

**CHAPTER 4**  
**MAJOR ODA PROJECTS**

#### **4.0 MAJOR ODA PROJECTS**

The implementation of bridge construction projects will have the effect to support/promote other development projects implemented under different sectors i.e. transport, rural development, relief & rehabilitation, agriculture, education, health, flood control, social welfare, etc.

#### **4.1 Major ODA Projects for Rural Development**

##### **4.1.1 Major ODA Projects**

Table 4.1-1 shows major ODA projects, the effects of which are expected to be promoted by bridge construction projects in the affected areas.

Table- 4.1-1 Major ODA Projects (1/9)

Project Title	Sector	Major Component	Implementation Period	Project Area (Benefited Districts)	Fund Source	Project Cost (million US\$)
Meghna Bridge Construction Project	Transport	Construction of a 930 meter long bridge crossing the Meghna river along Dhaka-Chittagong Highway	1987-1991	Dhaka, Narayanganj, Munshiganj & Comilla	Japan's grant	62.70
Meghna-Gumti Bridge Construction Project	Transport	Construction of a 1,410 meter long bridge crossing the Meghna-Gumti river along Dhaka-Chittagong Highway	1992-1996	Dhaka, Narayanganj, Munshiganj & Comilla	Japan's grant	64.20
Project for Protecting Revetment on the Bank of Meghna River	Transport	Construction of revetment at and around the Meghna bridge on the left bank of the Meghna river over a 700 meters section for the purpose of protecting the substructures and approach road of the bridge, especially on the Comilla side	1992-	Dhaka, Narayanganj, Munshiganj & Comilla	Japan's grant	8.60
Bangabandhu Bridge (Jamuna Bridge) Construction Project	Transport	Construction of approximately 4.8 km long bridge crossing the Jamuna river with associated river training works	1993-1998	Tangail & Sirajganj & all other Districts of Northern Zone	JBIC, IDA, ADB joint loan	696.00
Second Road Rehabilitation & maintenance	Transport	(i) Rehabilitation of 168 km national/regional roads; (ii) Widening of 100 km narrow roads; (iii) Periodic maintenance of 1800 km national/regional and type A Feeder Roads; and (iv) Rehabilitation of 270 km of flood damaged national/regional and feeder roads (type-A)	1994-2000	West, Northwest and Southwest Bangladesh	IDA	146.80
Jamuna Bridge Access Road Project (as of Dec 2001)	Transport	Improvement and rehabilitation of the following roads: - Joydebpur-Kaliakoir-Karotia-Tangail (61.25 km) - Nabinagar-Chandara Road (15.85 km) - Amin Bazar (Mirpur)-Savar (14.42 km) - Mukti Soroni-Daudkandi (28.75 km) - Wahedpur Road-Bariarhat (18.88 km)	1997-2002	Dhaka, Gazipur, Narayanganj, Munshiganj, Tangail, Chittagong & Feni	JBIC, ADB, NDF & DANIDA joint loan	89.60
Project for Reconstruction of Five Bridges on Dhaka-Chittagong Highway	Transport	Reconstruction of 5 decrepit bridges with a total length of 649 meters along Dhaka-Chittagong Highway	1998-2000	Dhaka, Narayanganj, Munshiganj & Comilla	Japan's grant	21.80
Third Road Rehabilitation & Maintenance	Transport	(i) Construction of Nalka-hatikamrul Road – 54.75; (ii) Rehabilitation of Feeder Roads Type-A – 500 km; (iii) Rehabilitation of Dhaka-Sylhet Road – 250 km; (iv) Reconstruction of Narrow bridges on periodic maintenance contract roads – 1000 km; (vi) road safety	1998-2003	Sirajganj, Natore, Rajshahi, Nawabganj, Narsingdi, B-Baria, Moulvibazar, Sylhet & Habiganj	IDA	273.00
Paksey Bridge Construction Project	Transport	Construction of approximately 1,800 meter long bridge crossing the Padma river	2000-2003	Pabna & Kushtia	JBIC Loan	180.00
Southwest Road Network Development Project	Transport	Major components are rehabilitation and improvement of roads in Dhaka-Mawa route. The project will introduce specific policy and institutional reforms in the roads subsection to improve governance and efficiency of business processes, and address social and environmental concerns	2000-2003	Southwest districts	ADB, OPEC, DANIDA, ADF & GoB	115.00

Table- 4.1-1 Major ODA Projects (2/9)

Project Title	Sector	Major Component	Implementation Period	Project Area (Benefited Districts)	Fund Source	Project Cost (million US\$)
Rupsa Bridge Construction Project	Transport	Construction of a 640 meter long bridge crossing the Rupsa river and about 10 km access road	2001-2004	Khulna & Bagerhat	JBIC Loan	80.00
Dhaka Urban Transport	Transport	(i) Traffic Management Measures and System Improvements; (ii) 60 km roads for improvement; (iii) Bus bays and laybys will be provide at a suitable distance from intersections; (iv) Rehabilitation of three existing bus terminals; (v) Rehabilitation of existing sidewalks, construction of around 40 km of new sidewalks and construction of about ten footbridges; (vi) Improve facilities for parking and traffic for NMT; (vii) Assist in the construction of two overpass; (viii) Flood damage rehabilitation of roads and drainage, about 200 km of existing roads	1999-2004	Dhaka Metropolitan area	IDA	177.00
Rural Development-II	Rural Development	Strengthening and expansion of Bangladesh's rural cooperative system and improvement of capability of promotional agency	1983-1991	All over the country	IDA	69.00
Rural Roads and Markets Improvement & Maintenance Project	Rural Development	Improvement of 500 km of Feeder Roads Type-B of improved public facilities of 4,000 meters of structures on rural roads (SRR); maintenance of the improved roads; institutional development activities of LGED; socio-economic monitoring and evaluation of the completed projects	1988-1997	Rajshahi, Natore, Pabna, Sirajganj, Bogra, Joypurhat, Naogaon, Nawabganj	IDA, KfW, SDC and GoB	133.00
Model Rural Development Project	Rural Development	Improvement of rural infrastructure as a model rural development aiming at alleviation of poverty and promotion of employment opportunities through agricultural development, major components being:  - Feeder Road-A (16.9km) - Feeder Road-B (32.0km) - Brides (4 bridges) - Growth Centers (2 places) - Irrigation Canal (63.6km) - UCCA Facilities (granary, fertilizer storehouse) - Elementary schools (4 schools)	1991-1994	Comilla	Japan's grant	19.00
Second Rural Infrastructure Development	Rural Development	Upgrading of Feeder Roads Type-B including construction of bridges and improvement of rural markets, etc.	1993-2000	Ten districts in Khulna Division	ADB & GoB	104.00

Table- 4.1-1 Major ODA Projects (3/9)

Project Title	Sector	Major Component	Implementation Period	Project Area (Benefited Districts)	Fund Source	Project Cost (million US\$)
Rural Livelihood	Rural Development	BRDB under the Ministry of Local Government, Rural Development and Cooperatives. The objective of the project is to support the Government's poverty reduction efforts through the creation of sustainable farm and confirm employment. The project aims to mobilize and provide support for more than 500,000 members to start micro-enterprises and income generating activities	1992-2005	All over the Country	ADB, GoB/TBCCAs Sub-borrowers	42.60
Poverty Alleviation (Microcredit-I)	Rural Development	Credit to Rural Population	1996-2002	All over the Country	IDA	72.70
Second Rural Roads & Markets Improvement	Rural Development	(i) Improvement and upgrading of about 575 km of feeder roads type-B and implementation of a planned routine and periodic maintenance system for LGED road network covering all FRB road; (ii) construction of 6000 culverts and small bridges (about 31,600 linear meters); (iii) improvement of rural markets in about 136 growth center markets and improvement of about 14 UP center markets; (iv) rehabilitation/construction of 41 priority river jetties; (v) pilot program to improve safety and efficiency of NMT; (vi) supply of equipment for road construction and maintenance of vehicles; (vii) institutional and human resources development; (viii) implementation of support including technical assistance for design, supervision, monitoring	1996-2002	Rajshahi, Natore, Pabna, Sirajganj, Bogra, Joypurhat, Naogaon, Nawabganj, Dhaka, Munshiganj, Manikganj, Narayanganj, Gazipur & Narsingdi	IDA, SDC & GoB	203.50
Third Rural Infrastructure Development	Rural Development	The project consists of the following parts: Part-A: Upgrading of about 1,250 km of Type-B Feeder Roads to all weather standard in (a) the eastern and (b) western parts of the project area and (c) construction of about 4,900 meters of bridges and culverts along rural roads; Part-B: Improvement of about 175 growth center markets and about 40 rural ghats; Part-C: provision of (1) four flash flood refuge facilities and about 15 km of submersible roads, all on pilot basis (2) women's vendor areas in about 280 improved growth center markets and support for women's market participation; (3) support for income generation through road O&M, and (4) union parishad complexes in the project area with support, including training, for local government bodies in community participation; Part-D: Institutional Development	1997-2005	Greater Districts of Mymensingh, Jamalpur, Rangpur & Dinajpur	ADB, IFAD, SIDA, JBIC, GoB & LGB	181.00

Table- 4.1-1 Major ODA Projects (4/9)

Project Title	Sector	Major Component	Implementation Period	Project Area (Benefited Districts)	Fund Source	Project Cost (million US\$)
Chittagong Hill Tracts Rural Development	Rural Development	<p>The project consists of four part; Part-1: Upgrading and Rehabilitation of rural Infrastructure. (a) improve up to approximately 75 km of FRBs and up to 350 km of the various classes of rural roads (rural road class one to rural road class three); (b) construct about 6,069 linear meters of bridges and culverts needed for these roads and to fill gaps in some existing roads; and (c) provide vehicles, large machinery, equipment and consulting service; Part-2: Community Development, Establishment of a community investment fund to provide block grants to each Union Parishad for Community Development activities;</p> <p>Part-3: Micro-enterprise Development: Support the credit provision activities of selected NGOs through the training of potential borrowers in credit use awareness and skill development; Part-4: Project Management Support: Provide consultants and equipment to the PMU and DPMUs, provide training and capacity building to Project staff, the regional council HDCs Local NGOs and project beneficiaries</p>	2001-2007	Khagrachari, Bandarban & Rangamati	ADB, DANIDA, PKSF & GoB	30.00
Northern Rural Infrastructure Development Project	Rural Development	<p>Improvements of rural infrastructure in northern region to secure stable transport means and promote rural development. Major component are:</p> <ul style="list-style-type: none"> <li>- Feeder Road-B (1,250 km)</li> <li>- Bridge and Culverts (8,100 m)</li> <li>- Construction of Rural Development Engineering Center (RDEC)</li> <li>- Local markets (173 places)</li> <li>- River ports (41 places)</li> <li>- Countermeasures against flood (64 evacuation facilities, 15 km inundation proof road)</li> <li>- Community support</li> </ul>	1999-2005	Mymensingh, Kishoreganj, Sherpur, Jamalpur, Netrakona, Gaibandha, Rangpur, Dinajpur, Panchagarh, Thakurgaon, Lalmonirhat, Nilphamari & Kurigram	JBIC, ADB, IFAD, SIDA joint loan	173.60
Sundarbans Biodiversity Conservation	Rural Development	<p>The project consists of the following six parts: Part-A: Organization of the SRF; Part-B Biodiversity conservation and sustainable resource management; Part-C: Socio-economic development of the impact zone; Part-D: Ecotourism development and environmental awareness; Part-E: Creation of TAG to provide scientific and resource management support; Part-F: Treatment of Effluent from KNM</p>	1999-2005	Khulna & Satkhira	ADB, GoB, Global Environment Facility, NDF, PKSF, Beneficiaries & NGO	37.00

Table- 4.1-1 Major ODA Projects (5/9)

Project Title	Sector	Major Component	Implementation Period	Project Area (Benefited Districts)	Fund Source	Project Cost (million US\$)
Participatory Rural Development Project	Rural Development	Technical cooperation aiming to ensure and accelerate rural development through linkage of the village communities and local administration. Major activities are: - Holding Union Coordination Meetings - Construction of 4 Union Development Centers - Information delivery cum bottom up planning system with notice board - Construction of small infrastructures (road, hat, post office, canal etc) with direct contribution of inhabitants - Holding coordination meetings at Thana, District and national level	2000-2004	Tangail	JICA's technical cooperation	19.80
Participatory Rural Development Project through Empowerment of the Poor and Linkage with Local Public resources	Rural Development	Technical cooperation aiming to improve the quality of life of poor households in Iswarganj Upazila of Mymensingh district through the following activities: - Adult education for literacy - Group training for accounting & social conscientization - Training of health volunteers - Training of reciprocal help groups - Distribution of hand operated water pumps & simple toilets - Training of midwives - Supplementary lessons for elementary school pupils - Strengthening of cooperation of upazila/union officers for provision of public services - Provision of micro credits - Training course for rise of income - Construction of small infrastructure (road, market)	2001-2004	Mymensingh	JICA's technical cooperation	-
Greater Faridpur Infrastructure Development Project	Rural Development	Improvement of rural infrastructure in the Greater Faridpur for the purpose of rural development and poverty alleviation through agricultural development, composed of - Feeder Road-B (496 km) - Rural Road-1 (150 km) - Bridges & Culverts (5,828 m) - Roadside planting (480 km) - Local markets improvement (62 places)	2001-2005	Faridpur, Rajbari, Madaripur, Gopalganj & Shariatpur	JBIC Loan	66.90
Flood Damage Rehabilitation	Relief & Rehabilitation	The project consists of rehabilitation or restoration of flood damaged facilities under the following parts; Part-A: Roads and Bridges; Part-B: Flood Control and Irrigation; Part-C: Rural Infrastructure; Part-D: Railways	1998-2001	Throughout Bangladesh	ADB & Government	104.00
Southwest Flood Damage Rehabilitation	Relief & Rehabilitation	The project comprises the following components, such as; Part-A: National and Regional Roads and Type-A Feeder Roads; Part-B: Rural Infrastructure; Part-C: Railways; Part-D: Water Management and Drainage Facilities; Part-E: Socio-economic Rehabilitation Fund (SRF); Part-F: Agriculture. The principal objectives of the project is to rehabilitate damage caused by the 2000 floods in the southwest region of Bangladesh	2002-2005	Southwest region of Bangladesh	ADB & GoB	54.80
Flood Rehabilitation-III	Relief & Rehabilitation	Restoration of priority infrastructure damaged in the floods of 1987/1988 under BWDB, ED, LGED, RHD, BIWTA and BTTB	1989-1994	All over the Country	IDA	133.60

Table- 4.1-1 Major ODA Projects (6/9)

Project Title	Sector	Major Component	Implementation Period	Project Area (Benefited Districts)	Fund Source	Project Cost (million US\$)
River Bank Protection	Flood Control	River Bank Protection and Preparation of National Water Management Plan	1995-2001	Part of Bogra & Sirajganj	IDA	78.40
Private Sector Infrastructure Development	Infrastructure Development	(i) Project Finance Components- provision of subordinated debt for privately sponsored infrastructure; (ii) Project Finance Component – TA project Development Process	1998-2002	All over the Country	IDA	235.00
Terminal Irrigation Facilities in Narayanganj-Narsingdi Irrigation Project Area (N-N Demonstration Project)	Agriculture	Improvement of terminal irrigation facilities in the N-N demonstration unit (1,000 ha) for the purpose of increasing the agricultural production, major components being: - Flood protection dike (6.6 km) - Pump station - Irrigation canal (45.6 km) - Drainage canal (44.9 km)	1981-1984	Narayanganj & Narsingdi	Japan's grant	6.50
Project For the Construction of N-N Irrigation Facilities (Block A-1)	Agriculture	Improvement of terminal irrigation facilities in the Block A-1 (3,000 ha) of the N-N area for the purpose of increasing the agricultural production, major components being: - Flood protection dike (18 km) - Pump station - Irrigation canal (60 km) - Drainage canal (42 km)	1990-1991	Narayanganj & Narsingdi	Japan's grant	21.90
Second Bhola Irrigation	Agriculture	The project comprises five parts: Part-A: Surface Water Augmentation; Part-B: Irrigation System Improvement; Part-C: Flood and Cyclone Protection; Part-D: Rural Infrastructure Improvement and Part-E: Institutional support:	1993-1997	Daulatkhan, Tazumuddin & Charfession Upazilas	ADB, GoB & Private Sector	39.80
Rural Poor Cooperative	Agriculture	The Project consists of three parts: Part 1: Landless Poor and TBCCA Development; Part-2: Farmer and TCCA Development and Part-3: Project support:	1993-1998	82 Thanas in the far west out of the countries 464 rural Thanas	ADB, GoB & Sonali Bank	28.92
Northeast Minor Irrigation	Agriculture	The Project consists of the following parts: Part-A: Credit facility for the provision of Minor Irrigation Equipment and Power Tiller; Part-B: Groundwater Exploration Program and Installation of Tube-wells; establishment and commissioning of demonstration farms and provision of agricultural input packages for demonstration farms; and hosting of trade fairs. This part consists of the following such drilling, installation tube-wells etc. (ii) establishment and commissioning of about 2000 demonstration farms on private farms in the project area; Part-C: Development of road structures; Part-D: Project Management Support: they mainly work for support the project.	1993-1999	Six districts in northeast Bangladesh	ADB, GoB & PBS	73.00



Table- 4.1-1 Major ODA Projects (7/9)

Project Title	Sector	Major Component	Implementation Period	Project Area (Benefited Districts)	Fund Source	Project Cost (million US\$)
Khulna-Jessore Drainage Rehabilitation	Agriculture	The project consists of three parts, namely, Part A, B & C as described below; Part-A: Mobilization of Beneficiary Participation; Part-B: Rehabilitation Works; Part-C: Agriculture Development	1994-1999	Khulna & Jessore	ADB & GoB	50.00
Small Scale Water Resources Development Sector	Agriculture	The project consists of the following components: Part-A: Beneficiary Participation and Water Management Association Development; Part-B: Development of Small Scale Water Resources Control System; Infrastructure Development, Carrying out about 400 subprojects consisting of civil works to rehabilitate or to upgrade water control systems	1994-2002	Faridpur	ADB, IFAD, Netherlands, GoB & Beneficiaries	32.00
Command Area Development Project	Agriculture	The project consists of the following components: Part-A: Command Area Development; (i) Physical Development; (ii) Organization of Project Beneficiaries; (iii) Training and Human Resource Development Part-B Promotion Integrated Pest Management; Part-C: Small Scale Fisheries Development		Pabna & Chandpur	ADB, GoB & Beneficiaries	30.00
Participatory Livestock Development	Agriculture	Department of Livestock Services within the Ministry of Fisheries and Livestock: The project aims to improve the status of women, reduce poverty, and increase rural employment in the project area	1997-2002	Northwest side and north central regions of Bangladesh	ADB, DANIDA, GoB, PKSF & Beneficiaries NGOs	19.70
Northwest Crop Diversification	Agriculture	The project shall be implemented within the project area and shall provide the following: Part-A: Training and Extension; Part-B: Farmer Mobilization and Crop Production Credit; Part-C: Adaptive research; Part-D: Marketing support; Part-E: Pilot Agribusiness Credit Line and Part-F: Support for Project Management	2001-2007	Northwest region of Bangladesh	ADB, GoB & Beneficiaries	46.30
Second Small Scale Water Resources Development Sector	Agriculture	The project consists of the following components: Part: Participatory Water Resources Development; in this components includes Community Based Infrastructure Development: developed civil works to rehabilitate or upgrade or both rehabilitate and upgrade water management schemes incorporating where necessary fisheries mitigating development structures, for: (a) flood management through rehabilitating and construction of embankments, sluice gates or both, to reduce the extent and duration of flooding of farmland; (b) drainage improvement; etc.	2002-2009	Western part of the country	ADB, Netherlands, GoB & Beneficiaries	34.00
Rehabilitation of Damaged School Facilities	Education	The project consisted of two main components: these are Part-A: Reconstruction of 465 cyclone resistant rural primary schools and the provision of furniture; and Part-B: Reconstruction of about 40 cyclone resistant buildings for secondary schools, and the provision of furniture, equipment, and instructional materials	1992-1995	Throughout Bangladesh	ADB & GoB	15.00

Table- 4.1-1 Major ODA Projects (8/9)

Project Title	Sector	Major Component	Implementation Period	Project Area (Benefited Districts)	Fund Source	Project Cost (million US\$)
Secondary Education Development	Education	The project comprises of four parts, namely Parts A, B C, & D: Out of four components, only Part-B: Expanded Access: includes the following: (1) civil works construction and/or rehabilitation of class rooms and toilets, equipment (including hand pumps) and science equipment and furniture for about 1,840 secondary schools comprising female schools (government and non-government), rural non-government schools and madrasa schools	1994-1999	Throughout Bangladesh	ADB & GoB	72.00
Second Primary Education Sector	Education	Directorate of Primary Education: The project will be help increase equitable access by (i) the development of primary school facilities in underserved areas in Barisal, Chittagong and Sylhet Division; (ii) a program of community and school based preventive maintenance; and (iii) the provision of a small package of free school supplies to very poor students.	2000-2005	Barisal, Chittagong & Sylhet Division	ADB, ODA & GoB	100.00
Post-Literacy and Continuing Education	Education	Major components are: (1) Policy Framework Development; (2) Development, Dissemination and Adoption of PLCE curricula and learning materials; (3) Capacity Building of involved organizations; and (4) Implementing PLCE programs. This project aims to establish an effective, community based post literacy and continuing education (PLCE) program for learners who have completed basic literacy courses.	2002-2008	Throughout Bangladesh	ADB, DFID, GoB & Beneficiaries	65.00
Construction Project of General Hospital in Narayanganj	Health	Construction of a general hospital hiving 200 beds with a total floor area of 8,800 square meters (2-story building)	1983-1985	Narayanganj	Japan's grant	22.20
Urban Primary Health Care	Health	The project's primary objective is to improve the health of the urban poor and reduce preventable mortality and morbidity, especially among women and children, by increasing access to PHC services. To improve access and coverage of PHC services, the project will support the construction of 190 new PHC centers which will be located near slums and other densely populated sites.	1998-2002	Dhaka, Chittagong, Khulna & Rajshahi	ADB, NDF, UNFPA & GoB	40.00

Table- 4.1-1 Major ODA Projects (9/9)

Project Title	Sector	Major Component	Implementation Period	Project Area (Benefited Districts)	Fund Source	Project Cost (million US\$)
Project for Support to Strengthening Emergency Obstetric Care Service	Health	Procurement of 57 numbers of comprehensive emergency obstetric care facilities and 175 numbers of basic emergency obstetric care facilities		Panchagarh, Lalmonirhat, Kurigram, Sirajganj, Bogra, Nawabganj, Thakurgaon, Dinajpur, Naogaon, Natore, Gaibandha, Pabna, Jhenaidha, Magura, Jessore, Satkhira, Kushtia, Chuadanga, Khulna, Patuakhali, Perojpur, Barguna, Bhola, Madaripur, Gopalganj, Narshingdi, Gazipur, Sherpur, Mymensingh, Kishoreganj, Shariatpur, Tangail, Jamalpur, Netrokona, Habiganj, Baria, Chandpur, Lakshmipur, Khagrachari, Rangamati, Bandarban, Noakhali, Feni, Chittagong & Cox's Bazar	Japan's grant	
Mitigation of the Arsenic Contamination of Drinking Water	Health	To improve the symptoms of arsenicosis patients and to prevent new cases of arsenic poisoning, the project includes the following activities: - Awareness building - Training on safe water technologies - Planning of safe water options - Identification of patients by doctors' house-to-house visits - Guidance on treatment for patients	2002-2004	Jessore	JICA	0.8
Project for Establishment of Fish Landing, Preservation and Distribution Facilities at Monoharkhali	Fisheries	Construction of fish landing, distribution and preservation facilities including floating piers, connection bridge, landing area, fish wholesale market building, preservation building etc. for the purpose of increasing the catch and its effective use	1991-1992	Chittagong	Japan's grant	10.30
Project for Construction of Multipurpose Cyclone Shelters	Social Welfare	Construction of a total of 61 multipurpose cyclone shelters in the storm surge prone areas of the coastal region to be used for the purpose of saving people's lives from devastating cyclones and mainly as primary school buildings during normal times. Number of shelters by district are: - Cox's Bazar 16 - Chittagong 34 - Noakhali 10 - Lakshmipur 01	1994-2001	Cox's Bazar, Chittagong, Noakhali & Lakshmipur	Japan's grant	20.20

#### **4.1.2 Coverage of Major ODA Projects**

The areas covered by major ODA projects are summarized in Table 4.1-2

**4.1-2 Coverage of Major ODA Projects (1/3)**

Zone Project	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Meghna Bridge Construction Project	▲					▲									
Meghna-Gumti Bridge Construction Project	▲					▲									
Project for Protecting Revetment on the Bank of Meghna River	●					▲									
Bangabandhu Bridge (Jamuna Bridge) Construction Project		●											●		
Second Road Rehabilitation & maintenance				▲					▲	▲			▲	▲	▲
Jamuna Bridge Access Road Project (as of Dec 2001)	●	▲				▲	▲								
Project for Reconstruction of Five Bridges on Dhaka-Chittagong Highway	●					▲									
Third Road Rehabilitation & Maintenance	▲					▲		●					●	●	
Paksey Bridge Construction Project										▲			▲		
Southwest Road Network Development Project				●	●				●	●	●	●			
Rupsa Bridge Construction Project									▲						
Dhaka Urban Transport	▲														
Rural Development-II	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Rural Roads and Markets Improvement & Maintenance Project													●	●	
Model Rural Development Project						▲									
Second Rural Infrastructure Development									●	●					
Rural Livelihood	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Poverty Alleviation (Microcredit-1)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

## 4.1-2 Coverage of Major ODA Projects (2/3)

Zone Project	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Second Rural Roads & Markets Improvement	•	▲											•	•	
Third Rural Infrastructure Development		▲	▲												▲
Chittagong Hill Tracts Rural Development							•								
Northern Rural Infrastructure Development Project		•	•												•
Sundarbans Biodiversity Conservation									•						
Participatory Rural Development Project		▲													
Participatory Rural Development Project through Empowerment of the Poor and Linkage with Local Public resources			▲												
Greater Faridpur Infrastructure Development Project				•	•										
Flood Damage Rehabilitation	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Southwest Flood Damage Rehabilitation				•	•				•	•	▲	▲			
Flood Rehabilitation-III	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
River Bank Protection													▲		
Private Sector Infrastructure Development	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Terminal Irrigation Facilities in Narayanganj-Narsingdi Irrigation Project Area (N-N Demonstration Project)	▲														
Project For the Construction of N-N Irrigation Facilities (Block A-1)	▲														
Second Bhola Irrigation											▲				
Rural Poor Cooperative													▲	▲	
Northeast Minor Irrigation			▲			▲		•							
Khulna-Jessore Drainage Rehabilitation									▲	▲					
Small Scale Water Resources Development Sector				▲											

## 4.1-2 Coverage of Major ODA Projects (3/3)

Zone Project	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Command Area Development Project						▲							▲		
Participatory Livestock Development		●	●										●	●	●
Northwest Crop Diversification													●	●	●
Second Small Scale Water Resources Development Sector									▲	▲			▲	▲	
Rehabilitation of Damaged School Facilities	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Secondary Education Development	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Second Primary Education Sector						●	●	●			●	●			
Post-Literacy and Continuing Education	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Construction Project of General Hospital in Narayanganj	▲														
Urban Primary Health Care	▲						▲		▲					▲	
Project for Support to Strengthening Emergency Obstetric Care Service	▲	●	●	▲	●	●	●	▲	●	●	▲	●	●	●	●
Mitigation of the Arsenic Contamination of Drinking Water										▲					
Project for Establishment of Fish Landing, Preservation and Distribution Facilities at Monoharkhali							▲								
Project for Construction of Multipurpose Cyclone Shelters						▲	▲								

- All or most area of the zone is covered
- ▲ A part of the zone is covered

## **4.2 Portable Steel Bridge Construction Projects undertaken by LGED**

LGED in the last few years constructed/ has been constructing portable steel bridges, getting the materials from different sources like Japan, the Netherlands and U.K. as grant or loan.

Table 4.2-1 shows the list of portable steel bridge construction projects undertaken by LGED.



Table 4.2-1 Portable Steel Bridge Construction Project undertaken by LGED

Project Title	Component of Project		Implementation Period	Project Location (District)	Fund Source	Project Cost (in million)		
	Number of Bridges	Total Length(m)				PSB Procurement	Others	Total
Project for Procurement of Portable Steel Bridge	74	3,445	1994-1996	Dhaka, Gazipur, Munshigonj, Narsinghdi, Faridpur, Chittagong, Comilla, B. Baria, Chandpur, Feni, Noakhali, Laxmipur,, Cox's Bazar, Moulvibazar, Habigonj	Japan's Grant	US\$11.60	US\$3.40	US\$15.00
Project for Procurement of Portable Steel Bridge (Phase II)	80	4,395	2000-2002	Dhak, Gazipur, Munshiganj, Manikganj, Narshindi, Kishoregonj, Faridpur, Chittagong, Comilla, B. Baria, Chandpur, Noakhali, Laxmipur, Cox's Bazar, Moulvi Bazar, Habiganj	Japan's Grant	US\$13.90	US\$4.90	US\$18.80
Construction of Portable Steel Bridges	110	4,753.30	2000-2002	Bagerhat, Bandarban, Barisal, Bogra, B. Baria, Chandpur, Chittagong, Comilla, Cox's Bazar, Dhaka, Dinajpur, Faridpur, Feni, Gaibandha, Gazipur, Gopalganj, Habigonj, Jamalpur, Jessore, Jhenaidha, Khulna, Kishoregonj, Kushtia, Madaripur, Manikgonj, Meherpur, Moulvibazar, Munshigonj, Mymensingh, Narshingdi, Natore, Naogaon, Netrokona, Nawabganj, Pabna, Patuakhali, Pirozpur, Rajbari, Rangamati, Satkhira, Shariatpur, Sherpur, Sirajgonj, Sunamgonj, Sylhet, Tangail.	Netherland "ORET" 50% grant 50% loan	US\$13.40	US\$3.65	US\$17.05
- do -	46	2,560	1997-2001	Sherpur, Mymensingh, Madaripur, Nilphamari, Rajshahi, B. Baria, Comilla, Pirozpur, Faridpur, Gazipur, Pabna, Dhaka, Chandpur, Jhalakathi, Natore, Jessore, Jhinaidah, Kishoregonj, Chittagong, Jamalpur, Gopalganj,	U. K. "BFID" grant	UK£4.50	UK£2.90	UK£7.48
- do -	58	2.560	1998-2003	Sherpur, Munshigonj, Chandpur, Jamalpur, Madaripur, Gazipur, Feni, Sylhet, Barisal, Moulvibazar, B. Baria, Borguna, Nilphamari, Shariatpur, Tangail, Serajgonj, Kishoregonj, Jessore, Jhalakathi, Jessore, Bagerhat, Faridpur, Narayanganj, Patuakhali, Gopalganj, Dinajpur, Magura, Noakhali, Narsingdi, Gaibandha, Panchagar, Netrokona.	U. K. "BFID" grant	UK£4.50	UK£4.52	UK£9.02

**CHAPTER 5**  
**FUND AVAILABILITY AND**  
**IMPLEMENTATION SYSTEM FOR**  
**PORTABLE STEEL BRIDGE CONSTRUCTION**

## 5.0 FUND AVAILABILITY AND IMPLEMENTATION SYSTEM FOR PORTABLE STEEL BRIDGE CONSTRUCTION

### 5.1 LGED Budget in Last Five Years

The LGED Budget in last five years is shown in Table 5.1-1, while Table 5.1-2 shows the LGED budget as percentage of GDP.

**Table 5.1-1 LGED Budget (crore Taka)**

Year	Total Budget (Infrastructure Development)	Budget for Road & Bridge Construction (A)	Budget for Bridge Construction (B)	Budget for Portable Steel Bridge Construction (C)
1996-1997	1,398.12	694.05	248.72	0
1997-1998	1,327.78	796.96	405.54	0
1998-1999	1,848.43	860.03	411.19	0.29
1999-2000	2,381.92	1,117.60	522.90	10.31
2000-2001	2,743.14	1,153.59	392.05	67.83
2001-2002	2,442.64			88.44

Note : B is a part of A. C is a part of B.

**Table 5.1-2 LGED Budget as Percent of GDP (crore Taka)**

Year	Total Budget (Infrastructure Development)	GDP	Percent of GDP
1996-1997	1,398.12	180,701.3	0.774
1997-1998	1,327.78	200,176.6	0.663
1998-1999	1,848.43	219,697.2	0.841
1999-2000	2,381.92	237,085.6	1.005
2000-2001	2,743.14	258,067.9	1.063
2001-2002	2,442.64		

LGED budget has been remarkably increasing since 1998-1999 though some fluctuation is found. LGED budget is increasing also in terms of percentage of GDP. It means that the growth rate of LGED budget exceeds that of GDP.

The budget for road and bridge construction is climbing steadily. Out of it, the budget for bridge construction shows also a rising tendency.

Portable steel bridge construction project was started in 1994 with supply of superstructure materials under the Japan's grant aid scheme and the second phase project is presently going on. Aside from Japan's grant aid projects, in recent years, UK and the Netherlands also started to extend assistances for portable steel bridge construction projects. The budget for portable steel bridge construction is not so big yet but is expected to increase in the future under the above circumstances.

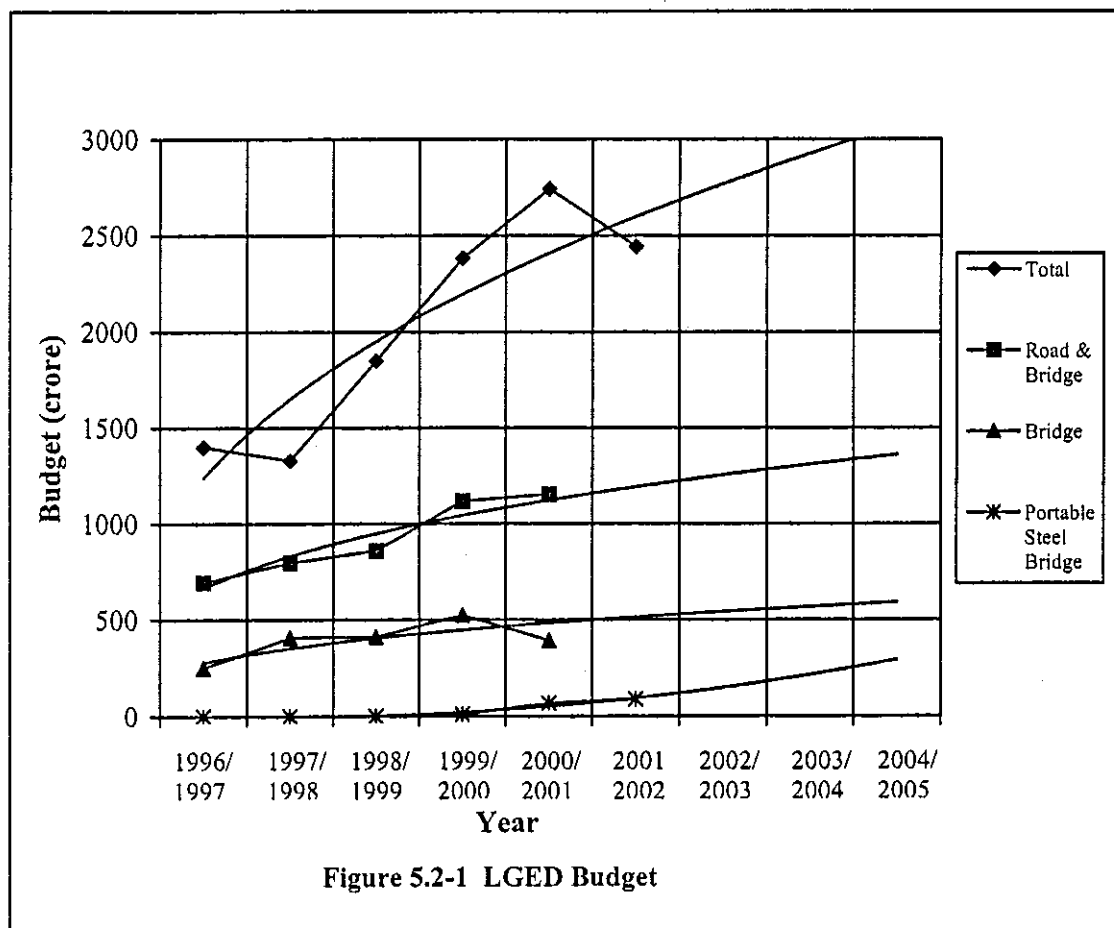
## 5.2 Estimation of Possible Investment Amount for Portable Steel Bridge Construction

Figure 5.2-1 is a graph showing the LGED budget in last five years with regression curves. Based on the trend of its growth, the budget in 2003/2004 which is the first year of this master plan is estimated as follows:

Total budget	:	2,900 crore
Budget for road and bridge construction	:	1,300 crore
Budget for bridge construction	:	600 crore
Budget for portable steel bridge construction:		200 crore

LGED officials hope to construct portable steel bridges at a pace of 4,000 to 5,000 meters per year. Project cost thereof is about 150 to 190 crore.

Considering the possibility of future increase in budget, the possible investment amount for portable steel bridge construction projects is assumed to be 170 to 200 crore per year in this study.



### 5.3 Implementation System for Portable Steel Bridge Construction

The portable steel bridge construction project under LGED is implemented as per the following procedure:

#### 5.3.1 Planning

The planning process includes:

- **Selection of Schemes.** The Chairman and Members of UP (Union Parishad) submit their requirements to Upazila Engineer for construction of portable steel bridges within their respective jurisdiction. The Upazila Engineering Staff also identifies the requirement for portable steel bridge and submits proposal to the Upazila Engineer. These proposals are discussed in the Upazila Development Coordination Committee headed by the Upazila Chairman. The Local Member of the Parliament (MP) acts as the adviser of the Committee. The Upazila Development Coordination Committee finally selects the schemes for further processing.
- **Preliminary Investigation.** The Upazila Engineering Staff performs the preliminary investigations i.e. survey of the site, recording of the site data including river bank width, water level at different times of the year, navigational facilities, span length of the bridge etc, and prepares the preliminary cost estimate.
- **Submission of Scheme.** The Upazila Engineer after necessary checking and scrutiny of the selected schemes submits the proposal to the Executive Engineer, LGED of the District who in turn sends the schemes to the LGED Head Office at Dhaka for final selection.
- **Preparation and Submission of Project Proposal.** On the basis of the information and data received from different districts, the Planning Office of the LGED prepares the Project Proposal and submits to the Government through the Chief Engineer, LGED for approval and for arranging fund and/or donor.

#### 5.3.2 Project Approval

The Planning Office of the LGED is responsible for preparation of project proposal. Initially a Project Concept Paper (PCP) is prepared and submitted to the Government through the Chief Engineer of LGED. After approval of PCP, a regular PP which is document for implementation of the project is prepared and submitted to the Government. The procedure for processing of PCP and subsequently PP are made as per following steps:

Step-1: Chief Engineer, LGED Initially a PCP is prepared and submitted to the Ministry of LGRD&C with a brief description of the project along with rough cost estimate, source of funding, duration of the project, etc.

Step-2: Ministry of LGRD&C Local Government Division of the Ministry of LGRD&C Brings up the PCP in the DPEC meeting. After discussion, the PCP is modified/revised as required and is recommended by the Ministry and is forwarded to the Planning Commission.

**Step-3: Planning Commission** The Planning Commission, after review of the PCP, brings up to the Inter-ministerial meeting i.e. Pre-ECNEC in the Planning Commission. As per discussion in the meeting, the PCP is modified for submission to ECNEC for approval.

In this process, the Planning Commission obtains the opinion of the ERD (Economic Relations Divisions) of the Government for arranging donor and/or external financial assistance for implementation of the project.

Sometimes the donor makes liaison/discussion with the implementing agency. In that case the ERD performs the necessary formalities to channelise the financial assistance or the grant financing for the project.

**Step-4: Ministry of LGRD & C** After approval of the PCP by the ECNEC, a regular Project Proforma (PP) is prepared by LGED and submitted to the Ministry of LGRD&C for approval.

### 5.3.3 Fund Preparation

After approval of the project by the ECNEC, allocation of fund is made through ADP (Annual Development Programme).

The local currency component of the project as per provision of Project Proforma is allocated by the Government which generally covers:

- Cost of design of foundation and substructure (local consultant)
- Cost of foundation and substructure
- CD & VAT
- Cost of local transportation and erection
- Overhead, etc.

The foreign currency component in the form of grant/loan is processed by the ERD, which covers the cost of:

- Design of superstructure
- Superstructure (steel materials)
- Training, etc

#### 5.3.4 Design

Design of foundation and substructure of the bridge(s) including detailed site investigation is done by LGED through a local consulting firm. Provision is generally made in the Project Proforma to cover the cost for preparation of design by the local consultant.

The selection of local consultant is made by LGED. The processing starts at the level of PD, LGED. The selection is made through the process of tendering and evaluation. The final approval for selection of the local consultant depends on the total cost of the consultancy services. The financial limitation and the authority to approve are as follows:

- a) Chief Engineer, LGED : Up to Tk 1.00 crore
- b) Ministry of LGRD&C : Above Tk 1.00 crore and up to Tk 5.00 crores
- c) Committee of Ministers : Above Tk 5.00 crores

#### 5.3.5 Selection of Contractor

For implementation of the project, the selection of contractor is made in three stages:

- (1) Procurement of steel materials.

As per MoU/Exchange of Notes signed between the Donor and the Government, LGED invites tender for procurement of steel materials for superstructure with the assistance of the consultant. For the portable steel bridge materials are usually procured under grant financing (tied grant). The supplier who is usually from the Donor Country, is selected through the process of tendering and evaluation by the Tender Committee and approval by the Government with concurrence of the Donor. The responsibility of the supplier include procurement and transportation of the materials up to the central stockyard of LGED.

- (2) Construction of foundation and substructure.

For construction of foundation and substructure, the District Executive Engineer of LGED invites tender from the enlisted (project basis) contractors or from pre-qualified contractors. After evaluation of the tenders by the District Tender Committee, the selection of the contractor is made by the Executive Engineer of the district.

- (3) Transportation of steel materials for superstructure and erection.

For selection of contractor for transportation of steel materials for superstructure and for erection, the Project Director, LGED invites tender from the qualified contractors. Evaluation of tenders and recommendation on selection of the contractor are made by the Tender Committee headed by the Additional Chief Engineer, LGED and is finally accepted by the Chief Engineer. The selected contractor signs agreement with the District Executive Engineer(s) of LGED for individual bridges for implementation of this part of the project.

### 5.3.6 Construction and Supervision

Construction of foundation and substructure, and erection of superstructure are done by the selected respective contractors of the project.

The implementation of the work is supervised by the engineers of LGED at the UPZ level and the District level.

The local consultant engaged for preparation of design also have some responsibility for top supervision at critical times. The responsibilities of the local consultant for top supervision include:

- Checking of the layout of the bridge and foundations
- Checking of the reinforcement before concreting
- Checking of pile lengths, etc.

Top supervision by the local consultant is not full time supervision and does not assume full responsibility for quality control.

### 5.3.7 Maintenance

Maintenance is done as per usual guideline set by LGED.

Fund for maintenance is allocated from Central Maintenance Fund for each district with a guideline for expenditure and for taking up maintenance scheme.

Maintenance works are usually implemented by the contractors engaged through tenders or on LCS (Labour Contracting Society) basis. Temporary labourers are also engaged on Master Roll basis using the logistic facilities available with the Executive Engineer and the Upazila Engineer for implementation of maintenance works. In case of emergency, maintenance works are also done departmentally on cash payment.

Superintending Engineer (for Maintenance) is incharge of overall maintenance activities at the Head Office. The Executive Engineer of the district is responsible for implementation of the maintenance activities at the respective district level.

### 5.3.8 Role of Donor Agency

The role of donor agency extends over:

- Evaluation of the schemes submitted by LGED
- Preparation of design of the superstructure (steel materials)
- Providing steel materials for superstructure
- Training
  - Overseas training of the engineers for fabrication
  - Local training of the engineers and contractors for erection



- Evaluation of the whole process.

In special cases the donor agency also engages local consultants to work on its behalf for evaluation and field survey of the schemes submitted by LGED.

Training is also imparted by the donor agency through consultant. For example, in the Portable Steel Bridge Project under the Japan's grant aid scheme, such training programme was implemented in the year 2001-2002.

The ORET programme under the Netherlands assistance have provision for similar training programme.

#### 5.4 Identification of Problems in the System and Recommendations for Improvement.

The problems which are faced in the process of implementation of the portable steel bridge project as identified, and the recommendations for improvement of the situation are stated in Table 5.4-1.

**Table 5.4-1 : Identification of Problems and Recommendations for Improvement**

Identification of Problems in the System	Recommendations for Improvement
Allocation of GoB funds are found inadequate to cover the local expenses.	Allocation of local fund should be increased proportionately to the programme.
The package for procurement of steel materials for superstructure is of small volume which increases cost and time for implementation.	The package for procurement of steel materials for super structure should be of bigger volume.
The grant financing does not include any provision for logistic support i.e. vehicles for supervision, equipment for transportation of steel materials, etc.	It is desirable that the grant financing includes (a) vehicle for supervision i.e. jeep, pick-up & motorcycle etc. and (b) equipment for transportation of steel materials i.e. 6-wheeler truck.
Processing of project implementation takes time, which causes some of the listed bridges to be completed by other projects.	Processing of project implementation should be faster.
For decision of bridge length and preparation of design of foundation, no adequate hydrological investigation is done resulting in riverbank erosion and sometimes subsequent addition of the bridge length.	Proper hydrological investigation should be done for final decision of bridge length.

Identification of Problems in the System	Recommendations for Improvement
Additional technical and support staff is required at the LGED Head Office, but the staff cannot be increased due to financial constraints of local fund.	For better project implementation, Head Office staff should be increased.
Due to financial constraints of local funding, the input of the local consultants engaged by LGED are very small. As a result, adequate supervision by the consultant cannot be made.	The local consultant should have the responsibility for full time supervision to ensure quality and timely completion of works. Therefore, local consultant's input should be increased.
The rates of the items in the contract for local transportation and erection of superstructure are fixed, but at many occasions the works are spilled over 2 or 3 years. In such case, the contractor sustains loss due to price escalation and becomes reluctant to implement the works.	There should be provision for price adjustment.
In some cases, the road leading to the bridge sites is very narrow and may not accommodate the transport for carrying the superstructure steel materials.	Depending on the site condition, the programme of work should be adjusted such as transportation of steel materials during the monsoon using river transport, and erection during the dry season.
The central stockyard of LGED is open without shed and there is no crane for handling of steel materials.	The central stockyard of LGED should be provided with shed for protection of steel materials. The stockyard should also be equipped with crane(s) for handling of steel materials.
In case high navigation clearance is required, the height of abutment is remarkably high due to straight profile of superstructure resulting in high cost of abutment and approach road.	It is preferable to introduce longitudinal slope to reduce the height of abutment.