

# Bangladesh Bridge Authority Bridges Division Ministry of Road Transport and Bridges



The Hon'ble President Md. Abdul Hamid visited Padma bridge project sites on 2 April 2018 and expressed his satisfaction over the progress of the construction work.

## The Bridge of Pride



Erection of 5th Span of the Padma Multipurpose Bridge



### PADMA MULTIPURPOSE BRIDGE PROJECT (PMBP)

Setu Bhaban, Banani, Dhaka-1212 Phone: 02-55040451, 02-55040452, Fax: 02-55040477 www.padmabridge.gov.bd

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#### PADMA MULTIPURPOSE BRIDGE PROJECT

The Padma Multipurpose Bridge Project (PMBP), located approximately 40 km south-west of Dhaka, comprises a new fixed crossing over the Padma River in Bangladesh. Padma Multipurpose Bridge is the largest infrastructure project in Bangladesh. The government has given highest priority to construct a bridge across the mighty river Padma for a direct road and rail link with the south-western region of Bangladesh, which is separated from the capital city. The Hon'ble Prime Minister Sheikh Hasina laid the Foundation Stone of PMBP on 4 July 2001 at Mawa.



Hon'ble Prime Minister Sheikh Hasina inaugurated construction work of approach roads at Janjira and Mawa points and Service Area-2 on 12 November 2013

To implement the project, Detail Design Consultant was appointed on February 2009. They have finalized Design for Main Bridge, River Training Works, Approach Roads & Bridge End Facilities and Service Areas in September 2010.

This Bridge will connect 19 districts of south-western part with the eastern part including the capital. The proposed Padma Bridge lies on the Asian Highway route AH-1 and with the implementation of the bridge, it will bring revolutionary changes in the South Asia Countries including internal transportation system of Bangladesh. The Padma Bridge will bring significant changes in poverty alleviation by reducing poverty 0.84% per annum and socio-economic uplift of the country by an increase of 1.23% growth in the GDP.



The Hon'ble Prime Minister Sheikh Hasina inaugurated the Main Bridge construction works at Mawa Points on 12 December 2015

The main bridge structure would carry a 4-lane highway and have provisions for future installation of a dual gauge rail line as well as other facilities including gas, telecommunication lines and 400KV power transmission line would be installed. The main bridge is a two level steel truss superstructure acting compositely with a reinforced concrete deck slab with road traffic on the upper level and rail on the lower level.



The Hon'ble Prime Minister Sheikh Hasina inaugurated the River Training Works at Janjira Points on 12 December 2015

#### Padma Multipurpose Bridge Project: At a Glance

Year	Financing Agency
1998-1999	GoB Fund
2003-2005	JICA Grant
2006	GoB Fund
2009-2011	ADB TA Loan + GoB Fund
2011-2015	GoB Fund
2010	ADB TA Loan Fund
	1998-1999 2003-2005 2006 2009-2011 2011-2015

D' DDD	Implementation Period	Cost in BDT
Primary DPP	2008-09 to 2014-15	10,161.75 Crore
1st RDPP	2008-09 to 2015-16	20,507.20 Crore
2nd RDPP	2008-09 to 2018-19	30,193.39 Crore

**Original Funding Arrangement** Financing plan and loan signing had been finalized with the development partners (WB, ADB, JICA, IDB) Project Financing Agency Amount (USD in Millions) World Bank (WB) 1200.00 i) 615.00 ii) Asian Development Bank (ADB) iii) Japan International Co-operation Agency (JICA) 400.00 Islamic Development Bank (IDB) 140.00 iv) Government of Bangladesh (GoB) 617.06 2.972.06 Total Government of the Bangladesh decided not to take loan from funding Agencies on 09 July 2012 & took decision to complete the project from GoB Fund/Budget. The Padma Multipurpose Bridge Project consists of the following contract packages: Main Bridge: : Main Bridge - 6.15 km, Viaduct -(Road) 3.148 km and (Rail) 532m. : China Railway Major Bridge Engineering Group Co. Ltd. : BDT 12,133.39 Crore Length Contractor's Name Contract Amount Date of Work Order 26 November 2014. Contract period Financial Progress 4 years : BDT 6907.81 crore (Upto August/2018) : 66% (Upto August/2018) Physical Progress River Training Works: River Training Works13.1km length (1.8km Mawa + 11.3km in Janjira)
Contractor's Name : Sinohydro Corporation Limited, China.
Contract Amount : BDT 8,707.81 Crore. Date of Work Order 31 December 2014. 4 years Contract Period : BDT 3540.51 Crore (upto August/2018) : 42.50% (upto August/2018) Financial Progress Physical Progress Janjira Approach Road and Selected Bridge End Facilities: 10.50 km Length Contractor's Name Abdul Monem Limited (AML) - HCM JV BDT 1,318.99 Crore. Contract Amount Date of Work Order 08 October 2013. 3 years. 02 June 2018 (Completed) Contract Period Date of Completion Financial Progress BDT 1,278.24 Crore (upto August/2018) Physical Progress 100% Mawa Approach Road and Selected Bridge End Facilities: Length 1.617 km Abdul Monem Limited (AML) - HCM JV Contractor's Name 2.5 years. BDT 193.40 Crore. Contract Period Contract Amount Date of Work Order 27 January 2014. 2.5 years Contract Period Date of Completion 26 July 2016 (Completed) BDT 191.95 Crore (upto August/2018) Financial Progress Physical Progress : 100% Service Area-2:
Contractor's Name Abdul Monem Limited (AML). : BDT 208.71 Crore. Contract Amount Date of Work Order 12 January 2014. Contract Period 2.5 years. 2.3 years.
11 July 2016 (Completed)
Mosque, Motel Mess, Resort Reception Building, Supervision Office,
Duplex Houses-30 Nos., Overhead Water Tank, health Centre, Guard
House, Electric Sub-station, Fire detection and fire fighting systems. Date of Completion : BDT 198.86 Crore (upto August/2018) Financial Progress : 100% Physical Progress Management Support Consultancy (MSC) Services Consultant's Name Rendel Limited & Associates. Constitutint's Name
Contract Amount
Date of Signing Contract: 29 February 2016.
Date of Completion
Financial Progress
Financial Progress
Financial Straine
BDT 168.98 Crore.
29 February 2016
28 February 2019
EDT 70.40 Crore (upto August/2018) Construction Supervision Consultant- 2 (for Main Bridge & River Training Works) Korea Expressway Corporation (KEC), South Korea In Association with a)
Pyunghwa Engineering Consultants Ltd. (PEC) South Korea, b) Korea
Engineering Consultants Corp. (KECC), South Korea c) Sunjin Engineering &
Architecture Co. Ltd. (SUNJIN), South Korea d) ACE Consultants Ltd. (ACE), Consultant's Name Bangladesh and e) DevConsultants Ltd. (DevCon) Bangladesh. Contract Amount
Date of Signing Contract:
Contract Period
Financial Progress BDT 383.15 Crore. 13 November 2014. 4 years. BDT 331.82 Crore (upto August/2018) Construction Supervision Consultant-1 (for Approach Road & Service Area):

Consultant's Name : Special Works Organization (SWO-West), Bangladesh Army in association with BRTC, BUET. Contract Amount Date of Work Order BDT 133.49 Crore. : 13 October 2013. 3 years.
31 July 2018 (with extension period)
BDT 71.01 Crore (upto August/2018) Contract Period Date of Completion Financial Progress Engineering Support & Safety Team (ESST) Contract : Bangladesh Army. : BDT 72.14 Crore. : 13 October 2013. ESST Provider Contract Amount Date of Work Order 4 years.
31 December 2019 (with extension period)
BDT 56.34 Crore (upto August/2018)
Engineering Support & Safety Team continue service provide. Contract Period Date of Completion Financial Progress Progress of Work Equipment for ESST : BDT 77.00 Crore

#### Main Bridge Details (Technical)

	Main Bridge Details (Technical)
Span	Total 41 nos.  2 transition Piers 40 Center Piers
Span Length	150 m each Composite Superstracture (Warren type Steel Truss Girder and Concrete on Upper Deck)
Total Length (Main Bridge)	41 x 150 = 6150m = 6.150 km 7 Nos. Module:  • 6 span in each 6 module  • 5 span in one module
Pile Details	<ul> <li>Racked (Inclined at 1 H:6V) Steel Tubular Driven Pile</li> <li>6 Nos. In each Pier (18 Nos. Pier)</li> <li>6+1 Nos. in each Pier-(11 Nos. Pier)</li> <li>6+1 Nos. in each Pier with Skin grouting (11 Nos. Pier)</li> <li>Pile Diameter = 3m</li> <li>Pile Length = 98m to 122m</li> <li>Total number of Pile in Main Bridge: Steel Pile = 40x6+22 = 262 Nos. Vertical bored concrete pile = 2x16 = 32 nos. (upto 88m depth)</li> </ul>
Upper Deck	22m wide concrete deck slab (2.5 m hard shoulder on the both side)     4 Lane road
Lower Deck	Single Track Dual Gauge Rail
Deck Hight	13.6m
<b>Navigation Clearence</b>	18.30m
Viaduct	Mawa End (North Bank 19+20 = 39 Span ; Length = 1478.03m)  Janjira End (South Bank 23+19 = 42 Span; Length = 1670.03)  Total Road Viaduct (81 Span) = 3148.603m
Rail Viaduct	Mawa End and Janjira End 7+7 = 14 Span; Length = 532m
Utlities Through the Bridge	<ul> <li>i. 760 mm dia Gas Transmission Line</li> <li>ii. 150 mm dia Fiber optical &amp; Telephone Duct</li> <li>iii. 7 nos. High voltage Electric Line Platform in River over Pile Foundation at 2 km downstream of Main Bridge.</li> </ul>

#### River Training Works Details (Technical)

Mawa End (North/Left Bank)	<ul> <li>length = 1.8 km</li> <li>layers 800 kg geo-bag 6</li> <li>n rock riprap over 3</li> <li>Concrete Block placing transition area over geo-</li> </ul>	dumping on launching apr layers 125 kg geo-bag dun above water and dump textile	on nping on dredged slope ping up to low water
Janjira End (South/Right Bank)	<ul> <li>length = 11.3 km</li> <li>5 layers 800 kg geo-bag</li> <li>0.9 m rock riprap over 3</li> <li>4 layers 800 kg geo-bag</li> <li>Concrete Block placing transition area over geo-t</li> </ul>	layers 125 kg geo-bag dun dumping on dredged slope above water and dum	nping on dredged slope
Description	Unit	Location	Estimated Quantity
n 11	2	South Bank	495,60,000
Dredging	$m^3$	North Bank	99,20,000
		Dredging Total	594,80,000
Rock Rip-Rap	2	South Bank	706,950
	$m^3$	North Bank	221,400
		Rock Rip-Rap Total	928,350
		South Bank	27,42,858
	800kg/Nos.	North Bank	2,65,524
C D		Sub-Total	30,08,382
Geo- Bags	PROPERTY AND ADMINISTRATION OF THE PROPERTY AND ADM	South Bank	10,572,500
	125kg/Nos.	North Bank	6,695,000
		Sub-Total	17,267,500
		Geo- Bags Total	20,275,882
	400x400x200/Nos.	South Bank	367,641
	400X400X200/INOS.	North Bank	123,233
	400x400x300/Nos.	South Bank	3,696,062
	400X400X300/Nos.	North Bank	212,072
CC Block	400x400x400/Nos.	South Bank	7,582,546
	400X400X400/NOS.	North Bank	1,284,694
		South Bank	-
	600x600x600/Nos.	North Bank	35,000
		CC Block Total	13,301,248

Approach Roads & Service Area- 2	Mawa End (North Bank)	Length = 1.617 km 4- Lane Dual Carriageway Total Road Width = 27.6 m 2.141 km Service Road & 0.682 km Local Road Toll Plaza, Police Station, Service Area-01, Weigh Station, Emergency Response Area etc.
	Janjira End (South Bank)	Length = 10.50 km  4- Lane Dual Carriageway Total Road Width = 27.6 m  5 nos. Bridge, 20 nos. Box Culvert, 8 nos. Underpasses, 12 km Service Road & 3 km Local Road Toll Plaza, Police Station, Service Area-03, Weigh Station, Emergency Response Area etc.
	Service Area-2	Mosque, Motel Mess, Resort Reception Building, Duplex House-30 Nos, Overhead Water Tank, Health Centre, Guard House, Electrical Sub-Station, Fire Detection and Fire Fighting System.

The Social Action Plan was introduced to minimize the adverse impact of the Project. The loss of Assets, livelihood, occupations breaking the community for Land acquisition of the Project area is addressed in 05 Resettlement Action Plans (RAP).

Number of Resettlement Sites (RS) and Location: 07 [(01) RS-2 Jashaldia; (02) RS-3 Kumarbhog; (03) RS-7 Medinimondal; (04) RS-8 Kumerbhog Extension; (05) RS-4 West Naodoba; (06) RS-6 Naodoba and (07) RS-5 Bakhorerkandi.] Four Primary Schools and Five Health Centres are functioning in Resettlement Sites.

Different types of grants paid (up to August/2018)

District Name	No of Voucher	No of EP	Grant for Agricultural Land	Grant for Home/Com/find. Land/ Vita Land	Grant for Water Bodies Land	Grant for R.& Phy. struc (without title)	Dislocation Allowances for loss of Agricultureal Land	Dislocation Allowances for loss of Homestead/Vita/ Com/Ind Land etc.	Dislocation Allowances Water Bodies Land	Grant for Residential Structure (with title of Land)	Grant for Trees	Transfer Grant for Residential Structures (with title of Land)	Transfer Grant for Residential Structures (without title of Land)	Reconstruction Great Residential Structures (with title of Land)	Reconstruction Grant Resident Structures (without title of Land)	Female Headed Household	Temporary Rental Allowance	Land Development Assistance	Total Paid by BBA
Munshigonj	9288	6252	1865169425.09	1124948433.90	69903732.77	16140255.99	3395478.62	2123126.40	238945.65	0.00	0.00	4737201.55	0.00	6767430.75	0.00	25000.00	189000.00	64540000.00	3158178030.72
Madanpur	8006	5013	1156743440.11	570659043.16	3677575.34	0.00	5559889.82	4414133.29	17299.31	0.00	0.00	4800868.80	0.00	6858384.00	0.00	0.00	60000.00	44200000.00	1796990633.83
Shariatpur	8620	4916	1015407139.68	283052133.70	17521469.85	0.00	5788159.94	1925004.77	51352.77	2174317.50	578414.00	4584232.52	38843.00	6548903.60	55490.00	0.00	135000.00	25400000.00	1363260461.33
Total -	25914	16181	4037320004.88	1978659610.76	91102777.96	16140255.99	14743528.34	8462264.46	307597.73	2174317.50	578414.00	14122302.87	38843.00	20174718.35	55490.00	25000.00	384000.00	134146000.00	6318429125.88

#### Residential Plots at the Resettlement sites and their locations (up to August/2018)

Number and Name of the Resettlement sites	Location	Name of the Upazila and Districts	Total Residential Plots	Total Commercial Plots	Total Numbers of Plots	Numbers of the Allotments of the plots	Number of the handed over Plots
RS-2 Jashaldia	V (D)	Louhajang, Munshiganj	451	20	471	428	421
RS-3 Kumarbhog	North Bank of	Louhajang, Munshiganj	339	20	359	342	333
RS-7 Medinimondol	the river Padma	Louhajang, Munshiganj	16	0	16	15	15
RS-8 Kumarbhog Extension		Louhajang, Munshiganj	344	0	344	281	271
RS-4 West Naodoba	South Bank of	Janjira, Shariatpur	514	20	534	504	468
RS-6 Naodoba	the river Padma	Janjira, Shariatpur	552	0	552	518	385
RS-5 Bakhorerkandi		Shibchar, Madaripur	528	20	548	487	457
Total Nos. 7	RS	3 District 3 Upazilas	2744	80	2824	2575	2350

The self relocated family will get the Land Development Assistance (in BDT)

Applicant Eligible for	For Mawa side	For Jajira side	Remarks
2.5 dec plot in Resettlement site (RS site)	300,000	150,000	* Self owned land
5.0 dec plot in Resettlement site (RS site)	400,000	200,000	* Be eligible for getting plot in RS
7.5 dec plot in Resettlement site (RS site)	500,000	250,000	Homestead should be completed

Status of Grievance Cases (up to August/2018)

Name of the issue	Louhajang, Munshiganj	Janjira, Shariatpur	Shibchar, Madaripur	Total
Grievance resolved by BBA	30	167	63	260
Referred by BBA to Deputy Commissioner, Munshiganj	97	0	0	97
Hearing Completed by local GRC	30	193	112	335
Case pending	02	14	20	36
Total	159	374	195	728

#### **Environment Management Activities Details**

#### Tree Plantation:

Tree plantation has been started from 2012.

Location of Tree Plantation: Seven Resettlement Sites Three Service Areas, Janjira and Mawa Approach Road Planted tree:1,66,957 nos of tree planted upto August/2018.

Implementing Agency: Department of Forest (Dhaka &

Faridpur)

Biodiversity Baseline Survey and Preparing Monitoring Plan, Identifying Location of the Protected Sanctuary and Developing a Sanctuary Establishment Plan of PMBP:

Consulting firm: Agriconsulting S.p.A & SODEV

Consult International Ltd - JV Contract Cost: BDT 4,90,83,750/-

Present Status: Completed

Consultancy Services for Preparing a Comprehensive Documentation of PMBP

Consulting firm's name: Impress Telefilm Ltd.

Date of contract: 17 February 2016

Contract period: 05 Years

Contract Cost: BDT 6,31,35,735.98/-

Present Status: Ongoing

Establishment of Padma Bridge Museum: Implementing Agency: Department of Zoology, Dhaka University.

Date of contract: 18 November 2015

Contract period: 5 Years Contract Cost: BDT 6,21,46,395/-

Present Status: 1697 nos. specimens have been collected & preseved (upto August/2018).

#### **Land Acquisition Details**

Land Acquisition and	Recquisition for Padma Multi	purpose Bridge Project (Up	to August/2018)
District	Land Acquisition in Hectares	Land Recquisition in Hectares	Costing in BDT (Crore
Munshiganj	329.64	-	526.77
Madaripur	1601.19	82.64	1462.83
Shariatpur	610.96	-	369.17
Total	2541.79	82.64	2358.77

Sl. No.	Project Components	As per Approved 2nd RDDP BDT (Crore)	Equivalent USD (Million)
1.	Bridge Construction (including single track rail with viaduct, bridge facilities)	12133.39	1549.60
2.	Other Infrastructure (River Training Works) including service Area earth filling	9400.00	1201.28
3.	Janjira Approach Road & Selected Bridge End Facilities, Mawa Approach Road & Selected Bridge End Facilities & Service Area- 2	1907.68	252.67
4.	Land Acquisition (with Additional cost)	2698.73	345.77
5.	Resettlement	1515.00	194.1
6.	Environment	129.03	16.53
7.	Construction Supervision Consultant- 1 (for Approach Roads & SA-2) & Construction Supervision Consultant- 2 (for Main Bridge & RTW)	521.39	66.50
8.	Management Support Consultant (MSC) and audit	151.80	19.45
9.	Engineering Support & Safety Team (ESST)	201.00	25.75
10.	M & E and supervision of EMP & SAP (Internal and External monitoring agency (EMA) for monitoring & evaluation of the EMP and SAP)/RAP, Charland monitoring and management) internal monitoring)	48.30	6.19
11.	Others	1487.07	190.52
	Total Project Cost	30193.39	3868.36



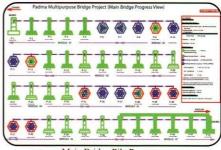
5 Nos. Span has been erected and completed a module of 07 successfully



Overall activities of Pier and Pile Cap at Mawa site



Top View of Resettlement Site



Main Bridge Pile Progress



Aerial View of River Training Works



Placement of CC Block at River Site Slope



Aerial View of Service Area-2



Approach Road and Bridge End Facilities



Primary Health-Care Services at RS Health Centre



Students Studying in RS Primary School



Some specimens at Padma Bridge Museum



Tree Plantation at Approach Road