

Tender/Proposal Detail			
<b>Tender/Proposal ID :</b>	126578	<b>Invitation Reference No. :</b>	BWDB/HFMLIP/Kish/6313 ,Dated: 11-10-2017
<b>Closing Date and Time :</b>	22-Nov-2017 14:30	<b>Opening Date and Time :</b>	22-Nov-2017 14:30
<b>Procuring Entity :</b>	Kishoreganj WD Division BWDB/Kish/HFMLIP/PW-17 Construction of a Submergible Embankment around Naogaon Haor Part-B in between KM 30.420 to KM 44.200 13.170 KM b Bagadia Khal Rehulator 1-Vent1.50m1.80m at KM 14.52 of Naogaon Haor Part-B c Neora Khal Rehulator 4-Vent1.50m1.80m at KM 44.230 of Naogaon Haor Part-B d 25 nos Irrigation Pipe Inlet at different chainages of Part-A & Part-B and e 5 nos Box Drainage Outlet at different chainages of Part-A and Part-B of Naogaon Haor Sub-Project in c/w Haor Flood Management and Livelihood Improvement Project BWDB Part under Kishoregange WD Division BWDB Kishoregonj during the FY2016-17 & FY2017-18. Special Instructions: 01. Tenderers should visit the working site before submission of tender. 02. RDPP is in approval process,Notification of Award (NOA) will be issued after approval of RDPP. 03. No claim what so ever will be entertained if NOA is not issued. 04. The work of the packages may be totally dropped, decrease or increase as per field condition/design/budget allocation for which no claim shall be entertained. 05. According to PPA 2006 Act 7(3) (Amendment) The Tenders having quoted the offer in percentage is more than 10%(ten percent) above or less than 10%(ten percent) less of the official estimated cost will be rejected. 06. In case of credit line certificate, it should be in Letter of Commitment for Bank's under taking for Line of Credit(Form PW3-7) that attached in section -8. No alteration is allowed, in failing, tender may not be accepted. In case of Bank Statement, the amount of minimum balance shall remain constant of Tk. 275.00 Lakhs during the evaluation period. During verification, required amount of Liquid Asset if not found available in Tenderer mentioned account, then the submitted bank statement will not be considered in the evaluation. For the winner bidder, this amount shall have to be used as a working capital for this package.		
<b>Brief :</b>			

Package No	Package Description
BWDB/Kish/HFMLIP/PW-17	Construction of a Submergible Embankment around Naogaon Haor Part-B in between KM 30.420 to KM 44.200 13.170 KM b Bagadia Khal Rehulator 1-Vent1.50m1.80m at KM 14.52 of Naogaon Haor Part-B c Neora Khal Rehulator 4-Vent1.50m1.80m at KM 44.230 of Naogaon Haor Part-B d 25 nos Irrigation Pipe Inlet at different chainages of Part-A & Part-B and e 5 nos Box Drainage Outlet at different chainages of Part-A and Part-B of Naogaon Haor Sub-Project in c/w Haor Flood Management and Livelihood Improvement Project BWDB Part under Kishoregange WD Division BWDB Kishoregonj during the FY2016-17 & FY2017-18.

### Bill of Quantities-03 (Bagadia khal Regulator)

[illegible]

32	04-120	01-120	Construction of B.M. pillar at site first class bricks in cement mortar (1:4) of size 36cm x 38cm x 75cm of cement concrete (1:2:4) base size 50cm x 50cm x 75cm with 12mm thick cement plastering (1:2) in exposed surface of pillar and cement mortar on top (1:2) with in ascription of ? BWDB? with 25cm of the pillar below ground level etc. complete including ramming the backfilling and the cost of all materials as per direction of Engineer in charge	No	4.000	1199.892	One Thousand One Hundred and Ninety-Nine point Eight Nine Two	4799.568	Four Thousand Seven Hundred and Ninety-Nine point Five Six Eight
33	04-180	04-180	Site preparation by manually removing all miscellaneous objectional materials from entire site and removing soil upto 15cm depth including uprooting stumps, jungle, cleaning, levelling, dressing etc. complete as per direction of Engineer in charge	sqm	8274.480	24.998	Twenty-Four point Nine Nine Eight	206845.451	Two Lakh Six Thousand Eight Hundred and Forty-Five point Four Five One
34	04-620	04-620-20	Filling of expansion joints up to a depth 40mm with bitumen mixed with coarse sand (FM >= 2.5) in concrete works including supply of all materials etc. as per specification and direction of Engineer in charge. 20mm wide.	sqm	11.000	69.534	Sixty-Nine point Five Three Four	764.874	Seven Hundred and Sixty-Four point Eight Seven Four
			Installation of pizeometer						

35	12-100	12-100	including supply of 40mm G.I. pipe, brass strainer, socket, labor, by wash boring, lowering, fixing the elevation and providing cover of the top of the well etc, complete as per direction of Engineer in charge.	each	6.000	2583.987	Two Thousand Five Hundred and Eighty-Three point Nine Eight Seven	15503.922	Fifteen Thousand Five Hundred and Three point Nine Two Two
36	16-220	16-220	Earth work by manual labour with clayey soil (minimum 30% clay, 0.40% silt and 0-30% sabd) in construction of cross/ring bundh as per design & specification with all lead and lifts throwing the earth in layer not exceeding 150mm. In thickness in/c clod's breaking rough dressing, clearing the Jungles removing stumps dug baling and 75mm cambering etc. complete as per direction of Engineer in charge.	cum	2880.000	139.987	One Hundred and Thirty-Nine point Nine Eight Seven	403162.560	Four Lakh Three Thousand One Hundred and Sixty-Two point Five Six
37	40-440	40-440-20	Supplying and filling empty gunny or synthetic bags as approved design & drawing with sand. Earth available at site sewing the end with sutly including carrying and placing in position within the site with supply of all materials as per direction of Engineer in charge. Capacity 50kg. (2nd hand bag)	nos	1125.000	29.997	Twenty-Nine point Nine Nine Seven	33746.625	Thirty-Three Thousand Seven Hundred and Forty-Six point Six Two Five
			Earth work in excavation of						

38	16-310	16-310-10	<p>foundation trenches in all kinds of soil as per layout plan of foundation excavation with all leads and lifts and placing the spoil earth for constructing the ring bundh/offerdam where necessary as per design and specification or disposing it to a safe distance including pushing, levelling, dressing, etc. complete as per direction of Engineer in charge.</p> <p>16-310-10: For moving spoil earth upto a distance of 100m from the centre of the pit</p>	cum	5026.690	149.987	One Hundred and Forty-Nine point Nine Eight Seven	753938.153	Seven Lakh Fifty-Three Thousand Nine Hundred and Thirty-Eight point One Five Three
39(a)	16-560	16-560-10	<p>Shoring for slope protection of foundation trench, canal, embankment, road, pond etc. as per design slope, grades including for spoils to a safe distance as per direction of Engineer in charge.</p> <p>16-560-10: By bamboo post of 6.00 m length, 60mm to 80mm dia, 25 cm c/c and 2.00m drive with diagonally woven tarza walling and average 70mm dia half split bamboo batten @ 2.00m c/c fixed with nails. qbelow ground with</p>	sqm	300.000	639.942	Six Hundred and Thirty-Nine point Nine Four Two	191982.600	One Lakh Ninety-One Thousand Nine Hundred and Eighty-Two point Six
			By Local hard wood ballah post 6.00 m length, 125mm dia, 1m				Eight		Two Lakh Twenty-

39(b)	16-560	16-560-30	c/c and 2.00m drive with 6.0m long bamboo of average 75mm @ 1.00m c/c and average 70mm dia half split bamboo batten @ 2.00m c/c fixed with nails.	sqm	273.600	837.075	Hundred and Thirty-Seven point Zero Seven Five	229023.720	Nine Thousand AND Twenty-Three point Seven Two
40	12-310	12-310-20	Bailing out of water with all leads and lifts by manual labour or pump. With all arrangements for protection of ring bund and side slopes of foundation pit against erosion or washout etc complete actual volume of work will be measured by sounding method before starting the work) as per direction of Engineer in charge By pump.	cum	51384.880	6.129	Six point One Two Nine	314937.930	Three Lakh Fourteen Thousand Nine Hundred and Thirty-Seven point Nine Three
41	44-240	44-240-30	Supplying at site U-shape hot rolled steel sheet piles of different sections as mentioned in the material specification of this manual as tabular form of Phosphorus = 00.04% (Maximum), Sulphur = 0.04% (Maximum), Copper = 0.25% (Minimum), Tensile strength => 490 N/mm2, Yield strength => 296 N/mm2, Elongation = 15% (Minimum) including all taxes, freights, incidental charges etc. complete as per direction of Engineer in charge. U-shape, hot-rolled steel sheet pile width=	mt	18.050	299972.999	Two Lakh Ninety-Nine Thousand Nine Hundred and Seventy-Two point Nine Nine Nine	5414512.632	Fifty-Four Lakh Fourteen Thousand Five Hundred and Twelve point Six Three Two

			400mm to 600mm: height=>100mm, Th.=> 10.5: wt. per sqm of pile wall =>120 kg/m2: sectional modulus per one meter of pile wall width => 874 cm3/m.						
42	44-320	44-320-20	Cutting of steel sheet piles to design length and shape as per requirement in design and drawing and as per direction of Engineer in charge. Above 10mm thick.	m	102.270	39.156	Thirty-Nine point One Five Six	4004.484	Four Thousand AND Four point Four Eight Four
43	12-300	12-300	Construction of sump well with dug holes of size 1.80m x 2.00m, laying in position the perforated empty diesel/ petrol drum sheet of 1.00m dia to a depth 1.50m having slot area of 1000 sq.cm/sqm. slot dia being 30mm each with supply of necessary shrouding materials comprising of 60% 40mm down graded khoa and 40% coarse sand of FM>= 2.50 and placing those around and beneath the drum sheet having thickness of 40cm and 50cm respectively including necessary welding, fitting etc, complete as per direction of Engineer in charge.	each	4.000	17209.621	Seventeen Thousand Two Hundred and Nine point Six Two One	68838.484	Sixty-Eight Thousand Eight Hundred and Thirty-Eight point Four Eight Four
			Driving steel sheet piles of various sections and weights of any type of soil,						

44	44-270	44-270-20	by monkey hammer including handling and placing in position, staging and supplying of all equipments like monkey hammer, pully, rope, bamboo, bullah etc. including correcting leaning beyond tolerance & other defects and any other incidental cost etc. complete (measurement will be taken on projected width x height) as per direction of Engineer in charge. 44-270-20: U-type or any other type : Upto 4.50 m depth	sqm	137.240	1499.865	One Thousand Four Hundred and Ninety-Nine point Eight Six Five	205841.473	Two Lakh Five Thousand Eight Hundred and Forty-One point Four Seven Three
45	72-540	72-540	Epoxy paint 2 coats of approved colour and specification over a priming coat to gate, hoisting device and embedded metal parts including scraping out rust and old paint with chisel, scraper, steel wire brush & emery paper etc. complete in all respect including the cost of all materials as per direction of Engineer in charge.	sqm	441.110	362.667	Three Hundred and Sixty-Two point Six Six Seven	159976.040	One Lakh Fifty-Nine Thousand Nine Hundred and Seventy-Six point Zero Four
46	44-310	44-310	Supplying and placing 20mm thick hessian cloth impregnated with bitumen in expansion joints or on top of sheet piles as per specification and direction of Engineer in charge.	sqm	29.680	461.758	Four Hundred and Sixty-One point Seven Five Eight	13704.977	Thirteen Thousand Seven Hundred and Four point Nine Seven Seven
			Supplying and						

47	44-220	44-220-10	laying single layer polythene sheet in floor below cement concrete, RCC slab, on walls etc. complete in all respect as per direction of Engineer in charge Weighing minimum 1.0 Kg. per 6.50 sqm.	sqm	182.950	31.217	Thirty-One point Two One Seven	5711.150	Five Thousand Seven Hundred and Eleven point One Five
48	28-100-20	28-100-20	Cement concrete work in leanest mix 1:4:8, with sand of (FM >= 1.5) in foundation or floor, including breaking, screening, grading and washing aggregates with clear water, mixing, laying in position, consolidation to levels, curing, including supply of all materials, excluding the cost of form works etc. complete as per direction of Engineer in charge.	cum	0.730	11998.919	Eleven Thousand Nine Hundred and Ninety-Eight point Nine One Nine	8759.211	Eight Thousand Seven Hundred and Fifty-Nine point Two One One
49	28-120	28-120-20	Cement concrete work in leanest mix 1:3:6 with sand of (FM >= 1.5) in foundation or floor, including breaking, screening, grading and washing aggregates with clear water, mixing, laying in position, consolidation to levels, curing, including supply of all materials, excluding the cost of form works etc. complete as per direction of Engineer in charge. With 25mm down graded stone chips.	cum	25.250	11998.919	Eleven Thousand Nine Hundred and Ninety-Eight point Nine One Nine	302972.705	Three Lakh Two Thousand Nine Hundred and Seventy-Two point Seven Zero Five



50	04-320	04-320	Supplying bamboo pegs 0.45m to 0.75m long and average dia 6cm, with saw cut top as per terms & condition of the Engineer in charge.	nos	120.000	27.877	Twenty-Seven point Eight Seven Seven	3345.240	Three Thousand Three Hundred and Forty-Five point Two Four
51	04-330	04-330	Labour charge for fixing the bamboo pegs 0.45 to 0.75m long and average dia 6cm complete as per direction of Engineer in charge.	nos	120.000	2.829	Two point Eight Two Nine	339.480	Three Hundred and Thirty-Nine point Four Eight
52	76-120	76-120-10	M.S. Work for reinforcement with twisted M.S. bar, fy=414 N/mm <sup>2</sup> , (made from billet) in RCC works, including local handling, cutting, forging, bending, cleaning and fabrication with supply of twisted M.S. bar in different sizes and blinding with 22 to 18 gages G.I. wire etc complete including the cost of all materials as per direction of Engineer in charge 8mm dia to 30mm dia	kg	18361.920	84.992	Eighty-Four point Nine Nine Two	1560616.305	Fifteen Lakh Sixty Thousand Six Hundred and Sixteen point Three Zero Five
53	76-115	76-115-10	M.S. Work for reinforcement with deformed M.S. bar, fy=276 N/mm <sup>2</sup> , (made from billet) in RCC works, including local handling, cutting, forging, bending, cleaning and fabrication with supply of deformed M.S. bar in different sizes and blinding with 22 to 18 gages G.I. wire etc complete	kg	33.830	84.992	Eighty-Four point Nine Nine Two	2875.279	Two Thousand Eight Hundred and Seventy-Five point Two Seven Nine

			including the cost of all materials as per direction of Engineer in charge. 76-115-10 : 6mm dia						
54	28-200	28-200-10	Reinforced Cement concrete work in leanest mix 1:1.5:3 with 20mm down graded coarse aggregate and sand of FM >= 2.0 to FM <= 2.5, to attain a minimum 28 days cylinder strength of 22.0 N/mm <sup>2</sup> , including breaking, screening, grading and washing aggregates with clear water, mixing, laying in forms, consolidation to levels, curing, including supply of all materials, excluding the cost of M.S. work for reinforcements and formworks etc. Complete as per direction of Engineer in charge. 28-200-10:With stone chips	cum	225.560	14998.649	Fourteen Thousand Nine Hundred and Ninety-Eight point Six Four Nine	3383095.268	Thirty-Three Lakh Eighty-Three Thousand AND Ninety-Five point Two Six Eight
55(a)	36-150	36-150-60	Form work for centering and water tight shuttering as per drawing with 24 BWG M.S sheet, fitted fixed with 40mm x 40mm x 6mm), M.S. angle frame and 25mm x 6mm F.I. bar stiffener, with necessary fabrication, welding, making the forms including fitting, fixing of steel forms with necessary ties, battens struts nuts and bolts,	sqm	269.360	735.284	Seven Hundred and Thirty-Five point	198056.098	One Lakh Ninety-Eight Thousand AND

		00	props etc. as per desired shape and size including leveling and removing the forms after specified period including the cost of all materials as per direction of Engineer in charge 36-150-60: Footing , footing beams, girder beams, foundation slab with 60-80 mm dia barrack bamboo props.				Five point Two Eight Four		Fifty-Six point Zero Nine Eight
55(b)	36-150	36-150-10	Vertical and inclined walls, columns, piers with 60-80mm dia barrack bamboo props.	sqm	696.970	909.608	Nine Hundred and Nine point Six Zero Eight	633969.488	Six Lakh Thirty-Three Thousand Nine Hundred and Sixty-Nine point Four Eight Eight
55(c)	36-150	36-150-20	Deck slab, operating deck slab, top slab of barrel up to 3.50m of height with 60-80 dia barrack bamboo props.	sqm	32.980	921.907	Nine Hundred and Twenty-One point Nine Zero Seven	30404.493	Thirty Thousand Four Hundred and Four point Four Nine Three
56	76-630	76-630-10	Supplying and fitting and fixing 23cm wide P.V.C. water stop having minimum strength of 13.80 N/mm2 at 225% elongation and of approved quality in contraction and expansion joints with necessary arrangements for modification in shuttering and keeping the water stop in position and direction of Engineer in charge. 3 Bulb type	m	17.600	1133.648	One Thousand One Hundred and Thirty-Three point Six Four Eight	19952.205	Nineteen Thousand Nine Hundred and Fifty-Two point Two Zero Five
			Supplying and laying sand filter layers as per specification size, range and						Thirty-

57(a)	40-650	40-650-30	gradation, including preparation of surface, compacting in layer etc, complete with supply of all materials and as per direction of Engineer in charge. F.M. : 1.00 to 1.50.	cum	36.970	1070.194	One Thousand AND Seventy point One Nine Four	39565.072	Thirty-Nine Thousand Five Hundred and Sixty-Five point Zero Seven Two
57(b)	40-650	40-650-20	F.M. : 1.50 to 2.00.	cum	6.590	1575.238	One Thousand Five Hundred and Seventy-Five point Two Three Eight	10380.818	Ten Thousand Three Hundred and Eighty point Eight One Eight
58	16-520	16-520-20	Supplying and filling sand in foundation of hydraulic structure, buildings and in protective works with selected sand in 150mm thick layer, including leveling, dressing, ramming, watering etc complete (compacted to 50% relative density by manual labour using mallet/ vibro compactor) as per direction of Engineer in charge. Sand of FM >= 1.50	cum	47.910	1419.932	One Thousand Four Hundred and Nineteen point Nine Three Two	68028.942	Sixty-Eight Thousand AND Twenty-Eight point Nine Four Two
59(a)	40-610	40-610-20	Supplying and laying dry 1st class tick jhama brick chips as filter in two layers (top and bottom) as per specification size, range and gradation, including breaking chips, grading preparation of surface, compacting each	cum	45.300	3730.134	Three Thousand Seven Hundred and Thirty point One Three	168975.070	One Lakh Sixty-Eight Thousand Nine Hundred and Seventy-

			compacting each layer etc, with supply of all materials and as per direction of Engineer in charge. Well graded between 40mm to 20mm size.				Three Four		Five point Zero Seven
59(b)	40- 610	40- 610- 30	Well graded between 20mm to 5mm size. (Combination of sub item 10 & 30 or 20 & 30 shall be used.	cum	45.300	4075.723	Four Thousand AND Seventy- Five point Seven Two Three	184630.252	One Lakh Eighty- Four Thousand Six Hundred and Thirty point Two Five Two
60(a)	40- 140	40- 140- 50	Manufacturing and supplying C.C. blocks in leanest mix 1:3:6 with cement and sand (FM>=1.5) and 1st class or picked jhama brick chips (25mm down graded), to attain a minimum 28 day strength of 9.00 N/mm2 including breaking, screening, grading, washing chip, mixing, laying in forms, consolidation, curing for at least 21 days including preparation of platform, shuttering and stacking in measurable stacks etc, complete including supply of all materials (steel shutter to be used) as per direction of Engineer in charge. Block Size 30cm X 30cm X 30cm.	each	6477.000	349.969	Three Hundred and Forty- Nine point Nine Six Nine	2266749.213	Twenty- Two Lakh Sixty-Six Thousand Seven Hundred and Forty- Nine point Two One Three
60(b)	40- 140	40- 140- 40	Block Size 40cm X 40cm X 20cm.	each	1541.000	399.964	Three Hundred and Ninety- Nine point Nine Six	616344.524	Six Lakh Sixteen Thousand Three Hundred and Forty- Four point

							Four		Five Two Four
61(a)	40-220	40-220-10	Lobour charge for protective work in laying C.C blocks of different sizes including preparation of base, ramming of base etc. complete as per direction of the Engineer in charge Within 200m.	cum	101.490	1145.777	One Thousand One Hundred and Forty-Five point Seven Seven Seven	116284.908	One Lakh Sixteen Thousand Two Hundred and Eighty-Four point Nine Zero Eight
61(b)	40-220	40-220-20	Beyond 200m	cum	101.490	2026.858	Two Thousand AND Twenty-Six point Eight Five Eight	205705.818	Two Lakh Five Thousand Seven Hundred and Five point Eight One Eight
62	76-170	76-170	M.S. work in plates, angles, channels, flat bars, Tees etc. including fabricating, machining, cuttings, bending, welding, forging, drilling, riveting, embedding anchor bars, staging and fitting, fixing, local handling etc. complete with energy consumption and supply of labors including the cost of all materials as per design, specification and direction of Engineer in charge.	kg	2238.350	124.989	One Hundred and Twenty-Four point Nine Eight Nine	279769.128	Two Lakh Seventy-Nine Thousand Seven Hundred and Sixty-Nine point One Two Eight
			Supplying, laying, fitting and fixing of different dia G.I. pipes with all special fittings, such as bends, elbows, sockets, tees, unions, jam nuts etc. including cutting foundation trenches upto required depth where necessary and filling the				Two Hundred		One Thousand

63	80-230	80-230-40	same with earth duly compacted, making holes in floors and walls and mending the damages, fixing in walls with holders and clips, including cutting threads, making necessary connection etc. all complete, and as per direction of Engineer in charge. 40mm dia G.I. pipe line.	m	4.500	232.909	Two hundred and Thirty-Two point Nine Zero Nine	1048.091	One thousand AND Forty-Eight point Zero Nine One
64	80-260	80-260-20	Supplying, fitting and fixing of the different dia G.I. water distribution pipe line, with all special fittings such as bends, elbows, reducing sockets, tees, unions etc. including cutting trench up to average depth of 0.90m, maintaining proper level, cutting pipes where necessary, making threads etc. all complete. floors as per direction of Engineer in charge. 50mm dia G.I. pipe.	m	4.700	338.989	Three Hundred and Thirty-Eight point Nine Eight Nine	1593.248	One Thousand Five Hundred and Ninety-Three point Two Four Eight
65	76-240	76-240-	Manufacturing and supplying of M.S. Vertical lift gate shutter of 8mm thick M.S. plate and stiffener with minimum 75mm x 10mm M.S. angle as frame, horizontal & vertical beam, 75mm x 25mm x 12mm p-type rubber seal, fixed with 10mm dia x 63.5mm M.S. counter shank bolts with nuts and 40mm x 10mm M.S. strip	each	2.000	96790.918	Ninety-Six Thousand Seven Hundred	193581.836	One Lakh Ninety-Three Thousand Five Hundred

	240	40	as clamp drilled spaces @ 150mm c/c, stem attachment with proper thread, nut cotter pin and washer as per approved design including the cost of all materials of proper grade & brand new prime coat of red oxide where necessary as specification and direction of the Engineer in charge. Size 1.95m x 1.65m.				and Ninety point Nine One Eight		and Eighty-One point Eight Three Six
66	76-260	76-260-20	Labour charge for fitting fixing of M.S. vertical lift/ flap gate shutter of different size including making holes in concrete for hooking arrangements with supply of necessary materials, tools and other accessories required for fitting the same to regulator/ sluice and mending the damages with cc (1:2:4), removing the spoils etc. complete including the cost of all materials and as per direction of the Engineer in charge. Size 1.95m X 1.35m or 1.95m X 1.65m.	each	2.000	9991.011	Nine Thousand Nine Hundred and Ninety-One point Zero One One	19982.022	Nineteen Thousand Nine Hundred and Eighty-Two point Zero Two Two
67	76-100	76-100	Manufacturing and supplying and installation of pedestal type lifting devise for slide gate with 63mm dia, threaded steel shaft, 146mm outer dia bronze nut, thrust bring steel bevel gear etc, as per approved desing	each	2.000	84128.278	Eighty-Four Thousand One Hundred and	168256.556	One Lakh Sixty-Eight Thousand Two Hundred



	130	130	including supply of all components, labors with prime coat of red oxide where necessary etc. complete including the cost of all materials as per specification and direction of the Engineer in charge.				Twenty-Eight point Two Seven Eight		hundred and Fifty-Six point Five Five Six
68	68-130	68-130	Supplying wooden flap gates with pressure treated fall boards/ stop logs of different sizes (not less than 15cm in depth) of Sal, Sundry, garjan Shishu of equivalent timber for regulator/ sluices, including fixing in position with eye hook etc. complete as per direction of Engineer in charge	cum	1.720	60960.913	Sixty Thousand Nine Hundred and Sixty point Nine One Three	104852.770	One Lakh Four Thousand Eight Hundred and Fifty-Two point Seven Seven
69	16-140	16-140-10	Earth work by manual labor in resection of embankment/ canal bank / river slopes/ road/ compound etc. manually compacted by 7.0 kg iron rammer to abode any air pocket in clayey soil (minimum 30% clay, 0-40% silt and 0-30% sand) within the initial lead of 30m and all lifts including throwing the spoils to profile in layers not exceeding 150mm 100mm, removing roots & stumps of trees of girth unto 200mm from the ground, benching the side slopes, stripping/ sloughing the	cum	2640.000	169.985	One Hundred and Sixty-Nine point Nine Eight Five	448760.400	Four Lakh Forty-Eight Thousand Seven Hundred and Sixty point Four

			bees of embankment and borrow pit areas, dug bailing, bail out of water, rough dressing including 150mm cambering at the center of the crest (where necessary) etc. complete as per direction of Engineer in charge. 0 to 3m height.						
70	16-130	16-130	Earth work by manual labour in all kinds of soil in excavation or reexcavation of channels with the initial lead of 30m and lift of 1.5m including levelling, dressing and throwing the spoils to profile with breaking clods, rough dressing, clearing jungles including cutting trees upto 200mm girth, dug bailing etc. complete as per direction of Engineer in charge.	cum	7558.500	142.457	One Hundred and Forty-Two point Four Five Seven	1076761.235	Ten Lakh Seventy-Six Thousand Seven Hundred and Sixty-One point Two Three Five
71	16-190	16-190	Extra rate for every additional lead of 15m or part here of beyond the initial lead of 30m up to a maximum of 19 leads (3m neglected) for all kinds of earth work. (One No Lead)	pld/cum	1848.000	19.998	Nineteen point Nine Nine Eight	36956.304	Thirty-Six Thousand Nine Hundred and Fifty-Six point Three Zero Four
72	16-200	16-200	Extra rate for every additional lift of 1.0m or part thereof beyond the initial lift of 1.50m (30cm neglected for all kinds of earth work. (One No. Lift)	plt/cum	4535.100	10.989	Ten point Nine Eight Nine	49836.214	Forty-Nine Thousand Eight Hundred and Thirty-Six point Two One Four
			Royalty of specified earth taken from						

73	16-300	16-300	private land (with permission of the Executive Engineer on production of royalty deeds with the land owner) from the area to be selected by the contractor with mutual agreement.	cum	2640.000	4.999	Four point Nine Nine Nine	13197.360	Thirteen Thousand One Hundred and Ninety-Seven point Three Six
74	04-280	04-280-10	Construction at site, cement mortar gauge on masonry wall, including engraving in meter, decimeter & centimeter, painting and figuring with black and red water proof paint, etc, complete as per direction of Engineer in charge 150mm X 25mm	m	6.400	77.723	Seventy-Seven point Seven Two Three	497.427	Four Hundred and Ninety-Seven point Four Two Seven
75	16-240	16-240	Earth work by manual labour in all kinds of soil in removing the cross bundh/Ring bundh including all leads and lifts complete and placing the spoils to a safe distance-do-as per direction of Engineer in charge	cum	2016.000	142.457	One Hundred and Forty-Two point Four Five Seven	287193.312	Two Lakh Eighty-Seven Thousand One Hundred and Ninety-Three point Three One Two
76	16-540	16-540-20	Back filling of hydraulic structure including all leads and lifts in 150mm layer including watering, ramming, compaction to 30% relative density etc. complete by compactor or any other suitable method as per direction of Engineer in charge. Sand of Fm >0.80	cum	982.580	757.682	Seven Hundred and Fifty-Seven point Six Eight Two	744483.180	Seven Lakh Forty-Four Thousand Four Hundred and Eighty-Three point One Eight

77	16-530	16-530	Back filling of hydraulic structure and slop building in protective work including all leads and lifts with selected local soil in layer if 150mm including, watering, ramming etc complete compacted to 20% relative density by compactor or any other suitable method as per direction of Engineer in char.	cum	2463.540	154.986	One Hundred and Fifty-Four point Nine Eight Six	381814.210	Three Lakh Eighty-One Thousand Eight Hundred and Fourteen point Two One
78	48-100	48-100	Fine dressing and close turfing of the slope and the crest of embankment with 75mm thick good quality durba or charkanta sods of size 200mm x 200mm with all leads and lifts-do-do- etc. complete as per direction of Engineer in charge .	sqm	2600.000	9.999	Nine point Nine Nine Nine	25997.400	Twenty-Five Thousand Nine Hundred and Ninety-Seven point Four
			Supplying and placing non-woven needle punched type geotextile fabric (100% polypropylene fabric, unit weight 855kg/m3 to 946 kg/m3) as filter materials of elongation at maximum force machine direction (MD) =>60% and <=100%, elongatio at maqximum force (CMD) =>40% and <=100% horizontal and vertical permeability (under 2 kn/m2 pressure) =>2 x 10E-3 m/sec.for efective erosion protection in						

79	40-600	40-600-20	hydraulic structures/river training works including local handling, placing in position, providing machine seamed joints (with 100% polypropylene or nylon thread) or 35cm lap in dry condition or minimum 100cm lap under water including protecting the geotextile material from UV ray and from any other damages including supply of all materials, labors, equipment's etc. complete as per direction of Engineer in charge(Geotextile delivered at site should be certified by ISO and clearly labelled with brand name and grade printed at regular intervals across the body of the fabric) Thickness =>2.00mm, CBR puncture resistance => 2100 N Effective opening size <= 0.11mm, horizontal permeability => 4x10E-3m/sec, Vertical permeability => 6x10E-4m/sec, grab tensile strength => 760 N strip tensile strength => 13.00 KN/m.	sqm	369.200	190.453	One Hundred and Ninety point Four Five Three	70315.248	Seventy Thousand Three Hundred and Fifteen point Two Four Eight
							<b>Grand Total:</b>	21753240.973	Two Crore Seventeen Lakh Fifty-Three Thousand Two

									Hundred and Forty point Nine Seven Three
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This Bill of Quantities-03 (Bagadia khal Regulator) is Electronically Signed by Mr. Md Ali on behalf of AKA-UCL (JV)