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EVALUATION REPORT

FINAL PERFORMANCE EVALUATION OF THE USAID
BANGLADESH AGRICULTURAL INFRASTRUCTURE
DEVELOPMENT PROGRAM (BAIDP)

July 10, 2019

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FINAL PERFORMANCE EVALUATION OF THE USAID BANGLADESH AGRICULTURAL INFRASTRUCTURE DEVELOPMENT PROGRAM (BAIDP)

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LIST OF ACRONYMS

Acronym	Description
AADT	Annual Average Daily Traffic
ACME	Accelerating Capacity for Monitoring and Evaluation
ADB	Asian Development Bank
BAIDP	Bangladesh Agricultural Infrastructure Development Program
BC	Box Culvert
BMEL	Bangladesh Monitoring, Evaluation, and Learning Activity
BOQ	Bill of Quantities
CC	Collection Center
CDCS	Country Development Cooperation Strategy
CDP	Capacity Development Plan
CDPIC	CDP Implementation Committee
CPTU	Central Procurement Technical Unit
COP	Chief of Party
COR	Contracting Officer Representative
CRIMP	Climate Resilient Infrastructure Mainstream Project
DAE	Department of Agricultural Extension
DEC	Development Experience Clearinghouse
DLI	Development-Linked Indicator
DO	Development Objective
DOF	Department of Fisheries
DQA	Data Quality Assessment
e-GP	e-Government Procurement
EMMP	Environmental Mitigation Monitoring Plan
EQ	Evaluation Question
ET	Evaluation Team
FARA	Fixed Amount Reimbursement Agreement
FGD	Focus Group Discussion
FTF	Feed the Future
G2G	Government-to-Government
GCF	United Nations' Green Climate Fund
GOB	Government of Bangladesh
GPS	Global Positioning System
ha	Hectare
HBB	Herring Bone Bond
IO	Implementation Order
IP	Implementing Partner
IPM	Integrated Pest Management
IR	Intermediate Result
JICA	Japan International Cooperation Agency
KII	Key Informant Interview
km	Kilometer

Acronym	Description
LGED	Local Government Engineering Department
M&E	Monitoring and Evaluation
MC	Market Center
NGO	Non-Governmental Organization
OCD	Organizational Capacity Development
PFMRAF	Public Financial Management Risk Assessment Framework
PPE	Personal Protective Equipment
PWD	Person with Disability
QA	Quality Assurance
QC	Quality Control
RCC	Reinforced Cement Concrete
RRSM	Rural Road Safety Manual
RSDMS	Road and Structure Data Management System
SOPs	Standard Operating Procedures
SOW	Scope of Work
SUPRB	Support for Rural Bridge Project
TOC	Theory of Change
UAO	<i>Upazila</i> Agriculture Officer
UC	<i>Upazila</i> Chairman
UFO	<i>Upazila</i> Fisheries Officer
UNO	<i>Upazila Nirbahi</i> Officer
UNOPS	United Nations Office for Project Services
USACE	United States Army Corps of Engineers
USAID	United States Agency for International Development
USG	United States Government
WASH	Water, Sanitation, and Hygiene
WBM	Water-Bound Macadam
WBS	Work Breakdown Structure
WeCARE	Western Economic Corridor and Regional Enhancement Project

EXECUTIVE SUMMARY

PROGRAM PURPOSE AND BACKGROUND

The Bangladesh Agricultural Infrastructure Development Program (BAIDP) is part of the United States Government's (USG) Feed the Future (FTF) initiative of the United States Agency for International Development in Bangladesh (USAID/Bangladesh). The purpose of the BAIDP is to upgrade priority infrastructure in targeted rural farming communities by improving horizontal infrastructure (roads and irrigation and drainage systems) and vertical infrastructure [markets and collection centers, (MCs and CCs)]. According to the evaluation Scope of Work (SOW) in Annex 1, the objective of BAIDP is "Increased Farmer Access to Markets and Improve[d] Agricultural Production." The BAIDP was designed to improve access to rural markets and input supplies and to lower transportation costs and crop loss and increase trade volume, thereby contributing to USAID's Development Objective (DO) 2 "Food Security Improved." The BAIDP is a direct Government-to-Government (G2G) agreement with the Government of Bangladesh (GOB), implemented by the GOB's Local Government Engineering Department (LGED) with technical assistance from the United States Army Corps of Engineers (USACE). The program started in 2013 and was extended to December 2019, with overall funding of \$15,000,000.

EVALUATION PURPOSE AND METHODOLOGY

The purpose of the Final Performance Evaluation of the BAIDP was to assess the extent to which the program has achieved its overall objectives, based on 10 Evaluation Questions (EQs) listed in the evaluation SOW. The 10 EQs have been organized under the following thematic headings: 1) Output of Construction Projects; 2) Program Management; 3) Impact for LGED; and 4) Impact for Farmers and Communities. The evaluation was carried out over a period of 10 weeks, from March to May 2019, by a three-person evaluation team (ET). The evaluation utilized a mixed-methods approach. The ET reviewed approximately 270 documents, including 150 documents related to 27 USAID construction site Implementation Orders (IOs); performed technical assessments of 59 (out of 62) BAIDP infrastructure sites; and created an interactive database with maps of all BAIDP construction sites. The ET also conducted 56 key informant interviews (KIIs) in Dhaka and the Jashore and Jhenaidah districts, including representatives of USAID and its implementing partners (IPs); held 23 focus group discussions (FGDs) with 216 farmers, traders, and market users; and implemented a mini-survey involving 141 male and female respondents from among the FGD participants.

FINDINGS AND CONCLUSIONS

Output of Construction Projects

EQ 1: To what extent has the BAIDP activity been able to meet its overall objective [regarding rehabilitation of roads, construction/improvement of MCs/CCs, improvement of irrigation and drainage systems, and plans for remaining projects]?

BAIDP is mostly on track to achieve its objective through improvement of 115.21 kilometers (km) of 40 rural roads (exceeding the goal of 100 km), construction or rehabilitation of six market centers (out of 10 planned MCs), and 14 collection centers (exceeding the 10 planned CCs), and improvement of irrigation/drainage systems for more than 1,000 hectares (ha) of land. A no-cost program extension is being negotiated until June 2020, by which time USAID and LGED program managers are confident that all infrastructure targets in the 2016 Agreement Amendment #2 will

be completed, with the exception of planned MCs where land title remains an issue. Based on direct observations and interviews with LGED staff and the USACE representative in Bangladesh, the ET concurs with this anticipated completion schedule of BAIDP infrastructure targets.

EQ 8: How effective has the infrastructure maintenance and repair plan been by BAIDP?

LGED's Road Design Standards (Rural Roads), developed in 2005 with support from Japan International Cooperation Agency (JICA), and were enhanced with guidance by USACE to meet global best practice standards. BAIDP's quality assurance (QA) and Quality Control (QC) processes for BAIDP contractors, including the third-party verification process, enhanced construction quality. LGED has a Rural Roads and Culverts Maintenance Program and develops annual maintenance and repair plans. However, implementation of these annual plans is dependent on inconsistent GOB funding allocations.

Program Management

EQ 5: What challenges has BAIDP faced in implementing its activities and how has it responded to those challenges? Are there recommended alternatives to these approaches?

USAID initially did not have a clear understanding about LGED's institutional capacity to implement the planned BAIDP activities. After further analysis, USAID, with contractual support from USACE and UNOPS, tackled numerous issues together with progressive leadership within LGED. Among numerous challenges, local construction contractors required training and mentoring to meet USAID and LGED standards. By May of 2016, significant improvement had been achieved in all areas, including dividing milestone payments, with LGED taking ownership of new approaches.

EQ 6: How has the LGED's ability to complete the projects on time and within budget changed during the course of the BAIDP? What factors may have delayed completion of these contracts?

LGED contractors' unfamiliarity with BAIDP's milestone and QA/QC-based contracting mode were among the major factors that delayed completion of several contracts in the early years of the program. Other factors included land issues, design changes and variation orders, as well as program-required lab tests that LGED described as overwhelming for their laboratory staff and equipment. According to LGED staff, required documentation and third-party verification related to the QA/QC process resulted in occasional delays. In addition, LGED reported that unanticipated funding delays resulted in construction delays as did contracts awarded during the approach of the rainy season. LGED's ability to complete projects on time and within budget has improved through clearer specifications for each kind of construction and BAIDP training for LGED and contractors.

EQ 10: What caused original milestones to be reduced? What caused a three-year extension? Where is the LGED on implementing the final projects?

The early years of the BAIDP in 2013-2015 were an extended period of learning and adaptation for all parties involved. The initial agreement between USAID and LGED lacked specific design definitions for roads and MCs (*i.e.*, what each kind of construction project should include) and was predicated on outdated cost data (the main cause of reductions of km of roads). Previous LGED rural roads were anticipated to have a 5-10-year life, while BAIDP roads were intended to last for 20 years. Addition of the components not articulated in the initial agreement resulted in re-designs and cost increases. Land issues delayed MC construction plans and eventually limited the number

and size of MCs. The net result was a reduction in the number of infrastructure projects and a time extension for BAIDP. Subject to an anticipated (no-cost) six-month extension to the current agreement, the ET projects that BAIDP will complete additional work on 12 roads (37.27 km), two MCs, and four CCs by June, 2020.

Impact for LGED as an Institution

EQ 3: How effective has the BAIDP activity been in improving and/or changing the LGED’s procurement processes? To what extent have these processes been institutionalized? Will these remain sustainable beyond the activity period?

BAIDP helped LGED to develop a procurement-related Risk Management Handout, Internal Audit Manual, Standard Operating Procedures (SOPs), and Code of Ethics. The first two protocols have been institutionalized across LGED. Although not mandated, all procurement related to BAIDP infrastructure was done through the GOB e-Government Procurement (e-GP) system. There has been substantial improvement in Bill of Quantities (BOQ) and the BAIDP milestone-based QA/QC process and improved cost estimation have been welcomed by LGED. LGED has been proactive and progressive in adopting processes that provide ease of business for suppliers and deter corruption. As more of the BAIDP procurement-related processes are internalized across LGED, sustainability will be further enhanced.

EQ 4: How effective have the USAID capacity-building initiatives been in terms of having the LGED be more compliant with standard construction procedures, e.g., environmental compliance/road safety compliance/labor health compliance? To what extent have these been institutionalized? Will these practices remain sustainable beyond the activity period?

With USACE’s guidance, BAIDP enhanced LGED’s construction procedures to adapt to international best practices. The program also received capacity development support from the United Nations Office for Project Services (UNOPS), which guided the development of materials and trainings. BAIDP developed technical specifications for road structures and an Environmental Mitigation and Monitoring Plan (EMMP) matrix, environment and safety training for contractors and community members, and QA and QC training for engineers and contractors. These later protocols and trainings are yet to be fully institutionalized across LGED. Sustainability of these initiatives is likely with further capacity-building inputs and internal LGED action.

EQ 7: Has there been an impact on the LGED’s ability to receive and implement additional activities funded by other donors as a result of BAIDP?

The institutional capacity of LGED enhanced through BAIDP—in terms of procurement, QA/QC, milestone-based payments, compliance with environmental, safety and ethics standards, trainings for contractors and LGED staff, as well as more extensive community consultation—has demonstrated LGED’s capacity to responsibly manage large donor funded programs to increasingly higher standards. LGED managers said that LGED received accreditation from the United Nation’s Green Climate Fund (GCF) in part due to BAIDP’s contributions to LGED’s institutional improvements.

Impact for Farmers and Communities

EQ 2: How effective have the improved rural roads, MCs, and CCs been in promoting and increasing agricultural trade in the working areas?

Business activity—including the number of traders, businesses and sales—has increased in the areas of BAIDP construction projects. Mini-survey respondents reported interacting with 50.8 percent more traders, and most respondents (99.2 percent) said there are now more businesses in their local area. According to LGED data for four roads, farmers reported increased sales between 25 and 100 percent. BAIDP infrastructure improvements also have contributed to increased access to agricultural extension services, new agricultural inputs, improved yields for traditional crops, easier and quicker access to markets, options to produce high-value perishable crops, reduced agricultural wastage, a reported average reduction in transportation cost of 40 percent, additional vendors and consumers, and increased income for farmers.

EQ 9: What have been some of the major socio-economic benefits of the BAIDP infrastructure for the surrounding communities? Will these benefits sustain beyond the life of the BAIDP?

The ET found socio-economic benefits similar to those reported by the Accelerating Capacity for Monitoring and Evaluation (ACME) Case Study in December 2018 of the impact of BAIDP improved infrastructure projects. Participants in FGDs and mini-surveys reported improvements in access to health care services and children’s access to schools after roads were improved by BAIDP. One-third of FGD participants spoke of access to increased food variety and a positive change in diet. These benefits will be sustained as long as the infrastructure is maintained and sustained.

RECOMMENDATIONS

Construction Activities

LGED and USAID should continue to be proactive about ensuring that land ownership issues for CCs and MCs are clearly resolved prior to allowing any funds to be expended. LGED should offer incentives and penalties to contractors related to roughness (surface irregularities)¹ and completion timelines. LGED should do everything possible to get GOB budget allocations disbursed for ongoing maintenance of improved roads in order to avoid preventable deterioration. To facilitate impact assessments and ongoing maintenance of BAIDP roads, LGED should establish a baseline annual average daily traffic (AADT) as well as roughness baseline for all roads.

Program Management

LGED should conduct additional and systematic pre- and post-bid training for contractors. LGED should continue to ensure that designs and estimates are based on actual field visits of the designers, not based on type of design. USAID and LGED should develop a plan to mitigate delays related to construction contract awards, especially as concerns contract timeline requirements.

Impact for LGED as an Institution

USAID should continue to invest in capacity building within LGED by supporting LGED’s efforts to institutionalize SOPs and Code of Ethics related to procurement, as well as improvement in

¹ <https://www.pavementinteractive.org/reference-desk/pavement-management/pavement-evaluation/roughness/>

BOQ, cost estimates, and QA/QC planning. The EMPP Matrix and environment and safety training developed under BAIDP, as well as QA/QC-related training for engineers and contractors, also should be institutionalized with further support from USAID. LGED needs more laboratory equipment to comply with its lab test requirements, which are required by LGED's own SOPs but not always followed; however, BAIDP ensured that these tests were conducted. USAID should continue and increase its coordination with other LGED international development partners on these institutional strengthening initiatives to maximize impact and sustainability.

Impact for Farmers and Communities

USAID should continue to invest in rural road improvement through LGED in close coordination with other ongoing USAID-funded projects and with increased coordinated with projects funded by other donors. Whenever feasible, LGED should continue to enhance its process of engagement with local stakeholders; conduct a socio-economic rapid assessment baseline before each construction project (including nutritional data and access to health clinics and schools); and conduct an impact study after each project. USAID technical assistance on baseline and impact studies could be valuable. LGED should expand its public awareness campaign on road safety and should continue to enhance networking and coordination locally with other government agencies and the private sector to maximize impact for communities.

LESSONS LEARNED

Construction Activities

Significant time is required for local partners to introduce, implement and begin to institutionalize new standards and methods. Site visits by designers added quality and resulted in fewer design changes for construction projects. Land issues constrain construction initiatives, and uncertain GOB funding for maintenance constrains sustainability.

Program Management

LGED considers the milestone-based system to be one of BAIDP's most significant innovations. LGED indicated a need for more laboratory equipment to comply with GOB/LGED test requirements that were uniquely enforced during BAIDP. USACE has been an invaluable asset in the performance of BAIDP. The use of a third-party QA partner was valuable for BAIDP.

Impact for LGED as an Institution

Enabling local partners to take ownership and exercise leadership for institutional strengthening and capacity building, as USAID, USACE and UNOPS did with BAIDP, leads to positive results. Building upon existing systems and materials is a good approach. LGED is a willing and proactive partner for continuing G2G capacity-building initiatives. Institutionalizing improvements to ensure sustainability is a significant challenge and requires considerable time.

Impact for Farmers and Communities

Rural infrastructure has significant and diverse benefits for individuals, families and communities. Consultation with local communities before and during infrastructure development, as implemented by BAIDP, helps ensure strongest impact. MCs require time to mature into community focal points.

1.0 INTRODUCTION

1.1 IDENTIFYING INFORMATION

1. Program Name: Bangladesh Agricultural Infrastructure Development Program (BAIDP)
2. Agreement Number: 388-F-00-13-00001-00
3. Program Dates: January 2013 – December 2019
4. Program Funding: \$15,000,000
5. Implementing Partners: Government of Bangladesh Local Government Engineering Department (LGED) and the United States Army Corps of Engineers (USACE)

1.2 PROGRAM BACKGROUND

Since 1984, and in subsequent National Five-Year Plans, the Government of Bangladesh (GOB) has identified enhancing rural infrastructure—including roads and markets—as a development priority. Aligned with the GOB’s priorities, the United States Agency for International Development Bangladesh’s (USAID/Bangladesh) Development Objective (DO) 2 *Food Security Improved* includes Intermediate Result (IR) 2.2 *Improved Access to Market Systems*.

The objective of the Bangladesh Agricultural Infrastructure Development Program (BAIDP), which is part of the United States Government’s (USG’s) Feed the Future (FTF) initiative,² is *Increased Farmer Access to Markets and Improved Agricultural Production*. BAIDP’s purpose has been to improve rural infrastructure in order to facilitate trade by physically linking farmers to markets, thereby reducing transportation costs and crop losses. The program promotes agricultural productivity, reducing rural poverty and improving food security.

BAIDP is USAID/Bangladesh’s first FTF Government-to-Government (G2G) activity. The G2G is an agreement between the GOB Local Government Engineering Department (LGED)³ and USAID Economic Growth office FTF team, with technical support supplied by the United States Army Corps of Engineers (USACE). Managing and implementing any G2G program is challenging, and BAIDP has unique features that create additional challenges. These features include a Fixed Amount Reimbursement Agreement (FARA) grant instrument,⁴ the use of Quality Assurance with Quality Control oversight (QA/QC), and a milestone-based payment system.

The initial Agreement (Grant) between LGED and USAID for BAIDP was signed on January 6, 2013. The agreement envisaged rehabilitation of 140 kilometers (km) of rural roads, rehabilitation or construction of 80 market centers (MCs) and 80 collection centers (CCs), and improvement of irrigation and/or drainage systems for 2,000 hectares (ha) of land by December 2016. However, the 2013 Agreement did not include design parameters or definitions of any of the intended construction projects. In 2016, Agreement Amendment #2 defined each type of infrastructure project,⁵ based on discussion among all BAIDP partners, and revised the targets down to 100 km

² <https://www.feedthefuture.gov/country/bangladesh/>

³ <http://www.lged.gov.bd/ProjectHome.aspx?projectID=284>

⁴ “The recommendation of the use of the FARA was due to the ‘significant risks present in the GOB financial management system’ and the conclusion that ‘an attempt to complete the process mandated by ADS 220 for other than a fixed amount reimbursement-based project could subject the Mission to an unacceptable level of risk.’” USAID PFMRAF Stage 1 Rapid Appraisal Update 2016, page 20, quoting PFMRAF Report 2011, page 6.

⁵ For example, road rehabilitation was defined to include a field-proven design along with QA and QC requirements, which aimed to result in roads with a 20-year life.

of road, ten MCs, ten CCs, and 1,000 ha of irrigation/drainage-improved land. The program was extended to December 2019 through Agreement Amendment #2 in 2016 and #4 in 2017.

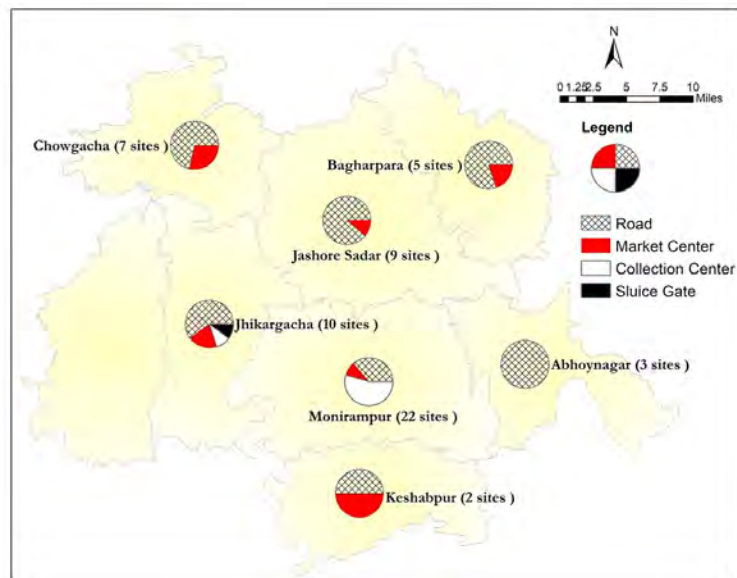
Although the phrase “pilot program” never appears in any documents related to BAIDP, the initial two years of the program were effectively a “pilot.” During this period USACE and USAID spent a lot of time and resources on capacity building activities with both the private sector and LGED. Working with LGED, construction standards and designs were brought up to international standards; communities were engaged in a systematic system of visits; and communities and the private sector received training in best practices, environmental mitigations, and the creation of practical QA and QC systems. USAID also provided a grant to the United Nations Office for Project Services (UNOPS) to develop the organizational capacity of the LGED. As part of the G2G Agreement, USAID and LGED agreed upon a Capacity Develop Plan (CDP) for LGED focused mainly on financial and procurement management. Both USACE and UNOPS report initial resistance within LGED to necessary changes intended to lead toward best practices.

During 2014-2017, UNOPS partnered with LGED to address the organizational capacity gaps in five distinct areas: 1) Code of Ethics and Training; 2) Financial Management; 3) Internal Controls, Performance Assessment and Audit System; 4) Risk Identification System and Training; and 5) Contract Administration Manual. USACE worked with LGED to develop QA/QC protocols and milestone-based infrastructure plans and designs, loosely based on LGED’s Road Design Standards (Rural Roads) developed in 2005 with support from the Japan International Cooperation Agency (JICA). BAIDP developed Technical Specifications for Roads and Road Structures in 2013. BAIDP monitoring was the responsibility of LGED, which agreed to participate in the development of a monitoring and evaluation (M&E) plan, although it was not required or implemented.

By May 2016 when Agreement Amendment #2 was signed, the BAIDP had matured into a well-structured program. LGED staff had embraced the relationship with USACE and USAID, which had developed an appreciation for LGED as a progressive implementor willing to adapt and take ownership of new concepts.

The LGED website and the evaluation Scope of Work (SOW) state that BAIDP was “implemented in 20 southern districts ... in Barisal, Dhaka,

Figure 1: Number and Type of BAIDP Projects in Upazilas of Jashore District



Source: USAID Bangladesh Monitoring, Evaluation and Learning Activity (BMEL), based on BAIDP Implementing Orders (IOs).

and Khulna divisions.”⁶ BAIDP ultimately implemented 59 projects in Khulna division (Jashore and Jhenaidah districts), and three projects in Barishal division (Patuakhali, and Pirojpur districts). Figure 1 shows the BAIDP sites in each *upazila* (administrative sub-unit) of the Jashore district. Annex 8 provides a database and maps of all BAIDP construction sites in each *upazila* with global positioning system (GPS) coordinates and other details.

Over the course of the six-year life of BAIDP, the program will have resulted in institutional capacity building of the LGED as well as rehabilitation of 115.21 kilometers of 40 rural roads (including drainage facilities), improvement of six MCs and 14 CCs, and re-excavation a major irrigation canal and reconstruction of the existing sluice gate for the irrigation system.

1.3 DEVELOPMENT PROBLEM AND USAID’S RESPONSE

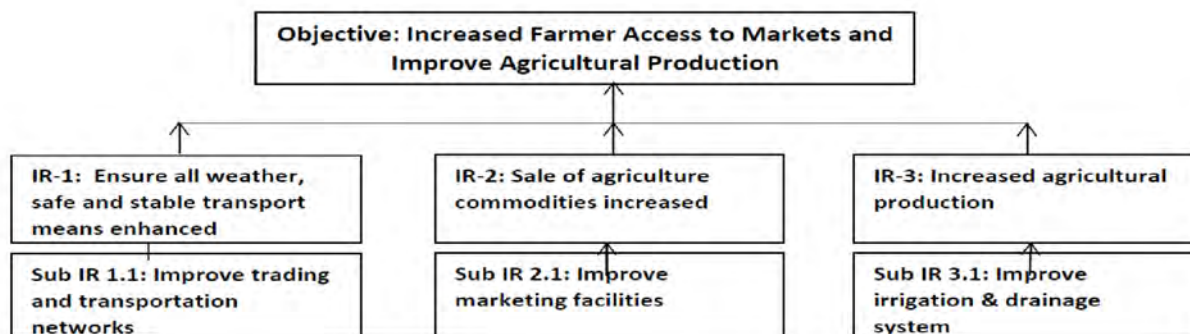
1.3.1 Theory of Change

According to the evaluation SOW, BAIDP’s theory of change (TOC) is “*if rural roads are constructed⁷ and market centers are constructed and/or improved, then rural agricultural production and farmers’ access to markets will increase.*” BAIDP operationalizes this TOC through three interdependent components. The first component (corresponding to IR-1) focuses on improving transportation networks in order to ensure weather-safe and stable transport means for agricultural products. The second component (IR-2) focuses on improving market facilities in order to accommodate more agricultural commodities and thereby increase sales. The third component (IR-3) focuses on improving irrigation and drainage systems in order to increase agricultural production with a positive corollary effect on weather-safe transportation means.

1.3.2 Results Framework

The BAIDP has been intended to stimulate agricultural development, to increase production and productivity in the agricultural sector, reducing rural poverty, improving access to food, and improved food security in southern Bangladesh. It was intended to directly support farmers and the private sector with infrastructure that would facilitate trade, improve productivity through improved water management at the farm level, physically link farmers to markets, and reduce farmers’ transportation cost and losses. The Results Framework of BAIDP, according to the evaluation SOW, is shown in Figure 2, but it was not required, finalized or approved.

Figure 2: BAIDP Results Framework



⁶ BAIDP Agreement, Attachment 1, Activity Description, Geographic Focus states that “The geographic focus for Ag-Infra will be twenty southern districts total in Barisal Division... Dhaka Division... and Khulna Division.”

⁷ BAIDP was prohibited from constructing roads and instead was only allowed to upgrade existing roads.

BAIDP did not employ a traditional M&E plan or regular narrative reporting. USAID notes that the FARA and milestone-based system of funding approval served in those functions. USAID facilitated the development of an M&E plan with LGED, but it was not implemented or used as a management tool. The program reported on one USAID standard indicator, “Kilometers of roads constructed,” with data reported to USAID annually. USAID conducted data quality assessments (DQAs) for this indicator and found the methodology to be credible.

2.0 EVALUATION PURPOSE

2.1 EVALUATION PURPOSE

The purpose of this final performance evaluation of BAIDP was to assess the extent to which the program has achieved its overall objectives, including how many kilometers of road have been renovated as well as how effectively the program has supported LGED to improve its systems, policies, procedures, and training and provided other capacity-building for the LGED. In addition, the evaluation team (ET) was to determine if the BAIDP infrastructure has had a positive impact for farmers and communities. This evaluation report offers strategic and programmatic options intended for G2G activities.

2.2 AUDIENCE AND INTENDED USE

The primary intended audience for the evaluation findings and recommendations is USAID in Bangladesh. USAID may disseminate the report to stakeholders, including BAIDP Implementing Partners (IPs), other GOB agencies, sector-specific donors, and the Development Experience Clearinghouse (DEC). The evaluation’s findings and recommendations are intended to inform future designs and implementation of agricultural infrastructure projects and G2G activities.

2.3 EVALUATION QUESTIONS

The ET assessed the BAIDP by addressing the following ten evaluation questions (EQs):

EQ 1: To what extent has the BAIDP activity been able to meet its overall objective? The response to this question will, at a minimum, address the following:

- Status and achievement of rural feeder roads rehabilitation and renovation work as per the target in the agreement (original and amendments);
- Status and achievement of construction of new and/or improvement of existing rural MCs and CCs as per the target in the agreement (original and amendments);
- Status and achievement of the irrigation and drainage systems improvement work as per the target in the agreement (original and amendments); and
- Status of the management and maintenance plans for remaining projects to be completed by December 2019. (Note: The ET will measure roads and irrigation/drainage systems.)

EQ 2: How effective have the improved rural roads, MCs, and CCs been in promoting and increasing agricultural trade in the working areas?

EQ 3: How effective has the BAIDP activity been in improving and/or changing the LGED’s procurement processes? To what extent have these processes been institutionalized? Will these remain sustainable beyond the BAIDP activity period?

EQ 4: How effective have the USAID capacity-building initiatives been in terms of having the LGED be more compliant with standard construction procedures, *e.g.*, environmental compliance/road safety compliance/labor health compliance? To what extent have these practices been institutionalized? Will these practices remain sustainable beyond the activity period? Please provide a detailed assessment of the LGED capacity development plan.

EQ 5: What challenges has the BAIDP faced in implementing its activities and how has it responded to those challenges? Are there any recommended alternatives to these approaches?

EQ 6: How has the LGED's ability to complete the infrastructure projects on time and within budget changed during the course of the BAIDP? What factors may have delayed completion of these contracts?

EQ 7: Has there been an impact on the LGED's ability to receive and implement additional activities funded by other donors as a result of BAIDP?

EQ 8: How effective has the infrastructure maintenance and repair plan been by BAIDP?

EQ 9: What have been some of the major socio-economic benefits of the BAIDP infrastructure projects for the surrounding communities? Will these benefits sustain beyond the life of the activity? (The contractor should build on an existing case study by ACME [USAID Accelerating Capacity for Monitoring and Evaluation].)

EQ 10: What caused original milestones to be reduced? What caused a three-year extension? Where is the LGED on implementing the final projects (as of January 31, 2019)?

Findings, conclusions and recommendations related to each of the ten EQs are presented under four thematic headings: 1) Output of Construction Projects; 2) Program Management; 3) Institutional Impact for LGED; and 4) Impact for Farmers and Communities.

3.0 EVALUATION METHODOLOGY

3.1 DATA COLLECTION METHODS

The evaluation implemented a mixed-methods evaluation design with a combination of qualitative and quantitative data collection methodologies. The qualitative component consisted of a document review, key informant interviews (KIIs), and focus group discussions (FGDs) with program stakeholders and beneficiaries. The quantitative component consisted of a mini-survey with stakeholders and beneficiaries and data collection as part of physical assessments of all infrastructure projects. Each method is described in more detail below.

3.1.1 Document Review

The ET conducted a desk review of 270 existing sources of information, including most of the documents listed in the evaluation SOW. Relevant sources included BAIDP documentation and reports; 27 Implementation Orders (IOs) consisting of approximately 150 documents; the USAID/Bangladesh Country Development Cooperation Strategy (CDCS) and FTF Multi-Year Strategy; and the GOB National Five-Year Plan. The ET also studied secondary source documents, such as analysis of agricultural infrastructure and market access by other donors and external experts. See Annex 6 for the full list of documents and literature reviewed.

3.1.2 Key Informant Interviews

The ET conducted 56 KIIs involving 76 individuals representing a broad range of program stakeholders. Ten KIIs were held in Dhaka and 46 were held in the Jashore and Jhenaidah districts. KIIs used semi-structured questionnaires (see Annex 3), allowing interviewers to guide the conversation to systematically gather needed information while allowing informants to add other relevant information. Persons selected to participate in KIIs were stakeholders with unique knowledge of BAIDP, selected in consultation with USAID and the IPs. KII participants included staff of USAID, LGED, and USACE; UNOPS capacity-building implementers for BAIDP; representatives of USAID FTF projects; GOB officials relevant to BAIDP at the national, district, and *upazila* levels; local construction contractors; private sector players such as input suppliers, transporters, and retailers; and staff of other relevant donors.

3.1.3 Focus Group Discussions

The ET conducted 23 FGDs with 216 local farmers, traders, transporters, and consumers located in the same *upazilas* in the Jashore district where KIIs were conducted. FGDs typically had 8-10 participants and followed best-practice protocols, including assignment of a moderator and a note-taker, and use of a standardized set of questions approved in advance in the relevant data collection tool (see Annex 3). Whenever possible, the ET had separate FGDs with female and male farmers and community members. Team members were assigned to write brief reports of each KII and FGD in English immediately to prevent the “selected memory” effect. The Team Leader reviewed these reports to ensure quality, clarity, and completeness.

A summary of the KIIs and FGDs conducted, disaggregated by stakeholder group and location, is presented in Table 1. A list of key informants and FGDs is presented in Annex 5.

Table 1: Number of KIIs, FGDs, and Participants in Dhaka and Districts

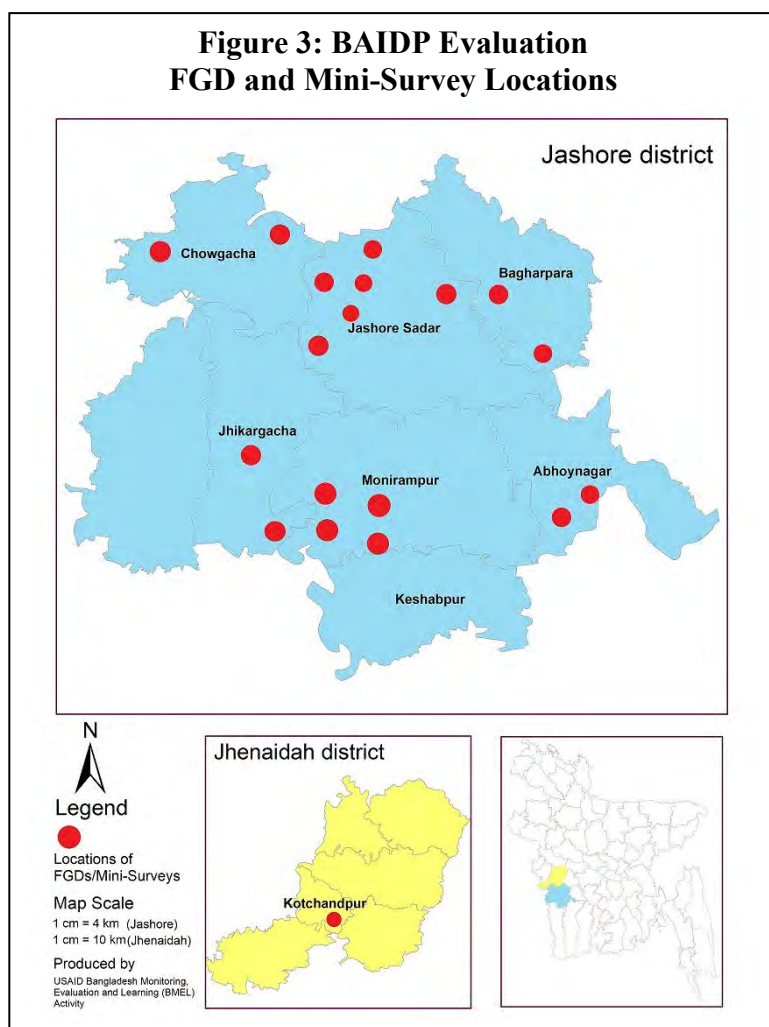
Data Collection Activities		
KII Categories	KIIs	Participants
USAID BAIDP Team	1	2
USACE	1	1
LGED (Dhaka)	4	4
LGED <i>Upazila</i> Engineers (Districts)	7	12
BAIDP Partners (UNOPS, Ecotech)	2	2
Other Donors (World Bank and the Asian Development Bank [ADB])	2	3
District/ <i>Upazila</i> Government Officials (UNO, UC, UAO, UFO) ⁸	25	31
Local Construction Contractors	7	9
Transporters/Shopkeepers/Traders	5	5
Primary School Head Teachers	2	7
Totals	56	76
FGD Categories	FGDs	Participants
Traders	5	42
Consumers	5	46

⁸ *Upazila Nirbahi* Officer (UNO), *Upazila* Chairman (UC), *Upazila* Agriculture Officer (UAO), and *Upazila* Fisheries Officer (UFO).

Data Collection Activities		
Farmers	5	49
Male Beneficiaries (Local Citizens)	5	43
Female Beneficiaries (Local Citizens)	3	36
Totals	23	216
Grand Totals (Meetings/Participants)	78	290

3.1.4 Mini-Survey

Before each FGD, the Bangladeshi members of the ET conducted a mini-survey among participants. The survey instrument (see Annex 4) consisted of 21 simple questions in Bangla and was administered one-by-one among 141 individuals who agreed to participate. All questions had multiple pre-coded answer possibilities for quick and easy aggregation of data. The mini-survey data cannot be used to draw inferential conclusions, but it adds texture to the evaluation analysis and helps to triangulate information gathered through other methods. Figure 3 shows the locations where the ET conducted FGDs and mini-surveys.



3.1.5 Direct Observations and Physical Assessments of Infrastructure Projects

USAID provided a spreadsheet of 49 BAIDP infrastructure projects, including 33 road segments, 15 MCs and CCs, and one irrigation system. Immediately before the departure of the ET for their field work, USAID shared 126 technical documents (IO annexes) with the ET, which revealed a total of 64 infrastructure projects, including 58 sites in seven *upazilas* of Jashore district (two of these projects were cancelled), three projects in the neighboring Jhenaidah district, and three projects in relatively remote *upazilas* in the Patuakhali and Pirojpur districts.

USAID Bangladesh Monitoring, Evaluation and Learning Activity (BMEL), which managed the ET, culled information from the volumes of IO documentation to create a unique interactive database of all BAIDP construction sites and a set of linked *upazila* maps showing the location of each site. This tool (Annex 8) was critical to the success of the ET's field work.

The ET visited a few infrastructure projects together to ensure clarity and consistency of approach. The ET senior civil engineer returned to Dhaka, where he continued to provide expert input to the team remotely and supervise the work of a junior civil engineer. Thereafter, the ET's junior civil engineer traveled each day to assess the status of all other infrastructure projects in Jashore and Jhenaidah districts. In total, the ET conducted technical assessments of 59 infrastructure sites, implementing structural tests, taking photos, and gathering GPS coordinates and material samples. ET engineers also conducted a limited number of KIIs with LGED *upazila* engineers, focusing on the technical engineering aspects of BAIDP construction projects.

3.2 SAMPLING APPROACH

The ET visited a purposively selected sample of infrastructure sites, including 33 roads, ten MCs, six CCs, and one irrigation project in multiple *upazilas* of the Jashore and Jhenaidah districts, where they conducted 46 KIIs and 23 FGDs. The data relevant to site selection are shown in Tables 2-4, reflecting the following selection criteria:

- Concentration of populations, farmers, fisherman, and agribusiness trading potential;
- Locations where the USAID/ACME Case Study was conducted;
- A range of roads, MCs, CCs, and irrigation projects; and
- Locations where current FTF projects are working, including the Rice and Diversified Crops (RDC) project, Cereal Systems Initiative for South Asia – Mechanization and Irrigation (CSISA-MI) and the Bangladesh Aquaculture and Nutrition Activity (BANA).⁹

Table 2: Demographic and Economic Factors

<i>Upazila</i>	Population	Households	Farm Holding	Irrigated Area	Fishermen	Jute Mill	Kacha Road	Pacca Road
Jashore District								
Abhoynagar	262,434	62,189	36,546	31,685	11,579	5	488	219
Bagharpara	216,897	49,971	35,605	39,250	8,591	.	482	205
Chowghacha	231,370	56,440	38,329	38,749	566	.	400	223
Jhikargacha	298,908	72,266	43,341	42,490	380	.	683	225
Keshabpur	253,291	62,309	39,419	29,133	4,549	.	602	228
Monirampur	417,421	101,239	68,184	55,448	7,622	.	974	423
Sadar	742,898	169,164	64,282	52,382	670	2	806	454
Jhenaidah District								
Kotchandpur	141,000	34,249	21,049	22,577	919	.	413	147
Pirojpur District								
Matbaria	262,841	61,187	43,722	2,040	4,474	.	363	620
Patuakhali District								
Kalapara	237,831	57,525	30,448	4,131	2,755	.	175	78

⁹ At its initiation, BAIDP consulted the following other USAID projects: Enhanced Coastal Fisheries in Bangladesh (ECOFISH-BD), Cold Chain Bangladesh Alliance (CCBA), Poverty Reduction by Increasing the Competitiveness of Enterprises (PRICE) and Accelerating Agricultural Productivity Improvement in Bangladesh (AAPI).

Table 3: USAID/ACME Case Study Locations

ID #	Name of Infrastructure Projects	District	Upazila	Types of Infrastructure Projects			
				Road	Market	CC	Irrigation
Y1RD004	Shorruptdha (Swarrupdaha) Bagardari Road, 2 segments	Jashore	Chowghacha	Y	.	.	.
Y1MC005	Arpara Rural Market and Collection Center	Jashore	Chowghacha	.	Y	.	.
Y5CC001	Godkhali Flower Market and Collection Center Complex	Jashore	Jhikargacha	.	.	Y	.
Y5SG001	Re-excavation of Digdana Kahl	Jashore	Jhikargacha	.	.	.	Y

Table 4: Locations of BAIDP Evaluation

District	Upazila	No. of Projects	Population	Types of Infrastructure Projects			
				Road	Market	CC	Irrigation
Jashore	Abhoynagar	3	262,434	3	0	0	.
	Bagharpara	5	216,897	4	1	0	.
	Chowghacha	7	231,370	5	2	0	.
	Jhikargacha	7	298,908	5	1	1	1
	Keshabpur	2	253,291	1	1	0	.
	Monirampur	21	417,421	5	4	4	.
	Sadar	8	742,898	7	0	1	.
Jhenaidah	Kotchandpur	3	141,000	1	0	0	.
Pirojpur	Matbaria	1	262,841	1	0	0	.
Patuakhali	Kalapara	2	237,831	1	1	0	.
Total		59	3,064,891	33	10	6	1

3.3 DATA ANALYSIS

Qualitative Data Analysis

The ET documented narrative responses at a sufficient level of detail to permit a systematic content analysis of the acquired qualitative data. Narrative reviews of interview and discussion responses provided an in-depth understanding of stakeholders' experiences and perceptions. Qualitative data analysis began with note-taking. Data gathered at each KII and FGD were and shared among team members so that everyone had the most complete picture possible of all information obtained.

The ET held debriefings (in-person or remotely) at the end of each data collection week, during which they began to identify common themes to use in developing an inductive coding framework. These themes served as categories for classifying respondents' phrases, concepts, and assessments. This process identified responses mentioned by more than one key informant or discussion participant. Those with the highest frequency of response were identified as key findings. Key findings from this process were compared within and across key informant and discussion group data, then nested in the secondary data source. In this way, key pieces of evidence from the interviews, discussions, and documents were compared and triangulated to identify the main qualitative findings that respond to the EQs, based on the evaluation matrix (Annex 2).

Quantitative Data Analysis

The ET tabulated frequencies and percentages from mini-survey data, which were triangulated with qualitative data collected through KIIs and FGDs to corroborate validity of findings. Additional quantitative data was collected through physical assessments of infrastructure projects.

3.4 METHODOLOGICAL STRENGTHS AND LIMITATIONS

Strengths

The use of various data sources enabled the ET to triangulate information before identifying findings, drawing conclusions, and formulating recommendations. The selection of data analysis methods allowed triangulation among researchers, methods, and data—which further enhanced the reliability and validity of the evidence-based findings.

Limitations

An important limitation of the evaluation methodology was the delay in receiving some key documentation, including the technical IO documents and LGED baseline studies. The ET’s eventual study of the IO annexes revealed additional construction sites in Jashore and Jhenaidah districts, such that there was not enough time to assess three construction sites in two other districts. In addition, the ET was not able to gather specific impact data to measure progress against LGED baselines. The ET continued to receive additional key documents from USAID and program stakeholders throughout the process of writing the preliminary draft evaluation report.

In addition, when LGED provided contacts for relevant partners, such as construction contractors, selection bias was possible because it meant the ET was hearing from informants who have had a positive experience and/or who have vested interests in the program receiving a positive evaluation. The team mitigated this bias by selecting informants and respondents identified from multiple sources whenever possible. Drawing from a diverse respondent pool including other development organizations and on-location beneficiaries helped offset biases.

The ET also obtained information from non-program sources about key individuals to include in the evaluation. The availability of desired key informants varied; thus, the team worked with those available, which meant that some gaps in data were unavoidable. To mitigate this limitation, the ET tried to secure interviews with key respondents in advance. Finally, the most effective approach to combating bias was to use multiple data sources, data collection, and analysis methodologies to triangulate responses. By combining information from multiple sources, no one piece of biased data skewed the evaluation analyses.

4.0 FINDINGS AND CONCLUSIONS

Findings and conclusions related to each of the ten EQs are presented under four thematic headings: [1] Output of Construction Projects (EQs 1 and 8); [2] Program Management (EQs 5, 6 and 10); [3] Institutional Impact for LGED (EQs 3, 4 and 7); and [4] Impact for Farmers and Communities (EQs 2 and 9). Recommendations in Section 5.0 follow the same approach.

4.1 CONSTRUCTION PROJECTS

FINDINGS

4.1.1 EQ 1: To what extent has the BAIDP been able to meet its overall objective [regarding rehabilitation of roads, construction/improvement of MCs/CCs, improvement of irrigation and drainage systems, and plans for remaining projects]?

The original agreement between USAID and LGED in 2013, envisaged that BAIDP would upgrade 140 km of rural feeder roads, 80 MCs, 80 CCs, and irrigation and drainage facilities for 2,000 ha of land within four years (2013-2016). The initial agreement lacked specific design definitions for roads and MCs and what each kind of construction project should include. Through several agreement modifications, including clarification of the specifications of each kind of infrastructure project, BAIDP's infrastructure targets were revised to renovation of 100 km of roads, construction or rehabilitation of ten MCs and ten CCs, and improvement of irrigation and drainage facilities for 1,000 ha of land in four districts (mostly in Jashore district) within seven years (2013-2019).

As of end of March 2019, with about nine months of the current agreement remaining, BAIDP had completed 28 rural feeder roads with a total length of 77.94 km (about 78 percent achievement), three MCs (30 percent achievement), ten CCs (100 percent achievement), and irrigation and drainage facilities for over 1,000 ha of land (100 percent achievement), including construction of U-drains, maintenance of culverts and bridges, re-excavation of a 1.35 km irrigation canal, and renovation of a related sluice gate system. Subject to an anticipated (no-cost) six-month extension to the current agreement, the ET projects that BAIDP will complete work on a total of 40 roads (115.21 km), eight MCs, 14 CCs, and one irrigation canal by June 2020. Depending on land availability, additional MCs could also be completed within the same timeframe, but the need to acquire land title to enable development of MCs and CCs continues to be a constraint. Subject to the issue of land tenure and ownership, LGED has also planned completion of more CCs in their Development Project Proforma, in addition to those included in the BAIDP IOs.

4.1.2 EQ 8: How effective has the infrastructure maintenance and repair plan been by BAIDP?

The initial two years of BAIDP was a period of learning for all parties involved as would be typical of a USAID “pilot” program with the objective of designing effective future programming. LGED's construction design standards¹⁰ and Rural Roads and Culverts Maintenance Program¹¹ were further improved with guidance from USACE¹² to achieve durable results, including “20-year roads.” Achieving these results required extensive consultation and training of LGED staff and contractors (including pre-tender meetings) related to QA, QC, Environment and Safety, and road maintenance management, which were effective in improving construction quality.

¹⁰ Road Design Standards (Rural Roads), Local Government Engineering Department (LGED) (2005). http://www.lged.gov.bd/UploadedDocument/UnitPublication/4/11/2005_Road%20Design%20Standards_Rural%20Roads_Final.pdf.

¹¹ Guideline for Implementation of Rural Roads and Culverts Maintenance Program, LGED (June 2010). <http://www.lged.gov.bd/UploadedDocument/UnitPublication/7/23/Maintenance%20Guidelines%202010%20English.pdf>

¹² See also USAID Implementation of Construction Activities: A Mandatory Reference for ADS Chapters 303 <https://www.usaid.gov/sites/default/files/documents/1868/303maw.pdf>

BAIDP construction sites satisfied the following contracted design specifications:¹³ dimensions of beams, columns, and roofs of MCs; Portland cement concrete; reinforced cement concrete (RCC) and corrugated galvanized iron (CGI) sheets of MCs; lengths and widths of CCs; water-bound macadam (WBM, *i.e.*, aggregate base); carpeting with asphalt; seal coat; brick edging; side slope; turfing; slope protection work (guide walls); tractor ramp; guide post; road markings; road signs; carpet layer thicknesses; road widths; U-drains; and culverts). Design additions have improved the effectiveness of construction, maintenance, and repair, such as wing walls in U-drains, tractor ramps, extension of repair work up to 100 meters (m) at intersection locations, use of mobile hot-mix plant for bituminous mix, use of good quality angular crushed stone chips.

The ET collected the data of all lab tests that were done as part of the QA/QC processes. The test data showed the materials used passed the specification requirements. In addition, the ET drilled and took core samples at random road site locations to check the layer characteristics and thicknesses. In all cases, the ET found the thicknesses were adequate as compared to design thickness specifications and the asphalt concrete layers were intact. Samples of whole bricks, stone chips, brick chips, and sand were collected on a random basis and tested at the Jashore LGED laboratory under the supervision of the ET's senior civil engineer. In the testing, the stone chips and brick chips samples passed the specification requirements of Los Angeles (LA) abrasion testing. The sand sample also passed the specification requirements of Fineness Modulus. The brick samples were not fully ready for the compressive strength test; capping was made on one side only. Also, the cap (plaster) was not fully cured. As a result, as expected, the samples did not pass the specification requirements of compressive strength test. However, the ET conducted three common field tests—the hammer test, scratch test, and the T-test—on those samples, and the samples passed those tests.

However, in a few locations (see Annex 7), the ET identified some problems. They included: unstable mixture in carpeting due to low temperature compaction; movement of tractors and oil spills that are detrimental to the bituminous surface; shorter than required slope protection walls; use of substandard bricks in Herring Bone Bond (HBB) road; road surface depression at the joint between the bridge and the road; no-standard side slope; shallow but open drains in MCs and CCs; and malfunctioning of one of two sluice gate control systems. In addition, many site offices of ongoing works lack mandated facilities (first aid box, fire extinguisher, *etc.*), no construction zone safety/warning signs were observed at ongoing construction sites, and no Personal Protective Equipment (PPE) were seen to be used by the workers at the ongoing sites.

LGED's Road Maintenance and Road Safety Unit (RMRSU) provides training for staff on road maintenance management.¹⁴ In addition, LGED develops annual maintenance and repair plans, which specify resource needs. However, GOB funding allocations for LGED's maintenance and repair plans are unreliable, which is a concern for LGED.

CONCLUSIONS

Within the context of a proposed no-cost extension being negotiated between the parties, with the exception of land issues related to MC, BAIDP is generally on track to achieve its overall objective in terms of infrastructure development. There are reasonable explanations for the delays resulting

¹³ All names of construction materials and quality tests are standard to the construction industry.

¹⁴ Training Manual on Road Maintenance Management, LGED (undated).

<http://www.lged.gov.bd/UploadedDocument/UnitPublication/7/581/Training%20Manual%20on%20Road%20Maintenance%20Management.pdf>

in a no-cost extension due to land ownership issues and contractor capacity. Mitigation strategies to address many issues, including clarifying design specifications and providing contractor training, were developed due to the excellent working relationship among the partners.

BAIDP's training on QA and QC, environment and safety, and the tender process have enhanced construction quality. The QA process by LGED and the QA consultant as well as the QC process followed by the contractors have proven to be successful. Reflective of the extensive trainings, the ET found that the construction quality of roads and MCs by BAIDP improved continually during the six years BAIDP has been operating. In addition, LGED has effective road maintenance management plans and training. Based on the ET's engineering assessments and the past experience of the ET senior civil engineer, the quality of workmanship and performance of maintenance and repair works for BAIDP roads, MCs, CCs, and irrigation systems are much better compared to similar works done under other LGED programs (both GOB- and externally-funded). However, the longevity of BAIDP roads is also dependent upon consistently allocated funding from the GOB for LGED's annual maintenance and repair of roads, which is uncertain.

4.2 PROGRAM MANAGEMENT

FINDINGS

4.2.1 EQ 5: What challenges has BAIDP faced in implementing its activities and how has it responded to those challenges? Are there recommended alternatives to these approaches?

Major challenges that BAIDP has faced include: 1) according to LGED, "stringent" USAID enforcement of LGED environmental requirements compared to other GOB works; 2) requirement of significant documentation related to QA/QC and milestones; 3) scarcity of government land for MCs and CCs; 4) the long process of milestone certification; 5) low financial and technical capacity of the majority of LGED enlisted contractors, who were not familiar with milestone-based contracts; 6) political unrest during 2013-2014; 7) several incidents of price hikes of construction materials; and 8) several periods when funding from USAID was unexpectedly delayed.

With patient but persistent guidance from USAID, USACE and UNOPS, along with progressive leadership within LGED at all levels, BAIDP gradually overcame several construction and capacity-related challenges by providing relevant training to contractors and LGED staff. These changes represent adaptive management, though this learning process has not been consistently documented.

Subdividing milestones and payment schedules along with linking estimates and lab reports with milestones resulted in a workable business environment for contractors. Beginning in October 2017, payment milestones became subdivided based on LGED's practical experience. Eighty (80) percent of each milestone is paid after a third-party inspector (Ecotech) employed by USACE certifies that a milestone has been completed. The remaining 20 percent of the milestone payment is issued after getting clearance from USACE and USAID. This procedure evolved as LGED field officials and the third-party inspector suggested that contractors should be included in discussions relative to milestone procedures. As noted, most LGED-enlisted contractors are generally small businessmen who were not at all familiar with milestone-based QC-heavy infrastructure works. BAIDP was unique among LGED programs in offering pre-bid training for potential contractors. In addition, preparing realistic estimates by taking into account market dynamics and planning construction works to be implemented during the dry season also led to a more practical arrangement for contractors.

Another specific challenge was that initially road U-drains did not have wing walls. According to USACE, in 2015 the designers noted that in certain conditions the lack of wing walls could lead to inside slope failure, clogging by mud, and dysfunctional U-drains. As a result, a wing wall component was added in early 2016. These were found to be functioning well at project sites. Tractor ramps were also added to protect the side slopes and road from failure from heavy tractors using the side slopes at random locations. LGED is working to implement a conversion to a fully web-based Road and Structure Data Management System (RSDMS), which will further enhance the efficiency and performance of the entire system.

4.2.2 EQ 6: How has the LGED's ability to complete the projects on time and within budget changed during the course of the BAIDP? What factors may have delayed completion of these contracts?

LGED's performance in implementing the BAIDP varied greatly from the beginning of the program compared to the performance from May 2016 onward. Mentoring of contractors and LGED field staff by USACE led to continual improvement in timeliness and meeting budget projections. A majority of projects have been delivered on time and within budget. In the early years of the program, there were a few sites that went over budget and required extra time to complete. Any additional expense beyond the mutually agreed budget for each site was borne by LGED. Out of 39 completed infrastructure projects as of March 2019, six had exceeded FARA costs, and LGED used savings from other projects to cover the increased costs. Four infrastructure projects in the earlier phase of the program had time overruns; all others were completed on time. (See the database of BAIDP infrastructure projects in Annex 8.)

LGED's contractors' low financial and technical capacity as well as their unfamiliarity with BAIDP's milestone and QA/QC-based contracting mode were the major factors that delayed completion of several contracts in the early years. Land availability also was a major problem. Other factors include design changes and variation orders, the required lab tests, and significant documentation related to QA/QC. LGED also reported that there were several periods when anticipated USAID funding was delayed, which, in turn, resulted in work being stopped until funding became available. Another factor that delayed earlier projects was awarding contracts just before the rainy season.

LGED's overall ability to complete projects on time and within budget improved due to training contractors and LGED staff, proactive laboratory facilities, enhanced QA/QC, accurate cost estimates, and an improved design process. LGED's earlier designs and cost estimates did not include some important components, such as wing walls of U-drains and slope protection at a few locations. Consequently, early road projects needed multiple design changes and variation orders, which resulted in delays and cost-escalation. LGED's BAIDP infrastructure design consultant noted that the design quality has improved over time with more field visits and suggestions from the USACE Project Manager. Designs and estimates of more recent infrastructure projects have been based on more rigorous site-specific assessments. Therefore, delays and cost escalation from design changes and variation orders have been reduced.

4.2.3 EQ 10: What caused original milestones to be reduced? What caused a three-year extension? Where is the LGED on implementing the final infrastructure projects?

The original and revised BAIDP infrastructure targets are presented in Table 5.

Table 5: Original and Revised BAIDP Infrastructure Targets

Detail/Type of Construction	Original Agreement (2013)	Revised Agreement (2016)
Road	140 km	100 km
MC	80	10
CC	80	10
Irrigation/Drainage	2,000 ha	1,000 ha
Duration	4 years (2013-2016)	7 years (2013-2019)

The information in Table 5 would appear to be straightforward. For example, 140 km of road is the target in the original agreement, and 100 km of road is the target in the amended agreement. However, the original agreement did not define what would be included in a road design. Prior to BAIDP, the typical LGED rural road was expected to last 5-10 years. USACE and USAID requirements, when merged with the LGED/JICA road design standards, were intended to result in a road with a 20-year life. Irrigation components and environmental mitigations also were not included. Moreover, the original agreement did not articulate the size and facilities to be provided for MCs and CCs. The expense of component additions (*e.g.*, culverts, U-drains, tractor ramps, *etc.*), design changes (*e.g.*, adding wing wall in U-drain) were not considered in 2013. In addition, the original infrastructure targets were based upon a 2010 ADB study of costs, and design and cost estimates of early projects were not fully based on actual field conditions or an assessment of future material prices and availability. For some early BAIDP projects, the price of bricks and stone were reportedly 150-200 percent higher than original estimates.

The original planning of BAIDP did not consider the long period required for design development and the training of LGED staff and contractors. Lack of available land caused some delays in designation of MC and CC's. The development of a functioning QA/QC program required considerable consultation between the parties. There were also extended periods of political unrest that interfered with project progress, including January-May 2015, July 2016-June 2017, and October-December 2018. Moreover, many changes in administrative positions occurred inside USAID during 2016 and 2017, contributing to delays in administrative and financial decisions and subsequent approvals.

The combination of all these factors resulted in decreasing program targets for each type of infrastructure site and a three-year time extension, another example of learning and adaptation. As of the end of March 2019, the program has completed the rehabilitation or renovation of 77.94 km of roads, three MCs, ten CCs, and irrigation and drainage facilities for over 1,000 ha of land, including construction of U-drains, maintenance of culverts and bridges, and re-excavation of a 1.35 km-long irrigation canal, as well as renovation of its sluice gate system. Construction work is ongoing for 12 more rural feeder roads with a length of 37.27 km (total 115.21 km), four more MCs (total of eight), and three more CCs (total of 13). A tender award process is ongoing for another MC.

CONCLUSIONS

The ET found very constructive results as related to road repairs and construction of MCs and CCs. There was also significant improvement in the institutional capacity of LGED, due to the consistent and persistent interaction between USAID program management, LGED staff, USACE, UNOPS and the third-party QA monitor (Ecotech) working in a concerted effort with private contractors to respond to challenges. By May 2016 when BAIDP goals were redefined with much more specific parameters, many of the initial challenges had been resolved. From that

point in time forward, all aspects of the program were operating in a well-structured, efficient manner. Contractors interviewed by the ET had not only accepted the milestone concept and other requirements unique to BAIDP, but reported enthusiasm for all aspects of rehabilitating BAIDP roads and constructing MC and CC. There is still scope for improvement, some of which is anticipated from planned procedural changes related to a fully operational RSDMS. LGED is already working on this conversion in-house. LGED needs support to upgrade their in-house laboratory testing capability, which is limited in all respects. The overall performance of BAIDP will be enhanced by follow up workshops as well as systematic retraining programs.

In the initial years of BAIDP, USAID overestimated LGED's capacity to meet LGED and GOB's own engineering and environmental mitigation standards as related to a G2G program. Also, the original agreement did not provide specifications for each type of infrastructure project. Addressing these issues resulted in a reduction of the original program goals and a three-year extension.

USAID, with the support of USACE, UNOPS, and capable, progressive leadership within LGED, is expected to accomplish all intended rehabilitation and construction goals as per the revised agreement of May 2016 (with the exception of some planned MCs) with a proposed no-cost extension. LGED's ability to complete projects on time and within budget has improved through BAIDP. The role of USACE and UNOPS cannot be understated as related to the continually improving performance of LGED for the BAIDP. These partners were particularly adept at inspiring LGED to adopt and take ownership of new concepts.

4.3 IMPACT FOR LGED AS AN INSTITUTION

FINDINGS

4.3.1 EQ 3: How effective has the BAIDP activity been in improving and/or changing the LGED's procurement processes? To what extent have these been institutionalized? Will these remain sustainable beyond the activity period?

BAIDP has developed the Risk Management Handout for procurement, Internal Audit Manual, Standard Operating Procedures (SOPs) for procurement, and Code of Ethics for procurement. The first two protocols have been institutionalized across LGED. In addition, the milestone-based QA/QC process and improved cost estimation developed by BAIDP have been welcomed by LGED, but not yet fully institutionalized. Improvements in the Bill of Quantities (BOQ) and QA/QC planning in tender documents also have not been institutionalized. Although not mandated, all procurement for BAIDP was done using the e-Government Procurement (e-GP) system. Since 2013, LGED has been working with the Central Procurement Technical Unit (CPTU) to improve their procurement system and have progressed well in the utilization of e-GP.

4.3.2 EQ 4: How effective have the USAID capacity-building initiatives been in terms of having the LGED be more compliant with standard construction procedures, e.g., environmental compliance/road safety compliance/labor health compliance? To what extent have these been institutionalized? Will these practices remain sustainable beyond the activity period?

With USACE's guidance, BAIDP enhanced LGED's infrastructure procedures to adapt to best practices, including environmental compliance, road safety compliance, and labor health compliance. In 2013, BAIDP developed a design protocol titled: "Technical Specifications for Road and Road Structures" though this protocol has yet to be institutionalized across LGED. All

projects of BAIDP follow the Environmental Monitoring and Mitigation Plan (EMMP) matrix developed under BAIDP, but the EMMP also has not been fully institutionalized. The ET found that LGED officers are regularly getting environment and safety training through BAIDP that was developed by the USAID Program Manager.

LGED also received support in its institutional capacity development from UNOPS, which guided LGED toward ownership of a Capacity Development Plan, signed in 2014.¹⁵ LGED formed an internal CDP Implementation Committee (CDPIC) with members from all the relevant LGED departments.¹⁶ The goal of the CDP was to improve LGED's existing systems through implementation of improved policies, manuals, processes, and procedures and training of LGED staff to achieve the following goals:

- *Improved Code of Ethics and training to prevent and detect fraud, promote segregation of duties, ethics and integrity, alignment of authority and responsibility, etc. (The Code has been circulated and implemented throughout LGED.)*
- *Improvement of a financial management system to track disbursements and monthly financial progress of projects.*
- *Developing and strengthening of internal controls, performance assessments, and an internal audit system to focus on anti-fraud activities, prevention, and detection and that analyzes the entire operating system and governance, especially financial management systems and procurement.*
- *Development and implementation of a risk identification system and training staff on risk management.*
- *Development of a manual to improve upon LGED's contract administration to ensure fairness and avoid the transfer of price fluctuation risk and major unforeseen circumstances to contractors.*

UNOPS reported that, by 2016, “*We were beginning to hear from the BAIDP Director and the Chairperson of CDP Implementation Committee a change of language from ‘UNOPS plan’ to an ‘LGED CDP that UNOPS can support.’*”¹⁷ Although the USAID capacity-building contract with UNOPS has expired, the LGED CDPIC continues to work toward progress on the topics above.

In addition to the Risk Management Handout, Internal Audit Manual, SOPs, and Code of Ethics mentioned previously, UNOPS guided LGED in the development of an e-module on Code of Conduct for Civil Servants in LGED. All LGED staff involved with BAIDP were required to complete the course with a minimal score of 80 percent. With the exception of the Risk Management Handout and Internal Audit Manual, other UNOPS capacity enhancement tools have yet to be fully institutionalized across LGED.

¹⁵ LGED Capacity Development Plan: Bangladesh Agricultural Infrastructure Program (BAIDP), signed May 4, 2014. <http://www.lged.gov.bd/UploadedDocument/ProjectLibraryGallery/385/Capacity%20Development%20Plan%20signed%20May%205.PDF>

¹⁶ LGED Assessment Final White Paper 2016 - BAIDP

¹⁷ KII with Joy Jakasalem Balane, former team leader for the UNOPS OCD project, March 21, 2019. See also: Organizational Capacity Development (OCD) for USAID's Local Implementing Partners in Bangladesh, Final Completion Report 01/10/2014-30/09/2017, UNOPS, December 2017.

4.3.3 EQ 7: Has there been an impact on the LGED’s ability to receive and implement additional activities funded by other donors as a result of BAIDP?

The institutional capacity of LGED, developed through the BAIDP—including those related to procurement, best practices in QA/QC and milestone-based design and construction, high-level environment, safety and ethics compliances, various trainings for contractors, staff, and community—contributed to LGED receiving accreditation from the United Nations Green Climate Fund (GCF). As a result, LGED has been able to develop a 6-year (2018-2023) Climate Resilient Infrastructure Mainstreaming Project (CRIMP) funded by GCF, KfW (a German development bank), and the GOB.¹⁸ In addition, the World Bank’s Senior Transport Specialist indicated that LGED’s capacity enhancement through implementing the milestone-based BAIDP has made LGED a good candidate for the World Bank’s new Development-Linked Indicator (DLI)-based Support for Rural Bridge (SUPRB) program.

CONCLUSIONS

LGED has been proactive and progressive on their own initiative in adopting processes that provide ease of business for suppliers and deter corruption. Furthermore, BAIDP has had a positive impact on the cost estimation process. LGED has institutionalized the Risk Management Handout and the Internal Audit Manual. The improved Code of Ethics—designed to prevent and detect fraud and to promote segregation of duties as well as ethics and integrity, alignment of authority and responsibility—has been circulated and implemented throughout LGED, including training for all personnel. However, much remains to be achieved regarding capacity building within LGED. Although the milestone-based QA/QC process and improved cost estimation developed by BAIDP have been welcomed by LGED, they have not yet been fully institutionalized. Improvements in the BOQ and QA/QC planning in tender documents also have not been institutionalized. All of the subject areas targeted by UNOPS would require additional capacity-building and integration within LGED in order to become sustainably embedded within the institution as best practices for all projects.

The initial successes of the CDPIC are evidenced by the adoption of these documents. LGED and its contractors have benefitted significantly from BAIDP manuals, tools and training programs—such as the online e-module on the Code of Conduct, which was required for all LGED staff involved with BAIDP—but they have yet to be institutionalized. Sustainability is assured for the BAIDP tools for which LGED has taken ownership and applied to other programs. Further capacity-building achievements can be accomplished within LGED through mentoring and training similar to that which UNOPS has provided. LGED’s ability to attract funding from other donors has been enhanced as a result of BAIDP.

¹⁸ CRIMP will establish a Climate Resilient Local Infrastructure Center (CReLIC), build 45 new multipurpose cyclone shelters, rehabilitate 20 existing multipurpose cyclone shelters, and improve 80 km of critical road connectivity.

4.4 IMPACT FOR FARMERS AND COMMUNITIES

FINDINGS

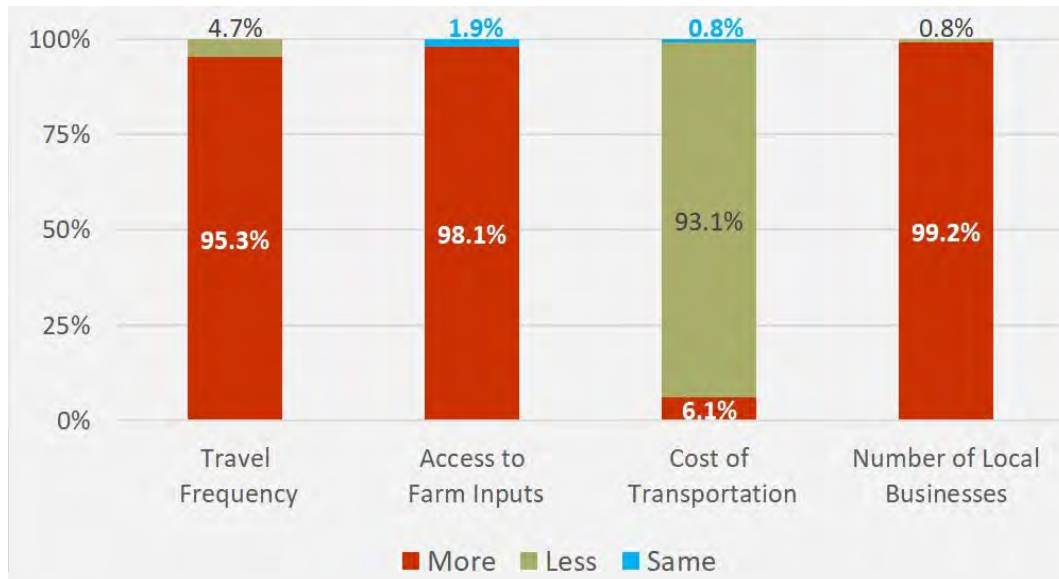
4.4.1 EQ 2: How effective have the improved rural roads, MCs and CCs been in promoting and increasing agricultural trade in the working areas?

Increased Agricultural Extension Services: The majority of FGD participants along with KIIs with agricultural extension agents confirmed an increase in extension services available around BAIDP improved roads, both from the public and private sectors. This increased assistance from extension workers has reportedly resulted in improved farming practices, increased production, and improved yields and productivity. Private companies are establishing demonstration plots adjacent to roads and organizing farmers' field days. FGDs with farmers as well as KIIs with Department of Agricultural Extension (DAE) and Department of Fisheries (DOF) officials and input retailers confirmed companies are providing agricultural production-related information and services through regular communication and field visits. The result, according to FGDs with farmers, is that they are cultivating new crops, including summer tomatoes, and income has increased. Farmers in FGDs reported using Integrated Pest Management (IPM) for vegetable growing, thereby reducing the cost of production, resulting in safer food for consumers. According to a farmer in Monirampur *upazila* of Jashore district, production of vegetables (such as pointed gourd and bitter gourd) increased by about 20 percent after road improvement.

Increased Availability of Agricultural Inputs: According to the majority of FGD participants and 98.1 percent of mini-survey respondents (Figure 4) along with many well-informed local KIIs, quality agricultural inputs (seed, fertilizers, and agro-chemicals) are more available locally due to the opening of new shops adjacent to the improved roads. DAE officials and vendors—such as East West Seeds Bangladesh Ltd., Krishibid Seed Ltd, and Syngenta Bangladesh—reported that companies are extending dealer networks to rural areas with the result that farmers are getting the benefit of good quality inputs at lower prices. As a result, production and cropping intensity has increased. Most FGD participants attribute the greater availability of agricultural inputs locally to the road improvements.

Based on an FGD with aquaculture farmers, transporting their inputs (fingerlings and feed) to the ponds and selling marketable fish to markets has been made easier after the improvement of roads. Two-thirds of FGD participants stated that the produce they are able to grow and deliver to markets is fresher after improvement of the roads. Due to more easily accessible transportation, farmers are able to supply fresh produce to customers.

Figure 4: Improved Farm Inputs and Increased Local Businesses

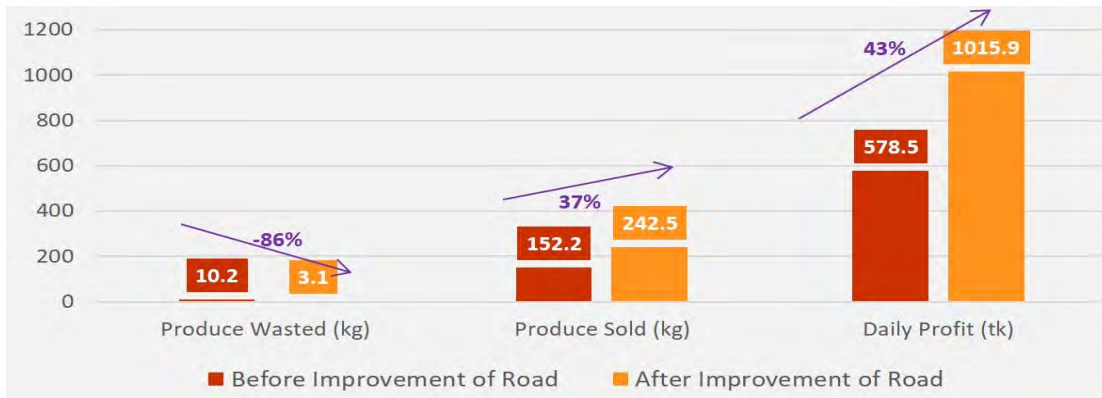


Data source: Evaluation Mini-survey

Increased Number of Local Businesses and Services: Most mini-survey respondents (99.2 percent) said that there are more businesses in their local area after improvement of the roads (Figure 4), an increase that was also frequently mentioned during FGDs. Mini-survey respondents (Figure 8) reported a 50.8 percent increase in the number of traders they deal with locally. FGD participants stated that improved roads increased business opportunities and have enhanced local economic development through new employment creation, transport business, agri-shops, traders, grocery shops, rice mills, and food processing. FGD participants also stated that access to credit markets (from microfinance institutions and non-governmental organizations [NGOs]) and service delivery are all becoming more available and are beneficial for the new business entrants found around the improved roads. The number of small rural non-farm businesses (*e.g.*, food processing and marketing enterprises, agricultural-input shops, electronic repair shops, transportation and trade, and tea stalls, grocery shops, repair maintenance shops, and services) also reportedly has increased as a result of improved roads. After road improvement, local employment opportunities have emerged, especially for youth, to do business in transportation, open shops, raise poultry or fish, and farm high-value vegetables.

Reduced Agricultural Wastage: According to 85.3 percent of mini-survey participants (Figure 6), and confirmed in general in FGDs, wastage has been reduced by 86 percent after road improvement (Figure 5). All DAE and DOF representatives (*upazila* level officers) also mentioned reduced wastage due to good roads.

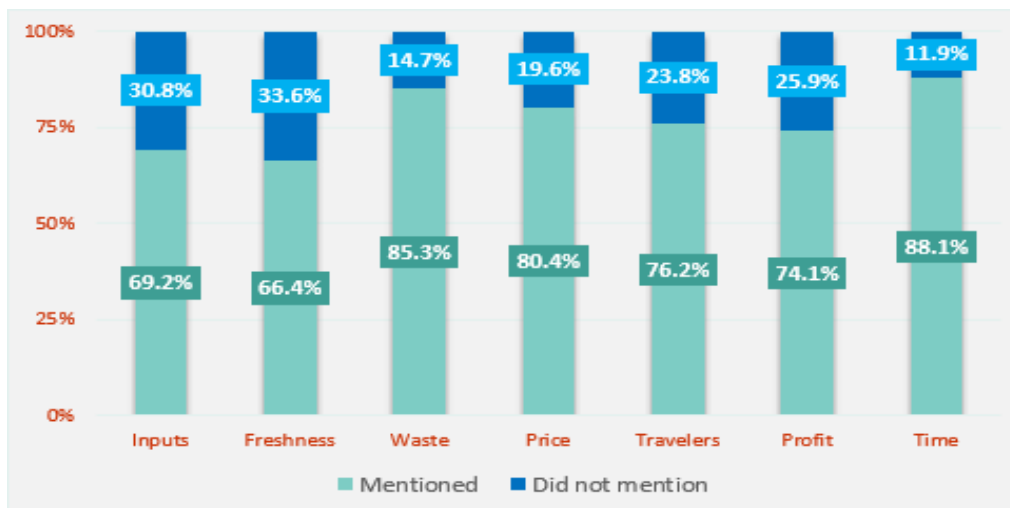
Figure 5: Decreased Wastage, Increased Sales and Profits



Data source: Evaluation Mini-survey

Increased Freshness, Sales, Price, and Profit: When asked an open-ended question about the business-related benefits of the improved roads (Figure 6), two-thirds (66.4 percent) of mini-survey participants said that they are able to sell their produce while it is fresher, and 80.4 percent said they are able to get a higher price for their produce. According to LGED baseline and impact data for four roads, farmers reported between 25 percent and 100 percent increases in agricultural product sales (Figure 7). Three-quarters (74.1 percent) said they are earning more profit; and the average increase in daily profit reported by mini-survey participants before and after the improvement of the roads was 43 percent (Figure 5). Good roads bring more buyers looking for produce that has not suffered the damage from a rough ride to market. In addition, due to the improved roads, buyers are frequently purchasing produce directly from farmers. Many of the participants in FGDs were beneficiaries of FTF projects that were in operation while BAIDP was engaged in the area.¹⁹

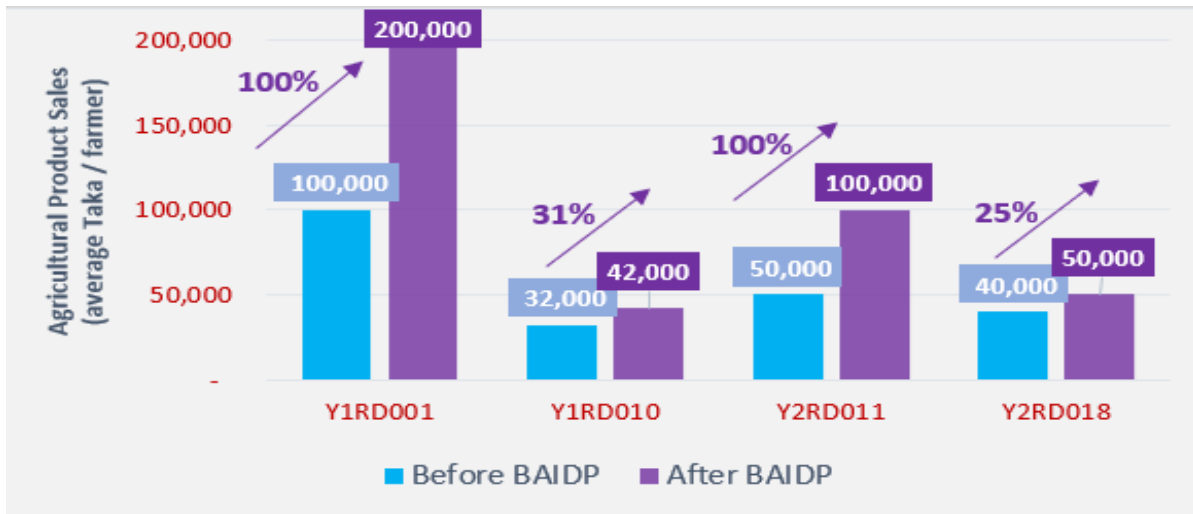
Figure 6: Percentage of Respondents Mentioning Business-Related Benefits



Data source: Evaluation Mini-survey

¹⁹ For example: Rice and Diversified Crops (RDC); Agricultural Value Chains (AVC); Livestock Production for Improved Nutrition (LPIN); Accelerating Agriculture Productivity Improvement (AAPI).

Figure 7: Agricultural Sales – LGED Baseline and Impact Data

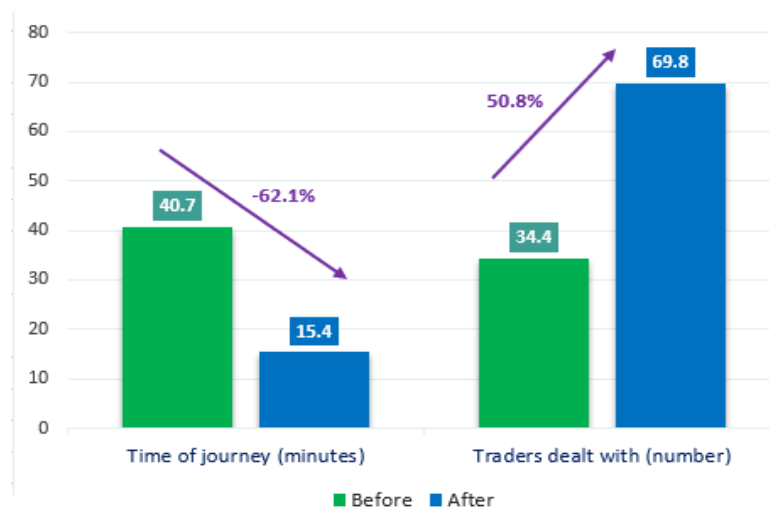


Data source: LGED

Reduced Transportation Time and Cost: A significant change has occurred in terms of transport costs and travel time where BAIDP has improved roads. About three-quarters of FGD participants said their transportation time was significantly reduced due to improved roads. Motorized vehicles are carrying agricultural products to buyers much faster. According to 88.1 percent of mini-survey respondents (Figure 6), the time saved transporting their agricultural products to markets and buyers allowed them to spend more time on productive activities. Mini-survey participants reported (Figure 8) that previously it took on average 40.7 minutes for a journey on that route; now, the same trip takes only 15.4 minutes (a 62.1 percent reduction).

The majority (93.1 percent) of mini-survey respondents (Figure 4) reported decreased transportation costs after the improvement of the road near them. FGDs with farmers, traders, and transporters all confirmed a reduction in transportation cost of at least one-third due to the larger volume which can be carried on the improved roads. An earlier case study conducted by ACME reported a 32 percent reduction cost for the same purpose.

Figure 8: Reduced Travel Time and Increased Traders



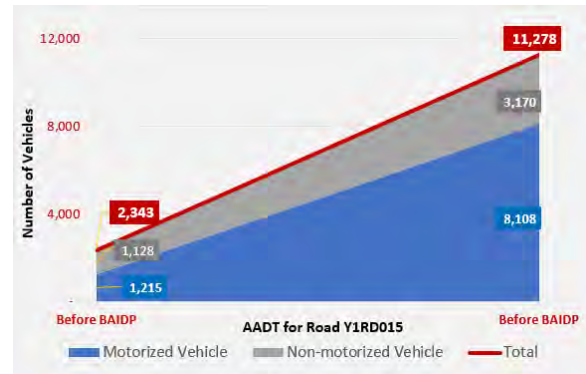
Data source: Evaluation Mini-survey

Figure 9: AADT of BAIDP Roads Before and After Construction



Data source: LGED (before); ET (after)

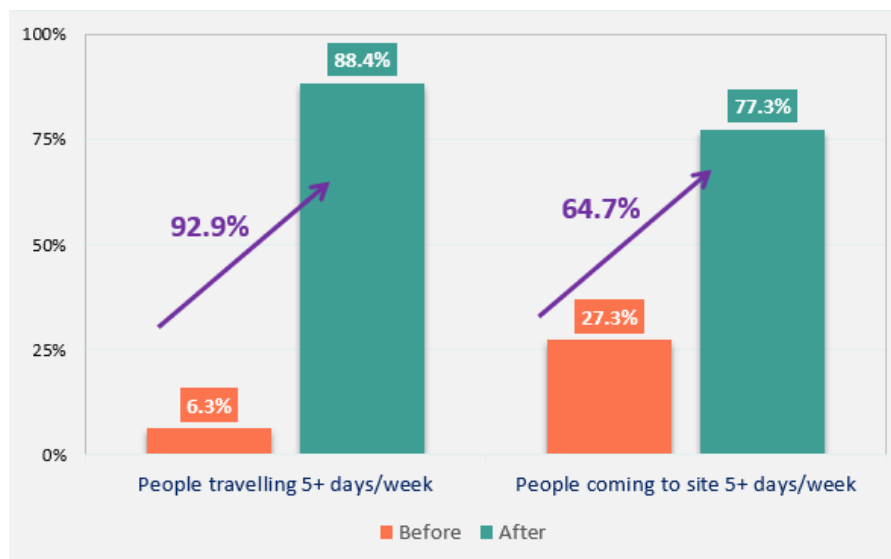
Figure 10: AADT of BAIDP Roads: Motorized and Non-Motorized



Data source: LGED (before); ET (after)

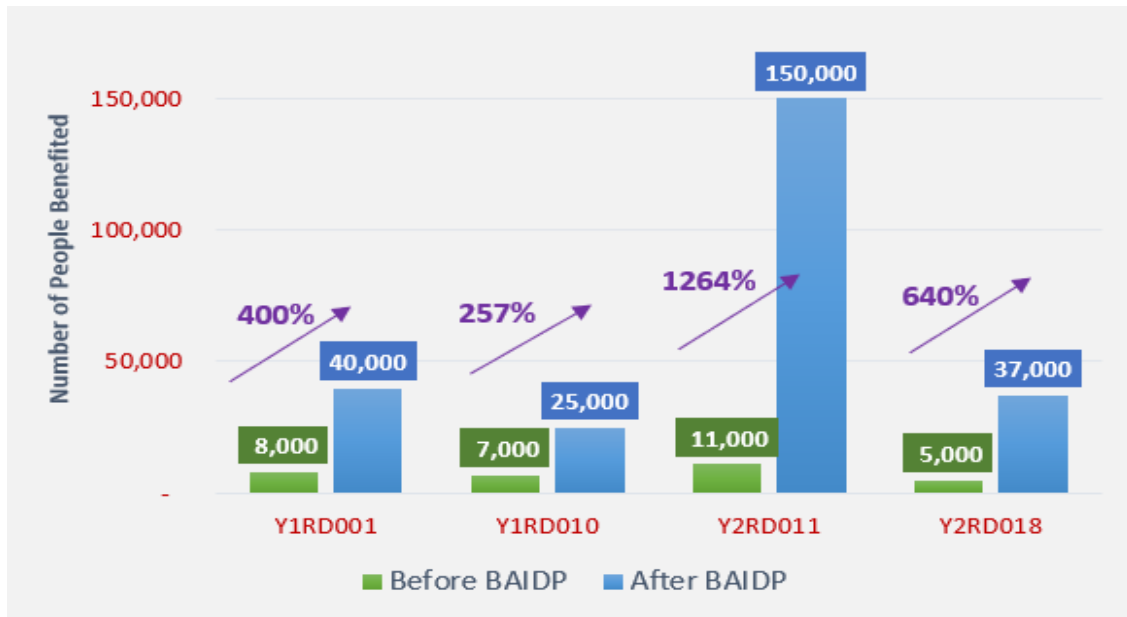
Roads improved under BAIDP have generated a significant number of commuters. The ET conducted several day-long traffic counts on BAIDP roads both on Hat (bazar) days and on non-Hat days to assess the annual average daily traffic (AADT) for both motorized and non-motorized traffic. The AADT data of these roads just prior to the BAIDP were collected by LGED. Based on this study, the ET found that AADT figures on the improved roads have increased between about 7 and 28 times for motorized vehicles, between about 3 and 14 times for non-motorized vehicles, and between about 5 and 17 times for all vehicles (both motorized and non-motorized). These are very significant increases considering the rural context of these roads. The changes are represented in the Figures 9 and 10. Confirming the increased use of the improved roads, 88.4 percent of mini-survey respondents (Figure 11) said they use the road five or more days per week now, representing a 92.9 percent increase; three-quarters of mini-survey respondents (77.3 percent) said they come to the area where the road has been improved five days or more per week, representing a two-thirds (64.7 percent) increase. Much more generally, LGED baseline and impact data records exponential increases in the number of people “benefitting from” the roads for which they have gathered such data (Figure 12).

Figure 11: Increased Road Use and Site Visit Frequency



Data source: Evaluation Mini-survey

Figure 12: People Benefitting from the Roads – LGED Baseline and Impact Data



Data source: LGED

Benefits of Market Centers and Collection Centers: FGD participants generally reported that, where the BAIDP MCs and CCs are operational, they are getting better prices for their produce. Many also reported being able to sell a higher percentage of their production at the MCs, and more than one-third said they increased their daily profit as a result. According to FGD participants, wastage has been reduced due to having a good place for sorting and grading, thereby resulting in better prices. More recently constructed BAIDP MCs and CCs require more time to be fully utilized and functional since it takes time to attract vendors and consumers and for markets to mature into community focal points.

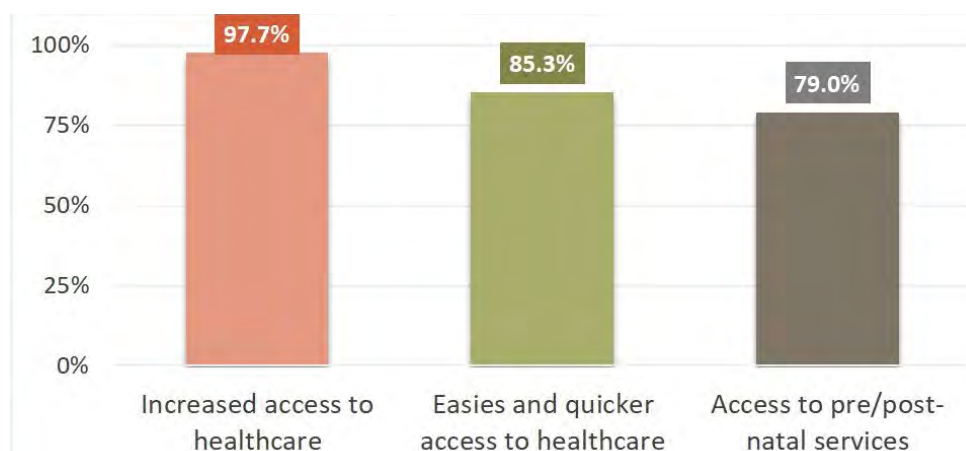
4.4.2 EQ 9: What have been some of the major socio-economic benefits of the BAIDP infrastructure for the surrounding communities? Will these benefits sustain beyond the life of BAIDP? (The contractor should build on an existing case study.)

Improved Food Security: All FGD participants stated the variety of food alternatives has improved due to increased income, access to the markets, and increased agricultural production after improvement of the roads. Families are eating at least three meals per day and dietary diversity of food has improved. As one KII with shopkeepers revealed—and as confirmed by most participants of FGDs—there are many new shops selling daily essentials and food stuffs (*e.g.*, rice, egg, fruits, pulses, milk, oils, salt, *etc.*). Fruit and dairy products are available and accessible—and are being consumed by the local citizens.

Increased Access to Health Care: In response to various questions on the mini-survey (Figure 13), 97.7 percent of respondents said that their access to healthcare has increased since the improvement of the roads. About 85.3 percent said they have easier and quicker access to health services; and more than three-quarters (79 percent) stated that women now have better access to pre- and post-natal health care and/or birth attendants. During field visits, the ET noted that pharmacies were available near roads improved by BAIDP. It was also frequently mentioned by FGD participants that every house has built sanitary latrines and water, sanitation, and hygiene (WASH) facilities due to transportation of the required raw materials (such as bricks) on improved

roads. Diabetes patients are observed walking on the new roads every morning and afternoon. According to women in FGDs, accessibility for people with disabilities has also improved, including smooth access for wheelchairs, facilitating access to services and goods. Similar information was found during the ACME case study.

Figure 13: Increased Access to Healthcare



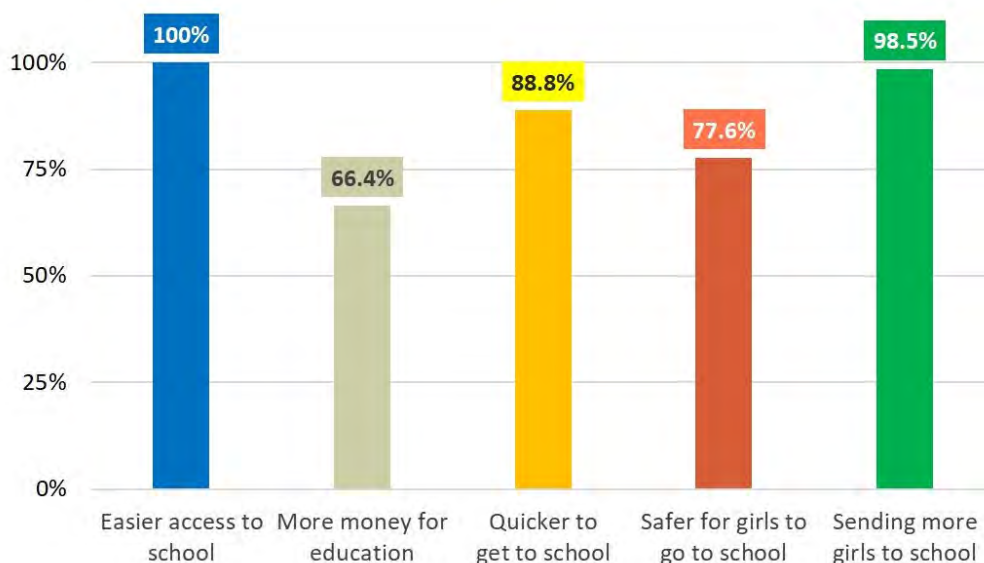
Data source: Evaluation Mini-survey

Increased Access to Education: Three-quarters (77.6 percent) of mini-survey participants said that it is now safer for girls to go to school, and almost all said that improved roads have contributed to families sending their girls to school (Figure 14). FGD participants often recalled that, prior to the road improvement, girls were harassed while walking to school. Now girls can get motorized transportation to school and avoid harassment. All mini-survey participants said children in general now have easier access to schools; 88.8 percent said their children can get to school more quickly; and two-thirds (66.4 percent) said they have more money available to invest in children’s education. Head teachers at two schools stated that the drop-out rate declined, and school attendance increased during the rainy season after the roads were improved. At their schools, attendance during the 2016 rainy season was below 80 percent; in 2018, after the road improvement, it was above 87 percent. FGD participants said the benefits of the improved roads for school children were very significant. Earlier, children often did not want to go to school during the rainy season because of bad roads. After the road improvement, they could use their bikes to get to school.

Enhanced Gender Equality: According to the majority of female FGD participants, girls and women now have increased mobility due to the increased motorized vehicles on the roads so that they can more easily and safely travel alone. Increased mobility enables girls to attend school and facilitates women’s income-generating activities and household management, which FGD participants said reduces household conflict. In all FGDs, especially with women, participants stated that they now take more family decisions jointly (*e.g.*, child education, asset purchase, movement, agricultural production and sales, *etc.*) since improvement of the roads. FGD participants also described improved prospects for marriage of their female children; bridegrooms were previously reluctant to marry into their isolated villages because of bad road conditions. In addition, KII and FGD participants reported that child marriage is occurring less frequently, in part because of an awareness program conducted by teachers, other development practitioners and

government agencies, which was significantly facilitated because of improved roads. Similar information was reported in the ACME case study.

Figure 14: Increased Access to Education



Data source: Evaluation Mini-survey

Increased Land Value: FGDs with local community participants said the value of land adjacent to the improved roads had increased. In addition, during FGDs and field observation, the ET found that construction materials were being transported more easily after road improvement; thus, many villagers were able to build secure brick homes. However, the increase in the value of land adjacent to improved roads also has negative implications for income inequality in the local community. Poor and landless farmers may find it more difficult to secure land for their cultivation and this is likely to result in sharecropping for farmland. The ACME case study included similar information.

Benefits for Minority Communities: Ambassador Road (Y1RD004 Shorupdha-Bagardari Road in Chowgacha *upazila*) was improved by BAIDP to the benefit of a nearby Hindu community in which women and men are focused on fishing as an enterprise. After the improvement of the road, they are able to transport fish feed and fish fries more easily. During an FGD in this area, women reported a production increase of harvested fish and the ability to increase sale volumes as buyers are able to access this community via the improved road. Previously they sold at lower prices, wastage was significant, and they could not reach the market on time to keep the fish fresh. Five agri-input and grocery shops also recently have opened in the area where villagers buy groceries and other daily essentials.

CONCLUSIONS

Based on the KIIs and FGDs conducted by the ET, as well as the Case Study Report by ACME, BAIDP’s improved roads have significantly increased access to extension services, agricultural inputs, new farming techniques, farm productivity, and access to markets, traders, and other business services. The improved roads also have contributed to reduced agricultural waste, increased sales of more fresh produce, and increased profits. Transportation costs per commodity unit also has been reduced. MCs and CCs have facilitated commodity aggregation, sorting,

grading, and trading. The new roads have created a business-enabling environment for farmers and traders that enhances local economic development generally.

The results of the ET and ACME interaction with stakeholders also suggest increased income and land value due to improved agricultural infrastructure. Improved nutrition and food security seem likely to be sustained based upon the field work by the ET and ACME. In general, travel is apparently now faster, easier, and usually less expensive, contributing to social benefits such as easier access to health services, including pre- and post-natal care; increased school attendance by girls and boys, especially during the rainy season; greater mobility and safety for girls and women; and benefits for a minority fishing community. LGED's public awareness campaign related to responsible use of roads contributes to the longevity of the infrastructure and, therefore, the sustainability of all of these benefits.

5.0 RECOMMENDATIONS

5.1 CONSTRUCTION PROJECTS

EQ 1: Acquiring land title as related to developing MC and CC continues to be a constraint, and experience during the implementation of BAIDP has demonstrated the complexity of this issue. Although USAID and LGED have been proactive relative to this issue, LGED should do additional forward planning prior to confirming construction site locations whenever possible, and coordinate with other GOB departments to ensure that land has been formally acquired.

EQ 8: Although LGED has a maintenance and repair plan for roads, GOB funding allocations for long-term road maintenance are uncertain. USAID should strategize with LGED about how to undertake a collective effort with all donors funding road upgrades to address this issue with the GOB. Along with having a baseline AADT, road projects should also have a roughness baseline, so that before-and-after assessment is possible. The duration of the construction process and the durability of roads could be linked with bonuses and penalties for construction contractors.

5.2 PROGRAM MANAGEMENT

EQ 5: The ET supports a recommendation from the Jashore LGED office for more systematic training of contractors including pre-bid and follow-up trainings. Enhanced training would improve the quality of construction planning and reduce construction delays. The use of a third-party construction monitoring and certification entity worked very well for BAIDP, and the ET suggests replicating this solution in any future program.

EQ 6: The LGED reported difficulties due to unanticipated delays in BAIDP funding. Past experience provides an opportunity to pre-plan for such delays and establish mutually acceptable procedures to mitigate their impact. Construction project designs and cost estimates should continue to be based on actual field visits of the designers. Furthermore, if contracts are awarded just before the rainy season, they should have extended timelines for completion to allow for the favorable construction season (October to June in Bangladesh). LGED also could consider offering contractor incentives and penalties to deter delay, including completion timelines. LGED requested support to upgrade laboratory equipment in order to comply with lab test requirements more efficiently.

EQ 10: The cost, design, and construction oversight provided by USACE was excellent. As the USACE staff member has been working within the Mission with USAID staff, his comprehension

of USAID objectives as related to BAIDP has been advantageous. USACE participation as a partner for future USAID G2G construction-related programs would be beneficial. In addition, information generated by LGED through community-based assessments contributed positively to the site selection process. For future programs, the ET recommends a more institutionalized approach to site selection, including gathering additional information through social, economic, environmental, and risk assessments.

5.3 IMPACT FOR LGED AS AN INSTITUTION

EQ 3: Future USAID infrastructure programs should be designed based on a realistic assessment of the existing capacity of the implementing agency. The e-GP system of procurement worked well for BAIDP and should be continued. Additional initiatives should be taken to further institutionalize LGED’s procurement-related SOPs and Code of Ethics and training, as well as improvements in the BOQ, cost estimates, and QA/QC planning and processes.

EQ 4: USAID should continue to invest in capacity-building within LGED. All of the subject areas targeted by UNOPS will require additional capacity-building and integration within LGED in order to become embedded within the institution. The EMMP Matrix and environment and safety training developed under BAIDP should be institutionalized, along with QA/QC-related training for contractors and engineers. The “Technical Specifications for Road and Road Structures” also needs further institutionalization. The ET recommends a structured organizational approach with other relevant donors as a vehicle to further advance the capacity-building of LGED (and other GOB ministries and departments for potential future G2G programming).

EQ 7: USAID can be even more proactive in communication and coordination with other development partners engaged in funding infrastructure development in Bangladesh. For example, USAID should coordinate with the World Bank and ADB for the upcoming multi-donor 1.5 billion USD mega-project known as WeCARE (Western Economic Corridor and Regional Enhancement Project) in which both the Bangladesh Roads and Highways Department and LGED will be involved as implementing agencies. The relevant ADB and World Bank personnel expressed interest to the ET in more collaboration with USAID, and USAID should capitalize on this interest.

5.4 IMPACT FOR FARMERS AND COMMUNITIES

EQ 2: USAID should continue to invest in rural road improvement through LGED to further enhance farm productivity, local economic development, food security, nutrition, and improved livelihoods. With six years of experience to build upon, USAID can create more systematic links with other FTF projects during the process of infrastructure site selection and in order to measure impact for beneficiaries of those projects more directly and consistently. The ET also encourages LGED to take a more systematic approach to implementing socio-economic baseline and impact studies for each site. A consistently coordinated working relationship with other donors funding infrastructure initiatives also may lead to more robust results. For example, amenities and equipment that USAID is unable to provide could be funded by other donors.

EQ 9: USAID and/or LGED should invest further in building public awareness of personal responsibility for road safety. USAID should re-engage in strengthening coordination with other donors regarding their development activities in relevant local areas to enhance the socio-economic benefits of USAID-funded infrastructure projects. LGED should strengthen networking and coordination with other government agencies and private sector actors locally to maximize

socio-economic benefits of its infrastructure projects. Proactive, progressive local committees could aid the successful operation of MCs and CCs.

6.0 LESSONS LEARNED

6.1 CONSTRUCTION PROJECTS

The experience of the past six years has verified that a milestone-based construction and payment mode works well when the milestones are: 1) finalized based on inputs from LGED as well as contractors; 2) rationally sub-divided such that contractors can get paid on a regular basis once the milestone is accomplished; 3) logically connected with estimates and analysis of estimates; 4) certified within set deadlines; and 5) explained in trainings for both engineers and contractors. Significant time is required for local partners to introduce, implement and begin to institutionalize new standards and methods. Another lesson learned from BAIDP is that the QA/QC process and schedule should be clearly planned and documented in the bid contract document. Once the QA/QC process is institutionalized, LGED could concentrate on modernization of their lab facilities as well as preparing lab staff for new processes. In addition, site visits by designers added quality and resulted in fewer design changes for the later designs of BAIDP. Land issues constrain construction initiatives, and uncertain GOB funding for maintenance constrains sustainability.

6.2 PROGRAM MANAGEMENT

LGED considers the milestone-based system to be one of BAIDP's most significant innovations. LGED indicated a need for more laboratory equipment to comply with GOB/LGED test requirements policy/procedures that were uniquely enforced during BAIDP. The use of a third-party QA entity (Ecotech) worked very well for BAIDP. In addition, the cost, design and construction oversight provided by USACE was excellent. USACE has been an invaluable asset in the performance of BAIDP. If, in the future, USACE is not available to support a G2G infrastructure program, the role that USACE has played in the process may be difficult to duplicate under the current USAID organizational structure.

6.3 IMPACT FOR LGED AS AN INSTITUTION

Building upon existing systems and materials is a good approach. The UNOPS approach to encourage LGED to take ownership of the procurement capacity development processes was a highly successful approach. Institutionalizing improvements to ensure sustainability is a significant challenge and requires considerable time. Building upon existing systems and materials is a good approach. LGED is a willing and proactive partner for continuing G2G capacity-building initiatives. The institutional changes within LGED have been dramatic and are continuing with enthusiasm. Use of a dedicated designer—either through hiring an independent consultant, such as the one trained by the USACE, or by enhancing the design unit of LGED—is important. The experience gained via BAIDP has shown that an enhanced LGED design unit should develop the skills and quality of design engineers in terms of road geometric and pavement design and the structural design of building and drainage structures. LGED already has a good bridge design team. The coordination that developed between USAID and LGED was instrumental in the success of the BAIDP program and can be a building block for enhanced coordination among donors working with LGED in the future.

6.4 IMPACT FOR FARMERS AND COMMUNITIES

Improved rural infrastructure facilitates local economic activities and improves livelihoods of local communities. MCs require time to mature into community focal points. Consultation with local communities before and during infrastructure development, as implemented by BAIDP, helps ensure strongest impact. LGED baseline and impact studies help demonstrate the significant and diverse benefits of their rural infrastructure projects for individuals, families, and communities.

ANNEXES

ANNEX 1: SCOPE OF WORK

Scope of Work (SOW) for Bangladesh Agriculture Infrastructure Development Project (BAIDP) Final Performance Evaluation

PROJECT TO BE EVALUATED	
Project Name	Bangladesh Agriculture Infrastructure Development Project (BAIDP)
USAID Bangladesh Agreement No.	388-F-00-13-00001-00
Original Project Date	January 2013 - December 2019
Original Funding	\$15,000,000
Implementing Partner	GOB Local Government Engineering Department (LGED); U.S. Army Corps of Engineers

I. BACKGROUND

The Bangladesh Agriculture Infrastructure Development Project (BAIDP) was awarded in January 2013 as a three-year Government-to-Government (G2G) activity. The activity was then extended in 2016 for an additional three years, ending in December 2019. The purpose of the Agricultural Infrastructure Development Project is to upgrade priority infrastructure in targeted rural farming communities. BAIDP’s specific project objectives are to:

1. Improve vertical Infrastructure (markets and collection centers); and
2. Improve horizontal infrastructure (roads, irrigation and drainage systems).

The implementing mechanism for this activity is a direct G2G transfer to the Government of Bangladesh (GOB) Local Government Engineering Department (LGED), with technical oversight provided by the U.S. Army Corp of Engineers. LGED is the largest public engineering agency in Bangladesh and has a mission to improve the socio-economic condition of Bangladesh through the development and maintenance of local infrastructure. BAIDP is implemented in 20 southern districts of the country within the Barisal, Dhaka, and Khulna divisions.

The BAIDP was designed to increase smallholders’ household income through improved access to rural markets and input supplies, thereby lowering transportation costs and crop loss and increase trade volume. The longer-term outcome was to support USAID’s Development Objective (DO) 2 “Food Security Improved.”

2. DEVELOPMENT HYPOTHESIS, THEORY OF CHANGE AND RESULTS FRAMEWORK

BAIDP is implemented under USAID’s DO 2 (Food Security Improved), and specifically aligned under IR 2.2 *Improved Access through Market Systems*. The theory of change for the activity is “if rural roads are constructed and market centers are constructed and/or improved, then rural agricultural production and farmers’ access to markets will increase.”

Infrastructure development is closely aligned with Bangladesh’s national development strategies. The Bangladesh Planning Commission prioritized roads, storage facilities, and markets as

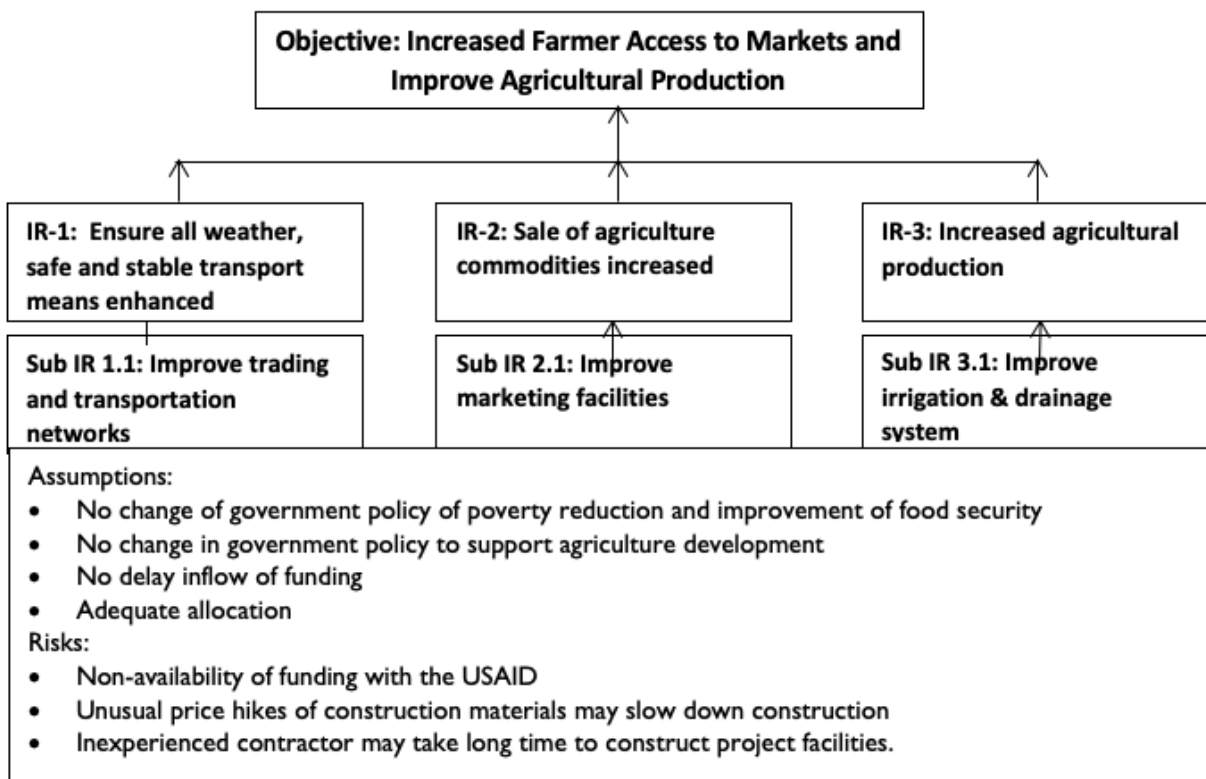
development priorities in 1984. Subsequent National Five-Year Plans have incorporated these priorities. The objective of infrastructure projects in Bangladesh has been to provide year-round access to village markets and sub-district growth centers. This access creates opportunities for marketing agricultural produce and enterprise development in rural areas as well as job creation and improved connectivity with urban, peri-urban and other rural areas. It also facilitates evacuation during emergencies and storm events.

Bangladesh has limited land and the highest density of roads to available land in Southeast Asia according to a rural infrastructure strategic study conducted by the World Bank in 1996. Rather than building new roads, the priority is to rehabilitate and maintain existing roads.

2.1 RESULTS FRAMEWORK OF BAID PROJECT

The BAIDP will stimulate agricultural development to increase production and productivity in agricultural sector, reducing rural poverty, improving access to food, and improving food security in southern Bangladesh. It will directly support farmers and private sector with infrastructure that will facilitate trade, improve productivity through improved water management at the farm level, physically link them to markets, and reduce transportation cost and losses.

Results Framework of BAIDP



3. EVALUATION OBJECTIVE

The purpose of the final performance evaluation for BAIDP is to assess the extent to which the activity has achieved its overall objectives. Consistent with USAID's 2011 Evaluation Policy, the primary goals of this evaluation are to:

- Provide evidence so USAID/Bangladesh can determine the extent to which BAIDP has or has not achieved its desired results;
- Determine how effectively the activity has implemented systems, policies, procedures, training, LGED capacity and other interventions to achieve its overall goal;
- Recommend to USAID key strategic and programmatic options for future agricultural infrastructure related activities in Bangladesh; and
- Assess all completed and ongoing infrastructure work and evaluate:
 - Status of maintenance and repair;
 - Verify completion or level of completion;
 - Evaluate the status of branding and marking; and
 - Provide photos and GPS locations.

The findings and recommendations of the evaluation will inform future designs and implementation of agricultural infrastructure activity and G2G activity. With the exclusion of procurement sensitive sections, USAID intends to disseminate the report widely to stakeholders such as USAID/Bangladesh implementing partners, different GOB agencies, NGOs, other sector-specific donors, and the Development Experience Clearinghouse (DEC).

4. EVALUATION QUESTIONS

As stated above, the evaluation team will assess and determine whether the activity achieved the targets set in the original award, and subsequent amendments. The evaluation team will also provide evidence for the impact of these activities on local communities, building on an existing case study.

1. To what extent has the BAIDP activity been able to meet its overall objective? The response to this question should at a minimum address the following:
 - Status and achievement of rural feeder roads rehabilitation and renovation work as per the target in the agreement (original and amendments).
 - Status and achievement of construction of new and/or improvement of existing rural market centers and collection centers as per the target in the agreement (original and amendments).
 - Status and achievement of the irrigation and drainage systems improvement work as per the target in the agreement (original and amendments).
 - Status of the management and maintenance plans for remaining projects to be completed by December 2019. (Note: Roads and irrigation/drainage systems will be measured by the evaluation team.)
2. How effective have the improved rural roads, market centers and collection centers been in promoting and increasing agricultural trade in the working areas?
3. How effective has BAIDP activity been in improving and/or changing LGED's procurement processes? To what extent have these been institutionalized? Will these remain sustainable beyond the activity period?

4. How effective have the USAID capacity building initiatives been in terms of having LGED being more compliant with standard construction procedures, *e.g.*, environmental compliance/road safety compliance/labor health compliance? To what extent have these been institutionalized? Will these practices remain sustainable beyond the activity period? Please provide a detailed assessment of the LGED capacity development plan.
5. What challenges has BAIDP faced in implementing its activities and how has it responded to those challenges? Are there any recommended alternatives to these approaches?
6. How has LGED's ability to complete the projects on time and within budget changed during the course of this activity? What factors may have delayed completion of these contracts?
7. Has there been an impact on LGED's ability to receive and implement additional activities funded by other donors as a result of BAIDP?
8. How effective has the infrastructure maintenance and repair plan been by BAIDP?
9. What have been some of the major socio-economic benefits of the BAIDP infrastructure for the surrounding communities? Will these benefits sustain beyond the life of the activity? (The contractor should build on an existing case study.)
10. What caused original milestones to be reduced? What caused a three-year extension? Where is LGED on implementing the final projects (as of January 31, 2019)?

5. EVALUATION METHODOLOGY

The evaluation team will develop and propose an evaluation methodology and work plan for review and approval by USAID. The detailed evaluation methodology will include a data collection matrix that will explicitly link evaluation questions to particular data collection approaches and data sources. It is strongly suggested that the evaluation team use a mixed-method approach utilizing both quantitative and qualitative analysis (such as key informant interviews, stakeholder interviews, surveys, and focus group discussions). The evaluation team should develop the best evaluation design methodology in light of the evaluation questions, timeframe, budget, data collection requirements, quality of existing data sources, and potential biases.

The evaluators should utilize several different, yet complementary and interrelated forms of gathering information/data such as those described below. The contractor is expected to utilize its expert judgment and evaluation best practices in selecting which methodological components to include in the evaluation design.

Document Review: Evaluation team members will review documents throughout the evaluation process including the original award, all modifications, program reports, annual procurement plans, quality assurance plans, capacity development plans and relevant studies to ensure that comprehensive and grounded best practices will be identified.

Key Informants Interview (KII): The team will conduct one-on-one interviews with a variety of stakeholders including LGED staff, most notably the Chief Engineer and district-level executive engineers and *upazila* engineers involved in the construction projects. Other relevant GOB ministries and agencies, relevant bi- and multi-lateral development partners, and the Army Corps of Engineers should be interviewed. KIIs would be conducted by administering a semi-structured or structured questionnaire and the evaluation team is expected to provide draft for USAID review prior to start of research.

Expert Opinion Survey: The evaluation team, with approval of USAID, can conduct expert opinion surveys to inform the evaluation.

Focus Group Discussions (FGD): Small groups of 8-10 people will be convened for open discussion, led by a skilled moderator to gather semi-structured qualitative data. The preselected participants will discuss issues and concerns based on a list of key themes drawn up by the moderator. These sessions will encourage free flowing discussion about the activity. The FGD participants should comprise farmers, traders, other community people, and local LGED officials as appropriate.

Mini Survey: This type of survey is small (30-40 participants) and can be performed rapidly in the field without analytical software such as SPSS or a large questionnaire. The sample size is not statistically significant; however, this type of analysis can be used to triangulate with other methods. Because of the small sample size, this type of survey can be implemented quickly when time and resources are constrained.

Social and Economic Analysis: This type of analysis would require a sample survey. Due to time and resource constraints, the survey should be kept to a manageable size since it is neither possible nor desirable to carry out a complete census for social and economic analysis. The team should select a sample that is representative of the beneficiary population and triangulate the findings from this survey with other sources. The consultants would be responsible for designing, testing, and overseeing the work carried out.

Regardless of data collection and analysis methods, USAID requires that qualitative and quantitative data is disaggregated by gender.

Methodological limitations and challenges for this evaluation are expected to include:

- Ensuring that samples of interview sources are sufficient to support evaluation findings;
- Systematic actions to counter any biases in (a) reporting by data collection sources and (b) interpretations of collected data by the evaluation team; and ensuring “actual” results can be measured, which will only be possible if data can be gathered and analyzed beyond respondent perceptions.

All the methodological strengths and weaknesses should be explicitly described in the evaluation report. Prior to the start of the evaluation, the evaluation team shall meet with EG office to refine the evaluation methodology and address any other concerns the EG office may have.

6. EXISTING SOURCES OF INFORMATION

The evaluation team should consult a broad range of background documents apart from project documents provided by USAID/Bangladesh. These should include, but are not limited to, documents such as the Bangladesh 6th & 7th Five Year Plans, Country Investment Plan, Bangladesh Feed the Future Multiyear Strategy as well as other relevant national strategies and policies. USAID, BMEL, and LGED will provide the assessment team with a package of briefing materials, including:

- USAID/Bangladesh Country Development Cooperation Strategy 2011-16 (Public version)
- Global Food Security Strategy (GFSS) Bangladesh Country Plan
- USAID Bangladesh DO 2 PMP
- BAIDP original agreement and modifications, as appropriate
- Technical/Project proposal, LGED Brief-Ag Infrastructure June 2018

- BAIDP MEL plan
- Project quarterly and annual reports, work plans and management reviews developed as part of routine monitoring
- Environmental Mitigation and Monitoring Plan (EMMP), Quality Assurance Plan Roads, DRAFT3
- Technical Specifications for Road & Road Structures, October 2013 (and later documents if available)
- Annual Procurement Plans
- Capacity Development Plan
- Standard Operating Procedures (SOP) for BAIDP LGED
- Summary of Market-Other Infrastructure Projects
- Contacts of LGED
- LGED Strategic Approach
- Training database, module, reports – if any
- M&E/data collection tools
- Year-wise project expenditure
- Project Organogram
- DQA reports
- LGED Capacity Development Action Plan – UNOPS
- Maps of completed, ongoing and planned projects

7. EVALUATION TEAM COMPOSITION

The evaluation team will consist of the following three key personnel.

Team Leader/Evaluation Specialist:

The Team Leader will:

- Have a post graduate degree in engineering, agronomy, economics, agribusiness, urban planning, or an applicable social sciences field.
- S/he will be an international expert and should have a minimum of 10 years of work experience.
- S/he should have demonstrated experience of leading at least two evaluations with similar scope and complexity within the last 5-6 years. Work experience with the host country government managed activities and Army Corps of Engineers is desired, but not required.
- S/he should have extensive experience in conducting quantitative and qualitative evaluations and strong experience in conducting evaluations of infrastructure projects.
- S/he must be familiar with USAID regulations and systems including performance monitoring and evaluation guidance.
- S/he must be familiar with USAID code 22 CFR 216 and ADS 204.
- Experience in international donor development program management is preferred.
- Experience in evaluations and assessments in South Asia is preferred.
- Excellent oral and written skills in English are required Relevant experience in Bangladesh or South Asia is preferred.

The Team Leader will provide overall leadership for the team, and s/he will finalize the evaluation design, coordinate activities, arrange periodic meetings, consolidate individual input from team members, and coordinate the process of assembling the final findings and recommendations into

a high-quality document. S/he will lead the preparation and presentation of the key evaluation findings and recommendations to the USAID/Bangladesh team and major stakeholders.

Agri-Business Expert (Bangladeshi):

The Agri-Business Development Expert will:

- Have a postgraduate degree in economics, business, agriculture economics, agribusiness or social science or a relevant subject.
- S/he will be a Bangladeshi national with minimum 8-10 years of demonstrated experience with agricultural programs and business development in Bangladesh.
- S/he will have strong understanding about agriculture input markets, market information systems, and transportation related to agriculture.
- S/he will have strong knowledge in socio-economic assessments and program evaluation
- Good oral and written skills in English are required.

S/he will participate in team meetings, key informant interviews, group meetings, site visits, and draft the sections of the report relevant to his/her expertise and role in the team. S/he will also participate in presenting the report to USAID or other stakeholders and be responsible for addressing pertinent comments provided by USAID/Bangladesh or other stakeholders.

Civil Engineer (Bangladeshi):

The Civil Engineer will:

- Have a BSc degree in civil engineering, construction technology, or related construction field.
- S/he will be a Bangladeshi national with a minimum of 10 years of experience evaluating quality assurance and whether the engineering systems, materials, equipment, products, and supporting processes conform to technical, safety, workload and customer requirements.
- S/he will have knowledge and skills in implementing and assessing site plans for roads, market centers and collection centers.
- Knowledge of USAID rules, regulations, and procedures in construction sector is desirable.
- S/he will have knowledge in program evaluations and assessments.
- Good oral and written skills in English are required.

S/he will participate in team meetings, key informant interviews, group meetings, site visits, and draft the sections of the report relevant to his/her expertise and role in the team. S/he also will participate in presenting the report to USAID or other stakeholders and be responsible for addressing pertinent comments provided by USAID/BD or other stakeholders.

Conflict of Interest

All evaluation team members will provide a signed statement attesting to a lack of conflict of interest or describing an existing conflict of interest relative to the project being evaluated. USAID will provide the conflict of interest forms. Consultants who have worked with LGED and US Army Corps (USACE) in the last two years will not be considered.

8. SCHEDULE, LEVEL OF EFFORT, AND LOGISTICS

Schedule

Work is to be carried out over a period of approximately ten weeks, beginning in February 2019, with field work completed by the end of February 2019 or as soon as feasible and final report and close out concluding in April 2019. A six-day work week (Saturday-Thursday) is authorized for the evaluation team while in Bangladesh. The evaluation team will submit a work plan as part of the evaluation methodology proposal with timeline and develop a Gantt chart displaying the time periods during which activities occur.

Pre-departure arrangements should include: travel approval; airline tickets; visa; lodging; work facility and vehicle transport arrangements; dates for meetings with USAID/Bangladesh EG staff and key contacts; in-country travel agenda; and accommodations.

Estimated Level of Effort (LOE)

Level of Efforts of Team Members by Task Deliverables			
Task/Deliverable	Duration/LOE Days		
	Team Leader	Agri-business Expert	Civil Engineer
Review background documents and home-based preparation work	6	4	4
Travel to Bangladesh	2	0	0
Team planning meeting and meeting with USAID	2	2	2
Development of Evaluation Work Plan (concurrent with document review and initial meetings)	2	2	2
Development of data collection instruments	7	4	4
Information and data collection: Includes interviews with key informants (stakeholders and USAID staff) and site visits	20	20	20
Discussion, analysis, and preliminary draft evaluation report in country including discussion with USAID	10	10	10
Debrief meetings with USAID (preliminary draft report due to USAID)	1	1	1
Depart Bangladesh/Travel to U.S.	2	0	0
Finalization of draft and internal review (out of country)	7	4	4
Team revises draft report and submits final to USAID (out of country)	5	2	2
Total Estimated LOE	64	49	49

Logistics

USAID/Bangladesh's BMEL activity will be responsible for all offshore and in-country administrative and logistical support, including identification and fielding appropriate local staff. The BMEL team will arrange and schedule meetings, international and local travel, hotel bookings, briefing with stakeholders' security officials, working/office spaces, computers, printing, and photocopying.

BMEL will also be responsible for hiring a Note Taker who will assist the team in conducting FGDs, KIIs, mini surveys, *etc.* by taking notes as appropriate. In addition, if required by the evaluation team's methodology, BMEL will hire a local research/survey firm to conduct a survey in Bangladesh.

IX. DELIVERABLES

All deliverables are internal to USAID and the evaluation team unless otherwise instructed by USAID. Evaluation deliverables are indicated below:

Work Plan: Prior to initiation of the evaluation activities, the evaluation team will provide a detailed initial work plan to the BMEL COR. The BMEL COR will provide any necessary feedback or edits to the work plan, after which the evaluation team will have three days to submit a final version of the document. The initial work plan will include a task timeline, a description of the methodology to answer each evaluation question, team responsibilities, document review process, key informant and stakeholder meetings, site visits, survey implementation (if applicable), data analysis, travel time, debriefings (for USAID, implementing partner, and relevant GOB officials), and draft and final report writing. The work plan will be submitted to the BMEL COR at USAID/Bangladesh for approval no later than the fifth business day after the evaluation team leader arrives in Bangladesh.

In-briefing Meeting: The evaluation team will meet with USAID/Bangladesh within two working days of the international team member's arrival in Bangladesh.

Evaluation Design Matrix: The matrix is a table that lists each evaluation question and the corresponding information sought information sources, data analysis methods, and limitations. The matrix should be finalized and shared with USAID/Bangladesh as part of the Work Plan. It should also be included as an annex in the evaluation report.

Data Collection Instruments: The evaluation team will develop and submit data collection instruments to USAID/Bangladesh as part of the Work Plan and included as an annex in the evaluation report.

Regular Updates: The Evaluation Team Leader will brief the BMEL COR, the BMEL COP, and any other designated evaluation POC on progress with the evaluation on at least a weekly basis, by electronic communication. Any delays must be quickly communicated to USAID/Bangladesh as early as possible to allow quick resolution and to minimize any disruptions to the evaluation. Emerging opportunities to strengthen the evaluation should also be discussed with the COR as they arise.

Preliminary Draft Evaluation Report: The evaluation team will submit a Preliminary Draft Evaluation Report to the BMEL COR three working days before the Mission debriefing. Within two working days after receipt, USAID staff will provide preliminary comments prior to the Mission debriefing.

Debriefing with USAID: The evaluation team will present the major evaluation findings in person to USAID/Bangladesh through a PowerPoint presentation before the team's departure from Bangladesh. The debriefing will include a discussion of achievements and issues as well as any preliminary findings. The team will consider USAID comments and incorporate them as appropriate in the Draft Evaluation Report.

Draft Evaluation Report: A draft report on the findings and recommendations should be submitted to USAID/Bangladesh within 10 business days after departure of the international team member from Bangladesh. The written report should clearly describe and present findings, conclusions, and recommendations. The draft report must be of high quality with no grammatical errors or typos. A report is high quality when it represents a thoughtful, well-researched, and well-organized effort to objectively evaluate what worked in the project, what did not and why. The

draft report must have well-constructed sentences that are presented in a way that clearly presents findings, conclusions and recommendations. The report should answer all the evaluation questions and the structure of the report should make it clear how the questions were answered. The draft report must meet the criteria set forth under the Final Report section below. USAID will provide comments on the draft report within ten working days of submission.

Final Evaluation Report: The evaluation team will submit the Final Evaluation Report that incorporates Mission comments and suggestions no later than ten working days after USAID/Bangladesh provides written comments on the Draft Evaluation report. The format of the final report is provided below. The report will be submitted electronically in English.

The final report should meet the following criteria to ensure the quality of the report:

- The evaluation report should represent a thoughtful, well-researched and well-organized effort to objectively evaluate what worked in the project, what did not and why.
- Evaluation report shall address all evaluation questions included in the scope of work.
- The evaluation report should include the scope of work as an annex. All modifications to the scope of work, whether in technical requirements, evaluation questions, evaluation team composition, methodology, or timeline need to be agreed upon in writing by the BMEL COR.
- Evaluation methodology shall be explained in detail and all tools used in conducting the evaluation such as questionnaires, checklists, and discussion guides will be included in an Annex in the final report.
- Limitations to the evaluation shall be disclosed in the report, with particular attention to the limitations associated with the evaluation methodology (selection bias, recall bias, *etc.*).
- Evaluation findings should be based on an analysis of collected data. Limitations and assumptions associated with the collection, analysis, and interpretation of the data and analysis must be clearly articulated.
- Findings should be specific, concise, and supported by strong quantitative or qualitative evidence.
- Sources of information need to be properly identified and listed in an annex.
- Recommendations need to be supported by a specific set of findings.
- Recommendations should be action-oriented, practical, and specific, with defined responsibility for the action.

X. REPORTING REQUIREMENTS

The total pages of the final report, excluding Table of Contents, acronyms, references, and annexes, should be no more than 30 pages. The following content (and suggested length) should be included in the report:

- **Table of Contents**
- **List of Acronyms**
- **Executive Summary** – concisely state the project purpose and background, key evaluation questions, methods, most salient findings and recommendations (2-3 pp.);
- **Introduction** – country context, including a summary of any relevant history, demography, socio-economic status, *etc.* (1 p.);
- **The Development Problem and USAID’s Response** – brief overview of the development problem and USAID’s strategic response, including design and implementation of the AIP

project and any previous USAID projects implemented in response to the problem, (2-3 pp.);

- **Purpose of the Evaluation** – purpose, audience, and synopsis of task (1 p.);
- **Evaluation Methodology** – describe evaluation and analytical methods, including strengths, assumptions, constraints, and data gaps (1-2 pp.);
- **Findings and Conclusions** – describe and analyze findings for each evaluation question using graphs, figures, and tables, as applicable, and include data quality and data sources, issues, and outcomes. Conclusions should be credible and should be supported by the findings (12-15 pp.);
- **Recommendations** – prioritized for each evaluation question; should be separate from conclusions and be supported by clearly defined set of findings and conclusions. Include recommendations for future project implementation or relevant program designs (2-3 pp.);
- **Lessons Learned** – provide a brief of key technical and/or administrative lessons on what has worked, not worked, and why for future project or program designs (2-3 pp.);
- **Annexes** – to include statement of work, documents reviewed, bibliographical documentation, evaluation methods, data generated from the evaluation, tools used, interview lists, meetings, FGDs, surveys, and tables. The Evaluation Design Matrix must be presented as an annex to the report. GIS maps and photos of all the infrastructure work assessed must be included with appropriate labels and captions. Annexes should be succinct, pertinent, and readable. Annexes should also include, if necessary, a statement of significant unresolved differences of opinion by funders, implementers, or members of the evaluation team on any of the findings or recommendations.

The report format should be restricted to Microsoft products and 12-point type font should be used throughout the body of the report, with page margins one-inch top/bottom and left/right.

The final report will be edited and formatted by the evaluation team and provided to USAID/Bangladesh five working days after the Mission has reviewed the content and approved the final revised version of the report.

A second, public version of the evaluation report, excluding any potentially procurement-sensitive or host country-sensitive information, will be submitted (also electronically, in English) to the Development Experience Clearing (DEC) and disseminated among implementing partners and other stakeholders within ten working days following approval from USAID.

All quantitative data, if gathered, should be 1) provided in an electronic file in an easily readable format; 2) organized and fully documented for use by those not fully familiar with the project or the evaluation; 3) owned by USAID and made available to the public barring rare exceptions and excluding procurement-sensitive information. A thumb drive with all the data could be provided to the BMEL COR.

XII. Budget

To be submitted by the Contractor for USAID approval.

ANNEX 2: EVALUATION DESIGN MATRIX

Evaluation Questions	Indicators/Sub-Topics	Data Sources	Data Collection Tools	Data Analysis Methods
EQ 1: To what extent has the BAIDP activity been able to meet its overall objective?				
To what extent has the BAIDP activity been able to meet its overall objective?	Increased Farmer Access to Markets and Improve Agricultural Production Number of rural households benefiting directly from USG interventions	FTF Strategy BAIDP sites baseline information BAIDP Annual Surveys USAID FTF projects UNOPS documents KIIs and FGDs with USAID, LGED, USACE, beneficiaries, field visits Mini-survey	Desk review, KIIs, FGDs, mini-survey	Analysis of data focused on review of objectives, results, recommendations for future planning, and implementation. Analysis of qualitative data will involve coding and grouping responses and pattern identification, with data gender disaggregated.
Status and achievement of rural feeder roads rehabilitation and renovation work as per the target in the agreement (original and amendments)	Kilometers of roads improved or constructed (M&E Plan) 140 km roads in Agreement 2013; amended to 100 km in 2016 USACE Quality Certifications Cost per km comparisons to market, ADB, and other donors involved	Activity Agreement and Amendments LGED Progress Reports USAID, USACE, LGED Milestone Reports, IOs USAID, LGED, field visits in selected <i>upazilas</i> KII with contractors Audit reports (if available) USAID project tracker DQA reports IOs	Desk review including Technical Specification of Roads and Road Structures, MEL Plan, KIIs, FGDs, observations captured in writing or photographs	Analysis of data focused on visual evidence from field visits and written reports. Analysis will involve verification of reported evidence with actual evidence collected in the field, comparison of targets versus achievements, review of project milestones, and analysis of data to understand results.

Evaluation Questions	Indicators/Sub-Topics	Data Sources	Data Collection Tools	Data Analysis Methods
<p>Status and achievement of construction of new and/or improvement of existing rural MCs and CCs as per the target in the agreement (original and amendments)</p>	<p>40 MCs in Agreement 2013, amended to 10 in Amendment 2016; 40 CCs in Agreement 2013, amended to 10 in Amendment 2016</p>	<p>USAID, LGED, field visits in selected <i>upazilas</i> Activity Agreement and Amendments BAIDP M&E Plan LGED Progress Reports USAID, USACE, LGED Milestone Reports, IOs USAID, LGED, field visits in selected <i>upazilas</i> KII with contractors Audit reports (if available) USAID project tracker IOs</p>	<p>Desk review, MEL Plan, KIIs, FGDs, observations captured in writing or photographs</p>	<p>Analysis of data focused on visual evidence from field visits and written reports. Analysis will involve verification of reported evidence with actual evidence collected in the field, comparison of targets versus achievements, review of project milestones, and analysis of data to understand results.</p>
<p>Status and achievement of the irrigation and drainage systems improvement work as per the target in the agreement (original and amendments)</p>	<p>2,000 ha in the 2013 Agreement, reduced to 1,000 ha in the 2016 Amendment Quality certificates</p>	<p>LGED Reports USAID, LGED, field visits in selected <i>upazilas</i> Activity Agreement and Amendments BAIDP M&E Plan LGED Progress Reports USAID, USACE, LGED Milestone Reports, IOs USAID, LGED, field visits in selected <i>upazilas</i> KII with contractors Audit reports IOs</p>	<p>Desk review, MEL Plan, KIIs, FGDs, observations captured in writing or photographs</p>	<p>Analysis of data focused on visual evidence from field visits and written reports. Analysis will involve verification of reported evidence with actual evidence collected in the field, comparison of targets versus achievements, review of project milestones, and analysis of data to understand results.</p>

Evaluation Questions	Indicators/Sub-Topics	Data Sources	Data Collection Tools	Data Analysis Methods
<p>Status of the management and maintenance plans for remaining projects to be completed by December 2019. (Note: Roads and irrigation/drainage systems will be measured by the ET.)</p>	<p>Projects in operational conditions and regularly maintained</p>	<p>USAID, LGED at national and regional levels</p> <p>Activity Agreement and Amendments</p> <p>BAIDP M&E Plan</p> <p>LGED Progress Reports</p> <p>USAID, USACE, LGED Milestone Reports, IOs</p> <p>USAID, LGED, field visits in selected <i>upazilas</i></p> <p>KII with contractors</p> <p>Maintenance reports</p>	<p>Desk review, MEL Plan, KIIs, observations captured in writing or photographs</p>	<p>Analysis of data focused on visual evidence from field visits and written reports. Analysis will involve verification of reported evidence with actual evidence collected in the field, comparison of targets versus achievements, review of project milestones, and analysis of data to understand results.</p>
<p>EQ 2: How effective have the improved rural roads, MCs, and CCs been in promoting and increasing agricultural trade in the working areas?</p>				
<p>How effective have the improved rural roads, MCs, and CCs been in promoting and increasing agricultural trade in the working areas?</p>	<p>Number of firms (excluding farms) or civil society organizations (CSOs) engaged in agricultural and food security-related manufacturing and services now operating more profitably (at or above cost) because of USG assistance</p>	<p>ACME Case Study 2019</p> <p>USAID, LGED at national and regional level, beneficiaries, field visits</p> <p>Donor reports</p>	<p>Desk review, KIIs, FGDs, MEL Plan, mini-survey</p>	<p>Analysis of data focused on review of objectives, results, recommendations for future planning, and implementation. Analysis of qualitative data will involve coding and grouping responses and pattern identification, with data gender disaggregated. Descriptive statistical analysis of mini-survey responses.</p>

Evaluation Questions	Indicators/Sub-Topics	Data Sources	Data Collection Tools	Data Analysis Methods
EQ 3: How effective has the BAIDP activity been in improving and/or changing LGED's procurement processes? To what extent have these been institutionalized? Will these remain sustainable beyond the activity period?				
How effective has the BAIDP activity been in improving and/or changing LGED's procurement processes? To what extent have these been institutionalized?	Bangladesh Procurement Laws Procurement standards Procurement procedures in place and used Evidence of fair, transparent competition and quality/cost-effective offers Procurement training plans and reports Number of individuals who have received USG supported training	USAID, LGED at national and regional level, project documents Legislation Manuals Procedures documents UNOPS documents KII with relevant LGED officials	Desk review including Annual Procurement Plans, KIIs, FGDs, MEL Plan, mini-survey	Analysis of data focused on review of objectives, results, recommendations for future planning, and implementation. Analysis of qualitative data will involve coding and grouping responses and pattern identification, with data gender disaggregated. Descriptive statistical analysis of mini-survey responses.
Will these remain sustainable beyond the activity period?	Procurement plans Procurement procedures Procurement manuals Contractor feedback	USAID, LGED at national and regional level, project documents Donor reports KII with relevant LGED officials	Desk review of all relevant documents, KIIs	Analysis of such data will focus on triangulating KIIs' perspectives on the issue and indicators or proxies that point toward potential sustainability.
Will these practices remain sustainable beyond the activity period? Please provide a detailed assessment of the LGED capacity development plan.	Adequacy of staffing levels Compliance training in place Resources available to enforce compliance	USAID, LGED at national and regional level, project documents	Desk review of all relevant documents, KIIs	Analysis of such data will focus on triangulating KIIs' perspectives on the issue and indicators or proxies that point toward potential sustainability.

Evaluation Questions	Indicators/Sub-Topics	Data Sources	Data Collection Tools	Data Analysis Methods
EQ 4: How effective have the USAID capacity-building initiatives been in terms of having LGED being more compliant with standard construction procedures, e.g., environmental compliance/road safety compliance/labor health compliance? To what extent have these been institutionalized? Will these practices remain sustainable beyond the activity period? Please provide a detailed assessment of the LGED CDP.				
How effective have the USAID capacity-building initiatives been in terms of having LGED being more compliant with standard construction procedures, e.g., environmental compliance/road safety compliance/labor health compliance? To what extent have these been institutionalized?	LGED and local IP staff awareness of environmental compliance/road safety compliance/labor health compliance standards Degree of compliance of physically observed roads USACE compliance assessments Number of individuals who have received USG supported training	USAID, LGED at national and regional level, project documents Milestone reports Progress reports Environment compliance reports KII interviews (including laborers)	Desk review including Capacity Development Plan, EMMP, Quality Assurance Plan Roads, DRAFT3, KIIs, FGDs, MEL Plan, mini-survey	Analysis of data focused on review of objectives, results, recommendations for future planning, and implementation. Analysis of qualitative data will involve coding and grouping responses and pattern identification. Data will be disaggregated by gender. Descriptive statistical analysis of mini-survey responses.
EQ 5: What challenges has BAIDP faced in implementing its activities and how has it responded to those challenges? Are there any recommended alternatives to these approaches?				
What challenges has BAIDP faced in implementing its activities and how has it responded to those challenges? Are there any recommended alternatives to these approaches?	Implementation timeliness Resources use Response to delays Response to non-compliance Budget and expenditure management Recommendations to be developed in the Evaluation Report	USAID, LGED at national and regional level, project documents Activity Agreement and Amendments BAIDP M&E Plan LGED Progress Reports USAID, USACE, LGED Milestone Reports, IOs USAID, LGED, field visits in selected <i>upazilas</i>	Desk review of all relevant documents, KIIs, FGDs	Analysis of data focused on review of objectives, results, recommendations for future planning, and implementation. Analysis of qualitative data will involve coding and grouping responses and pattern identification, with data gender disaggregated.

Evaluation Questions	Indicators/Sub-Topics	Data Sources	Data Collection Tools	Data Analysis Methods
EQ 6: How has LGED's ability to complete the projects on time and within budget changed during the course of this activity? What factors may have delayed completion of these contracts?				
How has LGED's ability to complete the projects on time and within budget changed during the course of this activity? What factors may have delayed completion of these contracts?	Staff qualifications Clarity of procedures LGED capacity to manage multiple donors' conditional support Quality of contractors Competition degree	USAID, LGED at national and regional level, project documents Progress reports USACE reports and KIIs	Desk review of all relevant documents, KIIs	Analysis of data focused on review of objectives, results, recommendations for future planning, and implementation. Analysis of qualitative data will involve coding and grouping responses and pattern identification, with data gender disaggregated.
EQ 7: Has there been an impact on LGED's ability to receive and implement additional activities funded by other donors as a result of BAIDP?				
Has there been an impact on LGED's ability to receive and implement additional activities funded by other donors as a result of BAIDP?	LGED progress on GOB, ADB, Department for International Development (DFID) and other donors' projects	USAID, LGED, project documents Donor reports	Desk review of all relevant documents, KIIs	Analysis of data focused on review of objectives, results, recommendations for future planning, and implementation. Analysis of qualitative data will involve coding and grouping responses and pattern identification, with data gender disaggregated.
EQ 8: How effective has the infrastructure maintenance and repair plan been by BAIDP?				
How effective has the infrastructure maintenance and repair plan been by BAIDP?	Physical condition of the infrastructure objects Adequacy of planning and resources Regularity of maintenance Compliance with USACE standards	USAID, LGED at national and regional level, project documents	Desk review of all relevant documents, KIIs, FGDs	Analysis of data focused on review of objectives, results, recommendations for future planning, and implementation. Analysis of qualitative data will involve coding and grouping responses and pattern identification, with data gender disaggregated.

Evaluation Questions	Indicators/Sub-Topics	Data Sources	Data Collection Tools	Data Analysis Methods
EQ 9: What have been some of the major socio-economic benefits of the BAIDP infrastructure for the surrounding communities? Will these benefits sustain beyond the life of the activity? (The contractor should build on an existing case study.)				
What have been some of the major socio-economic benefits of the BAIDP infrastructure for the surrounding communities? Will these benefits sustain beyond the life of the activity? (The contractor should build on an existing case study.)	Food availability Incomes Sales Improved access to schools, health centers Access to banks and financial institutions Social services accessibility	ACME Case Study 2019 USAID, LGED at national and regional level, project documents	Desk review of existing studies and all relevant documents, KIIs, FGDs	Analysis of data will be used to detail an existing case study. Case study analysis will account for potential differences between women and men.
EQ 10: What caused original milestones to be reduced? What caused a three-year extension? Where is LGED on implementing the final projects (as of January 31, 2019)?				
What caused original milestones to be reduced? What caused a three-year extension? Where is LGED on implementing the final projects (as of January 31, 2019)?	Reports on progress to date Projections/plans till the end of 2019 Rate of implementation during active years (2016-2018)	USAID, LGED at national and regional level, project documents KII with USAID project manager	Desk review of all relevant documents, KIIs, MEL Plan	Analysis of data will focus on planning, critical assumptions, and natural or man-made events that could have affected change in milestones.

ANNEX 3: EVALUATION TOOLS

Questionnaire for KII – *Upazila Nirbahi Officer (UNO)/Upazlia Chairman*

Names and Position/Occupation of Interviewees	Name of Institution and Contacts	# Male/Female Interviewees	Date of Interview	Location of Interview
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Name of Interviewer/s	Name of Note Taker	Interview Start Time	Interview End Time
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Thank you for participating in this interview. My name is _____ and I am a project evaluator for the United States Agency for International Development (USAID) in Bangladesh.

Our team is conducting an independent evaluation of the USAID roads project, which was launched in 2013 and will be completed in 2019. We are here today to talk to you as someone familiar with the project. Your views and the views of other respondents will help inform our recommendations about how future projects can learn from this project.

We have prepared a few questions to guide our discussion, which will take approximately 1 hour.

Your participation in this interview is voluntary. We encourage you to be as candid as possible. Your answers will be kept confidential; we will not use your name or title in our report. If there are any questions that you prefer not to answer just let us know and we will skip them.

We would like to audio record this discussion to ensure that we accurately capture your views. This recording will be kept confidential. Do we have your consent to record?

Do you have any questions before we begin?

- Are you aware of the USAID roads project?
- Has the project had any impact on local economic development in terms of road renovation, establishment of market centers (MCs), and collection centers (CCs)?
- Has the project been beneficial for the transportation system in the locality?
- Has the project had an impact on agricultural market development and access to markets and irrigation systems?
- Have you visited any of the project sites? Your impressions?
- What is your opinion of the USAID roads project and its impact on local economic development?

Questionnaire for KII – Upazila Engineer

Names and Position/Occupation of Interviewees	Name of Institution and Contacts	# Male/Female Interviewees	Date of Interview	Location of Interview
.

Name of Interviewer/s	Name of Note Taker	Interview Start Time	Interview End Time
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Thank you for participating in this interview. My name is _____ and I am a project evaluator for the United States Agency for International Development (USAID) in Bangladesh. Our team is conducting an independent evaluation of the USAID roads project, which was launched in 2013 and will be completed in 2019. We are here today to talk to you as someone familiar with the project. Your views and the views of other respondents will help inform our recommendations about how future projects can learn from the project. We have prepared a few questions to guide our discussion, which will take approximately 1 hour.

Your participation in this interview is voluntary. We encourage you to be as candid as possible. Your answers will be kept confidential; we will not use your name or title in our report. If there are any questions that you prefer not to answer just let us know and we will skip them. We would like to audio record this discussion to ensure that we accurately capture your views. This recording will be kept confidential. Do we have your consent to record? Do you have any questions before we begin?

- Are you aware of the USAID roads project?
- How do you select locations for roads, market centers (MCs), or collection centers (CCs)?
- Does the project have any impact on local economic development in terms of road renovation, establishment of MCs and CCs?
- What are the operating procedures for CCs and MCs? Are there any committees, open every day, etc.?
- Are the CCs and/or MCs connected with utility services, e.g., electricity and water and, if so, who covers the cost?
- How are the operations of CCs and/or MCs managed as related to maintenance or repairing work? Managed financially (levies, fees, sales commissions/level of utilization)?
- What is the impact of renovated roads, CCs, and/or MCs on local markets, transportation, education health, agriculture, trade, and other types of business?
- What impact have BAIDP construction projects had on women and disadvantaged people—people with disabilities?
- What are the opportunities and challenges of the intervention for development of infrastructure projects, including roads, MCs, and CCs?
- Does the project beneficial the transportation system in the locality?
- Does the project have an impact on agricultural market development and access to market and irrigation systems?
- Have you had a chance to visit any of the project sites? Impressions?
- What is your opinion of the USAID roads project and its impact on local economic development?

Questionnaire for KII - Transporters

Names and Position/Occupation of Interviewees	Name of Institution and Contacts	# Male/Female Interviewees	Date of Interview	Location of Interview
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Name of Interviewer/s	Name of Note Taker	Interview Start Time	Interview End Time
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Thank you for participating in this interview. My name is _____ and I am a project evaluator for the United States Agency for International Development (USAID) in Bangladesh.

Our team is conducting an independent evaluation of the USAID roads project, which was launched in 2013 and will be completed in 2019. We are here today to talk to you as someone familiar with the project. Your views and the views of other respondents will help inform our recommendations about how future projects can learn from the project.

We have prepared a few questions to guide our discussion, which will take approximately 1 hour.

Your participation in this interview is voluntary. We encourage you to be as candid as possible. Your answers will be kept confidential; we will not use your name or title in our report. If there are any questions that you prefer not to answer just let us know and we will skip them.

We would like to audio record this discussion to ensure that we accurately capture your views. This recording will be kept confidential. Do we have your consent to record?

Do you have any questions before we begin?

Questions for Transporters:

- How long have you been driving vehicles on this road?
- What type of vehicles run most frequently on this road?
- What types of passengers/goods do you usually carry?
- Do you think the number of vehicles using this road is increasing?
- Do you know when the road was improved?
- Has the road improvement been beneficial for you?
- Before renovation of this road, were you engaged in transportation or another line of work?
- Do you think your income has been raised due to the improved road? If yes, what percentage per month?
- Do the farmers typically carry their own agricultural products?
- Do you think the cost of transportation for farmers was reduced prior to this road being renovated? If so, how?
- Do you think students are going to school due to this road and transportation options?
- Do you think people are going to health centers more easily after road renovation?
- Has the cost of transportation been reduced due to the improved road conditions? If so, how much (%)?

Questionnaire for KII – FTF Project Implementing Partners

Names and Position/Occupation of Interviewees	Name of Institution and Contacts	# Male/Female Interviewees	Date of Interview	Location of Interview
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Name of Interviewer/s	Name of Note Taker	Interview Start Time	Interview End Time
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Thank you for participating in this interview. My name is _____ and I am a project evaluator for the United States Agency for International Development (USAID) in Bangladesh.

Our team is conducting an independent evaluation of the Bangladesh Feed the Future Agriculture Infrastructure Development (BAIDP) project, which was launched in 2013 and will be completed in 2019. We are here today to talk to you as someone familiar with the project. Your views and the views of other respondents will help inform our recommendations about how future projects can learn from BAIDP. We have prepared a few questions to guide our discussion, which will take approximately 1 hour.

Your participation in this interview is voluntary. We encourage you to be as candid as possible. Your answers will be kept confidential; we will not use your name or title in our report. If there are any questions that you prefer not to answer just let us know and we will skip them. We would like to audio record this discussion to ensure that we accurately capture your views. This recording will be kept confidential. Do we have your consent to record? Do you have any questions before we begin?

- What is the name of your project?
- When did the project start and end?
- Are you aware of BAIDP, an FTF project of USAID working in this area with LGED?
- Have seen any roads or collection centers (CCs) or market centers (MCs) constructed by the BAIDP project?
- If so, have you visited any?
- Based upon your knowledge of the BAIDP project, what benefits would you believe the project can produce? Income, livelihoods, agricultural production, health, education, any others?
- Do you have any suggestions as to where BAIDP should build a CC/MC or renovate a road?
- Have you been present at any of the BAIDP project meetings?
- Does your project work in the BAIDP areas (Jashore, Jheniadha)

Any Suggestions? Comments?

Questionnaires for KIIs – Department of Agricultural Extension (DAE)

Names and Position/Occupation of Interviewees	Name of Institution and Contacts	# Male/Female Interviewees	Date of Interview	Location of Interview
.

Name of Interviewer/s	Name of Note Taker	Interview Start Time	Interview End Time
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Thank you for participating in this interview. My name is _____ and I am a project evaluator for the United States Agency for International Development (USAID) in Bangladesh.

Our team is conducting an independent evaluation of the Bangladesh Feed the Future Agriculture Infrastructure Development (BAIDP) project, which was launched in 2013 and will be completed in 2019. We are here today to talk to you as someone familiar with the project. Your views and the views of other respondents will help inform our recommendations about how future projects can learn from BAIDP. We have prepared a few questions to guide our discussion, which will take approximately 1 hour.

Your participation in this interview is voluntary. We encourage you to be as candid as possible. Your answers will be kept confidential; we will not use your name or title in our report. If there are any questions that you prefer not to answer just let us know and we will skip them. We would like to audio record this discussion to ensure that we accurately capture your views. This recording will be kept confidential. Do we have your consent to record? Do you have any questions before we begin?

- What are the major crops grown in this area?
- Which crops are most commercially valuable to the farmers?
- How are crops marketed now?
- Are crops being marketed any differently now versus three years ago?
- How are farmers mitigating irrigation requirements during dry season?
- Has there been any change in the past three years in irrigation requirement mitigation?
- Have the roads in this area been renovated by USAID?
- If so, are the renovated roads beneficial for the farmers?
- Can you tell us about the impact of renovated roads on market access for farmers?
- What was the scenario before road renovation and now? Examples?
- Do farmers have access to market centers (MCs)?
- If so, how do farmers and traders benefit from MCs?
- Have you visited any MC or CC in this area?
- If so, are those facilities used by the local communities and farmers?
- Do the CCs work properly and for the benefit of farmers?
- Do you think farmers have managed to reduce transportation costs using renovated roads and MCs and CCs?
- Have farmers reduced wastage of crops due to a good road and availability of transport facilities?

- Are the locations of MCs and CCs accessible to local farmers and traders?
- Have improved roads had any impact on transportation costs? If so, how?
- Other than farmers and traders, who else might benefit from renovated roads, MCs, and/or CCs?
- What is the impact on markets, transportation, education, health, agriculture, trade, business, others?
- What impact have renovated roads had upon women disadvantaged people—people with disabilities?

Questionnaire for KII – UNOPS

Thank you for participating in this interview. My name is _____ and I am a project evaluator for the United States Agency for International Development (USAID) in Bangladesh.

Our team is conducting an independent evaluation of the Bangladesh Feed the Future Agriculture Infrastructure Development (BAIDP) project, which was launched in 2013 and will be completed in 2019. We are here today to talk to you as someone familiar with the project. Your views and the views of other respondents will help inform our recommendations about how future projects can learn from BAIDP.

We have prepared a few questions to guide our discussion, which will take approximately 1 hour.

Your participation in this interview is voluntary. We encourage you to be as candid as possible. Your answers will be kept confidential; we will not use your name or title in our report. If there are any questions that you prefer not to answer just let us know and we will skip them.

We would like to audio record this discussion to ensure that we accurately capture your views. This recording will be kept confidential. Do we have your consent to record?

Do you have any questions before we begin?

- What was the nature of cooperation between the USAID and UNOPS within the OCD/BAIDP project? (OCD = organizational capacity development)
- How would you describe the cooperation between UNOPS and USAID, technically, procedurally, etc.? Successes? Challenges?
- How many organizations did UNOPS support within the OCD Project besides LGED? Briefly describe the nature of each.
- How was the OCD organized with LGED? Was it incorporated in their internal processes/policies/procedures? Or standalone?
- How was the LGED Capacity Plan 2014 developed? Participatory?
- Who monitors the Plan's implementation and adjustment?
- What were the key challenges/successes of LGED OCD?
- Can you briefly describe the budget management, policy capacity, implementation and procurement reform, monitoring and evaluation, innovation, science and technology, and talent management capacities of LGED?
- What should be done to improve LGED capacity in the future, including managing donor funds/projects?
- What are the lessons learned through OCD of LGED and other organizations you supported?

FGD with Farmers

Names and Position/Occupation of Interviewees	Name of Institution and Contacts	# Male/Female Interviewees	Date of Interview	Location of Interview
.

Name of Interviewer/s	Name of Note Taker	Start Time	End Time
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Thank you for participating in this interview. My name is _____ and I am a project evaluator for the United States Agency for International Development (USAID) in Bangladesh. Our team is conducting an independent evaluation of the USAID roads project, which was launched in 2013 and will be completed in 2019. We are here today to talk to you as someone familiar with the project. Your views will help inform our recommendations about how future projects can learn from the project.

We have prepared a few questions to guide our discussion, which will take approximately 1 hour. Your participation in this interview is voluntary. We encourage you to be as candid as possible. Your answers will be kept confidential; we will not use your name or title in our report. If there are any questions that you prefer not to answer just let us know and we will skip them. We would like to audio record this discussion to ensure that we accurately capture your views. This recording will be kept confidential. Do we have your consent to record? Do you have any questions before we begin?

- How long you have been living in this area?
- What types of crops you are producing?
- Do you remember when this road/MC/CC was repaired?
- Have you benefited from the improved road and MC/CC?
- How frequently (weekly) do you use this road and MC/CC?
- Do you get adequate numbers of the traders purchasing produce here from MC/CC?
- Do you have any complaints about/problems with this road and MC/CC?
- What are the opportunities you see to use this road and MC/CC?
- Do you get benefits from the improved road? If so, what are those benefits?
- Does the road connection reduce any transportation cost? If yes, how much (%)?
- How do you travel to purchase daily essentials? Now and before.
- How far you go for purchasing daily essentials (km)? Now and before.
- What is your transportation cost to visit the nearby market? Now and before.
- How much time is required to reach the market and return back home? Now and before.
- Where do you sell your products? MCs/CCs? Now and before.
 - How frequently do you visit the following facilities (weekly)? Now and before.
Health centers; Agriculture department; Markets; Relatives; Others.
- What were the problems you used to face before when the roads were unpaved, and the CC was in its dilapidated condition?
- What are the benefits of the improved roads and MC and/or CCs that you enjoy now?

Questionnaire for FGD/KII – Agribusiness Traders

Names and Position/Occupation of Interviewees	Name of Institution and Contacts	# Male/Female Interviewees	Date of Interview	Location of Interview
.

Name of Interviewer/s	Name of Note Taker	Interview Start Time	Interview End Time
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Thank you for participating in this interview. My name is _____ and I am a project evaluator for the United States Agency for International Development (USAID) in Bangladesh.

Our team is conducting an independent evaluation of the USAID roads project, which was launched in 2013 and will be completed in 2019. We are here today to talk to you as someone familiar with the project. Your views and the views of other respondents will help inform our recommendations about how future projects can learn from the project.

We have prepared a few questions to guide our discussion, which will take approximately 1 hour. Your participation in this interview is voluntary. We encourage you to be as candid as possible. Your answers will be kept confidential; we will not use your name or title in our report. If there are any questions that you prefer not to answer just let us know and we will skip them. We would like to audio record this discussion to ensure that we accurately capture your views. This recording will be kept confidential. Do we have your consent to record? Do you have any questions before we begin?

- How long you have been doing business in this area?
- What type of trading or business you do here?
- Do you remember when this road/market center (MC)/collection center (CC) was repaired?
- Have you benefited from the improved road and MC/CC?
- How frequently (weekly) do you use this road and MC/CC?
- Do you get adequate numbers of farmers bringing produce here to sell in the MC/CC?
- Do you have any complaints about/problems with this road and MC/CC??
- What are the opportunities you see concerning this road and MC/CC??
- Do you get benefits from the improved road? What are those benefits?
- Does the road connection reduce any transportation cost? If yes, how much (%)?
- What were the problems you used to face before when the roads were unpaved, and the CC was in its dilapidated condition?
- What are the benefits of the improved roads and MCs/CCs that you enjoy now?
- Do you get an adequate number of the farmers and next level buyers in this MC/CC?
- Did you trade large quantities prior to the road being improved or the developments of a MC or CC?
- Are the number of farmers and other traders increasing?
- Do the traders purchase produce/products directly from farmers?
- Do you have more buyers then before?
- Do you make more profit then earlier?

- Do you get more fresh produce than earlier direct from Farmers?
- What type of vehicle you use for transportation? Motor, auto, others?
- Is your transportation cost reduced than before the improved road, MC, or CC?
- What is your distance for purchase and also for sale?
- Has the percentage of waste produce been reduced due to the improved road or CC/MC?
If so, how much?

FGD with Local Community Members

Participants:

- Local community people – Farmers (male and female): 4-5
- Transporters – Owner of the vehicle and driver: 2
- Market actors – Traders, vendors, market committee member: 2-3
- School teacher: 1
- Consumers: 2-3
- Total 8-10

Place: Convenient place, *e.g.*, school, building, tea stall

Duration: Around 60 minutes

Tools/Instruments: Checklist/Guideline/Questionnaire

Number of FGDs per Day: One FGD in each day

Total FGD: 15 (10 will be along with roads) 5 for Market Centers and Collection Centers

Sampling Method: Purposive sampling techniques

Contractor for Road, Markets, and Collection Centers

Mini Survey:

- Will start before FGD facilitation with same participants, one-by-one individual questions
- Target respondents: 100

Representative from other departments:

- UNO or representative
- DAE representative – UAO, UAEO
- Local Elected representative – *Upazila* Chairman, UP Chairman or Members
- Any Association Representative
- Market Committee representative
- Collection Center Committee member (if)
- School teacher in the locality (if)
- Health department
- Education department
- Union Parishad Chairman or Representative
- Transport Vehicle owner or if any association representative
- Drivers of the transports
- Contractors of infrastructures construction
- Other project, donor representative
- Others

FGD with Consumers of the MC and CC Living in the Locality

Names and Position/Occupation of Interviewees	Name of Institution and Contacts	# Male/Female Interviewees	Date of Interview	Location of Interview
Use separate sheet for attendance

Name of Interviewer/s	Name of Note Taker	Interview Start Time	Interview End Time
.	.	.	.

Thank you for participating in this interview. My name is _____ and I am a project evaluator for the United States Agency for International Development (USAID) in Bangladesh.

Our team is conducting an independent evaluation of the USAID roads project, which was launched in 2013 and will be completed in 2019. We are here today to talk to you as someone familiar with the project. Your views and the views of other respondents will help inform our recommendations about how future projects can learn from the project.

We have prepared a few questions to guide our discussion, which will take approximately 1 hour.

Your participation in this interview is voluntary. We encourage you to be as candid as possible. Your answers will be kept confidential; we will not use your name or title in our report. If there are any questions that you prefer not to answer just let us know and we will skip them.

We would like to audio record this discussion to ensure that we accurately capture your views. This recording will be kept confidential. Do we have your consent to record?

Do you have any questions before we begin?

1. Could you tell us about changes that have improved your life as individuals, families, and community in the last 2-3 years?
 - a. **[If no one mentions the road/market and/or collection center probe]** How about the road [name], market [name], collection[center]? Would you say that this has improved your life?
2. Think about your life prior to construction of this road, MC and/or CC. Could you describe how this road and/or MC/CC has improved your life?
 - a. **[Probe 1]** Before the improvement of the MC/CC, did you come to the same MC/CC or a different one?
 - b. **[If different probe]** What made you come to this MC/CC?
 - c. **[If the same MC/CC]** How has this market changed?
 - i. Safer construction
 - ii. Cleaner
 - iii. Healthier
 - iv. Busier
 - v. Easier access due to the reconstructed road (if one)

- d. **[Probe 2, if probe 1 did not elicit sufficient information]** Could you compare this MC/CC to the one you come before (whether different or the same)?
 - i. [If not enough comparisons] Could you tell us about problems you faced before that you are not facing now due to this MC/CC?
 - ii. How about the number of traders? Has it increased or decreased? Tell us about it.
 - iii. How about quantity or quality or produce? Has it increased or decreased? Tell us about it.
 - iv. How about safety of produce? Has it increased or decreased? Tell us about it.
 - v. How about socializing, getting news? Has it increased or decreased? Tell us about it.
 - vi. How about the number of women? Are there more or less?
 - vii. How about people with disability (PwD)? Do you know any examples of PwD whose lives have improved?
 - e. **[Probe 3, specific to road improvement]** Could you compare the road now to the one before? What changes did this road bring to you and your family's life?
 - i. [If not enough comparisons] Could you tell us about problems you faced before that you are not facing now due to this new road?
 - ii. How about the number of traders? Has it increased or decreased? Tell us about it.
 - iii. How about quantity or quality or produce? Has it increased or decreased? Tell us about it.
 - iv. How about safety of produce? Has it increased or decreased? Tell us about it.
 - v. How about socializing, getting news? Has it increased or decreased? Tell us about it.
 - vi. How about the number of women? Are there more or less?
 - vii. How about access to health care/mother and child pre-post-natal care?
 - viii. How about access to school/more children go to school/more girls go to school?
 - ix. How about PwD? Do you know any examples of PwD whose lives have improved?
3. Could you describe any negative effects associated with this road/MC/CC?
 - a. **[Probe 1]** How about the distance travelled? More or less?
 - b. How about the safety of road on the way? More or less traffic, more or less road crashes? Is it more or less safe for PwD?
 - c. How about the safety of MC/CC construction?
 - d. Any possibility for expansion if the MC/CC too small?
 - e. How about problems that may have not been resolved?
 4. Think about the time before the MC/CC was built. How did you learn about the MC/CC construction?
 - a. **[Probe 1]** Have you heard about or participated in any consultations of the LGED with the villagers about this MC/CC?

- b. ***[If yes, probe]*** What were these consultations about?
 - c. ***[If not, probe]*** What would your suggestions have been, if there had been or you had participated in a consultation?
5. Think about your family in general and children in particular. What would be the number one change that could improve your children's well-being today?
 6. Is there anything else that you would like to add regarding the topics we discussed today?

Thank you for taking your time to talk with us today. We want to emphasize that this information will remain confidential.

Questionnaire for KII/FGD – Agribusiness Traders/Farmers

Names and Position/Occupation of Interviewees	Name of Institution and Contacts	# Male/Female Interviewees	Date of Interview	Location of Interview

Name of Interviewer/s	Name of Note Taker	Interview Start Time	Interview End Time

Thank you for participating in this interview. My name is _____ and I am a project evaluator for the United States Agency for International Development (USAID) in Bangladesh.

Our team is conducting an independent evaluation of the USAID roads project, which was launched in 2013 and will be completed in 2019. We are here today to talk to you as someone familiar with the project. Your views and the views of other respondents will help inform our recommendations about how future projects can learn from the project.

We have prepared a few questions to guide our discussion, which will take approximately 1 hour.

Your participation in this interview is voluntary. We encourage you to be as candid as possible. Your answers will be kept confidential; we will not use your name or title in our report. If there are any questions that you prefer not to answer just let us know and we will skip them.

We would like to audio record this discussion to ensure that we accurately capture your views. This recording will be kept confidential. Do we have your consent to record?

Do you have any questions before we begin?

1. Could you tell us about two important changes that have improved your trade/work in the last 2-3 years?
 - a. **[If no one mentions the road/market and/or collection center probe]** How about the road [name], market [name], collection[center]? In what ways would you say that this change has improved your trade/work?
2. Think about your trade prior to construction of this road, MC and/or CC. Could you describe how this road and/or MC/CC has improved it?
 - a. **[Probe 1]** Before the construction/improvement of the MC/CC, did you come to the same MC/CC or a different one?
 - b. **[If different probe]** What made you come to this MC/CC?
 - i. Safer construction
 - ii. Cleaner
 - iii. Healthier
 - iv. More consumers and middlemen
 - v. Easier access due to the reconstructed road (if one)
3. Could you describe the ways this MC/CC has improved your business?

[Probes]

- a. Could you tell us about problems you faced before that you are not facing now due to this MC/CC?
 - b. Could you describe how this MC/CC has affected the quality of your products compared to before its construction? How about the quantity?
 - c. What has happened to your sales? Have they increased compared to the old/other MC/CC?
 - d. How about safety of produce? Has it improved its construction compared to before? Tell us about it.
 - e. How has the number of middlemen affected your sales compared to before MC/CC construction?
 - f. To wrap up this topic, has your profit increased compared to before MC/CC construction? **[If yes,]** How does this profit increase affect your trade/work? How does it affect your family well-being?
4. Could you compare the road now to the one before? What changes did this road bring to your business and your family's life?

[Probe, if not enough comparisons]

- a. Could you tell us about problems you faced before that you are not facing now due to this new road?
 - b. Could you describe how this road has affected the quality of your products compared to before its construction? How about the quantity?
 - c. What has happened to your sales? Have they increased compared to before road reconstruction?
 - d. How about safety of produce? Has it improved compared to before road reconstruction? Tell us about it.
 - e. How has the number of middlemen affected your sales compared to before MC/CC construction?
 - f. To wrap up this topic, has your profit increased compared to before MC/CC construction? **[If yes,]** How does this profit increase affect your trade/work? How does it affect your family well-being?
5. Could you describe any negative effects associated with this road/MC/CC?

[Probe]

- a. How about the distance travelled? More or less?
 - b. How about the safety of road on the way? More or less traffic, more or less road crashes? Is it more or less safe for PwD?
 - c. How about the safety of road/MC/CC construction?
 - d. Any possibility for expansion if the MC/CC is too small?
 - e. Is the road still in a good condition?
 - f. How about problems that may have not been resolved?
6. Think about the time before the road/MC/CC was built. How did you learn about the MC/CC construction?
- a. ***[Probe 1]*** Have you heard about or participated in any consultations of the LGED with the villagers about this road/MC/CC?
 - b. ***[If yes, probe]*** What were these consultations about?

- c. *[If not, probe]* What would your suggestions have been, if there had been or you had participated in a consultation?
7. Think about your work (trading/farming). What would be the number one change that could improve your trading/farming today?
8. Think about your family in general and children in particular. What would be the number one change that could improve your family's and children's lives?
9. Is there anything else that you would like to add regarding the topics we discussed today?

Thank you for taking your time to talk with us today. We want to emphasize that this information will remain confidential.

Questionnaire for KII/FGD – Agribusiness Women Farmers

Names and Position/Occupation of Interviewees	Name of Institution and Contacts	# Male/Female Interviewees	Date of Interview	Location of Interview
.

Name of Interviewer/s	Name of Note Taker	Interview Start Time	Interview End Time
.	.	.	.

Thank you for participating in this interview. My name is _____ and I am a project evaluator for the United States Agency for International Development (USAID) in Bangladesh.

Our team is conducting an independent evaluation of the USAID roads project, which was launched in 2013 and will be completed in 2019. We are here today to talk to you as someone familiar with the project. Your views and the views of other respondents will help inform our recommendations about how future projects can learn from the project.

We have prepared a few questions to guide our discussion, which will take approximately 1 hour.

Your participation in this interview is voluntary. We encourage you to be as candid as possible. Your answers will be kept confidential; we will not use your name or title in our report. If there are any questions that you prefer not to answer just let us know and we will skip them.

We would like to audio record this discussion to ensure that we accurately capture your views. This recording will be kept confidential. Do we have your consent to record? Do you have any questions before we begin?

1. Could you tell us about two important changes that have improved your farming work in the last 2-3 years?
 - a. ***[If no one mentions the road/market and/or collection center probe]*** How about the road [name], market [name], collection[center]? In what ways would you say that this change has improved your farming/work?
2. Think about your work prior to construction of this road, MC and/or CC. Could you describe how this road and/or MC/CC has improved your work/life as a woman compared to before construction?
 - a. ***[Probe 1]*** Before the construction/improvement of the MC/CC, did you come to the same MC/CC or a different one?
 - b. ***[If different probe]*** What made you come to this MC/CC?
 - i. Safer construction
 - ii. Cleaner
 - iii. Healthier
 - iv. More consumers and middlemen
 - v. Easier access due to the reconstructed road (if one)
 - vi. Safer access due to the road
 - vii. Family less concerned with my safety due to the new road

3. Could you describe the ways this MC/CC has improved your business as a woman?

[Probe]

- a. Could you tell us about problems you faced before that you are not facing now due to this MC/CC?
 - b. Could you describe how this MC/CC has affected the quality of your products compared to before its construction? How about the quantity?
 - c. What has happened to your sales? Have they increased compared to the old/other MC/CC?
 - d. How about safety of produce? Has it improved compared to before its construction? Tell us about it.
 - e. How has the number of middlemen affected your sales compared to before MC/CC construction?
 - f. Has your profit increased compared to before MC/CC construction? ***[If yes,]*** How does this profit increase affect your farming? How does it affect your family well-being?
4. Could you compare the road now to the one before? What changes did this road bring to your business and your life as a woman?

[Probe]

- a. [If not enough comparisons] Could you tell us about problems you faced before that you are not facing now due to this new road?
 - b. Could you describe how this road has affected the quality of your products compared to before its construction? How about the quantity?
 - c. What has happened to your sales, safety of products? Have they increased compared to before road reconstruction?
 - d. How has the number of middlemen affected your sales compared to before MC/CC construction?
 - e. Has your profit increased compared to before MC/CC construction? ***[If yes,]*** How does this profit increase affect your trade/work? How does it affect your family well-being?
 - f. To wrap up this topic, has increased income (if so) affected your relations with family members?
5. Could you describe any negative effects associated with this road/MC/CC especially for women?

[Probe]

- a. How about the distance travelled? More or less?
- b. How about the safety of road on the way? More or less traffic, more or less road crashes? Is it more or less safe for PwD? How about women?
- c. How about the safety of the road/MC/CC construction?
- d. Any possibility for expansion if the MC/CC is too small?
- e. Is the road still in good condition?
- f. How about problems that may have not been resolved?
- g. Are there any changes in the family relations due to this road/MC/CC that may have affected you negatively?

6. Think about the time before the road/MC/CC was built. How did you learn about the MC/CC construction?
 - a. **[Probe 1]** Have you heard about or participated in any consultations of the LGED with the villagers about this road/MC/CC?
 - b. **[If yes, probe]** What were these consultations about?
 - c. **[If not, probe]** What would your suggestions have been, if there had been or you had participated in a consultation?
7. Think about yourself a woman farmer. What would be the number one change that could improve your work life today?
8. Think about your family and children in particular. What would be the number one change that could improve your family's and children's lives?
9. Is there anything else that you would like to add regarding the topics we discussed today?

Questionnaire for KII/FGD – Construction Contractors

Names and Position/Occupation of Interviewees	Name of Institution and Contacts	# Male/Female Interviewees	Date of Interview	Location of Interview
.

Name of Interviewer/s	Name of Note Taker	Interview Start Time	Interview End Time
.	.	.	.

Thank you for participating in this interview. My name is _____ and I am a project evaluator for the United States Agency for International Development (USAID) in Bangladesh.

Our team is conducting an independent evaluation of the USAID roads project, which was launched in 2013 and will be completed in 2019. We are here today to talk to you as someone familiar with the project. Your views and the views of other respondents will help inform our recommendations about how future projects can learn from the project.

We have prepared a few questions to guide our discussion, which will take approximately 1 hour.

Your participation in this interview is voluntary. We encourage you to be as candid as possible. Your answers will be kept confidential; we will not use your name or title in our report. If there are any questions that you prefer not to answer just let us know and we will skip them.

We would like to audio record this discussion to ensure that we accurately capture your views. This recording will be kept confidential. Do we have your consent to record?

Do you have any questions before we begin?

1. Could you tell us about few most important changes that have been instituted by the LGED regarding work done as part of the BAIDP project?

[If participants find it difficult to identify changes, probe]

- a. How about the procurement procedures? Was there anything different that you had to do that you are not doing for other LGED projects?
 - b. How about technical standards? Was there anything different that you had to do that you are not doing for other LGED projects?
 - c. How about monitoring of your work? Was there anything different that you had to do that you are not doing for other LGED projects?
2. Think about all changes that you just discussed. How have these changes affected your work?
 - a. ***[Probe 1]*** Could you describe to us how specific changes have made your work easier? Can you illustrate with examples?
 - b. ***[Probe 2]*** Could you describe how specific changes have improved the quality of your work? Can you illustrate with examples?
 - c. ***[Probe 3]*** Could you describe how specific changes have being challenging to/created difficulty in your work? Can you illustrate with examples?

3. Think about the advantages and challenges that you just discussed. How would you define the overall outcome of these changes: more advantageous or more challenging? Why?
4. Could you describe your relationship with the communities where the (re)construction of roads/MC/CC was going on?
 - a. **[Probe 1]** Did you have any meetings or contacts with surrounding communities prior to the start of this project? If yes, what were these meetings about?
 - b. **[Probe 2]** Have you ever had/had consultation with communities for other projects commissioned by the LGED?
 - c. **[Probe 3]** What do you think about consultations with the surrounding communities? Are they useful or not?
5. During LGED projects in general, does your company temporarily hire people from the areas where the project is implemented, or do you have permanent workers that travel to where the project is taking place? What hiring practice did you follow during implementation of the USAID funded projects?
6. What are the most important learning outcomes from this experience?
7. If you had the power to change one LGED practice in relation to contractors, what would that change be?
8. Is there anything else that you would like to add regarding the topics we discussed today?

Construction Site Assessment Tools for Engineers

The Junior Field Engineer on BAIDP Evaluation team will physically observe/inspect the BAIDP project locations as per GPS coordinates received from LGED cross-checked with coordinates in all IOs. The Senior Engineer will guide the Junior Field Engineer in this work. The following information and protocols will guide this observation/inspection.

6.1 Types of BAIDP Infrastructures

- Construction and maintenance of roads (Road);
- Improvement/ reconstruction of market centers (MC);
- Improvement of collection centers (CC); and
- Improvement of irrigation/drainage, including re-excavation of irrigation canal and improvement of sluice gate (SG).

6.2 General Protocol for Assessment of Infrastructure

During field assessment of all infrastructures, following general protocol has been planned for, however, the frequency and extent of work may need to be adjusted based on actual field conditions and findings:

- On-site assessment of all completed sub-projects will be conducted.
- The Bill of Quantities (BOQ) and specifications included in the bid documents will be used as the yardsticks to compare with the field conditions.
- All data and photos taken in the field will be recoded and reported with GPS coordinates.
- Materials sample, such as soil, aggregates, concrete, pavement cores, *etc.* will be collected, as deemed necessary, for at least 10 percent subprojects and tested preferably in LGED laboratories or any such competent laboratory.
- On a random basis, results of previous such laboratory tests done as part of QA/QC process will also be checked for comparison purpose. The number of such comparison will be dictated by the field observation and cannot be fixed beforehand.
- Any visually detectable problems related to material quality, construction fault, or other types will be reported.

6.3 Additional Protocol for Assessment of Roads

- Generally, on-site visual condition survey will be done preferably at an interval of about 300 to 400 meters. In case of specific heavily distressed locations, the interval will be less.
- Any detectable distresses, such as fatigue cracking, other cracks, rutting, pothole, flushing, raveling, shoulder drop-off, problems inside slope and protection work (if any), subgrade failure, *etc.*, will be reported.
- If possible, the engineer will try to assess the actual annual average daily traffic (AADT) and the percentages of commercial/ heavy vehicles for about few subprojects.

6.4 Additional Protocol for Assessment of Market Centers and Collection Centers

- Any detectable problems, such as cracks, substandard materials mobilization or use, deviations from specification and/or design, *etc.*, will be visually assessed and reported.

6.5 Additional Protocol for Assessment of Irrigation/Drainage Infrastructure

- The work quality and effectiveness of the drainage facilities (road-side or off-road) and culverts will be visually assessed and reported.
- The work quality and effectiveness of the irrigation facilities such as sluice gates and canal(s) and will be visually assessed and reported.
- Dumping places of excavated materials will be visited and assessed for any deviation from contracted arrangements.

6.6 Suggested Checks for Infrastructure Sub-projects (as applicable, but not limited to)

(a) Road

Embankment, Subgrade, Sub-Base, Base/ WBM, Brick on edge, Bituminous Base (if any), Bituminous Carpeting, Seal coat (Chip seal), Mixing plant (type and condition), Status of temperature control for mixing and compaction (if ongoing), Width of road, Layer thickness(es), Quality of bituminous layer (surface smoothness, color, integrity, compaction, *etc.*), Embankment (side) slope condition, Grass turfing, Drain condition, Guide wall, Slope protection work, Prime Coat, Tack Coat, Distresses (rutting, pothole, crack, *etc.*), HBB, Construction zone traffic management, Superelevation (check any negative banking), Roadside Signs (placement, quality, shape, color, conformance to standard, *etc.*), Road marking, Bridge repair work quality, Bridge approach road (road-bridge connection, any sign of depression or separation, *etc.*), Culvert (dimensions, works quality and status), Guide post (placement, quality, conformance to standard, *etc.*), Test Sample (type, amount, method, *etc.*), *etc.*

(b) Market Center/Collection Center

Property line, Boundary wall, Dimensions (Room size, Columns size, *etc.*), Reinforcement checking (diameter, placement, *etc.*), Concrete quality (production method, lab report, *etc.*), Brick work, Quality of Chips/Sand/Water, Concrete production quality, Joists/Supports, Other Structural Items, (CI sheet, steel structure, *etc.*), Electrical Items Checking (conduits, fan, wires, *etc.*), Mechanical Items (inserts, piping, *etc.*), Test Sample (type, amount, method, *etc.*), *etc.*

(c) Irrigation Facility

Property line, Earthwork in excavation of canals/khals, ponds, drains, *etc.* (depth, slope, dumping, leveling, *etc.*), Embankment (filling, benching, leveling, dressing, quality, *etc.*), Sluice gate/Water regulator operation (vertical lift gate/flap gate shutters, *etc.*), Dumping of Stone Boulders/CC blocks/Brick blocks/Sand Cement blocks, Reinforcement (diameter, placement, *etc.*), Concrete and RCC (production, lab report, *etc.*), Test Sample (type, amount, method, *etc.*), *etc.*

6.7 Infrastructure Assessment Form

General template for Infrastructure Assessment Form is presented in the following page.

Bangladesh Agriculture Infrastructure Development Program (BAIDP)
Assessment of Infrastructure

Reported by: _____ Visit Date: / /2019 District: *Upazila:* _____
USAID ID: _____ Infrastructure type: _____ Length: _____ km (if applicable)
Project name: _____
Contract no.: _____
GPS Start (Lat., Long.): _____ GPS End (Lat., Long.): _____
Progress Status (as of March 2019): 100% complete, Final Bill Paid (FBP)
Estimated cost: Taka _____ Contract amount (revised): Taka _____ Fund spent: Taka _____
Contract date: / /2017 Scheduled completion date: / / Actual completion date: / /

Documents checked (put “tick” mark):

- Implementation Orders (IOs) of USACE
- Tender (Bid) Document of LGED
- Tender Evaluation Documents
- Third party (Ecotech) certification documents
- Contractor’s Work Plan
- Lab Reports
- Documents related to: time extension, design change/variation, land problem, bill payment delays, *etc.*
- Any other document:

Any other information:

.....
.....
.....
.....

Coordinates	Location	Findings	Photo Log
	km	<ul style="list-style-type: none"> ● ● ● ● 	-01
	km	<ul style="list-style-type: none"> ● ● ● ● 	-02
	km	<ul style="list-style-type: none"> ● ● ● ● 	-03
	km	<ul style="list-style-type: none"> ● ● ● ● 	-04

Other Findings/Recommendations:

.....
.....
.....

ANNEX 4: MINI-SURVEY QUESTIONNAIRE AND SELECTED DATA

Final Performance Evaluation of the Bangladesh Agriculture Infrastructure Development Project (BAIDP)

Questionnaire for Mini Survey হেটি সরিপের ধনুমালা

Mini-survey Instructions:

1. Complete the survey with each person as quickly as possible (বহু আত্মকড়ি সত্বে সরিপ সম্পূর্ণ করতে হবে)
2. Read **every word** written on the paper. Do not explain the question. Do not add any other words or explanation for any reason (কোনকি সিবিত ধর্মিটি পন পড়বে। ধনু বাধ্যা করবে না। বেশ কারণে অশ বেশ পন বা বাধ্যা যোগ করবে না)।
3. Read one question. Wait for an answer. Tick the correct box. একটি ধনু পড়ুন। উত্তরে অশ অশেড়া করুন। সঠিক বহু টিক দিন।
4. Write a short answer in the blank space (_____), if appropriate. সড়িগত উত্তর পিনুধ কাঁকা অরগার (_____), যদি উপযুক্ত হয়।
5. If the person wants to give a long explanation, please interrupt her/him যদি ব্যক্তি পঁর্ধ বাধ্যা সিকে চায়, অধুধ করে অর/অকে বঁধা দিন।
6. If a person does not understand the question, simply read the question one more time. Do not read the question more than two times. If a person does not give an answer or says "I don't know," tick the NA box. যদি বেশ ব্যক্তি ধনু বুঝতে না পারে, সারসনভাবে ধনু অরধ একবার পড়ুন। ধনু দুইবার বেশী পড়বে না। যদি বেশ ব্যক্তি ধনুর উত্তর না পের বা বলে "আমি জানি না" অধে NA বহুটিকে টিক ডিন দিন।

Names Respondents সাড়্যাডনকার অশাশকারীর নাম	Age বয়স	Gender কোজার	Date of Interview তারিখ	Location of Interview সাড়্যাডনকার অধেধের ডিকাল

Serial Number(s) of BAIDP Construction Site(s) Nearby নির্কটবর্তী BAIDP নির্মাণ এর সাইটের অরিক সংখ্যাধলি				
Road রাস্তা	Market বাজার	Collection Center সংঘ	Sluice Gate- স্ধুইচ গেট	
Upazila উপজেলা		Closest Town or Village সিনকটনব পহর অর্থা বাধ		
Survey Participant (tick all that apply) সরিগে অশধেধকারী (ধযোলা ওডোতে টিক ডিন দিন)				
Local Resident স্থানীয় বাসিন্দা – Yes or No		If yes, how many Kilometers from here? যদি হ্যাঁ হয়, এখান থেকে কত কি.বি পুরে...		
Male or Female পুরুষ বা বহিলা	Age (Years Old) বয়স (কত বছর)	Years Living in this Area কত বছর এই এখানকার বাসবাস		
Farmer (tick all that apply) কৃষক (ধযোলা ওডোতে টিক ডিন দিন)	Horticulture উদ্যানভনু	Aquaculture বাধ চায়	Livestock পশুসংশপ	
School Teacher স্কুলের শিক্তাক	Market Buyer বাজার ডেডা	Market Seller বাজার বিডেডা	Driver/Road Traveler চালক / রাস্তা অরকারী	

I would like to ask you a few questions. It will take about 10 minutes. There is no right or wrong answer. I will not tell anyone else about your answers. May I ask the questions?
আমি আপনাকে কিছু ধনু জিজ্ঞাসা করতে চাই। এটি অর 10 মিনিট সনর লাগবে। এখাশে বেশ সঠিক বা ভুল উত্তর শেই। আমি আপনায় উত্তর সশর্কে অশ অর কাউকে বনবে না। আমি কি ধনু করতে পরি?

Everyone থেকে		Yes হ্যাঁ	No না		NA	
1	Do you know about any <u>construction or improvement</u> of a road or market center or collection center in this local area in the last 3 years? (If NO, STOP INTERVIEW.) আপনি কি গত ৩ বছরে এই স্থানের এলাকার কোন নির্মাণ উন্নতি বা বাজার কেন্দ্র বা সংগ্রহ কেন্দ্র উন্নতি সম্পর্কে জানেন? (যদি না হয়, সাক্ষাৎকার বন্ধ করুন।)					
		Road রাস্তা	Market বাজার	Collection সংগ্রহ	Sluice Gate- সুইচ গেট	Other অন্যান্য
2	If YES, what was recently improved or built? (Tick all answers given by survey participant.) যদি হ্যাঁ হয়, সম্প্রতি উন্নত বা নির্মিত কোথায়? (সরিয়ে অংশগ্রহণকারী কেওয়া সব উত্তরে টিক চিহ্ন দিন।)					
Everyone - For Roads থেকে - রাস্তার জন্য						
		More	Less	Same	NA	
3	Since the improvement of the road, are you traveling on this route more frequently, less frequently, or the same? রাস্তা উন্নতি হয় অধিক বৈকে, অধিক বৈকে আপনি কি আরো কম কম এই রুটে ভ্রমণ করেন, কম কম অথবা একই?					
		1-2	3-4	5-7	NA	
4	Before the improvement of the road, how many days per week were you traveling this route? রাস্তা উন্নতির আগে, আপনি যতি সপ্তাহে কতদিন এই রুটে ভ্রমণ করেছিলেন?					
5	After the improvement of the road, how many days per week are you traveling on this road? রাস্তা উন্নতির পরে, আপনি যতি সপ্তাহে কতদিন এই রুটে ভ্রমণ করেছেন?					
		0.5 ঘন্টা	১ ঘন্টা	১.৫ ঘন্টা	২+ ঘন্টা	
6	Before the improvement of the road, how many minutes was a typical journey on this road? রাস্তা উন্নতির আগে, এই রাস্তার পরিষ্কারত আগের ভ্রমণ কত মিনিট ছিল কোন নির্দিষ্ট আসতে যেতে হলে?					

7	After the improvement of the road, how many minutes is a typical journey on this road? রাস্তা উন্নতির পরে, এই রাস্তার সাধারণত আগের তুলনায় এতখানি কত ঘণ্টা/কোন মিনিটের মধ্যে যেতে পারে?				
Farmers, Vendors/Traders, Travelers/Drivers -- For Market/Collection Centers কৃষক, বিক্রেতা/ট্রেডার্স, ভ্রমণকারী/চালক - বাজারের জন্য/সংগ্রহ কেন্দ্র					
		1-2	3-4	5-7	NA
8.a	Before the improvement of the market/collection center, how many days per week did you come to this location? বাজারের/সংগ্রহ কেন্দ্র উন্নতির আগে, আপনি প্রতি সপ্তাহে কতদিন এই জায়গায় এসেছিলেন?				
8.b	After the improvement of the market/collection center, how many days per week do you come to this location? বাজারের/সংগ্রহ কেন্দ্র উন্নতির পরে, আপনি প্রতি সপ্তাহে কতদিন এই জায়গায় আসেন?				
		#	Numbers (সংখ্যা)		
9.a	Before the improvement of the market/collection center, approximately how many farmers and \traders did you deal with? বাজারের/সংগ্রহ কেন্দ্র উন্নতির আগে, আপনি প্রতি কতজন কৃষক বা ব্যবসায়ীর সাথে কাজ করতেন?				
9.b	After the improvement of the market/collection center, approximately how many farmers and \traders do you deal with? বাজারের/সংগ্রহ কেন্দ্র উন্নতির পরে, আপনি প্রতি কতজন কৃষক বা ব্যবসায়ীর সাথে কাজ করতেন?				

Farmers, Vendors/Traders, Travelers/Drivers – DO NOT READ OPTIONS কৃষক, বিক্রেতা/ট্রেডার্স, ভ্রমণকারী/চালক - বিকল্পটি পড়বেন না	
10	<p>After the improvement of the road, have there been any improvements in your <u>business/work</u>?</p> <p>If NO, SKIP to next question. If YES: What kind of improvements? (tick all mentioned)</p> <p>রাস্তা উন্নতির পরে, আপনার ব্যবসা/কাজের কোন উন্নতি হয়েছে? যদি না, এড়িয়ে যান এবং পরবর্তী প্রশ্ন করুন। যদি হ্যাঁঃ কোন ধরনের উন্নতি হয়েছে? (উল্লেখিত সবগুলোতে টিক দিন)</p> <p>10A ___ I can buy better agricultural inputs (seeds, etc.) _ আমি ভাল কৃষি ইনপুট কিনতে পারি (বীজ, ইত্যাদি)</p> <p>10B ___ I can get my farm produce to markets more quickly while its more fresh _ আমি ভাল ফ্রেশ পণ্য বাজারে দ্রুত ও সহজে দিতে পারি</p> <p>10C ___ Less agricultural waste (of my farm products) কম স্ট্র (আমার ফার্মের উৎপাদনে)</p>

	<p>I0D ___ Increased sales / higher price for my farm produce বিক্রয় বৃদ্ধি / আমার ফার্মের উৎপাদনে বেশী লাভ</p> <p>I0E ___ More transportation business / more travelers (for drivers) যানবাহন অধিক পরিবহন/অধিক যাত্রী (চালক)</p> <p>I0F ___ Increased income / profit আয় বৃদ্ধি/লাভ</p> <p>I0G ___ Time savings for more productive work আমার উৎপাদনশীল কাজের জন্য সময় সঞ্চয়</p> <p>I0H ___ Other অন্যান্য: _____</p>				
Farmers কৃষক		More	Less	Same	NA
11	After the improvement of the road, is your access to farm inputs (seeds, etc.) more, less, or the same? রাস্তার উন্নতির পর, আপনাদের খাবারের ইনপুট (বীজ, ইত্যাদি) অধিক, কম, অথবা একই? <u>একই?</u>				
		#	Numbers (সংখ্যা)		
12.a	Before the improvement of the road, what was the quantity of wasted produce daily? রাস্তার উন্নতির আগে, আপনাদের গম্ব শটে হওয়ার পরিমাণ কতকত ছিল?				
12.b	After the improvement of the road, what is the quantity of wasted produce daily? রাস্তার উন্নতির পর, আপনাদের গম্ব শটে হওয়ার পরিমাণ কতকত?				
	Before the improvement of the road, what was the quantity (in kg) of produce you sold daily? রাস্তার উন্নতির আগে, আপনাদের খাবারের গম্ব উৎপাদনের হার কতকতে কতকত ছিল, যা আপনাদের বিক্রি করতেন?				
13.b	After the improvement of the road, what is the quantity (in kg) of produce you sell <u>daily</u> ? রাস্তার উন্নতির পর, আপনাদের খাবারের গম্ব উৎপাদনের হার কতকতে কতকত, যা আপনাদের বিক্রি করতেন?				
14.a	Before the improvement of the road, what was your daily profit? এই রাস্তার উন্নতির আগে, আপনাদের দৈনিক লাভের পরিমাণ কতকত ছিল?				
14.b	After the improvement of the road, what is your daily profit? এই রাস্তার উন্নতির পরে, আপনাদের দৈনিক লাভের পরিমাণ কতকত?				
Everyone – DO NOT READ OPTIONS যেকোনো - বিকল্প পছন্দি না পড়ে					
15	After the improvement of the road, have there been any improvements in your personal/family life? If NO, SKIP to next question. If YES: What kind of improvements? (tick all mentioned) রাস্তার উন্নতির পরে, আপনাদের ব্যক্তিগত/পরিবারিক জীবন কোম উন্নতি হয়েছে? যদি না, এড়িয়ে যান এবং পরবর্তী প্রশ্ন করুন। যদি হ্যাঁ: কোম পরামের উন্নতি হয়েছে (উল্লেখিত সবকোম টিক দিন)				
	<p>I5A ___ Increased income to send children to school / build house / buy things for the family আয় বৃদ্ধি পেয়েছে শিশুর স্কুলে পাঠাশে/বাড়ি নির্মাণ/পরিবারের জন্য অন্য কিছু ক্রয়</p>				

15B	___ We can access health services more easily or quickly আমরা আরো সহজে বা দ্রুত স্বাস্থ্য সেবা গ্রহণ করতে পেরেছি
15C	___ Women in the family could get pre-/post-natal health care or birth attendant পরিবারের মহিলারা পূর্ন/পরনতী স্বাস্থ্য সেবা বা জন্ম পরিচর্যা পাও
15D	___ Children can get to school more easily or quickly শিশুরা আরো সহজে এবং দ্রুত স্কুলে যেতে পারেন
15E	___ Travel is more safe, so I can send my daughters to school যবন আরো নিরাপদ তাই আমি আমার মেয়েদের স্কুলে পাঠাতে পারি
15F	___ More things we need and want are available in local shops আমাদের যত্নসম্পন্ন আরো বিভিন্ন দ্রব্যের বেতনো স্থানীয় দোকানে পাওয়া যায়
15G	___ Time savings for more relaxation or leisure activities (don't have to work so hard) আমরা বিশ্রাম এবং অবসর কর্তব্যে সময় সঞ্চয় করতে পারি (সুতরাং, কাজের সময় কমানোর পরিমাণ করতে হয় না)
15H	___ Other অন্যান্য: _____

Everyone থেকে	More	Less	Same	NA	
16	After the improvement of the road, are your transportation costs more, less, or the same? রাস্তার উন্নতির পর, আপনার যোগাযোগ খরচ অধিক, কম, অথবা একই?				
17	After the improvement of the road, is your time available for productive activities more, less, or the same? রাস্তার উন্নতির পর, আপনার উৎপাদনের কার্যকর সময় অধিক, কম, অথবা একই?				
18	After the improvement of the road, are the businesses in this local area more, less, or the same? রাস্তার উন্নতির পর, এই স্থানীয় এলাকার ব্যবসা অধিক, কম, অথবা একই?				
19	After the improvement of the road, can your children access schools more easily, less easily, or the same? রাস্তার উন্নতির পর, আপনার শিশুরা স্কুলে গিয়ে অধিক সহজে, কম সহজে, অথবা একই?				
20	After the improvement of the road, did you send more of your girl children to school, less, or the same? রাস্তার উন্নতির পর, আপনি আপনার মেয়ে শিশুরা স্কুলে পাঠান আরো অধিক, কম, অথবা একই?				
21	After the improvement of the road, can your family access health services more easily, less easily, or the same? রাস্তার উন্নতির পর, আপনার পরিবার স্বাস্থ্য সেবা আরো অধিক সহজে, কম সহজে, অথবা একই?				

Thank you very much for giving your time to answer these questions.

আপনাকে অনেক ধন্যবাদ আমরা সবার দেবার জন্য

Data for Figure 4: Improved Farm Inputs and Increased Local Businesses

	Q3	Q11	Q16	Q18
Answer Choices	Travel Frequency	Access to Farm Inputs	Cost of Transportation	Number of Local Businesses
More	95.3%	98.1%	6.1%	99.2%
Less	4.7%	0.0%	93.1%	0.8%
Same	0.0%	1.9%	0.8%	0.0%

Data for Figure 5: Decreased Waste, Increased Sales and Profits

Question	Factor	Before Improvement	After Improvement	Percentage Change
Q12 a, b	Produce Wasted (kg)	10.2	3.1	-86%
Q13 a, b	Produce Sold (kg)	152.2	242.5	37%
Q14 a, b	Daily Profit (Tk)	578.5	1,015.9	43%

Data for Figure 8: Reduced Travel Time and Increased Number of Traders

Q6	Q7	Q9a	Q9b
Travel time (before)	Travel time (after)	Traders (before)	Traders (after)
40.7	15.4	34.4	69.8
Average minutes	Average minutes	Average number	Average number
% Change	-62.1%	% Change	50.8%

Data for Figure 11: Increased Use of Road and Site Visit Frequency

Q4	Q5	Q8a	Q8b
Use this route 5+ days/week (before)	Use this route 5+ days/week (after)	Come to this site 5+ days/week (before)	Come to this site 5+ days/week (after)
6.3%	88.4%	27.3%	77.3%
% Change	92.9%	% Change	64.7%

Data for Figure 13: Increased Access to Healthcare

	Q21	Q15B	Q15C
Answers	Increased access to healthcare	Easier and quicker access to healthcare	Access to pre/post-natal services
More or Yes	97.7%	85.3%	79.0%

Data for Figure 14: Increased Access to Education

	Q19	Q15A	Q15D	Q15E	Q20
Answers	Easier access to school	More money for education	Quicker to get to school	Safer for girls to go to school	Sending more girls to school
More or Yes	100%	66.4%	88.8%	77.6%	98.5%

ANNEX 5: LISTS OF KIIS AND FGDS

USAID BAIDP Final Performance Evaluation - Key Informant Interviews (KIIs)						
#	Institution	Participants	M	F	Location	Dates
1	USAID BAIDP team - Senior Agricultural Advisor and Project Management Coordinator, EG Office	Mitchell Nelson Nazmul Bhuiyan	2	.	USAID Mission, Dhaka	March 17, 2019
2	Project Director, BAIDP - LGED	Md. Jasim Uddin	1	.	LGED Office- Agargaon-Dhaka	March 18, 2019
3	Accountant, BAIDP-LGED	SK. Aboul Basar	1	.	LGED Office- Agargaon-Dhaka	March 21, 2019
4	Former OCD Team Leader, UNOPS	Joy Jakasalem Balane	.	1	Hotel Six Seasons, Dhaka	March 21, 2019
5	Chairman, Ecotech	Md. Rafiqul Alam	1	.	Ecotech Office, Baridhara, Dhaka	March 23, 2019
6	World Bank	Rajesh Rohatgi	1	.	World Bank Dhaka Office	March 25, 2019
7	Executive Engineer LGED	Nurjahan	.	1	LGED Office, Agargaon, Dhaka	March 25, 2019
8	Assistant Engineer LGED	Md. Abul Basar	1	.	LGED Office, Agargaon, Dhaka	March 25, 2019
9	<i>Upazila</i> Agricultural Officer (UAO)	Dipanker Das	1	.	Jhikorgacha <i>Upazila</i> Office	March 27, 2019
10	<i>Upazila Nirbahi</i> Officer (UNO), Jhikorgacha	Md. Jahidul Islam	1	.	Jhikorgacha <i>Upazila</i> Office	March 27, 2019
11	Union Chairman, Bagharpara	Abu Said Sardar	1	.	Bagharpara <i>Upazila</i>	March 28, 2019
12	UNO, Kotchadpur- <i>Upazila</i>	Taslina Akter (AC-Land)	.	1	Kotchadpur <i>Upazila</i> Office	March 31, 2019
13	LGED <i>Upazila</i> Engineer, Kotchadpur <i>Upazila</i>	M.M Mamun Hasan	1	.	Kotchadpur <i>Upazila</i> Office	March 31, 2019
14	UAO, Kotchadpur <i>Upazila</i>	Shaik Sazzad Hossein	1	.	Kotchadpur <i>Upazila</i> Office	March 31, 2019
15	<i>Upazila</i> Fisheries Officer (UFO), Kotchadpur <i>Upazila</i>	Md. Jalal Uddin	1	.	Kotchadpur <i>Upazila</i> Office	March 31, 2019
16	Transporter	Showkat Ali	1	.	Khushna Union, Kotchadpur <i>Upazila</i>	March 31, 2019
17	Shopkeeper	MD. Sayed Ahmed	1	.	Jashore Sadar <i>Upazila</i>	March 31, 2019
18	Union Chairman, Keshobpur <i>Upazila</i>	Md Habibur Rahman	1	.	Gourighana Union, Keshebpur <i>Upazila</i>	April 2, 2019
19	Contractor, Keshobpur <i>Upazila</i>	Anisur Rahman	1	.	Gourighana Union, Keshebpur <i>Upazila</i>	April 2, 2019
20	UNO, Keshobpur <i>Upazila</i>	Md. Enamul Hoque	1	.	Keshobpur <i>Upazila</i>	April 2, 2019
21	LGED <i>Upazila</i> Engineer, Keshobpur <i>Upazila</i>	Md. Mansur Rahman	1	.	Keshobpur <i>Upazila</i>	April 2, 2019
22	Agricultural Officer	Mahadev Chandra	1	.	Keshobpur <i>Upazila</i> Office	April 2, 2019
23	UFO, Keshobpur <i>Upazila</i>	Md. Abdul Bari	1	.	Keshobpur <i>Upazila</i>	April 2, 2019

USAID BAIDP Final Performance Evaluation - Key Informant Interviews (KIIs)						
#	Institution	Participants	M	F	Location	Dates
24	Businessman-Negura Bazar	Lutfur Rahman	1	.	Negura Bazar, Monirampur <i>Upazila</i>	April 3, 2019
25	<i>Upazila</i> Engineer	Md. Abu Sufian	1	.	Monirampur <i>Upazila</i>	April 4, 2019
26	UNO	Md. Ahsan Ullah	1	.	Monirampur <i>Upazila</i>	April 4, 2019
27	UFO	Ripon Kumr Ghosh	1	.	Monirampur <i>Upazila</i>	April 4, 2019
28	Primary School Head Teacher	Hasem Ali	1	.	Jashore Sadar <i>Upazila</i>	April 6, 2019
29	Transporter	Moshier Rahman	1	.	Jashore Sadar <i>Upazila</i>	April 6, 2019
30	UNO	Md. Shahimuzzaman	1	.	Abhoynagar <i>Upazila</i> Office	April 7, 2019
31	Contractor	Matiur Rahman Nannu	1	.	Abhoynagar <i>Upazila</i>	April 7, 2019
32	LGED <i>Upazila</i> Engineer	Kamrul Islam	1	.	Abhoynagar <i>Upazila</i> Office	April 7, 2019
33	Agricultural Officer	Abdus Subahan	1	.	Abhoynagar <i>Upazila</i> Office	April 7, 2019
34	LGED <i>Upazila</i> Engineer	Md. Rashedul Islam	1	.	Chowgacha <i>Upazila</i> Office	April 8, 2019
35	KII with UAO	Roich Uddin	1	.	Chowgacha <i>Upazila</i> Office	April 8, 2019
36	UFO	S.M. Shiraj	1	.	Chowgacha <i>Upazila</i> Office	April 8, 2019
37	UNO	Md. Maruful Alam	1	.	Chowgacha <i>Upazila</i> Office	April 8, 2019
38	Union Chairman	Md. Tota Mia	1	.	Chowgacha <i>Upazila</i> Office	April 8, 2019
39	Transporter	Roki	1	.	Bohila Pota, Chowgacha <i>Upazila</i>	April 8, 2019
40	Contractor	Mahidul Islam	1	.	Bohila Pota, Chowgacha <i>Upazila</i>	April 8, 2019
41	UFO	Bisshojit Kumar	1	.	Jashore Sadar <i>Upazila</i>	April 9, 2019
42	LGED <i>Upazila</i> Engineer	Saidur Rahman	1	.	Jashore Sadar <i>Upazila</i>	April 9, 2019
43	USACE	Robert M. Leach	1	.	Zabeer Hotel International, Jashore	April 10, 2019
44	SAAO (Sub Asst: UAO)	M.M Mahbubul Kashem	1	.	Bagharpara <i>Upazila</i>	April 10, 2019
45	UNO	Md. Mizanur Rahman	1	.	Bagharpara <i>Upazila</i>	April 10, 2019
46	UFO	Md. Monjurul Islam	1	.	Bagharpara <i>Upazila</i>	April 10, 2019
47	UAO	Md. Zahidul Islam	1	.	Bagharpara <i>Upazila</i>	April 10, 2019
48	Contractor	Bishajit Das	1	.	Zabeer Hotel International, Jashore	April 10, 2019

USAID BAIDP Final Performance Evaluation - Key Informant Interviews (KIIs)						
#	Institution	Participants	M	F	Location	Dates
49	Transporter	Towhid Rahman	1	.	Jashore Sadar Upazila	April 11, 2019
50	LGED <i>Upazila</i> Engineer	Md. Sanaul Haque	1	.	Kaliganj <i>Upazila</i>	April 15, 2019
51	UNO	Shushoma Rani Saha	.	1	Kaliganj <i>Upazila</i>	April 15, 2019
52	UAO	Md. Jahidul Karim	1	.	Kaliganj <i>Upazila</i>	April 15, 2019
53	Contractor	Hasib Hasan	1	.	Kaliganj <i>Upazila</i>	April 15, 2019
54	Contractor	Bashir Ahmed	1	.	Kaliganj <i>Upazila</i>	April 15, 2019
55	Primary School Head Teacher	Monowara Khatun	.	1	Jashore Sadar <i>Upazila</i>	April 17, 2019
56	Asia Development Bank (ADB)	Humayun Kabir and Shahidul Alam	2	.	ADB Office, Agargaon, Dhaka	April 30, 2019
Total		.	52	5	.	.

USAID BAIDP Final Performance Evaluation - Focus Group Discussions (FGDs)							
#	Category of Participants	Total	M	F	Location	USAID ID#	Date
1	Male Citizens	8	8	.	Godkhali, Jhikorgacha <i>Upazila</i>	Y5MC001	March 27, 2019
2	Farmers	8	7	1	Dig dana Khal, Sluice Gate Jhikorgacha <i>Upazila</i>	Y5SG001	March 27, 2019
3	Farmers	10	6	4	Paik Para, Bagharpara <i>Upazila</i>	Y2RD010	March 28, 2019
4	Consumers	9	8	1	Shait Khali, Bagharpara <i>Upazila</i>	Y2RD012	March 28, 2019
5	Consumers	8	6	2	Rahmotpur, Kotchadpur <i>Upazila</i>	Y1RD006	March 31, 2019
6	Consumers	9	9	.	Khusna Union, Kotchadpur <i>Upazila</i>	Y2RD011	March 31, 2019
7	Consumers	11	6	5	Barandi, Abhoynagar <i>Upazila</i>	Y1RD011	April 1, 2019
8	Traders	8	8	.	Arpara MC, Chowgacha <i>Upazila</i>	Y1MC005	April 1, 2019

USAID BAIDP Final Performance Evaluation - Focus Group Discussions (FGDs)							
#	Category of Participants	Total	M	F	Location	USAID ID#	Date
9	Farmers	10	10	.	Arkandi Village, Chowgacha <i>Upazila</i>	Y1MC005	April 1, 2019
10	Female Citizens	8	.	8	Gabtali More, Monirampur <i>Upazila</i>	Y1RD007	April 3, 2019
11	Traders	10	10	.	Ningura Market, Monirampur <i>Upazila</i>	Y1MC001	April 3, 2019
12	Farmers	8	8	.	Y Junction, Monirampur <i>Upazila</i>	Y1RD008	April 3, 2019
13	Farmers	9	9	.	Bissah Para, Monirampur <i>Upazila</i>	Y1RD019	April 4, 2019
14	Male Citizens	9	9	.	Nogorpur Village, Sadar <i>Upazila</i>	Y3RD001	April 4, 2019
15	Male Citizens	10	10	.	Shomospur, Sadar <i>Upazila</i>	Y1RD020	April 6, 2019
16	Female Citizens	12	.	12	Shomospur, Sadar <i>Upazila</i>	Y1RD020	April 6, 2019
17	Male Citizens	8	8	.	Payra-Abhoynagar <i>Upazila</i>	Y1RD010	April 7, 2019
18	Male Citizens	9	9	.	Nogorpur Village, Sadar <i>Upazila</i>	Y3RD001	April 11, 2019
19	Consumer	11	9	2	Hoibotpur, Sadar <i>Upazila</i>	Y1RD006	April 11, 2019
20	Female Citizens	16	.	16	Haldar Para, Chowgacha <i>Upazila</i>	Y5RD001	April 16, 2019
21	Traders	8	8	.	Khorincha Bazar, Chowgacha <i>Upazila</i>	Y5RD001	April 16, 2019
22	Traders	9	9	.	Churamon Kathi Bazar, Sadar <i>Upazila</i>	Y3RD005	April 17, 2019
23	Traders	8	8	.	Satmail Bazar, Sadar <i>Upazila</i>	Y1RD020- Y1RD006	April 17, 2019
Totals		216	165	51	.	.	.

ANNEX 6: BIBLIOGRAPHY/LIST OF DOCUMENTS REVIEWED

Annex 6A: BAIDP Implementing Order (IO) Documents

No.	Document Name and Date	Date Received	Source
1	USAID Reimbursement Implementation Order No. 01-2013-R July 17, 2014	March 7, 2019	USAID
2	IO#01 - USAID 002 - Accept Road Design-Shorupdah Bagardari Road-Y1RD004-29-January-2014	March 25, 2019	USAID
3	IO#01 - USAID 006 - Accept Revised Cost and Milestones Y1RD004-Shorupdah Bagardari Road- 29-January-2014	March 25, 2019	USAID
4	IO#01 - USAID Y1RD004 - Approved Cost Estimate- Y1RD004-Shorupdah Bagardari Road- 22-April-2014	March 25, 2019	USAID
5	USAID Reimbursement Implementation Order No. 02-2014-R August 20, 2014	March 11, 2019	USAID
6	IO#02 - USAID 0005 - Accept Cost and Milestone Y1RD014 Sayedpur- Baliaghat Road-30 June 2014	March 25, 2019	USAID
7	IO#02 - USAID 0005 - Accept Cost and Milestone Y1RD012 Sayedpur- Baliaghat Road Revised, 1 July 2014	March 25, 2019	USAID
8	IO#02 - USAID 0007 - Accept LGED Road Design Y1RD012 Kamlapur-Sayedpur- Road 19 August 2014	March 25, 2019	USAID
9	USAID Reimbursement Implementation Order No. 03-2014-R November 4, 2014	March 7, 2019	USAID
10	IO#03 - USAID 0013 - Accept LGED Road Design Y1RD015-17-Haibatpur-Arpara Road-Final-28 September 2014	March 25, 2019	USAID
11	IO#03 - USAID 0014 - Accept Cost Road Milestone Y1RD015-17-Arpara Road-28 September 2014	March 25, 2019	USAID
12	IO#03 - USAID 0015 - Accept LGED Road Design Y1RD020-Haibatpur-Arpara Road-Final-28 September 2014	March 25, 2019	USAID
13	IO#03 - USAID 0016 - Accept Cost Road Milestone Y1RD020-Mothurapur- Magura Road-28 September 2014	March 25, 2019	USAID
14	IO#03 - USAID 0017 - Accept LGED Road Design Y1RD018-Mobarakpur-Shinger Khajura Road-Final-3 October 2014	March 25, 2019	USAID

No.	Document Name and Date	Date Received	Source
15	IO#03 - USAID 0018 - Accept Cost Road Milestone Y1RD018-Mobarakpur-Shinger Khajura Road 3 October 2014	March 25, 2019	USAID
16	USAID Reimbursement Implementation Order No. 04-2014-R November 6, 2014	March 7, 2019	USAID
17	IO#04 - USAID 0009 - Accept LGED Road Design Y1RD001-Deluabati- Joypur Road Final -28 September 2014	March 25, 2019	USAID
18	IO#04 - USAID 0010 - Accept Cost and Milestone Y1RD001-Deluabati- Joypur Road -28 September 2014	March 25, 2019	USAID
19	IO#04 - USAID 0011 - Accept LGED Road Design Y1RD008-Shinger Khajura-Hoibotpur Road -28 September 2014	March 25, 2019	USAID
20	IO#04 - USAID 0012 - Accept Cost and Milestones Y1RD008-Shinger Khajura-Hoibotpur Road -28 September 2014	March 25, 2019	USAID
21	USAID Reimbursement Implementation Order No. 06 -2015-R July 1, 2015	March 4, 2019	USAID
22	IO#06 - USAID 0019 - Accept LGED Road Design Y1RD006_Muradgor-Ramatpur Road	March 25, 2019	USAID
23	IO#06 - USAID 0020 - Accept Costs and Milestones Y1RD006 Muradgor-Ramatpur Road	March 25, 2019	USAID
24	IO#06 - USAID 0021 - Accept LGED Road Design Y1RD007_Sahapur-Moshimnagor Road	March 25, 2019	USAID
25	IO#06 - USAID 0022 - Accept Costs and Milestones Y1RD007_Sahapur-Moshimnagor Road	March 25, 2019	USAID
26	IO#06 - USAID 0023 - Accept LGED Road Design Y1RD019_Haitpur-Shahapur Road	March 25, 2019	USAID
27	IO#06 - USAID 0024 - Accept Costs and Milestones Y1RD019_Haitpur-Shahapur Road	March 25, 2019	USAID
28	IO#06 - USAID 0024-1 - Accept Revised Costs and Milestones Y1RD019_Haitpur-Shahapur Road	March 25, 2019	USAID
29	IO#06 - USAID Y1RD019 - Estimate & Milestone (Modified) SEPT 27	March 25, 2019	USAID
30	IO#06 - USAID Y1RD019_Drawing MODIFIED DESIGN ACCEPTED SEPT 2016 BY ACE	March 25, 2019	USAID
31	USAID Reimbursement Implementation Order No. 07 -2015-R November 10, 2015	March 7, 2019	USAID

No.	Document Name and Date	Date Received	Source
32	IO#07 - USAID 0025 - Accept LGED Road Design_Y1RD010_Paira-Jamira Road	March 25, 2019	USAID
33	IO#07 - USAID 0026 - Accept Costs and Milestones Y1RD010_Paira-Jamira Road	March 25, 2019	USAID
34	IO#07 - USAID 0027 - Accept LGED Road Design Y1RD011_Ghoradha-Khoer Beel Road	March 25, 2019	USAID
35	IO#07 - USAID 0028 - Accept Costs and Milestones corrected Y1RD011_Ghoradha – Khoer Beel Road	March 25, 2019	USAID
36	IO#07 - USAID 0029 - Accept LGED Road Design Y1RD016_Teererhat - Syedpur Road	March 25, 2019	USAID
37	IO#07 - USAID 0035 - Accept Revised Costs and Milestones Y1RD016_Teererhat - Syedpur Road	March 25, 2019	USAID
38	USAID Reimbursement Implementation Order No. 08 -2015-R March 30, 2015	March 11, 2019	USAID
39	IO#08 - USAID 0031 - Accept LGED Road Design Y2RD015 Halta Clinic to Makuma Cyclone Shelter Road	March 25, 2019	USAID
40	IO#08 - USAID 0032 - Accept Costs and Milestones Y2RD015 Halta Clinic to Makuma Cyclone Shelter Road	March 25, 2019	USAID
41	IO#08 - USAID 0033 - Accept LGED Road Design Y2RD016_Pullerhat-Khajura Chaturbaria Road - Puller Hat	March 25, 2019	USAID
42	IO#08 - USAID 0034 - Accept Costs and Milestones Y2RD016_Pullerhat-Khajura Chaturbaria Road - Puller Hat	March 25, 2019	USAID
43	USAID Reimbursement Implementation Order No. 09 -2016-R May 2016	March 11, 2019	USAID
44	IO#09 - USAID 0035 - Accept LGED Road Design Y2RD011_Kushna UP Office - Gurpara Bazar Road	March 25, 2019	USAID
45	IO#09 - USAID 0036 - Accept Costs and Milestones Y2RD011_Kushna UP Office - Gurpara Bazar Road	March 25, 2019	USAID
46	USAID Reimbursement Implementation Order No. 10 -2016-R September 21, 2016	March 7, 2019	USAID
47	IO#10 - USAID 0039 - Accept LGED Road Design Y2RD018_Purapara Sardar para CARE Bridge_Sukpukuria Road	March 25, 2019	USAID
48	IO#10 - USAID 0040a - Accept Costs and Milestones Y2RD018_Purapara Sardar para CARE Bridge_Sukpukuria Road_Revised 22 July 2016	March 25, 2019	USAID

No.	Document Name and Date	Date Received	Source
49	IO#10 - USAID 0047 - Accept LGED Road Design Y3RD002 Charavita Bazar	March 25, 2019	USAID
50	IO#10 - USAID 0048 - Accept Costs and Milestones Y3RD002 Charavita Bazar-House of Atiar Rahman-Chaibaria Road	March 25, 2019	USAID
51	USAID Reimbursement Implementation Order No. 11 -2016-R June 28, 2016	March 7, 2019	USAID
52	IO#11 - USAID 0037 - Accept LGED Road Design Y3RD001_Nongorpur Mazar - Nongorpur GPS Road	March 25, 2019	USAID
53	IO#11 - USAID 0038 - Accept Costs and Milestones Y3RD001_Nongorpur Mazar - Nongorpur GPS Road	March 25, 2019	USAID
54	USAID Reimbursement Implementation Order No. 12 -2016-R September 6, 2016	March 7, 2019	USAID
55	IO#12 - USAID 0041 - Accept LGED Design Y1MC003_Shinghar Khajura Collection Center	March 25, 2019	USAID
56	IO#12 - USAID 0042 - Accept Costs and Milestones Y1MC003_Shinghar Khajura Collection Center	March 25, 2019	USAID
57	IO#12 - USAID 0043 - Accept LGED Design Y1MC004_Joypur Collection Center	March 25, 2019	USAID
58	IO#12 - USAID 0044 - Accept Costs and Milestones Y1MC004_Joypur Collection Center_Revised 4 Aug 2016	March 25, 2019	USAID
59	USAID Reimbursement Implementation Order No. 13 -2016-R November 9, 2016	March 7, 2019	USAID
60	IO#13 - USAID 0045 - Accept LGED Road Design Y3RD005 Churamonkathi GC-Kayermkhola GC Road	March 25, 2019	USAID
61	IO#13 - USAID 0046 - Accept Costs and Milestones Y3RD005_Churamonkathi GC-Kayermkhola GC Road	March 25, 2019	USAID
62	IO#13 - USAID 0053 - Accept LGED Road Design Y2RD010_UZ Headquarter - Darazhat UP Road	March 25, 2019	USAID
63	IO#13 - USAID 0054 - Accept Costs and Milestones Y2RD010_UZ Headquarter - Darazhat UP Road	March 25, 2019	USAID
64	IO#13 - USAID 0055 - Accept LGED Road Design Y2RD012_Mahmudpur Bazar to Vitabolla	March 25, 2019	USAID
65	IO#13 - USAID 0056 - Accept Costs and Milestones Y2RD012_Mahmudpur Bazar to Vitabolla	March 25, 2019	USAID
66	IO#13 - USAID 0026-01 - Accept Revised Costs and Milestones Y2RD010_Paira-Jamira Road	March 25, 2019	USAID

No.	Document Name and Date	Date Received	Source
67	USAID Reimbursement Implementation Order No. 14 -2016-R January 10, 2017	March 7, 2019	USAID
68	IO#14 - USAID 0049 - Accept LGED Design Y1MC005_Arpara Rural Market & Collection Center	March 25, 2019	USAID
69	IO#14 - USAID 0050 - Accept Costs and Milestones Y1MC005_Arpara Rural Market & Collection Center	March 25, 2019	USAID
70	IO#14 - USAID 0051 - Accept LGED Design Y1MC008_Bakospole Collection Center	March 25, 2019	USAID
71	IO#14 - USAID 0052 - Accept Costs and Milestones Y1MC008_Bakospole Collection Center	March 25, 2019	USAID
72	USAID Reimbursement Implementation Order No. 15 -2017-R August 1, 2017	March 11, 2019	USAID
73	IO#15 - USAID 0061 - Accept LGED Design Y2MC017_Puler hat Market and Collection Center	March 25, 2019	USAID
74	IO#15 - USAID 0062 - Accept Costs and Milestones Y2MC017_Puler hat Market and Collection Center	March 25, 2019	USAID
75	IO#15 - USAID 0063 - Accept LGED Design Y2MC018_Sukpukuria Market Center	March 25, 2019	USAID
76	IO#15 - USAID 0064 - Accept Costs and Milestones Y2MC018_Sukpukuria Market Center	March 25, 2019	USAID
77	USAID Reimbursement Implementation Order No. 16 -2017-R July 30, 2017	March 8, 2019	USAID
78	IO#16 - USAID 0059 - Accept LGED Road Design Y1RD013_Belermath-Kamalapur Road	March 25, 2019	USAID
79	IO#16 - USAID 0060 - Accept Costs and Milestones Y1RD013_Belermath-Kamalapur Road	March 25, 2019	USAID
80	IO#16 - USAID 0060-01 - Accept Revised Costs and Milestones Y1RD013_Belermath-Kamalapur Road revised 3.15	March 25, 2019	USAID
81	IO#16 - USAID 0069 - Accept LGED Road Design Y3RD003_Fokair Bari More - Barandi Beel Road	March 25, 2019	USAID
82	IO#16 - USAID 0070 - Accept Costs and Milestones Y3RD003_Fokair Bari More - Barandi Beel Road	March 25, 2019	USAID
83	USAID Reimbursement Implementation Order No. 17 -2017-R August 1, 2017	March 8, 2019	USAID
84	IO#17 - USAID 0065 - Accept LGED Design Y1MC001_Ningura Market & Collection Center	March 24, 2019	USAID

No.	Document Name and Date	Date Received	Source
85	IO#17 - USAID 0066 - Accept Costs and Milestones Y1MC001_Ningura Market & Collection Center	March 24, 2019	USAID
86	IO#17 - USAID 0067 - Accept LGED Design Y3CC001_Cold Chain Collection Center	March 24, 2019	USAID
87	IO#17 - USAID 0068 - Accept Costs and Milestones Y3CC001_Cold Chain Collection Center	March 24, 2019	USAID
88	USAID Reimbursement Implementation Order No. 18 -2017-R May 18, 2017	March 8, 2019	USAID
89	IO#18 - USAID 0071- Accept LGED Road Design Y4RD003_Godkhali bazar - Panishara UP (Borni bazar) Road (1)	March 24, 2019	USAID
90	IO#18 - USAID 0072 - Accept Costs and Milestones Y4RD003_Godkhali Bazar - Panishara UP (Borni Bazar) Road	March 24, 2019	USAID
91	IO#18 - USAID 0074 - Accept Costs and Milestones Y2RD007 Dalutpur WAPDA - Pakhimara Bazar Rd	March 24, 2019	USAID
92	IO#18 - USAID 0075 - Accept LGED Road Design Y2RD007 Dalutpur WAPDA - Pakhimara Bazar Road	March 24, 2019	USAID
93	IO#18 - USAID Y2RD007_Milestone	March 24, 2019	USAID
94	USAID Reimbursement Implementation Order No. 19 -2018-R May 28, 2018	March 8, 2019	USAID
95	IO#19 - USAID 0077 - Accept LGED Design Y5SG001_Re-excavation Digdana Khal for Irrigation	March 24, 2019	USAID
96	IO#19 - USAID 0078 - Accept Costs and Milestones Y5SG001_Re-excavation Digdana Khal for Irrigation corrected	March 24, 2019	USAID
97	IO#19 - USAID Y5SG001_Estimate & MS corrected	March 24, 2019	USAID
98	USAID Reimbursement Implementation Order No. 20 -2018-R May 28, 2018	March 11, 2019	USAID
99	IO#20 - USAID 0089 - Accept LGED Design Y6CC002_Kismat Chakla Bazar Collection Center	March 24, 2019	USAID
100	IO#20 - USAID 0090 - Accept Costs and Milestones Y6CC002_Kismat Chakla Bazar Collection Center	March 24, 2019	USAID
101	IO#20 - USAID 0091 - Accept LGED Design Y6CC003_Ramnagar Bazar Collection Center	March 24, 2019	USAID

No.	Document Name and Date	Date Received	Source
102	IO#20 - USAID 0092 - Accept Costs and Milestones Y6CC003_Ramnagar Bazar Collection Center	March 24, 2019	USAID
103	IO#20 - USAID 0095 - Accept LGED Design Y1MC002_Ghouriguna Market Collection Center	March 24, 2019	USAID
104	IO#20 - USAID 0096 - Accept Costs and Milestones Y1MC002_Ghouriguna Market Collection Center	March 24, 2019	USAID
105	USAID Reimbursement Implementation Order No. 21 -2018-R April 22, 2018	March 7, 2019	USAID
106	IO#21 - USAID 0079 - Accept LGED Road Design Y5RD001_Swarupda UP office -Kharincha Bazar Road	March 24, 2019	USAID
107	IO#21 - USAID 0080 - Accept Costs and Milestones Y5RD001_Swarupda UP office -Kharincha Bazar Road	March 24, 2019	USAID
108	IO#21 - USAID 0085 - Accept LGED Road Design Y5RD005_Panishara Khaler More - Choto Panishara Mosque More Road	March 24, 2019	USAID
109	IO#21 - USAID 0086 - Accept Costs and Milestones Y5RD005_Panishara Khaler More - Choto Panishara Mosque More Road	March 24, 2019	USAID
110	IO#21 - USAID 0093 - Accept LGED Road Design Y5RD007_Fulbari Railgate (RHD)- Hasanhati via Kastobhanga Bazar Road	March 24, 2019	USAID
111	IO#21 - USAID 0094 - Accept Costs and Milestones Y5RD007_Fulbari Railgate (RHD)- Hasanhati via Kastobhanga Bazar Road	March 24, 2019	USAID
112	USAID Reimbursement Implementation Order No. 22 -2018-R June 18, 2018	March 7, 2019	USAID
113	IO#22 - USAID 0101 - Accept LGED Design Y5CC001_Godkhali Flower Collection Centre	March 24, 2019	USAID
114	IO#22 - USAID 0102 - Accept Costs and Milestones Y5CC001_Godkhali Flower Collection Centre	March 24, 2019	USAID
115	USAID Reimbursement Implementation Order No. 23 -2018-R April 26, 2018	March 7, 2019	USAID
116	IO#23 - USAID 0097 - Accept LGED Road Design Y5RD006_Panishara Nabisuddin Rice Mill - Kulia Road	March 24, 2019	USAID
117	IO#23 - USAID 0098 - Accept Costs and Milestones Y5RD006_Panishara Nabisuddin Rice Mill - Kulia Road	March 24, 2019	USAID

No.	Document Name and Date	Date Received	Source
118	IO#23 – USAID EMMP Y5RD006 (May 2017)	March 24, 2019	USAID
119	USAID Reimbursement Implementation Order No. 24 -2018-R September 11, 2018	March 7, 2019	USAID
120	IO#24 - USAID 0057 - Accept LGED Road Design Y3RD004 Cyclone Shelter Road	March 24, 2019	USAID
121	IO#24 - USAID 0058 - Accept Costs and Milestones Y3RD004_Cyclone Shelter Road	March 24, 2019	USAID
122	IO#24 - USAID 0081 - Accept LGED Road Design Y5RD003_Panishara-Towra Road	March 24, 2019	USAID
123	IO#24 - USAID 0082 - Accept Costs and Milestones Y5RD003_Panishara-Towra Road	March 24, 2019	USAID
124	IO#24 - USAID 0083 - Accept LGED Road Design Y5RD004_Panishara - Kulia Road	March 24, 2019	USAID
125	IO#24 - USAID 0084 - Accept Costs and Milestones Y5RD004_Panishara-Towra Road	March 24, 2019	USAID
126	IO#24 - USAID 0103 - Accept LGED Road Design Y5RD009_Fulbari Railgate (RHD) Hasanhati via Wood Break (Kastobhanga) Bazar Road	March 24, 2019	USAID
127	IO#24 - USAID 0104 - Accept Costs and Milestones Y5RD009_Fulbari Railgate (RHD) Hasanhati via Wood Break (Kastobhanga) Bazar Road	March 24, 2019	USAID
128	USAID Reimbursement Implementation Order No. 25 -2018-R October 1, 2018	March 7, 2019	USAID
129	IO#25 - USAID 0073 - Accept LGED Design Y2MC004_Chapli Bazar Wholesale Market - Collection Center	March 24, 2019	USAID
130	IO#25 - USAID 0074 - Accept Costs and Milestones Y2MC004_Chapli Bazar Wholesale Market - Collection Center	March 24, 2019	USAID
131	IO#25 - USAID 0087 - Accept LGED Design Y6CC001_Danga Mohisdia Bazar CC	March 24, 2019	USAID
132	IO#25 - USAID 0088 - Accept Costs and Milestones Y6CC001_Danga Mohisdia Bazar CC	March 24, 2019	USAID
133	USAID Reimbursement Implementation Order No. 26 -2018-R December 19, 2018	March 11, 2019	USAID
134	IO#26 - USAID 0121 - Accept LGED Road Design Y6RD002_Dumurkhali-Goalbari Road	March 24, 2019	USAID

No.	Document Name and Date	Date Received	Source
135	IO#26 - USAID 0122 - Accept Costs and Milestones Y6RD002_Dumurkhali-Goalbari Road	March 24, 2019	USAID
136	IO#26 - USAID 0123 - Accept LGED Road Design Y6RD003_Haitpur Asrayan Prokolpo-Rampur Road	March 24, 2019	USAID
137	IO#26 - USAID 0124 - Accept Costs and Milestones Y6RD003_Haitpur Asrayan Prokolpo-Rampur Road	March 24, 2019	USAID
138	Target of completion for packages under IO-26 & 27	March 24, 2019	USAID
139	USAID Reimbursement Implementation Order No. 27 -2018-R December 19, 2018	March 7, 2019	USAID
140	IO#27 - USAID 0105 - Accept LGED Design Y6MC004_Pardia Market & Collection Center	March 24, 2019	USAID
141	IO#27 - USAID 0106 - Accept Costs and Milestones Y6MC004_Pardia Market & Collection Center	March 24, 2019	USAID
142	IO#27 - USAID 0107 - Accept LGED Design Y6CC005_Joypur Jamtola Collection Center	March 24, 2019	USAID
143	IO#27 - USAID 0108 - Accept Costs and Milestones Y6CC005_Joypur Jamtola Collection Center	March 24, 2019	USAID
144	IO#27 - USAID 0109 - Accept LGED Design Y6CC006_Gobindrapur Notun Bazar Collection Center	March 24, 2019	USAID
145	IO#27 - USAID 0110 - Accept Costs and Milestones Y6CC006_Gobindrapur Notun Bazar Collection Center	March 24, 2019	USAID
146	IO#27 - USAID 0111 - Accept LGED Design Y6CC007_Parkhajura Bazar Collection Center	March 24, 2019	USAID
147	IO#27 - USAID 0112 - Accept Costs and Milestones Y6CC007_Parkhajura Bazar Collection Center	March 24, 2019	USAID
148	IO#27 - USAID 0113 - Accept LGED Design Y6CC008_Joypur Kacharibari Collection Center	March 24, 2019	USAID
149	IO#27 - USAID 0114 - Accept Costs and Milestones Y6CC008_Joypur Kacharibari Collection Center	March 24, 2019	USAID
150	IO#27 - USAID 0115 - Accept LGED Design Y6CC009_Gabukhali Bazar Collection Center	March 24, 2019	USAID
151	IO#27 - USAID 0116 - Accept Costs and Milestones Y6CC009_Gabukhali Bazar Collection Center	March 24, 2019	USAID
152	IO#27 - USAID 0119 - Accept LGED Design Y6CC010_Panchbaria Bazar Collection Center	March 24, 2019	USAID

No.	Document Name and Date	Date Received	Source
153	IO#27 - USAID 0120 - Accept Costs and Milestones Y6CC010_Panchbaria Bazar Collection Center	March 24, 2019	USAID

Annex 6B: List of Other Documents Reviewed

#	Full Title, Author, Date Published, Version (final, draft) Link (if available), Date Downloaded (if available)	Date Received/ Accessed	Source
1	Scope of Work (SOW) for USAID BAIDP Final Performance Evaluation, February 10, 2019	February 10, 2019	USAID
2	Performance Monitoring Plan (PMP) for USAID Development Objective 2 (DO2) - June 2012	February 26, 2019	USAID
3	BAIDP-00 Activity Agreement No: 388-F-00-13-0001-00 for the Bangladesh Agricultural Infrastructure Development Program (BAIDP), LGED and USAID, Signed January 6, 2013	February 27, 2019	USAID
4	BAIDP-01 Amendment One-Adding \$4.2 million, Action Memorandum to the Mission Director, From. Mark Tegenfeldt, Director, Economic Growth Office	February 27, 2019	USAID
5	BAIDP-02 Amendment Two-Time extension to December 2018	February 27, 2019	USAID
6	BAIDP-03 Amendment Three Adding \$3 million, August 15, 2016	February 27, 2019	USAID
7	BAIDP-04 Amendment Four- December 2017	February 27, 2019	USAID
8	BAIDP-05 Amendment Five Adding \$3.5 million, Action Memorandum to the Mission Director, July 2018	February 27, 2019	USAID
9	BAIDP-06 Amendment Six-Adding 1.3 million, Action Memorandum to the Mission Director, September 2018	February 27, 2019	USAID
10	BAIDP Monitoring and Evaluation (M&E) Plan, June 14, 2015.	February 27, 2019	USAID
11	BAIDP Description- January 2012, http://www.lged.gov.bd/ProjectHome.aspx?projectID=284 BAIDP Scheme Details. http://www.lged.gov.bd/ProjectSchemeDetailsAllView.aspx?projectID=284 BAIDP Geographic Coverage. http://www.lged.gov.bd/ProjectGeographicalCoverage.aspx?projectID=284 BAIDP Organogram. http://www.lged.gov.bd/ProjectOrganogram.aspx?projectID=284 LGED Jashore Home page. http://www.lged.gov.bd/DistrictHome.aspx?districtID=41	February 27, 2019	Web
12	Access-to-Market and-Outcome-Experience of the Extreme- Poor, Mohammad Ali Ahsan, July 2016, UKAID, http://www.shiree.org/wp-content/uploads/2012/02/33-Access-to-Market-and-Outcomes-Experience-of-the-Extreme-Poor.pdf	February 27, 2019	Web

#	Full Title, Author, Date Published, Version (final, draft) Link (if available), Date Downloaded (if available)	Date Received/ Accessed	Source
13	IMC Project Rural infrastructure development _IMC Worldwide, Project Completed 2009-2010, http://www.imcworldwide.com/project/bangladesh-rural-infrastructure-development/	February 27, 2019	Web
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ANNEX 7: PROBLEMS IDENTIFIED AT BAIDP INFRASTRUCTURE SITES

ID	Type	Status	Summary of Findings
Y1RD001	Road	Completed	<ul style="list-style-type: none"> - Signal post uprooted and displaced (0.8 km) - Depression (0.8 km) - Soil erosion and breaking side of box-culvert (BC) (1.2 km) - Distress and horizontal crack (1.2 km, 1.5 km, 3.8 km, 3.9 km) - Depression in the approach of culvert slab and road (2.7 km, 2.2 km) - Huge distress and horizontal crack (3.4 km) - Marks of iron wheel vehicle in the top surface of road
Y1RD003	Road	Ongoing	<ul style="list-style-type: none"> - Workers are working without PPE - Site office facilities are incomplete
Y1RD004	Road	Completed	<ul style="list-style-type: none"> - Distress and horizontal crack (0.15 km, 2 km, 3.5 km, 4 km) - Minor depression (2.0 km) - Depression in the approach of culvert slab and road (3.5 km)
Y1RD006	Road	Completed	<ul style="list-style-type: none"> - Approach to the road is not smooth - Distress and longitudinal crack (0.75 km) - De-plastering in box culvert (0.75 km) - Edging failure due to soil erosion is damaging some parts of BC (0.8 km, 1 km)
Y1RD007	Road	Completed	<ul style="list-style-type: none"> - Drainage is in bad condition with visible water logging. Possibility of stripping and gradual breaking of BC (1.3 km) - Big depression in one place (1.3 km)
Y1RD010	Road	Completed	<ul style="list-style-type: none"> - Horizontal crack in several locations in the side of the road (0.25 km, 0.7 km, 4 km) possibly due to displaced brick edging - Distress and horizontal crack in several locations of the road (1.5 km, 4 km, 5.321 km)
Y1RD011	Road	Completed	<ul style="list-style-type: none"> - Depression in several locations of the road with massive one at 0.3 km distance - Low height slope protection wall (0.3 km)
Y1RD012	Road	Completed	<ul style="list-style-type: none"> - Visible distresses and horizontal crack in two sides of the road from starting to 0.2 km
Y1RD013	Road	Completed	<ul style="list-style-type: none"> - Some stripping of BC at 0.55 km - Approach to other road is not finished well and quality aspects are not maintained (3 km, 2.9 km) - Soil erosion at 2.9 km - Slab of culvert and approach of road is not finished well (2.7 km) - Thickness of BC is 30 mm, which is less by 2 mm than that of contract amount
Y1RD014	Road	Completed	<ul style="list-style-type: none"> - Side slope in one side in a very bad condition
Y1RD016	Road	Completed	<ul style="list-style-type: none"> - Depression in the approach of bridge and road
Y1RD020	Road	Completed	<ul style="list-style-type: none"> - Distress and horizontal crack (0 km, 0.2 km, 1.5 km) - Depression in the approach of culvert slab and road (0.5 km, 0.7 km, 1 km, 1.5 km) - Signal posts are not vertical (0.7 km) - Depression and water collection in the road (1 km)
Y1MC002	MC	Ongoing	<ul style="list-style-type: none"> - Materials stored in a way that coarse aggregate and sand has mixed - Rebar is stored directly in the soil, which led to corrugation

ID	Type	Status	Summary of Findings
Y1MC003	CC	Completed	<ul style="list-style-type: none"> - Site ID indicates MC, but actual site is CC - Construction joints are not done properly - Continuous crack in some places - Surface finishing and leveling is not good - Water clogging in top of CC is seen in some places - CC is used for storing sand for the adjacent ongoing construction - CC height makes a shadow that hinders crop yield according to farmer and land owner
Y1MC004	CC	Completed	<ul style="list-style-type: none"> - Site ID indicates MC, but actual site is CC - Crack in the side drain outlet - Debonding between RCC slab and side brick wall.
Y1MC005	MC	Completed	<ul style="list-style-type: none"> - Wrong drainage option in front of ramp - Depth of drain is not low enough to avoid overflow of discharged water during rainy season - No painting work is done other than neat cement finishing
Y1MC008	CC	Completed	<ul style="list-style-type: none"> - Site ID indicates MC, but actual site is CC - Approach of CC and road is not smooth - Outlet of drain filled with garbage and cracks in some places - Crack and de-plastering in the side walls of CC - Some part of the side drain is filled with clay - Debonding between RCC slab and side brick wall
Y2RD011	Road	Completed	<ul style="list-style-type: none"> - Distress failure at some locations (2 km, 2.9 km, 4.65 km) - Top surface of almost the whole road is slightly damaged due to the use of steel wheel vehicles - Surface drain is cracked or partly broken (2.5 km) - Face wall of culvert is cracked (2.6 km) - Potholes in some locations (2.65 km) - Depression and crack combined failure in approach of bridge (4.1 km, 4.65 km)
Y2RD012	Road	Completed	<ul style="list-style-type: none"> - Side slope is incomplete; many rat (weld access) holes observed in embankment that can be detrimental to stability; and low compacted unstable mix found in BC for 3-4-meter length that has most likely resulted from low temperature roller operation (23.16880, 89.346660)
Y2RD016	Road	Completed	<ul style="list-style-type: none"> - Side drain filled with clay and garbage (0.1 km) - Small crack on BC surface at 0.2 km - Inadequate drainage and collection of water in the side of road (0.3 km) - Depression and patching work in the road (0.3 km) - Soil erosion in edging brick (0.4 km) - Distress and continuous horizontal crack (0.5 km) - Soil erosion and side failure (0.5 km) - Patching of BC work in the edge of road, especially turning areas (1 km) - Crack in the face wall of BC - Distress, patching of BC, side failure and edging failure (1.4 km)
Y2RD018	Road	Completed	<ul style="list-style-type: none"> - Old bridge without railing (0.9km, 3.3 km) - Bridge deck and road connection is not smooth - Crack in the face wall of culvert - Depression in the connection of culvert slab and road (3.3 km)
Y2MC018	MC	Completed	<ul style="list-style-type: none"> - Wrong slope finishing to drain out MC water - Wrong placement of ramp

ID	Type	Status	Summary of Findings
Y3RD001	Road	Completed	<ul style="list-style-type: none"> - Top surface of BC is rough - Minor depression in the approach of culvert and road (0.15 km) - Distress and longitudinal crack at 0.15 km, 0.25 km, 0.4 km, 0.5 km - Visible sign of movement of iron wheel vehicle throughout the road - Edging displaced at 0.5 km
Y3RD002	Road	Completed	<ul style="list-style-type: none"> - Evidence of slight surface tear off in two locations, probably due to high temperature roller operation (23.20120, 89.372010 and 23.194430, 89.363340) - Road side slope is incomplete (4.175 km; 23.20181, 89.373390)
Y5RD003	Road	Ongoing	<ul style="list-style-type: none"> - No safety signage and cautionary signage at the site - Workers working without PPE
Y3RD003-3A	Road	Completed	<ul style="list-style-type: none"> - Depression in the approach of culvert slab and road - At the end part of 2.36 km, almost 500 m BC construction is inappropriate most likely because of inappropriate placement and compaction at low temperature
Y3RD004	Road	Ongoing	<ul style="list-style-type: none"> - Bricks seem a mixture of 1st class and 2nd class - During T-testing, sample brick has broken - Color of the broken brick seem low-burnt
Y3RD005	Road	Completed	<ul style="list-style-type: none"> - Side drain of starting of road filled with clay and garbage - Minor depression in the approach of culvert and road (0.15 km) - Face wall of culvert cracked massively at 0.15 km
Y5RD001	Road	Ongoing	<ul style="list-style-type: none"> - Painting on signal post yet to be done - Irrigation drain is constructed in some locations - Rebar is kept extended other than cutting (1 km) - Depression in the approach of culvert slab and road (1.6 km) - Workers working without PPE
Y5RD002	Road	Ongoing	<ul style="list-style-type: none"> - No safety signage, public cautionary signage or PPE for workers on the site
Y5RD005	Road	Ongoing	<ul style="list-style-type: none"> - No safety signage and cautionary signage at the site - Workers working without PPE
Y5RD009	Road	Ongoing	<ul style="list-style-type: none"> - Soil erosion resulting from improper soil compaction at 3.936 km and 2.863 km - Height of unsupported soil or unstable slope (top of road and top of slope protection wall) is more than 7 feet at 0.563 km
Y5SG001	Canal	Completed	<ul style="list-style-type: none"> - One of the two gate controls displaced and needs repair work in order to be workable
Y6RD003	Road	Completed	<ul style="list-style-type: none"> - Visible serious depression at BC in road - Side slope is not in good condition; Soil erosion from slope is visible (0.650 km, 0.8 km) - Proper geometric section of box culvert has not been maintained (0.650 km)
Y6CC002	CC	Completed	<ul style="list-style-type: none"> - Constructed drain has the possibility of silting and clogging by clay, especially in the summer and winter, as there is no top cover - Compaction of side slope is not done properly - Side slope at the start of CC seems unstable - At the end of CC, demarcation work has not been done in some portion
Y6CC003	CC	Completed	<ul style="list-style-type: none"> - Connection of CC and road is not finished well - Side drain is filled up with clay
Y6CC005	CC	Completed	<ul style="list-style-type: none"> - There is no provision for drain slab.
Y6CC008	CC	Completed	<ul style="list-style-type: none"> - Approach to CC is not smooth and so bad that water can collect - Some part of the side wall is filled with clay - Hole in the side soil which results from improper compaction and drainage

ID	Type	Status	Summary of Findings
Y6CC010	CC	Completed	- Approach of road and CC has partly cracked

ANNEX 8: DATABASE AND MAPS OF BAIDP CONSTRUCTION SITES (SEPARATE EXCEL FILE)

USAID BAIDP Construction Sites



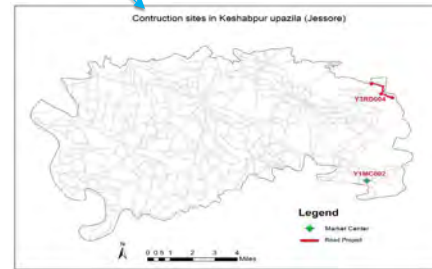
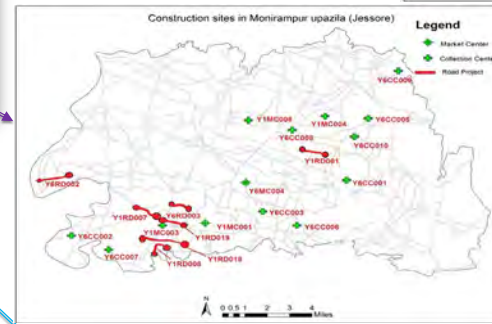
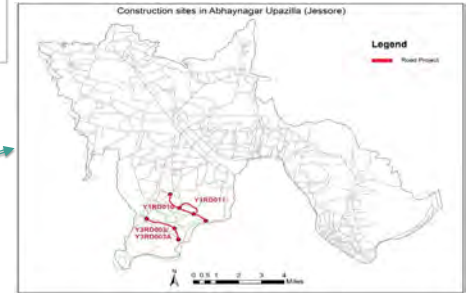
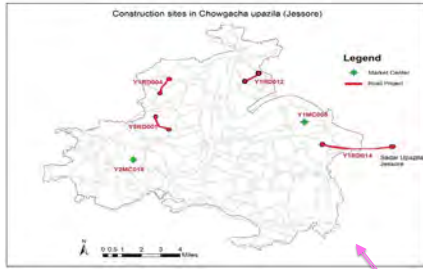
TOTAL VALUE : BDT 1,394,796,872.07 **Last Updated:** 7/15/19

NAME:	Muhammad Imran Khan, Data Analyst / GIS Specialist, USAID BMEL Activity	Abhoyanagar / Jashore Summary:	3 Sites; 3 Roads, Total length 11.155
ADDRESS:	ikhan@engl.com	Bagherpara / Jashore Summary:	5 Sites; 1 MC, 4 Roads, Total length 15.299
PHONE:	+88 01730310497	Chowgacha / Jashore Summary:	7 Sites; 2 MC, 5 Roads, Total length 16.873
CREATED BY:	USAID/BMEL Activity	Jhikargacha / Jashore Summary:	10 Sites; 1 SG, 1 CC, 2 MC, 6 Roads, Total length 11.075
		Keshabpur / Jashore Summary:	2 Sites; 1MC, 1 Road, Total length 2.291
		Sadar / Jashore Summary:	9 Sites; 1 MC, 8 Roads, Total length 16.235
		Monirampur / Jashore Summary:	22 Sites; 2 MC, 12 CC, 8 Roads, Total length 17.635

SLICERS	Upazila	District	Type of Site	Rehabilitation Status	Overrun
	Abhoyanagar	Bagherpara	Chowgacha	Jhikargacha	
	Kalapara	Kaliganj	Sadar	Kotchandpur	
	Mathbaria	Monirampur			
			District	Type of Site	Rehabilitation Status
			Jashore	Collection Center	Cancelled
			Jhenaidah	Market Center	Completed
			Patuakhali	Road	Ongoing
			Pirajpur	Sluice Gate (Irrigation)	
				Cost	Time
				Time & Cost	(blank)

S te #	Upazila	District	Type of Site	O No.	LGED D	USAID ID	Name	Length (km)	GPS Start (from implementat on Orders)	GPS End (from implementat on Orders)	GPS start (from eva uat on eng neers)	GPS end (from eva uat on eng neers)	Rehabilitation Status	Tota BDT Value	F na Contract Amount	Overrun	Remarks
1	Abhoyanagar	Jashore	Road	7	241042010	Y1RD010	Faira - Jamira via Ghoradiar Primary School Road	5.321	22°58'22.68"N 89°23'37.34"E	22°57'41.09"N 89°23'28.46"E	22.983219, 89.389553	22.943203, 89.396484	Completed	55,048,043.64	47,098,313.15		Cost
2	Abhoyanagar	Jashore	Road	7	241045226	Y1RD011	Ghoradiar - Koyar Beel Road	1.889	22°58'22.68"N 89°23'37.34"E	22°58'11.17"N 89°23'51.87"E	22.967567, 89.39331	22.972876, 89.393797	Completed	14,251,540.58	10,147,622.93		
3	Abhoyanagar	Jashore	Road	16	241044014,241044067,241045240 & 241045580	Y3RD003/ Y3RD003A	Fokirbari More Barandi Beel- WF programs	3.945	D003A-22°57'16.86"N, 89°22'57.38"E	D003A-22°56'54.20"N, 89°23'44.03"E	22.964671, 89.374186	22.949739, 89.379775	Completed	37,249,462.61	37,587,474.56		
4	Bagherpara	Jashore	Road	13	241093011	Y2RD010	UZ Head quarter-Darazhat UP Road	4.752	23°13'13.18"N 89°20'47.71"E	23°12'05.50"N 89°19'41.57"E	23.22026, 89.34646	23.2016666, 89.328333	Completed	28,349,574.90	22,718,205.00		
5	Bagherpara	Jashore	Road	13	241093006	Y2RD012	Mahmudpur Bazar to Vitabolla via Shaikhali Road	4.650	23°10'14.30"N 89°20'22.30"E	23°09'55.30"N 89°22'27.30"E	23.17062, 89.33998	23.16536, 89.37404	Completed	48,261,039.42	41,680,960.44		
6	Bagherpara	Jashore	Road	8	241095035	Y2RD016	Pullehat - Khajura Churbaria Road	1.722	25.803°N & 73.467°E;	25.789°N & 73.476°E;	23.306748, 89.296537	23.312508, 89.29882	Completed	14,946,367.04	13,459,058.56		
7	Bagherpara	Jashore	Road	10	241095105,241094019 & 241095190	Y3RD002	Charavita Bazar - House of Atar Rahman - Chalbarta Road	4.175	23°11'21.94"N, 89°26'41.33"E	23°12'6.81"N, 89°22'24.12"E	23.189444, 89.444722	23.192777, 89.358888	Completed	41,608,463.01	30,882,376.58		IO#10 has wrong coordinates
8	Bagherpara	Jashore	Market Center			Y2MC017	Puler hat Market & Collection Centre (connected to Road 016)		23°18'24.04"N 89°17'47.01"E				Cancelled				
9	Chowgacha	Jashore	Market Center	14		Y1MC005	Arpara Market & Collection Center		23°16'57.10"N 89°06'7.13"E		23.282601, 89.102039		Completed	5,895,969.01	3,465,287.37		
10	Chowgacha	Jashore	Market Center	15		Y2MC018	Purpara Market Center (Sulpukuria Market & Collection Center)		23°16'23.21"N, 89°56'24.76"E		22.253079, 88.943014		Completed	3,221,583.98	2,784,616.00		
11	Chowgacha	Jashore	Road	1	241113016 & 241115049	Y1RD004	Shorupda-Bagardari Road	4.767	23°15'12.25"N 88°59'54.79"E	23°16'19.37"N 89°0'38.46"E	23.253364, 88.998535	23.271989, 89.010662	Completed	41,394,006.62	40,776,654.39		Time & Cost
12	Chowgacha	Jashore	Road	2	241114053	Y1RD012	Sayedpur-Kamilar Road & Culvert	1.470	23°15'59.05"N 89°06'56.01"E	23°16'11.76"N 89°7'15.02"E	23.264764, 89.120104	23.25801, 89.118992	Completed	12,383,483.15	10,848,769.81		
13	Chowgacha	Jashore	Road	2	241114054	Y1RD014	Sayedpur-Balighat Road	3.115	23°16'11.76"N 89°07'15.02"E	23°16'12.78"N 89°08'20.23"E	23.269948, 89.149381	23.270249, 89.139018	Completed	29,570,616.80	23,593,602.39		
14	Chowgacha	Jashore	Road	10	241115062	Y2RD018	Purpara Sadar para CARE Bridge-Sulpukuria	5.868	23°15'29.5"N, 89°14'14.10"E	23°15'30.67"N, 88°55'32.11"E;	23.279687, 88.94946	23.258535, 88.925615	Completed	58,998,302.48	50,023,946.00		
15	Chowgacha	Jashore	Road	21	241113016	YSRD001	Shorapda UP office-Kharincha Bazar Road	1.700	23°16'00.10"N 88°59'23.80"E	23°16'28.30"N 88°58'45.80"E	23.266626, 88.989939	23.274601, 88.979354	Ongoing	24,966,838.14	26,400,188.21		
16	Sadar	Jashore	Collection Center	17		Y3CC001	Nongorpur Mazar Collection Center (Cold Chain CC)		23°15'29.37"N 89°14'14.34"E				Cancelled	3,974,590.01			
17	Sadar	Jashore	Road	6	241614031	Y1RD006	Somsapur - Rahomatpur Road	1.930	23°3'39.09"N 89°13'53.41"E	23°2'52.22"N 89°15'58.15"E	23.273524, 89.158981	23.280408, 89.173619	Completed	22,385,035.40	18,387,170.47		Time
18	Sadar	Jashore	Road	16	241474067	Y1RD013	Belemath-Kalampur Road	3.137	23°14'08.31"N 89°07'15.70"E	23°15'28.09"N 89°07'08.47"E	23.235652, 89.120965	23.257749, 89.119055	Completed	28,955,078.87	27,037,414.31		
19	Sadar	Jashore	Road	3	241472010	Y1RD015/Y1RD017	Teerhat-Mothurapur Rd/Habaturpur-Mothurapur Rd	2.450	23°15'26.62"N 89°09'49.04"E	23°15'42.14"N 89°08'57.71"E	23.257409, 89.163595	23.26037, 89.146599	Completed	25,305,208.87	21,497,079.56		Cost
20	Sadar	Jashore	Road	7	241472010	Y1RD016	Teerhat - Sayedpur Road	1.600	23°15'39.7"N 89°08'33.4"E	23°15'40.214"N 89°05'18.12"E	23.261129, 89.142489	23.261804, 89.128346	Completed	22,047,112.80	21,648,732.12		Cost
21	Sadar	Jashore	Road	3	241475011	Y1RD020	Mothurapur - Somsapur Road	2.749	23°15'42.18"N 89°08'57.59"E	23°16'24.30"N 89°09'32.23"E	23.261976, 89.120865	23.27361, 89.159031	Completed	23,626,089.83	19,857,282.75		Time
22	Sadar	Jashore	Road	11	241475308	Y3RD001	Nongorpur Mazar to Nongorpur GPS Road (Cold Chain Project)	0.597	23°15'29.5"N, 89°14'14.1"E	23°15'22.4"N, 89°13'58.0"E	23.25827, 89.237272	23.256189, 89.232725	Completed	6,653,421.48	6,090,716.25		IO#11 has wrong GPS start location and probably wrong length
23	Sadar	Jashore	Road	13	41472014	Y3RD005	Charamonathi GC - Kayemkhola GC	1.468	23°13'8.38"N, 89°9'17.62"E	23°13'19.27"N, 89°9'13.00"E	23.203218, 89.142489	23.212367, 89.139168	Completed	16,779,677.51	14,076,100.00		
24	Sadar	Jashore	Road			Y6RD001	Teerhat-Balighat Road	2.304	23°15'41.00"N 89°08'27.90"E	23°16'42.40"N 89°08'31.50"E	23.261397, 89.141079	23.261432, 89.141109	Ongoing	18,002,993.05	18,896,398.28		
25	Jhikargacha	Jashore	Sluice Gate (Irrigation)	19		Y5SG001	Re-excavation of Digtana Khal		22°58'16.73"N 89°04'53.83"E	23°03'27.71"N 89°05'00.73"E	22.964722, 89.09		Completed	6,577,305.55	6,683,914.64		
26	Jhikargacha	Jashore	Collection Center	22		Y5CC001	Godkhali Flower Market and Collection Centre Complex		23°03'5.50"N 89°03'38.90"E		23.1648, 89.21109		Ongoing	31,077,943.21	30,450,165.03		
27	Jhikargacha	Jashore	Market Center	22		Y5MC001	Godkhali Flower Market Centre Complex		23°03'5.50"N 89°03'38.90"E		23.1648, 89.21109		Ongoing	98,134,946.60	92,592,366.62		
28	Jhikargacha	Jashore	Market Center			Y5MC001 (extension)	Godkhali Flower Market Centre Complex				23.1648, 89.21109		Ongoing				
29	Jhikargacha	Jashore	Road	18	241233025	Y4RD003	Godkhali bazar - Panishara UP (Borni bazar) Road	1.500	23°03'31.30"N, 89°04'11.50"E	23°03'27.71"N, 89°05'00.73"E	23.058721, 89.069687	23.057692, 89.083517	Ongoing	16,333,549.33	15,683,689.61		
30	Jhikargacha	Jashore	Road		no ID	Y5RD002	Godkhali - Seordah GC road	5.905	23°04'50.30"N 89°03'30.10"E; (23.080619, 89.058336)	23°02'04.00"N 89°03'30.30"E; (23.034506, 89.058505)	23.080619, 89.058336	23.034506, 89.058505	Ongoing	108,140,633.40	101,143,974.03		
31	Jhikargacha	Jashore	Road	24	241235035	YSRD003	Panishara-Towra Road	0.833	23°03'06.80"N & 89°03'56.40"E	23°03'31.60"N & 89°04'05.10"E	23.051819, 89.065652	23.058811, 89.06809	Ongoing	9,639,413.71	9,785,554.29		
32	Jhikargacha	Jashore	Road	24	241235036	YSRD004	Panishara - Kulia Road	1.312	23°02'42.50"N 89°03'50.10"E;	23°02'25.00"N 89°04'24.20"E;	23.051819, 89.065652	23.040287, 89.073382	Ongoing	12,716,232.59	13,380,704.71		
33	Jhikargacha	Jashore	Road	21	241235390	YSRD005	Panishara Khaler more - Choto Panishara Mosque more road	1.022	23°03'23.80"N 89°03'31.90"E	23°03'04.90"N 89°03'38.50"E	23.056575, 89.058862	23.051391, 89.060737	Ongoing	16,215,144.39	17,053,644.40		

Site #	Upazila	District	Type of Site	O No.	LGED D	USAID ID	Name	Length (km)	GPS Start (from mp ementat on Orders)	GPS End (from mp ementat on Orders)	GPS start (from eva uat on eng neers)	GPS end (from eva uat on eng neers)	Rehabilitation Status	Tota BDT Value	F na Contract Amount	Overrun	Remarks
34	Jhikargacha	Jashore	Road	23	241235294	Y5RD006	Panishara Nabisadding Rice Mill - Kulia Road	0.503	23°02'48.50"N 89°03'35.40"E	23°02'42.50"N 89°03'50.10"E	23.16543, 89.21097	23.98326, 89.38964	Completed	4,505,815.83	4,827,275.17		
35	Keshabpur	Jashore	Market Center	20		Y1MC002	Ghouriguna Market & Collection Center		22°50'40.64"N 89°20'56.92"E		22.851989, 89.382887		Ongoing	32,210,406.83	30,537,772.13		
36	Keshabpur	Jashore	Road	24	241385133	Y3RD004	Cyclone Shelter Road	2.290	22°55'12.34"N, 89°19'54.43"E	22°54'30.83"N, 89°20'15.40"E	22.920082, 89.331784	22.908828, 89.338037	Ongoing	19,374,863.64	26,067,634.47		
37	Monirampur	Jashore	Collection Center	12		Y1MC003	Shinghar Khajura "Y" Junction Collection Center		22°57'32.9"N 89°10'02.1"E		22.959204, 89.167251		Completed	7,940,055.42	5,620,157.00		Check GPS location as per LGED design map
38	Monirampur	Jashore	Collection Center	12		Y1MC004	Joypur Collection Center		23°02'52.70"N 89°15'57.50"E		23.048021, 89.266047		Completed	528,471.95	367,200.00	Cost	IO#12 may have GPS location error, as it shows the same location as Y1MC003. But LGED design shows 2 different
39	Monirampur	Jashore	Collection Center	14		Y1MC008	Bakshpole Collection Center		23°02'50.47"N 89°14'10.41"E		23.041692, 89.19941		Completed	2,107,620.68	1,537,476.31		
40	Monirampur	Jashore	Collection Center	25		Y6CC001	Danga Mohisdia Bazar Collection Center		23°15'29.37"N, 89°14'14.34"E		23.001938, 89.302892		Completed	1,059,323.00	1,006,260.35		
41	Monirampur	Jashore	Collection Center	20		Y6CC002	Kismet Chakia Bazar Collection Center		22°58'53.40"N 89°05'25.71"E	?? N = 2539306.95, E=714349.98	22.948004, 89.091674		Completed	1,980,535.66	2,275,329.00		IO#20 location (in red) not understandable
42	Monirampur	Jashore	Collection Center	20		Y6CC003	Ramnagar Bazar Collection Center		22°58'16.80"N 89°13'39.90"E	?? N = 2542079.32, E=728368.52	22.971392, 89.227625		Completed	1,356,139.39	1,308,279.82		IO#20 location (in red) not understandable
43	Monirampur	Jashore	Collection Center	27		Y6CC005	Joypur Jamtola Bazar Collection Center		E=730648.51, N=2550614.16		23.047252, 89.250995		Completed	3,403,212.57	3,383,608.31		IO#27 location (in red) not understandable
44	Monirampur	Jashore	Collection Center	27		Y6CC006	Gobindapur Natun Bazar Collection Center		E=730334.94, N=2541891.54		22.968472, 89.246523		Ongoing	2,744,905.14	2,437,191.42		IO#27 location (in red) not understandable
45	Monirampur	Jashore	Collection Center	27		Y6CC007	Parkhajura Bazar Collection Center		E=716747.97, N=2539040.34		22.945239, 89.11511		Completed	2,166,302.88	2,168,135.74		IO#27 location (in red) not understandable
46	Monirampur	Jashore	Collection Center	27		Y6CC008	Joypur Kacharbari Collection Center		E=730838.86, N=2550256.53		23.044475, 89.252919		Completed	1,570,194.88	1,551,335.43		IO#27 location (in red) not understandable
47	Monirampur	Jashore	Collection Center	27		Y6CC009	Gabukhali Bazar Collection Center		E=736610.82, N=254291.96		23.080499, 89.308986		Ongoing	4,244,322.30	3,782,692.59		IO#27 location (in red) not understandable
48	Monirampur	Jashore	Collection Center	27		Y6CC010	Panchbaria hat Collection Center		E=735239.72, N=2549312.75		23.035672, 89.295629		Completed	1,443,462.15	1,420,316.39		IO#27 location (in red) not understandable
49	Monirampur	Jashore	Market Center	17		Y1MC001	Nengura Market & Collection Center		22°57'17.70"N 89°10'44.15"E		22.955135, 89.179037		Completed	3,974,590.01	3,672,535.36		
50	Monirampur	Jashore	Market Center	27		Y6M004	Paridia Market & Collection Center		E=725672.60, N=2544586.74		22.9943666666667, 89.2013666666667		Ongoing	4,568,038.16	4,257,360.96		IO#27 location (in red) not understandable
51	Monirampur	Jashore	Road	4	241613006	Y1RD001	Delubati - Joypur Road	4.826	23°03'39.09"N 89°13'53.41"E	23°02'52.22"N 89°15'58.15"E	23.060917, 89.231431	23.047884, 89.265962	Completed	47,069,717.59	37,294,095.36	Time	
52	Monirampur	Jashore	Road	26		Y1RD003	Jajira - Baksoipol Road	2.370	23°03'2.01"N 89°13'47.53"E	23°03'3.26"N 89°13'40.38"E	23.039622, 89.247238	23.050454, 89.229886	Ongoing	41,209,503.35	36,359,819.18		
53	Monirampur	Jashore	Road	6	241615212	Y1RD007	Sahapur - Moshimagar Road	1.496	22°57'19.59"N 89°09'11.64"E	22°57'35.19"N 89°8'48.59"E	22.955488, 89.153306	22.963293, 89.147372	Completed	15,209,828.63	11,952,473.00		
54	Monirampur	Jashore	Road	4	241614039	Y1RD008	Shinghar Khajura- Haltpur Road	0.800	22°57'33.19"N 89°10'02.66"E	22°57'19.32"N 89°09'47.99"E	22.959126, 89.167257	22.955264, 89.163319	Completed	2,382,076.16	1,935,680.25		IO#4 GPS location may have errors
55	Monirampur	Jashore	Road	3	241614092	Y1RD018	Mobarakpur - Shinghar Khajura Road	2.926	22°58'8.61"N 89°9'33.06"E	22°57'33.09"N 89°10'2.27"E	22.954882, 89.180399	22.969132, 89.159291	Completed	15,424,848.34	10,198,280.00		
56	Monirampur	Jashore	Road	6	241614040	Y1RD019	Haltpur - Sahapur Road	1.100	22°57'19.32"N 89°09'47.79"E	22°57'19.68"N 89°09'11.89"E	22.955401, 89.163141	22.955391, 89.163099	Completed	17,560,817.07	18,946,691.82	Cost	
57	Monirampur	Jashore	Road	26	241614105	Y6RD002	Dumkhal - Goalbari road	3.100	22°59'40.70"N 89°06'09.40"E	22°59'38.20"N 89°04'30.30"E	22.985857, 89.100509	22.9939444444444, 89.5716666666667	Completed	26,299,839.62	26,583,624.25		
58	Monirampur	Jashore	Road	26	241615009	Y6RD003	Haltpur Asrayan Prokolpo - Rampur Road Rulbaria Railgate (RHD) Hasanhati via Kastobhanga Bazar Road (Ch 0-7/68)	1.017	22°57'33.80"N 89°09'52.70"E	2546948.20 N 720972.80 E	22.962122, 89.155218	22.959974, 89.164655	Completed	6,131,927.73	6,020,834.23		
59	Kaliganj	Jhenaidah	Road	21	244334059	Y5RD007	Kastobhanga Bazar Road (Ch 0-7/68)	5.769	23°17'12.50"N 89°09'18.50"E	23°17'38.16"N 89°06'56.35"E	23.293373, 89.115764	23.286742, 89.155139	Ongoing	45,446,385.07	44,205,236.57		
60	Kaliganj	Jhenaidah	Road	24	244334059	Y5RD009	Kastobhanga Bazar Road (Ch 5769-10632m)	4.863	23°17'38.16"N 89°06'56.35"E	23°18'43.80"N 89°05'26.00"E	23.31134, 89.090504	23.29333, 89.115788	Ongoing	44,675,227.86	44,893,311.03		
61	Kotchandpur	Jhenaidah	Road	9	244423003	Y2RD011	Kastobhanga Bazar Office-Gurpara bazar(Bakshipur) road	4.970	23°27'38.22"N 89°00'47.56"E	23°26'13.02"N 89°02'32.52"E	23.460683, 89.013266	23.437061, 89.042303	Completed	47,278,528.00	44,763,592.40		
62	Kalapara	Patuakhali	Market Center	25		Y2MC004	Chapibazar Market & Collection Center		21°50'09.20"N, 90°12'22.95"E		not visited		Ongoing	12,036,465.67	10,938,105.92		
63	Kalapara	Patuakhali	Road	18	578665089	Y2RD007	Daulatpur WAPDA - Pakhimara Bazar	4.525	21°56'35.1"N, 90°08'37.6"E	21°56'48.1"N, 90°10'31.3"E	not visited		Ongoing	42,330,139.16	38,684,373.11		
64	Nathbaria	Pirojpur	Road	8	579584099	Y2RD015	Haba Clinic-Makuma Cyclone shelter road	5.180	22°15'14.2"N & 90°01'18.7"E	22°15'42.4"N & 90°00'0.4"E	not visited		Completed	53,523,639.35	51,011,954.44		
TOTALS		CONSTRUCTION SITES: 64			TOTAL LENGTH: 115.916								64	BDT 1,394,796,872.07	BDT 1,275,798,614.47		



Upazila Lookup

Modify or add entries to this list. Simply type over an existing entry or add a new entry directly below the last row of the table.

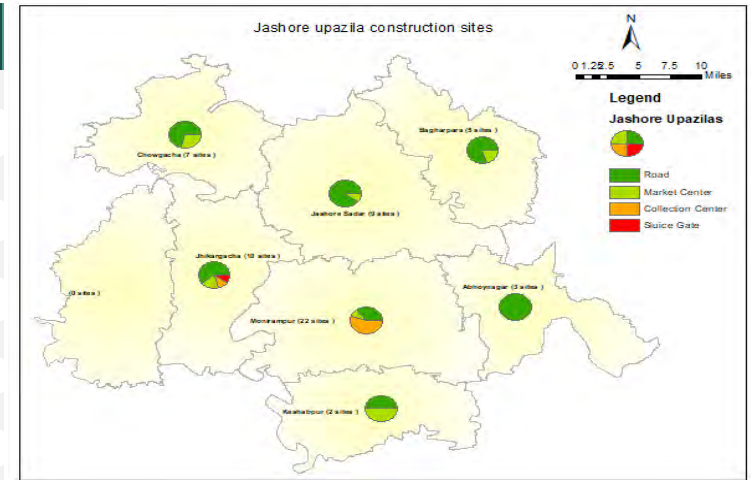
Upazila
Abhoynagar
Bagherpara
Chowgacha
Jhikargacha
Keshabpur
Monirampur
Sadar
Kotchandpur
Kaliganj
Kalapara
Mathbaria

Type of Construction
Road
Market Center
Collection Center
Sluice Gate (Irrigation)

District
Jessore
Jhenaidah
Patuakhali
Pirojpur

Overrun
Time
Cost
Time & Cost
(none)

Upazila	District	Road	MC	CC	SG	Total (site in upazila)	Bar Chart (Number of sites of each type)
Abhoynagar	Jashore	3				3	
Bagherpara	Jashore	4	1			5	4 Road, 1 MC
Chowgacha	Jashore	5	2			7	5 Road, 2 MC
Jhikargacha	Jashore	6	2	1	1	10	6 Road, 2 MC, 1 CC, 1 SG
Keshabpur	Jashore	1	1			2	1 Road, 1 MC
Monirampur	Jashore	8	2	12		22	8 Road, 2 MC, 12 CC
Sadar	Jashore	8	1			9	8 Road, 1 MC
Kotchandpur	Jhenaidah	1				1	1 Road
Kaliganj	Jhenaidah	2				2	2 Road
Kalapara	Patuakhali	1	1			2	1 Road, 1 MC
Mathbaria	Pirojpur	1				1	1 Road
Total (type of site)		40	10	13	1		



ANNEX 9: PHOTOS OF BAIDP CONSTRUCTION SITES (GOOGLE DRIVE)

ANNEX 10: EVALUATION TEAM MEMBERS

1. Team Leader/Evaluation Specialist

Mr. John Willsie has served as a Team Leader or member conducting multiple evaluations and assessments on behalf of USAID, USDA and the World Bank. He is an agribusiness expert with three decades of global experience as a private sector entrepreneur engaged in agriculture, food processing, manufacturing, transportation and aviation. Mr. Willsie has 15 years of donor development experience in Africa, Eastern Europe, and Central and South Asia. In conjunction with donor development assignments within Bangladesh, Mr. Willsie has worked directly with senior governmental officials in the Ministries of Industries, Agriculture and Health. Mr. Willsie has also interacted with governmental officials at the division, district and upazila level in Bangladesh. He is knowledgeable concerning USAID code 22 CFR and ADS 204. While managing a USAID project in Afghanistan, Mr. Willsie had an extensive working relationship with the US Army Corps of Engineers during the USAID funded conversion of a large military complex into a regional public event center. In 2015, on behalf of USAID BH and BFS, Mr. Willsie conducted an assessment of the USAID Nutrition Portfolio in Bangladesh. In 2016, he participated in the final evaluation of a USAID project related to linking farm products to markets.

2. Agri-Business Expert (Bangladeshi)

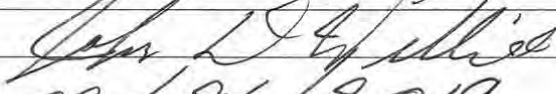
Mr. Rafiq Sarkar has more than 24 years of experience in developing, implementing, monitoring, and evaluating agriculture, value chain, market, and gender-based programs. He has extensive experience in strategies for agribusiness and agricultural market systems; private sector development; supply chain management; contract farming, rural market development (M4P); value chain strengthening; capacity building to enhance small to medium-sized enterprises' competitiveness and growth management; rural enterprise development; the farmer-to-farmer learning process. As a consultant, Mr. Sarkar also worked on more than 40 evaluations, assessments, surveys, and feasibility studies and has developed on business plans and participated in sub-sector and value chain assignments (agro-based, off-farm and non-agriculture, production, market research, and sector diagnosis). He has also worked on projects focused on women's economic empowerment and mainstreaming women's participation in the value chain. Mr. Sarkar's modern agricultural farming system experience includes GlobalG.A.P (good agricultural practices), agronomic practices and agro-based compliances, and he is a GlobalG.A.P. Licensed Certified Farm Assurer (crops, vegetables, and fruits). Mr. Sarkar has worked in Bangladesh, Bhutan, Sri Lanka, India, Malaysia, Afghanistan, Thailand, the UAE, and Singapore.

3. Senior Civil Engineer (Bangladeshi)

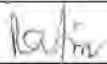
Dr. Javed Bari has more than 21 years of government, development sector, corporate and research experience in civil engineering in Bangladesh and the United States, including 15 years of university teaching. He also has extensive experience managing civil engineering projects related to pavement design, highway projects, construction and maintenance of roads, drainage structures, and public buildings. As a consultant, he has assessed roads and other structures for the World Bank and Asian Development Bank. Dr. Bari is a registered Professional Civil Engineer in the United States with an active license and he is a Transportation Engineering/Materials expert of the Southwest region of the United States. He is proficient in numerous computer applications for pavement design and management, statistical analysis, computer aided design (CAD), project management, engineering estimates and software programming. Dr. Bari has supervised junior engineers as the manager for many projects and consultancies.

Conflict of Interest Declarations


Name	John Willisie
Title	Team Leader/Evaluation Specialist
Organization	ME&A
Evaluation Position?	<input checked="" type="checkbox"/> Team Leader <input type="checkbox"/> Team member
Evaluation Award Number (or RFTOP or other appropriate instrument number)	Bangladesh Monitoring, Evaluation and Learning Activity (BMEL) Tasking Request S003
Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	Bangladesh Agriculture Infrastructure Development Project (BAIDP); GOB Local Government Engineering Department (LGED); U.S. Army Corps of Engineers; Agreement No. 388-F-00-13-00001-00
I have real or potential conflict of interest to disclose.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>If yes answered above, I disclose the following facts:</p> <p><i>Real or potential conflicts of interest may include, but are not limited to:</i></p> <ol style="list-style-type: none"> 1. Close family member who is an employee of the DoS operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the DoS operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation. 	

Signature	
Date	02/26/2019

Name	Md. Abdur Rafiq Sarkar
Title	Agri-Business Expert
Organization	ME&A
Evaluation Position?	<input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member
Evaluation Award Number (or RFTOP or other appropriate instrument number)	Bangladesh Monitoring, Evaluation and Learning Activity (BMEL) Tasking Request S003
Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	Bangladesh Agriculture Infrastructure Development Project (BAIDP); GOB Local Government Engineering Department (LGED); U.S. Army Corps of Engineers; Agreement No. 388-F-00-13-00001-00
I have real or potential conflict of interest to disclose.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i> <ol style="list-style-type: none"> 1. Close family member who is an employee of the DoS operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the DoS operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation. 	

Signature	
Date	June 26, 2019

Name	Javed Bari
Title	Senior Civil Engineer
Organization	ME&A
Evaluation Position?	<input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member
Evaluation Award Number (or RFTOP or other appropriate instrument number)	Bangladesh Monitoring, Evaluation and Learning Activity (BMEL) Tasking Request S003
Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	Bangladesh Agriculture Infrastructure Development Project (BAIDP); GOB Local Government Engineering Department (LGED); U.S. Army Corps of Engineers; Agreement No. 388-F-00-13-00001-00
I have real or potential conflict of interest to disclose.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i> <ol style="list-style-type: none"> 1. Close family member who is an employee of the DoS operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the DoS operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation. 	

Signature	
Date	February 26, 2019