

Japan-Bangladesh Joint Evaluation

GOJ-GOB Programme Level Evaluation

-- Japanese Assistance to LGED Related Sectors --

Final Report

March 2006

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Abbreviation and Acronyms

ACE	Additional Chief Engineer
ADB	Asian Development Bank
ADP	Annual Development Programme
BDRCS	Bangladesh Red Crescent Society
BIDS	Bangladesh Institute of Development Studies
BMD	Bangladesh Meteorological Department
BRAC	Bangladesh Rural Advancement Committee
BRDB	Bangladesh Rural Development Board
BUET	Bangladesh University of Engineering and Technology
BWDB	Bangladesh Water Development Board
CAP	Country Assistance Programme (of the Government Japan for Bangladesh)
CARE	Cooperative for Assistance and Relief Everywhere
CDMP	Comprehensive Disaster Management Programme
CE	Chief Engineer
CIDA	Canadian International Development Agency
CPP	Cyclone Preparedness Program
CPTU	Central Procurement Technical Unit
CS	Cyclone Shelter
DANIDA	Danish International Development Agency
DFID	Department for International Development (of UK)
DMB	Disaster Management Bureau
DMC	Disaster Management Committee
DPE	Directorate of Primary Education
DPEO	District Primary Education Officer
DRGA	Debt Relief Grant Aid
DRGA-CF	Debt Relief Grant Aid Counterpart Fund
DRR	Directorate of Relief and Rehabilitation
ECNEC	Executive Committee of National Economic Council
EC	European Commission
ERD	Economic Relations Division (of the Ministry of Finance)
ERM	Earth Road Maintenance
EU	European Union
FAP	Flood Action Plan
FD	Facilities Department
FGD	Focus Group Discussion
FRB	Feeder Road Type-B
FYP	Five Year Plan
GC	Growth Centre
GCM	Growth Centre Market
GDP	Gross Domestic Products
GOB	Government of Bangladesh
GOJ	Government of Japan
GTZ	Gesellschaft für Technische Zusammenarbeit
HRA	High Risk Area
HSC	Higher Secondary Certificate

HQ	Headquarters
IDA	International Development Association
IDB	Islamic Development Bank
IDP	Infrastructure Development Project (assisted by SIDA)
IFAD	International Fund for Agriculture Development
IMED	Implementation, Monitoring and Evaluation Division, Ministry of Planning
IGA	Income Generating Activities
I-PRSP	Interim Poverty Reduction Strategy Paper
ISAP	Institutional Strengthening Action Plan (assisted by World Bank)
ISP	Institutional Support Project (assisted by SIDA)
IWMU	Integrated Water Management Unit
JDCF	Japan Debt Cancellation Fund
JETRO	Japan External Trade Organization
JBIC	Japan Bank for International Cooperation
JICA	Japan International Cooperation Agency
JOCV	Japan Overseas Cooperation Volunteers
KfW	Kreditanstalt für Wiederaufbau (German Aiding Agency)
LCG	Local Consultative Group
LCS	Labour Contracting Society
LDCP	Local Development Coordination Programme
LDF	Local Development Fund
LGD	Local Government Division (of the M/O LGRD & C)
LGEB	Local Government Engineering Bureau
LGED	Local Government Engineering Department
LGI	Local Government Institutions
MANCAPS	Management Capability Strengthening (assisted by ADB)
M&E	Monitoring and Evaluation
MCS	Multipurpose Cyclone Shelter
MLGRD&C	Ministry of Local Government, Rural Development & Cooperatives
MMC	Market Management Committee
MOFA	Ministry of Foreign Affairs (of the Government of Japan)
MoFDM	Ministry of Food and Disaster Management
MoPME	Ministry of Primary and Mass Education
MWR	Ministry of Water Resources
NDMC	National Disaster Management Council
NGO	Non-government Organization
NILG	National Institute for Local Government
NORAD	Norwegian Agency for Development Cooperation
ODA	Official Development Assistance
O&M	Operation and Maintenance
OPEC	Organization of Petroleum Exporting Countries
PD	Project Director
PEDP-II	Primary Education Development Programme Second Phase
PP	Project Proforma
PPR	Public Procurement Regulation
PRSP	Poverty Reduction Strategy Paper
PSB	Portable Steel Bridge
RDEC	Rural Development Engineering Centre

RDP	Rural Development Project
RESP	Rural Employment Sector Programme (assisted by SIDA)
RHD	Roads & Highways Department
RIIP	Rural Infrastructure Improvement Project
RIMMU	Rural Infrastructure Maintenance and Management Unit
RR	Rural Road
RWP	Rural Works Programme
RZ	Risk Zone
SDC	Swiss Development Cooperation
SIDA	Swedish International Development Agency
SMC	School Management Committee
SSC	Secondary School Certificate
SSWR	Small Scale Water Resources
TA	Technical Assistance
UDCC	Union Development Coordination Committee
UEO	Upazila Education Officer
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
UNO	Upazilla Nirbahi Officer (See Upazila)
UP	Union Parishad (the fourth and the lowest level of local government unit having an elected body and headed by an elected Chairman)
UPC	Union Parishad Complex
UPEC	Upazila Primary Education Committee
UPZ	Upazila (the third level of local government where there are service offices of line ministries coordinated by UNO)
USAID	United States Agency for International Development
UZR	Upazila Road
VDP	Village Defence Police
WF	Women's Forum
WDC	Ward Development Committee
WMCA	Water Management Cooperative Association
WPW	Works Programme Wing

Glossary of Bengali words

Char	Newly formed or reformed lands on the river bed
Crore	10,000,000
Ghat	Berthing facility on an island waterway
Haor	Wetland, very extensive water body in the monsoon and dries up mostly in the post-monsoon period. In Bangladesh haors are found mainly in greater Sylhet and greater Mymensingh regions
Hat	Periodic market in rural Bangladesh
Kila	Earthen mound, built for providing shelter, primarily for livestock, during cyclonic period
Lakh	100,000
Parishad	Council
pourashava	municipality
Thana	Sub-district or the administrative unit above Union and below Zila (synonymous with Upazila)
Union	Sub-division of Upazila, consisting of several villages (there are a total of 4,488 Unions)
Upazila	Sub-district (synonymous with Thana: there are total of 470 Upazilas)
Zila	District (there are a total of 64 Districts)

Executive Summary

1. Objectives and Methodology

1.1 Backgrounds and Objectives

In the face of calls for more effectiveness and efficiency in the Official Development Assistance (ODA), the Ministry of Foreign Affairs (MoFA) of Japan undertakes policy and programme level evaluations. The completion of the Poverty Reduction Strategy Paper (PRSP) in 2005 in Bangladesh has provided an appropriate timing for the Government of Japan (GOJ) and the Government of Bangladesh (GOB) to review the Japanese assistance to Bangladesh focusing on an area that has direct relevance to poverty reduction. Given the significant role played by LGED(Local Government Engineering Department) in rural infrastructure and the highly regarded performance of the organization, it has been agreed to conduct comprehensive stock-taking and review of the Japanese assistance to LGED till today.

The evaluation takes place as a joint GOJ-GOB programme level evaluation and thus aims at **(i) ensuring accountability of the Japanese ODA for Bangladesh to both Japanese taxpayers and Bangladesh citizens** and **(ii) providing feedback to GOJ and GOB so as to support their effective and efficient management of ODA.**

1.2 Methodology

In the light of the 2000 Country Assistance Programme for Bangladesh (CAP), in which Japan's assistance to Bangladesh has been anchored in recent years, two prioritised areas are relevant to LGED: **agricultural and rural development; and disaster management.** As for this evaluation, objectives and sub-areas identified in the CAP evaluation conducted in 2004 are used as 'criteria' of the evaluation. There are other GOB organizations involved in these areas and sub-areas, but in view of the significant presence of LGED in GOJ's portfolio, **this evaluation looks only at activities for which LGED is responsible.** Also, the evaluation does not look into each project and undertaking as this is not a project evaluation. Instead, it focuses on **the overall trends and cumulative outputs of Japan's assistance to LGED, relationships between different ODA schemes and the nature and degree of partnership with GOB and other development partners.**

The evaluation will follow MoFA's ODA Evaluation Guidelines and centres on three dimensions: **objectives, results and processes.** The framework of the evaluation is as provided in [Annex 3](#). In order to facilitate the description and assessment of the Japanese assistance to LGED, the relevant projects and undertakings are categorized into the following **groups**:

- (1) Rural Development: (a) rural road networks and related facilities; (b) portable steel bridges

- (PSBs); (c) small scale water resources (SSWR) development; and (d) capacity development
- (2) Disaster Management: (a) multipurpose cyclone shelters (MCSs); and (b) flood-proofing livelihood improvement

The list of the projects and undertakings placed along the timeline is in [Annex 1](#). The relationship between the CAP areas/sub-areas and the groups of these projects/undertakings is shown in [Annex 2](#).

2. Overview of Bangladesh, LGED and Japanese Assistance

2.1 Growth and Poverty Reduction in Bangladesh

Bangladesh has made considerable progress in economic and social spheres during the 1990s. The annual average growth of 4.8% and achievements in human development are particularly noteworthy. The income/consumption gap and the gap between rural and urban areas, however, present continuing challenges. The recently approved PRSP aims at sustaining an annual growth rate of about 7% over the next 15 years to meet the MDG target of poverty reduction.

2.2 Development and Features of LGED

LGED, whose origin dates back to the Rural Works Programme (RWP) initiated in the early 1960s, developed rapidly throughout the 1980s and 1990s under the visionary and dynamic leadership of the former Chief Engineer. The support by development partners, first SIDA (in the mid 1980s), followed by World Bank, ADB, Japan and others, corresponded with the needs for rural infrastructure development in the country and the readiness of LGED to take on more responsibilities. The staff-force of 3,000 in 1992, when the organization was converted from LGEB(Local Government Engineering Bureau) to LGED (which enabled it to receive revenue budget for maintenance) grew to nearly 10,000 by the late 1990s. LGED today is the second largest organization to handle GOB's Annual Development Programme (ADP).

A unique feature of LGED is its institutional arrangement where 90% of the staff is posted in the field. This field-orientedness is higher than any other GOB organizations and is a key to LGED's high implementation capacity. Leadership, team-work, sense of responsibility and other managerial aspects are also outstanding. The main functions of LGED are in: rural infrastructure development; small scale water resources development; urban infrastructure development; and providing support to local government institutions (LGIs). In performing these functions, it has three types of arrangements: (i) constructing and maintaining facilities on its own; (ii) transferring facilities to other organizations after construction; and (iii) constructing facilities on commission of other government ministries/departments. These arrangements are summarized in [Annex 6](#).

2.3 Overview of the Japanese Assistance

Japan's assistance to LGED since 1990 has totalled 10.8 billion yen in grant aid and 21.9 billion yen in yen loans. In addition, GOJ's debt relief through Debt Relief Grant Assistance Counterpart Fund (DRGA-CF, since 1997) and Japan Debt Cancellation Fund (JDCF, since 2004) has contributed approximately 10.5 billion yen to LGED. LGED's share in GOJ's total ODA to Bangladesh accounted for 40% for grant aid and 16% for the loans during 2000-2003. In addition, there has been technical cooperation through advisory service by the Japanese experts, training and most recently the technical strengthening of the Rural Development Engineering Centre (RDEC). The essence of each of the groups of the projects/undertakings is described below.

(1) Rural Development

(a) Rural road network and related facilities

The grant aid project, the Model Rural Development Project (1991-1993, the first Japan-assisted LGED project following the master plan study in 1987-1991), was succeeded from the late 1990s by the three yen loan funded projects: Northern Rural Infrastructure Development Project, Greater Faridpur Rural Infrastructure Project and Eastern Bangladesh Rural Infrastructure Development Project. The RDEC construction is part of the first project. The Construction of Union Parishad Complexes (UPCs), Growth Centre Markets (GCMs) and other facilities are included in the second and third projects. DRGA-CF and JDCF have been utilized extensively as well to finance rural infrastructure development and rehabilitation.

(b) Portable steel bridges (PSBs)

Grant aid has been provided to 74 PSBs in 15 Districts (1994-1996) and 80 PSBs in 16 Districts (2000-2002). The grant supports detailed design studies and procurement of steel super-structures, while GOB provides budget for sub-structures, approaches roads, etc. Another JICA study (2001-2002) identified further needs for PSB construction and proposed a development plan till 2015/16, based on which a new project for 36 PSBs has just been approved.

(c) Small scale water resources (SSWR) development

SSWR-related activities by LGED, addressing irrigation, drainage and flood management, were expanded in the mid 1990s with the assistance of ADB (co-financed by IFAD and the Netherlands) covering 37 Districts. GOJ contributed to this project through DRGA-CF in 1997-1999. A JICA study (2004-2005) was initiated in response to the 1999 National Water Policy that conferred the SSWR responsibility to LGIs and developed master plans for 6 Districts having engaged stakeholders at the Union level.

(d) Capacity development

A total of six JICA experts have been working in LGED continuously since 1996 to advise on technical and managerial issues and to facilitate project formulation and implementation. In 2003 a JICA technical cooperation project was initiated to support setting up of the RDEC involving four long-term and ten short-term experts. The project aims at consolidating technical knowledge and skills that have been accumulated in different LGED projects over the years. 16 LGED counterpart staff have been trained as part of this project. In addition, there have been a total of 51 LGED engineers trained in Japan or in third countries.

(2) Disaster Management

(a) Multipurpose cyclone shelters (MCSs)

Grant aid has been provided to five MCS construction projects. The government construction in recent years has been mostly through either LGED or Ministry of Primary and Mass Education(MoPME), while in both cases LGED is responsible for construction. GOJ's assistance for MCSs has been through LGED.

(b) Flood-proofing livelihood improvement

A JICA study (2000-2002) recommended a development plan for Char and Haor areas consisting of (i) construction of flood-proofing and sheltering structures, (ii) flood-warning and evacuation system and (iii) support services for livelihood development including farming and fishery skills training and savings and credit. A grant aid project is presently under preparation focusing on infrastructure in Haor areas.

3. Evaluation: Rural Development

3.1 Relevance of Purposes

There are three relevant sub-areas under the CAP area of agricultural and rural development: 'water resources development and management'; 'strengthening local government and participatory rural development'; and 'economic and social infrastructure development'. The content of the GOJ assisted projects/undertakings vis-à-vis these sub-areas is shown in Annex 2 and is in line with what has been aimed and intended under the CAP.

The relevant GOB strategies/policies have been the Fourth (1990-1995) and Fifth (1997-2002) Five Year Plans, I-PRSP (2003-) and PRSP (2005-). The Japan assisted LGED projects/undertakings have been consistent with them, albeit the positioning and weight placed in each document have differed slightly. The latest PRSP document sets out the roles of LGED in 'rural infrastructure' most systematically. Its roles in water resources are captured in the 'water resources' sector together with the responsibilities of other government bodies.

About 20 development partners including SIDA, World Bank, ADB and Japan have been supporting LGED on a number of projects. The **rural road networks and related facilities** is an area most intensively supported by development partners. ADB has been a major contributor to the construction of related local facilities such as Union Parishad Complexes (UPCs), Growth Centre Markets (GCMs) and ghats (river ports), joined by Japan through the recent two projects. Both ADB and JBIC (in collaboration with JICA) are engaged in the Union level capacity development. **PSBs** have been supported only by Japan and DFID. LGED's involvement in **SSWR** was expanded through the ADB support (co-financed by the Netherlands and IFAD) initiated in the mid 1990s. ADB has been a major donor player in the area assisting two projects and 25 District level water resources assessment. The JICA master plan has complemented the efforts through participatory planning in 6 Districts. Major **capacity development** support has been provided by SIDA (through Institutional Support Project or ISP in the 1990s), ADB (through Management Capability Strengthening or MANCAPS in the mid 1990s), JICA (through the RDEC Technical Cooperation Project) and World Bank (through Institutional Strengthening Action Plan or ISAP from 2004). In general, development partners have been complementing each other over time in the capacity development support for LGED.

3.2 Effectiveness and Impacts of Results

The physical contribution of Japan's assistance has been most noteworthy for the construction (which includes improvement) and rehabilitation of roads and bridges. The total outputs in these areas vis-à-vis the overall achievements of LGED during the period from 1990 to June 2005 are as summarized in the table below.

Works	Total Achievement by LGED (1990 – June 2005)	Contribution by GOJ
● Upazila & Union Roads – Construction & Improvement	33,298 km	1,578 km
● Upazila & Union Roads – Rehabilitation (incl. periodic maintenance)	7,032 km	870 km
● Bridges and Culverts – Construction	416,448 m	10,317 m
● Bridges and Culverts – Rehabilitation (incl. periodic maintenance)	30,584 m	9,310 m
● Portable Steel Bridges (PSBs) – Construction	258 PSBs (14,295 m)	154 PBSs (7,795 m)

In terms of effects and impacts of **rural roads and bridges**, evaluation and impact studies conducted on some of the completed and on-going projects are available. Commonly identified effects and impacts

are: improved communication; safety and reliability in movement, better access to markets; increase in agricultural production; and boost in cottage industries, business and trade leading to increased employment opportunities. Also, increased school attendance and improved medical treatment were acknowledged by beneficiaries. These have been confirmed in the field interview conducted during this evaluation. In addition, direct employment through Labour Contracting Society (LCS) and Earth Road Maintenance (ERM) Group, the innovation introduced in Bangladesh in the 1980s, has contributed to increase in income, assets and confidence of landless women and men. The pilot JBIC-JICA intervention in one Union in Faridpur District to strengthen the Union functions and to coordinate the activities of the government service agencies has been changing the awareness and attitudes of the local citizens, Union Parishad members and Upazila officials and extension workers.

Operation and maintenance is a key to project sustainability and has been LGED's main focus in recent years. Major issues have been (i) insufficient budget for maintenance and (ii) lack of technology to enable preparation of maintenance plans based on accurate assessment of road conditions. In response to heightened awareness of LGED, GOB and donor-supported projects have been providing more budget and the gap between the requirements and the actual allocation has been narrowing (nearly 10% in 2004/05). On technical aspects, the JICA RDEC project has been supporting maintenance planning and management through the Rural Infrastructure Maintenance Management Unit (RIMMU), established in LGED in 2004. JDCF has contributed to equipment purchase and capacity building for maintenance as well as road rehabilitation (which LGED defines as part of periodical maintenance).

With regard to PSBs, the 2003 ex-post evaluation highlighted that PSB maintenance needed more attention in terms of (i) equipment and tools and (ii) maintenance plans and activities to ensure timely completion and protection of approach roads, pier bases and river bank revetments. LGED has been keenly aware of these issues for the last few years and its engineers have been sent to JICA bridge maintenance training programmes in Japan. More attention in this area may be needed in the future assistance.

The Japanese support to LGED's capacity development in the form of training and technical advice by experts has been an immense benefit to the organization. The recent contribution through the RDEC technical cooperation project is particularly appreciated. The interviewees specifically referred to standardization and computerization of designs, improvements in quality control and processes of integrated planning (to formulate the pilot Upazila development plan) as the areas where great benefits were felt. Exposure to industriousness and commitment in the Japanese work culture through training in Japan was inspiring to the training participants.

3.3 Appropriateness of Planning and Implementation Processes

The GOJ Team in Dhaka and GOB have regular and project-specific monitoring/consultation mechanisms. GOB officials interviewed unanimously expressed satisfaction toward the bilateral relations. Japan is regarded as a friendly partner but at the same time may be lenient in some cases. An appropriate balance between ‘friendliness’ and discipline in the GOJ’s approaches may contribute to better quality of ODA. Also, the evaluation team would like to take note of a statement that Japan tends to be confined in the boundary of projects and maintain a narrow focus. Broadening perspectives to capture any relevant cross-project and cross-sectoral issues will be important, particularly in assisting a multi-sectoral organization like LGED.

It is worth mentioning, however, that coordination among different schemes, especially those of JBIC and JICA, has been high on the agenda of the Japanese ODA. In the support to LGED, the coordination and collaborations taken place are: JICA experts facilitating JICA-JBIC coordination as well as facilitating GOJ-GOB consultations; the JBIC financing of the RDEC building and the JICA technical assistance for strengthening the RDEC functions; and the JBIC-JICA joint initiative in one Union in Faridpur to build local capacity in relation to the UPC construction. On the other hand, the loan aid to rural road networks and the grant aid to PSBs have been operating almost independently.

Continuous support has been provided to rural road networks and facilities by loan aid and PSBs by grant aid. In the second loan project, GOJ committed to 27 UPCs, but the initial stage covers five UPCs out of 27 originally planned and the remaining 22 UPCs will be initiated after recognizing active utilization of the five UPCs. Rather than ‘mass producing’ UPCs, JBIC wished to see the results of the on-going JBIC-JICA collaboration in one Union and how LGED and local government institutions (LGIs) will carry forward the experiences. In respect of PSBs, while the maintenance issue pointed out in the 2003 ex-post evaluation has been addressed by JICA training, more attention may be needed in the future assistance.

In general, the Japanese assistance in the area of rural development has been partnering well with other donor supported projects thanks largely to the coordination by LGED. But more dialogue and consultation among development partners will help reduce overlapping and enhance synergies. This is particularly important in the capacity and institutional development support, where JICA and World Bank have been major contributors in recent years. In addition, LGED’s increasing involvement in local governance (with infrastructure as an entry point) assisted by ADB, the joint JBIC-JICA initiative and other donors can be captured more fully by the donor community involved in local governance as well as in the relevant GOB policy sphere.

The decentralized set-up of LGED has contributed to effective planning and implementation of various

projects. In addition, other aspects of the organizational set-up, work processes, physical arrangements, emphasis on competency development, effective external relationships, and most importantly leadership have been the backbone of the good performance. There is room for improvement as identified by Training Needs Assessment (TNA) conducted under the JICA RDEC project, which highlighted project management, construction management, maintenance and computer operations as areas that require further attention.

3.4 Summary of the Achievements and Issues

The major contribution of GOJ to LGED in the area of rural development is through **development of rural infrastructure facilities particularly roads and bridges**. Studies and available evidence show that road construction has produced a number of effects including reduced time and cost for transportation, resulting in increased transportation, better access to schools and public services and increase in income and employment. The JBIC-JICA joint support in one Union, which is now being replicated by LGED in four other Unions, has demonstrated an effective approach to vitalize Union Parishads and Upazila service deliveries and has contributed to **strengthening local government and participatory rural development** through LGED. Japan's involvement in SSWR so far has been basically limited to a master plan study, but the participatory planning process introduced in the study is expected to augment the **participatory rural development processes** in the country. In addition, the combination of technical cooperation schemes has been facilitating the technical upgrading of LGED, contribution indirectly to the objectives of rural development. Issues that call for more attention in the future assistance are: (i) experience sharing and coordination with other development partners; and (ii) maintenance of roads and bridges including PSBs.

4. Evaluation: Disaster Management

4.1 Relevance of Purposes

The CAP for Bangladesh set out disaster management as one of its four priority areas. GOJ's assistance to LGED in this area is captured by two sub-areas of the CAP: 'provision of basic infrastructure and services' and 'capacity building for community-level disaster management'. The GOJ assisted projects/undertakings vis-à-vis these sub-areas are as shown in Annex 2.

Disaster management gained explicit recognition in the Fifth (1997-2002) Five Year Plans, followed by Interim-PRSP(I-PRSP) and PRSP. The Japan assisted LGED projects/undertakings have been consistent with the objectives and strategies in these GOB policy documents. In particular, the grant aid for MCSs has been based on the 1992 master plan that recommended the construction of about 2,500 in the coastal cyclone-prone areas.

Various development partners including international NGOs have been assisting MCS construction.

Since the early 1990s, LGED has been responsible for MCS construction by the government and has been the project executing agency for the Japanese assistance. Other donors, on the other hand, have MoPME as the counterpart agency, as MCSs are mostly used as primary schools in ordinary times (though the construction is done by LGED). The difference in the ‘entry point’ may have implications for the maintenance arrangement. Another difference between Japan and other development partners is related to the cost of MCSs. The per unit cost of GOJ assisted MCSs, which are more solid and earthquake-resistant, has been decreasing through design modifications, but is twice or three times of other MCSs. According to the GOJ ODA Task Force, when quality such as solidity of the structure and earthquake resilience is included in the equation, the cost differential becomes less.

4.2 Effectiveness and Impacts of Results

1,844 MCSs have been constructed in the country (as of October 2005), out of which 1,300 have been built after the 1992 master plan. GOJ has contributed 81, or 6% of those 1,300 MCSs. The total outputs under the GOJ assistance vis-à-vis the total achievements in the country in line with the master plan are shown in the table below.

Works	Total Achievement by GOB and NGOs (after the 1992 M/P)	Construction by LGED		
		Total LGED Achievement	GOJ funded	Others
● Multipurpose Cyclone Shelters (MSCs) – Construction	1,300	233	81	5 (by GOB), 35 (by IFAD) and 112 (by EC/KfW)

The 1992 MCS master plan was a response to the 1991 cyclones that caused the casualties over 140,000. During the cyclones in 1996 and 1997, the losses were kept minimal thanks to the newly constructed MCSs and improved warning and evacuation arrangements. The 1998 cyclones caused the death of 2,000 people, and this was mostly due to fishermen unable to catch warnings and from water born diseases. The field interview conducted in Cox Bazar as part of this evaluation found that while people in the coastal area were used to be terrified at the prospect of cyclones, they now feel secure with the availability of shelters in the neighbourhood. The use of MCSs as primary schools in normal times has contributed to better school attendance rate. The facilities also provide venues for other activities, bringing multiple benefits to the local communities. Maintenance of the properties, however, was raised as an issue of concern.

MCSs, upon completion of the construction, are transferred from LGED to the School Management Committee (SMC) of the concerned area, that is responsible for operation and maintenance using the budget of MoPME channelled through the Upazila education office. It is a shared view that the

amount of funds from MoPME as well as Upazila is not enough and maintenance management is generally weak. As mentioned above, KfW supports MCS construction through MoPME, and ADB and other donors, under a primary education sector programme, support constructing primary schools that will be used as cyclone shelters in cyclone-prone areas. The Primary Education Development Programme (PEDP)-II will ensure sufficient budget allocation for MCSs (including Japan assisted ones) from 2005/06. The project executing responsibility (i.e. whether LGED or MoPME) may affect the sense of ownership and readiness for maintenance after construction. The MCS maintenance arrangement may require a holistic review, to assess maintenance conditions under the different arrangements and to determine the best possible approach and in view of the Comprehensive Disaster Management Policy currently under consideration by Ministry of Food and Disaster Management (MoFDM).

4.3 Appropriateness of Planning and Implementation Processes

There have been two evaluations on the GOJ supported MCS projects: a MoFA-UNICEF joint evaluation in 1997 and the JICA ex-post evaluation in 2003. One of the issues identified was on maintenance as already discussed above. Another important issue was about the awareness of the local communities, which has been largely addressed thanks to efforts of Bangladesh Red Crescent Society (BDRCS) and other government and non-government organizations. As mentioned above, future assistance to MCSs will require consideration of the project executing responsibility taking account of ramifications to maintenance and the cost issue from the viewpoint of resources allocation. In doing so, dialogue and coordination among development partners may be sought under the emerging umbrella of the Comprehensive Disaster Management Programme (CDMP) of MoFDM as well as through the PEDP-II of MoPME.

The JICA Study for flood-proofing livelihood improvement in Char and Haor areas has resulted in a proposed grant project focusing only on retaining walls (i.e. infrastructure corresponding to basic human needs) in Haor areas in consideration of the demarcation with the on-going DFID supported project in Char areas. LGED initiated a pilot project on its own based on the study recommendations but will not continue in the absence of donor support. When undertaking a similar study in the future, other donors' approaches and the applicability of GOJ's ODA schemes may have to be considered well in advance so as to ensure utilization of the study and consistency in the assistance.

4.4 Summary of the Achievements and Issues

GOJ's contribution to the disaster management area through LGED has been mostly by MCSs construction. Unlike in the 1991 cyclones, damages in 1996-1998 cyclones were kept minimal thanks to the shelters as well as coordinated warning and evacuation arrangements. The MCSs have given the sense of security to the people in the cyclone-prone areas, while contributing to school attendance and

more opportunities for community activities. The assistance to MCSs has thus been consistent with the CAP objective of **strengthening disaster preparedness through provision of basic infrastructure and services**. The JICA study on flood proofing livelihood improvement was intended for ‘supporting capacity building for community-level disaster management’ as well but instead will focus on the **basic infrastructure** during the project phase. Issues that need attention are: (i) dialogue and coordination with other development partners so as to minimize fragmentation in the GOB execution arrangement; and (ii) revisiting the MCS cost issue in consideration of overall resources allocation.

5. Lessons Learned and Recommendations

The issues derived from the above assessment are consolidated as below, which will require attention in the future assistance to LGED by GOJ and in some respects by other development partners.

(i) Continuing attention to maintenance

The RDEC project and the debt relief have been contributing to strengthening the maintenance of rural roads in terms of technical capacity and equipment. Continuing attention of LGED, in collaboration with concerned GOB ministries/departments, will be required particularly for the maintenance and ensuring utilization of PSBs and MCSs.

(ii) Review of the ‘entry point’ for MCSs

Other development partners provide assistance through MoPME (which commissions construction to LGED). The MCS project executing responsibility may need a review in consideration of the maintenance arrangement particularly under the emerging umbrella of the CDMP.

(iii) Further attention to capacity development

In order to sustain the competitive advantage of LGED and in view of the future generations of the LGED leadership, a more coordinated approach among development partners would be needed encompassing organizational, managerial and technical aspects under the ownership of LGED.

(iv) Cross-project and sectoral perspectives

Cross-project and sectoral approaches, capturing issues that go beyond the boundary of particular projects or areas/sectors, will help more efficient utilization of ODA resources and creating greater development impacts. More fundamentally, as LGED is involved in multiple areas/sectors under different arrangements (as depicted in Annex 6), the assistance to LGED will require cross-sectoral perspectives.

(v) Support toward replicating the ‘LGED model’

The roles of LGED have been expanding in response to its good performance and the willingness of development partners to have it as an executing agency. Taking stock of the expanding roles of LGED would be useful to strike an appropriate balance between

competition (i.e. LGED competing with other government organizations will lead to better public performance) and coordination (i.e. avoiding fragmented approaches). In the long run, the assistance toward replicating the 'LGED model' to other GOB organizations may be considered so as to ease burdens on LGED and to ensure its focus on core competence.

(vi) Knowledge management

The monitoring and evaluation (M&E) system of LGED needs further strengthening so as to facilitate monitoring, evaluation and feedback to the next planning cycle. It may be linked to GOB-wide M&E system when it is developed in the future. At the same time, a database may be created on the Japanese side for enhancing knowledge management within the GOJ team.

1 . OBJECTIVES AND METHODOLOGY

1.1 Backgrounds and Objectives

1.1.1 Backgrounds

While the Official Development Assistance (ODA) of the Government of Japan (GOJ) is one of the major pillars of its international contribution and maintains a top position in the world in terms of the total volume, there is an increasing call for more effectiveness and efficiency in the delivery of development assistance in the eyes of both Japanese tax payers and the international community. Against this background, the Ministry of Foreign Affairs (MoFA) of GOJ has been strengthening its efforts to evaluate ODA at policy, programme and project levels. This evaluation takes place as a sector-specific evaluation, which is a form of a programme level evaluation stipulated in the MoFA's Guidelines for ODA Evaluation.¹

Bangladesh has been one of the major recipients of Japanese ODA, with the 11th place in the world in terms of net disbursement in 2003. On the other hand, Japan was the largest ODA contributor to Bangladesh in 2002, while it was the second largest in 2003. The Government of Bangladesh (GOB) has recently adopted the Poverty Reduction Strategy Paper (PRSP) and has been stepping up its efforts for poverty reduction in the country. GOB's policy implementation and budget allocation for infrastructure as well as for other sectors will follow the priorities identified in the PRSP. It is thus pertinent to focus on a major sector supported by the Japanese ODA and to review the achievements, trends and approaches so as to identify any issues that may have to be considered in the future assistance. In view of the importance of rural infrastructure in alleviating poverty, the significant role played by Local Government Engineering Department (LGED) and the highly regarded performance of the organization in the development community in Bangladesh, it has been agreed to focus on the Japanese assistance to LGED till today as a subject of this programme level evaluation. GOJ has been providing assistance to LGED through a number of projects, studies and technical assistance. Japan's assistance to LGED since 1990 has totalled 10.8 billion yen for grant aid and 21.9 billion yen for loan aid. In addition, GOJ's debt relief through Debt Relief Grant Aid Counter Part Fund (DRGA-CF) (since 1997) and Japan Debt Cancellation Fund (JDCF) (since 2004) has contributed approximately 10.5 billion yen to LGED. LGED's share in GOJ's total grant (excluding debt relief) and loan assistance to GOB stands at approximately 40% and 16% respectively (2000-2003).²

1.1.2 Objectives

The overarching objectives of the evaluation are twofold: (i) ensuring accountability and (ii) proving support to ODA management. As this evaluation is carried out as a joint evaluation

¹ The latest version of the guidelines was published in May 2005 and is available at <http://www.mofa.go.jp/policy/oda/evaluation/guideline.pdf>

² The share of LGED in the 1990s was 12.2% for the grant and 4.6% for the loans, which indicates LGED's presence in the GOJ's portfolio increased significantly since the end of 1990s. Source: ODA White Paper, 2004, MoFA and Embassy of Japan in Bangladesh.

by GOJ and GOB, these two objectives are directed toward both Japan and Bangladesh. Therefore, the objectives of the evaluation are elaborated as **(i) ensuring accountability of the Japanese ODA for Bangladesh to both Japanese tax payers and citizens of Bangladesh** and **(ii) providing feedback to GOJ and GOB so as to support effective and efficient management of ODA by both governments.**

1.2 Methodology

1.2.1 Scope of the Evaluation

As mentioned at the outset, this evaluation focuses on all the Japanese assistance to LGED, which started in 1987, when LGED was Local Government Engineering Bureau (LGEB) with smaller size and authority,³ and continues till today. In the light of GOJ's Country Assistance Programme for Bangladesh (CAP) of 2000⁴, two prioritised areas are relevant to LGED: agricultural and rural development; and disaster management. The related sub-areas and objectives identified by an evaluation of the CAP in 2004⁵ are summarized in Table 1.1 below.

Table 1.1 LGED Relevant CAP Areas, Objectives and Sub-Areas

LGED relevant CAP area	Goal	LGED relevant objective and sub-area	
Agricultural and Rural Development	Poverty reduction and livelihood improvement through rural development	<ul style="list-style-type: none"> • Achievement of food self-sufficiency • Increase in agricultural production for export 	<ul style="list-style-type: none"> • Water resources development and management
		<ul style="list-style-type: none"> • Rural development 	<ul style="list-style-type: none"> • Strengthening local government and participatory rural development • Development of economic and social infrastructure
Disaster Management	Poverty reduction through strengthening resistance against natural disaster	<ul style="list-style-type: none"> • Strengthening disaster preparedness in disaster-prone areas 	<ul style="list-style-type: none"> • Provision of basic infrastructure services • Capacity building for community-level disaster management

Source: Evaluation of the Country Assistance Programme (2004)

There are other GOB organizations involved in these areas and sub-areas. For example, Bangladesh Water Development Board (BWDB) has a mandate for 'water resources development' for areas larger than 1,000ha. 'Strengthening of local government and participatory rural development' is assisted by different donors through different channels including LGED, Local Government Division (LGD) of Ministry of Local Government, Rural

³ See 2.2 for the historical background of LGED.

⁴ The four priority areas of the 2000 CAP are: agricultural and rural development; social development including health and education; infrastructure development for investment and export promotion; and disaster management. The CAP was evaluated in 2004 and a new CAP is currently under preparation taking into account of the recommendations of the evaluation mission.

⁵ The 2004 CAP Evaluation Report is available in Japanese at (<http://www.mofa.go.jp/mofaj/gaiko/oda/index/shiryo/hyouka.html>) and its summary in English at (<http://www.mofa.go.jp/policy/oda/evaluation/2004/bangladesh.pdf>).

Development & Cooperatives (MLGRD&C), Bangladesh Rural Development Board (BRDB) and NGOs. Rural Electrification Board (REB) is another major player for rural ‘economic infrastructure’. ‘Strengthening disaster preparedness’ involves Ministry of Food and Disaster Management (MoFDM), other government organizations and NGOs. However, in view of the significant presence of LGED in the Japanese assistance as mentioned above, **this evaluation looks only at the areas and sub-areas for which LGED is responsible.** A list of LGED projects and undertakings assisted by Japan is provided in Annex 1. Annex 2 shows these projects and undertakings in relation to the CAP areas and sub-areas by resolving them into components.

While Japan’s assistance to Bangladesh has been anchored in the 2000 CAP in recent years, it has not been explicitly structured under a sector or area specific programme. Consequently, intended outcomes or targets and indicators to measure progress toward achievement of the outcomes or targets have not been established. Hence, the CAP areas, objectives and sub-areas catalogued above are used as the ‘criteria’ of this evaluation. In other words, the extent of contribution by the Japanese assistance to LGED will be assessed in relation to these areas, objectives and sub-areas mostly qualitatively but where possible quantitatively.

Since this evaluation is at a programme level, rather than a project level, it will not look into each of the concerned projects and undertakings. Instead, it will focus on the overall trends and cumulative outputs of the Japanese assistance to LGED, relationships between different ODA schemes and the nature and degree of partnership with GOB and other development partners. With regard to effects and impacts of the Japanese assistance, as information and tools are limited to enable assessment of cumulative effects and impacts of the different interventions, the report will highlight representative results observed in the existing studies and field surveys conducted during this evaluation.

In sum, **this evaluation will conduct a holistic review and analysis of the Japanese ODA to the rural development and disaster management areas of Bangladesh that fall under the responsibility of LGED in the light of the relevant CAP goals and objectives.**

1.2.2 Framework of the Evaluation

The evaluation methods will follow the framework provided in the MoFA’s Guidelines for ODA Evaluation, centring on three dimensions: objectives, results and processes. In view of the scope of the evaluation as described above, the items to be looked at for each of the dimensions are as in the Table 1.2 below.

Table 1.2 Abridged Framework of the Evaluation

Dimensions	Evaluation Items
Objectives: Relevance	<ul style="list-style-type: none"> • Relevance to GOJ’s ODA strategies and plans • Relevance to the policies, plans, and needs on the Bangladeshi side • Relevance to the assistance of other development partners

<p>Results: Effectiveness & Impacts</p>	<ul style="list-style-type: none"> • Outputs of the Japanese assistance vis-à-vis LGED's achievements • Effects and Impacts • Sustainability of project effectiveness: operation and maintenance • Contribution to LGED's capacity development
<p>Processes: Appropriateness</p>	<ul style="list-style-type: none"> • Consultation and coordination with GOB and LGED • Demarcation and coordination between different ODA schemes • Processes of continuous support • Partnership with other development partners • LGED's implementation structures and arrangements

As the two CAP areas, rural development and disaster management are the target of the evaluation, each of these areas will be looked at separately in accordance with the framework outlined above. It must be noted, however, that the purposes of the relevant LGED projects are in some cases overlapping across the two areas, as indicated in the component wise breakdown shown in [Annex 2](#).

For example, the assistance to construction and improvement of roads and bridges has been provided in many cases in response to flood damages. Improvement of roads itself, in the context of flood-prone Bangladesh, entails elevation of the roads so that they can serve as embankments as well in the event of floods. The ongoing study on small scale water resources development addresses both raw water supply (mostly irrigation) and flood control. Thus, there are elements of disaster prevention and post-disaster rehabilitation in the projects that are classified in the rural development area. Likewise, in the area of disaster management, the study on flood-proofing livelihood improvement encompasses flood protection infrastructure and income generation of the poor, which addresses a rural development aspect.

The two CAP areas, therefore, are closely inter-related as far as LGED is concerned. But they will be treated separately in this evaluation to facilitate understanding of the purposes, results and processes of the Japanese assistance in view of the existing core strategy document. [Annex 3](#) provides a detailed framework of the evaluation for each of the two CAP areas. The evaluation items that are relevant mainly to the rural development area and those that are common to both areas are taken up only in the framework for rural development.

1.2.3 Categorization of the Japanese Assistance

To facilitate the description and assessment of the Japanese assistance to LGED, the relevant projects and undertakings are categorized into the following **groups** in accordance with the types of the infrastructure and the nature of the assistance:

(1) Rural Development

- (a) Rural road network and related facilities
- (b) Portable steel bridges (PSBs)
- (c) Small scale water resources (SSWR) development

- (d) Capacity development
- (2) Disaster Management**
 - (a) Multipurpose cyclone shelters (MCSs)
 - (b) Flood-proofing livelihood improvement

These groups are shown in dotted squares on the right side of Annex 2 and will be the basis for the description and assessment in Chapters 3, 4 and 5. The assessment will then be reviewed in the light of the objectives and overall goals of the respective CAP areas. It must be noted that technical assistance through the JICA project and by JICA experts as well as training programmes is collectively captured as ‘capacity development’ and is placed under rural development, as they are mostly geared toward planning and implementation of rural infrastructure development and related activities. Also, as the Japanese assistance in regard to 1-c and 2-b has so far been limited to developing master plans, there will be less weight on these in the report.

1.2.4 Existing Evaluation System in Bangladesh

In GOB, Implementation, Monitoring and Evaluation Department (IMED) of Ministry of Planning is responsible for evaluation of Annual Development Programme (ADP)⁶ funded projects. Terminal evaluation is conducted on all completed projects and impact evaluation is carried out after two to three years of project completion on a very selective basis. Local Government Division (LGD) of MLGRD&C⁷ participates in the terminal and impact evaluations. Monitoring during project implementation is performed by IMED and LGD separately. IMED has conducted terminal evaluation on a total of six LGED projects assisted by Japan. The content of two evaluation reports (on the Model Rural Development Project and the MCS 3rd Phase project) was available and was referred to during this evaluation.

ADB is currently preparing technical assistance, which will start in 2006 and will introduce strategic planning, modern evaluation methods and management information system (MIS) in IMED, in collaboration with e-governance efforts that have recently been initiated in the Planning Commission of the Ministry of Planning (with the assistance of UNDP). Under the current GOB set-up, monitoring and evaluation (M&E) is often confused with auditing and inspection. Improvement in this area is necessary and will be pursued as part of the harmonization and alignment agenda in Bangladesh.

Evaluation is conducted by LGED as well but is so far done only by projects to meet the requirements of the respective development partners. In fact M&E Unit of LGED is primarily concerned with progress monitoring by collecting and consolidating monthly progress reports sent by different projects. Monthly meetings are held at LGED to review the progress of all on-going projects. Review meetings are then held at a higher level by MoLGRD&C monthly,

⁶ ADP refers to an annual development budget that mostly consists of loans and grants from development partners. In contrast, a revenue budget is mainly from GOB revenues and is allocated for salaries and operation and maintenance.

⁷ Monitoring, Implementation and Evaluation Wing of LGD is responsible for monitoring the LGED related works.

quarterly and annually. LGED's M&E Unit has installed software (assisted by the JICA RDEC project) that automatically transfers the project data into the Unit's database. The M&E Unit wishes to introduce similar software for effects and impacts monitoring and to strengthen its evaluation function in the future.

1.2.5 Evaluation Team and Arrangement

The evaluation team comprises the following members:

- Ministry of Foreign Affairs of GOJ
 - Mr. Yukio Yoshii, Senior Deputy Director, Aid Planning Division
 - Mr. Makoto Tanabe, Official, Aid Planning Division
 - Mr. Masahiko Kiya, Counsellor, Embassy of Japan in Bangladesh
 - Mr. Shinya Tsuruda, Second Secretary, Embassy of Japan in Bangladesh
- GOB
 - Mr. Md. Wahidhur Rahman, Superintending Engineer, LGED
 - Mr. Md. Zahangir Alam, Project Director, LGED
 - Dr. Mohammad Jahirul Islam, Deputy Chief, LGD, MLGRD&C
 - Mr. Subhash Chandra Gosh, Chief, IMED, Ministry of Planning
 - Mr. Bazlur Rashid, Deputy Director, IMED, Ministry of Planning
 - Dr. Krishna Gayen, Senior Assistant Chief, Economic Relations Division (ERD), Ministry of Finance
- Consultants
 - [KRI International Corp., Tokyo, Japan]
 - Ms. Naoko Anzai
 - Ms. Nobuko Shimomura
 - Ms. Megumi Takahashi
 - [Verulam Associates, Dhaka, Bangladesh]
 - Dr. Omar F. Chowdhury

1.2.6 Schedule

The period of the evaluation is from September to December 2005. The first work in Bangladesh took place from 4th October to 31st October 2005 and the second work from 4th December to 20th December 2005. A detailed schedule is provided in Annex 4.

2 OVERVIEW OF BANGLADESH, LGED AND JAPANESE ASSISTANCE

2.1 Growth and Poverty Reduction in Bangladesh

2.1.1 Outline of the Bangladesh Socioeconomic Situations

Bangladesh, having a population of 130 million, is characterized for the population density as high as over 1,000 per km sq., high incidence of natural disasters such as flooding and cyclones and limited natural resources. Despite these disadvantages, Bangladesh made considerable progress in economic and social sectors during the 1990s. Since 1992, the economic growth has achieved annual average of 4.8 %. Income-poverty was reduced in the 1990s compared with the previous decades.

The achievements in the area of human development were encouraging in the light of some key indicators such as poverty, infant mortality rate, primary education enrolment rate, etc. In addition, population growth rate has slowed, and gender parity has improved in primary and secondary education as well as in economic activities.

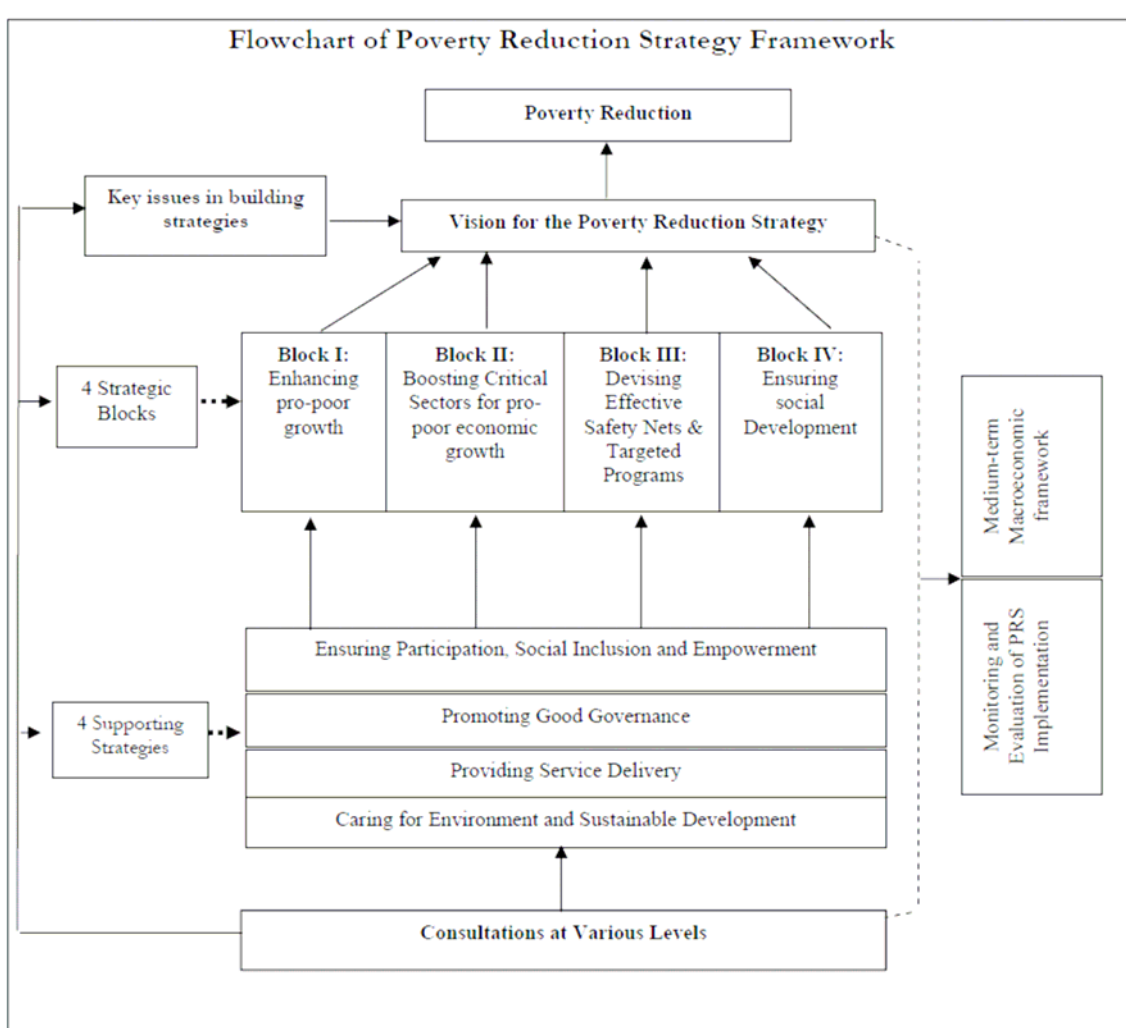
In spite of these positive aspects, the pace of poverty reduction was uneven between rural and urban areas. Furthermore, income inequality has been exacerbated as the Gini Index for Consumption as well as Income has increased over the last decades.

2.1.2 Poverty Reduction Strategy

Since the independence in 1971, the government of Bangladesh formulated Five Year Development Plans until 2002. Thereafter, I-PRSP was prepared, setting forth eliminating poverty with special focus on the removal of hunger and chronic poverty and attaining social development with emphasis on gender equality as an overarching strategic goal. The medium-term socio-economic framework in the I-PRSP was made more specific in the PRSP, which was finalized in October 2005, with prioritised strategies backed up by concrete measures and action plans. The Figure 2-1 below describes the framework of the PRSP.

In order to attain the target of poverty reduction by half by 2015, Bangladesh needs to sustain a GDP growth rate of approximately 7 percent per year over the next 15 years. At the same time, pro-active public policies need to be implemented in order to attain social development goals.

Figure 2-1 Flowchart of Poverty Reduction Strategy Framework



Source: PRSP, October 2005.

2.2 Development and Features of LGED

2.2.1 Brief History of LGED

The origin of LGED dates back to the **Rural Works Programme (RWP)**, which was one of the components of the integrated rural development programme⁸ the government initiated in the early 1960s. In the wake of the independence war and ensuing famines in the 1970s, rural development works were initially relief-driven with little consideration for institutional sustainability. Then, a 'Cell' was established in the late 1970s under MoLGRD&C to carry on the rural development works but with more institutional focus. The Cell was upgraded into the **Works Programme Wing (WPW)** of MoLGRD&C in 1982 and began receiving development budget for administering the rural development works nationwide. With the passage of the 1982 Upazila Decentralization Act, which strengthened the administrative

⁸ Commonly referred to as the Comilla Model, as it was mostly executed in the District of Comilla. The other components were: two tier cooperatives system, Thana Irrigation Programme and Thana Training and Development Centre. (Thana is an administrative unit subordinate to District, and is termed Upazila as well.)

structure at the Upazila level, the post of Upazila Engineer was created in each of the 476 Upazilas. This paved the way for a decentralized system of rural infrastructure development and management, which in effect raised the profile of the WPW and converted it into **Local Government Engineering Bureau (LGEB)** of the same Ministry in 1984.

By 1985, a computer-based monitoring system covering the Upazila level, the first of its kind in Bangladesh, was introduced. The emerging organization began attracting the attention of donors. The Swedish Government started its assistance in 1984, which lasted for the next two decades. The World Bank followed, initiating the first funding in 1985. ADB and the Japanese Government came forward with their respective assistance around 1990. An independent study conducted by BIDS in 1990 validated positive socio-economic impacts of rural infrastructure, which marked another milestone in the history of LGED. In response to calls from donors for more attention to the maintenance aspect of rural infrastructure, in 1992 LGED was upgraded to **Local Government Engineering Department (LGED)** that can receive and manage revenue budget for maintenance. The staff force of 500-600 when the organization was WPW, increased to around 3,000 by the time it became LGED and then to nearly 10,000 at present. By 1996, LGED had its own HQ building (while no other government departments had one), financed by the World Bank and ADB. The development of the organization has been particularly remarkable since 1992, as can be clearly seen in the development of its budget (Table 2.1).

Table 2.1 Development and Revenue Budget of LGED and GOB

(Unit: billion Taka)

FY	92 -	93 -	94 -	95 -	96 -	97 -	98 -	99 -	00 -	01 -	02 -	03 -	04 -
Budget	93	94	95	96	97	98	99	00	01	02	03	04	05
LGED													
ADP	4.08	6.04	7.37	6.80	9.78	9.09	13.75	17.97	18.69	16.74	17.24	22.64	25.42
(Project aid)	3.59	3.82	4.60	3.70	5.64	5.00	7.73	9.29	8.11	6.84	6.01	6.25	6.41
Revenue	0.81	0.91	1.06	1.34	1.43	1.60	1.76	1.47	2.18	2.31	2.79	3.30	5.15
GOB													
ADP	57.0	67.5	87.1	100.9	96.1	108.5	113.0	123.2	127.0	166.0	152.3	163.0	167.9
Revenue	75.6	84.6	91.1	103.1	113.1	123.6	143.2	167.3	178.0	194.0	218.2	244.5	258.7

Source: LGED, Ministry of Finance

LGED today is the second largest organization to handle the government Annual Development Programme (ADP). It is not only the size of the organization but also the quality that matters. In a World Bank study in 1996 on the public sector in Bangladesh, LGED was cited as an example of “government that works.”⁹ It is a common knowledge in Bangladesh that the former head of LGED, Mr. Quamrul Islam Siddique, who started his career with the RWP in the late 1960s, was a driving force behind the outstanding achievement of the organization. (See Annex 10 on Mr. Q. I. Siddique and LGED.)

⁹ “Bangladesh: Government That Works – Reforming the Public Sector,” the World Bank, South Asia Department I, 1996.

2.2.2 Key Features and Functions of LGED

The latest organogram of LGED is shown in Annex 5. LGED is headed by Chief Engineer, supported by three Additional Chief Engineers, six Superintending Engineers and six Assistant Engineers at the HQ. In the field, 10 Superintending Engineers in the regions, 64 Executive Engineers in the Districts and 476 Upazila Engineers in the Upazilas are responsible for the operations. The total number of engineers and other staff who are on the permanent arrangement of LGED is 9,357 as of December 2005. One of the unique features of LGED is its institutional arrangement where 90% of the staff is posted in the field. The proportion is higher than that of any other field-oriented government organization and is a key to LGED's high implementation capacity.

In addition to the decentralized structure, the 1996 World Bank study cited above refers to such aspects as professionalism, monitoring system, informal decision making, leadership, team-work and sense of mission. These aspects will be looked into in the relevant parts of the next section, particularly in 3.3.5.

The traditional mandate of LGED has primarily been on the development and management of rural infrastructure, particularly rural road networks. In addition, LGED has been acquiring functions in other related areas in response to its organizational development, which in turn is a result of its high performance and the confidence placed by the government and development partners. The main functions of LGED today are as follows:

- Planning and implementation of rural infrastructure development projects comprising improvement of Upazila roads and Union roads¹⁰ along with bridges/culverts, growth centre markets, ghats (river ports), Union Parishad Complexes (UPCs), cyclone shelters, primary schools and other rural facilities;
- Planning and implementation of small scale water resource schemes up to 1,000 hectares consisting of construction of embankments, sluice/regulators and re-excavation of khals/canals;
- Planning and implementation of urban infrastructure development projects comprising improvement of roads, bridges/culverts, rain/storm water drainages, market/bus/truck terminals, water supply and sanitation systems, solid waste disposal and slum improvement; and
- Providing technical support to Local Government Institutions (LGIs) both in rural and urban areas.¹¹

In performing functions in these areas, LGED has three types of arrangements: (i)

¹⁰ LGED has been involved in planning and implementation of Village roads that are located within Union Parishads on a case-by-case basis. The Rural Road Master Plan (July 2005), however, sets out that the responsibility for Village roads falls under Union Parishads and LGED's role in the future will be confined to providing technical assistance to Union Parishads.

¹¹ Based on "Strategic Vision of LGED" (Draft), June 2005, prepared by the Institutional Strengthening Action Plan (ISAP) component of the World Bank funded Rural Transport Improvement Project, and interviews with LGED.

constructing and maintaining facilities on its own; (ii) transferring facilities to other organizations after construction and (iii) constructing facilities on commission of other government ministries/departments. These different arrangements with respect to rural infrastructure, small scale water resources and urban infrastructure are summarized in [Annex 6](#). As the Japanese assistance so far has been concerned with rural infrastructure and small scale water resources, the urban infrastructure area will not be discussed in this report.

LGED's role and tasks have been continuously expanding over the years due to the aspiration of development partners to have it as project executing agency on one hand and the willingness of LGED on the other. There are currently 66 projects implemented by LGED plus several more commissioned by other GOB organizations. The increasing volume of work and required expertise in new areas (such as water resources) present new challenges.

2.3 Overview of the Japanese Assistance

The Project Sheets attached as [Annex 7](#) offer descriptions on each of the projects and undertakings assisted by Japan, classified into different groups as explained in 1.2.3 above. A map showing their locations is provided as [Annex 8](#). A brief overview is provided here to portray the essence of each group.

(1) Rural Development

(a) Rural road network and related facilities

The first Japan-assisted project for LGED, the Model Rural Development Project (the first to third phases from 1991 to 1993; grant aid), following the master plan study (1987-1991), provided a prototype of what has now become a common coverage of the rural infrastructure by LGED. In this project, which was based on a rural development model introduced in Japan since late 1970s, a range of facilities for rural development were constructed, including roads, bridges, canals, growth centre markets, primary schools and cooperative facilities. Around the same time, another grant aid project (1991) was implemented for rehabilitation of rural roads affected by cyclones. The assistance aiming at development of rural road network was then transferred to the yen loan scheme, which began in 1999 through the Northern Rural Infrastructure Development Project (till 2006). Since then, there have been two subsequent yen loan finance projects: the Greater Faridpur Rural Infrastructure Development Project (2001-2005) and the Eastern Bangladesh Rural Infrastructure Development Project (2005-2009). In addition to road networks, related facilities are included in these projects: the Rural Development Engineering Centre (RDEC)¹² in the Northern Rural Infrastructure Development Project; and offices of Union Parishads¹³ (called Union Parishad Complexes or UPCs), Growth Centre markets and small river ports in the latter two projects. While all of

¹² A new building adjacent to the existing LGED building in Dhaka.

¹³ The local government system in Bangladesh consists of four levels: Divisions (6), Districts (64), Upazilas (476), and Unions (4,488). Elected bodies exist only at the level of the Unions and capacity development of Union Parishads (the local government office) has been the focus of GOB and development partners. In the urban areas, municipalities called Pourashavas and City Corporations are the local self-governing bodies.

these yen loan projects are still on-going, studies on effects and impacts of the completed facilities have been conducted with respect to the first two projects. It must be noted that the Counterpart Fund of the Debt Relief Grant Assistance by GOJ (DRGA-CF) and the Japan Debt Cancellation Fund (JDCF)¹⁴ have also been used extensively to finance rural infrastructure development and rehabilitation.

(b) Portable steel bridges (PSBs)

Unlike concrete bridges, PSBs can be constructed in less time and are easy to be rehabilitated in the event of damages by floods, as the steel superstructure will remain intact. In addition, they can be dismantled and moved to other locations where there are urgent needs for bridges. These are valued added of PSBs, for which the grant aid has been provided twice: 74 bridges in 15 Districts (1994-1996) and 80 bridges in 16 Districts (2000-2002). The grant supported detailed design studies and procurement of steel super-structures, while GOB provided budget for sub-structures, approach roads and related works. An ex-post evaluation was carried out by JICA in 2003 on the first phase project, which confirmed positive effects of the PSBs, while calling attention to the maintenance aspect. Another JICA study was carried out in 2004 to look at the utilization and impacts of the total 154 PSBs. A JICA master plan study (2001-2002) identified further needs for PSB construction and proposed a development plan till 2015/2016, based on which a new PSB project for 36 PSBs has recently been approved.

(c) Small scale water resources (SSWR) development

SSWR development by LGED, addressing irrigation, drainage and flood management, was initiated in 1995 with the assistance of ADB (co-financed by IFAD and the Netherlands), covering 37 Districts. As an integral part of the project, Water Management Cooperative Associations (WMCAs) have been being formed for the management of SSWR facilities. GOJ contributed to this project through DRGA-CF in 1997 and 1999. A JICA master plan study (2004-2005) was initiated in response to the 1999 National Water Policy setting forth that local government is responsible for a command area of 1,000 ha or less and was prepared in close consultation with Union Parishads and local stakeholders. Master plans for six Districts have just been completed in November 2005.

(d) Capacity development

Starting in 1996, a total of six JICA experts have been working with LGED, each for two to three years, providing advice on technical and managerial aspects of rural infrastructure development and facilitating project formulation and implementation. One of them works directly with the JBIC financed Greater Faridpur Rural Development Project, advising on proper utilization of a Union Parishad Complex by raising awareness of local communities and developing the capacity of the Union Parishad for providing effective linkages between

¹⁴ Starting in 1997, the Japanese government has been providing the same amount of GOB's loan repayment as grant to GOB. This arrangement was converted into a debt relief, where GOB is required to raise the revenue for the repayment due but is allowed to use it as part of its budget for the next fiscal year. The fund made available by the new arrangement is called the Japan Debt Cancellation Fund.

villagers' demands and public service deliveries by Upazila government offices. In 2003 a JICA technical cooperation project to support setting up of the RDEC was initiated involving four long-term experts and ten short-term experts (as of August 2005). The ultimate objective of the project is to consolidate technical knowledge and skills that have been accumulated in different LGED projects over the years so as to ensure technical sustainability of LGED as well as to prepare grounds for further improvements and innovation. The project has been focusing on six areas: planning, monitoring, designing, operation and maintenance, quality control and training. As part of this project, 19 LGED engineers have been trained in Japan or other countries. In addition, 51 other LGED staff members have been trained in Japan to date, 41 on JICA programmes and 10 by JBIC in Japan or other countries.

(2) Disaster Management

(a) Multipurpose cyclone shelters (MCSs)

There have been five MCS projects implemented with grant aid, each starting in 1993, 1994, 1995, 1999, and 2004, based on a master plan prepared in 1992. There are other institutions including NGOs that have been involved in the construction of MCSs, which are used mostly as primary schools in ordinary times, but the government execution in recent years has been through LGED as well as Ministry of Primary and Mass Education (MoPME). The Japanese assistance has been through LGED. There have been two evaluations so far: a MoFA-UNICEF joint evaluation in 1997 reviewing the 1993 and 1994 projects and a JICA ex-post evaluation in 2003 on the 1995 project. These studies confirmed positive impacts such as increase in school attendance rates and literacy rates, while calling for some improvements in auxiliary facilities and the maintenance arrangement.

(b) Flood-proofing livelihood improvement

A JICA study (2000-2002) was carried out to prepare a development plan for Char and Haor areas in a total of eight Districts. The recommended plan consists of (i) construction of flood-proofing and sheltering structures, (ii) flood warning and evacuation system and (iii) support services for livelihood development including farming and fishery skills training and savings and credit. A grant aid project is presently under preparation based on the study but focusing only on retention walls in Haor areas. LGED wishes to implement the rest of the study recommendations as well. If they do, it will be their first time to pursue a comprehensive approach addressing both structural and livelihood aspects in flood-prone areas.

3 EVALUATION: RURAL DEVELOPMENT

3.1 Relevance of the Purposes

3.1.1 Relevance to GOJ's ODA Strategies and Plans

Japan's Medium-Term Policy on ODA positioned under the ODA Charter explains Japan's approaches and actions to address urgent development challenges. The concerned activities of LGED are consistent with specific actions regarding poverty reduction and disaster prevention stipulated in the Medium-Term Policy on ODA.

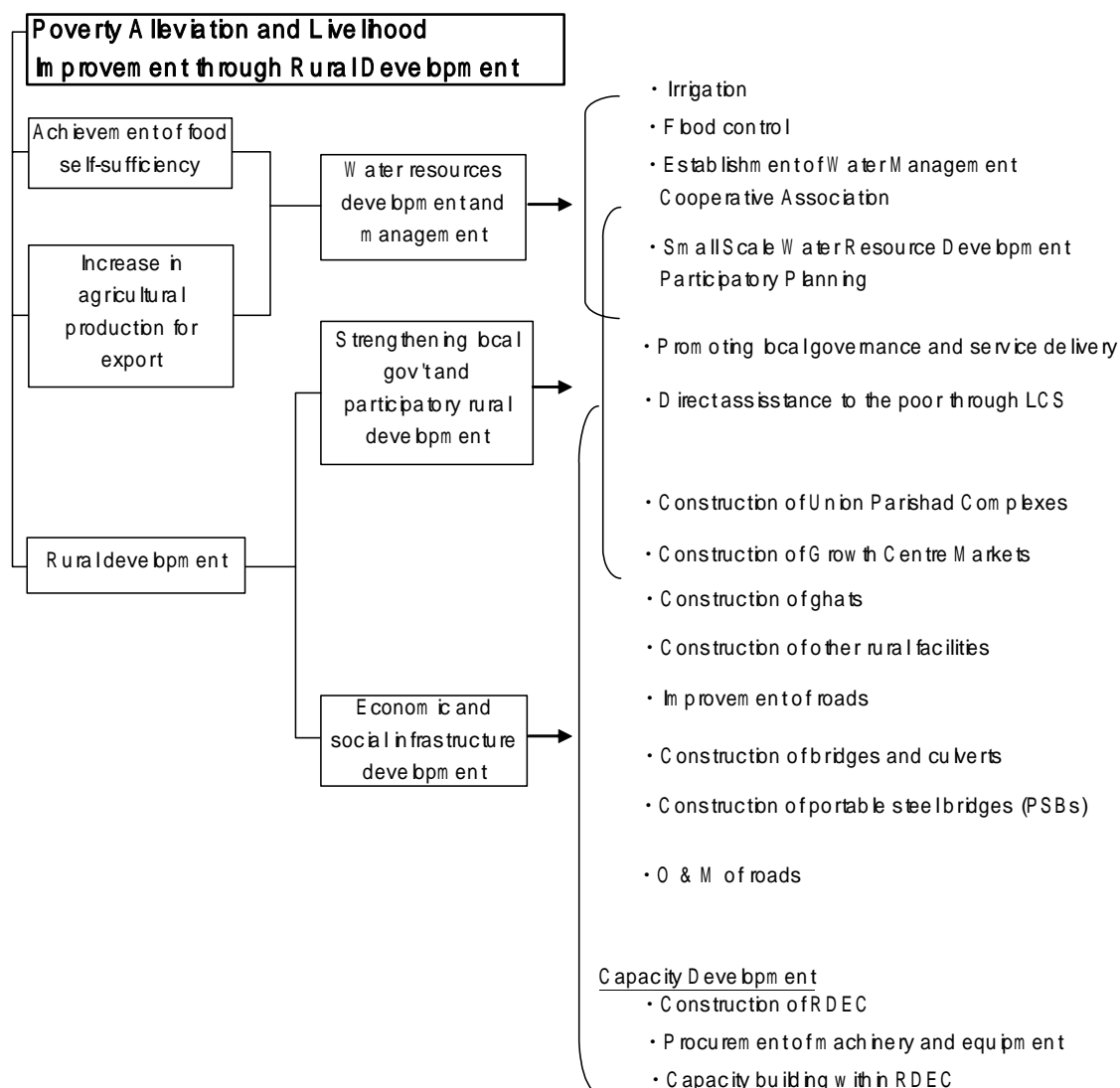
The 2000 Country Assistance Program (CAP) for Bangladesh, which is the basis of this evaluation, identified the following priority areas: (i) agriculture and rural development and improvement in agricultural productivity; (ii) improvement in the social sector; (iii) disaster management; and (iv) infrastructure development for investment and export promotion. As mentioned in 1.2.1, (i) and (iii) are directly relevant to LGED activities.

In the policy paper prepared by GOJ's ODA Task Force in Dhaka¹⁵, LGED's activities are captured by three sectors: transport, agricultural and rural development and disaster management. The rural road development work of LGED is discussed both by transport and agricultural and rural development working groups but is placed more weight in the latter as rural roads are regarded as engines for rural development.

The Figure 3-1 features part of the objective tree attached in the Annex 2. The purpose of this figure is to show the relationship between the content of the project/undertaking groups (right) vis-à-vis the LGED relevant objectives and sub-areas (left) in the agricultural and rural development area. Listed on the right are the elements that compose the respective groups: 1-a. rural roads and related facilities, 1-b. PSBs, 1-c. SSWR development and 1-d. capacity development. The group 1-a contains a component to promote local governance (mainly through Greater Faridpur Rural Development Project) and the group 1-c has facets of participatory rural planning. Thus, while the two groups focus on 'economic infrastructure development' and 'water resources development' respectively, they are oriented toward 'strengthening local government and participatory rural development' as well. The group 1-b has direct relevance to 'economic infrastructure development'. The capacity development assistance under group 1-d is basically geared toward 'economic infrastructure development' and is positioned as supporting this sub-area indirectly.

¹⁵ The ODA Task Force comprising Embassy of Japan, JICA, JBIC and JETRO has been in operation in Dhaka since 2001 with a view to facilitating information sharing and taking coordinated approaches for development assistance to Bangladesh.

Figure 3-1 Objective Trees of Agricultural and Rural Development Sector



Insufficient rural infrastructure has long been obstacles to rural development, which is hampered by chronic natural disasters as well. In view of the challenges, the Japanese assistance to LGED has been seeking a balance between hardware-type cooperation such as infrastructure development and equipment provision and software type assistance through experts and training schemes, which corresponds to the emphasis in the ODA Charter. Linkages between JBIC loan projects and JICA technical assistance have been created also in line with the ODA Charter.

3.1.2 Relevance to Policies, Plans and Needs of Bangladesh

The rural road network has been basically captured in the transport sector in GOB policy documents, which confers a high priority on the country’s transport system to achieve its development agenda and poverty reduction goals. In its Fifth Five Year Plan(FYP) (1997-2002), GOB stated that “an adequate and efficient transport system is a prerequisite for initiating and sustaining economic development”. Several documents already exist to affirm the impact of

roads and bridges on poverty. I-PRSP, on the hands, shifted the weight to road maintenance and ensuring quality of services. The policy on rural infrastructure in the Mid-Term Agenda of the Local Government Goals/Objectives of the Sectoral Reforms laid stress on how to maximize direct and indirect multipliers of infrastructure development. Close interactions between the central and local government institutions (LGIs) and collaboration among different local agencies, NGOs and the private sectors were highlighted as approaches to this end.

Table 3.1 Objectives and Strategies in GOB's National Plans: Rural Development

	Objectives	Strategy / Programme
Fourth FYP 1990-1995	1) Reduce rural poverty by means of increasing gainful employment and income opportunities on a sustained basis through expansion of the productive sectors; 2) Develop rural institutions; 3) Improve technology and skills for productive activities 4) Facilitate agricultural development through institutional support and expansion of irrigation 5) Improve basic physical infrastructure (roads, markets) in the rural areas 6) Promote participation of women in rural development	<i>Strategy</i> 1) Development of physical infrastructure including roads and markets 2) Irrigated agriculture, drainage, minor flood control works 3) Production and Employment Programme (PEP) for the rural poor <i>Programme</i> 1) Development of Physical Infrastructure <ul style="list-style-type: none"> • 200 Growth Centres • 1,941 feeder rd. Type-B • 13,925 meters bridges / culverts with tree plantation • 1.9 million M/M wage-employment 2) Irrigated Agriculture, Drainage and Minor Flood Control 3) Production and Employment programme 4) Comprehensive Village Development 5) Operation for landless families support 6) Credit Programme for Small Farmers Development
Fifth FYP 1997-2002	1) Reduction of poverty in the rural areas; 2) Productive employment generation; 3) Self employment creation for the rural poor; 4) Development of rural infrastructure; 5) Development of small and landless farmers	1) Provision of skill training mostly for self-employment in non-farm sectors; 2) Formal and informal group formation and group development for co-operative activities; 3) Resource mobilization through individual group savings; 4) Creation of enabling environment for availing of credit facilities; 5) Social mobilization for awareness creation on various aspects of rural life; 6) Development of small and landless farmers; 7) Development of rural infrastructure such as growth centres, and roads, bridges and culverts connecting such centres; 8) Provision of small irrigation and flood control related infrastructure; 9) Preventing destitution through rural maintenance programme; 10) Covering at least one full administrative district under any project with one or more of

	Objectives	Strategy / Programme
		<p>the programme components of productive employment, rural infrastructure and small scale irrigation and flood control infrastructure to find out replicable or not.</p> <p><i>Programme</i></p> <p>1)Productive employment generation-1.3 million person;</p> <p>2)Employment under infrastructure programme – 175 million person-days;</p> <p>3)Growth Centre development - 600</p> <p>4)Feeder Road category B – 7,000 km</p> <p>5)Rural road – 15,000 km</p> <p>6) Bridges / culverts -100,000 m</p> <p>Development of Physical Infrastructure</p> <p>7)Maintenance of Physical Infrastructure -10,000 km</p>
I-PRSP	<ul style="list-style-type: none"> • To ensure rural road network, 6,000 km feeder roads, 15,000 km of rural roads will be constructed which will connect growth centres to Upazilas and villages with the markets. Also Pourashavas & City corporations will construct new roads in the urban areas. • Around 300 rural markets will be developed / established to create positive impact in rural development ensuring marketing facility of local products. • More allocation will be made for maintenance of infrastructure and 82,000 km rural roads will be maintained. • Around 1,30,000 meters bridges and culverts will be constructed. • Mechanism will be developed to ensure efficient planning, implementation, operation and maintenance of infrastructures through community participation. <p>For better coordination with GO/NGOs working at rural areas, 80% of 4488 Union Parishad complexes will be constructed while 375 UPCs already been constructed.</p>	

Source: Fourth FYP 1990-1995, Fifth FYP 1997-2002 and Annex 10 Sectoral Reforms: Selected Examples I-PRSP, March 2003.

The components and objectives of the Model Rural Development (a. rural roads and related facilities) which contributed to the various rural infrastructures with strengthening farmers' organization in order to alleviate poverty and to increase employment opportunities were consistent with the objectives and targeted program described in the Fourth FYP summarized the Table 3-1. In the same manner the three yen loan projects for rural development (1-a) were in line with the Fifth FYP and I-PRSP. PSBs, however, have not been covered by GOB planning documents. PSBs were originally proposed by Japan and have been implemented only with the grant assistance of GOJ and DFID. The plan of GOB/LGED is to construct concrete bridges if grant assistance is not available.

JICA's assistance to the master plan for SSWR development (1-c) is along the lines of the Fifth FYP and I-PRSP as summarized in Table 3-2. The latter in particular underscores water resources management at the community level.

Table 3.2 GOB’s Objectives and Strategy Programme: Water Resources

	Objectives	Core strategy / Programme
Fifth FYP 1997-2002	1) Alleviate poverty and generate employment opportunities; 2) Ensure ecological balance; 3) Promote water conservation for irrigation and other uses; 4) Enhance conveyance capacity of water courses through desiltation; 5) Protect towns, commercial centres, etc. from erosion; 6) Promote culture fisheries in the completed projects; 7) Promote optimum use of available flows 8) Fulfil the need of irrigation; 9) Control floods to protect crops, lives; 10) Prevent saline water intrusion 11) Ensure peoples active participation in planning, implementation and maintenance of water sector projects 12) Carry out studies on future water resources development projects	<i>Strategy</i> <ul style="list-style-type: none"> • Increase efficiency of completed projects • River bank protection and environmental upgrading • Increasing conveyance capacity of rivers • Major new investments • Strengthening and developing relevant institutions <i>Programme</i> <ul style="list-style-type: none"> • Surface Water Irrigation • Ground Water Irrigation • Minor Irrigation • Flood Control and Drainage including River and Town Protection • Surveys, studies and Investigation • SSWR <ul style="list-style-type: none"> - Embankment – 1,000 km - Khal / canal -4,000 km - Water control structure – 350 units
I-PRSP	Under the goal of food security, economic development and poverty reduction through proper management of water resources of the country was addressed. The Mid-Term Agenda consists of improved water management at local community level, water resources management, etc.	

Source: Fifth FYP 1997-2002 and Annex 10 Sectoral Reforms: Selected Examples I-PRSP, March 2003.

The GOJ assisted projects have supported the objectives set out in the respective national strategy documents. PRSP, the latest planning document, has rationalized the content of the plan by introducing policy matrices. One of them, the Policy Matrix 11: Infrastructure Development and Reforms presents LGED’s strategic goals, targets, progress, future priorities and other relevant elements in a systematic way as in Table 3.3. GOJ’s support to rural development encompassing the infrastructure (rural roads, feeder roads, bridges, UPCs, markets, etc.), community participation (especially women’s participation in direct labour and local markets), involvement of LGIs and the increasingly important area of maintenance almost mirrors the four strategic goals of LGED identified in this matrix.

Table 3.3 PRSP Policy Matrix: Infrastructure Development and Reforms of LGED

Strategic Goals	Key Targets	Action Taken/Underway	PRSP Policy Agenda (FY05-07)	Future Priorities
1. Prioritise development of road communication to link with growth centre, union headquarters, upazila headquarters and national road systems	<ul style="list-style-type: none"> Construct: Upazila Road: 36,329 Km; Union Road: 44,418 Km; Bridge/Culvert: 4,46,574 Km, Tree plantation: 80,747 Km 	<ul style="list-style-type: none"> Completed construction of Upazila Road: 17,828 km, Union Road: 8,335 km, Bridge/Culvert: 2,13,119 km, Tree plantation: 26,143 km 	<ul style="list-style-type: none"> Ensure participation and involvement of community, local govt. institutions, NGOs, beneficiary groups and user committees Ensure community input in planning /design Ensure quality control of construction and maintenance Strengthen sustainable operation and maintenance system Give importance to environmental issues 	<ul style="list-style-type: none"> Prepare comprehensive road master plan Update database of Base Map Cover less developed poverty prone districts Cover districts with population of ethnic minority groups Cover districts having better agricultural growth/development potential
2. Prioritise pro-growth infrastructure (submersible road, ghats, growth centres, hats, women's market section and union parishad complex, cyclone shelters)	Build growth centres: 2100, other important rural markets: 1000, women's market section: 2300, union parishad complex: 4488, ghats: 300, cyclone shelter: 500	<ul style="list-style-type: none"> Growth centres: 700, other important rural markets: 140, women's market sections: 700, union parishad complex: 790, Ghat: 58, cyclone shelter: 366 completed 	<ul style="list-style-type: none"> Ensure participation and involvement of community, local govt. institutions, NGOs, beneficiary groups and user committees Ensure community input in planning/design Ensure quality control of construction and maintenance Strengthen sustainable operation and maintenance system Due emphasis on environmental issues Assist/support local government institutions and promote local governance 	
3. Emphasise maintenance of roads and other physical infrastructure	<ul style="list-style-type: none"> Maintain Upazila Roads: 36,329 Km, Union Road: 44,418 Km, Bridge/ Culvert: 7,04,709m 	<ul style="list-style-type: none"> Maintained upazila roads: 17,828 km, union road: 8,315 km, bridge/ culvert: 4,76m 	<ul style="list-style-type: none"> Involve Local Government Institution (LGI), NGOs, community in operation and maintenance 	
4. Decentralise planning, design, implementation, operation and maintenance	<ul style="list-style-type: none"> Decentralise planning, design and implementation at circle/district/upazila/union levels Decentralise operation and maintenance at circle/district/upazila/union levels 	<ul style="list-style-type: none"> Decentralised planning/design at circle/district levels Decentralised implementation at district/upazila levels Decentralised operation and maintenance at district/upazila levels 	<ul style="list-style-type: none"> Decentralise design, implementation, operation and maintenance at upazila/union levels Involve LGI, NGO, community, private sector in planning, design, implementation, operation and maintenance 	<ul style="list-style-type: none"> Continue further decentralization Strengthen further LGI, NGO, community, private sector involvement in planning, design, implementation, operation and maintenance

Source: PRSP, October 2005

3.1.3 Relevance to the Assistance of Other Development Partners

About 20 development partners have been supporting LGED on a number of projects. Major partners, other than Japan, are SIDA, the World Bank and ADB in terms of the length of the involvement and the size of the assistance.

(a) Rural road networks and related facilities

The rural road networks are an area most widely supported by development partners. SIDA has been the longest supporter of LGED, starting its first assistance in 1984 and continuing through Infrastructure Development Project (ISP) of three phases of Rural Employment Sector Programme (RESP). Their last project ended in 2004 and they are currently a 'silent partner' except for the involvement through co-funding with ADB on a flood rehabilitation project. World Bank has been supporting three projects: Rural Road & Market Maintenance and Improvement Project (RRMIMP or RDP-7), a phase 2 of the same project and the on-going Rural Transport Improvement Project (or RDP-26). ADB has been assisting four projects: RDP-13, RDP-18, RDP-21 and the ongoing Rural Infrastructure Improvement Project (RIIP, or RDP-25). RDP-21 is co-financed by JBIC (through the Northern Rural Infrastructure Development Project) as well as SIDA and IFAD. ADB is currently formulating a second phase of RIIP. Other development partners that have been involved in rural road networks include CIDA, DANIDA, EC, GTZ, IDB, KfW, the Netherlands, OPEC, SDC and USAID. The Japanese assistance has been closely associated with the assistance of other development partners and, as will be shown in 3.2.1 below, a major contributor to the rural road networks.

An important aspect related to rural infrastructure development is the support to local government institutions (LGIs) and other local organizations. Aside from GOB, ADB has been a major contributor to the construction of local facilities such as Union Parishad Complexes (UPCs), Growth Centre Markets (GCMs) and ghats (river ports). Along with the physical structures, technical assistance is being provided under RDP-25 to Union Parishads (32 for intensive capacity development plus 800 for short orientation), Market Management Committees¹⁶, Ghat Management Committees¹⁷, and Labour Contracting Societies (LCSs)¹⁸. The capacity development of Union Parishads is not limited to the planning and use of UPCs but addresses a wide range of Union Parishad's functions. Under the next project (RIIP-2) to be co-financed with DFID, KfW and GTZ, ADB plans

¹⁶ A Market Management Committee is organized at the Upazila level to be responsible for the management of a Growth Centre Market including revenue collection.

¹⁷ A Ghat Management Committee is organized by the Union Parishad of the area and is responsible for the management of the river port.

¹⁸ A Labour Contracting Society (LCS) is a group of landless male and female labourers organized by LGED to be contracted for routine maintenance, tree planting and in some cases construction.

to involve, along with LGED, National Institute for Local Government (NILG)¹⁹ and other relevant GOB organizations in the capacity development of Union Parishads. World Bank supports Union Parishads through LGED as well under a separate, local governance project (Local Government Improvement Project) focusing on Union Parishads' capacity to plan and implement small scale public works. GOJ supports UPCs and other local facilities as well under the two loan projects (Greater Faridpur Rural Infrastructure Development and Eastern Bangladesh Rural Infrastructure Development Project). As will be described in 3.3.2 below, a JICA expert has been advising one of the Unions with the aim of creating effective linkages between Upazila public services and villagers' needs. There have been incidences where UPCs have not been utilized well due to insufficient involvement of stakeholders at the planning stage, lack of the capacity of the Union Parishad, etc. Therefore, the Japanese assistance takes a cautious approach focusing on a few cases to gain concrete, solid experience.

(b) Portable steel bridges (PSBs)

The support to PSBs has been only by GOJ and DFID both with grant assistance. DFID has provided grant to two projects during 1998-2004 for a total of 104 PSBs and is currently preparing a third project, which is largely based on the JICA master plan (prepared in 2001-2001). As part of the global DFID strategy, the third project will be untied and the procurement will be open to international competition. The Japanese assistance is tied to Japanese suppliers.

(c) Small scale water resources

ADB has been supporting SSWR development since 1995. The first project (co-financed by IFAD and the Netherlands) has worked in 37 Districts and the second, on-going project covers 61 Districts including the original 37. The third project is currently under consideration and will most likely extend to the whole country. The first project was contributed by the Japanese DRGA-CF as well. For these projects, ADB has funded conducting District-wise water resources assessment on the premise that covering as many areas as possible is more important at this stage than to engage in labour intensive local level consultations. On the other hand, the JICA master plan study for six Districts in Greater Mymensingh was initiated in view of the needs to engage LGIs and local stakeholders at the planning stage and to ensure balanced, equitable SSWR development. The Integrated Water Management Unit (IWMU) of LGED is in charge of coordinating the assistance of both ADB and JICA, which are different in the approaches but are

¹⁹ NILG is under LGD of MoLGRD&C and is responsible for research and training for local government institutions (LGIs). But the institute has not kept up with the demands of its responsibility and as a result development partners have been working with other organizations, notably LGED, as an alternative avenue of LGI capacity building.

complementary.

(d) Capacity development

SIDA has supported institutional strengthening both at the HQ and field levels for many years, particularly through the Institutional Support Project (ISP) from 1990 to 2001 (as part of Rural Employment Sector Programme) focusing on (i) staff development, (ii) physical planning and mapping and (iii) technical and management development. ADB sponsored Management Capability Strengthening Project (MANCAPS) from 1994 to 1998 to identify future institutional strengthening requirements, which made a number of recommendations for organizational strengthening of LGED. World Bank currently provides technical assistance called Institutional Strengthening Action Plan (ISAP) as part of RDP-26. ISAP works on several dimensions of LGED including organizational development, financial management, internal audit, quality assurance, maintenance, asset management, environmental and social management. The JICA RDEC technical cooperation project was initiated taking account of MANCAPS recommendations but focusing more on technical requirements in dialogue with ISAP. In general, development partners have been complementing each other over time in their support to capacity development of LGED.

3.2 Effectiveness and Impacts of Results

3.2.1 Outputs

The physical contribution of Japan's assistance has been most noteworthy for the construction (which includes improvement) and rehabilitation (which includes periodic maintenance) of roads and bridges. The total outputs in these areas vis-à-vis the overall achievements of LGED are as summarized in the table below.

Table 3.4 Summary of Physical Outputs

Relevant GOB Plan (Period)	Fourth Five Year Plan (1990-1995)	Fifth Five Year Plan (1997-2002)	I-PRSP/PRSP (2003-2005) - As of June 2005
<u>Upazila Road (formerly called Feeder Road-B) – Construction & Improvement</u>			
Planned		23,420 km	
LGED's total achievement		20,888 km	
Contribution by GOJ		1,442 km	
<u>Union Road (formerly called Rural Road) – Construction & Improvement</u>			
Planned		13,193 km	
LGED's total achievement		12,410 km	
Contribution by GOJ		136 km	

Relevant GOB Plan (Period)	Fourth Five Year Plan (1990-1995)	Fifth Five Year Plan (1997-2002)	I-PRSP/PRSP (2003-2005) - As of June 2005
<u>Upazila & Union Roads – Rehabilitation (incl. periodic maintenance)</u>			
Planned	7,828 km		
LGED's total achievement	7,032 km		
Contribution by GOJ	870 km		
<u>Bridges and Culverts on Upazila & Union Roads – Construction</u>			
Planned	452,022 m		
LGED's total achievement	416,448 m		
Contribution by GOJ	10,317 m		
<u>Bridges and Culverts on Upazila & Union Roads – Rehabilitation (incl. periodic maintenance)</u>			
Planned	34,520 m		
LGED's total achievement	30,584 m		
Contribution by GOJ	9,310 m		
<u>Portable Steel Bridges (PSBs) – Construction</u>			
LGED's total achievement	258 PSBs (14,295 meters)		
Contribution by GOJ	74 PSBs (3,400 meters)	80 PSBs (4,395 meters)	
Contribution by DFID		104 PSBs (6,500 meters)	

Source: LGED

3.2.2 Effects and Impacts

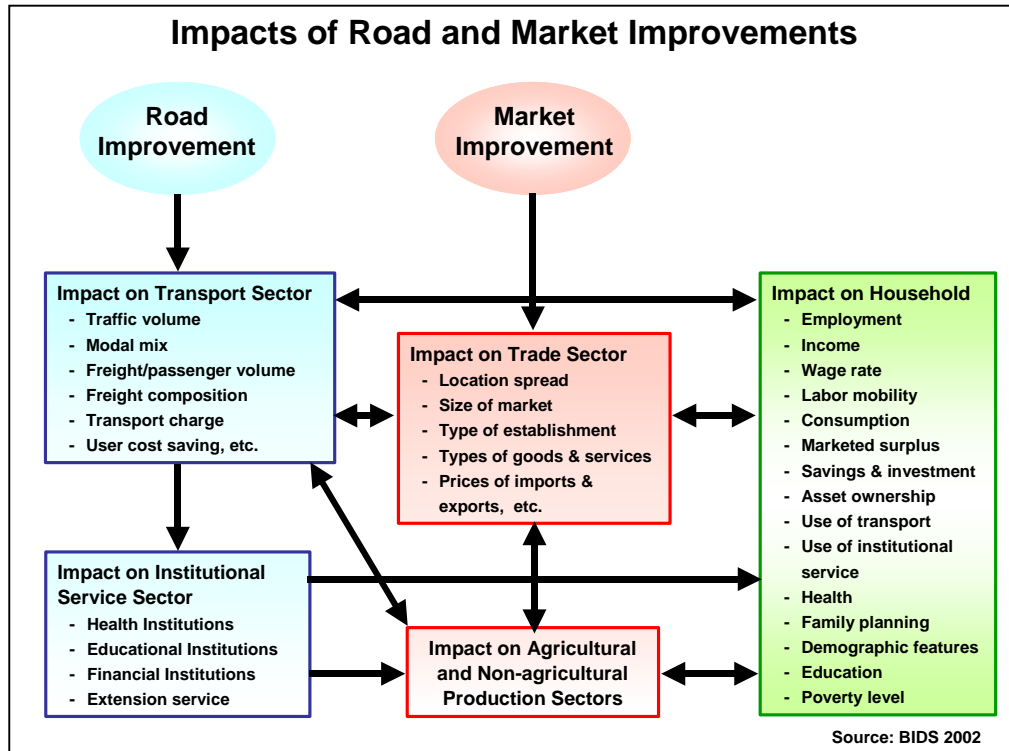
(1) Summary of Existing Studies

There have been several evaluation and relevant papers prepared on the completed projects and mid-term evaluation studies conducted on some of the on-going projects. Since all the three yen loan projects are on-going, no ex-post evaluation has been done, but there are relevant monitoring and evaluation reports that describe project impacts on the local economy. On PSBs, an ex-post evaluation (2003) and a socio-economic study (2004) were conducted by JICA and the reports contain the information on bridge utilization and impacts in the localities.

In these studies, increase in traffic volume and decrease in traveling time are widely acknowledged. Where no baseline survey or monitoring data were available, some socio-economic impacts were explored through focus group discussions. The identified impacts are: improved communication; safety and reliability; better access to markets; increase in agricultural production; and boost in cottage industries, business and trade, leading to increased employment opportunities. Further, increased school attendance and improved medical treatment were acknowledged by beneficiaries. In particular, the increase

in the sales of agricultural products and in employment opportunities has led to reduction in income poverty. The mechanism of these effects and impacts can be summarized as below.

Figure 3-2 Impacts of Road and Market Improvements



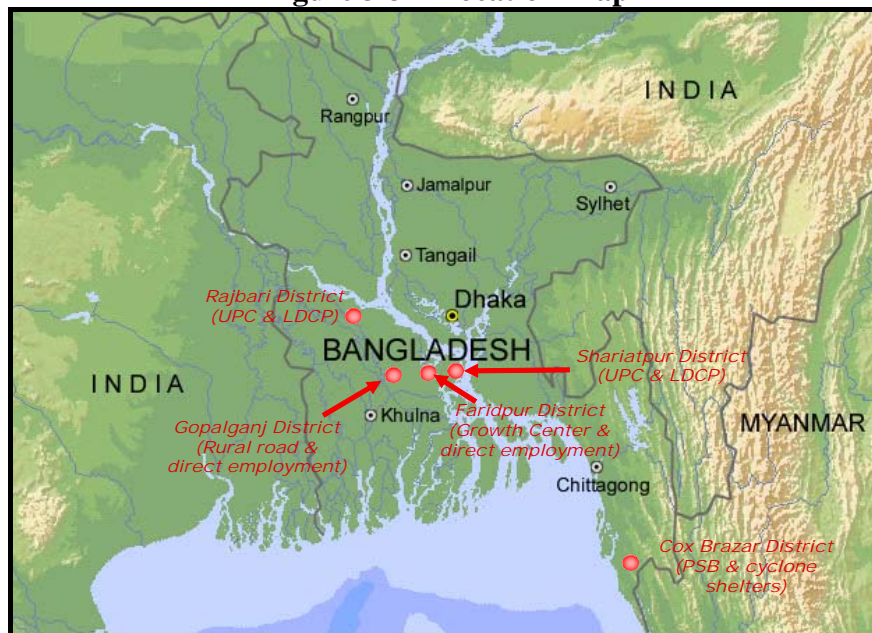
(2) Case Studies

Field interviews were conducted during the evaluation in the areas where the facilities assisted by Japan have been operating to understand the mechanisms of the facilities leading to livelihood improvements and poverty reduction. The concerned infrastructure facilities reviewed are rural roads, a Growth Centre, two UPCs and a PSB.

A newly developed rural road has produced a number of effects including increased transportation and reduced time and cost for travelling and transporting goods, which in turn has resulted in more employment. Access to schools has been improved as well as to the services of Upazila government offices. The road construction and maintenance has created direct employment through Labour Contracting Societies and Earthen Road Maintenance Groups, organized by LGED to engage landless people. The members of these groups have not only earned income and purchased assets but gained confidence and optimism for the future, though vulnerable ones like widowed mothers face continuing challenges. A Growth Centre Market combined with a good road has significantly increased the local trade volume, which has resulted in more income and employment, though traditional occupations like van pulling may become obsolete with the increasing

availability of public transportations. The support to increase the capacity of Union Parishads and to bring Upzaila government offices closer to the people, which has been implemented in association with the construction of UPCs, has led to higher awareness of the people and behavioural changes of Upzaila service officers. These developments are expected to ensure proper utilization of the UPCs. A PBS has created immense impact on the economy of a coastal area that was divided by a river. Day to day communication that is necessary for commerce, schooling, obtaining health care, contacting relatives, joining social events, etc. has dramatically improved. The bridge has become indispensable part of the local public asset.

Figure 3-3 Location Map



Case 1: Rural Road Changing the Faces of Village Life

-- *Kashiani-Rahuthor Road, Kashiani Upazila, Gopalganj District (Greater Faridpur Rural Development Project)*

Over 23 km long Kashiani-Rahuthor Road is an Upazila road (formerly feeder road-B) constructed by Greater Faridpur Rural Infrastructure Development Project of LGED financed by Japan. The road is located in Kashiani Upazila under Gopalganj District. Improvement of road consists of around 23 km pavement with bituminous carpeting including earth work and 41 road structures (bridges and culverts) extending about 685 m.

The road is constructed from the Kashiani Upazila headquarters up to the Rahuthor Growth Centre, connecting 16 villages with an average population of over 1200 and seven Growth Centres and rural markets. The road has additional importance through crossing the

Dhaka-Mawa-Bhanga-Khulna highway.

After the road is constructed, the commodity turnover and the number of permanent and petty traders of the connecting **markets** have increased rapidly. In addition, the number of shops has increased particularly alongside the road. Earlier the people had to go the Upazila headquarters for any particular shopping but now every commodity is available in the rural market in their proximity. The local farmers get fair prices of their agricultural production. Due to easy access and saving of transport cost, many whole sellers from far away come to the local markets to purchase the **agricultural production**.

“10 years ago we the people of *Beal* (marshy land) area did not even dream about **travelling to Upazila government offices** and returning home within a couple of hours. We had to reach Upazila headquarters one day ahead by boat and stay overnight to avail the office time next day.



Inner link road at a Growth Centre

There was ostensible earthen alignment but with a number of gaps and very few vans plied occasionally between the gaps”, said Md Bakiar Rahman Molla of Majra Village in Kashiani Upazila, referring to the construction of the Kashiani-Rahuthor Road. He further said that before the construction they could not send their children to school because children were badly needed in agriculture works. Now the children are able to help in **agricultural work** even after returning from **school** or college within half an hour of journey.

There are about 17 educational institutions, 3 colleges and 14 schools, and madrasahs have situated adjacent to or linked with the road. The road significantly helps **the school and college going students** and particularity gives the **girl students** a safe and secured access to the educational institutions. Moreover, it reduces the travel time incredibly for the road users.

Approximately a total of 0.54 million **direct employment** days will have been created on completion of the remaining work. Out of 23 km length, tree planting has been over 15 km last year, and 18 female caretakers are employed by the project for two years with a salary of taka 43 per day.

Indirect employment has also been created particularly in transport and trading sectors. The number of van pullers increased by 100-150% in the area. Van puller Rabin Thakur said presently 12,000-15, 000 vans are being plied on the road, while it was only 100-150 before. Thanks to the improvement of the road, the vehicle operating cost of a van has reduced by 200-300 taka per month. He further said that the road is being used by the public buses as an alternative route occasionally. Rabin Thakur apprehends that the number of van passers may decrease, if the public buses use the road as their permanent route.



Women of LCS group are going to work

Case 2: Direct Employment of Landless People's Groups for Scheme Implementation and Maintenance

-- Labour Contracting Society Casting Pipes and Installing Culverts, Sadapur Upazila, Faridpur District (Greater Faridpur Rural Development Project

Labour Contracting Society (LCS) was innovated by LGED in the early 1980s as way to involve the poor segment of people directly in work. The principles in arranging LCSs are to ensure fare wages and skill development of the members and to create responsiveness among them.

Pipe Casting & Culvert Installation LCS of Sadarpur Upazila consists of 7 members and has been working under the project for the last 3 years. The group has so far completed casting of over 80 pipes and installation of 8 culverts worth Tk 5.00 lakh. Their daily earnings vary from Tk 150-200 depending on the nature of work. The group received training on awareness and skill development on pipe casting and culvert installation.

Md. Laskar Fakir, Chairman, and Md. Badsha, Secretary of the LCS, said that in each year they sign a contract with Upazila Engineer for the work. They receive the payment in three instalments. Payment is not always regular. They also said “the difference with contractors is that contractors have money, while we do little, and they have license which we do not, but our work quality is not different from theirs.” Md. Laskar Fakir added that “now whenever we go to the Upazila offices, we are offered a chair by the officials, which we could not think of before; **people now treat us as contractors**. The only difference is that contractors earn more money.” The group has no savings as a group, but they do

have **personal savings**. The members said all these savings are from the LCS work. However, they claimed that the work volume is very small, giving only 2-3 months employment over the year, and they used to search work in private sector. **The work is mostly seasonal** and therefore sometimes they are unemployed. However, they have accomplished a few jobs outside the project and some more are hopefully in the pipeline. The group members are **optimistic** to continue their work independently after the winding up of the project.

Md. Badsha, Secretary stated that they like to work as LCS with LGED because it gives employment continuously for couple of months and the wage is comparatively higher than the work outside the project and it gives a **social status** of a contractor rather than an ordinary labourer.

-- Earth Road Maintenance Group for Bhatiapara-Lanker Char Road, Kashiani Upazila, Gopalganj District (the Greater Faridpur Rural Development Project)

A five member Earth Road Maintenance (ERM) Group has been working on the 4.00 km Bhatiapara-Lanker Char Road of Kashiani Union in Kashiani Upazila, Gopalganj District since 2001. They are Rezia, Shaheda Begum, Rehana and Rezia from Kashiani Union, and Rashida from Ratoil Union.

The socio-economic team of the project in association with LGED officials of the District/Upazila initiated the group formation through conducting survey, holding local level meetings, and thereafter selecting the five most deserving women. All of them are landless and living in other's land. Three of them are widows and the remaining two are married having very sick husband. Their main job as ERM labourers is to maintain the road so that the movement of pedestrian and rural transport would be smooth around the year.

The group is currently running in the fifth year of operation. Each worker earns Tk. 43 per day. Payment from the project is more or less regular. They expressed satisfaction about the payment except for some delay at the beginning of the fiscal year due to the absence of clearance by District Accounts Officer, which sometimes leads them to spend their savings. The project imparted training to the members on basic awareness, technical and procedural issues

of ERM. Training on technical and procedural issues of ERM has been provided by the project. Training on skills and income generation activities (IGA) have also been organized by the partner NGOs so the women can better undertake economic activity using the savings they have accumulated.

Of the five, four have **saved** Tk. 4500 each in their bank account and one, who has newly joined the group, will open a bank account soon. Rezia, the spokeswoman of the group, said that after joining the ERM group she has **helped her elder son to start a grocery shop** in Bhatiapara Growth Centre to earn supplementary income. Beside their savings, members have **purchased some assets** like goat, poultry and some have **repaired their house** by replacing thatched roof by CI sheet. She also said that all of the members are using water sealed latrine and safe (i.e. arsenic free) water for drinking. Rashida told that she has one son studying in class I and one daughter in class IV. She stated with a deep sigh that her husband is very sick and she needs to spend a lion part of her income for his treatment.

While telling the tale of their woeful before getting the job, Rezia, the spokeswoman, said that after her husband passed away 7 years ago, their family members had to stay alive with almost no food and she spent days in a single tattered cloth or even wearing *Katha* (coverlet made of old cloths). She expressed her happiness that she could now give her children **clothes and food three times a day**. "Now I have got enough *sari* and blouses, too," said Rezia. Initially some local people, especially men, tease them for working on the road but they have overcome the problem by their useful work and pleasant behaviour. Rehana stated "we do hard labour and work dawn to dusk. Before joining the work my husband used to quarrel with me and did not care about me, but now he listens to me. ERM work brought **peace in our family**. We love to work in the road. Local people also help us and do not mind to offer earth from their land/borrow pit."

The women also feel that although local people now cooperate and appreciate the scheme, with the discontinuation of the project, the maintenance of the road may not be properly done. But they are confident of not falling back to their original position, mainly because they now have assets, savings and IGAs developed

with their own fund/savings.

Case 3: Growth Centre Serving as the Nerve Centre for Rural Commerce and Trade

-- *Nagarkanda Growth Centre, Faridpur District (Greater Faridpur Rural Development Project)*

Nagarkanda Growth Centre, named after the name of the village, is located in the Upazila headquarters in Faridpur District, that has recently become municipality (*pourashava*). It is 27 km from the District headquarters connected by a Zilla road. Nagarkanda Growth Centre has recently been improved by the project.

Being in an Upazila headquarters, Nagarkanda Growth Centre has great importance but the facilities before the development were insufficient. The internal roads were not paved (partly earthen and partly with poor condition HBB), sheds were insufficient and in dilapidated conditions, and the water and sanitation facilities were inadequate.

After the improvement, the market became one of the prominent trade centres in the entire District. Mr. Alimuzzaman, *Pourashava* Chairman and the Chairman of the Market Management Committee (MMC), said that with the development of the market, the **trade volume increased manifold**. The number of permanent shops increased by 25% and the number of temporary shops almost doubled. As the area is connected with the District headquarters, transports like bus, track, van, scooter and tempo are plying along the road and these help move people and the goods. This has resulted in **increase in income and employment** for local people and better opportunities for local farm produces. Md. Mintu Fakir of Kollayan Kathi Village, van puller, informed that there are 3,000-4,000 van pullers surrounding the market. The number of passengers has reduced recently due to the launch of public bus on the Nagarkanda-Fulbaria route. Many of them have decided to **leave the occupation as van puller**.

Mr. Majid Talukder (37) of Jogdabalia Village (1.5 km from the GC), a consumer of the market from last 17 years said, "I sold 3kgs of milk today and I shall buy husk to feed cow, kerosin oil, soap and other necessities. Before, I used to sell my milk in the open space but now there is a shed particularly for the milk sellers. The visitors used to run around with great stir to take shelter when the rain or storm comes. But now there are

enough sheds to provide shelter. Temporary vendors can sit with their shops under the sheds in an orderly manner. Mr. Majid further stated that the market is far better and created a **township atmosphere** after the development took place by LGED project. The **lease value of the market** after the development has also increased from Tk. 6,60,000 lakh in 1410 BS, to Tk. 7,21,500 lakh in 1411 BS and Tk. 7,66,600 lakh in 1412 BS (current Bengali year). The *hat* sits two days a week (Saturday and Tuesday) and morning bazaar daily.

The maintenance of the latrine is properly done by a person, deputed by the MMC. He charges Tk 2.00 for each single use of the latrine and cleans and maintains the facilities. There is an overhead tank on the roof of the latrine and a pump machine to ensure sufficient water for the users. The inside of the latrines and the premises are found comparatively clean and without bad smell. In many cases the latrines of a market become out of order shortly after construction due to absence of proper operation and maintenance. But the O&M introduced in Nagarkanda market could be of exemplary for other Growth Centres. The waste management of the market has room to improve, although there are enough dustbins and sweepers for day to day cleaning. The MMC erected a few billboards in the market illustrating instructions in order to raise awareness of the market users.



Rice Corner of a Growth Centre

The project has arranged training through a partner NGO for the Growth Centre stakeholders such as MMC representatives, representatives of permanent and temporary traders and the lessees. The topics of the training include the role of the MMC, market management and leasing, and health and hygiene issues.

Mr. Alimuzzaman, the *Pourashava* and MMC Chairman, and local traders said that the physical facilities of the market and their location were

identified and selected in participatory manner taking account of the opinion of the market users. The Chairman, however, demanded for pavement of the ground so that the cattle market could be placed comfortably.

Case 4: A Bridge Linking People with Government Services

-- Good Governance at Local Level in Association with Union Parishad Complex, Chhaygaon Union, Shariatpur District, and Alipur Union, Rajbari District (Greater Faridpur Rural Development Project)

GOB decided on the construction of Union Parishad Complex (UPC) in each union to support the capacity of Union Parishads and to bring the Upazila government agencies such as agriculture, education, fisheries and livestock, Village Defence Police, LGED, Department of Public Health and Engineering (DPHE), BRDB and social welfare to the Union level.

In Chhaygaon Union, along with the construction of the UPC, a pilot intervention named Local Development Coordination Programme (LDCCP) was launched in 2003 to strengthen the Union functions and to coordinate the activities of the government service agencies. LDCCP, undertaken by LGED with the assistance of a JICA advisor, is in line with the government strategy for strengthening local government institutions (LGIs) and make the Union Parishad a 'one stop service centre'



Chhaygaon UPC, Shariatpur

For coordinating development activities at the Union level, the following forums have been organized:

- Union Development Coordination Committee (UDCC)
- Ward Development Committee (WDC)
- Women's Forum (WF)

Regular monthly meetings of these forums take place to identify problems, discuss solutions,

decide on necessary measures, review line departments' activities and forward proposals to a higher forum (i.e. Upazila Development Coordination Committee and District Coordination Committee that compose part of GOB's local institutions).

A total of 15 UDCC meetings, 62 WDC meetings by 9 WDCs, 100 WF meetings by 16 WFs have been held so far. The UDCC is presided by the Union Chairman and comprises 81 members from various categories such as Union Parishad (14), GOB service agencies (32), NGO representatives (7), WDC representatives (27) and LDCCP team (1). The average attendance of the participants in UDCC meeting is 65%, with the highest 81% attendance by WDC representatives.



People gathered for a focus group meeting

The experience for the last 2 years has led the **people to participate in the process of development coordination at the local level**. It has created a window of opportunity for trying to **redirect some of the focus of development activities from the conventionally centralized top-down approach to a more localized approach**. Frequency of field visits by the GoB line departments has increased and **accessibility of people to the information as well as to the public services has been improved**. Transparency, accountability and impartiality are being exercised through UDCC meetings. UP tax collection has also increased, even 100% by some wards.

The LDCCP model is now being expanded to other four Unions, namely, Kamarkhali (Madhukhali Upazila, Faridpur District), Amgram (Rajoir Upazila, Madaripur District), Ulpur (Gopalganj Sadar Upazila, Gopalganj District) and Alipur (Rajbari Sadar, Rajbari District). In Alipur Union, the replication commenced with an orientation at the Upazial level in August 2005. The first

UDCC meeting was held in October 2005. Mr. Md. Shawkat Hassan, UP Chairman, said that “it was an exciting and a different experience for me that I had never thought of. Although the Union Parishad Ordinance of 1983 gives a Union Chairman the authority to review the activities of Upazila government departments working at the union level, it has not been practiced in my period nor ever in period of my predecessors. LDCC brings an opportunity for us to execute the instruction of the 1983 Ordinance. In the first UDCC meeting, officials from different GoB service agencies explained about their jobs and available services. They also produced the last month performance and a monthly work plan.” Mr. Shawkat anticipated that “the programme will help to a great extent in **bridging the gap between the service providers and the service recipients**”.

Case 5: A Steel Bridge Changing the Lives of the Poor through Better Transportation and Education

-- Gumatali-Purba Gumatali Portable Steel Bridget, Pubkahli Union, Cox Bazar District

The bridge was built in early 1990s on the Idgah River in the extreme coastal belt. Around 15,000 people living in 3-4 scattered seashore villages of the western part of Pubkahli Union were separated from the main land by the river. The people must cross the river for their day to day to business and for their livelihood. The bridge connected the scattered communities of the western side with the main land with easy road communication. The people here earn livelihood mainly from salt production, fishing and petty agricultural products like some rice vegetable and local fruits. About 2,000-3,000 migrant labourers live in the area as well working for salt and fish production.

Sah Alam (40) and his neighbour, Sahidul Islam, said that the bridge has had **immense impact on the economy** of the sea-side population. For day to day communication with the main land area for **marketing, schooling, health care, contacting and visiting relatives, joining social events-like marriage/ attending religious festival**, etc., the people of the area need to use the bridge. According to Mr. Alam, around 1,000-1,400 people cross the bridge every day on foot, and about 30 to 40 small human haulers, nearly 20 baby taxis and 30 Rickshaws use the bridge at least 10 times a day. “This is ‘life’ of communication between the two parts of Pubkahli Union,” said Mr. Alam. He also said

that the **transportation of goods became much easier and less costly**. Movement cost and time has been reduced by the arrival of many mechanized vehicles.

There is only one high school in the eastern part of the Union and the students of the western side (around 80-90 including female students) are now using the bridge to **attend the school**. It is thanks to the bridge some of the students from the western area can attend the high school. Mr. Alam said that his niece and 7 boys and girls from his neighbourhood go to the school crossing the bridge. People of the area, mostly poor, are aware that the bridge was constructed under Japanese grant and hence they are grateful to the Government of Bangladesh as well as to the People of Japan. He ascertained that the bridge has benefited the whole community, including local labourers, children, students, migrant labourers, women, businessmen, small transport owners and transport labourers.

Regarding maintenance of the bridge, he said that once there was land erosion beside the bridge, and local people gathered and developed a land by filling the earth voluntarily. This was organized by leaders of the area. Another work conducted voluntarily for avoiding the land slide was to bar the stoppage of the boats encoring to the bridge side. Other than these, there has not been any problem for the last 10-12 years after the construction.

When asked what would happen if the local government shifts the bridge elsewhere, the two interviewees and a passer-by shouted “No” saying that the local people would not allow it to happen. There will even an organized movement for keeping the bridge here by any means. This indicates that the bridge is now inseparable from their livelihood and the people cherish it as their own assets.



Portable steel bridge in Sadar Upazila, Faridpur

3.2.3 Operation and Maintenance for Project Sustainability

Maintenance of **road networks** has been high on the agenda of LGED in recent years in terms of both budgetary and technical aspects. The major issues with regard to maintenance have been (i) insufficient budget for maintenance and (ii) lack of technology to enable preparation of maintenance plans based on accurate assessment of road conditions. With heightened attention to maintenance, LGED has been securing increasing amount of budget from the government as well as donor-supported projects and the gap between the required budget and the actual allocation has been narrowing as can be seen in the Table 3.1 below.

Table 3.5 Budget Requirements and Allocations for Rural Road Maintenance

(Unit: Lakh Taka = 100,000 Taka)

Fiscal Year	Requirement (1)	Allocation (2)			(2) / (1)
		From GOB Revenue Budget	From Projects	Total	
1997-98	n.a.	9,500	7,944	17,444	
1998-99	n.a.	10,200	8,671	18,871	
1999-00	n.a.	11,000	4,290	15,290	
2000-01	n.a.	11,800	4,922	16,722	
2001-02	32,678	12,500	5,973	18,473	56.5%
2002-03	37,011	16,500	9,270	25,770	69.6%
2003-04	37,361	20,000	11,311	31,311	83.8%
2004-05	41,245	26,000	10,876	36,876	89.4%

Source: LGED

On the technical aspect, the JICA RDEC project has been providing support to improve the maintenance planning and management of LGED. Rural Infrastructure Maintenance and Management Unit (RIMMU) was established in 2004, replacing the former Rural Infrastructure Maintenance Cell. The support it has received under the JICA project includes (i) the introduction of HDM 4 (road maintenance management software) and roughness measurement equipment and (ii) the upgrading and consolidating existing manuals into the Rural Road and Structure Maintenance Manual and (iii) digitisation of the information on road structures. (Earlier there were maintenance manuals developed by different projects, while the new manual introduced uniform standards.) The new equipment and software have been applied in eight Districts and will be introduced in other Districts in the near future. JDCF has been contributing to equipment purchase and capacity building for maintenance as well as road rehabilitation (which LGED defines as part of periodical maintenance). Thus, while the ideal stage is yet to be reached, more attention has been being paid to maintenance to ensure sustainability of development

activities. And this is in line with the prospect of saturation of road development in the near future and increasing importance of maintenance and management of existing assets in the work portfolio of LGED. The recent Rural Road Master Plan (prepared in July 2005) sets out strategies up to 2024/25 in consideration of the rising importance of maintenance.

With respect to PSBs, the 2003 Ex-Post Evaluation on the 74 PSBs (1994-96) found and recommended as follows:

- (i) The usability of PSBs in some cases is decreased as roads are yet to be constructed or fully paved and/or there have been damages to existing roads or approaches. (Full pavement, instead of earthen roads, is necessary to provide all-weather usability and to enable maintenance, but 43% of the feeder/rural roads were yet to be completed or paved after 6-8 years due to non-availability of funds.
- (ii) LGED is mostly experienced with RCC (concrete) bridges and it needs specific maintenance knowledge/capability, staff training and equipment for PSBs. (Out of the total 232,044 bridges only 277 are PSBs.) An effective PSB maintenance set-up encompassing training, maintenance tools and spare parts, maintenance plan and activities focusing on the protection of approach roads, pier bases and river bank revetments is necessary.

LGED has been keenly aware of these issues in recent years and has sent its engineers to JICA training programmes on bridge maintenance along with Roads and Highways Department (RHD) engineers.

3.2.4 Contribution to Capacity Development

As briefly mentioned earlier in 2.3 (1)(d), the Japanese assistance to LGED's capacity development has been comprising advisory services of JICA experts, the RDEC Technical Cooperation Project and training programmes in Japan and in third countries. In addition, JICA's support to develop master plans involves capacity development of counterpart staff and it is assumed this has been the case in the course of the two JICA assisted studies for LGED: the SSWR master plan and the master plan for flood proofing livelihood improvement.

The contribution by JICA experts is covered in 3.3.1 and 3.3.2. With regard to training, the list of 67 LGED staff members who have gone through a range of Japan assisted programmes is provided as part of Annex 7.

The most noteworthy contribution to capacity development is perhaps through the RDEC Technical Cooperation Project. Major achievements under this project include:

- (i) Consolidation of technical information through the compilation of technical manuals on nine areas and the establishment of a library in the RDEC building;
- (ii) Conducting training needs assessment targeting about 20% of the LGED staff (this was the first comprehensive needs assessment since a similar one was conducted in the mid 1990s under SIDA assistance) and establishing eight training courses on specific technical requirements for planning, implementation and maintenance including such aspects as software based designing, road roughness measurement, quality control and trainers' training. Preparation of a step-up plan to address additional training needs:
- (iii) Model projects in the field including
 - Participatory Upazila level development planning (1 Upazila)
 - Project monitoring (2 Districts)
 - Maintenance of rural roads (5 Districts)
 - Rural infrastructure design technology information management (4 Districts)
 - Training (2 Districts)²⁰

During this evaluation, a survey and interviews were conducted among approximately 20 LGED staff, who have been associated with the Japanese assistance. It was revealed that the Japanese support to capacity development of LGED in the form of training and providing technical experts have been an immense benefit to LGED. The staff expressed their satisfaction toward the contribution of most Japanese training and experts. Recent contribution to LGED's technical upgrading through the RDEC technical cooperation project and equipment purchase through JDCF are particularly appreciated. The interviewees specifically referred to standardization and computerization of designs, improvements in quality control and processes of integrated planning (to formulate the pilot Upazila development plan) as the areas where great benefits were felt. It was stated that the Japanese assistance works in the context of the country's needs and thus often more effective. Exposure to industriousness and commitment in the Japanese work culture through training in Japan was inspiring to the training participants.

A statement was made that the Japanese technical assistance should utilize and rely more on local expertise (i.e. hiring local consultants as experts). On the other hand, JICA's requirement to designate counterpart personnel for Japanese experts has forced LGED to

²⁰ Terminal Evaluation Report (Draft) for the RDEC Strengthening Project in Bangladesh, 20 September 2005, JICA

assign responsible staff and has helped LGED to strengthen its own capacity, rather than relying on the capacity of consultants (reduction of which has been a main organizational issue of LGED in recent years).

During our discussion with the staff, the following were mentioned as the approaches and areas of capacity development support that they would like GOJ to consider:

- (i) Long-term training (possibly through master's courses) in countries sharing similar situations with Bangladesh (e.g. Asian Institute of Technology in Bangkok) would bring the greatest benefits, rather than training in Japan where the standards are too high in many cases.
- (ii) Experts coming to Bangladesh and training a core group, who in turn can train hundreds of others, will be more cost effective (than sending a few to training abroad).
- (iii) Capacity development in the area of IT, maintenance and contract administration (incl. procurement) will be crucial for the coming years and the support in these areas is very much needed.

3.3 Appropriateness of Planning and Implementation Processes

3.3.1 Consultation and Coordination with GOB and LGED

The mechanisms and procedures for preparing GOJ's various assistance schemes, including the steps of consultation and coordination with GOB, are illustrated in detail in the 2004 CAP Evaluation Report. For monitoring and coordination during implementation, the following arrangements exist between GOJ and GOB:

- GOJ: The GOJ team in Dhaka (comprising representatives of the Embassy of Japan, JICA and JBIC) holds bi-annual (twice a year) meetings with GOB (comprising representatives of ERD and concerned executing agencies) to review the entire portfolio under the Japanese assistance.
- JBIC: JBIC Dhaka Office conducts monitoring meetings on each project with the respective executing agencies every other month.
- JICA: The activities of JICA experts are monitored through the reports prepared by the experts that are submitted to JICA Dhaka Office, and then to GOB. Other than this, monitoring and consultation between the JICA office and GOB are conducted as part of the activities of each project or study. For example, for the RDEC Technical Cooperation Project, a Joint Coordination Committee was established consisting of representatives of GOJ, GOB, the JICA Project Team and

LGED, but has met only once since 2003. But effective consultations and coordination are carried out in the ‘Work Group’ of the JICA Project Team and LGED counterparts, which is chaired by LGED’s Additional Chief Engineer and has met 14-15 times.

GOB officials interviewed by the evaluation team were almost unanimous in expressing appreciation for the breadth (i.e. encompassing loans, grants, technical cooperation and debt relief) and size of the Japanese assistance and satisfaction on the bilateral consultation and coordination. An LGED official said that the support of JICA experts assigned to LGED has been very effective in facilitating the interactions and coordination between LGED/GOB and the Japanese side during the course of the project cycles, particularly formulation of new projects. An ERD official stated that the project selection processes are owned by GOB rather than driven by GOJ and expressed contentment for cordial relationships with the Japanese side. An LGD official, who participated in the joint evaluation of the RDEC Technical Cooperation Project in August 2005, said that the work took place in a very good, congenial atmosphere. He went on to say that there tends to be consistency between what is said and what is done in the Japanese assistance, which is highly appreciated in GOB, while some development partners often commit one thing and do another thing. Another government official, however, raised concern for the GOJ Team in Dhaka recently joining the ‘alliance’ of World Bank, ADB and DFID. The four development partners have been working to develop a common country strategy and to coordinate their approaches in their assistance to and consultation with GOB. The official remarked that the ‘soft corner’ of Japan, that has been the essence of the uniquely friendly bilateral relations, may be lost as a result. Another senior government official pointed out that Japan tended to be confined in the boundary of projects and maintain a narrow focus, suggesting that cross-project and in some cases cross-sectoral perspectives be necessary to provide assistance with greater impacts.

Overall, the processes of consultation and coordination between GOJ and GOB are regarded as positive. But the view expressed by one official as cited above indicates that the satisfaction among GOB officials is derived from the attitudes of the Japanese side that are friendly but may be lenient in some cases. While it may not be necessary and may even be counterproductive to resort to the ‘stick’ of conditionality, efforts may be required in the Japanese assistance to strike an appropriate balance between ‘friendliness’ and discipline. In addition, perspectives of GOJ may be broadened to capture areas and issues beyond the project and sectoral boundaries. These efforts will lead to enrich the quality of the bilateral ODA relations not to mention the quality of the ODA.

3.3.2 Demarcation and Coordination between ODA Schemes

Coordination between different ODA schemes of GOJ and in particular between JBIC and JICA has been high on the agenda of the Japanese ODA. In the assistance to LGED, the following coordination and joint operation have taken place:

- **JICA Experts:** According to the reports prepared by former JICA experts and the information shared by concerned officials, JICA experts assigned to LGED in the late 1990s were instrumental in identifying the needs for JBIC support to rural infrastructure development and in particular the construction of the RDEC building, which was later combined with the JICA Technical Cooperation Project for developing and strengthening the RDEC functions. JICA experts are involved in formulation and monitoring of nearly all the other projects and undertakings, facilitating necessary information exchange and coordination between different schemes and organizations.
- **The RDEC Building (yen loans) and the RDEC JICA Technical Cooperation Project:** As mentioned above, the cooperation between the two schemes were realized as a result of coordination between JICA and JBIC in the late 1990s and early 2000s facilitated by JICA experts.
- **UPCs in the Greater Faridpur Rural Development Project (yen loans) and the JICA local governance expert:** JBIC paid significant attention to the UPC component of the project before the loan commitment and during the initial stage of the project and explored ways to ensure proper utilization of UPCs after construction. One concrete result was to request LGED to prepare Participatory Planning Guidelines and to focus on one Union for developing the necessary local capacity with the advice and supervision of one JICA local governance expert. JBIC and JICA have been working closely on this component (called Local Development Coordination Programme or LDCP), which may be small but significant in terms of gaining experiences and demonstrating effects. LGED has already started extending its experience to other Unions.

On the other hand, the available evidence suggests that there has been little coordination between the loan aid to rural road networks and the grant aid to PSBs. The two schemes of assistance appear to have been operating almost independently. This is understandable in view of the fact the support to PSBs was largely in response to meeting urgent needs of relief operations and restoring or establishing cross-river communications. The master plan for PSBs prepared with the JICA assistance in 2001-2002, however, sets out a long-term plan to build 1,152 PSBs largely in flood-prone areas across the country, which may serve the purpose of improving road networks rather than relief operations. This

means that the future construction of PSBs may not be different from the road network development in objectives, and if that is the case, continuing use of the grant aid scheme by GOJ may be reassessed.

3.3.3 Processes of Continuous Support

This section will look at the relationship between consecutive projects in the same group with respect to **rural road network and related facilities** and **PSBs**.

Stories gathered from LGED and the GOJ ODA Task Force in Dhaka suggest that the JBIC assistance to three rural development projects since 1999 has been building on the experiences and lessons-learned of a preceding project. While its support to the first project (Northern Rural Infrastructure Development) was confined to roads, bridges/culverts and the RDEC building, the assistance to the second (Greater Faridpur Rural Development) and third (Eastern Bangladesh Rural Infrastructure Development) projects included such facilities as UPCs and Growth Centre Markets and related technical assistance/training. As mentioned in 3.3.2 above, the support to UPCs was vigorously reviewed before and during the initial stage of the project involving NGOs and experts. As a result, the initial stage covers five UPCs out of 27 originally planned and the remaining 22 UPCs will be initiated after recognizing active utilization of the five UPCs. The third project includes the UPC component, but JBIC did not finance it, as it wished to see the results of the on-going support to local governance as part of the second project and how LGED and LGIs will carry forward the activities in other areas.

With respect to PSBs, the grant aid support was given in three phases and two ex-post studies and one master plan study have been conducted. As described in 3.2.3 above, the 2003 ex-post evaluation drew attention to the needs for LGED to introduce a PSB maintenance set-up to ensure maintenance and all-weather accessibility (i.e. through full pavement of access roads). In response to the increasing awareness, JICA has been inviting LGED engineers to bridge maintenance training programmes. In the light of the newly approved third PSB project, the maintenance aspect may require further attention.

3.3.4 Partnership with Other Development Partners

Referring to 3.1.3 (Relevance to the Assistance of Other Development Partners), this section reviews how partnership with other development partners has been developed and maintained to support particular projects or components and explores whether there is any room for improvement. Interfaces between the GOJ assistance and the assistance of other donors are found on the following:

(a) Rural road networks and related facilities

Northern Rural Infrastructure Development Project (yen loans) is co-financed with ADB, SIDA and IFAD. According to the GOJ ODA Task Force and JBIC, JBIC has been in close consultation with these and other donors on subsequent projects as well, particularly through the Transport and Rural Infrastructure Sub-Groups of the Local Consultative Group (LCG)²¹. Major donors in this area, namely ADB, World Bank and GOJ are well aware of and updated on each other's assistance. With regard to related facilities like UPCs and Growth Centre Markets, ADB is the only one that provides extensive support to them coupled with the capacity development of Union Parishads and Market Management Committees. LDCP, the JBIC-JICA joint support to one Union in relation to the UPC construction is more pin-pointed and focuses on creating linkages between Upazila public services and villagers' needs. While both ADB and JBIC-JICA avenues are gaining valuable experiences, there does not seem to be any interaction between the two at the project level. In the LCG mechanism, there is a working group on local governance under the Governance Sub-Group that meets regularly to exchange information and views on different interventions to develop LGI capacities. Donor agency representatives are aware of the ADB and JBIC-JICA initiatives to some extent, but they can be captured more fully by this working group as well as in the GOB policy sphere on local governance, even though the projects incorporating the assistance are classified under transport and/or rural infrastructure.

(b) PSBs

As mentioned in 3.1.3 (b), the 2001-2002 JICA master plan provided a basis for a third phase DFID support to PSBs. There has not been explicit partnership between Japan and DFID or other development partners with respect to PSBs.

(c) SSWR

As touched upon in 2.3 (1)(c), the JICA support was initiated in response to the National Water Policy to involve LGIs and local stakeholders in the planning process. While it has resulted in the six District level SSWR master plans, ADB has been supporting projects based on more rapid assessment of District-wise water resources and plans to extend the project coverage to the entire country in the near future. As mentioned in 3.1.3 (c), IWMU of LGED coordinates the assistance of ADB and JICA, which are different in the approaches but are complementary.

²¹ LCG is a mechanism of coordination among development partners operating in Bangladesh, consisting of the executive board of five representative donors and 23 sub-groups on different sectors and themes. The information on their activities is available at <http://www.lcgbangladesh.org>.

(c) Capacity development

The JICA RDEC Technical Cooperation Project takes account of MANCAPS (supported by ADB from 1994-1998) recommendations and concentrates on technical consolidation of LGED. In parallel, World Bank funded Institutional Strengthening Action Plan (ISAP) has been working with LGED largely on vision/strategy building and managerial aspects but covering technical aspects as well. While the experts working in both projects maintain personal contacts with each other, there has not been any mechanism at the level of LGED, JICA and World Bank to jointly take stock of the past achievements and discuss and coordinate 'division of labour' so as to avoid duplication and maximize synergies. In addition, other donors provide managerial support to LGED through different projects in one way or another. For example, ADB, through RIIP (=RDP 25), provides assistance to the improvement of the road database maintained at RIMMU. As the existing core mechanisms for institutional and technical support to LGED are provided by the JICA and World Bank projects, the two development partners may need to engage in closer consultation, while respecting the ownership of LGED. This would be particularly important in view of the fact that JICA is now considering a second phase of the RDEC Technical Cooperation Project.

3.3.5 Planning and Implementation by LGED

(1) General Systems and Procedures for Planning and Implementation

LGED has developed a decentralized system of management, which plays a key role in planning and implementation particularly with respect to rural roads. The planning process follows a bottom-up approach, where needs for improvements or maintenance are assessed first by Upazila engineers, reviewed by District Engineers and consolidated at the HQ. Feasibility studies are now carried out by LGED's own engineers, while before they were mainly done by consultants. Upon completion of the feasibility studies, the HQ reviews and prioritises them in view of the poverty level and accessibility of the localities and regional disparities. The planning process for the maintenance faces some challenges due to lack of technology for proper assessment of road conditions, but this is being addressed through the JICA RDEC Technical Cooperation Project as discussed in 3.2.3. There have been some incidences of corruption in the maintenance processes. According to GOB, there was recently a case in which road rehabilitation needs were reported while there was in fact no damage to the concerned road. An action has been taken against this case.

Construction work is carried out in a decentralized manner, too. While project directors are located in the HQ, the works take place under the supervision of the concerned Upazila

Engineers. In addition, along with the introduction of the Public Procurement Regulation in 2003 ('PPR 2003')²², a decentralized administrative approval system has been introduced in LGED under which Executive Engineers are authorized to approve tenders and enter into contracts with contractors if the tender price is within the estimated price. According to GOB, the quality of the construction is compromised in some cases, but once any low quality work is detected, remedial actions are taken.

LGED created a contracting system for road construction and maintenance to provide more opportunities to local contractors and labourers. Contracts are broken into small lots covering short distances, while having been adjusted to increase efficiency in response to the growth of local contractors. Apart from contractors, LGED has been engaging in since 1980s organizing local landless men and women into Labour Contracting Societies (LCSs) and other types of groups (depending on the contract and payment arrangements) for routine maintenance, road side tree planting and in some cases construction. Members of the LCSs receive training by LGED or NGOs contracted by LGED and open individual bank accounts with a provision for mandatory savings deducted from monthly payments. The implementation system of LGED thus reflects such socially responsive aspects of the organization.

In response to its increasing roles for community mobilization and working with LGIs, LGED created new posts of community organizers, sociologists and socio-economists and have been filling them rapidly. These professionals work closely with engineers to mobilize communities and LGIs to ensure planning and utilization of such facilities as UPCs and Growth Centre Markets.

There are areas for improvement in the existing planning and implementation arrangements and capacities, as identified by Training Needs Assessment (TNA) of the JICA RDEC Technical Cooperation Project. The major recommendations of the TNA are:

- Project management – including reporting, monitoring, evaluation and computerized maintenance management
- Construction management – including quality control and testing of construction materials

²² The PPR 2003 was prepared by the Central Procurement Technical Unit (CPTU) of IMED under the Public Procurement Reform Project (PPRP) funded by the World Bank. It is the first public procurement regulation that is applied across the board in GOB. Under this regulation, the maximum approval authority given to the LGED Chief Engineers is 7 crore (or 70 million) taka.

- Maintenance – for roads, concrete structures, buildings and water control structures
- Computer operation²³

A ‘step-up’ plan is currently under preparation by the JICA team taking account of these recommendations and further assessments. It must be noted in relation to maintenance that the Road Maintenance Fund has recently been established and will provide maintenance budget for both RHD and LGED in the future. LGED needs to begin orienting itself to this new paradigm by speeding up efforts to achieve more rational planning and implementation for the maintenance work.

(2) Factors of Organizational Performance

As mentioned earlier, LGED is one of a few government organizations in Bangladesh that are recognized as ‘government that works’. LGED is rated highly by both GOB and development partners for its dynamic leadership, quick decision-making and response, committed and disciplined staff and the quality of work, which exceeds the prevailing standards in GOB organizations. The ADB sponsored MANCAPS (1994-1998) conducted extensive analysis of LGED’s organizational features. Based on findings consolidated in its reports and interviews undertaken during this evaluation, major factors of the good performance of LGED are analysed and described below.

- Leadership

The leadership quality of the former LGED Chief Engineer (CE) was undisputedly most crucial in bringing about the reputed performance of the organization. He is universally credited as the architect of LGED’s success and remains the single most important source of motivation for existing as well as new staff. Strong norms have been established by the former CE and his close associates that every staff must work very hard to set an example and that if they work hard others will work hard, too. The former CE had a very high degree of insight into details of the work at all levels within LGED and micromanaged till he felt he could trust the concerned persons. He was a very fast decision maker and made sure that decisions would be implemented. His shouldering a great deal of work was a powerful example for many of his followers. On the other hand, he empowered the staff, bypassing the organizational hierarchy if necessary and appropriate, and in some cases young engineers were taken to high-level government meetings regardless of their status and because of their good work. The former CE was very humanitarian, too. He knew every engineer in the HQ and in the field by name.

²³ “Terminal Evaluation Report on the Japanese Technical Cooperation for the RDEC Setting-Up Project in Bangladesh” (Draft), JICA, September 2005.

He made sure to spend enough time to consult on and take care of any imminent personal issues of the staff. The current leadership is close associates of the former CE and carries forward the values, norms and culture developed under the reign of the predecessor. (See Annex 10 on Mr. Quamrul Islam Siddique, the former CE, and the development of LGED.)

- Decentralization and delegation

As mentioned in 2.2.2, LGED is truly a field oriented organization. About 90% of the staff are based at District and Upazila levels. The organizational presence at local level is more visible than any other GOB departments, as LGED Upazila offices have nine staff on average. Under the decentralized set-up, the staff have certain degree of decision making and administration authorities with regard to such aspects as procurement, certification of works, payment instructions, selection of sites, consultation with local communities and other departments, etc. This field orientation is a key to undertaking massive amount of development works including the recent involvement with local elected bodies (Union Paridshads and municipalities) to build their capacity.

- Close communication and interactions among the staff

The top management of LGED, including the CE himself, underlines the importance of field level performance by making frequent field visits. All Superintendent Engineers (SEs) and Executive Engineers (EEs) based in the HQ and District offices visit activity sites regularly. Almost all local offices have computers and some of them have internet/email facilities through which a strong communication network has been established. All Upazila offices are covered by land lines and mobile phones. The rural road networks constructed by LGED have made easy access to all Upaizla offices, where within an hour or so District officers can travel and provide inputs to the works performed locally. In addition to these frequent interactions, local offices prepare monthly reports and send them to their supervisors. LGED is one of rare government organizations, where the staff of the same and different levels are frequently in touch with each other both formally and informally through various channels, which is serving as glue of the organization.

- Informal and quick decision making

LGED relies on informal decision making, bypassing government bureaucratic practices as necessary and appropriate. It was observed that instead of giving notes on files they communicate with concerned staff and make decisions over telephone, which tremendously expedites the work processes. In GOB organizations, decision making is usually very formal and relies on written communication through sending files, which takes a long time. On the contrary, LGED takes quick decisions over telephone, fax and

email based on mutual trust.

- Emphasis on competency development

LGED believes in competency building of the staff to sustain the competitive edge of the organization. Training is provided in the HQ, ten regional training centres and District offices. A total of 120 curricula have been developed. The number of training course held annually has been increasing and reached 2,099 in 2004/05, funded by both development and revenue budgets. Many staff are given opportunity for higher education, too. Around 100 staff members hold master's degree and all of them (except for one) have returned to LGED and have been contributing their learning to the organization. The systematic competency development programme is a crucial factor to ensure the confidence and good work of the staff.

- Physical arrangements

Having its own HQ building (by convincing World Bank and ADB to finance it) is a big advantage with adequate facilities and office space for a range of activities including training and seminars. The offices are well equipped with computers, internet and other accessories, which are another motivating factor for the staff. The new RDEC building (partially financed by yen loans) gives a further boost to LGED's physical set-up.

- Personnel management

LGED, as a government organization, complies with the GOB personnel management policy. But LGED manages well within the GOB confinements so as to give maximum incentives to the staff. For example, District officers approves leave, write annual confidential performance reports on Upazila engineers and Upazila engineers do the same for his staff. Similar processes are practiced in the HQ, too. But in accordance with their regular ways of fast communications and decisions, approval is often given over phone followed by formalities later. Promotion is on the basis of seniority and must be approved by the government. But in some cases the LGED committee headed by the CE recommends staff for promotion based on competency rather than seniority, which is generally endorsed by the Ministry.²⁴

- Incentives

LGED follows the government salary structure and does not have separate mechanisms to

²⁴ The committee to consider promotion consists of the CE and 3-5 members of LGED. Their recommendations are forwarded to LGD, which has a departmental promotion committee consisting of the Secretary and three members, including the LGED CE.

reward excellent performance except through formal recognition and reflection in the annual confidential performance reports. Outstanding performance is often rewarded by training opportunities in foreign countries, which is perhaps working as one of the greatest incentives among the staff. In the past, opportunities to assume consultancy positions in on-going projects (and to receive higher salaries), taking advantage of the lien arrangement allowed under the GOB system for a maximum of 15 years, were incentives for high-flyers, but this is no longer encouraged. Senior high performing officers have the prospect of working as consultants after retirement, as in the case of other prominent GOB officials. One unique feature of LGED is recently formed staff welfare cooperative, to which all the staff belong (instead of forming trade unions) to help each other for emergency needs, hospital treatment, children's education, etc. and to provide the staff and family members with common facilities like an ICT centre and a guesthouse and joint recreational opportunities.

- Penalties

Under the GOB personnel policy, under-performing staff are punished through transfer or termination. Under the leadership of the former CE, four to five non-performing staff were fired annually, which was enough to keep all the LGED employees on their toes. Termination of staff at the level of Assistant Engineer and above is more difficult as it requires approval of the ministry (in which case political strings may be pulled by the concerned staff or relatives). While the former CE was tenacious of his intention, the current CE takes a more balanced approach.

- External relations

Since inception LGED has been giving emphasis on maintaining good relationships with its line ministry, ERD, Planning Commission, IMED and development partners. The top management has always kept good relations with all political parties in power.

3.4 Summary of the Achievements and Issues

The major contribution of Japan assisted LGED projects/undertakings to the agricultural and rural development area is through the **development of rural infrastructure facilities** particularly roads and bridges. In terms of physical outputs, the Japanese assistance contributed to 4.6% of the construction and improvement of Upazila and Union roads, 2.5% of the construction of bridges and culverts and 60% of the construction of PBSs implemented by LGED during the 1990 to 2005 period. The contribution to rehabilitation was 12.4% for Upazila and Union roads and 30% for bridges and culverts during the same period. Studies and available evidence show that road construction has produced a

number of effects including reduced time and cost for transportation, resulting in increased transportation, better access to schools and public services and increase in income and employment. Japan's contribution to related facilities such as UPCs and Growth Centre Markets has been limited, but the LDCP of the Greater Faridpur Rural Development Project has demonstrated an effective approach to vitalize Union Parishads and Upazila service deliveries and has contributed to **strengthening of local government and participatory rural development** through LGED. Japan's involvement in **water resources development** and management through LGED has so far been almost limited to a master plan study. But the study has introduced participatory planning processes for SSWR development and management, which is expected to augment the **participatory rural development** processes in the country. In addition, JICA experts, the JICA RDEC Technical Cooperation Projects and training programmes have been facilitating the technical upgrading of LGED, contributing indirectly to the objectives of rural development. Japan's support to capacity development in the form of training and experts' advice has been appreciated by LGED participants and counterpart personnel for their practical learning and exposure to work discipline.

When looking at the purposes and end results of Japan assisted LGED projects and undertakings, they are without doubt in close alignment with the needs and objectives of rural development in Bangladesh. What call for attention, however, are the approaches of the assistance. The issues that will require consideration include (i) experience sharing and coordination with other development partners to gain better perspective as to where and how to assist LGED and (ii) operation and maintenance of roads and bridges including PSBs. These issues will affect long-term sustainability of the assistance and will be revisited in Chapter 5.

4 EVALUATION: DISASTER MANAGEMENT

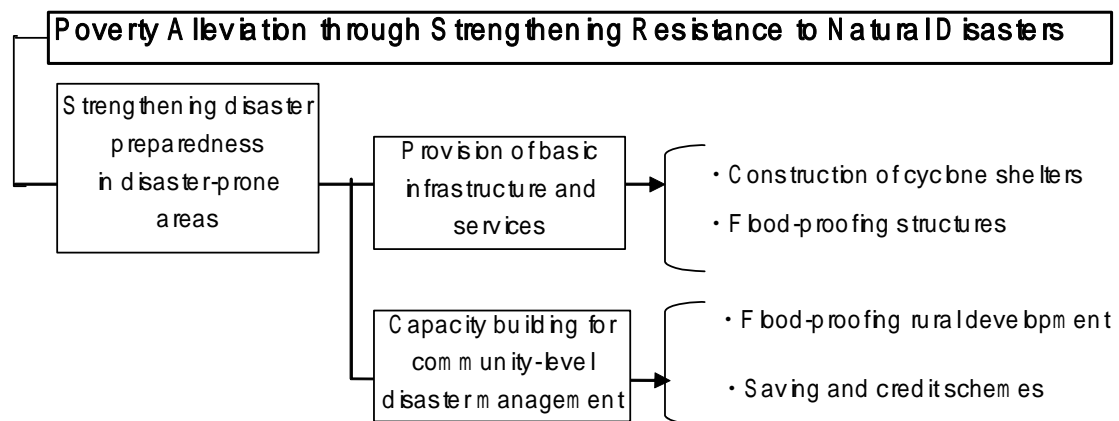
4.1 Relevance of the Purposes

4.1.1 Relevance to GOJ's ODA Strategies and Plans

Disaster management is one of the issues highlighted in the human security segment of the ODA Charter. The significance of protecting individuals from sudden threats was further described in the Medium-Term Policy on ODA in line with poverty reduction approach. As mentioned before, the CAP for Bangladesh sets disaster management as one of the priority areas. Management of floods and cyclones are described in detail in the disaster management sector of the policy paper of the ODA Task Force. The construction of MSCs has directly contributed to the protection of vulnerable people in the coastal areas and has been consistent with Japan's ODA strategy

The JICA study on improvement of the livelihood in flood-prone areas corresponds to the flood management segment of the disaster management area of the CAP.

Figure 4-1 Objective Trees of Disaster Management Sector



The Figure 4-1 features part of the objective trees for the disaster management area shown in Annex 2. Listed on the right are the elements that compose the respective groups of 2-a. MCSs and 2-b. flood-proofing livelihood improvement. The support to constructing MCSs played a role to provide basic infrastructure, which contributed to strengthen disaster preparedness in disaster-prone area. In the same manner, the study on flood-proofing livelihood improvement corresponds to the capacity building of community-level disaster management.

4.1.2 Relevance to Policies, Plans and Needs of Bangladesh

While the Fourth and Fifth Five Year Plans did not provide particular reference to disaster management, specific national plans such as Flood Action Plan (1989), National Water Policy (1999) and Master Plan for Multipurpose Cyclone Shelters (1992) were prepared. These national policies provided basis for GOJ's assistance to LGED in the disaster management area. The essence of the two Five Year Plans and I-PRSP is summarized in Table 4.1.

Table 4.1 Objectives and Strategies in GOB's National Plans: Disaster Management

	Objectives	Strategy / Programme
Fourth FYP 1990-1995	Disaster is not specifically mentioned, while flood control was explained with water resources. <ul style="list-style-type: none"> • Safeguard lives and livelihoods • Minimize potential flood damage • Create flood free land to accommodate the increasing population 	Disaster management was not specifically mentioned.
Fifth FYP 1997-2002	Disaster preparedness, warning system, response and rehabilitation were mentioned under the context of "Environment and Sustainable Development".	Massive forestation and construction of appropriate housing and cyclone shelters in the coastal belt were mentioned.
I-PRSP	<ol style="list-style-type: none"> 1) Minimise the loss of lives and properties during disaster through implementation of risk reduction strategies; 2) Build capacity and strengthen national institutions for disaster management with emphasis on preparation of action plans and guidelines; 3) Enhance professional skills and knowledge of key personnel of the MDMR on risk reduction, preparedness, warning and forecasting system and post-disaster activities; 4) Undertake structural mitigation measures including construction of rural infrastructure, shelter and communication facilities in the high-risk areas; and 5) Promote measures to create employment opportunities throughout the year for poverty in the disaster prone areas. 	<ol style="list-style-type: none"> 1) Disaster management would involve the <i>management of both risks and consequences</i> of disasters that would include prevention, emergency response and post-disaster recovery. 2) <i>Community involvement</i> for preparedness programs for protecting lives and properties would be a major focus. Involvement of local government bodies would be an essential part of the strategy. Self-reliance should be the key for preparedness, response and recovery. 3) <i>Non-structural mitigation measures</i> such as community disaster preparedness, training, advocacy and public awareness must be given a high priority; this would require an integration of structural mitigation with non-structural measures.

Source: Fourth FYP 1990-1995, Fifth FYP 1997-2002 and Annex 10 Sectoral Reforms: Selected Examples, I-PRSP, March 2003

Under I-PRSP, the disaster management was included in one of the 10 major goals/targets, described as "ensuring comprehensive disaster risk management, environmental sustainability and mainstreaming of these concerns into the national development process".

A direct link between natural disaster and the poverty is reiterated and reduction of vulnerability to natural disasters was regarded as an integral aspect of national strategies for poverty reduction. While the emphasis was more on non-structural mitigation measures such as community disaster preparedness than relief oriented activities, improving and ensuring safety of lives through reliable infrastructure, is nonetheless required. Improved water management in the Haor basins of the north east region was included in the Mid-Term Agenda for the water resources sector, and the construction of cyclone shelters to protect lives of the people was referred to in the Action Taken of I-PRSP.

The construction of cyclone shelters was recognized as urgent in the wake of the cyclone 1991 which killed 140,000 people. The High Risk Area (HRA), i.e. the storm surge prone areas of the coastal belt of Bangladesh, consists of 5.6 % of the national land or 8,093 km². The number of inhabitants in the HRA is estimated to be approximately 6.4 million.

The coastal area of Bangladesh is risk prone but has growth potential as it contains rich forest, enriched soil for paddy production and fisheries. In the chapter on regional development in the Fifth FYP (1997-2002), building more cyclone shelters in order to save lives against cyclones is regarded as one of the major development goal in the costal belt.

The Master Plan for Multipurpose Cyclone Shelters was prepared based on the Inter-ministerial Task Force on Cyclone Shelters set up by the Planning Commission in 1991. The study was conducted by the Bangladesh University of Engineering and Technology (BUET) and the Bangladesh Institute of Development Studies (BIDS) with the assistance of World Bank and UNDP. The master plan published in 1993 recommended constructing approximately 2,500 MCSs, mostly shelter-cum-school/community facilities in the HRA's costal belt by 2002, based on the fact that more than 4.3 million inhabitants had no shelters available. GOJ's support to MCSs, therefore, has corresponded to the needs and national agenda of Bangladesh. Since the MCSs funded by Japan is used for the primary schools in ordinary times, the needs to provide safe and comfortable education facilities for children have also been met through the support to MCSs.

4.1.3 Relevance to the Assistance of Other Development Partners

(a) Multipurpose Cyclone Shelters (MSCs)

The Japanese grand aid for MSC construction has been based on the 1992 master plan assisted by World Bank and UNDP. There were other government organizations constructing cyclone shelters in the past but since early 1990s LGED has been the sole

government body.²⁵ KfW (based on a master plan prepared with EU's assistance), IFAD and JICA are the partners that have supported LGED's multipurpose cyclone shelter construction. But in the case of KfW, the direct counterpart was MoPME, which then commissioned the construction work to LGED. IFAD's support was part of a post-cyclone project that was coordinated by the Cabinet Division. A related development is that under the Primary Education Development Programme II (PEDP-II)²⁶, primary schools to be constructed in High Risk Areas are designed as cyclone shelters as well. LGED is responsible for the construction but MoPME is the executing agency. The difference in the approaches, i.e. whether to have LGED or MoPME as an executing agency for MCSs, appears to be stemming from the difference in understanding the primary purpose of the facilities. But it also may have implications for the maintenance arrangement as will be discussed in 4.2.3.

Another difference between Japan and other development partners is related to the cost of MCSs. MCSs constructed with Japanese grant cost 17 million taka per shelter, while the cost comes down to 4.2-4.9 million taka for MCSs assisted by EU, Germany and the Netherlands.²⁷ According to the GOJ ODA Task Force, the per unit cost has been decreasing through design modifications and when quality such as solidity of the structure and earthquake resilience is included in the equation, the cost differential becomes even less. The evaluation and study missions including the current one have observed unanimously the stability and security that the solid MCSs buildings provide. School teachers and neighbours of the MCSs express their satisfaction and a sense of security offered by the Japan assisted MCSs. In the future assistance to MCSs, however, possible trade-off between cost and quality may well be discussed in view of the allocation of overall development resources.

(b) Flood-proofing livelihood improvement

The JICA study for flood-proofing livelihood improvement in Char and Haor areas has proposed a new project of LGED covering structural and non-structural arrangements as well as livelihood improvement of the target population. During the recent project preparation it was decided to focus only on Haor areas in view of DFID's on-going support in Char areas, which is through LGD. The DFID assistance focuses on livelihood

²⁵ An exception is that the Ministry of Food and Disaster Management (MoFDM) currently conducts a pilot project of cyclone shelter construction in two Districts.

²⁶ PEDP-II, initiated in 2004, takes a sector-wide approach where nine of the 11 associated development partners provide loans and grants to a common fund established in the Department of Primary Education of MoPME. ADB is a lead donor in this arrangement. About 40% of the PEDP-II budget is for physical improvement of schools commissioned to LGED.

²⁷ The Ex-Post Evaluation Report on the MCSs 3rd Phase Project (JICA, 2003).

improvement and governance, while the proposal of the JICA study has more weight on infrastructure, hence the difference in the selection of the executing agency.

4.2 Effectiveness and Impacts of Results

4.2.1 Outputs

The reported number of MCSs that have been constructed so far is 1,844, out of which more than 400 were outside the scope of the 1992 Master Plan (that set out the construction of 2,500 MCSs). Approximately 1,300 MCSs have been constructed after the master plan, out of which 81, or 6%, were funded by GOJ in five phases. Table 4.2 below shows the distribution of funding sources for MCS construction as collated in two documents as of 2003.

Table 4.2 MCS Construction by Funding Source

Implementing Agencies / donors	Number of shelters*	Number of shelters**	Construction Period
Japan	61	61	1993-2001
Kingdom of Saudi Arabia	516	450	1992-1999
KfW (Germany)	131	110	2001-2003
Netherlands	36	27	2002-2004
WB	193	-	-
OPEC	-	150	1995-1998
ADB	205	171	1997-2003
EU/EC	139	207	1993-1996
Islamic Development Bank		120	1993-1999
Caritas (NGO)	140	152	1991-1996
Bangladesh Red Crescent Society	116	104	1991-1995
IFAD	39	35	1995-1999
Other ODA agencies	32	-	-
Other NGOs	77	95	-
Others	130	-	-
GOB	26	5	2001-2003
Total	1841***	1687	

* Source: Ex-post Project Evaluation Report – the Project for Construction of Multipurpose Cyclone Shelters (phase III) (Mar.2003)

** Source: Basic design study report on the project for the construction of multipurpose cyclone shelters (V) in the People's Republic of Bangladesh August, 2003

*** Approximately 400 MCS were constructed before the 1992 Master Plan.

The total number of MCS construction by LGED till today is 233, out of which 81 have been supported by Japan as shown in Table 4.3.

Table 4.3 MCS Construction by LGED

Relevant GOB Plan (Period)		MCS Master Plan (1992) recommending 2,500 MCSs
<u>Multipurpose Cyclone Shelters (MCSs) – Construction</u>		
Total achievement by GOB and NGOs		Approx. 1,300
Construction by LGED	Total LGED Achievement	233
	GOJ funded	81
	Others	5 (by GOB), 35 (by IFAD) and 112 (by EC/KfW)

Source: LGED

4.2.2 Effects and Impacts

(1) Summary of Existing Studies and Hearings

According to LGED, there were distinct impacts when cyclones hit the coast of Chittagong and Cox Bazar Districts in April 1996 and May 1997. In 1996, there were life losses as well as physical damages: 2 children died, 20 people were injured and 4 fishermen were lost in the sea, 8 houses and 35% of agriculture crops were lost. In 1997, 3 people died, 504 people were injured, 9 houses and 30% of agriculture crops were lost. However, the life loss and the damages were minimal compared with those in the 1991 cyclone which caused over 140,000 casualties. While the warning system improved substantially after 1991, the newly constructed MCSs played a significant role for saving the lives. In 1998, there were also big cyclones hitting the region which caused the death of 2,000 people. Yet, it was reported the loss was mostly due to fishermen unable to catch warnings and from water born diseases. Substantial inhabitants could save their lives thanks to the newly built MCSs.

There have been two ex-ante project evaluations on MCSs: the MoFA-UNICEF joint evaluation on the 1st and 2nd phase projects in 1997 and the JICA ex-post evaluation on the 3rd phase project in 2003.

The coordination with Cyclone Preparedness Program, administered by both Disaster Management Bureau (DMB) and Bangladesh Red Crescent Society (BDRCS), was reiterated in the evaluations. The BDRCS established a communication tower on the roof of some Japan funded MCSs, which improved the communication. Such coordination can be a good model to be replicated to other MCSs.

Needs for additional equipment, especially for education purposes were raised by the beneficiaries. This should contribute to better education environment and to increase in

the enrolment rate of primary school children. Japan funded MCSs are well designed and much better equipped like new UPCs, influencing some well-off people in the localities to adopt the design of Japan assisted MCSs in their own architecture.

(2) Case Studies

Field interviews were conducted in the neighbourhood of two MCSs constructed with the Japanese assistance. It was verified that combined with coordinated warning and evacuation arrangements, damages of the cyclones in 1997 and 1998 were kept minimal. People in the coastal areas used to be terrified at the prospect of cyclones, but now feel secure with the availability of shelters nearby. Their use as primary schools in normal times has contributed to raising the school attendance rate. The facilities also provide venues for various community and other activities, bringing multiple benefits to the local community. However, some concerns were raised for maintenance of the properties.

Case 6: Cyclone Shelters Providing Security, Education and Hope

-- Baherchara Farajipur Cyclone Shelter, Cox Bazar Sadar Upazila, Cox Bazar District (Multipurpose Cyclone Shelters Construction 1st Phase)

In Baherchara Union, there are a good number of cyclone shelters constructed under different grant from different development partners. The Baherchara Farajipur Cyclone Shelter, constructed by the Japanese grant in 1995-1996, is located about 2.5km from the seashore and covers 3-4 nearby villages within 0.5 to 1.5 km radius inhabited by around 10,000 people.

According to Mr. Ansaru Haque (32), Union Leader of Village Defence Police (VDP) and inhabitants, Mr. Jahar Alam (35) and Mr. Sayed Marim (50), there were at least 3 times when serious cyclone and tidal bore warnings were given during the last 10 years. The one in 1998 was most disastrous and around 300-400 families or 2,000-2,500 population, mostly women and children, had to evacuate in the shelter during the cyclone.

Generally people of the area remain alert of signals provided by Weather Forecast Department through radio and television. When the degree of the signal reaches a certain level, people of low lands move quickly to the shelters. Volunteers of Red Crescent Society, members of VDP and Village Police of the area help and organize the evaluation and rescue operations. They also arrange lighting at night, drinking water and food for the people who come to the

shelter.



Cyclone shelter constructed under Japanese Grant in Mirsarai Upazila, Cox Bazar

Mr Ansarul Hauque narrated the story of a night **in 1998**, when high alert signals were announced and a storm accompanying tidal bores started in the area. People were quickly rushing to the centres. But the tidal bore water was pouring into the low land and into houses, premises, roads and paths quickly. Water rose to 2-3 feet in roads, and old women and small children were unable to move to the shelters. Then Ansarul Hauque along with some other members of his VDP and Red Crescent volunteers ran to different houses, took the women and children in their arms and shoulders, and brought them to the shelter. He himself carried 15-20 old women, crossing quick flow of tidal water. **People were rescued fully, took shelter in the building** and spent the night peacefully.

In ordinary times, the shelter is used as primary school of the locality. Earlier, there was only a tin-shed, earthen floor school, which could not accommodate all students and was easily inundated during any flood or tidal bore. Such conditions frequently hampered normal teaching of students. Now the school is attended by 500-600 children in 2 shifts in the up-stair floor of the shelter building. There are 6 teachers teaching at the school. **Thanks to this facility, almost all the children of the area attend the school regularly.** The drop-out rate of students has decreased enormously. There is a School Management Committee of 10-12 members (3 of whom are female) to ensure smooth running of the school. Mr Ansarul and the two other persons said that **the maintenance of the cyclone shelter is a little bit poor** because of weak management.

Other activities held in the centre from time to time are:

- During rainy season, about 20-30 families who have no premise with roofs utilized the ground floor for the purpose processing their harvested crops and rice.
- During Iddul Azha (the biggest Muslim festival) nearby villagers performed the Holy KURBANI (cow/goat slaughtering and distributing beef/mutton to poor people) on the ground floor.
- In winter season, the premise is used for religious preaching and meetings.
- In cultivating & harvesting season, migrant labourers take shelter for their night stay in the building with permission from the committee (around 50-60 labourers reside during the season).
- Army people made their camp during their 'ARMS- SEARCH' operation to improve the law and order situation in 2002-03.
- About 4-5 times the premise has been used for training of VDP members of the locality.

In summary, the cyclone shelter has created **immense utility for the surrounding population in respect to sheltering during disastrous situations, children's education, community gatherings, human resource development,** etc. But it was observed that

maintenance like white-wash, floor keeping and operating tube-well was rather poor.

-- Khuruskul Cyclone Shelter, Cox Bazaar Sadar Upazila, Cox Bazaar District (Multipurpose Cyclone Shelter Construction Project 1st Phase)

In the coastal belt area, construction of cyclone shelter has given fresh breathing spirit to the people by **reducing the uncertainty during calamities.** It has created new hope for them to work and live peacefully. Mr. Nurul Abser (22), college student, remembers that there was only once **in 1997** when the people in the neighbourhood had to evacuate their own households after a red signal warning for cyclonic tidal bores. The red signal was announced through megaphones and mikes by community mobilizes (Red Crescent volunteers and members of the shelter management committee) to guide the people to evacuate the households and move toward the cyclone shelter immediately. Just after the red signal by Weather Forecast Department and microphone announcements by community volunteers, people became ready for moving toward the shelter. Volunteers and community leaders rescued old women and children who could not move on their own. The management committee organized the people to take shelter in a peaceful manner. Lighting, drinking water and sometimes food was arranged by the management committee and community in a coordinated way.



Students of Kulshkul Cyclone Shelter cum Primary School

The other major benefit of the shelter is the use as a primary school, where around 1,000 students attend. During national and local elections, a voting centre was established in the shelter and

the local people could cast votes smoothly. As a student and a citizen of the country, Mr. Nurul Abser sees **tremendous benefits to the local community** resulting from the shelter construction. In particular, people are not frightened by red signals as they know they have

now cyclone shelters in their locality, to which they can move within half an hour. He recalls his childhood in the late 1970s and early 1980s, when the whole community was frightened by red signal warnings.

4.2.3 Operation and Maintenance for Project Sustainability

A MCS, upon completion of construction, is transferred from LGED to the School Management Committee (SMC) of the concerned area that is responsible for operation and daily maintenance. SMC consists of teachers, Union Parishad members, NGO representatives and community leaders including women, selected following a certain criteria and under the supervision of Upazila Nilhali Officer (UNO). The SMC members are also responsible for ensuring the proper use of the MCS in case of cyclones. The budget for operation and maintenance is provided by MoPME (under the Department of Primary Education, or DPE), channelled through the Upazila education office. The Upazila itself sometimes allocates its own budget for the maintenance. Major maintenance is carried out by LGED on commission by MoPME using the MoPME's revenue budget.

The ex-post evaluation conducted by JICA in 2003 on the MCS Phase 3 Project found that while MoPME and Upazila had some funds for the MCS maintenance, the amount was not enough. It also said that although LGED had sufficient local trained staff to carry out the maintenance, they were not responsible after completing the construction, nor had maintenance budget. The Case 6 described above in 4.4.2 (2) indicates insufficiency of maintenance due to 'weak management', perhaps referring to the capacity of the SMC. The JICA Design Study conducted in 2002 for the MCS Phase 5 proposed that "LGED Upazila Engineers will be made responsible for periodic monitoring and thereby sharing the periodic maintenance responsibility." LGED Upazila engineers generally monitor the conditions of MCSs and report to the LGED HQ and to the concerned Upazila. But for more effective monitoring, the information flow and accumulation need the support of computerization. As mentioned in 4.1.3, KfW supports MCS construction through MoPME, and ADB and other donors, under PEDP-II, support constructing primary school that will be designed and used as cyclone shelters in High Risk Areas. If the MCS project is carried out by MoPME (commissioning the construction work to LGED), the maintenance responsibility naturally falls under MoPME. But when the project is under LGED's responsibility, though LGED transfers the facility to the line of MoPME, there may not be enough awareness or sense of ownership on the part of MoPME. The MCS maintenance responsibility and arrangement will need a holistic review, to assess

maintenance situations under these two types and to determine the best possible approach.

4.3 Appropriateness of Planning and Implementation Processes

4.3.1 Processes of Continuous Support

(a) Multipurpose Cyclone Shelters (MCSs)

The support to MCSs has been provided in five phases. A MoFA-UNICEF joint evaluation was conducted in 1997 on the first two phases (a total of 25 MCSs) and a JICA Ex-post evaluation in 2003 on the third phase (15 MCSs). These evaluations identified the following as areas/issues to be improved in the future assistance:

- MoFA-UNICEF Joint Evaluation on the 1st & 2nd Phases (1997)
 - (i) Kilas (spaces to keep livestock) were not provided in ten of the MCSs regardless of their inclusion in the design.
 - (ii) Responsibilities over operation and maintenance were not clear.
 - (iii) Awareness of the local communities toward the MCSs could be increased by involving them in planning and by enabling their use of MCSs for various activities.
 - (iv) The Japanese assistance had been based only on the 1992 Master Plan, while another study in 1996 (funded by World Bank and EC) set out a more comprehensive approach for disaster preparedness covering community based disaster management systems and improvement of houses and other infrastructures. It would be important to plan future assistance from a broader perspective as suggested in the 1996 study.
- JICA Ex Post Evaluation on the 3rd Phase (2003)
 - (v) The maintenance budget of MoPME and Upazila was not enough.
 - (vi) Some additional facilities would be needed including deep tube wells to ensure arsenic free drinking water, electricity connections or solar panels for lighting and telecommunication, broader windows for more ventilation and light and sunshades.
 - (vii) One of the 15 MCSs (in Borokheri) collapsed into a river duet to the failure of the river bank.

With regard to (i), according to LGED, the MCSs without Kila are located in higher lands surrounded by embankments and therefore there is little need for livestock to be evacuated. On (iii), the involvement of local communities, the case studies and other evidence suggest that MCSs are nowadays regarded as common assets of the communities and are frequently used for their activities. The maintenance issues of (ii) and (v) are as already

discussed in 4.2.3 above. With regard to (iv), a comprehensive approach toward disaster management was initiated in the late 1990s, and Ministry of Food and Disaster Management (MoFDM) is currently preparing a Comprehensive Disaster Management Policy²⁸ under the Comprehensive Disaster Management Programme (CDMP) assisted by UNDP and DFID. LGED and the GOJ team are aware of this development and are currently exploring ways to partner with the CDMP approach. Improvement of the facilities as pointed out under (vi) has been the concern of LGED, which has modified the designs to provide more ventilations. Other aspects are yet to be addressed. (vii) was an inevitable consequence of the Meghna River drastically changing the alignment, even though the MCS was constructed 1-2 km from the shore, protected by embankment. LGED has been introducing deeper pile foundations in the areas that have the potential for river course alterations. As such areas are usually inhabited by vulnerable population, future grant assistance to more solid (therefore costly) MCSs may target such needs.

(b) Flood-proofing livelihood improvement

The recommendations of the JICA study for flood-proofing livelihood improvement has recently reviewed as part of the preparation of a new grant aid project. In view of the on-going DFID assistance in Char areas as already mentioned above, it's been decided that the grant project will target only Haor areas and support the construction of retaining walls, which corresponds with basic human needs and thus is more in line with the objectives of the grant aid. Based on the study's recommendations, LGED already initiated a pilot project but this will not be continued at least for the time being in the absence of donor support. In hindsight, there could have been sufficient considerations of other donors' approaches and the applicability of GOJ's ODA schemes so as to ensure utilization of the study and consistent support to LGED.

4.3.2 Partnership with Other Development Partners

This section refers to 4.1.3 (Relevance to the Assistance of Other Development Partners) and assesses whether and how the Japanese assistance has partnered with other relevant support.

The Japanese assistance to **MCSs** is rather unique in two respects: Japan has been supporting MCS projects with LGED as a direct counterpart agency (while other development partners support them through MoPME); and it provides more per shelter budget, enabling construction of more solid and secure facilities. The basis of its support

²⁸ Arrangements for structural measures including MCSs are not explicitly incorporated in the thinking of CDMP or MoFDM yet but doing so will be quite important particularly in view of maintenance of MCSs.

is the 1992 Master Plan funded by World Bank and UNDP, and it seems that this is the only noteworthy link so far between Japan and other development partners involved in MCSs. Dialogue and coordination among development partners may be sought under the umbrella of CDMP as well as PEDP-II (as PEDP-II donors are funding primary school-cum-shelter construction).

As touched upon in 4.1.3, the JICA study for **flood-proofing livelihood improvement** shares similar objectives with the DFID supported Char project through LGD. Considering the on-going DFID project targeting Char areas and to demarcate the responsibilities, a new grant aid project will focus only on Haor areas.

4.4 Summary of the Achievements and Issues

The contribution of Japanese assistance to the disaster management area through LGED has been mostly by MCSs construction projects. GOJ funded MCSs has constituted 6% of the total MCSs that were constructed after the 1992 master plan, and 35% of LGED constructed MCSs. Unlike in the cyclones of 1991, damages in 1996-1998 cyclones were kept minimal thanks to the shelters as well as coordinated warning and evacuation arrangements. The MCSs have given the sense of security to the people in the cyclone-prone coastal areas, while contributing to school attendance and creating more opportunities for community activities. The assistance to MCSs has thus been consistent with the objective of **strengthening disaster preparedness through provision of basic infrastructure and service**. The JICA study on flood proofing livelihood improvement was intended for supporting capacity building for **community-level disaster management** as well, but has not led to any concrete output yet and will instead focus on the **basic infrastructure** in the proposed project.

As in the agriculture and rural development area, the assistance to LGED in the disaster management area corresponds to the needs and objectives in Bangladesh. The issues here, as in the other area, are about the approaches of the assistance. With regard to both MCSs and flood proofing livelihood improvement, dialogue and coordination with other development partners will have to be initiated so as to minimise fragmentation in the GOB execution arrangement. This and other issues mentioned above will be revisited in Chapter 5.

5 LESSONS LEARNED AND RECOMMENDATIONS

The issues derived from the above assessment are consolidated as lessons learned and recommendations as below. It is advised that these be taken account of in the future assistance to LGED by GOJ and in some respect by other development partners.

(i) More attention to maintenance

The RDEC project, JICA training and the debt relief have been contributing to strengthening the maintenance of roads and bridges in terms of technical capacity and budget. Continuous attention of LGED, in collaboration with concerned GOB ministries/departments, will be need particularly for the maintenance and ensuring utilization of PSBs and MCSs.

(ii) Review of the ‘entry point’ for multipurpose cyclone shelters

Other development partners provide assistance through MoPME (which commissions construction to LGED). The MCS execution responsibility may need a review in consideration of the maintenance arrangement particularly under the emerging umbrella of the CDMP.

(iii) Further attention to capacity development

In order to sustain the competitive advantage of LGED and in view of the future generations of the LGED leadership, a more coordinated approach would be needed among LGED and development partners encompassing organizational, managerial and technical aspect under the ownership of LGED so as to reduce overlapping and increase synergies.

(iv) Cross-project and sectoral perspectives

Cross-project and sectoral approaches, capturing issues that go beyond the boundary of particular projects or areas/sectors, will help more efficient utilization of ODA resources and creating greater development impacts. This is especially relevant to PSBs and MCSs. More fundamentally, as LGED is involved in multiple areas/sectors under different arrangements (as depicted in Annex 6), the assistance to LGED will require cross-sectoral perspectives. Such perspectives may be materialized in the arrangements and agenda of the working groups of GOJ’s ODA Task Force in Dhaka and during the process of project formulation.

(v) Support toward replicating the ‘LGED model’

The roles of LGED have been expanding in response to its good performance and willingness on one hand and the aspiration or wishes of development partners to have it as an executing agency on the other. The approaches of the development partners sometimes vary, and taking stock of the expanding roles of LGED would be useful to strike an appropriate balance between competition (i.e. LGED competing with other government organizations leading to better public performance) and coordination (i.e. avoiding fragmented approaches). In the long run, the assistance toward replicating the ‘LGED model’ to other GOB organizations may be considered so as to ease burdens on LGED and to ensure its focus on core competence.

(vi) Knowledge management

The M&E system of LGED needs further assistance so as to facilitate monitoring, evaluation and feedback to the next planning cycle. It may be linked to GOB-wide M&E system when it is developed in the future. At the same time, a database may be created on the Japanese side to support continuous learning from past and other related projects and for enhancing knowledge management within the GOJ team.

- END -