

Performance-Based Maintenance Contract (PBMC) under Second Bangladesh Rural Transport Improvement Project (RTIP-II): Lessons Learned and Way Forward

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EXECUTIVE SUMMERY

Performance-Based Maintenance Contract is a new and innovative approach of road maintenance in Bangladesh. This is a cost-effective and time-saving initiative to keep rural roads in optimal riding condition during every season. Operated under the Bank's Second Rural Transport Improvement Project (RTIP-II) and implemented by Bangladesh's Local Government Engineering Department (LGED), a pilot of the PBMC program has focused on the maintenance of 438 km of rural road network in eight districts across the country. During implementation, a wide range of issues have been experienced in planning, designing and implementation in last couple of years. Some of the issues are localized but majorities are common irrespective of size, nature and location of the contracts. The PBMC is considered as the main road maintenance option for future maintenance policy. Therefore it is very important to finalize the modality of the approach.

To do so, a workshop and brainstorming session was arranged with participation of different stakeholders. There were some set of questioner to collect information and group presentation session to understand problems and search for new solutions. To improve effectiveness of PBMCs, it was advised to develop a Maintenance Policy Implementation Strategy. Besides participants suggested that contract package size should not be less than 20km continuous length of road. Contractors expected e-GP system for PBMC also. Based on the findings, it is recommended that, PBMC should be included in maintenance business plan which is prepared under RTIP-II as part of implementation of rural road maintenance policy. This may enable to make PBMC contract exercise legally, budgetary and technically even under revenue budget.

1. INTRODUCTION

Keeping the slogan ‘Better Connectivity, Better Lives’ in mind, Second Bangladesh Rural Transport Improvement Project (RTIP-II) is being implemented in 26 districts of Bangladesh. The project aims to improve rural accessibility and strengthen institutional capacity of Local Government Engineering Department (LGED) for sustainable rural road maintenance. RTIP-II is a successful continuation of its first phased jointly financed by the Government of Bangladesh and International Development Assistance (IDA) of the World Bank. The Government of Bangladesh (GoB) has undertaken the project to improve rural transport system to create an enabling environment for economic growth and poverty reduction. RTIP-II is implemented by the Local Government Engineering Department (LGED) of the Ministry of Local Government, Rural Development and Cooperatives.

The project has four components: Rural accessibility improvement, Institutional strengthening, capacity building and governance enhancement of LGED, Rural transport safety & Contingent emergency response.

Under the first component, Rural accessibility improvement, there is a sub component named Performance Based Management Contracts (PBMC). This is an innovative approach in road maintenance where limited repair works need to do to maximize road services. It provides immediate emergency response and generates employment for rural women. PBMC reduces maintenance cost & management burden and ensure constant riding quality of roads.

Though PBMC is a successful initiative in many countries, its implementation in Bangladesh is still a challenge as the concept is a new one in our country. This is a modern concept of road maintenance in Bangladesh but has a lot of prospect. As part of this initiatives under RTIP-II, 438 km length of roads in 17 contracts are being currently maintained for 5 years on pilot basis in 8 different districts of Bangladesh. In the implementation phase, a wide range of issues has been experienced in planning, designing and execution. Some of the issues are localized but majorities are common irrespective of size, nature and location of the contracts. The identification of weakness of the current practices and to make suggestion of potential solutions as well as find out way forward is the purpose of the writing.

Firstly, PBMC will be described and its history will be mentioned. Then, in the next part, the project description will be discussed. Finally, the findings and recommendation will be written in the paper.

2. RATIONALE FOR PROPOSED RESEARCH

In order to improve the sustainability of rural road infrastructure, LGED has taken initiatives to introduce innovative contractual approach as guided in rural road and bridge maintenance policy. As part of this initiatives, 438 km length of roads in 17 packages are being currently maintained with Performance-Based Maintenance Contract (PBMC) for 5 years on pilot basis under IDA assisted RTIP-II project in 8 districts. PBMC is considered as the future of road maintenance technique in Bangladesh. This approach can reduce road maintenance cost. As the risks are carried by the contractors solely, so the management needs to take less burden. There is a provision of women employment in this approach as well. A wide range of issues have been experienced in planning, designing and implementation in last couple of years. Some of the issues are localized but majorities are common irrespective of size, nature and location of the contracts. So considering the future road maintenance policy, it is very important to identify weakness of the current practices and take necessary lessons for the future contracts.

3. RESEARCH AIM, OBJECTIVES AND METHODOLOGY

3.1 RESEARCH AIM

The objective of the research is to identify design and implementation issues in order to improving the ongoing and future PBMC works.

3.2 RESEARCH OBJECTIVES

- To understand the concept of PBMC
- To identify current practiced and performance of ongoing contracts
- To find out the problems faced by the stakeholders
- To search for possible solutions

3.3 RESEARCH METHODOLOGY

A brainstorming workshop was held on November 20, 2016 in participation of LGED's headquarters and filed level officials, consultants and contractors to identify weakness of the current practices and to make suggestion of potential solutions. Participants shared their views in group. The key consideration for group formation was that the participants can put forward their findings freely. For instance, contractors or similar stakeholders were grouped together in order to facilitate discussions without interference by other stakeholders. The participants were divided in four groups: (i) PBMC-linked HQs officials and HQs level-consultants, (ii) RTIP-II Project Engineer and Field Resident Engineer, (iii) Upazila Engineers and Sub-assistant Engineers, and (iv) Contractors.

Four sets of questionnaires was prepared for 4 groups and each set of questionnaires consisted of 2-3 question in both English and Bengali version (Annex-3). Participants got one hour time to answer the questions and then each group leader made presentation within their stipulated 10 minutes time. The outcome of the discussions, brain storming session and group presentation is considered as learning issues.

4. LITURATURE REVIEW

4.1 PERFORMANCE-BASED MAINTENACNE CONTRACT

Performance-based Road Management and Maintenance Contracts define minimum conditions of road, bridge, and traffic assets that have to be met by the contractor, as well as other services such as the collection and management of asset inventory data, call-out and attendance to emergencies, and response to public requests, complaints and feedback. Payments are based on how well the contractor manages to comply with the performance standards defined in the contract, and not on the amount of works and services executed. Performance Contracts are defining a final product and it is up to the contractor how to achieve this. Therefore, work selection, design and delivery are all his responsibility. Hence, the choice and application of technology and the pursuit of innovative materials, processes and management are all up to the contractor. This allocates higher risk to the contractor compared to traditional contract arrangements, but at the same time opens up opportunities to increase his margins where improved efficiencies and effectiveness of design, process, technology or management are able to reduce the cost of achieving the specified performance standards. (Dr. G.Zietlow, 2011)

Performance-based maintenance contracting (PBMC) for road infrastructure is a method under which the selected contractor has to plan, design and implement maintenance activities in order to achieve short and long term road condition standards for a fixed price, subject to specified risk allocation (Frost & Lithgow, 1998). In PBMC, contractors have to take the high risk and obligation of the road maintenance work as they are responsible for the design and implementation of the project using their workforce.

When PBMC is developed carefully, it may motivate the contractors to implement better-quality maintenance practices to improve the overall condition of road assets during the contract period. Payments are made after checking that the contractor is meeting the performance standards properly as defined in the contract (Dr. G.Zietlow, 2011). PBMC reduces the time and costs for road maintenance by applying well-organized and time saving work methods and technologies. (Sultana, Rahman & Chowdhury, 2012)

4.2 BRIEF HISTORY OF PERFORMANCE-BASED CONTRACTS

The development of Performance Contracts for road maintenance started in the late 1980's and early 1990's. First British Columbia in Canada contracted out its road maintenance in 1988. But performance standards were still more oriented towards work procedures and materials to be used, rather than result oriented, very much limiting the contractor in the application of new technologies.

Shortly afterwards, Argentina concessioned approximately 10000 km of its national roads, using end result performance specifications for the maintenance services and a penalty system for not meeting response times for rectifying deficiencies. In the mid 1990 the maintenance of another 10000 km was contracted out using similar performance specifications. But this time without applying tolls, since average traffic levels were below 2500 vehicles per day and therefore could not sustain a tolling system. These contracts are also referred to as CREMA, contracts for rehabilitation and maintenance.

In the mid 1990's Uruguay started its first pilot scheme of Performance Contracts on a small network of 359 km of its national roads. In the same year Montevideo followed suit by contracting out the maintenance of 150 km of its main arterial urban roads. The new contracting scheme proved to be so successful that now, only five years later, 50% of the national roads in Uruguay are being maintained through Performance Contracts.

Several other countries in Latin America such as Brazil, Chile, and Colombia have started similar contracts and others such as Ecuador, Guatemala, and Peru are planning to do so. Most of these contracts include partial rehabilitation to bring roads to maintainable conditions. Today more than 40000 km of roads in Latin America are being maintained under Performance Contracts.

Australia started its first Performance Contract in 1995 covering 459 km of urban roads in Sydney (Frost & Lithgow, 1996). Since then several new contracts have been implemented in New South Wales, Tasmania, and Southern and Western Australia. Some of them as so called hybrid contracts, where some of the works are being paid based on quantities and unit prices and others based on performance criteria.

In 1998 New Zealand let its first Performance Contract for the maintenance of 406 km of national roads. Presently, 10% of New Zealand's national roads are maintained using the new contract scheme.

In the United States of America, the State of Virginia pioneered a Performance Contract called "Asset Management and Maintenance Contract" for the maintenance of 402 km of Interstate Highways in 1996. Four years later Washington D.C. followed suit with a similar contract that covers 119 km of federal roads (Federal Highway Administration. 1999). Both contracts are considered pilots. Several other states have started to contract out maintenance on parts of their road networks applying a mixture of performance specifications and unit prices.

Since 2000 Performance Contracts have virtually mushroomed and spread to Europe, Asia, and Africa. The World Bank, the Asian Development Bank and other development partners are actively promoting the new contracting scheme. (Dr. G.Zietlow, 2011)

4.3 BENEFITS OF PBMC

This section briefly discusses the benefits of performance-based maintenance contract over the traditional methods of contract. The seven beneficial areas of PBMC identified are: cost savings, risk sharing, assurance of quality, availability of initial funding sources, achieving a sustainable road management system, increased flexibility, and increased transparency.

On average, the indirect costs to contractors are 21% lower in PBMC, since contractors can improve their internal business process with more efficient manpower, equipment and materials due to the long term nature of PBMC (Straub, 2009). Anastasopoulos, et al. indicated that outsourcing very long road segments might not be as cost saving as shorter segments. On the other hand, projects with high in-house costs tend to perform better under PBMC or more likely to experience cost savings. However, application of PBMC is still at an early stage and road authorities and contractors will gain experience with time (Dr. G. Zietlow, 2007)

As by nature, PBMC requires less administrative effort, the road authority can maintain fewer in-house personnel than before (Stankevich, Qureshi & Queiroz, 2005). This method can facilitate the highest level of skills and proficiency the road authority (Zietlow & Bull, 1999). Hardy argued that the reduced administrative staff are taken on mainly by the contractor. The role of the

Consultant in earlier type of contract is absorbed by the contractor. Thus, the cost for one contract is saved and contractors achieve some expertise.

A change in method of specification from work output to performance allocates the risk exposure of the road authority to the service provider i.e. contractor (Frost & Lithgow, 1998). The risk allocation to the contractor would be beneficial for the road authority only when a contractor would be able to manage the risk better.

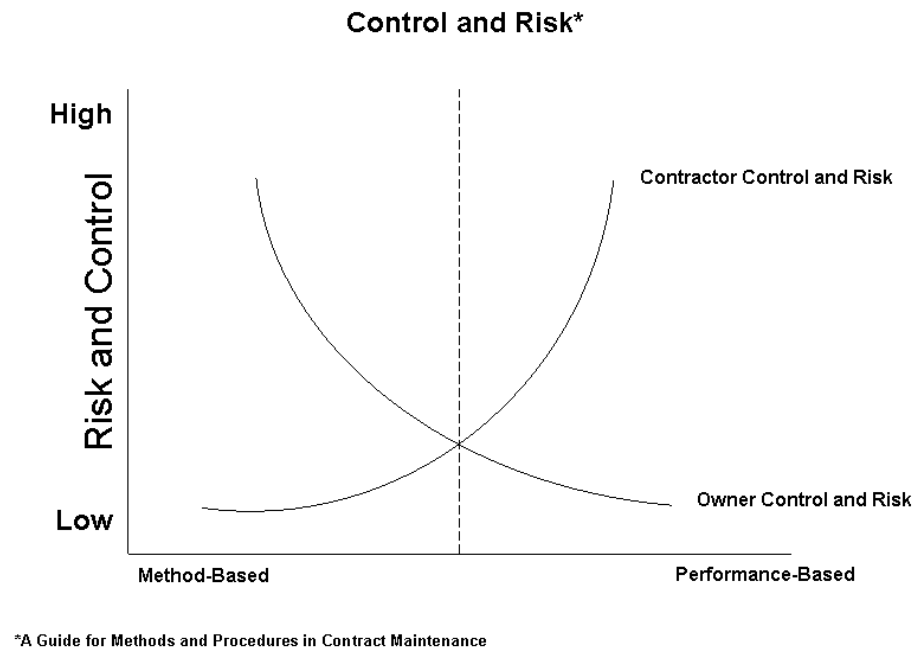


Figure 1: Control and Risk Chart of PBMC

International financing institutions have always provided assistance to developing countries and economies in the transition to develop a local construction industry. PBMC is also called output based aid (OBA) by the World Bank. Since the inauguration of first project using OBA in 2002-03, the World Bank has consequentially increased their funding from 32 projects to around 200 projects with various funding sources, which are anticipated to benefit at least 60 million poor people (Mumseen, Johannes and Kumar, 2010).

The road authority gets the option for the possibility of long-term sustainability in the management system using PBMC. Moreover, due to the longevity of the contract, staffs are able to understand the network and have enough time to implement initiatives based on this

knowledge as well as understanding which areas of the network are under stress and how these areas are likely to react to extreme events (Keir and Blerk, 2006).

The contractors receive flexibility in achieving their work target under PBMC. This flexibility can be enjoyed either by choosing the desired engineering design and drawing or by using innovative technology (E. Lancelot, 2010).

Traditional methods of contract are prone to corruption because of the nature of their decision making processes. PBMC has the potential to reduce the scale of the decision making process by promoting transparency and good governance in road maintenance works (G. Liautaud, 2001). Thus PBMC can help limit the impact of corruption. (Sultana, Rahman & Chowdhury, 2012)

4.4 PBMC IN DEVELOPING COUNTRIES

The applications of PBMC have been observed in many developing countries, such as Argentina (1990), Uruguay (1996), Chile (1997), Brazil (1998), Chad, Peru, and Guatemala, Finland, Estonia, Serbia and Montenegro, South Africa, Zambia, Chad, the Philippines and currently in Bangladesh.

Although PBMC has been successful in the developed countries, it has been observed that the implementation of PBMC becomes challenging for developing countries. There are a few literature discussing the disadvantages and impediments of PBMC. Pakkala, Zietlow, Zietsman, Queiroz, Hardy, Austroads Inc. and Hyman, et al. have briefly mentioned some drawbacks and impediments of PBMC. As stated by Hardy, high cost of tendering, decreased competition among the contractors, increased significance of poor contractor's performance, reduced ability to deal with changes, reduction of technical capability within the road agency, loss of control of the network, loss of innovation to the public domain are some drawbacks of PBMC.

The literature review and survey of the current research helped to figure out some factors that are becoming the main challenges for developing countries, especially for Bangladesh, during the introduction of PBMC.

4.5 CHALLENGES FOR THE DEVELOPING COUNTRIES

The challenges that work as a barrier during the introduction of PBMC in developing countries are as follows: lack of support from government, dependency on external funding, political influence and corruption, lack of experience in introducing PBMC, lack of proper planning, fear of losing job, loss of competition, loss of control of the network, contractors' performance and attitude, challenges in estimating the cost of PBMC.

SUPPORT FROM GOVERNMENT

Most developing countries have internal issues related to building a sustainable infrastructure system. It is evident that the government of a developing country has always given priority to construct new roads than maintaining existing ones. The construction project of building new roads seems to be more attractive than the maintenance of older one to draw the attention of general public. The scenario of Bangladesh which is a developing country of south Asia can help understanding the problem. An earlier research shows that bureaucracy among the various ministries and fund shortage for road maintenance projects cause delays in allocating fund for road maintenance works in Bangladesh. When the roads become almost unusable or majority of people criticize the government's effort towards road maintenance, government immediately manages to allocate some fund to stop the peoples' outrage. However, the implementation of PBMC requires continuous government support towards this privatization approach due to the long-term nature of the performance-based maintenance contracts. (Sultana, Rahman & Chowdhury, 2012)

DEPENDENCY ON EXTERNAL FUNDING

The government of Chad started the process of contracting out roads to the private sector in 1994. When the International Development Association (IDA) provided funding as part of its efforts to support an efficient and sustainable transport infrastructure, the Chad Government started contracting out road maintenance work using performance measures in 2001. The contractor successfully improved the road condition to an expected satisfactory level (Hartwig, Mumssen & Schliessler, 2005).

Getting support from an external authority can only be a temporary solution for developing countries as providing fund is mainly dependent on the donor's willingness to support the country. If the donors are not satisfied with the road authority or the government for any reason, they may suspend or cancel the loan. It may severely affect the construction project and the country has to confront difficulties in implementing the project. The suspension of external loans of US \$2.9 billion for the Padma Multipurpose Bridge Project construction in Bangladesh is an example of the negative side of dependency on donor funding. The lead financier World Bank suspended the loan on September, 2011 while the construction work of the bridge was planned to start in 2012 (The Daily Star, 2011). As a result of the World Bank's decision towards the project, other financiers also suspended the loan.

Sultana, Rahman & Chowdhury suggested that before introducing PBMC in a developing country, the road authorities should ensure the source of internal funding as early as possible.

POLITICAL INFLUENCE AND CORRUPTION

Political influence and corruption are the hardest obstacles for any new concepts to be implemented in developing countries. The selection of contractor for road maintenance works in developing countries is sometimes influenced by the political leaders. The reports of local newspaper mentioned that the World Bank suspended the Padma Bridge Project loan alleging the involvement of a company in corruption in order to illegally win the bid of supervising the construction works of the main bridge costing around US\$50 million (The Daily Star, 2011). However, the reduction of influence and corruption in the construction and maintenance works is the willingness of the government, ruling political party, and influential elite people of a country. Any new approach may be able to reduce it for a while, but it requires massive cultural and economic changes as a whole in developing countries.

The construction of new roads is the means of becoming popular and securing future votes among the local elite and politicians in Bangladesh. Corruption is very widespread in Roads and Highways Department (RHD) of Bangladesh from engineering material supply to the selection of the contractor (Transparency International Bangladesh, 2002). According to the local newspapers' reports, vehicular traffic on 290 km Dhaka-Chittagong highway has become so intense and chaotic that a journey between the capital city and port city could take as long as 15

hours. Lack of maintenance and repairs for years have created potholes and even large ditches at various places of the busy highway, causing further delay and severe damages to the vehicle.

The Asian development Bank (ADB) helps to introduce PBMC in Bangladesh. Routine and recurrent road maintenance work for about 50 km of regional or district roads would be contracted out to domestic contractors based on performance-based contracts for 3 years (Asian Development Bank, 2002). However, two performance-based routine road maintenance contracts were run by ADB from January, 2008 to January, 2011 in Bangladesh. The study of Sultana, Rahman & Chowdhury suggested that there is still possibility of political influence and corruption in various forms in these contracts.

There is really very few evidence of PBMC reducing the chance of corruption. In PBMC, road authority officials will supervise the site to check the performance of the contractors. If these officials would take bribes during these checks, the situation will be worse than ever. Sultana, Rahman & Chowdhury suggested that the contract documents are needed to be strictly prepared and implemented in PBMC. Otherwise, there is no guarantee that PBMC will be free of political influence and corruption in developing countries.

LACK OF EXPERIENCE ON AND KNOWLEDGE OF PBMC

In Indonesia, during the introduction of PBMC, government agencies were considered to be capable of undertaking a pilot trial of PBMC. However, providing training to the staff on the new approach was necessary so that they could adapt to their new roles and responsibilities (Opus International Consultants Ltd., 2006).

The findings of the research done by Sultana, Rahman & Chowdhury showed that inadequate experience on and knowledge of performance-based contracts are a great challenge for developing countries. The experienced personnel are required to decide the proper maintenance project, prepare all the relevant contract documents, set up the appropriate performance standard for the country, train the staff and contractors, and prepare the guidelines for the trial project of PBMC. The study also suggested that in the case of highly deteriorated road condition, the roads should be rehabilitated first before starting PBMC. Experience is really important in deciding all the factors discussed above. Developing countries are also consulting overseas contractors experienced in PBMC.

LACK OF PROPER PLANNING

Another challenge for developing countries in the introduction of PBMC is the lack of proper planning and managerial skills. Lack of planning can cause loss of quality in the first trial of PBMC.

PBMC requires a cultural and procedural change in the road authority. The road authority should plan a systematic way for moving to PBMC. They need good data storage on previous road maintenance projects, a long-term source of funding, a good contract document, training and future planning for the staffs losing the job and determination of projects that is suitable for the pilot trial of PBMC. The road authority should set up a way of tracking any kind of possible savings that can be incurred by PBMC.

FEAR OF LOSING JOB

Another beneficial side of PBMC is to reduce the number of staff in road authorities. But sometimes fear of losing jobs may refrain government staff in developing countries to support PBMC. Government sector jobs are more secured than private sector jobs in some developing countries. The staff and union may not cooperate in implementing PBMC due to these reasons.

A road authority should consider the consequences of the reduction of the staff before introducing PBMC. The government's road authority should have the sufficient technological capability to improve the road infrastructure system with increasing population and upcoming technologies in the future. The cut down of staff should not be so extreme that the road authority in a developing country has to depend on private sector for research and development in future.

LOSS OF COMPETITION

PBMC transfers the risk and the responsibility of design and the management of the project to the contractors. The size of the contractors must be large enough to take such responsibilities. On the other hand, preparation of tender documents involves a set of typical contract documents, compilation and verification of asset inventory and condition data. It also requires the calculation of programs and estimation to be used in the tender evaluation (P. Hardy, 2001). As the cost of bidding was high, the resulting number of tenderers after prequalification phase for performance-

based contracts in Tasmania and Western Australia was only four in the early stage of introducing PBMC (P. Robinson, 1999).

The study of Sultana, Rahman & Chowdhury found that the number of contractors bidding in PBMC type tendering is very few due to the high cost of tendering and bidding. This can reduce the competition among the contractors and increase the fear in small contractors of losing their work. However, small contractors can work together as a union to get jobs.

LOSS OF CONTROL OF THE NETWORK

The CREMA experience in Brazil indicated that under performance based contracts, contractors needed to have sufficient flexibility to determine an optimized mix of technical solutions and an optimized execution schedule, without any interference from the employer (E. Lancelot, 2010). The road authorities have a common anxiety of losing the control over the network as PBMC gives flexibility to the contractors to choose their own work methodologies. Failure in setting performance standards in the early stages of PBMC can create a disastrous situation. The termination of the contract costs a significant amount of money and disputes in PBMC compared to the traditional contracts which can be hard to handle for the road authority in a developing country.

PERFORMANCE AND ATTITUDE OF CONTRACTORS

As PBMC is dependent on the performance of the contractors, the contractors must be capable enough to adapt the approach. One study suggested that poor performance of the contractors has been observed in some contracts (Sultana, Rahman & Chowdhury, 2012). The necessary training and information on the new contract should be provided prior to the implementation of PBMC. The road authority should track the level of service provided by the contractors in PBMC. Contractors are also required to be motivated to enjoy the benefits of the new method.

CHALLENGES IN ESTIMATING THE COST

The research of Sultana, Rahman & Chowdhury suggested that the successful implementation of PBMC requires the proper estimation of costs. Contract terms, documents and performance standard will vary in different countries. As PBMC is a long-term contract, it will not be possible to change anything once the contract has been started. However, developing countries faced

difficulties in estimating costs at an early stage of implementing PBMC as it is a very new concept for them.

5. SECOND BANGLADESH RURAL TRANSPORT IMPROVEMENT PROJECT (RTIP-II)

The Second Bangladesh Rural Transport Improvement Project (RTIP II) provides rural communities with improved access to social services and economic opportunity and builds the capacity of government institutions to better manage rural transport infrastructure. The project started on September 20, 2012 and will be ended on April 30, 2018. Total project cost is 417 Million US Dollar, among which The World Bank is contributing 302 Million US Dollar. Rest of the cost will be borne by Government of Bangladesh (GoB). The fund is borrowed by Economic Relations Division under Ministry of Finance and the project is implemented by Local Government Engineering Department (LGED).

To improve the sustainability of rural transport interventions, RTIP II shifts emphasis from building new roads to rehabilitating and maintaining the existing rural transport network. Performance Based Maintenance Contracts (PBMCs) will be a way forward in the rural roads' maintenance. RTIP II is developing a comprehensive maintenance strategy. Furthermore, the rural water way restoration work pilot, if successful, may pave way to further investments in this area. This in turn will, enhance rural connectivity further. The project is also developing a comprehensive rural road transport safety framework to tackle safety issues linked to rural roads, where many of the accident victims are vulnerable road users. RTIP II is also envisaging working on the improvement of rural road bridges' maintenance management. The project also plans to sustainably enhance the Local Government Engineering Department's capacities in planning, monitoring, finance, asset management, administration and governance.

5.1 PROJECT DESCRIPTION

RTIP-II builds on the success of the preceding RTIP-I project covering 26 districts that comprised upazila and union roads' improvement, periodic maintenance of Upazila roads, construction bridges/culverts on rural roads, improvement/construction of rural markets, and rural jetties. The project interventions created approximately 50,000 person-years of employment in project areas, out of which 30% were for poor women. The improved roads have made it easier for children to go to school, for expectant mothers to reach hospitals in an emergency and for both local farmers and consumers to reach markets. Study results showed that the average

travel times and transportation costs had been reduced by more than 50% (The World Bank, 2017). RTIP II has expanded the coverage to improve road connectivity in the countryside. The project aims to maintain and improve approximately 5,250 km of union and upazila roads in 26 districts for better rural connectivity. RTIP-II will improve 820 km of rural roads through upgrading from earthen to paved roads standard including construction of cross-drainage structures, maintain 4,000 km of rural roads following regular maintenance strategies, and maintain 438 km rural roads for five years following the Performance-based Maintenance Contract (PBMC) approach. The project will enhance transport safety in all 26 districts, including road safety audit, community-level awareness, improved accident data collection (pilot) and strengthening road safety capacity of the Local Government Engineering Department. The project is piloting 44 km rural waterways restoration through low impact dredging using local technology. Thus poor and isolated communities having access only to waterways will stay connected all year round. In addition, landing stations/ jetties are being constructed at 10 locations. The project is also improving and developing 33 growth center markets, which are rural population's centers of economic activity (Project Appraisal Document, RTIP-II). In each of these markets, a number of shops are reserved for women traders in Women's Marketing Sections (WMS).

The project aims to improve rural accessibility in project areas (covering 26 districts) and strengthen institutional capacity for sustainable rural road maintenance. The following indicators are proposed to evaluate achievement of the PDO.

- Population living within two km of all-season roads in 26 project districts, which is an IDA rural accessibility indicator (core indicator);
- Percentage of roads in good condition in 26 project districts;
- Increase in the level of road user and community satisfaction in the influence area; and
- Maintenance funding needs are increasingly met in the project districts;

The project has four main components and few sub components under each main component. The components are pointed out in the below table:

Component	Sub Component	Activities
A. Accessibility Improvement Component	A1. Rural Road Improvement	
	A2. Rural Road Maintenance	Rehabilitation and Periodic Maintenance
		Performance-Based Maintenance Contracts
	A3. Rural Waterways and Ghats	Dredging
		River Jetties
	A4. Growth Center Markets	
	A5. Project Supervision and monitoring consultants	
B. Institutional Development and Enhancement Component	B1. Institutional Development and Governance	Strengthening LGED performance management and governance capacity
		Implementing new LGED Maintenance Policy and operational strategy
		Enhancing LGED policies, standards and capacity in works planning, design, project implementation and quality management
		Strengthening LGED training, HRD and sector research capacity
	B2. Project Implementation	
C. Rural Transport Safety Component		
D. Contingent Emergency Response Component		

Table 1: Project Components

5.2 PROJECT ORGANOGRAM

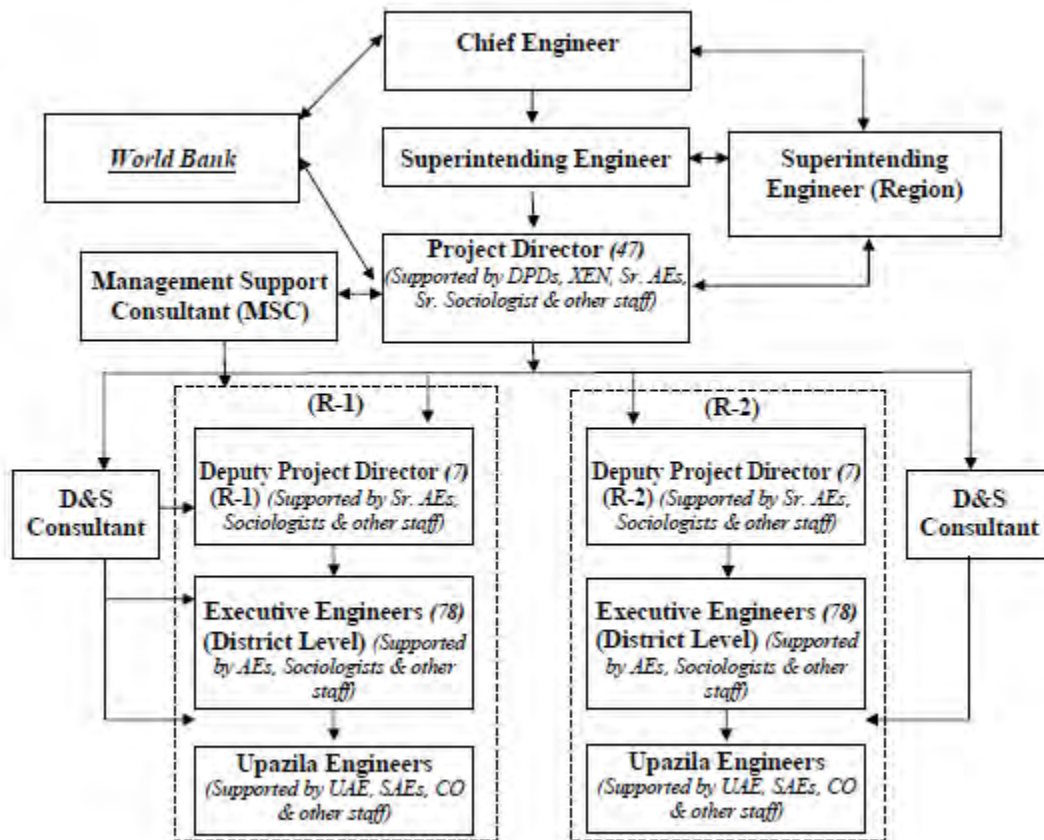


Figure 2: Project Organogram

5.3 PBMC UNDER RTIP-II

The PBMC component was foreseen the piloting of performance-based maintenance on 438 km of rural roads in 08 districts. The PBMC contracts will include limited initial repair works, maintenance services and emergency maintenance, to be carried out by local contractors, while providing significant employment and income earning opportunities for local women. The approach is expected to reduce maintenance costs, improve road conditions and reduce the management burden for LGED.

5.3.1 SCOPE OF PBMC COMPONENT

Out of the total 26 project districts, ten were selected for application of the PBMC component which were restructured to eight later. The main basis for this selection was the availability of a

sufficient length of roads complying with the selection criteria, which could furthermore be combined into appropriate contract packages of approximately 20-50 km (either single roads of sufficient length or sets of roads in close proximity to each other). This also formed the basis for determining the total length of roads to be included under this component, as it was considered that a maximum of 450 km of roads fulfilling the selection criteria could be identified for the first three years of the project in which PBMC contracts would be procured. This target was reduced to 438 km later. The selected districts and the contract packages are given in the table below. The PBMC contracts have a duration of five years and consist of limited initial works, maintenance services and emergency maintenance.

District	Package	Package length(KM)	Contract Value (Crore BDT)
Comilla	PBMC-2.1	33.720	9.42
	PBMC-2.2	16.488	5.57
Moulvibazar	PBMC-3.2	17.300	5.52
	PBMC-3.3	27.090	7.18
Cox's Bazar	PBMC-4.1	31.500	6.98
	PBMC-4.2	32.100	7.60
Mymensingh	PBMC-5.1	21.420	5.21
	PBMC-5.2	21.000	9.19
	PBMC-5.3	19.300	5.42
Narshingdi	PBMC-7.1	19.420	6.18
	PBMC-7.2	24.623	4.40
Pabna	PBMC-8.1	24.887	6.09
Sylhet	PBMC-9.1	18.608	3.54
	PBMC-9.2	34.998	12.83
	PBMC-9.3	48.339	14.72
Tangail	PBMC-10.1	23.000	6.64
	PBMC-10.2	24.160	6.88
Total	17 Nos.	437.953	123.43

Table 2: PBMC districts & contract packages

- **Initial works:** The initial works are to be completed within three to six months and serve to bring the road to the required standard, correcting any existing defects. The scope of the initial works will be limited to spot repairs. Payments for initial works will be based on the unit rates included in the BOQ against the actual amount of work completed.
- **Maintenance services:** The maintenance services will start from the beginning of the contract and continue for the full five year duration. Payment will be performance-based with fixed monthly payments against compliance with minimum conditions as defined by performance indicators. Non-compliance will result in deductions being made to the monthly payments. Continued non-compliance will result in penalties (doubling of the deductions) and may ultimately lead to termination of the contract. Deductions will also be applied in case of defects covered under the initial works, thus avoiding duplicate payments and providing an incentive to finish the initial works as soon as possible. However, penalties will not be applied to these defects during the period that was agreed for the completion of the initial works. Response times for the correction of defects will not be applied except for road usability²⁵, and compliance will only be inspected during the monthly formal inspections.
- **Emergency maintenance:** Emergency maintenance is included in the PBMC contract as a provisional sum which may be used at any time during the contract period when an emergency situation presents itself with damages exceeding predefined volumes, but only if approved by LGED. Payment is based on unit rates as provided in the BOQ for these works, against the volume of work completed. The total cost of emergency works carried out under the contract may not exceed the provisional sum provided in the contract (any emergency maintenance works exceeding this provisional sum will be carried out under a separate contract).
- **Road selection:** Criteria for the selection of roads for the PBMC component had been agreed between World Bank and LGED in order to ensure that selected roads would not require excessive initial works or maintenance services to comply with the proposed minimum conditions. The eligibility criteria listed below.
 - Upazila roads
 - Bituminous surface (small sections of CC/RCC or brick paving acceptable)
 - No physical gaps

- Carriageway width in compliance with geometric standards
- Traffic levels below 5,000 AADT
- Complete road sections (with clear start and end point)
- Pavement strength sufficient to allow for five year routine maintenance contract (IRI7.5 and measurement of pavement strength)
- **Performance indicators and inspections:** The minimum condition of the road to be achieved by the contractors under the PBMC component is defined by performance indicators (Annex – 2). The performance indicators to be used in the PBMC component had been agreed upon and are included in the model bidding document. The condition of the road are compared with these performance indicators during a monthly formal inspection, which are carried out by LGED staffs (district or upazila engineers) who received training under this project. In case of non-compliance, deductions are applied immediately to the payment for that month, without giving any additional time to contractors to correct identified defects. This has been done to ensure that contractors take responsibility for planning and organizing their inputs to ensure compliance with the performance indicators, rather than only correcting defects identified during inspections. It also serves to reduce the number of inspections that need to be carried out with the aim to reduce the management burden for LGED. During the training of the contractors, special attention are given to this aspect, to ensure that they realize their responsibilities and the consequences of not properly monitoring the performance standard of the road and correcting any identified defects.
- **Price adjustments:** Price adjustments are only be applied to the payments for emergency maintenance that take place after the first 18 months, using the index for construction works valid at the time of executing these works. The initial works are completed in the first 6 months and need not require cost adjustments. For the maintenance services, price adjustments are not feasible as this will require constant monthly updating of payments and do complicate budgeting. Instead, the contractor are required to include price adjustments in his bid price, resulting in a fixed lump sum to be paid in equal monthly payments (provided that no deductions are applied).
- **Securities and retention:** Under the PBMC component there are risks of the contractor defaulting especially at the beginning of the contract (defaulting on the initial works and

still receiving partial payment of maintenance services for the road sections in good condition) and at the end of the contract (defaulting on the maintenance services due to increasing maintenance costs). Therefore a combination is applied of two performance securities combined with payment retentions to provide sufficient guarantee to the employer while at the same time minimizing the costs for the contractor. A basic performance security of five percent of the total contract sum are applied for the whole duration of the contract to be returned if the road complies with the performance indicators at the end of the contract. An additional performance security of ten percent of the sum for initial works are applied until satisfactory completion of these initial works to ensure they are carried out as planned. A retention of five percent are applied to all payments (initial works, maintenance services and emergency maintenance) and paid out only after completion of the full contract to avoid contractor default in the latter half of the contract. There is also an additional standard provision in the bidding documents that in the case of contractor default, ten percent of the value of the remaining works are deducted from any payments due. Before preparation of the bidding documents for the second and third year, the functioning of this combination of securities and retentions in previous contracts will be evaluated and amended if necessary.

- **Labor Contracting Societies (LCS):** The LCS consists of local poor and destitute women who are subcontracted by the contractors to carry out the off-carriageway labor-based maintenance work (this currently happens through direct contracting by LGED). The contractor are required to hire an average of one woman per kilometer of road for 360 days a year, resulting in over 800,000 workdays of employment and nearly BDT 100 million (US\$1.3 million) in income earnings (Project Appraisal Document, RTIP-II) being created for women under this component. To ensure subcontracting of these LCS, they are mentioned as nominated subcontractors in the bidding document. LCS women are furthermore receive training on pavement repairs, making it possible for them to also be hired by the contractors to do part of the pavement maintenance (with necessary material and equipment provided by the contractor), and expanding the income earning opportunities of these women.
- **Training of LGED staff:** LGED staff in the districts and upazilas involved in the PBMC component are receiving training on PBMC, including a general overview, the

preparation of cost estimates and the carrying out of inspections. This training is also including the carrying out of the screening of candidate roads, including a detailed survey of defects as well as pavement strength testing and traffic surveys to evaluate if the pavement strength is sufficient.

- **Bidding document:** The model bidding document for PBMC is prepared by LGED based on the GoB model bidding document for works up to BDT 500 million. Amendments recommended by the World Bank have been discussed and incorporated. The resulting model bidding document takes into account the issues of securities, retention, price adjustments, performance indicators, payments, and LCS discussed above, and formed the basis for all the PBMC contracts (A tender document is attached as Annex-4).
- **Bidding process:** LGED prepares the BOQs and the bidding documents for each contract package based on the model bidding document and the detailed survey of the project roads. Financial evaluation of the PBMC bids looks at the sum of the quoted prices for the three components: initial works, maintenance services and emergency maintenance.
- **Training of contractors:** After each bidding process is initiated, training of the contractors are carried out in the concerned upazilas. This training includes a general overview of PBMC and planning of maintenance works, as well as specific training on the preparation of bids for PBMC contracts. For subsequent years, this training is carried out as part of the ‘mainstream’ training program in LGED, supported by the institutional strengthening component of the project. A manual on PBMC maintenance is also be prepared for the contractors.

6. WORKSHOP DETAILS:

The objective of the workshop was to identify successes and issues in order to help improving the ongoing and future PBMC works. It was half-day brainstorming workshop held by active participation of 94 participants representing from LGED's headquarters and field level officials, consultant and contractor. The summary of participants is shown below.

Additional Chief Engineer	- 4 (Implementation/Design/Planning/Maintenance)
Superintending Engineer	- 2 (Maintenance/Planning)
PMU/LGED HQ	- 8 (PD, DPD, XEN: Maint./Planning/Design/PM&E)
Upazila Engineer	- 27 (who are involved in implementation of PBMC contracts)
Sub Assistant Engineer	- 27 (who are involved in implementation of PBMC contracts)
Consultants	- 10 (DTL-2, AFRE-8)
Contractor's Representative	- 16 (All contractors)
World Bank Task Team	- 6

Two presentations were delivered at the inception of the business session. Both presentations were focused on present modality and progress status of PBMC and issues/challenges identified through a desk analysis of existing PBMC contracts for initiating the participants' discussion in brainstorming session.

6.1 ISSUES IDENTIFIED AND RECOMMENDATIONS:

The summary of outputs has been drawn based on group presentation and participants' responses to the questionnaires are presented below:

Sl No	Issues	Recommendations
HQs-based Officials and Consultants		
1	Current Maintenance Policy is a directive-type legal document. Now, another legal instrument like a Maintenance Policy Implementation Strategy needs to be established in order to validate and mainstream a PBMC protocol in GoB's rural infrastructure maintenance works.	A maintenance business plan is being prepared under RTIP-II as part of implementation of rural road maintenance policy. It would be easier to mainstreaming the PBMC if this contract modality is suggested in business plan that might enable to make PBMC contract exercise legally, budgetary and technically even under revenue budget. Beside, a PBMC Cell

Sl No	Issues	Recommendations
		could be established within the LGED Maintenance Unit
2	Right of Way (RoW) of all Upazila and Union roads should be earmarked.	It is an ideal scenario but cannot be exercised now as the majority of LGED's road do not have earmarked RoW. It is lengthy and complex process as well as financial matter is involved. Besides, maintenance of the Right of Way should not be included due to the difficulties (of dealing with landowners and businesses) involved. Better to confine up to toe of the road embankment.
3	Geometric shape of the PBMC candidate roads should be required standard or should be attained the standard after completion of initial repair.	There are two options to ensure the standard geometric shape prior to transfer the responsibility to contractor. Geometric features may be incorporated in existing criteria for selection of PBMC candidate road. OR necessary items may be included in BoQ of initial repair works.
Assistant Engineers/ARE		
4	The LCS (Labor Contracting Society) to be engaged in PBMC should have a rational mixture of male and female. Furthermore, the engagement of LCS may be based on day-work (i.e. commonly known "master role")	The present experience shows that it is really difficult to bring the shoulder and slope up to the standard and maintaining thereby with LCS women though a significant amount (average 20% of contract) is being spent for them. It would be justified to exclude the compulsory LCS option if we include the shoulder and slope repair items in the BoQ of Initial Repair Works.
5	There are mixed opinions suggested by Assistant Engineers/ARE: 1) In the program estimate, there could be a budget for involving local community 2) An increase of community participation in contract implementation is not suggested 3) The Chairman and Members of the Union Parishad should be involved in some capacity to control loss of property (e.g. earth cutting for brick	The mixed reaction came up from the workshop in involving community in the process of PBMC contract but definitely may guide to formulate community participation effectively. A further expert discussion is suggested.

Sl No	Issues	Recommendations
	manufacturing)	
Upazila Engineers (or Representatives from Districts)		
6	Preferable contract package size should not be less than 20km continuous length of road	It is shouted in the workshop that traffic overloading is main threat to make PBMC success as the change of traffic pattern in particularly rural areas cannot be predicted. The participants also opined that it cannot be controlled as well. Under this situation, it is rather suggested that the threshold value for emergency works could be in two categories. One for natural disaster and another for overloading. Two separate BoQ could be developed. A clear procedures to be written in particular specification of contract to protect the missuses of such provision.
7	In-depth investigation includes pavement layer thickness, in-situ CBR, traffic composition should be carried out prior to design of PBMC contract	
8	Rigid pavement should be considered at bazar or similar locations to avoid drainage problem`	
9	There should be a provision for overlaying and/or widening to accommodate pavement damages from heavier than estimated traffic loads, especially if the road is used as a bypass (such as the cases in Cox’s Bazar and Sylhet districts)	
10	Duration of initial repair work should be based on volume rather than a fixed six months duration	
11	Contractor’s site office, equipment and manpower need to be mandated at all times during the full contract period	
12	There should be provision and plan for major rehabilitation at the end of the contracted maintenance period	
13	Estimating should be more flexible to accommodate variations between BoQ (Bill of Quantities) and field measurements	
14	To prevent front-loading of billing by contractors, more deductions or varying payments may be applied from bills	Front loading is another major issue in the current system. The deduction from the monthly payment may not be appropriate solution in preventing the front loading rather it would be reasonable if following formula is included as payment schedule in the bid document
Contractors		
15	Prequalification of contractors should be mandated	Selection of qualified contractors irrespective of technical and financial is another precondition to get benefits of execution of PBMC contract but not compromise with cost. The contractors suggested that pre-qualifications could be reasonable and efficient process to
16	The e-GP procurement could be applied in the PBMC procurement	
17	Site hand over to contractor should be done at the end of the rainy season	
18	A PBMC package should be confined in one	

Sl No	Issues	Recommendations
	Upazila	find technically competitive contractors and the e-GP procurement may ensure mass competition. Further consultation is required with procurement experts prior to conclude the procurement method.
19	Current bill approval authority should be confined up to the district's Executive Engineer level; not above than that level	
20	In future, contractor could be allowed to propose alternative design and estimate	
21	Current pilot practice of PBMC is limited within surface course repair but it could be extended to base/sub-base courses of pavement	

Table 3: Workshop Findings

7. CONCLUSION

A further discussion with LGED management on identified outputs could be arranged during upcoming days in order to mainstreaming the PBMC contract in LGED as well as to improve the effectiveness of current practices in consideration of local context. PBMC is the innovative approach and considered as the major road maintenance options of Bangladesh. So, finding an appropriate process and practice for our country is very important. The paper tried to find out current difficulties and solution of the problem. However, there is a need of further study to simplify the performance criteria. Hopefully then we can implement the maintenance policy based on the PBMC.

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ANNEX 2: PERFORMANCE INDICATOR

Item	Performance Standard	Measurement/Detection	Deduction percentage
1. Carriageway and shoulders			
Cleanliness	The road surface is clean and free of soil, debris, trash and other objects	Visual inspection	10%
Depressions	There shall be no depressions with a height difference of more than 30 mm	Visual inspection	50%
Potholes	- There are no potholes with a diameter greater than 150 mm or deeper than 3 cm - There are no more than five (5) potholes in any continuous 1,000m section	- Visual inspection - Ruler (to check pothole size)	50%
Patches	Patches are square or rectangular, are level with surrounding pavement, are made using materials similar to those used for the surrounding pavement, and do not have cracks wider than three (3) mm	- Visual inspection (for detection of shape and material used) - Ruler (to check if patch is level with surrounding pavement) - Small transparent ruler (for crack width)	50%
Cracks	- Mesh or block cracks with a width >6 mm do not cover more than 5m^2 of any 100 meter road section - The total length of longitudinal cracks with a height difference greater than 10 mm, a width greater than 6 mm or having branches, is not more than 5 meters in any 100 meter road section	- Visual inspection - Small transparent ruler (for crack width and height difference)	50%

Item	Performance Standard	Measurement/Detection	Deduction percentage
Rutting	- There are no ruts deeper than thirty (30) mm - Ruts are present in less than 25 percent of the road length under contract.	2 rulers (horizontal ruler of 3m length placed perpendicularly across lane; rut depth measured as space between horizontal ruler and lowest point of rut, using a small ruler with scale in mm)	50%
Raveling	The area affected by raveling does not exceed 20% of any 100 meter section	Visual inspection	50%
Edge damage	There are no loose pavement edges, or pieces of pavement breaking off at the edges	Visual inspection	50%
Pavement width	The pavement width must be at least 3.5 meters wide	Measuring tape (measuring the distances between the parts of the road edge closest together in any 50m section)	50%
Shoulders	- The shoulder is not continuously more than 30mm lower than the pavement in any 10m section - The shoulder is not continuously higher than the pavement in any 50m section - Shoulders are not obstructed by material - Road shoulders are outward sloping	- Visual inspection - Ruler	50%
2. Drainage structures			
Ditches and drains	- No more than 10% of the cross section is obstructed at any spot in a drain or ditch - Lined ditches do not have structural damage and are firmly contained by surrounding soil or material	Visual Inspection	30%

Item	Performance Standard	Measurement/Detection	Deduction percentage
Culverts and similar	- No more than 10% of the cross section is obstructed at any spot in the culvert - There is no structural damage and culverts are firmly contained by surrounding soil or material	Visual Inspection	30%
3. Other structures			
Bridges	- Guardrails are present and not deformed. - All metal parts of the overall structure are painted or otherwise protected and free of corrosion - The bridge deck is clean and the deck material is fully intact and bolted down - The drainage system is in good condition and fully functional - Expansion joints are clean and in good condition - There are no obstacles to the free flow of water under the bridge and up to 100 meters upstream - The clearance under the bridge is according to design - There is no erosion around bridge abutments and piers	Visual inspection	50%
Retaining walls	Retaining walls are stable and without damage	Visual inspection	50%
Concrete Barriers	- There are no cracks wider than 1.5 mm - There is no scaling or popouts - There is no unsound concrete - There is no widespread deterioration of the surface	Visual inspection	50%
4. Slopes and Embankments			
Slopes and embankments	- The embankment does not have deformations or erosion - Cut slopes are stable and/or adequate retaining walls and slope stabilization measures are in place	Visual inspection	20%
5. Vegetation			

Item	Performance Standard	Measurement/Detection	Deduction percentage
Vegetation height	- There is no vegetation in case of - Culvert headwalls - Culvert pipes - Weigh pits - Lined channels - Sealed surfaces - Bridge decks - Vegetation height is less than 75 mm in case of - Shoulders - Medians - Traffic islands and verges - Rest areas (including around rest area furniture) - Side drains - Surface water channels with gradient < 3% - Culvert ends - Mileposts - Signposts - Bridge end and culvert markers - Guardrails - Sight rails - Lighting Columns - Bridge abutments - Vegetation height is less than 300 mm in case of - Large vegetated areas - Surface water channels with longitudinal gradient $\geq 3\%$	Ruler	25%
Vegetation clearance	The vertical clearance between the road surface and the lowest point of tree or other plant is more than 2.5 metres	Measuring tape	25%
6. Traffic signs and safety measures			

Item	Performance Standard	Measurement/Detection	Deduction percentage
Signs	- Information signs are present, complete, clean, legible, and structurally sound - Warning signs are present, complete, clean, legible, structurally sound and clearly visible at night - Traffic signs are present, complete, clean, legible, structurally sound and clearly visible at night	Visual inspection	20%
Horizontal demarcation	- Horizontal demarcation is present, legible and firmly attached to pavement - Micro spheres are firm and visible	Visual inspection	20%
Guardrails	- Guardrails are present, clean, and without any significant damage - Corrosion does not exceed more than 75% of the surface area - The thickness of the guardrails is more than 2.4 mm - The thickness of the pole is more than 3.5 mm	Visual inspection	20%
Milestones	- Milestones and guidance posts are present, complete, clean, legible and structurally sound - Milestones and guidance posts are surface painted or otherwise covered	Visual inspection	10%

ANNEX 3: QUESTIONER

HQs-based Officials and Consultants	
1	Are there any legal, administrative, monitoring (e.g. community involvement), technical and budgetary obstacles in the current PBMC operations in LGED and RTIP II? If yes, can you list them and how they are being overcome or to overcome them?
2	Would there be any legal, administrative, technical and budgetary obstacles to be faced if the PBMC approach is extended across the country? If yes, how to overcome them?
3	In your opinion, do you think that risks shared by the PBMC contractors and LGED are appropriate? If not, why and how can they be balanced?
Contractors	
4	What problems are being faced or faced by the contractors during the bidding and implementation process of PBMC? Have any of them been resolved? If yes, what are those? If not, how they can be resolved?
5	What particular problems are being faced or faced during the initial repair and routine maintenance (on & off pavement)? Is the current approach appropriate? If yes, why? If not, why and how they can be resolved?
6	Are communities or local people appropriately involved in the monitoring of PBMC contract? If not, how to improve community participation without adversely affecting contract implementation?
Upazila Engineers (or Representatives from Districts)	
7	What issues are being faced or faced during the planning, procurement and implementation of current PBMC approach (e.g. selection of PBMC roads, assessment of initial repair, overloading etc.)? Have any of them been resolved? If yes, how were they resolved? If not, what to do?
8	Are there any specific supervision issues faced or being faced? What are they? How could they be resolved? If not, how to do?
9	Are there any specific supervision issues faced or being faced? What are they? How could they be resolved? If not, how to do?
Assistant Engineers/ARE	
10	What issues are being faced or faced during the implementation of current PBMC contracts (e.g. BoQ of initial repair, LCS, sub-contracting, measurements and penalties, front loading or end-loading, emergency works, vehicle overloading etc.)? Have any of them been resolved? If yes, what are those and how were they resolved? If any issues remain to resolve, how could they be resolved?
11	Have local communities or local people been involved in contract monitoring? If yes, how? Are there any scopes of improving their involvement?

ANNEX 4: TENDER DOCUMENT EXAMPLE

Government of the People's Republic of Bangladesh

Local Government Engineering Department

Office of the Executive Engineer

District: Tangail

www.lged.gov.bd

Memo No. LGED/XEN/TAN/2015/1453

Date : 25-03-2015

Invitation for Tender

Tender Notice No: 05/2014-2015

1	Ministry/Division	Local Government Division.
2	Agency	Local Government Engineering Department (LGED).
3	Procuring Entity Name	The Executive Engineer, LGED, Tangail.
4	Procuring Entity Code	Not used at present.
5	Procuring Entity District	Tangail
6	Invitation for	Performance Based Maintenance Contract of (a) Kalihati RHW-Barachowna GC Road (Ch:0+000-10+420 Km) Upazila: Kalihati, (b) Barachowna-Kalihati via Chakpara Road (Ch: 0+000-11+660 Km), Upazila: Shakhipur & (c) Sakhipur-Dhalapara via Mohanandapur Road (Ch: 0+000-11+340 Km) Upazila: Shakhipur. (Contract Package No. TAN/PBMC-10.1.) Performance Based Maintenance Contract of (a) Delduar-Lawhati GCC Road (Ch:0+000-11+310 Km) Upazila: Delduar & (b) Lawhati GC-Saturia HQ Road (Ch: 0+000-12+850 Km), Upazila: Nagarpur. (Contract Package No. TAN/PBMC-10.2.)
7	Invitation Ref. No.	Memo No. LGED/PD/RTIP-2/PBMC-14/2015/580 & Memo No. LGED/PD/RTIP-2/PBMC-14/2015/579
8	Date	24/03/2015
KEY INFORMATION		
9	Procurement Method	Open Tender Method (National).
FUNDING INFORMATION		
10	Budget and Source of Funds.	Development Budget (GOB & IDA)
11	Development Partner (if applicable).	International Development Association (IDA)
PARTICULAR INFORMATION		
12	Project/ Programme Code (if applicable).	5057
13	Project / Programme Name (if applicable).	Second Rural Transport Improvement Project (RTIP-II)
14	Tender Package No.	TAN/PBMC-10.1 & TAN/PBMC-10.2
15	Tender Package Name	As stated in Serial No. 6
16	Tender Publication Date	Date: 27/03/2015
17	Tender Last Selling Date	Date: 27/04/2015, during the office hour.
18	Tender Closing Date and Time	Date: 28/04/2015 Time: 2.00 PM.
19	Tender Opening Date and Time	Date: 28/04/2015 Time: 2.15 PM.
20	Name & Address of the Office(s)	
	Selling Tender Document (Principal).	i) Office of the Executive Engineer, LGED, Tangail
	Selling Tender Document (Other).	ii) Office of the Project Director, RTIP-II, LGED Bhaban (Level-11), Agargaon, Sher-e-Bangla Nagar, Dhaka-1207. iii) Office of the Deputy Commissioner, District: Tangail.

		iv) Office of the Superintendent of the Police, District: Tangail. v) Office of the Executive Engineer, LGED, District: Jamalpur. vi) Office of the Upazila Engineer, Upazila: Kalihati, Shakipur, Delduar & Nagarpur, District: Tangail.
	Receiving Tender Document	Office of the Executive Engineer, LGED, Tangail
	Opening Tender Document	Office of the Executive Engineer, LGED, Tangail.
21	Place/Date/Time of Pre-Tender Meeting (Compulsory)	Office of the Executive Engineer, LGED, Tangail.
	Date	Time
	07/04/2015	11.00 AM.

INFORMATION FOR TENDER

22	Eligibility of Tenderer	(i) As describe in Tender Document. (ii)The bidders who participated in training program/ pre-bid meeting on Performance Based Maintenance Contract (PBMC)/ Output & Performance Based Road Contract (OPRC) will eligible for this bidding.
23	Brief Description of Goods or Works	Maintenance and Management of Road Works.

24	Brief Description of Related Services	None			
25	Price of Tender Document (Taka).	Package No. TAN/PBMC-10.1 is Tk. 8000.00 Package No. TAN/PBMC-10.2 is Tk. 7000.00			
26	Package No	Identification of Package	Location	Tender Security Amount	Completion Time in Months
	TAN/PBMC-10.1	Performance Based Maintenance Contract of (a) Kalihati RHW-Barachowna GC Road (Ch:0+000-10+420 Km) Upazila: Kalihati, (b) Barachowna-Kalihati via Chakpara Road (Ch: 0+000-11+660 Km), Upazila: Shakhipur & (c) Sakhipur-Dhalapara via Mohanandapur Road (Ch: 0+000-11+340 Km) Upazila: Shakhipur	Upazila : Kalihati & Shakhipur	1200000.00	60 months after signing of contract
	TAN/PBMC-10.2	Performance Based Maintenance Contract of (a) Delduar-Lawhati GCC Road (Ch:0+000-11+310 Km) Upazila: Delduar & (b) Lawhati GC-Saturia HQ Road (Ch: 0+000-12+850 Km), Upazila: Nagarpur.	Upazila : Delduar & Nagarpur	1000000.00	60 months after signing of contract

PROCURING ENTITY DETAILS

27	Name of Official Inviting Tender	
28	Designation of Official Inviting Tender	Executive Engineer.
29	Address of Official Inviting Tender	LGED, Tangail.
30	Contact details of Official Inviting Tender	Tel: 0921-64261 Fax: 0921-63796 E-mail: xen.Tangail@lged.gov.bd
31	The procuring entity reserves the right to accept or reject all tenders	
32	The invitation for tender is available on the website: www.lged.gov.bd and www.cptu.gov.bd	

(M. Mizanur Rahman)

Executive Engineer

LGED, Tangail

Phone: 0921-64261

e-mail: xen.tangail@lged.gov.bd

Date : 25-03-2015

Memo No. LGED/XEN/TAN/2015/1453 (16)

Copy forwarded for kind information and necessary action to: