the RTIP (2007c, 2007d, 2007e, 2006a) have identified fiduciary issues still needing attention. Some of these issues are being addressed through the roll out of the Public Procurement Rules of 2008 (PPR), extensive staff training, expanded Management Information System (MIS) and Geographical Information System (GIS), cancellation of some contracts, giving progress targets and deadlines to other contractors, and the plan to expedite land acquisition and mitigate financial abuse risks in development partner-funded projects. However, more work is needed to ensure that LGED maintains high standards of professionalism in managing the resources and responsibilities entrusted to it by the GoB and development partner agencies.

4. To help LGED carry out the additional work needed to ensure that LGED maintains these high standards, the LGD agreed, as part of the identification of a follow-up project to the on-going RTIP, to launch an Operational Risk Assessment (ORA) of LGED (For Terms of Reference, see Annex 4). The ORA draws on and adapts previous work (e.g. World Bank, 2007h, Paterson and Chaudhuri, 2007, Cavill and Sohail, undated) to develop methodologies to

assess and suggest measures to mitigate fiduciary risks, as well as inherent risks linked with road and infrastructure construction and maintenance, administrative control risks, and risks associated with political influence. It is also consistent with subsequent guidance such as Castalia, 2009. The ORA started with an April/May, 2008 mission, followed by subsequent missions in June, October/November, and March, 2009. It was a participatory exercise involving stakeholders from the public and private sectors and civil society. The ORA was financed mainly by DFID funds managed by the World Bank complemented by additional funds provided by the World Bank. It is one of many initiatives being carried out by the Bank worldwide to reduce controls' deficiencies to minimize fraud and corruption in IDA operations and borrowers' country systems (cf. World Bank, 2009: Volume 2, Annex D).

5. The ORA team, in consultation with LGED senior staff, has produced two interim reports. The first of these, the ORA Inception Report, had the objective of reaching a common factual understanding of LGED's organizational setup for effective policy oversight and vigilance in carrying out its fiduciary and operational responsibilities, and of work practices and processes that seem to present fiduciary and operational risks as well as of mechanisms already in place to mitigate these risks. This report also assessed the political environment in Bangladesh, presented here as Volume 2, Annex 1. The facts presented in this report were drawn from consultations during the first two visits by the ORA team to Bangladesh, a June 22 workshop (World Bank, 2008) and an extensive review of documentation. The accuracy/reliability/confidence in the team's assessment was further sharpened by LGED's detailed comments of September 3 on the Inception Report.

6. The second report, the Fiduciary and Operational Risk Management Improvement Plan (FORMIP) built on the first report to: (i) assess fiduciary and operational risks in LGED's management of projects, assets and other resources, and in the Local Government Division, Ministry of Local Government, Rural Development and Cooperatives' oversight function, that are likely to be major factors in possible funds leakages, delays and undue interferences and overall inefficient use of public resources; (ii) prioritize options which are realistic and available to effectively minimize (and where possible, eliminate) the major operational risks identified; and (iii) identify options for mechanisms which (drawing on this ORA as a 'baseline') will facilitate efficient future monitoring of operational risks in LGED and the Local Government Division of the MLGRD&C. This report benefited from consultations with LGED staff during November 4-11, 2008, a World Bank peer review meeting on November 11, 2008, and LGED's detailed comments of December 17, 2008.

7. For the purposes of the FORMIP, LGED was understood to have a fiduciary duty to the government and people of Bangladesh for funds and powers entrusted to it for rural infrastructure development. This means, *inter alia*, that LGED officials should not put their personal interests before this duty, nor should they personally profit from it except according to laws and regulations. Operational risks are issues arising from institutional features (e.g. policy and planning systems) and work practices (e.g. quality standards for bridges) that could potentially lead to inefficiencies because of weaknesses in design, implementation, oversight, or excessive discretion. Fiduciary risks are issues that could open up possibilities of a violation of LGED's fiduciary duty. This report did not make any judgment on whether the identified fiduciary risks have led to actual instances of corruption; this would require forensic work beyond the resources and the scope of the ORA, and is the job of appropriate government

authorities and development partners. The FORMIP intended only to point out the most important risks, the possible or likely consequences, and the recommended actions for LGED to consider for mitigating these risks.

8. The FORMIP identified and categorized three different types of risks, and corresponding risk mitigating measures. The first type includes risks that LGED can immediately take action to address mainly on its own. The second type includes risks that LGED needs to address in partnership with one or more other organizations. Although initial work on these can begin right away, successful implementation is expected to take longer than the first type. The third type includes risks that stem from the external environment in which LGED operates, and risk mitigating measures that go beyond LGED's control and influence. These are more complex than the first two types, and may take significantly more time to address.

9. The present final report consolidates the background information and the initial assessment provided in the inception report, with a revised FORMIP updated with comments received from LGED. The following two sections present type 1 and type 2 risks and recommended actions with a summary in a table at the end of each chapter. The background information is provided in the chapter on the first type of risk. Volume 2 presents type 3 risks and recommended actions.

10. In addition to the FORMIP, this Final Report includes the ORA Team's recommended Strategy on Communications and Participation of Civil Society. Success of development work is dependent upon support from those benefiting from it. The goal of this communication strategy is to help mitigate operational risks that often accompany any development work, by building understanding, consensus and commitment among all stakeholders in both the public and private sectors in Bangladesh to address governance issues in provision of rural infrastructure and to design and implement the FORMIP. All the findings, interpretations, and conclusions expressed in the ORA Final Report are those of the authors¹ and do not necessarily reflect those of LGED, the World Bank, its Executive Directors or the governments they represent.

11. Finally, a separate, ORA Implementation Plan was prepared jointly by LGED and the ORA team. This Plan will be presented and discussed at the ORA Dissemination Workshop tentatively planned for October, 2009, with participants from Government, civil society, and international partner organizations. Following approval by the MLGRD&C, LGED will begin implementing the risk mitigating measures according to the schedule provided in the plan.

2 FORMIP: RISKS THAT LGED CAN ADDRESS ON ITS OWN

12. This section examines type 1 risks that LGED can take action to address mainly on its own. In other words, it has the authority to take the necessary actions, with support from development partners and routine budgetary spending and staffing authorizations from other

¹ Clay Wescott (Team Leader), Jaswant Channe (Rural Infrastructure Specialist), Richard Slater (Institutional Development Specialist), Salim Rashid (International Political Economist), Abul Hossain (Local Political Economist), Sanjay Saxena (Management Information System Specialist), Efraim Jimenez (Procurement Specialist), Lance Morrell (Financial Management Specialist), T.K. Barua (Resettlement Specialist), Prof. Shameen Reza and Masud Mozammel (Communications and Civil Society) and Tanveer Hussein (Advisor). Jean-Noel Guillossou, Sr. Transport Economist, Sustainable Development, Transport Unit was the sole Task Team Leader of the ORA.

agencies. Although taking these actions on their own will have immediate benefits, they will have the greatest impact when taken in combination with type 2 and 3 actions, as discussed in Section 3 and Volume 2.

2.1 Internal Organization

a. Background

13. The organizational form and character of LGED is a product of its recent evolution from a rural works component of the integrated rural development program of the early 1960s to its formalization and rapid growth as a public sector department over the next 35 years. Subsequent to its establishment as a Rural Works Cell in the Local Government Ministry in the 1970s it grew into a Works Program Wing (WPW) with its own budget and a staff of 500 in 2 operating units covering rural works and urban works. Following the decentralization policy of 1982, the organization was upgraded to the Local Government Engineering Bureau (LGEB) in 1984 with a substantial increase in staff deployed at Upazila level. LGED was granted the formal status of a Department in the LGD in 1992 with a staff of around 9,500.

b. Mandate

14. LGED is the primary agency in Bangladesh for planning, implementing, maintaining and monitoring rural roads and rural infrastructure. Its mandate has derived from 3 of the 4 original functions under the Comilla rural development model which included the provision of rural infrastructure, irrigation, training and urban development activities (Raper, 1970). LGED's mandate also derives from the *Strategy for Rural Development Projects*, prepared by the Planning Commission (1984). The Strategy articulated three priority areas (including rural infrastructure provision) which resulted in the establishment of a rural engineering organization to address these priorities. This organization over time evolved into LGED. While the main focus of LGED centers upon its core functions in rural roads construction and maintenance, accounting for 70% of its annual budget allocation (2006-07), there has been a substantial increase in other areas such as primary school construction and urban infrastructure provision which now account for 18% and 7% respectively of its annual budgetary allocation. LGED is currently responsible for 22.3% of the Government's total ADP outlay amounting to Tk 44.6 billion in 2006-07.

c. Structure and Functions

15. The main functions of LGED comprise planning, design, implementation, maintenance, quality control, monitoring, inspection and training for the following sectors:

- Rural roads, bridges/culverts, landing stages/ jetties, growth centers/ markets, Union Parishad Complexes (UPCs), cyclone/ flood shelters, primary schools, tree plantation and other rural facilities.
- Urban roads and footpaths, storm water drains, tube wells and latrines, solid waste management, slum upgrading, markets, bus/truck terminals.
- Small scale water resource schemes up to 1,000 hectares including construction and re-excavation of embankments, sluice gates, buried pipes, rubber dams and canals.

- In recent years LGED has been entrusted with the implementation of infrastructure development in other sectors such as agriculture and fisheries.

16. In addition to planning and implementing its own programs and activities LGED also supports the implementation of infrastructure planned and funded by local governments (See Annex 3). In this role LGED provides technical support for design, estimation and implementation while the decision (based on the road master plan in case of a road) to build/improve/maintain a rural infrastructure, and oversight of the work, remains the responsibility of the local government. In order to support and sustain these activities LGED provides coordination and training and capacity development for:

- local government bodies including UP and Pourashava chairpersons and ward members, and
- staff in planning and budgeting, implementation and maintenance of infrastructure, and management, revenue improvement and accounting.

17. Strengthening community based planning, implementation and monitoring of village roads, paths, culverts etc and facilitation of training in agriculture, fisheries, livestock, micro-credit and cooperatives (e.g. water management cooperative societies). The organizational structure of LGED is substantially devolved with 99% of all staff on the revenue budget located at regional, district and upazila levels. The organizational structure at HQ is based on 3 tiers of management divided into 4 wings headed by ACEs, 7 units and 17 sub units. The precise structure of the wings and units is as follows: a) Planning Wing (comprising planning unit, water resources unit); b) Implementation Wing (comprising project monitoring & evaluation unit, administration unit); c) Maintenance Wing (comprising maintenance unit, training and quality control unit); d) Urban Management Wing (comprising urban management unit responsible for planning, implementation and monitoring of roads, paths, drains, water supply, solid waste and slum infrastructure for 308 secondary towns (pourashavas)).

18. The management structure below HQ follows the standard pattern of administrative units in the government. This structure is based on 10 circle offices at regional level (as compared to 6 GoB divisions), 64 district offices and 481 sub district offices at upazila level. Line management responsibilities in LGED have, until recently, been confined to the district, upazila and union levels, as the circle/ regional office has operated purely as a staff function with no direct line control over spending. Interactions between local government institutions and LGED staff are indicated below:

Administrative unit	Local government institution	LGED
Division	City Corporation	SE (Region)
District	Pourashava (District level)	XEN (District)
Upazila	Pourashava (Upazila level and below)	Upazila Engineer (UE)
Union	Union Parishad	Upazila office

Whilst LGED reports to the LGD it has organizational and functional relationships with local government bodies themselves.

19. The organizational structure is headed by the Chief Engineer (CE) and supported by four ACEs responsible for planning, implementation, maintenance and urban management respectively. There are 7 SE positions at HQ and a further 10 at regional level (6 of which have been recently sanctioned by GoB.) The structure below SE level comprises 17 XEN positions at HQ and 64 at district level, 545 AEs and 1,507 SAEs at district and upazila level and 8,000 support staff in other posts, filling a total of about 10,300 sanctioned posts. In addition, LGED has over 50 XENs supervising 5,462 contract staff on 72 projects funded by development partners and the government.

d. Inter-Agency Relations

20. For all operational matters LGED's main inter-agency relations are with the Local Government Division (LGD) of MLGRD&C. The LGD is responsible for sanctioning the creation of staff positions in LGED, approval of projects to be implemented by LGED, approval of tenders between Tk 250-500 million and a variety of other routine administrative matters. LGD is headed by a Secretary, and assisted by an officer of Joint Secretary rank who heads the Monitoring & Evaluation Wing with 12 staff and the Planning Wing with 14 staff.

21. In addition, LGED works with many other GoB units such as the Ministry of Finance (budget), Controller and Auditor General (payments), Ministry of Planning-Central Procurement Technical Unit (CPTU) (procurement), Ministry of Establishment and Public Service Commission (staffing) and Ministries of Education (in relation to construction of primary schools), Health, Land, Forestry and Fisheries (land acquisition and resettlement).

2.2 Risks and risk mitigation measures for Internal Organization

a. Organizational Structure

22. LGED's structure is not optimally arranged in line with all of its functions. LGED currently has a multi-layered structure with 5 tiers of management divided into various sub-divisions and units, representing a mix of staff and line functions at headquarters (HQ) and in the field. Whilst this promotes command and control within the organization, it represents an operational risk of undermining organizational collaboration, flexibility and innovation.

23. For example, whilst the structure provides for Urban Management and Water Resources divisions/units, these would more logically report to Implementation and Maintenance. To address this and other structural anomalies, it is recommended that LGED introduce a matrix structure based upon seven new Divisions instead of the current four, which would comprise five line divisions and two staff divisions. The line divisions would include: Rural Infrastructure Management; Urban Management; Integrated Water Resources Management; Educational Infrastructure Management; and Maintenance. The 2 staff divisions would include Planning and Designing and Administration & Finance. Each of the line divisions with the exception of Maintenance would have only one unit reporting to it, whilst maintenance would have 2 units (Maintenance and Road Safety). Planning & Design Division would have 4 units (Planning, Design, Monitoring and ICT/ GIS) and Administration & Finance would have 6 units (Administration, Finance, Audit, Law, Quality Control and Training). This kind of structure

would provide a means for enhancing organizational coherence and improving role clarity which would strengthen internal efficiency, effectiveness and accountability. The matrix element is evident in the recognition of clear "service oriented" departments with a deeper structure and separate heads providing cross cutting services as opposed to the former structure where staff functions are mixed up within line departments.

b. Powers and Authority

24. The CE, as head of department, has executive authority over all aspects of finance and administration in accordance with GoB regulations. In line with GoB norms, the CE has powers to approve tenders up to a value of Tk 140 million. Any tenders above Tk. 140 million and up to Tk. 500 million have to be approved by the Minister MLGRD&C and anything above Tk 500 million requires Cabinet approval. Within LGED, any tender above the estimated value and all tenders above Tk. 40 million have to be approved by the CE. The SEs at HQ are essentially staff posts as heads of units and are not directly responsible for the line management of XENs at district level. The main powers and responsibilities of unit heads and staff at HQ relates to the preparation of guidelines and procedures, oversight of work processes, collation of reports and dissemination of information. Project Directors (PDs) of development partner-funded projects, however, have recently had their approval authority increased up to the value of Tk 100 million. While the CE recently delegated responsibilities for administration and finance to the Assistant ACEs, procurement responsibility above Tk. 100 million remains with the CE.

25. The SEs at regional level are responsible for oversight of all LGED operations and management of district and sub district operations, along with inspection, trouble shooting and convening monthly coordination meetings. Since the SE region post has, until recently, been a temporary arrangement funded under a GoB project head, there have been no financial or administrative powers vested in the post other than as a drawing and disbursing officer with authority to authorize payment of staff salaries and other minor expenditures. Once LGED receives formal notice of the approval of the SE region post it will be possible to delegate financial and administrative powers to this level.

26. The XEN at district level is responsible for all LGED activities in the district. This includes planning, design estimation, procurement, implementation, financial management and administration. Interestingly, LGED has delegated to XENs at district level authority of tender approvals up to Tk 40 million, provided these are within the estimated scheme cost. The XEN is also the drawing and disbursing officer for salary payments of all Class 3 and 4 staff, and other minor expenditures under Tk 50,000 including travel, daily allowance and office consumables. The XEN has administrative authority over the transfer of all Class 3 and 4 staff within the district and can recommend the transfer of Class 1 and 2 staff. The disciplinary powers of the XEN include issuing of verbal and written warnings (show cause letters) and the initiation of proceedings for other disciplinary action. The XEN has powers to approve leave for Class 4 staff and casual leave for Class 1-3 staff.

27. The Upazila Engineer (UE) is responsible for all LGED activities in the upazila and at union level. Although the UE is responsible for the preparation of tender documents and coordination of the bidding process, and is member secretary of the tender committee, powers of tender approval lie with the Upazila Nirbahi Officer (UNO) as chair of the committee. The UE is also responsible for the preparation of bill vouchers for contractors and Project Implementation

Committees but all payments have to be approved by the UNO. The UE is joint drawing and disbursing officer (with UNO) for salaries and minor expenditures under Tk 5,000. The UE has administrative authority over all aspects of work distribution, supervision, and disciplinary action including issuing of verbal and written warnings (show cause letter).

28. It is important to note that in relative terms LGED is a strongly decentralized organization and has delegated a greater level of authority over procurement than is typically found in other departments in Bangladesh, while the delegation of other financial and administrative powers conforms to government norms.

29. Senior management (i.e. Chief Engineer, ACE and SE²) comprises around 0.17% of all sanctioned posts whilst middle management (XEN, Senior Assistant Engineer and Assistant Engineer) represents around 12% of all sanctioned posts. Management control in LGED is exercised through a mixture of direct command and budgetary control. There is a vertical line of reporting which runs directly from the Chief Engineer to XENs at district level. An intermediate tier of management at regional level has, until recently, represented a horizontal part of the organizational structure without direct line authority.

30. An operational risk of this reporting arrangement is the lack of line management powers and responsibilities at SE Regional level. The main risk in not delegating line management powers and responsibilities to SE region is that the span of control at the higher line level is too wide to be effective in terms of managing and monitoring operations. To mitigate the risk, all 10 regional offices should be vested with full line management authority under one SE Engineer and two XENs supported by two Assistant Engineers. The XENs would look after the Development, Maintenance and Training activities respectively in order to streamline the management of the regional offices. The role of the regional office in the LGED structure should be twofold. On the one hand, the regional office should continue to perform a range of administrative functions relating to the collection, collation and reporting of information to headquarters, dissemination of policies, government orders, circulars and guidelines to LGED and other stakeholders including local government bodies; approval of district work plans and budgets; investigation and follow-up on court cases or departmental enquiries; and investigations of complaints against LGED staff or local bodies. On the other hand, the regional offices should be in a position to adopt a more proactive technical support and hand holding function for both districts and local governments. Here, the regional office could make expertise available to districts, upazilas and local government from a small pool of staff with specialist skills in engineering, planning, finance and procurement. The regional office should also be responsible for ensuring districts and local bodies have access to a wider range of skills and expertise in architecture, environmental protection, transport planning, local government management, e-governance and community development from a central support pool. Technical staff should provide support services on demand as well as undertake routine monitoring, supervision and quality control functions over activities at regional, district and local level. This should include the granting of technical sanction of larger works at district or upazila level; quality control over on-going construction and spot verification of physical works and bills prior to making final payments to contractors. These tasks are not presently carried out by the regional office, and would strengthen operations at the upazila level.

² Superintending Engineers at regional level have, until recently, lacked direct line authority.

31. The SE as head of the regional office should have dual control over the administrative and technical support functions of the office. In order to perform this function effectively the regional office should prepare detailed inspection reports of lower tiers of LGED and local governments as required and these should form the basis for corrective actions and remedial measures. Until recently, all SE regional posts were filled under a ‘priority project’ budget head rather than the revenue budget and hence lacked the line authority of an approved cadre post of SE. Whilst GoB has now approved 6 of the 10 regional SE posts, there is a need to ensure the remaining 4 posts are transferred whilst strengthening the capacity of the regional office structure with additional engineering staff as recommended in the ISAP³.

32. Another risk relates to the existing spans of control in LGED indicating how many staff report directly to any particular manager. The average span of control in LGED varies from around 1:22 for managers at Upazila (UE) and District level (XEN) to around 1:81 at Chief Engineer level. Although the Management Capability Strengthening Project (MANCAPS) report (1998) recommended that LGED reduce the spans of control at all levels, current thinking in favour of flatter organizations would suggest that, whilst the span of control at Upazila level is quite reasonable, there is a risk that spans of control at higher levels of management remain too wide.

33. To mitigate these risks, there is scope for field managers to exercise some degree of direct authority over staff under their control to improve routine delivery of services. Although LGED has a strongly decentralized staffing pattern with a greater level of delegated powers over tenders, for example, than is found in many similar organizations, there is still scope for further delegation to the regional, district and upazila levels. Such delegation should be preceded by a detailed analysis of staff skills, workload, and the level of willingness of field staff to take responsibility for decision making rather than simply passing on the responsibility to higher tiers of management. Additional training will be needed in order to ensure a balance between the number of staff, skills and responsibilities.

c. Training and Development

34. Training and human resource development is a key feature of LGED and is formally recognized within the organizational structure as a division under the responsibility of

LGED Training Budget Allocation (Lakh Taka)						
	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
GOB	16.00	20.00	30.00	45.00	50.00	60.00
Partners	652.80	922.80	1218.49	1218.36	1692.55	2642.16

Source: data provided by LGED

one of 4 ACEs. The Training Division comprises a dedicated, in-house

operation with 14 senior training staff working at central HQ level as well as 10 Regional Training Centers (RTCs).

35. The total training budget for LGED in 2008-09 was Tk 2.702 lakhs. However, the vast majority of this falls under project-funded training, much of which is aimed at external beneficiaries. The revenue budget allocation for internal staff training is around Tk 60 lakhs per

³ ISAP recommends creating an additional 90 posts for professional staff in all 10 Regional Offices It is acknowledged that this and other elements drawn on from the ISAP represent the views of the authors of this report, and not necessarily the views of LGED.

annum, representing around 2 % of total training expenditure and around Tk 580 per staff member per annum. The above table illustrates the pattern of funding for training over the last 6 years under the GoB revenue budget for routine staff training and project funding for project specific training.

36. Whilst LGED has succeeded in establishing and delivering in-house training as part of a routine management activity along with a regular allocation in the revenue budget, the vast bulk of training activity and expenditure arises from project-funded training. This includes training managed by LGED for staff in local governments. Whilst development partner funding is likely to remain important in future, given development partner interest in capacity development as a crucial part of project delivery, there is a risk of letting development partners define what training should be provided, with the inconsistencies and inefficiencies that this type of approach can create, and the possible crowding out of routine in-house training and staff development within LGED.

37. LGED has conducted training needs assessments (TNA) at five year intervals highlighting important skill gaps in the organization. The most recent TNA covered 21 categories of staff and 25 major tasks. The main findings indicate that course material was often overloaded, and that many categories of staff have not been adequately covered by in-house training, especially junior and middle categories of staff. Based on the TNA, selection and use of course materials can be better linked to requirements.

38. There are also issues with training selection and follow up. The Training Division is responsible for conducting post-course evaluation. This is undertaken on the basis of a standard training evaluation questionnaire which participants are invited to complete and hand in on an anonymous basis following a training course. Whilst this is useful, there needs to be far more focus on proactive follow up and post-training performance improvement. LGED is now systematising trainee selection and is in the process of establishing a central database to capture information on all staff trained.

39. To address these issues, LGED should implement the training action plan proposed in the ISAP, in consultation with the recently created Career Planning and Training Wing, Ministry of Establishment. This work should include developing an updated training strategy, developing/revising training procedures and materials, implementing TNA-based training programs, assessing the effectiveness of training activities, transferring 10 posts of XEN (Training) from the development budget to the revenue budget, and allocating a higher percentage of LGED's revenue budget for in-service training. This work needs to address both LGED's internal training needs, and the training LGED manages for staff of local governments. Despite allocating more recurrent resources for training than many departments, LGED needs to reduce dependency on external projects for training, as these rarely address corporate-wide staff development requirements. LGED needs to identify key training requirements for each category of post and link these to a comprehensive data base on training attendance so that selection may be more streamlined and transparent. In addition, LGED needs to demonstrate clear linkages between the intended training programmes and course and the strategic priorities of LGED as well as its overall vision and mission. Such linkages need to be made explicit and tie in with the corporate training strategy and plan.

d. Work Culture and Performance

40. The quality of day to day management and supervision of staff is a function of the overall work culture and practice prevalent in the organization. As one of the newest departments in GoB, LGED has been able to continue growing while avoiding a legacy of traditional work practices and attitudes found in many government departments, thus making it more open to the possibility of introducing necessary changes and reforms. Staff at all levels in LGED report that there is a strong management culture embedded in the organization which is characterized by prompt reporting for work, low absenteeism and willingness of staff to work beyond office hours. Senior officers in LGED define good management as ensuring that staff complete work on time, within budget and at a satisfactory level of quality. Junior staff perceive good management as the effective allocation of duties, regular monitoring of progress and capability to solve problems. These characteristics are all relevant building blocks for risk mitigation. Although there is no formal structure for teamwork in LGED, there is a practice of staff working in teams to address specific issues at district or upazila level. A picture hanging in LGED's headquarters (HQ) symbolizes the organization's commitment to teamwork, cooperation and continuous improvement.



41. Weekly meetings are a key instrument for managing LGED. They are the main forum for monitoring physical and financial progress against work plans and budgets, and for identifying and mitigating associated risks. These meetings also address routine administrative and financial matters relating to staffing levels, attendance, work distribution, payments for travel and allowances

etc. Monthly inter-departmental meetings provide an opportunity for enhancing coordination and comparing performance.

42. Internal decision making in LGED tends to be more rapid than in other departments. Although routine decision making follows standard government procedures of file noting and approval, the average turnaround time for formal communication of decisions is estimated at around 7-10 days for most routine matters and 10-15 days in cases where CE's approval is required. It is common practice in LGED, however, for officers to receive informal communication on a decision to facilitate speedy implementation. Such informal communication will usually be conveyed over the phone reflecting an organizational culture where staff have sufficient confidence to take action pending receipt of a formal approval. However, in cases where decisions are taken outside LGED, either within the MLGRD&C or in another Ministry, they may take more time, especially where matters are complex and involve more than one ministry.

43. In summary, LGED achieves better performance than other public institutions through strong leadership skills rather than robust systems. Whilst this has worked well in the past as a means of managing and motivating staff it is unlikely this can be sustained in future. Hence, there is a risk that the lack of effective systems for human resources information as well

as more general record keeping (see the following section on ICT), will make it increasingly difficult to manage and motivate staff as the budget and organization both continue to grow.

44. Performance assessment of staff in LGED follows the standard GoB appraisal process reflected in the Annual Confidential Report (ACR). In addition, LGED has devised its own informal performance incentive system which rewards well-performing staff with staff development opportunities. There is no formal staff satisfaction survey carried out. At present there are insufficient mechanisms available to LGED to reward high performance amongst staff or to penalise poor performance. The standard tool for assessment of staff performance is the annual confidential report (ACR). Rather than evaluating performance, the ACR process has become a ritual where managers rarely allocate low scores except where there has been a disciplinary case. To mitigate this risk, it is recommended that LGED use the existing ACR more effectively.

45. Once LGED has made its ACR a more effective tool for assessing performance it will be possible to better target non monetary incentives to reward good performance such as employee recognition schemes, awards, and improved access to staff development opportunities. At the same time penalties can be strengthened for non performance including performance hearings, withholding pay increments, staff transfers etc.

TABLE 2: TYPE 1 FINDINGS AND RISK MITIGATION MEASURES FOR LGED: INTERNAL ORGANIZATION

FINDING AND RISKS	RISK MEASURES	MITIGATION	OTHER AGENCIES	SHORT/ LONG TERM
LGED's structure, whilst promoting effective internal command and control for line implementation, is less effective in providing inter-organizational support functions across line departments.	Adopt a matrix structure with 7 new Divisions to include 5 Line and 2 Staff Divisions as well as additional units with the newly proposed Maintenance Division, Planning and Designing and Administration and Finance		LGD, Ministry of Establishment.	S
Lack of adequate line management positions, powers and responsibilities at SE Regional level.	Detailed analysis of staff skills, workload, and the level of willingness of field staff to take responsibility for decision making rather than simply passing on the responsibility to higher tiers of management. Ensure all SE Region posts are vested with line powers and allocate 2 EE posts and 2 AE posts to SE Region Office.		Ministry of Establishment.	S

FINDING AND RISKS	RISK MITIGATION MEASURES	OTHER AGENCIES	SHORT/ LONG TERM
<p>Dependence on development partners for funding training;</p> <p>Improvements needed in some course materials, training selection and follow up.</p>	<p>Implement ISAP recommendations, including allocating a higher % of revenue budget for in-service training, and specifying key training requirements for each category of post.</p> <p>Establish data base of training needs and attendance, and link selection and use of course materials to requirements.</p>	<p>Career Planning and Training Wing, Ministry of Establishment.</p>	<p>L</p>
<p>Not enough mechanisms available to LGED to reward high performance amongst staff or to penalize poor performance.</p>	<p>Use ACR more effectively to enhance staff performance.</p> <p>Formulate and introduce a set of non-monetary incentives to include employee recognition, team awards, linking of access to training and staff development opportunities.</p> <p>Enforce sanctions for poor performance.</p>	<p>Ministry of Establishment.</p>	<p>S</p>

2.3 Information and Communication Technology (ICT)

a. Background

46. ICT provides an effective tool for increasing organizational efficiency and managing risks. Well designed management information systems not only ensure that key deviations from standard practices are highlighted, but, by enabling data mining and benchmarking, allow inefficiencies to be identified and addressed. Similarly, by facilitating enhanced transparency, ICT increases the pressure to deliver, thereby reducing the risk of corrupt practices. Amongst the GOB departments, LGED has been one of the early pioneers in the use of ICT. As early as 1990s, LGED recognized the powerful role that computer systems could play in improving staff productivity, project management, risk management, communications and decision making. Computerization began in the late 1980s with LGED headquarters (HQ), and in the early 1990s with District and Upazila offices. In 1992 a GIS and MIS Unit was established at the HQ. One of the first activities of this unit was to develop a digitized base map of Bangladesh using satellite imagery. This base map (on 1:50,000 scale) has been in use since then and is regularly updated based upon data provided by different field offices, and is used for planning of new schemes.

47. In 1996 a central data center was established at LGED's HQ and, using a fiber-optic backbone, all the computers in the HQs office were interlinked. In 1997 LGED's website was created and basic email (using dialup connectivity) was established at HQ and District level. Work on ICT capacity building of UPs was started in 1998 and of urban local government institutions in 2002. A broadband DDN connectivity (1 MBPS) was installed at LGED HQ in 2005 and two years later in 2007 a FTP and online emailing system was setup at the HQ. Some security precautions are being taken to control access and data corruption.

b. ICT Infrastructure

48. Availability and easy access to computer systems allows users to share and disseminate data and information thereby enhancing accountability and reducing the risk of errors and redundant effort. Therefore ICT infrastructure, though not an end in itself, is a critical prerequisite to enable informed decision making. LGED has an extensive ICT infrastructure spread over the country. The LGED HQ has over 700 computers connected through a fiber optic backbone-based local area network (LAN). Consolidated data, compiled from all over the country is held in a data center comprised of multiple servers. Online uninterruptible power supplies (UPSs) are used for power backup for the servers and offline UPSs for desktops. Although a power generator is also available, it does not support the full load of all computer equipment. Limited Internet connectivity has been provided to the key officers in the HQ office. A File Transfer Protocol (FTP) facility is available for authorized officials from HQ as well as field offices so that they can upload and download data from a central FTP server.

49. There are major differences between ICT functionality at HQ and in the field, where most of LGED's staff are working. Typically, each District or Pourashava has stand-alone rather than networked desktops, with laser and DeskJet printers. These computers are predominantly used by AEs and SAEs for using different MIS packages and the data entry operators / typists for regular office correspondence. While key officers in HQ have Internet connectivity through the LAN, district offices have only dialup or GPRS (Grameen Phone) Internet connectivity, with slow speeds and erratic service. Internet connectivity is even slower and less reliable in Upazilas.

c. Human Resources for ICT

50. There are few permanent positions for IT, MIS or GIS - either at the HQ or at the field offices. Typically the CE designates one of the XENs as the MIS or GIS in charge at the HQ level, and similarly designated AEEs / XENs, assisted by data entry operators / typists, are responsible for reporting and MIS at the field level. There are five engineers in MIS section of LGED HQ, two of them from the GIS section and three of them engineers (AE Computer), who get salary from different projects. There are 20 specialists in the GIS section in LGED HQ, mostly drawn from projects.

51. This unit is supervised by two Senior AEs who have post graduate degrees in GIS / ICT. As a risk mitigating measure, LGED has been very proactive in training its existing staff members in the use of IT and as a result, many engineers – from AEE to ACE -- have proficiency in basic word processing, spreadsheets and using some of LGED's custom built MIS packages. However, if ICT has to become a key enabler of risk management, staff skills will need significant enhancement, and ICT institutional structures will need to become more formalized. Lack of in house capacity in this area will not only undermine ICT systems, but it will undermine all other systems (accounting, procurement, human resource management, etc.) which are critically dependent on ICT support.

d. 'Decision-support' and Management Information Systems (MIS)

52. Over the last two decades LGED has developed more than 15 different MIS applications, most of them initiated as part of a development partner-funded project, and subsequently mainstreamed for multiple projects. These applications are being used at various

levels for preparing engineering estimates, calculating earthwork volumes, tender evaluation, preparing a database of assets, gender analysis, personnel management, environmental analysis, training management, etc.

53. Most of the above applications have been developed using MS Visual Basic and MS Access 2000 for front end and Oracle 8i and PL/SQL programming for back end. All software follows a network based, two tier, client-server architecture. These different software packages, though not integrated into a comprehensive decision-support system, do have a simple facility for sharing data through a data export and import feature. Yet, as further discussed below, the use of many different, non-integrated systems make it very difficult for LGED to gather critical information needed to compare the results of the various projects, and complicates the reporting and control procedures within LGED.

54. The reporting needs of HQ (ACEs, SEs, PDs) and field offices (SEs and XENs) are predominantly met by monthly progress reports generated by the Roads & Structure Database Management Systems (RSDMS), Progress Monitoring System (PMS) and Unified Financial Management System (UFMS). RSBMS and PMS track physical and financial progress and UFMS tracks financial progress of projects. Over the last couple of years the Ministry of Finance through the Financial Management Reform Program has been implementing the Integrated Budgeting and Accounting System (iBAS) to be used by all GOB units for expenditure capture, monitoring and control. This software used by all PAOs, DAO, UPOs and DDOs for financial accounting and management is also being used by LGED (Bangladesh Government, undated). At the moment iBAS captures only summary information from UPOs - once a month. The iBAS version which is currently working in the field is at best a transaction accounting system and not a full Financial Accounting and Management system, and even the budget module is not integrated with the accounting module. The Finance Division is now piloting an 'integrated' iBAS which is planned for a rollout by June 2009.

55. To what extent the current iBAS will be able to meet all the accounting requirements at the UPO level is unclear at this time, given the many limitations of iBAS including the capability to handle the additional volume of data from 420 UPOs. Although LGED may continue to require Unified Financial Management System (UFMS) or a comparable system for project management and reporting, the system will need appropriate links to iBAS. This will require careful study to avoid dislocation, and to meet the needs of each project. This linking is expected to avoid redundant data entry, and to facilitate comprehensive data mining and analysis. Collectively, these MISs provide potential tools for risk mitigation against misuse of funds.

e. Records management

56. All the MIS software used by LGED has been designed primarily for reporting, and not as a workflow system. Partly as a result, data are not properly analyzed. A workflow system would ensure that not only all transactions are recorded electronically and management reports are based upon accurate and up-to-date data (and not approximations or guesstimates), but the system provides for 'audit trails' which can be used to for fraud detection. Workflow systems make it more difficult to carry out fraudulent or unapproved transactions since each transaction carries audit details of the user carrying out that transaction.

57. Under current practices, records (files) pertaining to financial transactions (payments and receipts), procurement (bids, evaluation reports, contracts, etc.) and correspondence (letters, faxes, circulars, etc.) are filed and stored in the office in which they originate or where the budget for that particular activity is held. Cash books for contract payments and ledger book for contractor payment is used. The Accounts Officer is responsible for recording all the revenue and expenditure in the cash and ledger book. Payment for every contract is stored and recorded in the ledger book and the detailed transaction record is summarized in the ledger book for every contractor. Account Section also maintains records for testing laboratory revenues, income from different sections like mechanical, tax collection and office expenditures. Sensitive and confidential documents (like unopened bids) are kept in safes or steel almirahs in the XEN's office.

58. Each district office has a data Entry Operator under the supervision of an AE, responsible for entering data and generating reports. The XEN is responsible for final checking and signing the reports before being sent to the HQ. Printouts of monthly progress reports are filed in the office as official records. Summary information in the form of electronic databases (generated by the different MIS software) is available at higher offices. For instance the bids received, their evaluation report and the actual contract documents (presuming that they are for a work to be implemented at the district level) are stored at the district office and the engineer's estimate, bids evaluation summary and contracts summary is available (through the RSDMS-V software) at the LGED head office. Yet this summary information isn't detailed or comprehensive enough to carry out forensic analysis with data analysis software such as Picalo to detect patterns of fraud and collusion. A key building block for enhanced risk mitigation will be to expand the recording and storing records on electronic media.

f. Geographical Information Systems (GIS)

59. LGED has a digitized base map of Bangladesh on a scale of 1:50,000 and has developed many thematic layers comprising of spatially referenced databases. Some of these are: transport infrastructure (roads, culverts, bridges, etc.); economic infrastructure (growth centres, rural markets, etc.); drainage infrastructure; small scale water resources infrastructure (embankments, sluice gates, regulators etc.); administrative institutions (UPs, Upazila / District HQs etc.); educational institutions (Schools, Colleges, Madrasas etc.); social features (Mosques / Shrines, Clubs etc.); rivers, etc. It is possible to view maps with thematic layers locating these features, but it isn't easy to map features constructed during a given year; adding this feature would greatly facilitate analysis of inappropriate political influence of investment allocation, among other risks. The base maps and GIS thematic layers are used by LGED head office for infrastructure planning. Since GIS requires sophisticated IT infrastructure (GIS servers, software, higher configuration workstations etc.) these facilities are currently available only at the head office. However printed copies of the district and upazila maps are available at the respective field offices.

g. ICT Training

60. Right from its inception LGED has conducted regular training of its officials at all levels. Starting from basic computers skills, to advanced training in database management, project management (using project management software) and GIS, the Central Training Unit (CTU) at the HQ plans for various training workshop throughout the year. The CTU has

excellent facilities in the HQ building for conducting IT and other training programs and whenever required it uses the training facilities at district level as well. The CTU makes an annual training calendar, compiling the users' and projects needs, and then conducts training programs accordingly; however, computer literacy isn't a requirement for annual increments or promotion, and many staff are not computer literate. In the past LGED used to send its staff for post graduate degree and diploma courses to foreign universities, but due to lack of development partner funding for this, this is no longer taking place.

h. Overview

61. Among LGED's strengths in using ICTs are the following:

- Performance and results-driven organisational culture. LGED has a well established culture of being performance-driven and this presents a major prerequisite for any change management and reform initiative. Because of the existence of numerous projects funded by different development partners, there is a culture of reporting on project progress and performance being evaluated against predefined work plans and a set of inputs and outputs. This provides an excellent environment for deployment of ICT systems to strengthen results based management.
- Institutionalisation of computerised systems and use of ICT. LGED has been an early adopter of new technologies and ideas and has broad appreciation among staff for the role and benefits of ICT. This provides the right foundation for bringing in new ICT-based systems which can provide a radically different and better way of working and improving organisational effectiveness.
- Strong commitment by top and middle management. There is a strong support for ICT-enabled administration from the top management and demonstrated willingness to change. Thanks to self perception of the organisation as being a leader, innovator and 'island of excellence', LGED's management at all levels is open to introducing new ideas and technologies.
- Basic building blocks already exist. The key components required for an entity-wide decision support system are already in place. These include:
 - IT Infrastructure: basic computer hardware, networking and standard software already exists both at the HQ as well as at field offices;
 - Trained Staff: thanks to internal mechanisms in place (such as the annual training calendar), LGED staff at all levels have received at least a basic computer orientation training, and many staff use computers as a routine part of their job;
 - Core group of project IT professionals: thanks to development partner-funded projects executed by LGED, there is a core group, albeit a small one, which has worked on developing and implementing ICT systems in these projects;
 - Simple MIS systems based upon project reporting needs: the project requirement of at least simple progress reporting on the usage of project funds and

performance against agreed timelines, has promoted development of simple MIS systems;

- Availability of spatial and non spatial databases: over the years LGED has accumulated a veritable repository of data and information on agriculture, fisheries, environment, land management, transportation, livelihoods, primary education and health care, etc. When organised and linked up properly, these databases can provide a rich source of baseline information on several areas of development.
- Opportunistic use of development partner projects. Despite a lack of core ICT department, LGED has been very successful in using project staff from development-partner-funded projects for developing its IT systems. Some of the projects, especially those headed by ‘technology-savvy’ Project Directors (such as the Sonamganj Community Based Resource Management Project) have developed fairly sophisticated ICT-based MIS and M&E systems. These could be replicated to other similar projects and should be able to provide a good starting point for enterprise-wide systems.
- Availability of computerised MIS packages. Over the last decade LGED has developed several MIS packages which are being used for meeting the requirements of different projects and functions. A list and brief description of these packages is provided in Annex 1. These provide an excellent starting point for a fully integrated, enterprise-wide solution required to meet the ever evolving and growing MIS needs of LGED.

62. Despite this strong performance, there are a number of operational risks relating to ICT that LGED should give consideration to addressing. The following lists the key risks, and recommended actions that can be taken by LGED to mitigate them. Additional, ICT-related type recommendations are given under specific areas of engineering, procurement and financial management.

2.4 Risks and risk mitigation measures for ICT

a. Fragmented view caused by disjointed systems

63. Multiple disparate systems, which sometimes duplicate or overlap with each other, represent an operational risk preventing LGED from getting a holistic, organisation-wide picture, and making value-for-money-type reviews very difficult. Sole reliance on project focused MISs as a substitute for core systems (for accounting, project management, procurement etc.) hinders adopting a sector-wide approach to the challenges of rural development. If LGED’s future investments are to be directed towards areas of greatest need and maximum impact, this will call for policy and strategy formulation based upon updated, credible and ‘joined-up’ data.

64. To address these issues, LGED will need to move away over a period of time from current systems. Moving to integrated systems would facilitate aggregating data quickly and easily, and help spur more intensive adoption of ICT-driven planning and management. It may be kept in mind that, paradoxically, centralised systems make it easier to decentralise operations and that in management the ‘whole is always greater than the sum of parts’. MIS systems are presently not integrated with each other and in most cases the data are spread over multiple

locations, making it difficult to do comparisons and trend analysis, identify systemic faults and take quick corrective actions.

65. Till very recently, LGED did not have any medium-or long-term ICT strategy or plan, and relied on project-based MIS systems. These cannot be a substitute for enterprise-wide MIS, covering core functions such as budgeting, accounting, finance, inventory, human resource management, etc. It may be kept in mind that although different development partners require somewhat different set or reports, the basic information required for these different reports is similar. For instance a budget versus actual expenditure report is required by all projects and development partners. Therefore core functional systems, complemented by a few *ad-hoc* and specific reports is perhaps the best way to meet the requirements of development partners as well as internal management.

66. To address this issue, it is recommended as a high priority that LGED develops its own long term ICT and MIS blueprint incorporating all the different functional needs of different departments and projects, so as to facilitate holistic planning for using ICT as a decision support tool. This blueprint would assess the existing systems such as Uniform Financial Management System (UFMS), and make recommendations on next steps. In December 2007, an IT and MIS Needs Assessment study of LGED was carried out with ADB support. The report suggested developing a web-based MIS system for meeting the monitoring and evaluation (M&E) needs of LGED by defining a set of key performance indicators. However the report neither provided the overall e-governance / ICT vision, nor provided a long-term strategy to convert this vision into a reality. The report provided details of the hardware required for the suggested system along with qualifications for the posts of ICT and MIS Division but only from the limited project M&E point of view.

67. The likely outcome of the ICT and MIS blueprint would be development / procurement of an integrated, comprehensive, enterprise wide, workflow based, decision support system (IDSS), which is both modular and scalable and based on web technologies. The IDSS would be expected to cover the following:

- a. Transactions Processing System capturing all day to day transactions (financial) and data (non-financial) at the lowest level;
- b. Executive Support System - covering:
 - i. Spatial Interface: Geographical Information System (GIS)
 - ii. Non Spatial Interface: Management Information System (MIS)
- c. Monitoring and Evaluation System (M&E) covering the key performance indicators for input, outputs and outcome monitoring.
RHD's Central Monitoring System (CMS) might be adapted to deliver some of these functions, after customisation for LGED's needs. The IDSS might also include:
- d. Financial Management;
- e. Standard Schedule of Rates (SSR) which generates the Bill of Quantities (BOQ);
- f. Human Resource Database;
- g. e-Procurement;
- h. Centralised Contractors Database (covering all contractors who have executed or are executing any project for LGED) to facilitate contractors' performance evaluation, comparison and monitoring.

The central system should be based an “off-the shelf” technology and should enable management to evaluate the performance of contracts, prepare value-for-money audits, in cooperation with the Comptroller and Auditor General (C&AG) and compare the general performance of LGED against projects implemented by other agencies doing similar work.

b. Limited use of ICT for core functions

68. Although LGED offices have been using MIS packages such as Progress Monitoring System (PMS), Rate Schedule and Estimate Preparation System, Road & Structure Database Management Systems, Earth Volume Calculation System, and UFMS, almost none of these packages represent a fully developed end-to-end system meeting the complete needs of any function, such as financial management, procurement, and human resource management. These packages have typically automated a few elements of a complete system and are, therefore, quite useful. Yet, they represent an operational risk of compartmentalizing information and also result in duplication of work required to produce meaningful MIS reports. To mitigate this risk, LGED needs to graduate to the next level of sophistication; the current packages need to be converted into comprehensive and work-flow based modules of an integrated MIS.

c. Limited use of GIS

69. While the GIS is available, it is not optimally utilized for infrastructure planning and design. Because of the multi-disciplinary nature of several projects executed by LGED, LGED has a rich repository of data on several subjects like infrastructure, agriculture, environment, land rights, socio-economic data, etc. LGED has one of the best digitized maps available in Bangladesh and these have been used for planning purposes such as locating primary and secondary schools throughout the country. However, many of the other databases which are available are not spatially referenced, i.e. they are not represented as different thematic layers of the GIS system. These data, if spatially referenced and represented as different thematic layers on the base maps already available with LGED, would provide an extremely useful resource for informed policy and decision making. This would not require much work since the basic attributes are already available. Spatial databases should be better linked with other database (Road and Structure, HDM, etc.) by developing a Dynamic Segmentation Model. At present the GIS facility is available only at LGED HQ. For it to be truly useful, GIS would need to be made available and usable at the field offices level as well.

d. Technological obsolescence

70. Software systems need to be continuously updated, refined and improved to meet ever evolving user needs. There is a global trend towards developing software which is web-based or at least web-enabled. Web-based systems are more amenable to be being used by disparate users spread over a geographical area. Also since the software typically resides on central servers, it makes it easier for these systems to be continuously modified and upgraded. Almost all the software being used by LGED is based upon older client-server technology, representing an operational risk that any changes or improvements made to any of these MIS packages need to be physically installed on all the field office computers. Because the whole process of installing newer and improved versions (in the current non-web based systems) is time consuming and labor intensive, it rarely gets done. Replacing / transitioning these current systems to web-based solutions will allow LGED system’s being upgraded continually and easily.

e. Data theft or tampering of data

71. Although linking up computers on a network (such as the Local Area Network operational at the LGED HQs) greatly increases their usability and staff productivity, it opens the possibility of unintentional corruption, tampering and even destruction of important data and information. The security protocols and systems currently in vogue at LGED are fairly basic, leaving systems vulnerable to such threats and representing an operational risk for LGED. Risks posed by viruses also provide an area of concern, since most of the computers, especially at the field offices, either do not have or have pirated anti-virus software. This makes them vulnerable to serious damage in case of a virus attack. To mitigate these risks, it is recommended that an Information Systems and Security Audit be carried out with a specific mandate of not only looking at the security aspects of the current systems but also suggesting specific measures to improve these. In the event that LGED does decide to go ahead with the IDSS as suggested in this report, such an audit may be superfluous, since implementing adequate IS security protocols should form a part of IDSS terms of reference.

TABLE 3: TYPE 1 FINDINGS AND RISK MITIGATION MEASURES FOR LGED: INFORMATION AND COMMUNICATION TECHNOLOGY

FINDING AND RISKS	RISK MITIGATION MEASURES	OTHER AGENCIES ⁴	SHORT/ LONG TERM
Multiple disparate systems, which sometimes duplicate or overlap with each other, prevent LGED from getting a holistic organization-wide picture, making value for money type reviews difficult.	Develop long term ICT and MIS blueprint, including short-, medium- and long-term implementation plans for e-governance.	MOE, LGD, MOF, C&AG	S
Limited use of ICT for core functions (such as financial management, procurement, human resource management, etc.). Almost all the software being used by LGED is based upon older client-server technology.	Develop/procure an integrated, comprehensive, enterprise-wide, workflow-based, decision-support system (IDSS) which is both modular and scalable, and based on web technologies.		L
GIS data are not fully utilized for infrastructure planning and design.	Spatially reference databases (like infrastructure, agriculture, environment, land rights, socio-economic data, etc.) as different thematic layers of a GIS solution based on a common Base Map. Also, make GIS available both at HQ and in all the field offices.		L

⁴ When no “other agency” given, then assumed that LGED can proceed on its own authority without consulting others.

FINDING AND RISKS	RISK MITIGATION MEASURES	OTHER AGENCIES ⁴	SHORT/ LONG TERM
The security protocols and systems currently in vogue at LGED are fairly basic, leaving key systems vulnerable to security breaches.	Either implement an IDSS or get an Information Systems and Security Audit done.		S

2.5 Engineering systems and work practices

a. Background

72. The planning reference for programs managed by LGED is provided by the Rural Road Master Plan prepared in July 2005 by LGED, with assistance from the ISAP consultants. The Master Plan covers upazila roads, union roads, village roads A and B, growth centers, rural markets and UP complexes. It covers a period of 20 years from 2005-06 to 2024-25, having 4 phases each consisting of 5 years. The 5-year breakdown of the total resource requirement for improvement, rehabilitation and maintenance of rural infrastructure is provided in the ISAP report of June 2008. The ACE, Planning, is responsible for the effective planning, design and IT support for the Department for sectors including Transport, Rural Development & Institutions, Water Supply & Housing, Agriculture, and Water Resources.

73. Projects are designed to promote employment and generation of resources for workers living near the project sites, including women. Labor-based approaches with improved use of local materials are best-suited for the implementation of rural infrastructure interventions. By transferring financial resources and skills to the local level, labor-based strategies can have a substantial poverty-reducing impact. They also have the potential to improve the gender distribution of income, providing employment opportunities for women where wage employment is scarce.

2.6 Risks and risk mitigation measures for engineering systems and work practices

a. Detailed Engineering Design

74. LGED puts major emphasis on sound design practices for construction of high quality rural infrastructure. For this purpose, a number of design manuals and other related documents have so far been prepared and are in active use. These include manuals for General Construction Guidelines, Earthworks, Drainage Structures, Pavement Design, Growth Center Markets (GCM) & Ghat improvement, Small Scale Water Resource Scheme Design, Sanitation & Waste Management, Environmental Guidelines, Erosion Control, Union Parishad Complexes, Schools etc., Standard Specifications, Schedule of Rates and Unit Cost Analysis. These documents are based on international good practices, with emphasis on local conditions, and help mitigate risks at design and engineering level.

75. LGED follows the same standards for all infrastructure projects, regardless of funding. Road standards as set by the Bangladesh Planning Commission, standard designs

developed by LGED for bridge superstructures, and Road Notes, AASHTO, ASTM, etc., are followed in the relevant cases; bridge sub-structures are designed depending upon the sub-soil conditions and status.

76. Detailed design of rural infrastructure for development partner-funded projects is carried out by the Design/Supervision/Monitoring (DSM) consultants using the latest available tools. Total station equipment is used for field surveys and geotechnical analysis and other material testing undertaken in the district and HQ laboratories for the pavement and foundation designs. With the use of design and drafting software, detailed designs are prepared for the schemes, including the calculation of quantities. The designs are vetted by the concerned district XEN and sent with comments, if any, to the ACE, Planning, for approval. Design standards for GOB funded schemes prepared by LGED Planning Unit/XENs, although conforming to GOB-prescribed standards, are reported by LGED to be the same as those for development partner-funded schemes. However, the information and survey data collection and their representation from the field level may put quality of design at risk. District offices don't have design and drafting software capacity yet, due to lack of hardware, software and computer skills. To help mitigate this risk, it is recommended to strengthen HQ design capability for monitoring quality of designs. LGED should also introduce ICT systems to support design and drafting software in selected 10 districts as a pilot with later implementation in remaining districts, as part of the recommended, enterprise-wide decision support system proposed above in Section 2.3.

b. Schedule of rates and cost estimates

77. For implementation of civil works contracts, bid documents are prepared by LGED/consultants, including the bill of quantities (BoQ), which gives the breakdown of quantity takeoffs for the specific tasks from the design drawings. Prior to inviting the bids, the LGED/consultants establish a cost estimate based on a list of items and the associated quantities from which the total construction cost is derived by multiplying the quantity by the rate schedule as published by LGED. Currently, LGED has established rate schedules for 19 regions covering all the 64 districts of Bangladesh. These rates are updated by LGED once every one to two years, with the last update in 2007. Costs for materials, labor and equipment are collected from each district and a unit cost analysis carried out at LGED HQ for each item to which lab test fees, incidental charges, overhead, profit, VAT and income tax are added to arrive at the unit rate for each district. A comparative statement of unit rates is then compiled comparing previous year rates with the current year rates. These rates are reviewed by a committee at HQ, who then issues a list of recommended rates for basic items for the current period. LGED makes the information on schedules of rates for any district available to the public upon request.

78. Rate schedules must be used with caution. Changes in relative market prices of bitumen, cement, reinforcing steel, oil, etc., within the contract period, can have substantial impacts on construction costs, as they did in 2008-2009. Systematic changes over a long period of time for such factors are difficult to predict. Errors in analysis of rates also introduce uncertainty into cost estimates. It is difficult to foresee all the issues which may occur in construction and operation of facilities. There is some evidence based on LGED data at procurement and completion stage that estimates of construction and operating costs have tended to persistently understate the actual costs. This is due, *inter alia*, to the effects of greater than anticipated increases in costs, changes in design during the construction process, or over-optimism. When the cost after procurement is above the cost estimate, LGED may decide to

cancel procurement and rebid. This may be unfair if market prices of inputs such as cement, gas or steel have increased significantly and LGED has not been able to update its schedule of rates. It may be stated that LGED so far have been consistent in regularly updating the rate schedules and compares the actual cost of the contract to the estimated cost using the latest schedule of rates even if a previous schedule was used to estimate the initial cost of the contract. In World Bank projects, systematic rebidding when the actual cost of the contract exceeds the estimated cost by a given percentage should be proscribed and rebidding should be allowed only if justified by a detailed analysis of rates provided by the bidders.

79. LGED's responses to these issues can put quality at risk. For example, the cost escalation clause applies beyond 18 months, for contracts funded by the World Bank. To avoid cost escalation, LGED may limit contract size to TK 50 million, or duration to 18 months, the limits agreed on with the Bank, beyond which cost escalation can apply⁵. LGED prefers to avoid renegotiating contracts to take cost escalation into account because of the administrative burden. In the case of the 18-month duration limit, depending on the time the contract is awarded, a contractor can have one dry season (for example, from May 2008 to October 2009) or two dry seasons (from November 2007 to April 2009) to execute similar contracts. However, the contractor actually needs two dry seasons to physically complete such contracts and contract execution may need to extend beyond the 18-month contractual period to complete the contracts. Still the price escalation clause does not apply. This may impact the performance of the contractors if prices increase more than expected, and this may impact the quality of the works. Introducing price escalation clause for contracts of over one-year duration may be given consideration in the interest of reducing this potential risk to project quality.

80. Good risk management practices are followed in manually maintaining contract records at LGED HQ and district offices in the form of file folders, which are updated regularly. Records for procurement, implementation and accounting examined both at HQ and district offices during field visits confirmed such good practices of record keeping that are easily accessible. Monthly progress reports in the form of physical and financial progress are submitted electronically to LGED HQ for preparation of their monthly reports. These practices form a good foundation for deepening the electronic capture and analysis of these data.

c. Maintenance and Asset Management

81. Routine and periodic maintenance is an important part of the lifecycle of physical infrastructure to keep the investment in sustainable condition and at the same time provide employment opportunities for local citizens. The Rural Infrastructure Maintenance Management Unit (RIMMU), established at LGED HQ under the ACE, Maintenance, is responsible for planning and management of the rural road network. The CE allocates district-wise annual road maintenance funds as per the Maintenance Guidelines. District XENs prepare maintenance schemes of individual roads based on the severity of damage to road surface, intensity of traffic, visual road condition and type of maintenance done in previous years. This information is analyzed at RIMMU with help of database software prior to approval of the scheme by ACE, Maintenance. The priority of schemes is determined on the basis of multi-criteria analysis of critical parameters of individual roads and recommendations of the Upazila Development Coordination Committee and of the District Maintenance Committee. The funds are placed at the

⁵ GoB projects tend to be smaller, and completed in a shorter time; thus cost escalation is less of an issue.

disposal of District XENs for undertaking routine, periodic and emergency maintenance as per set out systems and procedures. Planning of maintenance management activities of road network requires due diligence for collection of data from Upazila for analysis in RIMMU. It is essential that XEN at district level and SE at regional level monitor proper securing of data collection to ensure the accuracy of system output for optimum use of available resources. Failure to do so presents a major risk. Also, coordination between M&E Unit and RIMMU needs to be improved.

82. LGED has already implemented measures to strengthen RIMMU through training and other support to strengthen application of HDM-4 type tools, enhancement of the road maintenance database/MIS facilities in RIMMU and progressive improvement in maintenance database collection and processing between field offices and RIMMU, consistent with good international practice (Castalia, 2009: 28-30). Further, the ISAP consultant has developed an action plan on the comprehensive framework of policy, process and resources for system-based road maintenance planning and management, to be supported by a proposed Technical Assistance (TA) project. The staff has been trained in data collection which has been collected since 2007, and RIMMU is using these data on a limited scale for maintenance management. Implementation of the Action Plan and TA project are considered important to ensure better planning and management capabilities of rural road maintenance.

83. Routine maintenance of roads is generally undertaken by LGED labor and roadside gangs, including use of mobile maintenance units. Periodic maintenance is contracted out by the concerned district XEN, following set out bidding procedures. To improve road maintenance, LGED should explore the use of emulsion-based cold mixes and use of one pass chip sealer for application of SBST or DBST on existing roads. At the same time, more training of field staff in maintenance management is required for effective use of funds in keeping the huge assets in sustainable condition.

d. Monitoring, technical audit and Quality Control of physical works / infrastructure

84. The ISAP consultant has explored possibilities of outsourcing laboratory testing to the private sector. In this context, the team collected information on laboratory/ testing functions at operational and HQ levels in Bangladesh. The comparison of LGED laboratories with those in the Roads and Highways Department (RHD) and three private laboratories concludes that the laboratories of LGED are provided with adequate resources and facilities for testing the quality of works all over the country.

85. Material testing for infrastructure schemes is undertaken at 10 regional and 54 field laboratories in LGED districts to support the quality assurance activities of the Department. These field laboratories are adequately equipped and manned by trained staff, and operate under the supervision of the XEN of the concerned districts. The central laboratory in Dhaka is very well equipped and can undertake supplementary tests if needed. This laboratory is operated by well-qualified professionals and headed by the XEN. Samples from the work site are collected as instructed by the Assistant Resident Engineer/RE for testing by the district field laboratory to ensure proper quality of project works. All tests are undertaken as per the requirement of the specifications and as per the provisions of the Quality Control Manual (LGED, 2005b).

86. Contractors reimburse LGED for the services provided by district field laboratories, which creates a risk of conflict of interest as the same laboratories are used by the DSM or

LGED to control the quality of materials as part of the supervision of works execution. Due to the small size of the contracts and the fact that contractors are often small contractors, contractors are not expected to have their own laboratories. The capacity of local private laboratories is also limited and they cannot provide services on a large number of sites scattered all over the country. This makes it difficult for the contractors to use other laboratories than those from LGED.

87. The normal procedure is that LGED makes all payments against specified works that are completed as per contract specifications. The findings in the Quality Assurance Report, prepared as per LGED procedures by AE/SAE, field laboratory, are duly communicated to the concerned XEN, and any identified irregularities are corrected. However, the Quality Assurance Audit carried out by an independent consultant under RTIP identified some problems in its Final Report of May 2008, namely:

- Quality of bricks in Hobigong, Moulvibazar, Sylhet and Sonamgong is suspect and barely pass AIV/LAA and water absorption tests,
- Possibly inadequate compaction of improved sub-grade due to acceptance of lower maximum dry density,
- Gradation of brick aggregates for sub base and base does not meet the specified gradation requirement in most cases of the samples tested, and
- Bitumen content in premix carpet is found to be less than the specification requirement in most of the cases.

88. LGED believes that such cases are rare and isolated, and not widespread. Yet any approval of poor quality work due to lack of quality assurance and non-enforcement of penalty would represent a high operational risk, leading to accepting completed works of lower quality workmanship than expected. It would also represent a fiduciary risk as there may be complicity of officials providing approvals for a price (Castalia, 2009: 11-12).

89. To mitigate these risks and to promote excellence in quality assurance testing, LGED supports further strengthening of the district, regional and central laboratories with equipment and skilled manpower. It is also recommended to require that supervision be heightened of all laboratories under the direction of the central laboratory at Dhaka. It is suggested that a SE at HQ be appointed to control the central laboratory at Dhaka, with responsibility of coordinating and controlling the functions of all field laboratories to ensure that they are operated effectively to achieve the objectives of quality control and quality assurance. ISO certification of a technically independent facility under SE, LGED Dhaka would ensure accuracy of quality assurance and transparency. It is further recommended that quality control audits be carried out at least every 2 years to ensure sustainability of invested assets. Better quality testing will help to detect “red flags” of work not performed to standard; contractors that try to bill for work not performed will find it hard to afford bribes (cf. CMI, 2007). For the moment, LGED has decided to defer ISO certification in view of other pressing priorities, and because equipment and procedures are all based on international standards (American Association of State Highway and Transportation Officials [AASHTO], American Society for Testing and Materials [ASTM], British Standard, etc).

e. Road Safety

90. Bangladesh has a deplorable record on road safety. The current fatality rate of 46 persons per 10,000 registered vehicles the highest in the region, comparing to 20 and 17 in India and Pakistan respectively. The key road safety related actions taken by LGED since 2004 are:

- Formation of Community Road Safety Group and Union Road Safety Committee – Oct. 2006,
- Formation of Regional Road Safety Unit (RRSU), designating SE Region as the unit head and 5 other officials as members – May 2006,
- Assigning responsibility of Road Safety Activities to AE nominated by XEN – May 2006 (not yet activated),
- Conducting Pilot Transport Safety Assessment (TSA) on three selected roads,
- Establishment of Central Road Safety Cell, designating ACE Implementation as the cell chief and 7 other members – January 2008,
- Assigning additional responsibility of Road Safety Activities to an XEN – January 2008,
- Establishing collaboration with Accident Research Center of Bangladesh University of Engineering and Technology to build capacity of LGED officials in road safety activities undertaken by full time dedicated RRSU,
- Appointment of an experienced Road Safety Engineer (XEN) – 2008.

91. The safety risks identified by LGED on rural roads are mainly due to:

- Safety engineering
- Traffic sign
- Enforcement
- Road users education and behavior
- Road environment

92. LGED is working to mitigate these risks by preparing guidelines on TSA to be conducted on three selected roads under RTIP. Also, LGED is preparing training manuals for drivers, schools, road users and community road safety groups. These efforts should be expanded to establish coordination between various road safety committees, and to provide training as appropriate to RRSU and district staff.

TABLE 4: TYPE1 FINDINGS AND RISK MITIGATION MEASURES FOR LGED: ENGINEERING SYSTEMS

FINDING AND RISKS	RISK MITIGATION MEASURES	OTHER AGENCIES ⁶	SHORT/LONG TERM
GOB-funded schemes are designed with the same standard and codes as the schemes funded by development partners but the information and survey data collection and their representation from the field level may put quality of design at risk.	Strengthen HQ design capability for monitoring quality of designs; introduce ICT systems to support design and drafting software in selected districts.		S
LGED's practices for estimating costs and cost increases can put quality at risk.	Introduce price escalation clause for contracts of over one year duration.		S
Collection of data and monitoring by XEN at district level and SE at regional level does not always ensure the accuracy of program outputs for optimum use of available resources. Also, M&E Unit and RIMMU do not ensure proper coordination.	Fully implement comprehensive framework of policy, process and resources for system based road maintenance planning and management, with support from TA project recommended in ISAP.		L
Approval of work does not meet specification requirements due to insufficient quality assurance and non-enforcement of penalty.	Strengthen the district, regional and central laboratories with equipment and skilled manpower Operate all laboratories under the direction of the central laboratory at Dhaka, with international certification, and quality control audits to be carried out at least every 2 years to ensure sustainability of invested assets.		S
The safety risks identified by LGED on rural roads are mainly related to: safety engineering, traffic signs, enforcement, road users' education and behavior, and road environment.	LGED efforts to prepare guidelines on TSA, and training manuals, should be expanded to establish coordination between various road safety committees, and to provide training as appropriate to RRSU and district staff.		S

⁶ When no "other agency" given, then assumed that LGED can proceed on its own authority without consulting others.

2.7 Financial Management

a. Budgeting Procedures

93. The budget process is managed by the ACE, Implementation⁷. The Administration Unit under the SE for Administration is responsible for managing the revenue budget and is also responsible for the final consolidation and submission of the development budget which is prepared by the Project Monitoring and Evaluation Unit under the SE, Project Monitoring and Evaluation.

94. After being approved by Parliament, the development and revenue budgets return to the Project Monitoring and Administration Units, through the Ministry of LGRD&C, for allocation to the various projects and units. If the approved development budget is less than what was requested, the Project Monitoring Unit and the respective PDs allocate funds to the projects based on agreed upon prioritization of activities. The Administration Unit does the same for the revenue budget. The allocations from the approved budgets are received by the responsible Directors in HQ who then transfer the allocations to the different District XENs and UEs for implementation of their respective portions of the projects. The execution of the budgets is monitored by the same two units (Project Monitoring and Administration). These units monitor the monthly expenditures from each project/unit and compare the actual disbursements with the planned levels. For the development budget, the Project Monitoring Unit monitors the progress of the projects toward achieving the agreed upon results. Re-allocations are made during the year to reduce the allocations from projects which are moving slower than planned and increasing the allocations for those projects which are exceeding their forecasted results. The revenue budgets are also monitored and adjusted during the year to reflect quarterly budget releases and revisions during the year.

b. LGED Financial Management and Accounting Staff and Oversight

95. The accounting staff in LGED is generally under-qualified and junior. Out of a total of 1,374 approved class 1 positions in LGED, there is only 1 approved post of an Accounts Officer and that post is categorized in the lowest of 6 grades in class 1. Within the LGED organization, finance and accounting positions are co-mingled with operations or line positions, and many positions such as the head of the Audit Cell and the head of the Administration Unit, which would normally be headed by accountants, are headed by engineers in LGED.

96. The remaining 1,029 approved posts in accounting and finance are all class 3 staff comprising: 1 Accountant (HQ), and 546 Accountants and 482 Accounts Assistants at upazila level. The role of the accounting staff in LGED is primarily clerical in nature with very limited opportunities to participate in any decision making. Since many of the senior accounting and finance positions are headed by engineers, there are limited opportunities for advancement for

⁷ The following assessment was prepared for LGED and not for a particular project. The following comments are based in part on the work done by the team from Wilbur Smith Associates in 2006 – 08 as part of their Technical Assistance Services to Support Implementation of the Institutional Strengthening Action Plan (ISAP) and in particular in their reports dated November 2006 and June 2008. It is acknowledged that these reports represent the views of the consultants, and not necessarily the views of LGED.

trained accountants. In addition, since the engineers in accounting positions would expect to be rotated to operational positions in the future, they have little incentive to identify priority risks, and to design and implement internal controls to match the risks.

97. While exact procedures may vary depending on the funding source, generally, the work process in the districts and upazilas is such that when the transaction has been approved it is forwarded to the Accountant/Accounts Assistant for review and preparation of the payment. All transactions are reviewed for clerical accuracy by the staff from the Chief Accounts Officer from the Ministry of LGRD&C prior to payment; however, this review is limited to verifying that the payment is consistent with the invoice and not whether or not the work is consistent with the contract. There is no apparent role for the accounting staff in contract management. Since the construction work managed by LGED is divided into separate projects, many of the accounting staff are delegated to work in the Project Management Units (PMUs) of these projects. However, many of the development partner funded projects contract with local consultants to work as the Accountants and/or Financial Management Specialists, since the core staff frequently do not have either the technical accounting qualifications or the needed IT skills required by the development partners. The combination of an under-qualified and junior accounting staff, and managers in finance and accounting positions not possessing the basic professional qualifications, results in a significant concern regarding the effectiveness of internal control systems. In addition, the use of pre-audits as a control mechanism has often been found to exacerbate control risks rather than mitigate them. The combination of these and other factors results in a weak internal control environment. The agency is attempting to address the capacity issue of the staff through training programs and new recruitment standards, but this will require years to fully address the existing weaknesses. Nothing is being done to address the general lack of interest in developing and maintaining a strong internal control environment.

c. Accounting Systems

98. Approximately 40% of the projects in LGED are funded by development partners, and since the accounting system used by GOB does not conform to International Accounting Standards (IAS), most of these projects are accounted for using accounting systems different from the GOB system but also often different from each other. While these systems are documented in project accounting manuals, the lack of development partner harmonization has resulted in numerous variations in accounting and reporting systems being used. The use of different systems increases the difficulty of developing standardized reporting systems and procedures within LGED to effectively evaluate performance.

99. As per Treasury rules, LGED maintains a cash book and an expenditure register at the district level for GOB funded activities. The detailed transaction information is sent to HQ on demand for consolidation and preparation of the financial statements; yet there is no system for routinely consolidating such data to identify and analyze systemic risks. Earlier studies have determined that due to weak internal controls in the districts not all of the income received by LGED from various sources is entered in the cash book nor are all expenditures properly recorded. The management of LGED has indicated that the practice of not recording income and expenditures has been corrected, but it was not possible to verify this statement.

100. LGED does not maintain a fixed asset register or a contract register. This also applies for projects funded by GOB. However, it can be assumed that most development partner funded projects maintain these registers for their projects.

101. The lack of an accounting system that meets international standards results in a limited amount of information being made available to management for decision making purposes, and forces the development partners to use different accounting systems for their development projects. As the agency employs more accounting and reporting systems, the costs to government to maintain these systems increases and the quality of information regarding the performance of the agency and the effectiveness of the projects decreases.

d. Reporting Systems and Procedures

102. For GOB reporting, all projects (development partner and government funded) use the same format. The GOB format monitors the financial and physical progress of the project and compares the actual activity – financial and physical – to the planned levels. As indicated earlier, projects that are not achieving the budgeted results may have some of their GOB funds re-allocated to other projects which are achieving better results. These progress reports are sent to the relevant line ministry. At this time, the LGD receives monthly reports on 57 projects. These monthly reports are manual with the summary table developed using Excel. A computerized reporting system has been developed and piloted, and it is reported that a program to roll this system out began in late 2008. As indicated earlier, these monthly reports are the basis for the CE to decide to re-allocate budgetary resources from slow moving projects to those that are achieving or exceeding their planned targets. Excel spreadsheets are used to consolidate data provided by the various units for submission to CE and the involved line ministries.

103. There is no central computerized accounting and/or reporting system in LGED, making it very difficult for management to develop any comparative project data to analyze the results. The lack of effective data analysis systems and practices by LGED forces/enables the development partners to use their own project systems which make it very difficult for LGED to gather critical information needed to compare the results of the various projects. Most development partner funded projects are “ring fenced” with separate accounting staff and systems. While ring fencing may satisfy the funding agency, it complicates the reporting and control procedures within LGED.

104. Efforts are underway to develop and implement an accounting software package – the Uniform Financial Management System (UFMS) – which would allow for the transfer of accounting and financial data from the project implementation offices to the PMUs in LGED HQ. The system has been piloted and is currently being used in 25 projects, both GOB and development partner funded; an evaluation of the system is being planned.

105. While the described reporting systems are able to track disbursements against physical targets, the lack of a central accounting and management information system makes it virtually impossible to determine what should have been spent, to provide information for management to evaluate performance, to look for best practices, and to monitor and control performance. Efforts are underway to address part of this risk through the use of the UFMS, but the LGED’s limited capacity to maintain such a system is a concern (see paragraphs 179-81). In addition, the UFMS has not yet been thoroughly reviewed by qualified technical specialists to

ensure that the system will effectively address the agency's requirements.

e. Audits – Financial and Internal

106. LGED and its projects are audited on an annual basis. The Comptroller and Auditor General (C&AG) annually conducts two audits: (i) local and revenue, and (ii) works. All projects are also audited annually but by separate directorates in C&AG. Since the GOB accounts are recorded using a single entry accounting system, the audits of LGED and the GOB funded projects are not audited using international standards. LGED established an internal audit unit in 1995 following recommendations from the first MANCAPS study. This unit is headed by an XEN, and it is staffed by 1 Audit Specialist (grade 6) and 13 auditors. Most of the auditors have undergraduate degrees in commerce and with the exception of the Audit Specialist and one other. All of the staff are funded from the revenue budget. The large majority of the work of the unit is at a transaction level rather than reviewing internal control systems and procedures – although some systemic reviews are done.

107. The information provided to management from the normal C&AG audits is limited, which further increases the concern about a weak internal control environment. The C&AG annual audits identify all transactions which were found to contain recording/reporting errors regardless of the amount involved. While it is important for management to have this information to both correct the errors and to ensure that they do not re-occur, the audits do not identify systemic issues which require management attention to prevent larger problems from occurring. Further, since the internal audit unit also focuses its attention at the transaction level, it isn't identifying and correcting larger systemic issues.

f. Disbursements

108. Based on the experience of the projects reviewed and the conclusions of the various studies, there does not appear to be an unreasonable amount of time required to process an invoice and issue the check to the contractor/vendor. However, the pre-audit done by CAO/DAO can cause delays and other problems.

109. The lack of development partner harmonization regarding disbursements from their projects results in numerous and different procedures being used to establish banking arrangements, to report on the disbursements and to request replenishment of the accounts. In all cases, the PD is responsible for ensuring that the disbursements are processed and accounted for properly. LGED does not make use of separate petty cash funds due to the cumbersome process to establish and replenish the accounts. The lack of such a fund results in the cost of small purchases being allowed to accumulate until the receivables to a particular vendor reach a level where the total amount can be procured using competitive procurement procedures.

110. The banking operations for all LGED projects are centered at the District XEN offices of LGED. At present, the XEN is the only signatory for all checks issued to contractors and/or suppliers. In the case of development partner-funded projects the disbursements will be processed by a commercial bank at the district level, opened by the District XEN. The management of LGED indicated that the number of commercial bank accounts at the district level has been greatly reduced in order to address internal control weaknesses (not possible to verify this statement), and efforts have also been made to ensure that the District XEN receives

authorization from the CE to open new bank accounts. At the upazila level, payments to contractors need the joint signatures of upazila accounts officer and the UE.

111. The fact that the District XEN is involved in the selection of the projects, the procurement and contracting, invoice preparation/approval, payment authorization and that he has the ability to open commercial bank accounts represents a significant control weakness. While efforts have been made to gain some control regarding the number of commercial bank accounts at the district level, the lack of any separation of duties at the district level is a serious concern. The reaction by LGED has been to minimize this issue by citing the pre-audit work done by the CAO, and the involvement of others on the staff of the XEN at various stages in the processing of transactions. The fact that this consolidation of functions at the district level is not seen as a risk is a further concern.

2.8 Risks and risk mitigation measures for financial management

112. LGED is a well qualified agency that has a long record of delivering results. However, there are serious issues in financial management that need to be addressed. LGED's internal control environment makes it difficult to have confidence that transactions are being properly recorded, and assets properly accounted for and controlled. The internal control environment as it exists today is more dependent on the integrity of key individuals rather than on financial systems and procedures. LGED has developed several manuals on financial management for foreign aided projects, internal audit etc. These manuals cover basic knowledge on financial management that includes management of funds, bank control, maintenance of books of accounts, ledgers, reporting and auditing. Training relating to these manuals has been conducted by the Central Training Unit of LGED. About 33 training courses on financial management were held during FY2005-06 and 37 on-the-job training courses on financial management were held during FY2006-07. Those training courses were attended by the Project Directors, XENs, Assistant Engineers, UEs, Accounts Officers, Accountants, Account Assistants and Administrative Officers. The training has already yielded good results and this is evident in the annual audit report. Further to that, capacity and skill of the accounting personnel have been enhanced from the fact that the project accounting personnel could submit their financial statement just immediately after the closing of the financial year. In order to ensure effective internal control systems, a charter of duties for different staff has been defined and circulated by the LGED authority. All these actions are a clear manifestation of LGED's assurance that segregation of duties at different levels is taking place. However, more work is needed by LGED to demonstrate its commitment to the use of these procedures. The concern raised by LGED staff was that the implementation of these accounting procedures may delay the rate at which the projects are implemented.

113. The use of operational staff (engineers) in accounting positions weakens the internal control environment of the department. Engineers are assigned to senior financial and accounting positions for which they are not qualified such as the Head of the Audit Cell and the Head of the Administration Unit. The fact that the heads of these key units are not technically qualified to lead these offices prevents them from providing the necessary leadership and guidance to both the staff and management. In addition, since these engineers can expect to be assigned to operational positions in the future, they may be reluctant to implement strengthened internal control procedures on the operational aspects of the agency.

114. The recently completed ISAP indicated, among other things, that there is limited control over the number of bank accounts being used at the district level, cash is being collected by staff other than by designated cashiers or accountants, income from project related activities is not being recorded properly and is frequently deposited in separate bank accounts, and cash receipt books are not properly controlled by headquarters. In addition, the proper separation of responsibilities regarding the issuance of checks is not being followed since the Project Directors or the District XENs authorize the spending of project money for construction, procurement, contingencies and also authorize the payment of the bills of the concerned contractors/vendors with checks under only a single signature. The ORA team was advised that LGED has taken steps to address some of these control issues at the district level, but it was not possible to verify these changes.

115. These issues represent an operational risk that internal controls cannot be properly managed, and a fiduciary risk that unauthorized practices can go on undetected. It must be noted, however, that recent annual audits have not detected serious financial issues. Notwithstanding these recent audits, to alleviate these risks, it is recommended as a high priority to strengthen internal controls throughout the agency. This work should be supported by a comprehensive review of the current operating practices and the systems as prescribed in the various manuals. The revised system should balance the need for controls with the importance of delivering quality and timely results. The revised system should consider, among others:

- a) Segregation of duties,
- b) Emphasis by senior management on systems rather than people,
- c) Proper staffing levels for upazilas,
- d) Payment procedures changed to separate procurement and supervision from payment authorization.

In addition, two other recommendations should be considered which, if deemed appropriate for LGED, would require Type 2 action, as changes might be needed in the General Financial Rules and Treasury Rules:

- a) Elimination of the use of pre-audits, in cooperation with C&AG, and
- b) Use of international standards.

It is also recommended as a high priority to utilize the Financial and Accounts Manual and the Project Accounting Manual prepared for LGED but not yet fully implemented, that their use be mandatory for all projects, and that this be clearly communicated to staff.

a. Internal Audit

116. The checklist for internal audit developed by internal audit cell at LGED contains the inspection of internal oversight of management controls that includes checking of proper segregation of duties, financial operations contains bank control, safeguard of cash, the asset control includes tracking of organizational assets, inventory etc. The checklist contains 79 itemized checks. All these ensure the internal oversight of fiduciary climate. Although this represents good progress, the internal audit unit still concentrates the majority of its work at the transaction level rather than reviewing control systems and procedures. This represents an

operational risk that audits only verify the accuracy of the payments, and do not identify areas that need strengthening in the control environment. As stated earlier, the current control environment in LGED depends more on its staff than on its systems; therefore, a key function of internal audit should be to strengthen these systems so that they are relied upon to a greater extent. Also, as LGED begins to design and implement new computerized accounting and project management systems, the work of the auditors should also be directed to ensuring that these systems are functioning properly.

117. To mitigate this risk, it is recommended that LGED adjust its annual work programs for internal audit, with guidance from C&AG, to give more emphasis to systems rather than transactions. More emphasis should be given by internal audit to ensuring that the designed controls are being utilized and identifying areas where the systems can be further strengthened.

b. Cash management

118. The decision to not use petty cash funds due to the complexity of establishing and replenishing the funds represents an operational risk of deviations in the procurement procedures for supplies and small purchases. The absence of such funds not only complicates the normal operations of the department, but also weakens the internal control environment in the agency.

119. Cash receipt books (pre-numbered) should be issued by headquarters to all districts and upazilas and procedures put in place to ensure that these books are controlled and that only authorized staff has access to the books and to the collection of cash. An accounting of all cash transactions should be maintained in the cash book, Form PWA-1.

120. In addition, procedures should be put in place to establish and use petty cash funds in all LGED offices and clear instructions given that procurement procedures should not be modified to eliminate the use of the funds.

c. Contract and fixed assets registers

121. The lack of contract registers and fixed assets registers reduces control and accountability of contracts and agency fixed assets. GOB accounting policies do not require the preparation and maintenance of these registers, nor do these policies require that departments maintain registers of all commercial bank accounts. However, to improve the quality of information available to management and to strengthen internal controls, these registers should be maintained using the UFMS or its replacement.

TABLE 5: TYPE 1 FINDINGS AND RISK MITIGATION MEASURES FOR LGED: FINANCIAL MANAGEMENT

FINDING AND RISKS	RISK MITIGATION MEASURES	OTHER AGENCIES	SHORT/ LONG TERM
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2.9 Procurement

a. Background

122. The World Bank's (2002) Country Procurement Assessment Report (CPAR) identified procurement as the single most significant issue affecting public sector performance, with enormous wastage of money. It pointed out deficiencies such as protracted bureaucratic procedures, inordinate delays in completing the procurement process and ineffective contract administration for ensuring transparency and accountability in public procurement. Since then, a number of deficiencies appear to have been addressed by the Public Procurement Reform Program supported by the World Bank (2003b, 2007g). A Public Expenditure and Financial Accountability (PEFA) assessment scored Bangladesh well (B rating) on procurement, recognizing “the enormous impact of the procurement reforms that have taken place” (Indicator PI-19, World Bank, 2006c: p. 130). These reforms led to the creation of Central Procurement Technical Unit (CPTU) of the Ministry of Planning and public procurement regulations (PPR) effective from 2003 and enacted as law in 2006⁸. The structure and functions of the CPTU are described at Bangladesh Government (2008), as mandated by the Public Procurement Rules (PPR) 2008.

123. The PPR establish Public Procurement Processing and Approval Procedures, which LGED is bound by; the PPR establishes the bid evaluation committees, check list and timetable for the procurement procedures. The case studies reviewed at LGED HQs – contracts subject to prior review by the World Bank – show that LGED generally follows such regulations in an adequate manner.

124. The World Bank's (2003a) latest assessment of LGED's procurement function gives it an average risk rating, and concludes that LGED has the technical skills to support the procurement function but lacks the systems to ensure that the procurement activities are closely monitored for compliance. The ISAP (Wilbur Smith, 2007) does not include any specific recommendation or strategy in respect to the procurement function, in part because procurement is regulated by the CPTU and not by LGED. However, the ORA team has identified procurement risks that LGED can initiate action to address on its own, and that do not require any major decisions by CPTU.

125. Currently, LGED maintains a procurement unit with 8 staff under an ADB-financed project but lacks a revenue budget procurement unit. The responsibilities of the institutional unit are given at LGED (undated). They are laid out as one would expect in a well functioning procurement unit in a government department. LGED has agreed to put this unit on the revenue budget once the ADB project comes to an end.

126. The flow of information about procurement processing is very limited at LGED. The absence of an integrated information system reporting the low value procurement activities from district level to HQs adds a risk to the procurement function as the central administration or the procurement unit at LGED knows little about key procurement steps. i.e., number of participants, disqualification of contractors, similarities in the bids, and consequently there is no

⁸ <http://www.cptu.gov.bd/ProcurementPolicy.aspx>

mechanism in place to observe, prevent or take action against bidders colluding against LGED or in cahoots with LGED local staff.

127. Procurement planning is well ingrained at the project level in LGED. All PDs prepare an annual procurement plan and obtain CPTU's approval in accordance with the PPR. However, the quality of reporting about the implementation of the procurement plan is not regulated within LGED; the quality and content of the implementation varies depending upon the project. Few projects use the procurement plan as the procurement memory and record of the procurement activity for the duration of the project. The systems at LGED do not allow producing an overall procurement plan for the institution enabling queries by auditors, independent reviewers, civil society and development partners' supervision teams in localities, showing, for example, possible concentration of contracts in a few hands.

2.10 Risks and Risk Mitigation Measures for procurement

a. Collusion of contractors

128. Collusive practices means "*a scheme or arrangement between two or more bidders, with or without the knowledge of the procuring agency, designed to establish bid prices at artificial level*" and describes a non-competitive practice in which bidders submit bids in complicity with each other to gain an unfair advantage (cf. Castalia, 2009: 41-2).

129. On the positive side, there is some evidence that competition for LGED contracts is increasing, mainly due to a reduction in political interference since 1/11. For example, average participation of bidders for RTIP-funded contracts increased from an average of 3 to 6 from 2006-7.

130. However, like any other government procurement entity, LGED may be subject to collusive practices of the construction industry. In 2005, LGED detected evidence of collusive bidding in the Bank's Municipal Services Project, including: (i) bidders quoted identical unit prices for most items of work, and (ii) most bids submitted had identical handwriting, although they were allegedly submitted by different bidders. Subsequently, LGED sought a "no objection" from the Bank for re-bidding. Evidence of collusion was confirmed by an independent procurement review undertaken by an international audit firm and the Bank as a result cancelled a portion of the credit. LGED clarified that the organization is sensitive to the issue; in fact, it was LGED staff that detected and informed about the case and requested re-bidding. The Bank, however, did not agree to the re-bidding and cancelled the allocated amount in the absence of a real sanction to the colluding firms.

131. Since then the ORA team has not been able to determine if similar events may have taken place again in the projects financed by the WB or any other development partners. However, in a field visit to the Rajihshi District of LGED, a quick review of an evaluation report of a bidding for small road maintenance works - with ten slices financed by GoB - showed that several contractors submitting bids in various slices were ranked between the second and fourth place but invariably each one of them had the lowest price in a different slice subsequently awarded to them. This isolated event, of course, is not proof that the bidders colluded but is a significant flag of risk of collusion. In a real competitive environment, one could expect that the bidders keep their unit prices similar for similar works; there is no justifiable reason for each of

them to be lowest in different packages other than collusion. Although LGED did flag similar other cases and evidence as above under the MSP, LGED does not look at these risks systematically. The lack of a system for monitoring collusion represents an operational risk that can lead to higher prices and a fiduciary risk if LGED officers are complicit in instances of collusion for a price. To mitigate these risks, it is recommended to set up a supervision system as required by CPTU in which at least 20% of the contracts not subject to HQ's examination are independently reviewed *ex post*.

b. Advertisement of procurement activities

132. One way to tackle both potential collusive attacks and poor performing contractors is by increasing the base of contractors participating in LGED procurement opportunities. LGED may achieve better participation through better and more selective advertisement, while still adhering to the advertisement procedures of PPR 08 and the concerned development partner agency.

133. Current regulations require advertisement of bidding in one English language newspaper and in one Bangla newspaper. While the English language newspaper is generally one of national circulation, the Bangla newspaper could be one of many local or regional newspapers. The XEN office normally chooses either the regional or local Bangla newspaper using its own criterion, i.e., giving a fair distribution of the advertisement to all newspapers. Acknowledging that bid notices are also displayed on LGED office notice boards, and on the LGED website, it is still felt that better newspaper advertising practices would be desirable.

134. Indeed, in order to search and learn about bidding opportunities at LGED, small- and medium-sized contractors must buy and read many local and regional Bangla newspapers. The ORA team consulted one LGED large contractor who said that his firm buys four daily newspapers and has a dedicated staff to find the bidding opportunities. The evidence from this inquiry suggests that small- and medium-sized contractors are unable to track the numerous bidding procedures advertised by LGED business in the Bangla newspapers.

135. This pattern of advertising for LGED contracts represents an operational risk that could lead to higher prices by effectively restricting the number of bidders, and a fiduciary risk if LGED officers are complicit in informing selected bidders about bidding opportunities for a price. This practice should be improved by posting the ads in for each area in a single Bangla newspaper with the highest circulation, so that smaller contractors do not have to buy all newspapers to learn about the business opportunities. A strategy for better dissemination of business opportunities at the local level should also be developed to attract additional contractors to bid for LGED work, including expanded use of bulletin boards of LGED field offices, the websites of LGED and CPTU, and consideration of a system of text messaging to inform contractors of all relevant bidding opportunities. LGED should suggest to CPTU changes to prevailing Rules and Guidelines as needed to cover these arrangements.

c. Bid Preparation

136. The current practice followed by LGED of helping contractors to understand how to prepare bids might inadvertently slip into LGED staff actually preparing contractor bids, which would be contrary to good practice and open fiduciary risks. The contractor's bid estimates often

reflect the desire of the contractor to secure the job as well as the quality of the estimating tools at its disposal. Depending on the size of the contract, some contractors have well established cost estimating procedures while others do not. Under RTIP, it has been observed that contractors bidding for small NCB contracts have limited capacity and resources to prepare a bid, and may rely on LGED staff to help them to understand how to prepare their bids. To mitigate any risk, LGED should expand its training for small contractors in bid preparation, and encourage them to seek assistance from independent specialists with local knowledge of labor intensive road construction.

d. Monitoring of Contracts' performance

137. Good procurement practice requires data on contract-implementation performance that are easily retrievable from a system at the various stages of the procurement cycle. Knowing the performance in previous similar contracts can assist the procurement practitioners and reviewers at the time of preparing new tender documents, preparing short-lists, checking specifications, recommending follow-on awards for the same contractors, and illustrating problems of the same nature in other projects. Without some sort of data on contract performance, or without the institutional memory available to the procurement function, each new procurement request stands alone. As a result, recurrent issues in procurement are likely to be overlooked or treated differently by each project leading to inconsistencies and increasing three risks: delivery, reputational and financial.

138. Bid documents for GOB financed projects are prepared by taking into cognizance the current level of contractors' qualifications, but not in the case of Bank projects. Besides, LGED holds regular review meetings at the field level whereupon poorly performing contracts are identified, discussed, corrective measures are suggested and subsequent actions are followed up. Management meetings are also held to deal with the critically poor performing contracts. However, LGED's monitoring-of-contracts function is decentralized. LGED does not have an integrated database on contract performance. The absence of aggregated information makes the procurement function vulnerable to local and market practices inconsistent with good practice. The oversight function by LGED in contracting activities is largely based on physical and financial progress of the works. However, reports are not available narrating or benchmarking progress and performance of the current and past contractors, suppliers and consultants in the projects. In interviews conducted for the ORA, there are no recollections about penalties or liquidated damages imposed to contractors for delays in supply, or about bid or contract guarantees forfeited, or insurances claimed. All these are pointers that contract monitoring appears to be at an infant stage in LGED; to mitigate risk in the short term, the contract monitoring issues need to be addressed for all complex contracts on a case-by-case basis by means of HQs closer supervision.

e. Adjudicator

139. LGED provides 2 – 3 names of adjudicator in the bidding documents, and bidders agree on one to be appointed by LGED; the adjudicators are recognized professionals, or former executives of the Department, and are well-respected. There are no cases recorded of bidders taking exception to the proposed adjudicators, and hundreds of contracts are signed yearly including the adjudicator. Yet, there are no records of the adjudicator ever being called upon to resolve a dispute. LGED's explanation is that the disputes arising during contract

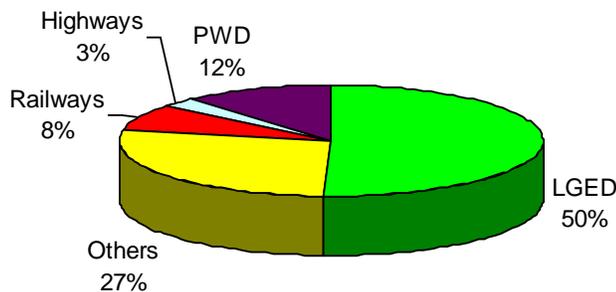
implementation are always resolved in bilateral discussions between the XEN and the contractors. Alternative explanations could be lack of confidence in the designated adjudicator, along with a potential financial burden that may be considered excessive for small local contractors. This represents an operational risk that dispute resolution is extended in time, with possible contract paralysation. A fiduciary risk is that complicit LGED officers could offer to resolve these disputes for a price.

140. To address these risks, it is recommended that LGED may consider identifying prominent, independent figures, at the district level in key regions, to be proposed and to serve as an adjudicator in order to create conditions more propitious for the local contractors, thus reserving the prominent former official for larger contracts. Although challenging to find suitable candidates, LGED could try on a pilot basis to add to new contracts a provisional sum to pay for the adjudicator services.

f. Anticorruption

141. The current CPTU’s list of contractors debarred from participating in government procurement includes 70 contractors. 50% of those blacklisted contractors were banned due to fraudulent practices in LGED. This can be interpreted hypothetically in two ways: (a) LGED is more exposed to risks relating to fraud and corruption; or (b) LGED is committed to denounce bidders and contractors incurring on actions deemed fraudulent or corrupt and applies the rules against corruption and fraud more diligently. There is no further evidence supporting either of the two possibilities. However, LGED has signed and maintains a Procurement Risk Mitigation Framework with WB including multiple requirements on fraud and corruption. Their compliance may have increased the number of contractors sanctioned.

CPTU list: debarred contractors



142. The proactive role of LGED sanctioning fraudulent and corruptive practices is consistent with the reports about LGED staff (including ten high level XEN officers in the field in 2007) dismissed or punished for administrative wrongdoing. If this empirical evidence signals a trend towards more transparent and cleaner procurement practices in LGED, the procurement function will certainly improve. However, any improvement needs to be substantiated with proof and verification otherwise the progress will pass unperceived by LGED’s management and the public at large. In order to collect evidence, LGED needs two elements: systems to collect data

and analytical skills to process data, to interpret and suggest policies and regulations designed to prevent wrongdoing, and to sustain good practices. That capacity needs to be strengthened at LGED to avert the risk of making improvements that passed unnoticed, thus losing opportunities to build momentum of change management on procurement. To address this risk, it is recommended that LGED expand the work of the Procurement Management Unit (PMU) functioning since 2004 to establish and monitor anticorruption indicators on procurement and to generalize the Procurement Risk Management Framework.

g. Qualification of contractors

143. The capacity of the small contractors working in the construction of rural infrastructure has been a concern of LGED since the 90s. Bid documents for GOB financed projects are prepared by taking into cognizance the current level of contractors' qualifications. Besides, LGED holds regular review meetings at the field level whereupon poorly performing contracts are identified, discussed, corrective measures are suggested and subsequent actions are followed up. Management meetings are also held to deal with the critically poor performing contracts. The ORA team was informed that as a result of LGED's accumulated experience, under GoB financed projects, the post-qualification requirements of the average turnover of the small contractors is about 0.3 to 0.5 of the official cost estimate of the works. In the WB-financed RTIP, the requirement is for an average turnover 1.5 times the official cost estimate for the same nature of road works, reduced to 1.0 times for the flood rehabilitation component. Still, under WB-financed projects some of the works appear to suffer from unqualified contractors who passed the post-qualification requirements of the bidding documents. It is possible that such under-performing contractors passed the post-qualification (if correctly applied) using the qualifications and credentials of larger contractors thus misrepresenting their own capabilities. This represents an operational risk of delays and low quality, and a fiduciary risk if LGED officers are complicit in accepting fraudulent qualifications for a price. To address these risks, it is recommended that LGED conduct a study to compare performance of contractors for small works selected under GoB qualification rules and under more stringent post qualification requirements.

144. If the results are positive with the former performing better than the latter, the qualification criteria under foreign aid assisted-projects would need to be revisited. The selection of the post-qualification criteria is a specialized matter that would require a study to ensure that reduction in the threshold for post-qualification would not affect adversely the performance of contractors, or to prevent that standard criteria in foreign assistance-funded contracts lead to regional or local monopolies, in which only larger contractors are able to be qualified and then sublet the works to smaller contractors. LGED should adopt a system that would establish the post-qualification criteria on the basis of the review of the performance of the contractors of the last 18 months. This system may include regional or district differences when properly justified and approved by the procurement unit and the higher management. The system should be adjusted periodically after careful analysis of the performance data collected by the procurement unit.

h. Procurement Risk Mitigation Framework (PRMF)

145. The Rural Transport Improvement Project (RTIP) financed under IDA Credit 3791-BD adopted a 25-point program to mitigate risk in the project implementation. The program

requires quarterly reporting on the progress of the actions and activities. The actions tackle traditional areas of concern of the procurement function including training, monitoring, reporting, delegation of authority, attention to corrupt practices, low competition, record-keeping, publication, debarment of firms, complaints management and e-procurement.

146. Some of the actions, like e-procurement, have not started as of the date of this report, but it is a bold idea to retain it in the PRMF. The report is accompanied with tables and information helpful in the project procurement administration. However, there is no real analysis of the data and no reporting on actions taken to address issues in previous reports. The problem lies on who takes ownership and responsibility for the PRMF. This responsibility is currently at the project level which is not equipped to deal with such an upstream task.

147. Given the decentralized nature of the procurement function at LGED, the PMU is introducing a procurement management information system to enhance management capacity to oversee and monitor potentially risky areas of the procurement processing by (a) adopting and expanding the use of all requirements of the PRMF in all projects implemented by the Department, (b) developing a similar framework between HQs and with key districts, and (c) endowing the PMU with the task of monitoring on a monthly basis each of the projects under the PRMF. The PMU also plans to keep a database, report to CPTU and publish quarterly summaries of the key indicators of the PRMF. The ORA supports the full implementation of this new system and processes, as part of the recommended, enterprise-wide decision support system proposed above in Section 2.3. Consideration should also be given to testing the Sistema de Ejecución de Planes de Adquisiciones (SEPA) e-procurement system, owned by the Bank and used successfully in Argentina, Honduras and Mexico. It has been translated into English, and is able to be used to collect data on any number of projects, post them online, and allow for anti-collision tests.

i. Procurement information

148. There is a Monitoring and Evaluation Unit at LGED's HQ. This unit generates periodic reports summarizing the physical and financial progress of various projects being executed by LGED under the Annual Development Program (ADP). These reports based upon Implementation Monitoring and Evaluation Division (IMED) standard formats provide summary of project allocations, disbursements and expenditures. ADP review meetings are held every month and IMED reports are presented there and also to CE and ACEs. In addition, Inspection Reports, Inquiry Reports and Complaints appearing in newspaper are also compiled and sent to the senior management for information and decisions.

149. Each project maintains its own reporting formats as per the development partner and project requirements. The quality and degree of monitoring (as reflected in different formats) varies among programs and projects. Specific reporting requests, over and above the standard formats, are addressed directly by the PD of each respective project, subject to availability of funding.

150. Only about 10% of the contracts (in number) representing about 50% of the contracts in value require management review at HQs. This includes all contracts 50 million Tk and above, and those with a cost estimate above certain threshold or contracts for which the proposed award is not within 10% difference of the official cost estimate. Although contracts 50

million taka and above may represent a significant portion of total contract value, they represent a tiny portion of the number of procurement actions carried out by the Department, most of which is carried out at the district and sub-district level. There is some capture of information at LGED HQ through RSDMS-V software (engineer's estimate, bids evaluation summary and contracts summary), and there is a manual system in place on a project basis. Yet, there is no integrated procurement management and information system, and no consolidated reports on how many contracts are actually reviewed at the HQs before the bidding is awarded and the contract is signed.

151. LGED is one of the two or three institutions of the GoB providing information to CPTU on procurement performance for the larger contracts. An MIS system under development by CPTU is being piloted by LGED, under the Second Procurement Reform Project supported by the World Bank. Once it is fully operational, such MIS would increase the ability of LGED management to oversee de-centralized procurement.

152. The procurement function at LGED is complex and could be made more efficient by systematically collecting more data and improving analytical capabilities. The larger contracts in foreign aid assistance-funded projects appear to be subject to due process but recording is limited to the follow up of the procurement plan, physical and financial progress. The smaller contracts approved at the district level are not subject to any type of procurement monitoring or collection of performance indicators. This represents a risk that LGED is unable to comprehensively monitor its procurement actions, identify systemic risks, and take steps to address them. Full implementation of the procurement management information system would represent a significant step towards better management of the procurement function. The next step should be developing an analytical capacity and establishing performance indicators.

j. Advisory Panel on Procurement or Fiduciary Advisory Panel

153. LGED lacks the structure for oversight of procurement, and the CPTU has limited resources to support oversight. This represents a risk of delays, low quality, and missing opportunities for improvement.

154. To address this risk, the organization of the procurement function at LGED may need a few years of high level advice in order to monitor and suggest adjustment of regulations and procedures. Funding should be secured so that a fiduciary advisory panel of two or three experts can meet twice a year to examine the procurement plan and review⁹ the institutional framework for procurement in LGED. The procurement experts should learn from the performance of the procurement function at the district and sub-district level from the independent procurement reviews or audits performed under development partner-assisted projects and from the internal review reports currently coordinated by PMU unit. They should provide the Chief Engineer with a report with recommendations on risks and opportunities.

TABLE 6: TYPE 1 FINDINGS AND RISK MITIGATION MEASURES FOR LGED: PROCUREMENT

⁹ The fiduciary panel should include a procurement expert and a financial management expert. The field of expertise of the third member may vary depending upon the fiduciary task most relevant in the period: installation of the MIS, large contracts, institutional strengthening, capacity building, creation of unit, surge of nonperforming contractors, etc.

FINDING AND RISKS	RISK MITIGATION MEASURES	OTHER AGENCIES	SHORT/ LONG TERM
<p>LGED has experience in PRMF but the reporting, follow up and review of the PRMF hasn't yet been fully realized.</p>	<p>Apply PRMF to every project; negotiate specific actions for every project, evaluate progress quarterly and assess progress yearly (Progress indicator: PRMF applied to 10 projects annually)</p> <p>PMU enters into similar agreements with key districts (Progress indicator: PRMF applied to 5 districts annually)</p> <p>Give responsibility and control of the PRMF to PMU (Progress indicator: Reports on PRMF issued bi-annually)</p>	<p>CPTU, local governments</p>	<p>S</p> <p>S</p> <p>S</p>
<p>Given the large number of contracts procured by LGED and the decentralized nature of the procurement implementation, the lack of an integrated information system is a risk.</p>	<p>Full implementation of the procurement management information system being introduced by the PMU; as part of this, look at implementing an e-procurement and tendering system which will facilitate a centralized database of all contracts, encourage more small and medium contractors to bid for projects and improve overall transparency and accountability in LGED works. (Progress indicator: design approved by LGED)</p>	<p>CPTU</p>	<p>L</p>
<p>Information on contract management is limited to physical and financial percentages</p>	<p>Closer supervision of contract management for all complex contracts should be adopted by HQs (Progress indicator: Staff hired at PMU)</p>		<p>S</p>
<p>Small contractors use the post qualifications and credentials of larger contractors, thus misrepresenting their own capabilities and risking delays and low quality work.</p>	<p>Carry out a study demonstrating the performance under different set of rules (Progress indicator: Consultants hired)</p> <p>Adopt a system that would establish the post qualification criteria on the basis of the review of the performance of the contractors of the last 18 months. This system may include regional or district differences when properly justified and approved by the PMU and the higher management. The system to be adjusted periodically after careful analysis of the performance data collected by the procurement unit (Progress indicator: Guidelines issued by CE)</p>		<p>S</p> <p>S</p>

FINDING AND RISKS	RISK MITIGATION MEASURES	OTHER AGENCIES	SHORT/ LONG TERM
Advertisement of procurement opportunities may not be targeting the right segment of the market at the district level	Define a strategy for more systematically advertising tender opportunities. The strategy may consider selecting newspapers for advertisement of the procurement opportunities in Bangla language on the basis of high circulation and retaining the source continuously for at least for six months or any other measure that would target the smaller contractors more effectively. It may also consider expanding the use of bulletin boards of LGED field offices, the websites of LGED and CPTU, and text messaging. (Progress indicator: Consultants hired)		S
Small contractors may rely on LGED staff to prepare bids	Expand training for small contractors in bid preparation, and encourage them to seek assistance from independent specialists. (Progress indicator: Trainings completed)		

3 FORMIP: RISKS THAT LGED CAN ADDRESS WITH SUPPORT FROM KEY PARTNERS

155. This section examines type 2 risks that LGED can take action to address with support from key partners. In other words, it can initiate some parts, but will also need to influence key partners to make necessary decisions to carry out the recommended actions. Although taking these actions independently will have immediate benefits, they will have the greatest impact when taken in combination with type 1 and 3 actions, as discussed in the previous and next sections. The type 2 risks and recommended actions are summarized in Tables 7-10, at the end of this chapter.

3.1 Internal Organization

a. Mission and Vision

156. LGED has a clear functional mandate focused on the implementation and maintenance of secondary and tertiary infrastructure which has contributed to the inculcation of a well-developed sense of purpose and culture of enterprise amongst staff in all parts of the organization. This has now been formalized into an organizational mission focused on the promotion of socio-economic development and poverty reduction for rural and urban citizens.

157. LGED has grown significantly during the last two decades and is likely to continue to grow further based on its track record of efficiency, its capability of flexibly adapting to new technologies, and its hard working and committed personnel. Whilst its mission is well understood by almost all staff in LGED there is less clarity about the future direction of the organization. Most staff perceive the organizational vision in terms of the maintenance of existing work standards and systems rather than a set of goals representing future developments and improvements to the organization. The lack of a clearly articulated vision represents an

operational risk potentially undermining the quality of strategic corporate planning in LGED with the associated risk that the organization will not be in position to develop and advance in an optimal manner in the future. To mitigate this risk, a high priority recommendation is that LGED actively pursue and develop the formulation of a realistic but challenging vision which is currently under active consideration by GoB. This could include supplementing the existing Institutional Strengthening Action Plan (ISAP) Mission and Vision to identify the kind of changes required for LGED to be a leading edge infrastructure service provider in future. Whilst it is acknowledged that there is an external political risk that future changes in government or the wider fiscal environment may result in a redefinition of LGED’s mandate, it is nevertheless important that LGED formulate a vision and mission for the effective delivery of infrastructure at local level as a critical component of the country’s long term development and environmental management requirement.

b. Staffing Pattern and Skill Mix

158. The staffing pattern of LGED follows the establishment pattern of GoB where staff are categorized into 4 classes based on distinct terms and conditions of employment and recruitment practices. The current staffing pattern and corresponding vacancy levels are shown in the following table.

159. LGED currently has a total of 10,287 sanctioned posts on its revenue budget with a further 4,000 project staff working on contract to LGED on 72 projects, including 27 development partner funded schemes¹⁰. The staff size is justified by LGED’s dual roles of

LGED Staffing Pattern by Class				
Grade	Sanctioned	% of Total	% Vacant	Total in Place
Class I	1374	13	42	796
Class II	1578	15	14	1352
Class III	5832	57	8	5391
Class IV	1503	15	4	1441
Total	10287	100	13	8980

Source: data provided by LGED

planning and implementing its own funded projects, while also supporting other Government departments and local governments with their project management and capacity development needs. Around 85% of trained engineering staff (Grades 1 and II), and 90% of all staff are directly engaged in line operational activities at upazila and field level. Around 8% of all staff are placed at district level responsible for

implementation of larger schemes and works while only 1.4% of total staff on the revenue budget work in staff positions at HQ level.¹¹ Less than 30% of all staff are qualified engineers in Classes I-II while just fewer than 60% of all staff are employed in Class III posts. Of the 240

¹⁰ Contracted staff may include LGED staff on “deputation” to a project, meaning they are paid from the project budget rather than from LGED’s revenue budget, and typically paid at a higher rate. Number of staff doesn’t include consultants working for consulting firms with LGED contracts.

¹¹ In addition to 146 permanent staff at HQ there are around 800 incremental staff working on contract with LGED under specific project funding.

female staff in LGED, representing just 2.6% of all staff, the vast majority of these are in Class III and Class IV posts as office assistants, clerks and accounts staff.

160. Whilst the staffing pattern in LGED conforms to a standard GoB arrangement divided into Classes (I-IV), the actual number and distribution of posts within and across these classes differ from many of the more established engineer departments such as the Department of Public Health Engineering (DPHE) and Roads and Highways Department (RHD). Overall, given the size and scale of LGED there is a serious risk that the organization is understaffed in terms of qualified engineers in Class 1 generally and senior engineers in Class 1 in particular (see below). Although LGED has a more decentralized staffing pattern than most similar departments, with just 1.4% of all staff on the revenue budget based at headquarters, it has fewer qualified engineering staff in Class I positions as compared to other similar departments in the country. Class I engineering posts in LGED, for example, represent just 12% of all staff, whilst other engineering departments including Public Health and Roads and Highways have twice the number of Class 1 engineers at around 24% of total staff, in spite of having smaller overall budgets than LGED.

161. The ratio of staff to total expenditure in LGED is 1:50,000 (US\$) as compared to just 1: 7,000 (US\$) for the DPHE in the same Ministry. Although some of this difference may be due to greater efficiency of staff in LGED, there may still be scope for adjusting staffing levels in LGED for Class III and IV employees whilst increasing the number of technical staff in managerial positions. This increased staffing would help to implement the risk mitigation measures proposed in this report.

162. An assessment of the optimal staff to workload ratio confirms the risk that LGED may be understaffed at present in terms of qualified engineering personnel. XENs in LGED, for example, are currently responsible for around Tk 40 crore of work per annum against an optimal workload estimate¹² of Tk 25 crore per annum. At the same time the average current workload of a Sub Assistant Engineer (SAE) is around Tk 2.8 crore which is around 50% higher than the estimated optimal workload.

163. The MANCAPS report (1998) observed a need to strengthen the senior management tier at regional level. In response, LGED deployed 10 staff as SEs posted in each region. Although LGED has now succeeded in obtaining approval for 6 of the 10 posts under the revenue budget, there is still a risk that LGED has too few senior engineering staff. The number of ACE and SE posts in LGED, for example, is just 0.04% and 0.1% of all posts respectively, which is considerably less than found in comparable organizations elsewhere.

164. There are currently just 4 approved ACE and 13 SE posts in LGED as compared to 14 and 30 posts for the same grades in the RHD which manages a budget that is 40% smaller than that of LGED.

165. The lack of a sufficient number of sanctioned posts at senior and middle management level in LGED leads to a situation where many senior and middle management positions are filled by staff at a more junior level. This has been exacerbated by the large number of projects that LGED is currently responsible for, almost all of which require LGED to depute an officer of the rank of XEN as Project Director. This has resulted in a situation where only

¹² Note that the optimal workload estimate is based on discussions with LGED engineers and is not calculated on the basis of any specific measurements.

50% of SE posts at HQ level, 0% of SE posts at Regional level and 25% of XEN posts at district level are filled by officers of the requisite grade and scale. This results in staff performing duties and responsibilities for which they are neither formally nor adequately rewarded; it also serves to demoralize those who are charged with these additional responsibilities who see little prospect in obtaining promotion.

166. Another key risk in terms of the inadequacy of staff and appropriate skill mix relates to the insufficient number of approved posts in Finance and ICT. LGED has only one approved post of Systems Analyst, one Computer programmer for ICT support, and one post of Accounts Officer at Class 1¹³ level. Whilst there are no approved ICT posts on the revenue budget below HQ, there are 546 Accountants and 482 approved posts for Accounts Assistants at Class 3 level. There is an immediate need to strengthen staff resources and capabilities in Finance at Class 1 and 2 levels as well as to create revenue posts for ICT to ensure continuity and support in a critical and growing area of operations. At present this requirement is provided through contract staff working under various projects. Whilst this is a practical way of addressing an immediate issue it is not a lasting solution given LGED's expanding ICT/Finance applications and needs.

167. Another issue is that District Quality Control (QC) Laboratories are understaffed in terms of supervisory level officers and support staff, the latter being drawn from the daily muster roll. This is critical in terms of quality control since the QC labs provide LGED with the potential to mitigate risks relating to the use of poor quality materials by contractors with or without the knowledge of LGED works assistants and SAEs at field level.

168. In spite of the recent approval of 472 additional posts of Assistant UEs in LGED, there is still an insufficient number of qualified engineers to support the GoB thrust on devolved planning and implementation of physical works at Union Parishad. This risk is likely to become more apparent as LGD promotes more devolved block grant funding for UPs under the World Bank funded LGSP. UP Chairpersons express serious concerns over the lack of ready access to SAEs in LGED to support the participatory planning, implementation and monitoring of newly devolved funds for local infrastructure. To mitigate this risk, it is recommended as a high priority to increase the number of staff to resource the newly proposed Divisional Structure with 3 ACEs to ensure one to head each of 7 Divisions at the HQ level and the creation of a 20 additional XENs and 20 Assistant Engineers for the 10 Regional Offices in the first instance. Beyond this there still remains a need for further strengthening of Class I resources in LGED. Initial assessments of staff to optimal workload ratio would imply a further need of 50 XENs and around 250 AEs.

c. Age Profile

169. A brief examination of the age, qualifications and training for XENs and AEs reveals a risk that LGED has an unbalanced age and qualification profile. The average age for XENs of 47.8 and for AEs 38.4. The vast majority of engineers of both categories have obtained a bachelors degree with around 5% holding a post graduate degree. Around 25% of AEs have obtained an international qualification. All engineers have attended national local level training programs.

¹³ There is also one approved post of HQ Accountant in Class 3

170. This age distribution results in a shortage of younger professional staff, and represents an operational risk of a serious succession challenge, as there will be a pronounced bunching of staff coming up for retirement over the course of the next ten years without a sufficient number of staff in hand to fill the vacancies left by outgoing personnel. To mitigate this risk, it is recommended that LGED introduce an internal system of succession planning as part of the HR function in the Administration Unit. This system would enable LGED to identify the risk of future staff shortages and gaps in various job and age categories. This information would then need to be relayed to LGD and MoE on a periodic basis. The reintroduction of post-graduate courses for LGED engineers would also help to improve their academic knowledge and standard, specialization and professional skills, helping them prepare for being redeployed to new positions.

d. Vacancies

171. Whilst the overall vacancy level in LGED is relatively low at just 13% of all sanctioned posts, as shown above there is a more fundamental issue where the existing sanctioned strength of the organization does not meet emerging requirements. Exacerbating this challenge is the fact that the vacancy level varies sharply across the different Classes I-IV, with the highest level of vacancies at around 40% being found amongst professional staff in Class I. This is mainly due to the time lag between the recent approval of 476 newly sanctioned posts of Assistant UE and the recruitment to these posts by the Public Service Commission. This process is now underway in a phased manner. Another factor accounting for the high level of vacancy in Class I positions relates to the time taken to amend the recruitment rules to allow LGED to fill 64 vacant Sociologist posts at district level. Other key vacant positions include 200 works assistant posts, 126 surveyors, 111 and 97 SAEs.

172. LGED cannot determine its own staffing pattern but relies on the Ministry to approve the creation of posts and fill vacancies. Whilst LGED has had some recent success in gaining approval for 476 Assistant UE posts the overall response and timeframe with regard to addressing vacancies remain extremely weak, representing an operational risk to LGED in carrying out its work program efficiently and effectively. To mitigate this risk, it is recommended to introduce succession planning as mentioned above, which will enable LGED to generate empirical evidence and data on staff needs and gaps. This would need to be conveyed to the Ministry with regular and persistent follow-up.

TABLE 7: TYPE 2 FINDINGS AND RISK MITIGATION MEASURES FOR LGED: INTERNAL ORGANIZATION

FINDING AND RISKS	RISK MITIGATION MEASURES	OTHER AGENCIES	SHORT/ LONG TERM
The lack of a clearly articulated corporate vision undermines the quality of strategic planning.	Strengthen existing initiatives to formulate corporate Vision Statement to ensure it clearly defines the future direction and shape of LGED as a complement to the ISAP.		S

Lack of sanctioned posts at senior and middle management level hampers alignment of staff and workloads.	Increase number of senior staff to enable new organizational structure with additional 3 ACEs HQ, 20 EEs and 20 AE at Regional level. Longer term increases of 50 XENs and 250 AEs to improve alignment of staff and workloads.	LGD, MOF, MOE, PSC	S
Majority of staff in the technical grades are over 40 years of age.	Establish systematic approach to succession planning as a part of HR function to highlight age imbalances and report to LGD and MOE.	LGD, MOE	S
Not enough routine succession planning within the organization, contributing to the need for regular <i>ad hoc</i> recruitment to address critical vacancies.	Regular staffing needs assessment reports to MOE linked to on-going DFID funded support for MOE. Need for additional support staff in LGD.	LGD, MOE, MOF, PSC	S
Recruitment process doesn't put enough emphasis on experience, attitude and character <i>vis a vis</i> academic qualifications and examination.	Recruitment process to be undertaken by the professional examination board to scrutinize applications, set and mark papers and screen applicants for interview board led by PSC.	LGD, MOE, PSC	S

3.2 Information and Communication Technology

a. Lack of permanent in-house ICT skills and capacity

173. Almost the entire ICT staff available with LGED is temporary and paid through development-partner-funded projects. Since LGED has continued to have a plethora of new projects, the ICT staff have continued to get employed by moving from one project to another. Bangladesh's ICT industry has been growing steadily, thereby creating additional job opportunities. This represents an operational risk that, given an opportunity, most of LGED's ICT staff will take up alternative jobs. Coupled with the fact that since most of LGED's software originated as project specific systems and therefore have very limited technical documentation, this poses a serious and significant sustainability risk for LGED. In the present scenario, since virtually most of the ICT staff is irreplaceable (or at least replaceable with a great deal of difficulty), of all the potential ICT risks facing the LGED, the issue of creation of a core, competitively paid ICT group is perhaps the most critical and needs to be addressed on an urgent basis.

174. To mitigate this risk, it is recommended that LGED establish a permanent MIS / ICT Unit with regular, annual funding from the revenue budget, and not dependent exclusively on development partner funding / projects. The unit should be funded in part either by drawing a fixed percentage from all project budgets (say 2%) or through a system of user charges payable by all projects and internal users, or any combination of the two. The unit should be staffed by LGED staff and private sector professionals / consultants on long term contracts (4 – 5 years) and headed by a SE. Moving this proposal ahead will require close cooperation and consent from principal development partners.

b. Limited usage of ICT for improving transparency

175. ICT provides as excellent tool for improving transparency (thereby creating the pressure for better accountability and governance) both within as well as outside the organisation. Although a lot of data are available within the LGED systems, they are invariably not accessible freely or easily. This represents an operational risk of achieving less than desired transparency in LGED operations.

176. To mitigate this risk, it is recommended that LGED’s website be enhanced so that it provides information on all contracts that LGED executes, along with details of the contractors who are responsible for executing these contracts. Easy availability of key data to the general public will not only build greater trust in LGED but will also provide the means for inter-region comparisons and benchmarking. In addition, e-procurement is one specific area which is of great relevance to LGED, and if implemented properly should significantly reduce risks and ensure a high degree of financial and economic savings. The fact that LGED annually executes over 20,000 contracts ranging from a few thousand to a few crore takas, makes LGED an excellent case for implementing e-tendering and eventually e-procurement, in line with CPTU guidelines.

TABLE 8: TYPE2 FINDINGS AND RISK MITIGATION MEASURES FOR LGED: INFORMATION AND COMMUNICATION TECHNOLOGY

FINDING AND RISKS	RISK MITIGATION MEASURES	OTHER AGENCIES	SHORT/LONG TERM
Almost the entire ICT staff available with LGED is temporary and paid through development partner funded projects, and ICT systems have limited documentation.	Establish a permanent MIS / ICT Unit with regular, annual funding from the revenue budget, and not dependent exclusively on development partner funding / projects, staffed by competitively paid employees and contractors.	MOE, LGD, MOF, PSC	S
Although considerable data are available within the LGED systems, they are invariably not accessible freely or easily.	Implement, as part of a web based IDSS, a centralised contracts database (covering all past and current LGED contracts) and a contractors database (covering all contractors who have or are executing any project for LGED) to facilitate contracts and contractors’ performance evaluation, benchmarking and monitoring, and complaints resolution.	LGD, CPTU	L

3.3 Financial Management

177. In addition to the risks and recommendations discussed in the last section, there are additional areas where LGED needs to work in close coordination with other agencies. Again, a key area relates to human resources. The agency is staffed with a large number of experienced and well-qualified engineers; however, the agency has not been able to develop a strong accounting and financial management staff to complement its technical capacity in engineering.

a. Accounting Staff-HQ

178. The accounting staff in LGED generally lack accounting qualifications, although all had to satisfy the academic and experience criteria as required under the Government Recruitment Rules for LGED. Many of them have worked with LGED for a long time and have acquired on-the-job experiences in accounts matters. Yet, the fact that virtually all of the accounting posts are in class 3 limits the role that the accounting staff can play in providing advice regarding financial matters and ensuring the existence of a strong internal control system.

179. LGED is currently attempting to address this issue by requiring that all new accounting recruits have at least a commerce degree¹⁴, and training programs are being provided to the staff in various topics including accounting. However, there are no plans to increase the grade of the accounting staff, which limits the possible career opportunities and caps the salary at a semi-professional level. Also, since many of the current core accounting staff have limited technical capacity, it is doubtful that short in-house training programs will adequately address this issue. This represents an operational risk that internal controls can't be properly managed, and a fiduciary risk that unauthorized practices can go on undetected.

180. To address these risks, it is recommended to create a central accounting and financial management unit, in cooperation with PSC, MOE, LGD, and MOF, led by a qualified accountant¹⁵. The staff should be recruited directly so that they are independent of the CGAD and can provide a further check and balance on the system. The unit, under the proposed Administrative and Finance Division, should be headed by a well-qualified and senior Head of Financial Management, who would, *inter alia*, lead the financial management and accounting cadre in LGED. A Head of Internal Audit should also be recruited. This unit should also be given responsibility, for among other things, developing and maintaining the professional standards in the agency, with guidance from C&AG. This is one of the primary recommendations of the ISAP. In addition, training needs assessments should be carried out for all accounting staff. These assessments should be used by the HR unit and the newly-created accounting unit to develop short- and long-term training programs to begin to upgrade the technical capacity of the accounting staff.

b. Accounting staff-Districts

181. More than 95% of project funds are disbursed at the district or upazila levels where the capacity of accounting staff is the lowest. The decision to decentralize the implementation of projects to the district and upazila levels along with the related disbursements, accounting and reporting did not also provide the resources to properly account for and control the activities. The accounting staff in the districts and upazilas is normally at lower grades than in headquarters (accountants at grade 3 are at the same grade as typists) nor have the accounting and information systems been introduced to support the existing staff. Although LGED has taken steps to improve the skills of the accounting staff working in the districts and Upazilas, these staff who process the majority of transactions and control the design and implementation of the projects still lack adequate qualifications and skills, leading to a control environment exposed to great risks.

¹⁴ The equivalent of a business degree, including basic accounting courses.

¹⁵ Accounts Officer post has been approved (ISAP final report, p. 40) but other posts will need approval.

182. The use of pre-audits by the Chief Accounts Officers should also be reviewed by the LGD and C&AG. In other countries, the pre-audit function while well-intended proved to be an area of abuse and potential rent seeking. This function should be replaced with staff with technical skills and grades appropriate for the level of responsibility, and a clear commitment by the management of LGED to the implementation of its designed internal control systems.

c. Financial Information System

183. The lack of a uniform project accounting system leads to the operational risk of a proliferation of development partner driven systems to manage and account for the various projects being implemented by LGED. This lack of a standardized software package increases the cost of doing business in LGED and also increases the complexity of developing an effective performance monitoring system.

184. Plans are underway to implement the Uniform Financial Management System (UFMS) which was recommended to government in the MANCAPS study in 1998. LGED hired a MIS consultant/systems analyst to develop a computer software package to maintain the financial accounting and reporting of all of its development projects. The system has been developed and is being used on about 31 (out of 62) projects. Currently, the system is only being operated at the headquarters level, but the long-term plans are to roll the system out to all 64 districts.

185. As discussed already under ICT, LGED should implement a standard computerized management information system. The central system should be based on “off-the shelf” technology and should enable management to evaluate the performance of contracts, prepare value for money audits, and compare the general performance of LGED against projects implemented by other agencies doing similar work. As proposed by the ISAP such a system, including the UFMS or its successor, should utilize the expanded accounts classification code to enable management to capture the detailed information needed to evaluate and monitor performance. It should also be linked as appropriate to the iBAS system, subject to the requirement of the LGD and the Ministry of Finance. This linking could start with work on financial reporting systems at the DAO / DDO level which draw upon iBAS (which has the transactional data at these levels). When the future of iBAS development is clearer, LGED can develop an appropriate strategy for UPOs to make fuller use of possible other iBAS functionalities.

186. Finally, LGED should complete the roll-out of the UFMS or its successor to all projects at the district and headquarters levels, on all projects (revenue and development). The software should also be flexible to accommodate project specific issues, using accounting and reporting protocols that comply with international standards (IAS) and good practice. Among the benefits, this will promote development partner harmonization in the management of development projects.

TABLE 9: TYPE2 FINDINGS AND RISK MITIGATION MEASURES FOR LGED: FINANCIAL MANAGEMENT

FINDING AND RISKS	RISK MITIGATION MEASURES	OTHER AGENCIES	SHORT/LONG TERM
The internal audit unit concentrates the majority of its work at the transaction level rather than reviewing control systems and procedures.	Place qualified accountants as the Head of Financial Management, and as the Head of Internal Audit. Adjust annual work programs to provide more emphasis on strengthening the control environment rather than mainly verifying the accuracy of payments.	PSC, MOE, LGD, MOF, C&AG	S
Accounting staff in LGED lack sufficient qualifications to properly manage internal controls.	Establish a central accounting and finance unit, staffed with qualified accountants.	PSC, MOE, LGD, MOF, C&AG	L
The lack of development partner and GOB harmonization in the management of the various projects makes it difficult to evaluate results of the projects and to control performance.	Government and management of LGED should establish effective accounting and management information systems and with these systems promote greater use of these systems by development partners in order to promote more effective development partner harmonization.	Development partners	L

3.4 Procurement

187. In addition to the type 1 procurement actions recommended above, there are additional actions that require important decisions/actions by the CPTU.

a. Bidding documents

188. LGED uses the Standard Bidding Documents (SBDs) for Small Works issued by the Government of Bangladesh in the English language, through the Central Procurement Technical Unit (CPTU) available from Bangladesh Government (2008). LGED uses the three documents classified as Very Small (less than 30 lakh Tk); Small (between 30 lakh and 1 crore) and Medium (above 1 crore Tk but less than international competitive bidding (ICB) threshold). The majority of the small contractors are unable to read or understand English language. Many times they have to contact larger contractors that act as brokers or intermediaries due to lack of technical and language skills to compete.

189. This represents an operational risk that the participant bidders and small and medium contractors do not understand and comply with the bidding documents in the English language. It is recommended that the SBDs for smallest contracts should be translated into Bangla as soon as possible. This is responsibility of CPTU, but LGED may well provide the translation to CPTU. Although the translation would help only in respect to the language skills and would represent additional costs to LGED, the standardization of bidding documents would reduce the financial impact of issuing documents in two languages.

b. Multiple dropping of bids

190. The issue of multiple places for receiving and collecting bids continues to be of interest to LGED. The PPR regulations as amended, allow for the multiple dropping of bids for any contract beyond Taka 30 lakhs, when the procurement head considers, on an exceptional basis, that it is needed. Notwithstanding the exceptional nature of the use, LGED use the multiple dropping frequently.

191. The WB and GoB have discussed this feature of the local practices and regulations many times over the years¹⁶. The multiple dropping is not a characteristic of LGED procurement only; RHD also uses the multiple dropping procedures. The ORA Road and Highways Department of June 2007 also gives attention to this feature of the national bidding.

192. As a result all those analysis, additional safety measures and testing, it is apparent that the WB decided that the benefits of contractors given multiple places to submit the proposals do not offset the risks of manipulation of bids after reception during the delivery of the sealed bids to the opening office.

193. The ORA team examined the reasons for the need of multiple dropping. The bottom-line appears to be that the need to have multiple places for dropping is a law and order issue that the procurement function should not bear. This represents an operational risk that interested parties forcefully interfere in the submission of the bids of the competitors, and a fiduciary risk of greater opportunities for collusive arrangements and fraudulent subletting. LGED can mitigate the risk by urging civil authorities to take care of providing security at LGED facilities and proximities. If that is not enough, LEGD should work on the areas of the country that are most exposed to this risk promoting the use of mail services or placing a steel, mobile tender box - secured with multiple locks - in a more publicly accessible site in LGED grounds with guards, until such time as when a transactional e-procurement being phased in by the CPTU would make the physical submission of proposals unnecessary. A third measure would be to work with relevant authorities to prosecute the offenders caught. In any case, the risks of reduced competition are far from being offset by allowing the multiple dropping and should be mitigated by better practices.

c. The case of the performance security in the smaller contracts

194. Even though the bidding documents and contracting arrangements used in LGED projects are specified by CPTU, the experience of LGED in carrying out thousands of small contracts every year may provide enriching feedback that needs to be used to update and maintain the contractual documentation needed for efficient procurement of rural infrastructure works.

¹⁶ An amendment of December 27, 2004 to the PPR provides that where logistical difficulties are experience by procuring entities, under exceptional circumstances, it is permissible for tenders to be submitted to the concern procuring entity at more than one location provided that all such tenders are brought to the primary location for public opening with the day or if distance is a factor within 24 hours of the deadline for bid submission. The WB opposes this system because of the risk of having the bids manipulated before due time. In 2005, the WB allowed for using the multiple dropping under certain conditions for a short learning period but since then the Loan/Credit Agreements take exception to such procedure.

195. The contracts signed by LGED have a performance security generally in the form of commercial bank guarantee callable upon demand. LGED has cancelled many contracts due to under performance of the contractors but charging liquidated damages (LD) or forfeiting securities is unheard of.

196. LGED has difficulties forfeiting the performance security of the small contracts because the conditions of contract do not foresee explicitly such employer's right. Moreover, a clause in the special conditions leads to understand that partial encashment of the performance security applies only in respect to the deduction for the remainder of the incomplete works when the contractor abandons the works.

197. In order to implement such a recommendation, LGED should: (a) enforce the forfeiture clauses in the small and medium SBDs; and (b) should request the Bank and CPTU to add the following sub-clauses in the very small SBDs (when performance security is used):

- The employer shall notify the contractor of any claim made against the Bank issuing the performance security. The employer may claim against the security if either of the following events occurs for fourteen (14) days or more:
 - (a) The contractor is in breach of the contract and the employer has notified him that he is; and
 - (b) The contractor has not paid an amount due to the employer.
- In the event the contractor is liable to pay compensation under the contract amounting to the full value of the performance security or more, the employer may forfeit the full amount of the performance security. If there is no reason to call the performance security, the performance security shall be discharged by the employer and returned to the contractor not later than twenty-eight (28) days following the date of issuance of certificate of completion of works by the engineer.

d. Use of Schedule of Rates under contracts below US\$150,000

198. The WB and most development partners do not allow the use of schedule of rates contracts under their financed-projects. This represents an operational risk that contractors desist participating in ad-measurement contracts, thus leading to less competition and higher prices. Scarce supervision resources used in ad-measurement also sacrifices quality control. LGED raised the issue of using some sort of schedule of rates in the small contracts under following lump sum contracts allowed under WB lending.

199. Unlike the schedule of rates contracts used in the past under the previous procurement regulations, that invited bids on the basis of the official cost estimate and bidders submitted a premium or percentile discount of those rates, the new form of contracting would require bidders to specify cost of activities rather than unit prices and line items.

200. The ORA team recommends following up on the request of LGED to study the possibility of introducing or intensifying the use of lump sum contracts which is a procurement

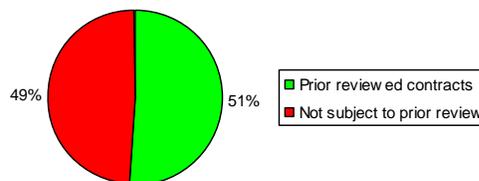
practice widely accepted by the WB and development partners elsewhere but not used in Bangladesh. The ORA team understands that the contractors will use the schedule of rates but still need to provide a breakdown of the key construction activities and provide the cost of such activities. The implementation of such contracts would require the ad-measurement of completed works but at a lesser detail as the payment of the contractors will be made as a percentage of the activities actually performed in the billing period. Among the benefits of such change include that the AE or SAE will focus in the quality of the works rather than the ad-measurement because small shortfalls or excess payment will be eventually compensated as the progress of each activity will not exceed 100% or the agreed partial lump sum. Moreover, as the road contracts consist mostly in hauling and laying materials, control may shift to measure volume (by a LGED inspector permanently on site) in the incoming dump trucks.

201. The prospective new bidding and contracting mechanism based on lump-sum contracts for smaller works, however, will not resolve the issue of the purported incompetency of small contractors to prepare unit prices as contractors will still need to add up quantities and activities in order to submit a competitive bid; however, the lump sum contracts will certainly simplify the bid preparation and evaluation. Whether this proposed arrangement would provide more qualified and better performers is uncertain. However, the use of the lump sum contracting may potentially reduce the risks of competition in Bangladesh and may need to be considered through a study or a closely monitored pilot program.

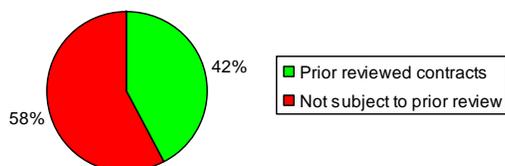
e. Prior and post review of contracts

202. The ORA team reviewed a sample of the prior review procedures agreed with the WB of the various components of the Rural Transport Improvement Project (RTIP Cr-3791-BD). In the Rehabilitation component there is a good balance between prior review contracts and contracts not subject to prior review, as presented in the two charts: either in number of contracts and value of the contracts. In this case, the prior review by the WB mitigates risks in the procurement process as it captures a substantial amount of investment. In the other three components (Markets = 151 contracts; US\$10.5 million; River Jetties = 46 contracts for US\$3.5 million; and Bridges and culverts = 1,856 contracts in an amount of US\$28.2 million) there was not prior review of any contract. On the other hand, in the Upazila Road component 94% of the 144 contracts in an amount of US\$119.8 million were subject to prior review. As result of such a combination 9% (of 2,501 contracts) and 63% of the total value in an amount of US\$215.4 million were subject to prior review.

RTIP: RPM component value of US\$30.9 million



RTIP: 201 contracts under RPM



203. Such prior review arrangement mitigates the risks in terms

of monetary value of the investments; however the fiduciary and reputational risk in procurement is still very high, as 91% of the contracts are not subject at all to prior review. The understanding of the LGED units of the prior review practices may be an incentive for having double standard in the procurement processing – higher in respect to contracts subject to prior review and lower in respect to contracts not subject to prior review. For example, during the course of the ORA review, the WB completed a procurement *ex post* review carried out by an audit consultant firm including three projects implemented by LGED. The *ex post* review identified many contract management issues of the same nature as those discussed in the ORA report thus confirming that the findings and the areas of opportunity identified in this report are realistic, pertinent and opportune. Moreover, at the time of issuing the *ex post* review, the WB had initiated the process to declare mis-procurement and to cancel amounts of the RTIP loan due to clear cases of collusive arrangements among participant bidders uncovered during that *ex-post* review. In the three cases under the RTIP project, clear evidence of the collusive arrangements by the bidders were overlooked by the relevant LGED officials, pointing out to one of the findings of this ORA: the lack of sensibility of LGED officials, in particular the XEN offices, to the risks of corruption and bad practices by the construction industry in their bidding processes.

204. The highly decentralized nature of the procurement function at LGED makes the position of XEN highly sensitive to decisions taken by a group of staff posted far from HQs. This represents a possible risk to quality and cost effectiveness, and a fiduciary risk if XENs are complicit in allowing inappropriate procurement practices for a price. Management needs to know more about the procurement performance, particularly of smaller contracts below the mandatory review threshold. This may be achieved by establishing *ex ante* and *ex post* reviews by the PMU. The selection of contracts should be made from the procurement plan (for the *ex ante* reviews) and from the physical progress reports (for the *ex post* reviews). The reviews should be made by increased staff at the procurement unit or preferably by independent consultants hired by the PMU. It is recommended that LGED initially adopt a random sample of *ex ante* and *ex post* reviews and then move to sampling based on risk. In the short term, the reviews should be *ex post* and in the long term they should also evolve to capture a contracts to be monitored on an *ex ante* basis¹⁷. This review mechanism would allow senior management at LGED to identify cases as detailed in the WB report and adopting disciplinary and training actions to mitigate such risks of the procurement function in the Department. Considerable risk would be reduced if SE (presenting copy of the report to PMU) were to play the role of the WB in review of procurement decisions before they are formalized by the delegated authority.

205. While the *ex ante* and *ex post* reviews are oversight mechanisms to ensure that adequate procedures are consistently applied in the implementation of the procurement function, the independent procurement reviews (IPR) would be a step toward examining the market and how it interacts with LGED, reviewing the due diligence and gathering *prima face* evidence of wrongdoing to feed anticorruption and antifraud investigations. The IPR is a highly specialized, quality assurance tool used by the multilateral development banks. It would be highly useful for LGED management to use this tool to monitor the procurement at least until such a time when LGED adopts an integrated procurement information system that would allow monitoring of procurement performance in a more systematic manner. In doing so, LGED should abide by

¹⁷ In Philippines, similar projects ARCDP 1-2 and MRDP 1 and 2 are subject to 100% prior review by the PMU before the awards are made.

Section 24 of the Public Procurement Act 2006 (PPA) and Rule 46 of the Public Procurement Rules 2008 (PPR 2008), which bounds any procuring entity with an annual procurement value worth taka 100 million or more, to do an independent procurement post-review using external consultants/auditors. In the following years, IPRs would be oriented to quality assurance control of the procurement function on a geographical basis.

f. Handling of Complaints

206. The LGED mechanism for resolution of complaints rests with the Chief Engineer. The Procurement Unit provides technical advice. The investigation of the complaint is generally performed by the Regional Superintendent Engineer who is not involved in the bidding process. This process for the resolution of disputes and complaints at LGED is not well developed. The CPTU mechanism, which is mandatory under PPR 08, does not appear to draw the confidence of smaller contractors. At the project level (RTIP is an example) there are complaint boxes available for bidders to deposit their complaints safely. Moreover, bidders are advised about the mechanisms for filing complaints but there is not enough confidence in the system available to ensure transparency and accountability. The business culture and the local construction industry in Bangladesh are averse to filing complaints in government procurement. In the few cases presented to LGED, the complainant would not even mention the name of the parties allegedly favored by the administration. These issues represent a risk that information that could help to improve performance and reduce other risks is not being brought to LGED’s proper attention.

207. To address this, LEGD should work with the CPTU to find ways to improve the complaints mechanisms, by bringing a mechanism for "filing" and "recording" complaints and protests in LGED closer to the small- and medium-sized contractors, including a clearly described process, who is accountable, how long for a response, and how to appeal. This would show the industry that LGED takes the filing of complaints seriously and is willing to adopt measures to protect the right of the bidders to exercise remedies. Eventually some of the complaints pertaining to administrative deficiencies (short period to bid preparation, wrong calculations, etc) may be resolved by strengthening LGED procurement processes, without having to be brought up to CPTU. Equally important, the compiling and monitoring mechanism of complaints within LGED will give back LGED responsibility for the quality of the bidding process which appears now delegated to CPTU. Giving the Procurement Unit a more in depth role in the complaints process will strengthen internal control in the Department.

TABLE 10: TYPE 2 FINDINGS AND RISK MITIGATION MEASURES FOR LGED: PROCUREMENT

FINDING AND RISKS	RISK MITIGATION MEASURES	OTHER AGENCIES	SHORT/ LONG TERM
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FINDING AND RISKS	RISK MITIGATION MEASURES	OTHER AGENCIES	SHORT/ LONG TERM
<p>LGED has experience in using its Procurement Risk Mitigation Framework (PRMF) but the reporting, follow up and review of the PRMF has not yet been fully realized.</p>	<p>PMU enters into agreements on PRMFs with districts committed to following proper procurement practices</p>	<p>District authorities</p>	<p>S</p>
<p>Allowing multiple dropping of bids presents risk of manipulation of bids after reception during the delivery of the sealed bids to the opening office.</p>	<p>Although single dropping should be the preferred option for government procurement, LGED to retain multiple places for dropping tenders under the following controlled conditions: LGED would urge civil authorities to take care of providing security at LGED facilities and proximities, and to prosecute offenders that are caught. In addition, until e-procurement has been phased in, LGED would work on the areas of the country that are most exposed to this risk promoting the use of mail services or placing a steel, mobile tender box - secured with multiple locks - in a more publicly accessible site in LGED grounds with guards (Progress indicator: issuance of instructions on improving security of tenders).</p>	<p>District authorities, police</p>	<p>S</p>
<p>Supervision of procurement processing and ex-post reviews by XENs isn't strong enough to ensure quality and cost-effectiveness.</p>	<p>Adopt a combination of ex-post and ex- ante reviews focusing on the former in the short term, and the latter in the long term. (Progress indicator: Instructions on <i>Ex ante</i> and <i>ex post</i> reviews issued by CE)</p> <p>Perform at least five IPRs annually on a project basis (Progress indicator: IPRs performed)</p> <p>Perform IPRs in at least 3 – 5 district units every year (Progress indicator: IPR performed)</p>	<p>CPTU</p>	<p>L</p> <p>S</p>
<p>Bidding documents issued only in English may induce small local contractors to seek external support or larger contractors to convey their proposals increasing the risk of collusion</p>	<p>Publish the bidding documents in the Bangla language. Although many technical terms are not available in the national language, these may be retained in English. LGED should coordinate with CPTU the issuance of such documents</p>	<p>CPTU</p>	<p>L</p>

FINDING AND RISKS	RISK MITIGATION MEASURES	OTHER AGENCIES	SHORT/ LONG TERM
Complaint resolution mechanism: the resolution of disputes and complaints at LGED could be improved. The CPTU mechanism does not appear to draw the confidence of smaller contractors in the system available to ensure transparency and accountability	The complaints resolution mechanism should be further developed to serve smaller contractors A tracking system needs to be developed. The Procurement Unit should be responsible for finding ways of attracting the confidence of the smaller contractors in an environment that is not conducive of transparency or provide adequate reassurance to the bidders. (Progress indicator: Consultants hired)	CPTU	L

3.5 Land Use & Resettlement

208. Review of the findings by the various IDA supervision missions indicates that both RRMIMP-II and RTIP faced the same difficulties with land acquisition and resettlement. Aide-memoires issued during implementation of these projects consistently identified the following three issues:

- Persistent delays in land acquisition and resettlement action plan (RAP) implementation, which included compensation under law (CUL) payment by the Deputy Commissioners (DCs -- heads of Acquiring Bodies), and top-up and other entitlement payment by LGED (Requiring Body);
- Attempts at making financial gains by the acquisition officials, especially those who assess CUL for land and non-land affected assets, such as houses/structures, trees, and other items of value, and those who verify legal documents prior to CUL payment; and
- LGED's continuing lack of capacity to manage resettlement activities, especially those related to implementing the impact mitigation measures stipulated beyond those provided in the acquisition ordinance and managing the information on implementation of these measures.

209. The delays are seen as the natural outcome of the planning practice that combines the acquisition ordinance and Bank policy, which are quite different in respect of resettlement objectives and impact mitigation requirements. To begin with, the current acquisition process in itself is very long and cumbersome, and the actual practices, which are often non-transparent and highly expensive, take an enormous amount of time. Use of the two together has resulted in a very complex and more prolonged land acquisition and resettlement process. The situation is further worsened by the fact that acquisition is carried out by involving, as the ordinance requires, officials who belong to different ministries and have no accountability whatsoever to the project authority.

210. Valuation of acquired lands and other assets, which require participation of other GOB agencies like the Public Works Department (PWD) of the Ministry of Housing and Public Works, the Forest Department, the Department of Fisheries, etc, has been highly questionable in

terms of time and costs. As it is, the services of these agencies are never available in time, and then they interpret some provisions of the acquisition ordinance in a way that inflates compensation for non-land affected assets. This not only raises the costs of acquisition and resettlement, but further lengthens the entire process. The situation is found to have been further worsened by the fact that many affected landowners remain unpaid, most often because: (a) they cannot produce the required evidence -- often including documents that are not legally required - - sought by DCs, or (b) the amounts of compensation are not substantial enough to cover the various unauthorized costs involved in the compensation claim and payment processes.

211. Unlike other GOB agencies, LGED does not use NGO or other consulting services for RAP implementation. Assisted by engineering staff and sometimes “district sociologists”, land acquisition and RAP implementation are overseen by the XENs. For RRMIMP-II, LGED named some low-level field staff like “store keepers” (the positions were being abolished) as “district sociologists” and “community organizers”. They did not have the requisite academic training or motivation to work with resettlement issues. On temporary project basis, RTIP used some “district sociologist” with Bachelor/Master’s degrees, who could not however work without detailed supervision. Most of the XENs, who were supposed to guide these sociologists, were themselves largely unaware of the Resettlement Policy Framework adopted for the project. Lack of an understanding of the mitigation policies, measures and application guidelines often raised questions about the information reported on progress in RAP implementation.

212. The risks of delays in compensation payment, escalation of land acquisition and resettlement costs, fraudulent assessment, and the lack of capacity to deal with resettlement issues give rise to significant challenges to compliance with the Bank’s social safeguards policy; delays in civil works implementation; and integrity and effectiveness of the resettlement program. As to engineering works, the single most important operational risk arises from the fact that the ordinance does not provide for payment of compensation before the landowners are evicted from their lands, whereas the Bank’s policy requires that no civil works are carried out on the lands until the owners are fully paid the compensation stipulated in the ordinance and other applicable impact mitigation measures.

213. To mitigate the risk of delays in compensation payment, the most appropriate remedy is to adopt a ‘National Resettlement Policy (NRP)’ with amendments to the present land acquisition ordinance that will satisfy the requirements of resettlement policies of the GOB and development partners (e.g. OP 4.12 of the World Bank). The Land Ministry is preparing such a policy with the support of ADB. As inputs to the NRP, LGED should share its resettlement experience with the Land Ministry. In addition, LGED has forwarded a proposal, *Risks Mitigation in Land Acquisition and Resettlement*, to the LGD, which includes, among other measures, a proposal to purchase lands directly from the private owners on willing buyer-seller basis involving independent organizations to assess compensation for the affected assets. LGED should also propose ways and means to ensure full transparency in its financial dealings, and schedule the civil works taking into consideration the time required to complete the land acquisition and RAP implementation process.

214. To mitigate the escalation risks of land acquisition and resettlement costs, the above risk mitigation proposal has *inter-alia* sought response to the following queries: Why compensate for the entire house/structure when only a small portion is affected, and the rest is

still structurally safe and usable? Why pay for the costs of equipments in a partially or fully acquired structure, even though they are not affected and can be dismantled and moved intact? Where only a narrow slice of a pond is acquired, why pay for the land, digging cost and fish stock of the entire pond? Under what conditions the assessed compensation should be increased by 50%, as provided in the law? What is the basis for 50% increase in the compensation for house, machinery and pond, which seems unrealistic?

215. To mitigate the risk of fraudulent assessment, five steps should be adopted. First, during Joint Verification (JV), LGED should assign higher level staff who can resist inflated compensation estimates by the acquisition officials. Second, LGED should ensure accountability of the staff taking part in JV by using clear means and consequences that will strongly discourage being a party to corrupt practices. Third, to ensure that the LGED staff actively gets involved in JV, he/she independently prepares separate records of lands and other assets, by using the same formats used by the acquisition officials. Fourth, further to random spot-checks during JV, the XEN should compare the records prepared by the acquisition official and the LGED staff. He/she should undertake spot-checks of random samples of those cases which (i) do not or minimally differ; and (ii) differ substantially. (This will enable the XEN to understand how effectively the LGED staff performed, and to bring the irregularities, if any, to the notice of the District and Divisional Committees.) Fifth, to ensure accountability of the field staff, the Project Director/Managers should verify the assessments prepared by both LGED staff and acquisition officials, depending on the amount of compensation funds requested by DCs, which are reviewed and okayed by LGED local offices.

216. Finally, there is a position of Senior Sociologist at LGED HQ level, which awaits recruitment. Besides, there are sanctioned posts of Sociologist and Community Organizer at district and Upazila levels. They are supposed to possess the requisite qualifications as required under GOB Recruitment Rules for LGED.. To ensure their capacity to deal with resettlement issues and information management, LGED should work with PSC to fill all these posts with qualified social scientists. These professionals should form a core group with intensive training in social issues, including resettlement, that are addressed in development projects. Based on the volume of land acquisition and resettlement, they could be distributed in the project districts, with a minimum of two in each. LGED should also train the XENs and other technical staff who are likely to be involved in JV, giving them a thorough understanding of the resettlement policies, measures and application guidelines adopted for the project. Finally, to make it more relevant to the needs, LGED should upgrade the computer software it has developed to maintain the database for land acquisition and resettlement.

TABLE 11: TYPE 2 FINDINGS AND RISK MITIGATION MEASURES FOR LGED: RESETTLEMENT AND LAND ACQUISITION

FINDING AND RISKS	RISK MITIGATION MEASURES	OTHER AGENCIES	SHORT/ LONG TERM
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<p>Deliberate escalation of resettlement costs by using/misinterpreting ambiguities in the acquisition ordinance and producing fraudulent assessments, which undermines integrity and effectiveness of the resettlement program.</p>	<p>To minimize fraudulent assessment:</p> <ul style="list-style-type: none"> • During Joint Verification (JV), assign higher level staff, and ensure accountability. • In addition to acquisition officials' records, LGED staff participating in JV prepares separate records of lands and other affected assets, by using the same formats used by the acquisition officials. • Further to random spot-checks during JV, the XEN compares the records prepared by the acquisition official and the LGED staff. He/she undertakes spot-checks of random samples of those cases which (i) do not or minimally differ; and (ii) differ substantially. • Project Director/Managers may verify the assessments prepared by both LGED staff and acquisition officials, depending on the amount of compensation funds requested by DCs, which have been reviewed and okayed by LGED local office. 	<p>LGD, District and Divisional Committees, other JV partners</p>	<p>S</p>
<p>Persistent delays in land acquisition and RAP implementation give rise to the risks of non-compliance with social safeguard policy and delays in civil works implementation.</p>	<p>Schedule the civil works taking into consideration the time required to complete the land acquisition and RAP implementation process.</p>	<p>LGD and Land Ministry</p>	<p>S</p>

	The most appropriate overall remedy is to adopt a ‘National Resettlement Policy (NRP)’ with amendments to the present land acquisition ordinance that will satisfy the requirements of OP 4.12. Land Ministry is preparing such a policy with the support of ADB.	RHD, BWDB, BBA & other GOB agencies that need land acquisition	L
	LGED should seek authority from LGD to purchase lands directly from the private owners, on willing buyer-seller basis; and propose ways and means to ensure full transparency of these purchases.	LGD and Land Ministry	S
Ambiguities in Acquisition Ordinance	<p>LGED should seek Land Ministry’s clarifications on the following provisions that are misinterpreted by the acquisition officials:</p> <ul style="list-style-type: none"> • Why compensate for entire house/structure where a small portion is affected, and the rest is still structurally perfectly safe and usable? • Why pay for the costs of equipments in a partially or fully acquired structure, even though they are not affected and can be dismantled and moved intact? • Where only a narrow slice of a pond is acquired, why pay for the land, digging cost and fish stock of the entire pond? • Under what conditions should the assessed compensation be increased by 50%, as provided in the law? What is the basis for a 50% increase in the compensation for house, machinery and pond, which seems unrealistic? 	LGD & Land Ministry	S
Not enough capacity to deal with resettlement issues and manage information.	<ul style="list-style-type: none"> • Appoint qualified social scientists and form a core group with intensive training in social issues, including resettlement, that are addressed in development projects. Based on the volume of land acquisition and resettlement, distribute them in the project districts, with a minimum of two in each. • Train the XENs and other technical staff who are likely to be involved in JV. Give them a thorough understanding of the resettlement policies, measures and application guidelines adopted for the project. • Develop an information management system in view of the adverse impacts that are to be mitigated according to adopted guidelines and the progress made at any point in time. The system should be able to track irregularities and explain them. 	LGD, JV partners	S

4 STRATEGY FOR COMMUNICATION AND CIVIL SOCIETY PARTICIPATION

217. The goal of the strategy for communication and civil society participation is to help LGED carry out a transformation to improve its already good performance, enhance sectoral governance capacity, and boost the standard of transparency and accountability of LGED's work through creating a critical mass to carry forward the reform recommendations of FORMIP and implement the ORA Implementation Plan.

218. To help achieve this transformative goal, a communication based assessment (CBA) was carried out consisting of a comprehensive audit of the communication structure, process, and existing practices of LGED. It explored communication issues related to the organization of LGED and to the wider community. It proposes how best to convey the aspirations of the ORA in distinct business areas (internal organization, ICT, engineering, financial management, procurement, and resettlement) to key stakeholders including LGED staff; how these aspirations will be broken down and sequenced; how they relate to each other; and finally, how LGED will use information sharing and civil society engagement to help achieve its organization goals. Overall, the focus of communication engagements will help LGED shift from its present practices of "public relations" to more strategic approaches to communication in the long run. This will significantly help LGED promote its good image, performance, trust and confidence among its key stakeholders and to the general population as a whole. Specifically, the CBA carried out the following tasks:

- i. assessed the communication capacity of LGED, with a view to helping the department take the lead in the preparation and implementation of a communication program and ensure participation of civil society, aligned with new requirements of the Right to Information Act (RTI);
- ii. analyzed the media and communication environment that will be critical to sharing information, build consensus, and support for FORMIP findings and recommendations, and ORA implementation plan;
- iii. conducted a detailed stakeholder analysis and mapping to identify key stakeholders (as winners and losers), and explore communication needs, tools and techniques to address the risks as identified to have been associated with them;
- iv. prepared a practical outline and set basic rules of a strategic communication intervention; and a strategy for the engagement of civil society group consistent with good international and local practice (cf. Castalia, 2009: 32-9; 49);

219. The Strategy for Communication and Civil Society Participation provides a roadmap to build understanding, consensus and commitment among stakeholders from both public and private sectors to address governance issues in provision of rural infrastructure. In addition, the strategy demonstrates the importance of communication and civic engagement to the different stakeholder groups and provides a model strategy that can be elaborated as the ORA findings are being implemented. It recommends the best options for using civil society organizations to monitor the planning, procurement, and execution of LGED contracts. LGED's work is highly decentralized, making such monitoring a challenge.

220. The following will present a summary of three key components of the strategy: civil society participation, strategic communication, and communication capacity building. Further details are given in Annex 3.

4.1 Civil Society Participation

221. Civil society participation in Government sponsored interventions is not very common in Bangladesh. In this respect, LGED has already distinguished itself with an established Information Sharing Approach with its stakeholders. It has ensured active involvement of the community, including womens' groups, civil society organizations, local governments, other government organizations (GOs), NGOs, community based organizations (CBOs), Project Affected Persons (PAPs), and Indigenous People (IP) in project identification, design, implementation and monitoring. LGED often monitors and evaluates its work through conducting socio-economic monitoring, evaluation and impact study.

222. A comprehensive and planned communication intervention would build on this excellent foundation, and open up more opportunities for key LGED stakeholders to engage in the process of planning, procurement, and execution of contracts that be based on global best practices and would help LGED build support and ownership of people. What is needed for LGED is to develop a practice of sharing even more information with civil society groups and institutions by effectively engaging them in different phases of its operations. Civil society engagement will not only be vital in receiving support for the ORA implementation plan, but also to prove the commitment of LGED and its accountability to people. This will, in turn, contribute to the continuation of the department's high reputation for excellence and efficiency.

223. The key features of Civil Society participation in LGED's operation will include the following:

- i. Ensure active contribution of civil society and CBOs to establishing greater transparency and accountability in the planning, procurement, and implementation of LGED contracts and projects;
- ii. Develop an effective partnership between LGED and community stakeholders to monitor practices of decentralized bidding;
- iii. Create a popular discussion in the public sphere on the level of performance of LGED and its efficiency;

224. The strategic focus for civil society participation will be to involve local communities, non-governmental partners, and the private sector in an independent monitoring of the planning and execution of the LGED projects. Following are the key strategic objectives for civil society engagement:

- i. Independent monitoring by the civil society in partnership with CBOs: Some of the major activities for independent monitoring would include the following interventions:
 - a. Citizen's Report Cards for the evaluation of project performance;
 - b. Tracking public expenditure at different phases of a project;
 - c. Surveillance of the application of rules.

- ii. Help build trust and confidence on the organization of LGED: Civil Society engagement can also be beneficial to promoting LGED's success that can be achieved by the following activities:
 - a. Disseminate best practices to the media;
 - b. Introducing best performers (LGED personnel and contactors);
 - c. Media and communication activities (really, press conference etc.) by civil society representatives;
- iii. Support and mobilize stakeholders for reforms that improve quality of life;
- iv. Campaign for social awareness and participation;
- v. Engage citizens in public discussions on LGED work ;
- vi. Use structured participatory approaches to select, plan, execute and maintain projects.

225. Civil society groups will need capacity building and skills training on different technical and non-technical aspects in order to perform their roles in LGED planning, design, implementation, maintenance, quality control and monitoring of projects. These will include technical matters such as engineering plan and design, quality and quantity of materials; procurement related issues such as contract planning and processing. Other Government departments can provide support in building LGED's capacity in these areas. For example: the Ministry of Information's mobile film unit can assist LGED to show people videos on awareness, mobilization, and civic participation in local engineering and local government activities.

4.2 Strategic Communication Intervention

226. LGED would continue to maintain its high standard by carrying out its planned activities with greater transparency and accountability to the higher Government authorities and ultimately to the people of country for the funds and responsibilities entrusted to it for rural infrastructure development. LGED already has a system and mandate to provide some information to the public. It also has some participatory activities that allow the end users of the rural roads and infrastructures to have a kind of ownership over the rural development projects. However LGED needs to put in place a systems and processes to undertake strategic communication interventions to establish effective and sustainable channels of communication as opposed to ad-hoc; engage the public and institutions in its work; and sustain its image as an efficient and high-performing organization in order to build trust and confidence of people in its operation.

227. Like other GoB departments and agencies, LGED has suffered from restrictions on sharing certain categories of public information with other government departments as well as with the public. Under RTI, LGED will be required to develop a system of storing data systematically and providing them to the public. LGED also requires a new regime of information officials, appointed and/or designated in the offices at the central, divisional, district and/or upazila level. People will be able to use the law formally to seek and receive information relating to government projects from 1 July 2009. It may be generally expected that people will be interested to know more about the planning, procurement and execution of LGED contracts and relevant information of projects. It is now imperative that LGED be proactive in developing a culture of information sharing and transparency as opposed to keeping the public information secret.

228. The strategic communication interventions include systematic audience segmentation in line with the key stakeholders identified; provide themes for appropriate messages; determine appropriate channels of communication; identify the most effective mix of communication; and provide suggestions for designing mechanisms for Monitoring and Evaluation.

229. A comprehensive communication strategy will help LGED improve its performance by fostering the sharing of more relevant information with stakeholders. Communication openness will help boost up and reinforce the image and reputation of LGED. The strategy will not be focused only to equip the department for meeting the information demands of the end users, but also establish meaningful cooperation of all key stakeholders, including the civil society. Gaining public support will be crucial to the continuation of LGED activities especially in context of reforms so that opposition voices cannot dominate the public sphere to jeopardize the department's success.

230. The key objectives of the Strategic Communication Program would be to:

- i. Strengthen communication systems, structure and process of LGED to go beyond the traditional concept of communication as function of "Public Relations";
- ii. Develop systems and build capacities to share public information as required by the RTI Act;
- iii. Help build trust and confidence on the organization of LGED by promoting dialogue and debate in the public domain about its contribution to communities across the country;
- iv. Provide conceptual approaches and practical outline for branding image of LGED as a transparent and efficient organization which is committed to the public for quality service and accountable for the duty entrusted upon them;
- v. Strengthen internal communication systems and process for LGED and improve its interaction with other Government departments and entities;
- vi. Help improve the communication capacity of LGED – skills and systems – so that it can plan, design, and manage the implementation of strategic communication activities and provide support to effective civil society engagement.

4.3 Communication Capacity Building

231. It is expected that LGED will implement the strategy for communication and civil society participation in line with ORA recommendations. As part of the program a series of communication activities will be implemented by LGED itself, while others will be implemented in collaboration with others such as the other GoB agencies, professional communication organizations, NGOs, and civil society groups. However, LGED will be in the driving seat to coordinate and oversee the whole strategic communication program. It is therefore critical to build and enhance communication capacity of LGED as the lead organization. Creating communication capacity of few other partner organizations is also vital as they too will be part of the program to design and implement certain aspects of strategy. Some recommended next steps are in Vol. 2, Annex 2.

232. Capacity building for LGED's communication teams and other relevant stakeholder will focus on the following areas:

- Skills training and development including for media and civil society;
- Setting up structure, systems, and processes to share information within and outside its organization;
- Research and analysis (knowledge-based research on information and communication);
- Monitoring and Evaluation to measure the impact of strategic communication interventions.

5 CONCLUSIONS AND NEXT STEPS

233. The ORA identifies risks, risk mitigating measures, and options for monitoring the effectiveness of these measures. It identifies and categorizes three different types of risks: those where LGED can immediately take action to address on its own, those that can only be addressed by LGED in partnership with one or more other organizations, and those that stem from the external environment in which LGED operates, and that can be appreciated but not directly addressed by LGED. An important conclusion of the ORA is that most of the recommended actions are within LGED's authority to take, with no more than routine budgetary spending and staffing authorizations needed from other agencies. However, the action plan proposed in the report will be greatly enhanced if supported by further development of the government's, Bank's and development partners' programs to improve governance and reduce overall operational risk in Bangladesh. Individual sub-sector reports such as this ORA can only have a limited impact in the absence of wider and widely supported programs. With this objective in mind, a Strategy for Communication and Civil Society Participation has been sketched out to help build the support among key stakeholders that will be needed.

234. Finally, an ORA Implementation Plan (separate volume attached to this report) was initiated with LGED, and finalized largely by LGED in consultation with the ORA team. The plan lists each of the risks and risk mitigation measures from the ORA, and indicates who in LGED will be responsible, cooperating agencies, milestones, dates, and estimated resources.

235. The ORA team recommends that LGED seek ministerial approval of the implementation plan following a planned workshop on the ORA implementation plan. Effective implementation of the ORA will require long-term commitment of LGED management, LGD and partner agencies, politicians at all levels, and civil society, and community groups. LGED will need to continue its commitment to maintain its high level of professionalism, and to continue being a good example for other government agencies. The payoff for such commitment will be more effective use of scarce public funds, and faster progress towards poverty reduction in rural Bangladesh.

Annex 1: MIS systems currently in use in LGED

MIS	Used At
PMS: Progress Monitoring System	<i>HQ - PM&E Unit</i>
RSEPS: Rate Schedule and Estimate Preparation System	<i>HQ , DO, UPO</i>
RSDMS-V: Road & Structure Database Management Systems.	<i>HQ , DO, UPO</i>
EVCS: Earth Volume Calculation System	<i>HQ , DO, UPO</i>
HDM-4 : Highway Development and Management Model	<i>HQ , and some DO</i>
RAMS: Road Asset Management System	<i>HQ</i>
UFMS: Uniform Financial Management System	<i>HQ - Finance section</i>
GIMS: Gender Information Management System	<i>HQ – few projects</i>
EIMS: Environmental Information Management System	<i>HQ</i>
PMIS: Personnel Management Information System	<i>HQ</i>
TMS: Training Management System	<i>HQ - Training section</i>
LIMS : Map Library Management Software	<i>HQ - Map Library</i>
EMS : Equipment Management System	<i>HQ</i>
Bookcat : Software for library management system	<i>HQ - Book Library</i>
Tax collection and bill generation software	<i>HQ - UMSU, PO</i>
Water billing software	<i>PO</i>
Accounting software	<i>PO</i>
Infrastructure mapping software	<i>PO</i>

RSDMS-V: Road & Structure Database Management Systems.

(Used at: LGED HQ, District level, Upazila level)

A road inventory database used to store data regarding road geometry and condition as well as information related to maintenance and construction. The database is implemented using MS Access 2000.

- Data stored in the system:
 - Road geometry: length, crest, width, slope etc.
 - Current damage affecting road surfaces, bridges, culverts; the location and full details of the damage.
 - Information regarding the visual condition of the roads.
 - Bridge culvert information: location, span, any current damage.
 - Construction history: date started, date ended, any maintenance done.
 - Maintenance: location, date, type of maintenance, damage fixed, current progress, contractor details.
 - Connectivity: social infrastructure, important roads, locations, important road side infrastructure.
 - Traffic information.

- The data is used to produce reports and models or co-ordinate plans for head office:
 - Maintenance plan: produced using the data regarding current damage, used to effectively prioritise maintenance work.
 - Maintenance progress: report reflects the monthly progress of maintenance work as monitored by the district XEN and/or sub assistant officers.

- Maintenance costs: report providing information of contractor payments for road maintenance as calculated by the account section of the district office and stored in the database.
- Mathematical design view of the road system based on the visual condition information in the database.
- Monthly reporting: a specially formatted report is produced containing all pertinent data from the system for head office.

RAMS: Road Asset Management System

(Used at: LGED HQ, level 5)

A management system to monitor and maintain assets associated with LGED roadways, contains tools for analysing and graphically representing the physical structure of the LGED roads. It is currently only used in the LGED HQ; implementation of this software in field offices is planned through training and development. A small number of district offices are provided with this software for test purposes.

- This system picks up the basic data from RSDMS and presents this as a layer on the GIS map.
- It gives all the information of the roads and its history of maintenance and other related important engineering data for analysis.
- Inventory of road assets: bridges, culverts, rail crossings, traffic lights, street lights, signs, crosswalks, curbs, entrances, medians/boulevards, ditches, storm sewer outfalls, catch basins, manholes and trees.
- Facility for generation of ad-hoc queries and reports as per the user requirements.

UFMS: Uniform Financial Management System

(Used at: LGED HQ, Finance section)

Web based financial management system developed to store and manipulate the financial/accounting details of each project, district and pourashava of LGED. It helps reduce errors due to manual calculation of financial information and contains a double entry cash basis accounting system to further ensure systematic and sound financial management.

- It stores are transaction information of LGED for previous years which is used for financial reports. This software is used to generate the following reports for different development partner funded projects such as RDP-25, EFDRIIP, RDP-21, CBRMP, RDP-24 etc.
 - General Ledger (According to the Chart of Accounts)
 - Trial Balance
 - Financial Statement
 - Statement SOE of Expenditure
 - Summary Report, FMR according to World Bank's requirement.
 - Customized GOB Report
 - Component Head Wise Fund Release Summary Report
 - Contract Information Report (Date Wise)
 - Expenditure Report
 - Contract Wise Balance Report
 - Summary Report of Fund Release - Date wise

- Report for Component Head wise Expenditure.
- Fund Release Report to District and PIO All/ Date Wise
- Customized reports for RDP-21
- Customized reports for EFDRIRP
- Chart of Accounts
- Other Customized report for some other projects

GIMS: Gender Information Management System

(Used at: LGED HQ, project use)

Software designed and developed to store gender related data and generate reports relating to the institutional progress of women in LGED.

- Specific data tracked:
 - Participation of women in the decision making process.
 - Information about women's support program.
 - Information regarding women's participation in training programs.
 - Gender related expenditure details.
 - Job opportunities for women in LGED.
- Provides a clear picture of the contribution of women progress (gender development) by LGED.

EIMS: Environmental Information Management System

(Used at: LGED HQ)

EIMS Software deals with the following component

- Environmental Management Plan (EMP)
- Environmental Management Framework (EMF)
- Base Line Survey (Form MS1)
- Score Selection for each scheme and project.
- Mitigation Measures
- Routine Monitoring
- Compliance Certification

PMIS: Personnel Management Information System

(Used at: LGED HQ)

Software developed to store information regarding LGED core staff, can store information in Bengali. Information is presented clearly and accurately to users.

- The software stores all the academic information, job details, posting current position, join date, retire date, address information and other related information of every officer, staff in LGED.

TMS: Training Management System:

(Used at: LGED HQ, Training section)

LGED has one central training unit in LGED HQ and 10 regional training centers in Bangladesh. All training is conducted through those offices. TMS software maintains all training information related to LGED staff, notably:

- LGED training course catalogue and information.

- LGED staff training records: details of who is currently on training courses and previous training courses completed.
- Information for staff that require training.

Map Library Management Software

(Used at: LGED HQ, Map Library)

This software is used to store information about LGED maps: where stored, tracking number etc.

Equipment Management System

(Used at: LGED HQ)

LGED has to maintain a large amount of equipment in different districts all over Bangladesh. This software is a centrally maintained database system of LGED equipment.

- Helps staff to identify and maintain costly equipment and properly use those items for construction and maintenance.
- Catalogues all of the LGED equipment its present condition, purchase date, maintenance history and other important information.
- Produces accurate inventory reports for LGED head office.

Bookcat Software: for library management system:

(Used at: LGED HQ, Book Library)

Information software for the management of the LGED library. Storing information regarding all books, documents and reports stored in the library, can generate detailed reports regarding library resources.

PMS: Progress Monitoring System

(Used at: LGED HQ, not used currently)

The objective of this project monitoring system is to monitor the physical and financial progress of all ongoing projects within LGED. For this reason JICA RDEC setting up project decided to develop software for PMS for project monitoring with systematic and smooth manner.

- Within LGED previously all tasks and activities were monitored by separate computer programs each carrying out other functions. PMS is primarily concerned with monitoring LGED activities and integrates all departments and activities into one system. This provides management with the facilities for a concurrent and coordinated control of these activities.
- The software has been designed for three different levels:
 - District Level
 - Project Office level
 - LGED PM&E unit
- Data is collected at Thana offices and processed at District level then exported to PIO and LGED levels for the production of reports for internal and external use.

RSEPS: Rate Schedule and Estimate Preparation System

(Used at: LGED HQ, District level, Upozilla level)

RSEPS is a system that estimates the cost of a project or maintenance based on current market rates for materials, labour etc. and the specifications of the project as entered by the user. This estimate is the basis of tender value for outsourced projects. System functionality includes:

- Updating the schedule of rates.
- Tender evaluation: a committee evaluates the tender bidder based on the results of this software. This shows how much above or below the contractor price is than the estimated value.
- Checks the rate of every item individually and identifies the difference between the market rate and the bidder rate.
- Revise evaluation can be done based on the result of the software. If the market price is higher than for a specific tender evaluation the software gives the user a chance to change the market rate and evaluate the tender again. This is only done if the head office provides a password for change of the unit rate for evaluating that tender only.
- Schedule of work: can produce an accurate timescale for project completion.
- Contractor information is stored in the system: all contractors previously hired by LGED, their rates, number of contracts fulfilled, etc. This helps to evaluate the contractor.
- Re tender decision can also be taken from the information provided.
- Quantity variation can be done for revised tender keeping the rate unchanged.
- Quality control lab test schedules can be made through this software.

EVCS: Earth Volume Calculation System

(Used at: LGED HQ, District level, Upozilla level)

This software is used to calculate the amount of earth required to fill the road from its existing condition to desired design and the value of the earth work done. The output can be used by RSEPS for calculating and estimating the cost of work.

- Calculates revised work estimates.
- Produces graphs and tabular forms for cross sections for pre work design and gives a clear view of the post work model.
- Produces wheat sheet or taka sheet – in case of food for work program.
- Generates cross section reports and longitudinal profiles.
- This software can also calculate the actual earth work done after the survey data which is important for calculation of cost.

HDM-4

(Used at: LGED HQ, some of the Districts)

This is internationally used software for road structure database. LGED District level offices are now using this software gradually after getting training for storing all the surface and road condition data recording. LGED is now trying to make HDM popular at the field level so that the staff understand how it works and use the important information that it can produce to make decisions.

- For Roughness calculation LGED is also using ROMDAS (Road Measurement Data Acquisition System) at the time of field survey with a machine which determines the surface information of roads. This data is directly exported to HDM through an export tool.

- This is mainly used to forecast and calculate budget for roads based on the information of the road and other issues like traffic survey, use of the road etc.
- Presently LGED is exporting data to HDM from the RSDS through some tool and using for different aspects of decision making.

Annex 2: Local Government in Bangladesh

Review of LGED in the current context of decentralization

1. Risk mitigation works through two lines of accountability. On the one hand, LGED has a sizeable budget of its own for implementing infrastructure programs at various levels of government. Here there is a strong emphasis on administrative and financial procedures to ensure the probity, integrity and effectiveness of activities. While LGED has adopted a process of community/beneficiary participation in its projects, there is no formal accountability to beneficiary populations to act as a check on bureaucratic and political corruption. Thus, LGED's internal risk mitigation systems need to be strengthened to compensate. On the other hand, LGED also implements and manages rural and urban infrastructure funded under ADP allocations of sub national jurisdictions, as discussed below. In these cases, while there is a clearer accountability link to beneficiaries through their elected officials, risks can still arise due to weaknesses in local governance in planning, decision making and management. These risks need to be mitigated through local government reforms that strengthen the involvement of the community in all aspects of planning, implementation and monitoring of local government investments. This will help create a more efficient, effective and transparent environment within which LGED can function in the future.

2. There have been four previous attempts to introduce decentralization in Bangladesh beginning with the District Governorship system of 1972-75, followed by the Gram Sarkar experiment of 1975-81, the Upazila system of 1982-90 and the Thana Development and Co-ordination Committees of 1991-96. What has remained over the years is a deconcentrated administrative structure at divisional, district and sub district level with democratic representation restricted to 6 Municipal Corporations, 309 Pourashavas and 4,498 UPs. Weak structures of local governance often translate into fiduciary risks arising from insufficient democratic accountability, elite capture of decision making, low levels of public participation in planning, weak targeting and leakage of public benefits (see World Bank, 2006d: pp. 20–21). This is compounded by weak management of revenue, expenditure, audit and procurement. An indicator of the slow pace of decentralization is that local share of public expenditure in Bangladesh is in the range of 3-4 percent of total consolidated government expenditures, among the lowest in the world. (World Bank, in press: 86).

3. The preparation and approval of ADPs and revenue budgets is the responsibility of elected representatives, including chairpersons and ward members¹⁸ of local government. LGED, as an executive arm of government, is unique in the sense that it focuses exclusively on supporting local government in infrastructure provision. LGED is responsible for the provision of technical inputs and capacity support for the implementation of the ADP of the respective local government units. While this provides for local decision making over plans and budgets, the lack of democratic accountability at upazila level has increased the risks associated with the distribution and equity of spending.

4. The UP, at the lowest tier of government, receives a direct block grant of around Tk. 6 lakhs p.a. plus a further Tk. 2 lakhs p.a. as ADP allocation routed through the Upazila. Since the

¹⁸ Pourashavas and Union Parishads have 12 directly elected members including 3 women members; Upazilas have 15 indirectly members

UP has no technical staff of its own, it relies exclusively on LGED to support all infrastructure development and maintenance which constitutes over 65% of its ADP allocation. Here, LGED provides support for detailed scheme designs, estimation, technical support for all works implemented directly by the community, supervision of all larger works implemented by contractors (works over Tk 75,000), inspection and approval of payments. LGED also assists project implementation committees (PIC) in construction and maintenance techniques. Given the small scale of works and high levels of community involvement at the UP level, the main risks concern LGED's capacity to support and supervise activities at this level.

5. An important factor that has helped to mitigate systemic local government risks has been LGED's involvement in capacity building for participatory planning, community contracting, monitoring and inspection, budgeting, revenue mobilization and accounting. While much of this activity is funded directly by project budgets, LGED has begun to replicate some practices as part of its routine interaction with local government.

6. Since Pourashavas have their own technical staff, varying from 30-200 depending on size of the municipality, including an XEN, Assistant Engineers (AEs) and SAEs, LGED's role in the urban sector is more concerned with strengthening the capacity of these staff and improving engineering functions and processes, rather than managing the implementation of infrastructure as at the UP level. Much of LGED's support for Pourashavas comes from specific project funded initiatives. This support is similar in nature to that provided on rural sector projects but includes more emphasis on institutional strengthening of Pourashavas beyond the engineering function alone and includes urban socio-economic development, slum improvement, revenue mobilization, budgeting and accounting and municipal management.

7. LGED is also responsible for the implementation of infrastructure under the Upazila Annual Development Plan formulated by the Upazila Development Committee. Although UP Chairpersons are indirectly elected members of this committee, MPs have tended to have considerable influence over the process, which presents a serious risk to equitable distribution of funding and scheme selection. The caretaker government adopted the new upazila parishad law in June 2008, limiting MPs' authority to interfere in the parishads' activities, and giving the EC authority for setting polling times. Although Upazila chairpersons, vice chairpersons and woman vice chairpersons were directly elected for the first time since 1990 in December, 2008, the newly elected Parliament reversed parts of the upazila parishad law, now requiring upazila chairpersons to route all their communication with government through MPs (Khan, 2009). Thus, it would seem that the newly elected Upazila officials will find it difficult to clearly define and execute their authority.

8. LGED is the main technical agency responsible for all aspects of infrastructure design and implementation for the Upazila. Given the physical proximity of the line departments at sub national level functioning within a single Upazila complex, and reporting relations to the UNO as the administrative head of the Upazila, there is a high level of interaction and coordination with the respective departments. While the nature of this coordination and collaboration varies from place to place, it often entails joint implementation of activities with other departments and has led to LGED assuming an increasing role in recent years in new types of infrastructure work such as primary school construction as well as the coordination of socio-economic activities under development partner project funding.

Structure and Functions of Local Government

The table below summarizes the structure, functions and form of representation for each tier of sub national and local government.

Rural LG Structure	Functions	Representations
6 Regions	Oversight, supervision and management of all administrative and development activities at district and sub district level	No direct political representation. Divisional Commissioner is Executive Head
64 Districts Average pop: 1.9 million Average area: 2,250 sq km	Management and monitoring of government programmes and projects, implementation of district level public works and maintenance activities, grants and scholarships.	No direct political representation. Zila Parishad consists of a ZP Secretary and Accountant. District Development Co-ordination Committee comprises Deputy Commissioner and line dept heads.
482 Upazilas (increased from 460) Average pop: 250,000 Average area 300 sq km	Planning, implementation, coordination and monitoring of all infrastructure and services including health, education, public works, irrigation and water, agriculture, fisheries, livestock, forestry, community development	Elected Chairperson, Vice-chairperson, and Woman vice-chairperson. In addition, members of District Co-ordination Committee (UDCC) include Upazila Nirbahi Officer and line department officers.
4,498 Union Parishads Average pop: 27,000 Average area: 30 sq km	38 functions, (10 mandatory) 28 (optional) Construction and maintenance of small scale infrastructure, dispute settlement registration of births & deaths.	Elected Chairperson and 12 elected members (one for each of nine wards and 3 women members each representing 3 wards).
68,000 Villages/ Gram Sarkar Committees Average pop: 1,600 Av area: 2 sq km	Participatory planning, (proposed), local community mobilization. project implementation, community contracting,	No direct political representation. 15 person council chaired by UP member.

Urban LG Structure	Functions	Representations
6 Municipal Corps	Water supply, solid waste, sanitation, public health, roads, drains, parks, community development and poverty reduction	Elected Mayor and Corporators
309 Pourashavas	Water supply, solid waste, sanitation, public health, roads, drains, tree plantation, community development and poverty reduction	Elected Chairperson and councillors. Women member

Annex 3: Communication Based Assessment (CBA) & Strategy for Communication and Civil Society Engagement

1. The goal of the strategy for communication and civil society participation is to help LGED carry out a transformation to improve its already good performance, enhance sectoral governance capacity, and boost the standard of transparency and accountability of LGED's work through creating a critical mass to carry forward the reform recommendations of FORMIP and help implement the ORA Implementation Plan.

2. To help achieve this transformative goal, a communications based assessment (CBA) was carried out through a comprehensive audit of the communication structure, process and existing practices of LGED. It addresses communication both to LGED's staff, and to the wider community. It proposes how best to convey the aspirations of the ORA in distinct business areas (internal organization, ICT, engineering, financial management, procurement, and resettlement) to key stakeholders, how these aspirations will be broken down and sequenced and how they relate to each other, and how LGED will use information sharing and civil society engagement to help achieve its aspirations. Overall, the program will, in the long run, help LGED shift from present practices of "public relations" to more strategic approaches to communications and civic involvement. Specifically, the CBA carried out the following tasks:

- i. assessed the communication capacity of LGED, with a view to helping the department take the lead in the preparation and implementation of a communication program and ensure participation of civil society;
- ii. analyzed the media and communication environment that will be critical to sharing information, build consensus, and support for FORMIP findings and recommendations, and ORA implementation plan;
- iii. conducted a detailed stakeholder analysis and mapping to identify key stakeholders (as winners and losers), and figuring out communication approaches/needs to address the risks as identified to have been associated with them;
- iv. prepared a practical outline and set basic rules of a strategic communication intervention; and a strategy for the engagement of civil society group;
- v. identified strategic approaches, setting basic rules for a strategic communication intervention; and outlining a strategy for engaging civil society institutions through various communication channels in order to build a climate conducive to promote FORMIP findings and strengthening of LGED communication functions;
- vi. outlined a communication and information dissemination plan for sharing the public information of the FORMIP and to manage support for it.

Communication Capacity of LGED

3. Most departments of GoB lack in incorporating a full-fledged media and communication strategies to support their organizational or inter-organizational communication activities. According to LGED, the following elements comprise its present communication approach and capacity:

a) LGED has an established Information Sharing Approach with its stakeholders. It has ensured active involvement of the community, including womens' groups, civil society organizations, local governments, other government organizations (GOs), NGOs, community based organizations (CBOs), Project Affected Persons (PAPs), and Indigenous People (IP) in project identification, design, implementation and monitoring. LGED often monitors and evaluates its work through conducting socio-economic monitoring, evaluation and impact study. The impact study is carried out by the external agencies.

b) LGED follows a structured participatory approach to incorporate the views of the communities in design and implementation of infrastructure.

c) LGED gives due importance to local level communication. Local level meetings are conducted to select, identify and design infrastructures targeting both primary and secondary audiences. The decision of the meeting is coordinated, communicated and finally approved by the Upazila Coordination Committee (UCC). UCC comprises both GOs/NGOs/CBOs officials and members of civil society.

d) In some cases operation and maintenance responsibilities of the completed infrastructures are vested entirely with the beneficiaries. For successful performance of such responsibilities, all information right from the sub-project selection up to undertaking its ultimate operational sequences and techniques are communicated to the beneficiaries through holding discussions and arranging training programs.

e) Gender awareness is a major agenda in the LGED's manifesto and maximum efforts are now being given towards materializing this intention.

f) District level communication is also given due importance. The decisions taken at the local level meetings are often discussed and coordinated in the District Coordination Committee (DCC). DCC is comprised of GOs/NGOs/CBOs, officials of various departments at the district level and members of civil societies. At this level the monthly achievement of program implementation is also reviewed and any hindrances are also discussed and resolved. Inter-departmental cooperation and coordination is also established through this forum.

g) As a matter of Central/HQ level communication, the concerned Ministry holds monthly review meeting on implementation of Annual Development Program. (ADP). Besides, many projects have their own Steering Committees.

h) Information sharing is also being carried out at regular interval and periodically with the Planning Commission and the Economic Relations Division (ERD)

i) Information is also furnished to the Parliament in the form of answers to the questions raised by the Members of Parliament (MP) while the Parliament sessions are on. Besides,

Parliamentary Standing Committee on Local Government also asks for full-scale report on the LGED activities.

j) LGED has also established the following communication facilities at the HQ level:

- A Media Center: One Media Consultant is working at the HQ level, who maintains information sharing with the mass media including print and electronic media on behalf of LGED.
- Publications: LGED publishes its Annual Report every year and Newsletters, which are kept in the public domain. These are widely circulated and distributed among the Ministries, Development Partners, Members of Parliament and other public representatives. LGED has also kept its brochure in circulation that contains all key information. Besides, the Environmental and Social Assessments Reports of the projects are also published in the websites.
- Website: LGED maintains a website where LGED related key information are available.

4. A comprehensive and planned communication intervention could build on this excellent foundation open up more opportunities for key LGED stakeholders to engage in the process of planning, procurement, and execution of contracts that would help LGED build support and ownership of people.

5. Although LGED is not a typical of other GoB departments in many respects, as the responsible department for the rural roads and infrastructural development, it is yet to adopt a comprehensive communication strategy to meet both the internal/ external and project-related communication needs.

Overview of Media and Communication Environment

6. Mass media in Bangladesh are operational at three levels: government, private and community. Although there were few newspapers financed and managed by the government, historically the press in Bangladesh has developed under private management and ownership. There are local and regional newspapers which are published from district and divisional towns. Some of them are profitable, and can compete with the big newspapers at the local levels.

7. Over the last two decades some media-focused NGOs have supported the publishing of community newspapers. They have encouraged participatory processes in the practice of journalism, and trained the community to enable them to contribute to journalism and the production of newspapers. They have also trained local journalists so that they can report more on local development issues and problems associated with governance. The local and community journalists have also showed excellence in advocacy reporting and investigative journalism. A few national level non-governmental organizations also have training and internship program for women journalists. These combined, NGO efforts have fostered the practice of community and civic journalism the rural and semi-urban areas.

8. Bangladesh Television (BTV) and Bangladesh Betar (national radio of Bangladesh), both state-owned electronic media, dominated for several decades, and continued to do so until the late 1990s, when the government permitted operation of a few satellite television channels and one private terrestrial television station (now defunct as a terrestrial channel and continuing its satellite transmission). Presently eleven private TV stations are broadcasting their programs from Dhaka and there are few FM radio stations operating with private ownership. Although there is no comprehensive media and communication strategy in Bangladesh to regulate the media industries, there are some sectoral policies and guidelines to govern private and commercial media and to provide operational guidelines to the state-owned radio and television. There have been growing pressures from the international partners and civil society institutions for the formulation of a national media policy, and a national broadcasting law with the provision of an independent National Broadcasting Commission.

9. Generally the GoB's central communication and information structure operates through the specialized departments of the Ministry of Information (MoI). There are twelve wings under the ministry and two of them – Press Information Department (PID) and Directorate of Mass Communication work directly with the media and stakeholders at community level. The other wings work with training, production and preservation of film, publication of materials, and news service. They include NIMCO, DFP, PIB, BSS, Bangladesh Betar, Bangladesh Television, and the Press Council, and Bangladesh Film Archives. The MoI officials come from the Information Cadre in the Bangladesh Civil Service (BCS) examinations, conducted by the Public Service Commission (PSC). These Information Cadre officials are also posted to all ministries and GoB departments basically to perform the responsibility of a Public Relations Officer.

10. There are also information offices in each of the 64 districts with a District information officer and an Assistant Officer. Beyond this, at the Upazila level, local government public officials such as *Upazila Nirbahi Officers* (UNOs), agriculture information officers, and project implementation officers perform this role.

11. A social movement for which civil society groups, including NGOs, social activists, GoB and politicians may claim credit is the recent adoption of the “Right to Information (RTI) Act 2009” by the National Parliament. The RTI law requires a new regime of public officials, appointed and/or designated in the various government offices at the central, divisional, district and/or Upazila level.

12. The Caretaker Government in 2008 approved the “Community Radio Installation, Broadcast and Operation Policy 2008”. There were more than one hundred applications, and the government has completed the shortlisting. Primarily it was the non-governmental institutions who initiated the movement for a policy on community radio. Later the civil society, academia, specialists and different social elites joined the campaigns for the approval of the installation and operation of community radio. If used effectively, both the community radio and RTI have great possibilities to help LGED carry forward its reform activities. They are also most useful democratic media tools and channels of information for the civil society to access government information, including

those of LGED contract bidding and awards. At the same time LGED and the partners can best utilize the community media to disseminate and share their ideas with the public.

Stakeholder Analysis and Mapping

13. Implementation of the FORMIP findings and ORA Action Plan will require engaging a wide range of stakeholders internally and externally in a structured manner. It is crucial to identify key stakeholders from a divergent spectrum, and categorize them according to their positions and ability to influence the proposed Implementation Plan. In the proposed communication strategy, interests and needs of the key stakeholders, which encompass those of the multi-layered civil society and institutions, will be addressed specifically in connection with the general and segmented needs for selecting appropriate channels of communication.

Mapping Stakeholder Positions & Assessing Communication Needs

14. The proposed strategy on communication and civil society participation explores means to deal with the stakeholders who are positioned at various stages of monitoring planning, procurement and execution of contracts. Some of them are with high influence and will be able to provide high support for the implementation, while others are with high influence but will provide low support. There are stakeholders who are in a position to provide low support as they have the low level of influence, while some stakeholders with high influence may be able to provide greater support for the ORA implementation.

LGED and the Community People

15. Considering the position of the public in the overall stakeholder matrix two major parties are - LGED itself as the provider, and the community people who are at the receiving end or the end users of the implementation process. Both the community people and LGED are obvious winners of improvements in the planning, procurement and implementation process. The Communication Based Assessment (CBA) included a diagnostic review of the communication and information environment of LGED, and assessed the department's capacity to frame a strategy to strengthen communication structure and processes. The strategy will also outline activities to enable LGED to share information with communities and civil society organizations so that they become part of decision making in managing risk.

16. It is generally expected that LGED will support the ORA Implementation Plan and Communication Strategy. While collaborative during ORA exercise, and cautious about implementation of some proposed mitigation measures, LGED will remain motivated to see the continuation of its high reputation for professionalism and risk management. Some risk factors in the internal organization, caused by the controlling authority of individuals and their lack of willingness to take appropriate actions may affect performance of LGED. But this inaction of some internal individuals isn't expected to put the overall effort of ORA implementation at risk.

GoB Ministries and Departments

17. Other agencies, i.e. GoB Ministries and their departments will be by and large supportive of the reform. For example, although the Ministry of LGRDC may wish to assert control over LGED, it will extend public support for FORMIP. Finance Division of MoF will support the successful implementation of improved internal control systems. The C&AG, CPTU and IMED of MoP will also be willing to support reform actions in audit reports and public procurement respectively. In addition, MoE and MoSICT will be winners in the process. The ORA strategy on communication and civil society will identify the linkage between LGED's information activities and other relevant institutions within the government entities.

Development Partners

18. Development partners supporting LGED activities will want to reduce reputational risks from LGED projects, and to help move forward with its planned actions, which will, in the long run contribute to the governance agenda in Bangladesh. Most development partners perceive LGED to be the best department in GoB. At the same time, they want to see the department to be more open to sharing information to the public, including NGOs and civil society organizations. In the stakeholder analysis development partners will find themselves winners as more transparency and sharing of pertinent information relating to LGED projects will help the department continue with its reputation and efficiency.

Non-governmental Organizations (NGOs)

19. . Involvement of NGOs, selected after careful review of their backgrounds, could speed up the participation of community and civil society in the planning, procurement, and execution of LGED projects. They could also play vital role in creating stakeholder awareness to help LGED maintaining its reputation and high standard.

Parliamentary Standing Committee

20. The Government has already formed the Parliamentary Standing Committees which are represented and headed by MPs according to the ratio of the seats of the political parties at the parliament. If functional, these special committees are willing to play active roles in the audit review of LGED. Since the committees want to perform their public responsibility, they will be interested in examining transparency and continuation of efficiency of LGED.

Contractors and Association of Contractors

21. The contractors and association of contractors are most likely to oppose the reforms, and to oppose greater involvement of civil society groups. If political influences can be reduced on the reform process, undue influences of the contractors and association of contractors are most likely to also be reduced.

Civil Society Groups

22. The civil society is the most important stakeholder and one of the key stakeholders in the communication strategy. The objective will be to involve the civil society organizations in monitoring the planning, procurement and implementation of

LGED contracts. Like other government projects with the local government or with the Roads and Highways, the civil society organizations may not benefit directly from the monitoring, but they are one of the principal stakeholders who will act as the watchdog to play vital roles in the implementation of FORMIP.

The Police

23. The Police are widely perceived as seeking illegitimate gain from any development work. This may be a generalized view. And the purpose of the strategy on communication and participation of civil society will be to consider the Police as a key stakeholder in helping accomplish some monitoring objectives. If proper incentives are given, they can particularly contribute to the campaign for safer roads.

Local Government

24. LGED needs to involve UP representatives more into their projects. UP representatives are willing to be partners in the making of local infrastructure decisions. Presently their ownership is not as great as it could be, but it could be improved by ensuring their greater access to the planning and monitoring of LGED projects.

Media and Journalists

25. Journalists are another important stakeholder in the monitoring of LGED contracts. Details of selecting appropriate media and using a media mix are outlined in the communication strategy. Journalists will be playing important role in reporting LGED work. They will help raise public awareness for carrying forward LGED reforms. Although local journalists and local and national media can be of great help in achieving the ORA objectives, some Press Clubs may find themselves as losers because of their divisions over political affiliation. And they may not gain any direct benefit from the reform.

Table: Possible winners and losers

Winners	Losers
LGED	Local Contractors & Association of Contractors
People/Local Communities (End Users)	
Political Parties	Political Parties
Departments and Ministries (other than LGED)	
Development Partners	
Partners: Local/Regional/National NGOs	
Parliament	
Member of Parliament (MPs)	MPs
Upazila Chairman/Vice-Chairman	
AL	AL

Winners	Losers
BNP	BNP
Islamic Political Parties	Islamic Political Parties
Deputy Commissioner	
Upazila Nirbahi Officer	
Union Parishad (UP)	
Civil Society Groups	
Media: Local and Community Media; National Print and Audio-Visual Media	
Journalists (Local and National) & Journalist Bodies: Journalist Associations, Journalist Unions and Press Clubs	Press Club
Police	Police

Table: Conflicts Associated with Major Stakeholders in the Implementation of FORMIP findings and Need for Media and Non-media Communication

Key Stakeholders	Major Issues	Need for Communication
LGED	Oppositions may derive from the internal organization as some controls depend on the decisions of individuals to act.	Developing communication-based work practices, i.e. revising current internal organizational structure and approaches to share and allow flow of information.
People/ Local Communities (End Users)	End users of LGED projects – roads and other infrastructures are not adequately aware of and involved in planning, procurement or execution of contracts. They are also unaware of the technical and procedural matters of the projects.	Developing a system of open and transparent contracts; information dissemination to the public; and practicing disclosure of public information, including the technical and procedural matters to the community people through most user-friendly channel of communication. Their voices should be heard and opinions be reflected in selecting and prioritizing projects through participatory means that benefits them most.

Key Stakeholders	Major Issues	Need for Communication
Political Parties	Due to local patronage of MPs and other influential politicians, LGED projects may suffer which can result in improperly sited roads, poor quality work output, and funds leakage.	More transparency should be ensured through establishing a communication action mechanism so that stakeholders, particularly community people and representatives of civil society groups and journalists can access similar data that MPs and local politicians have access to. To avoid negative aspects of political patronage, communities need support so that they actively take part in planning and execution of contracts, and monitor the projects. Local media shall play a vital role.
Departments and Ministries (other than LGED)	Some agencies related to the LGED projects in various capacities may possess conservative approaches to the ORA Implementation Plan. Some government agencies are not as capable and efficient as LGED and there might be problems of corruption and personal interest, such as with the land resettlement issues.	An organizational-communication plan will help raise bureaucratic abilities. Monitoring and involvement of key stakeholders through a sustained media and communication initiative shall put pressure to speed up reforms. Media and communication training and capacity building on participation and inter agency sharing of information may help reduce the degree of loss.
Contractors/ Association of contractors	Transparent procurement process is hampered by the interference with the bidding. This is done through negotiations among contractors and other unfair means practiced by the association	Setting up mechanism to involve local civil society activists and organizations in the monitoring process; and developing system to make competitive tender effective. Activists should have access to relevant data

Key Stakeholders	Major Issues	Need for Communication
	of contractors with direct or indirect support from political parties.	that will empower them open forum discussions with local political elites. If they are part of monitoring planning, bidding and execution of contracts, they shall be able to outweigh the political muscles/influence behind the contractors. Proposed e-procurement by LGED could help to reduce undue interference.
Parliament	MPs in the National Parliament may consider LGED budget for their constituency a slush fund for their personal benefit.	Under the status quo it is unlikely that the government or the Parliament will be willing to amend the recently enacted Upazila Law to transfer more authority to the Upazila level. However, as communication approaches, more networking needs to be established with the influential legislatures to play roles in the parliamentary standing committees. Network with local media, journalists and local civil society activist to do lobbying with the key policy and decision makers in the government to support ORA Implementation. This will require communication campaign and advocacy.
Upazila Chairman/ Vice-Chairman	Upazila Chairmen and Vice-Chairmen may find it conflicting, if MPs interfere with the LGED projects. They may try to manipulate contact and project	Upazila Chairmen and Vice-Chairmen should be brought into the part of a planned communication network so that they find it ultimately rewarding for

Key Stakeholders	Major Issues	Need for Communication
	activities.	supporting FORMIP.
Police	Police support present system as they are benefitting from significant income from bribes for allowing road users and vehicles to ignore regulations. This is the major barrier to applying road safety related actions, and introducing new rules for rural road safety.	Although giving police share of road fines collected would be an option, networking with them and reporting positive aspects in the media will make them an effective stakeholder for implementing new road safety rules.

Strategy for Civil Society Participation

State of Civil Society Engagement in LGED

26. There have been civil society participation and observers in LGED bidding in selected cases. It is uncommon to find examples of civil society or observers in a bidding system such as that of LGED. However, the main issue with LGED procurement is not only in the evaluation of bids - which is a step of the procurement cycle where civil society participation could be more effective. The problems in LGED's procurement relate to other dimensions of the project cycle such as the lack of information, collusion of the industry, lack of accountability, poor monitoring, low value procurement, etc.

27. Challenges for Civil society engagement in monitoring of LGED contracts and projects include:

- i. The dominant practice where civic participation is not part of the planning and implementation of government projects;
- ii. Absence of strategy or inadequate mechanism to involve civil society groups in the government procurement practices;
- iii. Unavailability of information for civil society to participate in the opening of bidding or monitor collusive practices and other dimension of the procurement;
- iv. Existing communication dynamics – the current practice of sharing information does not provide adequate opportunities to the civil society to receive and process information on time, which are necessary to make them interested in the LGED procurement or matters such as land acquisition and resettlement;
- v. Lack of systematic or inadequate scopes for the civil society for social interactions on LGED rural infrastructure and other issues with GoB, political leaders, contractors, LGED officials, and key policy makers.

28. What is needed now for LGED is to develop a practice of sharing more information with civil society groups and institutions. A combination of professional practices (which LGED has already achieved) with practical approaches will encourage civil society participation to improve procurement practice and supervision of projects, which will immensely help LGED to maintain transparency in the department. Civil society engagement will not only be vital in receiving support for the ORA implementation plan, but also to prove the commitment of LGED and its accountability to people. This will, in turn, contribute to the continuation of the department's high reputation for excellence and efficiency.

Objectives of Engaging Civil Society

29. The civil society groups and community based organizations (CBOs) will play an essential role in the success of the communication program, which is designed to facilitate the implementation of the FORMIP recommendations and ORA Action Plan. Overall strategic focus of the civil society participation will be to involve the community, non-governmental actors, and the private sector in an independent monitoring of the

planning and execution of the LGED projects. Precisely, the objectives of the strategy for civil society engagement are to:

- i. ensuring active contribution of the civil society and CBOs to establishing greater transparency and accountability in the planning, procurement and implementation of LGED contracts and projects, in the rural road sectors, rural infrastructure development etc;
- ii. develop an effective partnership between LGED and the community/civil society stakeholders to monitor the practices in the contexts of decentralized bidding, for example where LGED needs support from the independent local bodies;
- iii. utilize the synergy of the civil society groups and CBOs to identify problems and finding practical solutions in procurement which also relate to other dimensions of the cycle, like lack of information, collusion of the industry, lack of accountability, poor monitoring, low value procurement etc. in LGED work;
- iv. create a popular discussion in the public sphere on the level of performance of LGED, and its efficiency in risk management;
- v. develop models of good practices where the civil society participation in the planning, execution and maintenance of local engineering projects and infrastructures for rural development can be replicated in similar kinds of government and non-governmental projects.

Mapping and Analyzing Civil Society

30. The scope of work with the local community and civic engagement needs to be comprehensive and accommodating to allow participation of civil society groups and institutions. One of the outstanding issues that causes a communication barrier to the understanding of the LGED work is the technical nature of its work, which is not always understood by the civil society.

31. Some NGOs are now involved in the monitoring and capacity building of the Local Government under the Local Government Support Project (LGSP). NGOs concerned are responsible for monitoring the spending of allocations to the UP by the government. This project is being implementing in a participatory process involving communities and local civil society organizations. This covers both the execution of the program, and the awareness, mobilization and participation process. They have formed groups like the Scheme Supervision Committee (SSC) and Scheme Implementation Committee (SIC).

32. LGED is not a typical direct service provider, but is the primary agency in Bangladesh for planning, implementing, maintaining, and monitoring rural roads and related infrastructure. Therefore the department has a responsibility to establish channels

of communication for sharing relevant information with the media, community people, and the civil society.

33. In the following tables a working list of the civil society stakeholders is provided with their strengths and limitations:

Table: Civil Society Stakeholders

Stakeholders	Strength	Limitations
Opinion Leaders: Teachers, senior citizens etc.	They are regarded by the community people for their opinion and interpretations. They also play crucial role in mediating communication as effective grassroots communication patterns are dominantly two-step-flow. They can influence planning and implementation of rural constructions, such as construction of primary schools, tree plantation etc.	Audience of some segments may have reservation about particular opinion leaders due to their social relationship
Journalists	Journalists will report the performance of LGED projects, transparency in procurement practice. They can highlight the department's good practice and introduce quality performers to the people.	Some local journalists may be biased in different ways
Business leaders	Have interest in the projects and execution of LGED contracts. They also have interest in the road sector as smooth communication channel and their connectivity to the growth centers will have positive impact on their business. More infrastructural development may benefit	

Stakeholders	Strength	Limitations
	them to trade construction goods.	
Religious leaders: <i>Imams</i> , religious teachers	In rural Bangladesh, since most people have faith in religion and they are predominantly Muslims, <i>Imams</i> will be effective opinion formers for them to support LGED plans.	
NGO Leaders	They are experienced in participation and social mobilization. They can play very important roles in training, participatory discussions, campaign (such as on road safety issues) and following up the monitoring of civil society.	Selection of NGO leaders needs to be carefully managed based on their experience, strengths and weaknesses.
Farmers	They have the potential to contribute to the maintenance of LGED constructions, and are one of the most important stakeholders in land issues.	
Philanthropists & social workers	Can mobilize people, work for the awareness campaigns, and organize the community for voluntary services.	
UP Chairman	In the status quo they are mostly important during the post implementation phase. They should be involved at all other levels as peoples' representatives and important opinion makers.	

Table: Key Civil Society Groups & Institutions

Stakeholders	Strength	Limitations
Media	Can report, follow up and	Can be motivated and

Stakeholders	Strength	Limitations
	highlight LGED oversights as well as good performance.	LGED work (procurement, land settlement, road safety etc.) may not be in the media agenda
Local Government Bodies	Most important in local governance and development endeavor.	
Bazar Committee	Influential interests group. Can influence road safety issues, construction of jetties, growth centers etc.	
Mosque Committee	Has great influence over theological matters as well as on social issues of villagers. It can contribute to anti-corruption campaigns and transparency in LGED work.	
Land Owners	Important interest group in rural road constructions and possibly in small scale water resources and irrigation schemes of LGED.	
NGOs	NGOs in Bangladesh have quite a long track record of working with the civil society and development projects involving the community through participatory activities. Some NGOs have been using ethnographic and communication methods and techniques to ensure participation. They have also been engaged in local and national media and non-media awareness campaigns, local level community-centered advocacy and motivational program which will be of	Some civil society groups organized by NGOs, or NGO involvement (and NGOs as civil society organization) in the activities of community-civil society partnership may be criticized by the opponents of the reform for being motivated by NGO and development partner agenda. Government departments may feel NGO involvement in the process may undermine their position and credibility as a public organization.

Stakeholders	Strength	Limitations
	particular relevance to the implementation of the communication program at LGED	
Shop owners association	Some members are part of Bazar Committee and Mosque Committee.	
Women group	LGED has already got some participatory projects with women groups. They can be better engaged in the civil society actions. Local micro-credit (women) groups of PKSF can play vital roles.	
Press Club	Have social and political connections with the local elites and administration. On the whole, Press Clubs are influential in social and political terms.	There might be different divisions among the the Union of Journalists.
Community-based Organizations (CBOs)	The surviving CBOs are among the oldest organizations in Bangladesh. They have survived though many socio-political changes since the British Colonial period. They are social and cultural organizations with non-political identity and philanthropic characteristics. CBO members come from different strata of the community, including a considerable number of demographic representations of youth community.	Most have not been part of government project planning and implementations, while other institutions have had better experience than theirs.
Civil Society Networks/ Associations/Forum	Various forms of civil society network (e.g. association, campaign, forum & coalition/alliance) are active in Bangladesh	Most active CSNs in Bangladesh are urban-based (although they have networks in rural areas), which to some extent give

Stakeholders	Strength	Limitations
	<p>which are interested in establishing transparency and accountability in relation to good governance. These networks can be very effective if connected to local communities on LGED issues.</p>	<p>them an urban bias. Some Networks which are initiated and supported by NGOs have opponents even from the NGOs who possess different views on the campaign/advocacy issues. Some citizens and members of CSNs are polarized. National Alliances/ Coalitions of NGOs are divided. Although they have similar goals and visions, they are divided over their agenda and interests and affiliations.</p>

Civil society participation in the procurement practices

34. The World Bank’s CPAR identified procurement as the single most significant issue affecting public sector performance, with enormous wastage of money. This part of the communication strategy for civil society will explore prospects for monitoring of procurement reforms. Major deficiencies in the procurement practices are ordinate delay in completing the process and, often ineffective contract administration for ensuring transparency, and lack of accountability. It is not practical to solve all the deficiencies by civil society participation only. However the major problems are caused due to the secret nature of planning and administration of the procurement process which has serious bearings upon transparency and accountability. A communication and information sharing mechanism with the civil society through participatory approaches will help bring transparency and dynamism in the process.

35. LGED needs to turn the present bidding practices into a social procurement which will include civil society from the planning stage. As there are technical issues involved in this process, participating groups can be given basic orientation in this regard prior to their actual participation in bid planning. Civil society monitoring of the planning, procurement, and execution of LGED contracts can be again supervised by NGOs. Thus the social procurement will involve civil society members from different segments of stakeholders, including media and NGOs as practiced in other projects of the local governments. [Scopes and needs for civil society engagements are presented in the following section: Communication Measures in the Operational Risk Mitigation]

Civil Society Participation in Road Safety

36. Key road safety-related actions taken by LGED since 2004 are formation of Community Road Safety Group and Union Road Safety Committee for 3 pilot projects;

formation of Regional Road Safety Unit (RRSU), designing SE Region as the unit's head and 5 other officials as the members; assigning responsibility of Road Safety Activities to AE nominated by XEN – May 2006; and conducting Pilot Transport Safety Assessment (TSA) on three selected roads.

37. The road safety risks identified by LGED on rural roads are mainly related to:

- i) Road safety engineering
- ii) Traffic signs
- iii) Enforcement
- iv) Road Users education and behavior and
- v) Road improvement

38. As mitigation measures, LGED will prepare guidelines on transport safety assessment (TSA), and training manuals, which will be expanded to establish coordination between various road safety committees, and provide training as appropriate to Regional Road Safety Units (RRSU) and districts staff. However, except the engineering planning, implementation of the road safety reform requires a communication intervention which will put the civil society at the key position for establishing safer rural roads. For example, for popularizing the use of road signs, promote road users education, and bring about intended changes in the users' behaviors there is need for campaign and communication awareness activities. And civil society groups should be identified as the independent and authoritative stakeholders who could become the "champions" for road safety reform.

39. LGED road safety projects planned so far do not adequately involve civil society, in ways where they can work as active agents in minimizing road accidents and making the users aware of the safety measures. Like other civil society groups, UP chairmen are not consulted in the planning of road safety interventions although they are involved in monitoring the maintenance of the roads. Civil society activists, groups and institutions can actively take part in the awareness and motivational communication program, influence the community and induce them to receive training on road sign, contribute to the preparation of road safety manual. They will be working as social educators in the road users' education programs. Civil Society will play crucial roles in the participatory group meetings to make consensus among road users to implement the road safety measures. Civil society stakeholders, such as local journalists, and local media and communication professionals (some of them are already working with the media-focused NGOs) can also play strategic roles.

40. Key features of strategic intervention for civil society participation will include:

- i. Independent monitoring by the civil society
- ii. Publicizing success of work
- iii. Support mobilization for the reforms actions
- iv. Campaign for social awareness and participation
- v. Citizen discussions in the public spheres on LGED work

- vi. Influencing selection, planning and execution of projects and maintenance mechanism
41. Major types of activities for Independent Monitoring will comprise:
- vii. Preparing Citizen's Report Cards for the evaluation of
 - viii. Project performance
 - ix. Monitoring procurement, particularly bidding practices
 - x. Making specification or setting conditions of tender
 - xi. Tracking public expenditure
 - xii. Surveillance of the application of rules
42. Major types of activities for publicizing success of work will include:
- i. Reporting transparency, quality performance, best practices to the media
 - ii. Introducing best performers (LGED personnel and contactors)
 - iii. Media and communication activities (really, press conference etc.) by civil society representatives

Training Needs

43. To perform their roles in the LGED planning, design, implementation, maintenance, quality, Quality Control, and monitoring of projects, civil society groups will need capacity building and training on relevant aspects, such as some technical matters of engineering plan and design, quality and quantity of materials and necessary input into a project. They particularly need orientation on the technical aspects of different stages of procurement, and bidding in particular. Media training will be useful to establish relationship with the media and journalists. LGED should plan orientation for the civil society on the basics of awareness creation, social campaign and motivation. The Ministry of Information's mobile film unit can assist LGED to show to the people videos on awareness, mobilization and civic participation in local engineering and local government activities in other countries. They can also be shown videos on the use of information law to access crucial public information and its importance in participation, such as from the Indian, Mexican and South African experience. This audio-visual exposure will provide them conceptual and innovative practical ideas as to how the practice of civil society and institutions' engagement can be made effective in the LGED activities in Bangladesh.

44. Hundreds of local, regional and national NGOs are working in rural Bangladesh, many of which have got considerable experiences in engaging the local community in development and social uplift projects. They have also worked with the local government and to some extent with the local civil society groups on planning, execution and following up of people-oriented projects. In addition, some media and communication-focused NGOs too have been implementing people-centered advocacy projects. However despite their familiarity with the civil society negotiating with the local decision makers, they (local NGOs) still need capacity building to engage civil society for overseeing their (civil society groups') monitoring roles in the planning, implementing and maintenance of LGED contacts and projects.

45. It is a fact that NGOs are yet to be conversant adequately with the technical aspects of engineering work, including engineering plans, procedures and practices in procurement and quality control of the LGED projects in particular. They require orientation on the good practices of similar practices in transport and infrastructural development elsewhere in the least developed countries. In order for them to receive relevant project related information and developing knowledge and understanding to perform their roles, NGO will receive both general and customized training suiting the nature of projects and patterns of civil society engagement. In short, LGED should do the needful so that NGOs - as funding or non-funding partners/monitoring bodies - build their own capacities first before they monitor others' roles.

46. Engaging CBOs as another independent monitoring body is going to be a newer approach to engage the civil society groups/institution in the planning, design, implementation, maintenance, Quality Control, and monitoring of projects. Like other civil society groups and institutions CBOs too need capacity building receive training according to their involvement in the LGED activities, for example in the monitoring of planning and procurement in the road sector and other infrastructural development.

Outline of Strategic Communication Intervention

47. It is understood that LGED is willing to maintain its high standard as a GoB department, which is to have a duty to carry on its planned activities with greater transparency and accountability to the government and people of Bangladesh for funds and powers entrusted to it for rural infrastructure development. LGED is not a fully closed organization to the public as it already has a structure to provide information to the public. It has also some participatory activities which allow the end users of the rural roads and infrastructures to have a kind of ownership over the rural development projects. However in order to gain support for FORMIP and ORA Implementation Plan LGED needs to have a strategic communication program for a functional set up for establishing effective channels of communication, engaging the public and institutions, and strengthening its communication capacity.

48. Like other GoB departments and agencies, LGED has suffered from restrictions on sharing certain categories of public information with other government departments as well as with the public. The Official Secrets Act, Rules of Business and some other provisions did not enable LGED to be open adequately to the public and private organizations. Under the Right to Information Act (RTI) 2009, LGED will be required to develop a system of storing data systematically and providing them to the public. It may be generally expected that people will be interested to know more about the planning, procurement, and execution of LGED contracts and relevant information of projects. It is now imperative that LGED be proactive in developing a culture of information as opposed to keeping the public information secret which prevailed in many GoB departments for decades.

Objectives

49. The communication intervention will include audience segmentation in line with the key stakeholders identified; provide themes for appropriate messages; determine

appropriate channels of communication; identify the most effective mix of communication; and provide suggestions for designing mechanisms for strategy supervision and evaluation. A more detailed communication program for LGED, based on the above CBA, findings of the FORMIP and LGED's ORA Implementation Plan should be elaborated in a follow up phase to strengthen the information and communication function of LGED.

50. Overall, the communication strategy will help LGED improve its performance by fostering the sharing of more relevant information with stakeholders. Communication openness will help boost up and reinforce the image and reputation of LGED. The strategy is not only for equipping the department for meeting the information demands of the end users, but also establishing meaningful cooperation of all key stakeholders, including the civil society. Gaining public support will be crucial to the continuation of reform activities so that opposition voices cannot dominate the public sphere to jeopardize the department's success. The objectives of this strategic communication intervention is to:

- i. strengthen communication structure and process of LGED in general and in the context of FORMIP in particular;
- ii. help establishing a communication program and developing mechanism for sharing public information, build consensus, and support for FORMIP findings and recommendations;
- iii. provide conceptual approaches and practical outline for branding image of LGED as a transparent and efficient organization which is committed to quality service and accountable for the duty entrusted to it;
- iv. help to improve communication capacity of LGED in general and persons/unit(s) concerned in particular;
- v. setting basic principles for designing and conducting planned communication campaigns; and
- vi. explore communication-aided means to assess the socio-political contexts for the reform, and using participatory process to mitigate the risks identified.

Segmenting the Audiences

51. In the previous section (Stakeholder mapping) stakeholders were identified as winners or losers according to their positions and level of influence – positive and negative, and interests. Now, in order to effectively communicate with them, a strategic approach is needed for reaching and engaging them through various communication channels and media, to develop messages, and share and disseminate information suiting segmented needs they can be further categorized.

52. The audiences already identified can be divided into the following different levels (primary, secondary, and tertiary) according to their interests, capabilities and advantages:

Table: Levels of Audience in terms of their Interests, Capability and Advantage

Audiences	Interests, Capability, Advantage	For the Reform	Opposing the Reform
Primary	Have got the most interest	People/Local Community/End Users	
	Have the capability to influence, and interest for further transmissions	Civil Society, and Civil Society Organizations Academics, Institutes and Think Tank Journalists of the Media: Local and Community Media, National Print and Audio-Visual Media Journalist Associations, Journalist Unions and Press Clubs Local Government, Union Parishad (UP) Local NGOs	Local Contractors & Association of Contractors Some politically involved members of the local Press Clubs
Secondary	Key opinion formers	Religious leaders, Union Leaders, School Teachers, Religious Leaders and Imams. Civil Society, and Civil Society Groups NGOs	
	Ability to influence	Local/Regional/National NGOs Highly motivated, qualified senior personnel at LGED (able to influence organizational and inter-agency factors)	Local Power Elites

Audiences	Interests, Capability, Advantage	For the Reform	Opposing the Reform
		LGED participation training team, Sociologists	
	Interest to support	Local Government, Union Parishad (UP) Upazila Chairman and Vice-Chairmen Political Parties Member of Parliament (MPs)	Political Parties MPs Police
Tertiary	Have got needs to respond to the changes - internal (intra and inter-organizational) and external factors	LGED Departments and Ministries (other than LGED) Deputy Commissioner Upazila Nirbahi Officer	Few members in LGED retaining the status quo of individual practices rather than developing institutional systems.
	Who want to see the reform proposal implemented	PSC Parliament Development Partners	

Nature of Communication

53. The nature of communication will lead the strategy towards setting activities and performance indicators in the action plan. This will also be useful in identifying desired behavioral changes of stakeholders in crucial arenas, such as road sector reform, land settlement and procurement. Nature of communication identified in this CBA has been mentioned in the later section (Risk Factors in ORA Implementation and Role of Communication Measures). Overall, the nature of communication of the proposed communication program will be the following:

- i. Information Sharing Communication
- ii. Interactive, Participatory & Convergence Communication
- iii. Organizational Communication
- iv. Media/Communication Research
- v. Networking Communication
- vi. Strategic Use of Media
- vii. Segmented Stakeholder Communication

- viii. Communication/Media Campaign and Advocacy
- ix. Monitoring and Evaluation Mechanism Channels of Communication

Channels of Communication

54. Identifying and deciding appropriate channels of communication are central to the success of the communication strategy. Channels must be selected methodically suiting the varied nature and characteristics of the audience, and their specific demands for information/message. To reach the target audiences and bringing about changes in existing behavior for the implementation of FORMIP findings and ORA Action Plan, LGED should be able to select the most appropriate channels of communication. The suitability of channel(s) should be determined by the characteristics of the channel, nature and type of the message and characteristics of the audience.

Key Features of Communication Channel

55. Major points to consider when choosing a communication channel:
- a) Credibility of the channel
 - b) Reach and effectiveness of the channel
 - c) Frequency of using the channel by the audience
 - d) Cost, availability and general suitability
 - e) Scopes for feedback & mechanism to receive them
 - f) Scopes for two-way communication and interactions
 - g) The appropriateness of the channel in terms of social-cultural and political practices of Bangladesh
 - h) The potential of the channel to impact on target audience
 - i) The capacity of the channel to provide message to the specific and segmented audience for achieving LGED communication objectives

Characteristics of the audience

56. Besides taking into account key features of a channel itself, LGED will need to consider the characteristics of the audience who will be exposed to a channel of communication for receiving and sharing information. Major points to consider when evaluating the audience's position, preference and need and for choosing a communication channel:

- a) The audience in general and access of the identified segments' audience in particular to the channel
- b) The audience's ability to access (availability) and use (technically, socially and financially) the channel
- c) The audience's ability to understand (content and form) the channel
- d) The credibility that the audience places on the channel
- e) Social, political and professional status of the audience
- f) The audiences preferred language (optimum, dialect, local, colloquial, formal, informal etc.)

- g) Literacy (including level of media exposure) of the audience

Characteristics of the Message

57. Key points to consider when designing a message:
- a) The suitability of the message (including nature and format) for the channel
 - b) Cultural constraints to delivering a piece of information publicly
 - c) Political constraints to delivering a message
 - d) General acceptability of the message
 - e) Potentials of making an impact of the message on the intended audience

Media mix

58. The communication program will use a combination of media and communication channels for achieving the maximum outcome. This process of the use of two or more different media or media forms in one plan will be referred to as media mix. An effective mix of communication channels is needed to reach the identified segments or different stakeholder groups.

59. The media mix will enable LGED to:
- a) Reach people who have not been reached with the first medium
 - b) Reach different segments of the audience
 - c) Provide additional repeat exposure in a less expensive way
 - d) extend creative effectiveness of a planned communication campaign
 - e) Achieve synergy in the communication program

60. In this strategy for communication and civil society participation, LGED should plan to involve more than one media/communication forms and approaches, and media and non-media channels of communication. Although generally the mass media are thought to be the most useful channel of communication to reach a large and geographically scattered audience effectively, LGED needs to use other channels, media forms, approaches and techniques. Besides the Mass Media, the strategy will use Interpersonal Communication (IPC), Group Communication, Public Communication, Anthropological approaches to Participatory Communication, Computer Mediated Communication (CMC), Face to face Communication, ICT-based Channels of Communication, Folk and Indigenous Communication and any innovative combination of non-traditional media, media forms and communication.

61. For the successful use of the Communication Strategy to implement the FORMIP and ORA Action Plan, and to address social and communication issues relating to the rural road sector reform, land acquisition and settlement and procurement, the media mix will be essential. The following are some suggestions of different channels of communication, media and media forms which could be combined in the media mix

(some of them are most frequently used globally, while others have been used in Bangladesh):

Mass Media:

Radio, Community Radio Station (CRS), Television, Newspaper (Local, Regional and National), Magazine, Film

Interpersonal and Small Group Communication:

Meeting, group discussion, Interview, Networking etc.

Public Communication:

Public Speech, demonstration, larger group meeting, Street Theatre, Press Conference, Small Scale announcement Networking etc.

Anthropological and participatory Approaches:

Participatory Discussion, Participatory Planning, Improvised Theatre for Development (TfD), Theatre for Education, Ethnographic methods and techniques etc.

Mobile outreach:

Mobile video show, theme-based folk songs performance etc.

Media Forms:

Social Advertisement, Posters, Leaflet, Media Tool Kit, Manual, Booklet, Signboard, Billboard etc.

Mediated Communication:

Computer Mediated Communication, Mobile Phone, Media Forms (mentioned above)

Folk and Indigenous media:

Different forms of Folk Songs, Games, Open Stage Theatre/Drama (Jatra), etc.

Face to Face Communication:

Meeting, Interview, Networking etc.

Advocacy:

Press Conference, Networking, Interview, Lobbying, Mobilization, Conference, Dissemination Workshop etc.

Campaign:

Different Media Forms for both High Visibility and Low visibility

ICT and Social Media:

Internet, Computer, Mobile Technology etc.

Creative media & Communication

Non-conventional Media & Channel of Communication

Messages

62. Developing appropriate messages and providing them to the people through most accessible channels of communication is key to the success of the communication intervention and civil society participation. In order to gain support for FORMIP and mobilize the different segments of audience for achieving the objectives of the program LGED will need to prepare right messages in right format for the right audience and for the right channel of communication. Central themes of the messages should be targeted towards achieving the desired changes in behavior.

Phases of Message Development

63. The message for the target audience will be developed in few phases, which are as follows:

Define

- Define the core theme of the message
- Identify the problem
- Assess the audience's information needs

Design

- Plan a strategic dissemination
- Choose most appropriate channel of communication
- Identify alternative forms of communication
- Decide a media mix
- Design content

Produce

- Find solutions to the problem
- Decide the most appropriate theme to appeal
- Plan production
- Produce media materials

Evaluate

- Share message to pretest
- Collect feedback
- Evaluate message and form
- Rethink the channel/media, if needed
- Redesign message, if needed

Basic considerations in message preparation

64. Messages will be prepared according to the levels, interests, capabilities and comparative advantage and disadvantage of the key audiences (depending on who will support the new work practices and who may oppose them). The degree and level of support may again vary from segment to segment. Primarily the messages will be of three types – for primary, secondary and tertiary audiences. Again the nature and content of the message will vary according to the audience position either in favor or against the reform. Producing general messages for the audience in a particular continuum will be challenging as they (messages) will conceptually have to address the needs and expectations of all the audiences in the category. At the same time, preparing messages for the audience of different segments has been a big challenge in communication strategies everywhere in the world. For example, deliberate attempts will be taken to make comparative judgments for the preparation of message for the audience with:

- a) High Influence but Low Support
- b) High Influence with High Support
- c) Low Influence but high support
- d) Low influence and Low support

65. The following is a list of key audience groups for whom themes for core messages need to be outlined with an aim to make planned behavioral changes as well as changes in the status quo of information sharing and participation:

- a) End Users: the Community People
- b) Mass Media
- c) GoB Agencies
- d) Civil Society
- e) Think Tank and Research Organizations
- f) Opinion Leaders
- g) Political Parties
- h) Policy and Law Makers
- i) Local Government
- j) Police
- k) Audience likely to oppose

Supervision and Evaluation

66. Having a logical Framework for the Implementation of the communication strategy with verifiable indicators in relating to the objectives and outputs will be most useful for evaluating the performance and impact of the communication program. Designing the mechanism for monitoring and evaluation will be developed and detailed out in the Action Plan in the follow up stage of this strategic communication intervention. Monitoring will be part of a continuous process while a mid-term evaluation will help revise any part of the communication program. Ongoing monitoring and mid-project evaluation will allow LGED to carry forward with the strategy to the right directions. Overall, there will be:

- a) Continuous/ongoing monitoring
- b) Mid-term evaluation (if the strategy is used as a project or for piloting)
- c) End of the project evaluation
- d) Evaluation before next phase begins

Outline of Monitoring/Supervision and Evaluation Methodology:

- a) Ongoing feedback from the field communication staff
- b) Feedback from the community and consultation with them
- c) Feedback from the civil society and consultation with the groups
- d) Local/regional/national media reports
- e) Review of communication materials and approaches used
- f) Internal supervision report
- g) Interview with LGED implementing staff
- h) Mid-term evaluation report
- i) Independent (end of phase/project) evaluation conducted by experts/consultant

Communication Capacity Building of LGED

67. It is expected that LGED will undertake the communication program, i.e. strategy for communication intervention and engaging the civil society in line with FORMIP and ORA Action Plan. An Action Plan will set activities based on the communication audit and the guiding principles mentioned in the strategy, some of which will be performed by LGED itself, while others will be implemented in collaboration with other GoB agencies, professional communication organizations, NGOs, and other civil society groups. However, LGED will be in the driving seat to coordinate and oversee the whole strategic communication activities. It is therefore imperative to take measures to build and enhance communication capacity of LGED as the lead organization. Creating communication capacity of few other partner organizations is also vital as they too will be part of the program to design and implement certain aspects of strategy.

68. One key objective of the strategic communication intervention is to strengthen the communication structure and processes of LGED in general and in the context of FORMIP in particular. That is also to help LGED improve its capacity as an organization to make a strategic shift from PR to communication interventions, and also focusing more on the capacity building and training needs of the personnel who will be in charge of overseeing/executing the planned activities within and outside the organization. Capacity building and development for LGED, its communication teams and other relevant organizations will focus on the following areas:

- Training and skill development
- Media related communication capacity
- Structure and mechanism for sharing information

- Research and analysis (knowledge-based research on information and communication)
- Monitoring and evaluation

Internal Communication and Capacity Building of LGED Communication Teams

69. Internal communication will focus more on how LGED manage, coordinate and communicate within their own organizations across the country. Internal capacity building of LGED and its communication teams will focus on skills and training, capacity and mechanism for sharing LGED related information internally, information sharing systems with other relevant Government departments, civil society groups, media etc., knowledge-based research and analysis on information and communication, and monitoring and evaluation. The following table shows the potential topics, themes and issues in relation to the areas identified for capacity building of LGED and its communication teams. It also shows the personnel or institutions likely to be responsible for providing capacity building support, and the time the development actions may take in terms of long term or short term. Some immediate needs are shown here within short term, which should be specified with dates and time frame in the action plan for the implementation of the communication program.

Table: Capacity Building Needs of LGED & Communication Teams

Capacity Building Areas	Themes & Issues	Capacity Building Support	Long or Short Term
Skills, Training & Development	Training on the structure and use of Right to Information Act (RTI).	Existing LGED training unit or a newly developed Communication Unit in collaboration with professional communication organizations	Short & Long term
	Training for new Information Officers (required under RTI and to implement the communication strategy/enhancing capacities of existing personnel dealing with the channels of internal and external information flow.	Experts & Specialists	(Setting up a Communication Unit may be a long term endeavor)
	Training on operation and programs of Community Radio Station (CRS).	A full-scale skill training needs assessment may be conducted	
	Skill training on organizing and motivating civil society, conducting	more capacity/training service providers will be identified in the Action Plan	

Capacity Building Areas	Themes & Issues	Capacity Building Support	Long or Short Term
	<p>workshop, conducting and organizing Participatory meeting, group discussions.</p> <p>Skill training on process documentation.</p> <p>Skill training and orientation on dealing with media, organizing press conference, social mapping (in relation to stakeholders).</p> <p>Understanding and analyzing communication materials.</p> <p>Understanding and being able to use the strategic communication interventions and civil society engagement strategy.</p> <p>ICT skills development.</p> <p>Web skills.</p>		
Media and Campaign Communication Capacity	<p>Knowledge and techniques on awareness, social mobilization and motivation.</p> <p>Basic understanding of media organization: operation and ownership.</p> <p>Knowledge of the characteristics of local media.</p> <p>Skill and experience of organizing press conference.</p>	<p>PR and planned communication organizations, media professionals, journalists, advertising firms, campaign experts, communication experts on campaign and advocacy, GoB organization, such as NIMCO, BTV, Bangladesh Betar,</p> <p>Advocacy and campaign cells of NGOs and INGOs.</p> <p>Internal resources of LGED</p>	Short term

Capacity Building Areas	Themes & Issues	Capacity Building Support	Long or Short Term
	<p>Applied techniques and approaches to interviews.</p> <p>Knowledge of monitoring message preparation, participation in message development.</p> <p>Knowledge, skills and experiencing of utilizing radio, particularly CRS; and know how to make radio spot , participate in a talk show, arranging a special program on the development activities of LGED</p> <p>Know media campaign and advocacy techniques.</p> <p>Skills to evaluate communication campaign materials.</p> <p>Preparing reports for the media</p>		
<p>Structure & Mechanism for sharing information internally</p>	<p>Infrastructure and facilities development (ICT, GIS, MIS etc.) at LGED for sharing information.</p> <p>Bengali website development,</p> <p>Translation (English – Bengali & Bengali-English) of most important LGED documents.</p> <p>A detailed needs assessment will enable to identify more capacity building needs in this</p>	<p>Based on recommendations from organizational communication/information strategy expert, LGED will do the needful for both teams/LGED capacity and infrastructure/facility development (in collaboration with other relevant GoB departments, and supported by development partners)</p>	<p>Between short and medium term. This will be an immediate need as soon as FORMIP/OR A action plans are being implemented</p>

Capacity Building Areas	Themes & Issues	Capacity Building Support	Long or Short Term
	<p>connection.</p> <p>Information collection, sorting, storage and dissemination capacity and mechanism.</p> <p>Optimum number of staff in the Communication Teams.</p> <p>A Communication Unit at LGED</p>		
<p>Systems and practice of sharing information with external publics/ departments/ organizations/ Institutions</p>	<p>Changed work practice in new system (which will evolve from PR to communication based practice) for sharing information.</p> <p>Making the LGED library more user-friendly and accessible to civil society.</p> <p>Bengali website development, translation (English – Bengali & Bengali-English) development and maintenance.</p> <p>Monitoring translation</p> <p>Practice to produce shorter versions of LGED publications</p> <p>A needs assessment will enable LGED to identify more information needs of the external publics, capacity building needs of LGED in that concern.</p> <p>LGED & Communication</p>	<p>LGED and other agencies in GoB, media professionals, specialists, local and international experts; professional translators, publisher.</p>	<p>Short term</p>

Capacity Building Areas	Themes & Issues	Capacity Building Support	Long or Short Term
	Teams' training of effective information dissemination Setting up a full-fledged Communication Unit/PSU/Communication Cell.		
Research and Analysis	Communication Research, Social Research, Audience Analysis, Impact Analysis, Participatory Research.	Social (qualitative and quantitative) research experts, GoB research departments/academies professional training houses, media and communication research expert, professional research firm, individuals, from the universities, NGOs and think tanks.	Need-based & short term
Developing Tactics	LGED communication teams/persons in charge should be able to adopt necessary tactics based on the communication strategy whenever necessary.	Community strategy specialists, trainers or training organizations, GoB and private organizations, communication specialists	Need-based & short term
Monitoring & Evaluation	Coordinating and keeping track of monitoring; know how to conduct some sectoral evaluations, and supervising performance evaluation.	Consultant, group or organization, NGOs responsible for overseeing the monitoring of civil society actions.	Short and end of phase

Communication measures in Operational Risk Mitigation

70. The FORMIP identifies and categorized three types of risks and corresponding risk mitigation measures. As mentioned earlier the first type includes risks that LGED can immediately take action upon to address mainly on its own; the second type includes risks that LGED needs to address in partnership with one or more organizations; and the third type includes risks that stem from the external environment in which LGED operates and risks mitigation measures that go beyond LGED's control and influence. The following tables provide specific suggestions for the strategic communication interventions to support the risk mitigation measures of ORA Action Plan. Here media forms, channel of communication and methods, including ways and possibility of civil

society engagement have also been articulated in the overall contexts, which will work as potential actions of the communication program.

Table: Internal Organization

Risks	Risk Mitigation Measures	Strategic Communication Intervention	Media Forms, Channel & Communication Methods
LGED's structure is less effective in providing inter-organizational support functions across line departments.	Adopt a matrix structure with 7 new Divisions and additional units	A communication unit to act as program/project support unit to address the communication functions as well as to maintain inter-agency channels of communication and flow of relevant information	Internet, computer-mediated communication (CMC), Distribution of publications (hard copy and electronic format), information sharing meetings (within LGED and between agencies), Database; and interpersonal and group communication.
Dependence on development partners for funding training; improvements needed in some course material and training	Implement ISAP recommendations and establish data base of training needs and attendance, and link selection and use of course materials to requirements.	Communication Unit in coordination with other division/unit can help assess training needs and improve training materials and manuals.	Training manuals, communication resource pack, communication tool Kit; Interpersonal and Group Communication
Not enough mechanisms available to LGED to reward high performance.	Introduce an internal staff assessment process, and non monetary incentives to reward good performance, including employee recognition, team awards, and access to training and staff development opportunities.	Utilize media to publicize the high standard of performance at LGED and measures to reward and recognize good performance of LGED and LGED staff. Taking measures to publish features on Newspapers/Magazines and motivate Electronic channels to highlight the good performance	Local and National Media – Newspapers, Magazine, Mainstream Radio, Community Radio Stations (CRS) and Television; Public gathering in Award Giving Ceremony
The lack of a clearly articulated corporate vision undermines the	Strengthen existing initiatives to formulate Vision	A comprehensive Communication Strategy/Strategic	Communication channels used by LGD and MoE; local,

Risks	Risk Mitigation Measures	Strategic Communication Intervention	Media Forms, Channel & Communication Methods
quality of strategic planning.	Statement to ensure it clearly defines the future direction and shape of LGED	Communication Intervention Program will be essential to for LGED set its Vision and Banding Image	regional and national media, community organizations, civil society groups/ organizations/ committees and institutions, NGOs, UP, local media organizations/press club, media-focused NGOs working on RTI Community Radio, and social participation
Recruitment process doesn't put enough emphasis on experience, attitude and character <i>vis a vis</i> academic qualifications and examination.	Recruitment process to be undertaken by the professional examination board to scrutinise applications, set and mark papers and screen applicants for interview board led by PSC.	None	Quality Examination and Assessment system. Pool of experts and professionals to scrutinise applications, set and mark papers and screen applicants for interview board.

Table: Information and Communication Technology¹⁹

Risks	Risk Mitigation Measures	Strategic Communication Intervention	Media Forms, Channel & Communication Method
<ul style="list-style-type: none"> • Limited use of ICT for core functions (such as financial management, procurement, human resource management, etc.). • Almost all the software being used by LGED is based 	<ul style="list-style-type: none"> • Develop/procure an integrated, comprehensive, enterprise-wide, workflow-based, decision-support system (IDSS) which is both modular and scalable, and based on web technologies. 	ICT to be placed at the centre of communication planning to ensure access to and sharing of data. This will help making linkage with Rural ICT centres/Information Kiosk/Rural Knowledge Centre.	<p>Updated ICT infrastructure at LGD, CPTU, IMED, C&AG, MOF. User-friendly database, Rural IT/ICT Centers/ Information Kiosk/Rural Knowledge Centre.</p> <p>Website CD/DVD</p>

¹⁹ Under this component, all interventions and communication methods will comply with the provisions of the Right to Information Act of the Government.

Risks	Risk Mitigation Measures	Strategic Communication Intervention	Media Forms, Channel & Communication Method
<p>upon older client-server technology.</p> <ul style="list-style-type: none"> • GIS data are not fully utilized for infrastructure planning and design 	<ul style="list-style-type: none"> • Replace/transition to web based solutions. • Spatially reference databases (like infrastructure, agriculture, environment, land rights, socio-economic data, etc.) as different thematic layers of a GIS solution based on a common Base Map. • Also, make GIS available both at HQ and in all the regional field offices. 	<p>More web based solution in the future</p> <p>Under Communication and Information program, community people and civil society should have access to relevant GIS information, particularly on socio-economic data; and information required to planning and participatory decision making.</p>	<p>Rural Information Centers and similar ICT infrastructures to enable rural people get connected and access to LGD, Planning Commission, UP, Partner NGOs Civil Society Organizations, Think Tank, Researchers and Academia,</p> <p>Interpersonal and group communication to make end users aware and motivated to use ICT facilities to access socio-economic data and information required to planning and participatory decision making.</p>
<p>Although considerable data are available within the LGED systems, they are invariably not accessible freely or easily.</p>	<p>Implement, as part of a web based IDSS, a centralized contracts database (covering all past and current LGED contracts) and a contractors database (covering all contractors who have or are executing any project for LGED) to facilitate contracts and contractors' performance evaluation, benchmarking and monitoring, and complaints resolution.</p>	<p>Disclosure of data and facilitating access them will help improve contracts and contractor's performance. A systematic and user-friendly access to data will serve the purpose of meeting demands of information rights of stakeholders under Right to Information Act (RTI).</p>	<p>Media and Non-media Communication channels – interactive group communication, printed materials, intermediate and public communication, Public Service Announcement.</p>

Table: Implementation Plan, Road Safety

Risks	Risk Mitigation Measures	Strategic Communication Intervention	Media Forms, Channel & Communication Method
The safety risks identified by LGED on rural roads are mainly related to: safety engineering, traffic signs, enforcement, road users' education and behavior, and road environment.	LGED efforts to prepare guidelines on TSA, and training manuals, should be expanded to establish coordination between various road safety committees, and to provide training as appropriate to RRSU and district staff.	Awareness and Motivational communication program, Media and non-media approaches to campaigns on road safety. Communication training on Road Sign, Preparing Road Safety and Road Sign Manual, Road Users Education; and segmented messages for behavioral changes.	Media and non- media approaches to communication campaign. Awareness and Motivational communication program on road safety. Communication training and materials on Road Signs Road Safety and Road Sign Manual, Road Users Education booklet Posters, stickers, billboard, social advertisements, talk shows on TV and radio, special program on Community Radio Station. Participatory group meeting

Table: Land Use and Resettlement

Risks	Risk Mitigation Measures	Strategic Communication Intervention	Media Form, Channel & Communication Method
Deliberate escalation of resettlement costs by using/misinterpreting ambiguities in the acquisition ordinance	<ul style="list-style-type: none"> • During Joint Verification (JV), assign higher level staff, and ensure accountability. 	Besides the organizational measures taken by LGED, there is greater need for involving Local	Participatory discussions, group meeting, face to face and direct meeting with land owners, opinion formers and civil

Risks	Risk Mitigation Measures	Strategic Communication Intervention	Media Form, Channel & Communication Method
and producing fraudulent assessments, which undermines integrity and effectiveness of the resettlement program.	<ul style="list-style-type: none"> • LGED staff independently prepares separate records of lands and other assets, by using the same formats used by the acquisition officials. 	participation in the process. A Stakeholders' Participation Plan to enable LGED establish direct channel of communication with the land owners and local opinion leaders will help solve the problem. Journalists can be useful source of information to stop escalation of resettlement costs.	society Relevant Stakeholders: LGED, LGD, District and Divisional Committees, Local Partners Government, Civil Society and relevant Stakeholders, Journalists and local Media, Professional Media Groups and Local NGOs working on similar issues.
Persistent delays in land acquisition and RAP implementation give rise to the risks of non-compliance with social safeguard policy and delays in civil works implementation.	Schedule the civil works taking into consideration the time required to complete the land acquisition and RAP implementation process.	More transparency and open information should be made available to community people.	Information through Local ICT centre, posting information on office board, training on the use of RTI, booklet and use-friendly information kit for the land owners and their rights for resettlement
	LGED should seek authority from LGD to purchase lands directly from the private owners, on willing buyer-seller basis; propose ways and means to ensure full transparency of these purchases.	Greater transparency to providing information. Open discussions with the community and civil society groups and enabling UP and NGOs facilitate the process.	Open and direct discussions, group discussion, available written and electronic information, video information materials showing LGED's commitment to maintain transparency in the purchase.

Table: Procurement

Risks	Risk Mitigation Measures	Strategic Communication Intervention	Media Forms, Channel and Communication Method
Given the large	Full implementation	More involvement	Participatory group

Risks	Risk Mitigation Measures	Strategic Communication Intervention	Media Forms, Channel and Communication Method
<p>number of contracts procured by LGED and the de-centralized nature of the procurement implementation, the lack of an integrated information system is a risk.</p>	<p>of the procurement management information system</p> <p>Implementing an e-procurement and tendering system which will facilitate a centralized database of all contracts,</p> <p>Encourage more small and medium contractors to bid for projects and improve overall transparency and accountability in LGED works.</p>	<p>and participation of Civil Society Groups in the procurement activities, particularly in the monitoring of compliance.</p> <p>Ensuring more transparency by providing information to the stakeholders</p>	<p>discussions, procure management information sharing</p> <p>Develop e-procurement system and keep the civil society informed of it.</p> <p>End users and civil society will have access to relevant data. LGED already has notice boards at local office that are said to post bidding schedules. They should add to this relevant detail of the procurement management.</p>
<p>Advertisement of procurement opportunities may not be targeting the right segment of the market at the district level</p>	<p>Define a strategy for more systematically advertising tender opportunities. Among the options considered could be selecting newspapers for advertisement of the procurement opportunities in Bangla language on the basis of high circulation and posting the procurement notices to all notice board and LGED websites.</p>	<p>In addition to the risk mitigation measures already proposed by LGED (which is a communication approach); strategy should be adopted so that public has got access to relevant data. LGED already has notice boards at local offices that said to post bidding schedule. They can add to this relevant project designs, personnel responsible, summary engineer's analyses, information on project status and picture.</p>	<p>MOF, CPTU</p>
<p>Small contractors may rely on LGED staff to provide necessary training on</p>	<p>Expand training for small contractors in bid preparation, and encourage them to</p>	<p>Design and conduct trainings by professionals</p>	<p>Training on bid preparation by professional trainers, sociologists and</p>

Risks	Risk Mitigation Measures	Strategic Communication Intervention	Media Forms, Channel and Communication Method
bid preparation;	seek assistance from independent specialists		communication experts.
Allowing multiple dropping of bids presents risk of manipulation of bids after reception during the delivery of the sealed bids to the opening office.	Although single dropping should be the preferred option for government procurement, LGED to retain multiple places for dropping tenders under the following controlled conditions: LGED would urge civil authorities to take care of providing security at LGED facilities and proximities, and to prosecute offenders that are caught.	Communication Campaign and public engagement.	Since monitoring is a challenge here as a communication approach LGED should Identify communities with existing activist groups that could be given training in LGED oversight.
Bidding documents issued only in English may induce small local contractors to seek external support or larger contractors to convey their proposals increasing the risk of collusion	Publish the bidding documents in the Bangla language. Although many technical terms are not available in the national language, these may be retained in English. LGED should coordinate with CPTU the issuance of such documents	Publishing bidding documents (even if in English) in a number of local/Regional (and where feasible in national dailies); Take steps gradually to translate the bidding documents; develop bidding vocabulary in Bangla; Developing booklet explaining the meaning, particularly when it could not be translated in Bangla.	Professional Media House can produce booklet in Bangla for effective communication specially on the technical issues; ;
Complaint resolution mechanism: the resolution of disputes and complaints at LGED could be improved. The CPTU mechanism does not appear to draw the	The complaints resolution mechanism should be further developed to serve smaller contractors A tracking system needs to be developed. The Procurement Unit		In accordance with the provisions of PPR 2008, the following steps will be taken: Regional workshop & view sharing meeting Form a committee

Risks	Risk Mitigation Measures	Strategic Communication Intervention	Media Forms, Channel and Communication Method
confidence of smaller contractors. At the project level (RTIP is an example) there are complaint boxes available for bidders to deposit their complaints safely. Moreover, bidders are advised about the mechanisms for filing complaints but there is not enough confidence in the system available to ensure transparency and accountability	should be responsible for finding ways of attracting the confidence of the smaller contractors in an environment that is not conducive of transparency or provide adequate reassurance to the bidders; organize regional workshop to inform bidders regarding the complaint mechanisms.		comprising LGED representative, civil society, opinion makers and NGOs Establish direct contact and information sharing with small contractors.

Table: Risk of the External Environment

Risks	Risk Mitigation Measures	Strategic Communication Intervention	Media Forms, Channel and Communication Method
Compensation rates too low for staff.	Overall need to increase pay by around 40%.	Advocacy and lobbying with key policy makers, including MPs and Ministers. Communication Intervention should among other strategies should include Media Advocacy with the help of partners; and strategic use of television, such as talk shows.	Lobbying, meeting and other strategic methods to make the matter widely known to the public, giving it a shape of public discussion and opinion forming through the media
ICT improvements will not be fully available to LGED's field offices because of limited access to power and Internet	Power sector reforms and national rollout of WIMAX	National Advocacy by the Civil Society platforms for improving rural ICT infrastructure, and campaign and	Lobbying, meeting, conference, and using pressure groups for improving rural ICT infrastructure and for a telecommunication

Risks	Risk Mitigation Measures	Strategic Communication Intervention	Media Forms, Channel and Communication Method
connectivity		lobbying for a Rural ICT/Telecommunication policy. A Communication strategy to use Rural Information/Knowledge Centre etc.	Policy Making a communication campaign and advocacy strategy.
The lack of an overarching strategy for innovative infrastructure provision has resulted in LGED reacting to external development partner agendas rather than being in a position to shape and guide those agendas.	Develop a strategy and action plan with defined procedures, services and materials for segmenting and targeting of main clients. Strengthen links between corporate strategy and annual planning	Sensitizing LGD and development partners	Meeting and more information sharing methods
Political influence can change the laid down rural infrastructure selection criteria for personal benefit.	Launch an awareness campaign at many levels to improve understanding of the advantages of following agreed criteria for road prioritization, and the cost of not following them.	Awareness campaign at different levels to improve understanding of the advantages of following agreed criteria for road prioritization, and the cost of not following them. And national level Advocacy	Awareness communication campaign
At districts where political influence is strong, some contractors succeed in getting contracts by collusive practices	Given political support from LGD, and a commitment from newly elected politicians to desist from supporting collusive behavior, LGED can take steps to minimize such behavior including wider circulation of bids, more careful bid scrutiny, and stricter enforcement of penalty clauses.	More information to be made available to the Community and Civil Society. Campaign to use RTI by stakeholders to access more information on procurement in general and bidding in particular.	RTI and communication training, working training on procurement process.

Annex 4: Scope of Work: Operational Risk Assessment of LGED

Background

1. Over the last two decades various development partners have entered and continue to enter into long term programs with the Local Government Engineering Department (LGED) under the Ministry of Local Government Division, Rural Development and Cooperatives (MoLGRD&C). LGED receives an annual budget of more than US\$ 700 million each year with about 62 percent from the Government of Bangladesh (GOB) and the remaining 38 percent from development partners. This represents on average 40 percent of the Government Annual Development Program for transport.
2. LGED has the reputation as an “island of excellence” in the GOB, with high standards of professionalism, and generally robust risk management systems. However, supervision missions of the Rural Transport Improvement Project financed by the World Bank have identified issues needing attention in contract management and compensation for resettlement. These issues have been confirmed in a similar project financed by the Asian Development Bank. Some of these issues have already been addressed through the roll out of the Public Procurement Rules, extensive staff training, expanded MIS and GIS, cancellation of some contracts, giving progress targets and deadlines to other contractors, and the plan to expedite land acquisition and mitigate financial abuse risks in development partner-funded projects. However, more work is needed to ensure that LGED maintains high standards of professionalism.

Operational Risk Assessment

3. To help LGED carry out the additional work needed to ensure that LGED maintains these high standards, the Ministry of Local Government agreed, as part of the identification of a follow-up project to the on-going Rural Transport Improvement Project (RTIP) implemented by LGED, to launch an Operational Risk Assessment (ORA) of LGED²⁰. The ORA will help define the measures to reduce fiduciary risks, as well as inherent risks linked with road and infrastructure construction and maintenance, administrative control risks, and risks associated with political influence. The ORA is expected to be carried out during a period of 8 months, starting with a mission that began work 21 April in Dhaka. It will be a participatory exercise involving stakeholders from the public and private sectors and civil society. The ORA is financed mainly by DFID funds managed by the World Bank.
4. The objectives of the Operational Risk Assessment (ORA) are:
 - To analyze the systemic issues hampering effective project preparation, design and implementation processes in LGED,

²⁰ Cf. Letter from Country Director, World Bank to Secretary, Local Government Division of December 12, 2007, concerning RTIP Ninth Supervision Mission (November 26-December 11, 2007).

- To understand LGED’s sectoral governance and political economy issues in rural roads, construction of health complexes and schools, small irrigation and municipal infrastructure works, and
 - To make recommendations for the benefit of the Government of Bangladesh (GOB), the sector as a whole and the development partners involved.
5. In the case of LGED, the political economy aspect is very acute with various Ministers and local Members of Parliaments (MPs) involved prior to 1-11 in the choice of roads, in particular, and in influencing the procurement processes. In addition, with widespread, small contracts, the internal control mechanism in LGED needs to be further strengthened.
 6. The ORA will aim to establish the following:
 - a) Available measures to quickly and effectively minimize the major fiduciary risks identified in LGED,
 - b) The fiduciary soundness of the LGED management structure currently relevant to meeting its core responsibilities, and
 - c) Ways to control weaknesses in management of projects, assets and other resources that are the main concerns in the possibility of funds leakages.
 7. In order to help future periodic monitoring of LGED’s fiduciary management capacity, the results of the ORA are also expected to establish a useful ‘baseline’ measure.

Timing and Reporting

8. Professional inputs and milestones are as follows:
 - Initial missions to Bangladesh and Launch Workshop – April-June 2008 involving Clay Wescott (Team Leader), Jaswant Channe (Rural Infrastructure Specialist), Richard Slater (Institutional Development Specialist), Salim Rashid (International Political Economist), Abul Hossain (Local Political Economist), Sanjay Saxena (Management Information System Specialist), Efraim Jimenez (Procurement Specialist), Lance Morrell (Financial Management Specialist), T.K. Barua (Resettlement Specialist), and Tanveer Hussein (Advisor) under the direction of co-Task Team Leaders Jean-Noel Guillosoou and Mohi Uz Zaman Quazi.
 - Submission of an Inception Report - September, 2008
 - Submission of Fiduciary & Risk Management Improvement Plan (FORMIP) – November 2008
 - Missions to Bangladesh to discuss FORMIP (November 2008) and Implementation Plan (March 2009) with LGED involving Clay Wescott (Team

Leader) and T.K. Barua (Resettlement Specialist), under the direction of Leader Jean-Noel Guillosoou.

- Submission of a draft final report for World Bank/LGED comments – June 2009
- Receive comments from World Bank/LGED —August 2009
- Finalization of report- August 2009
- Dissemination Workshop – October 2009

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