



GOVERNMENT OF ODISHA
DEPARTMENT OF WATER RESOURCES

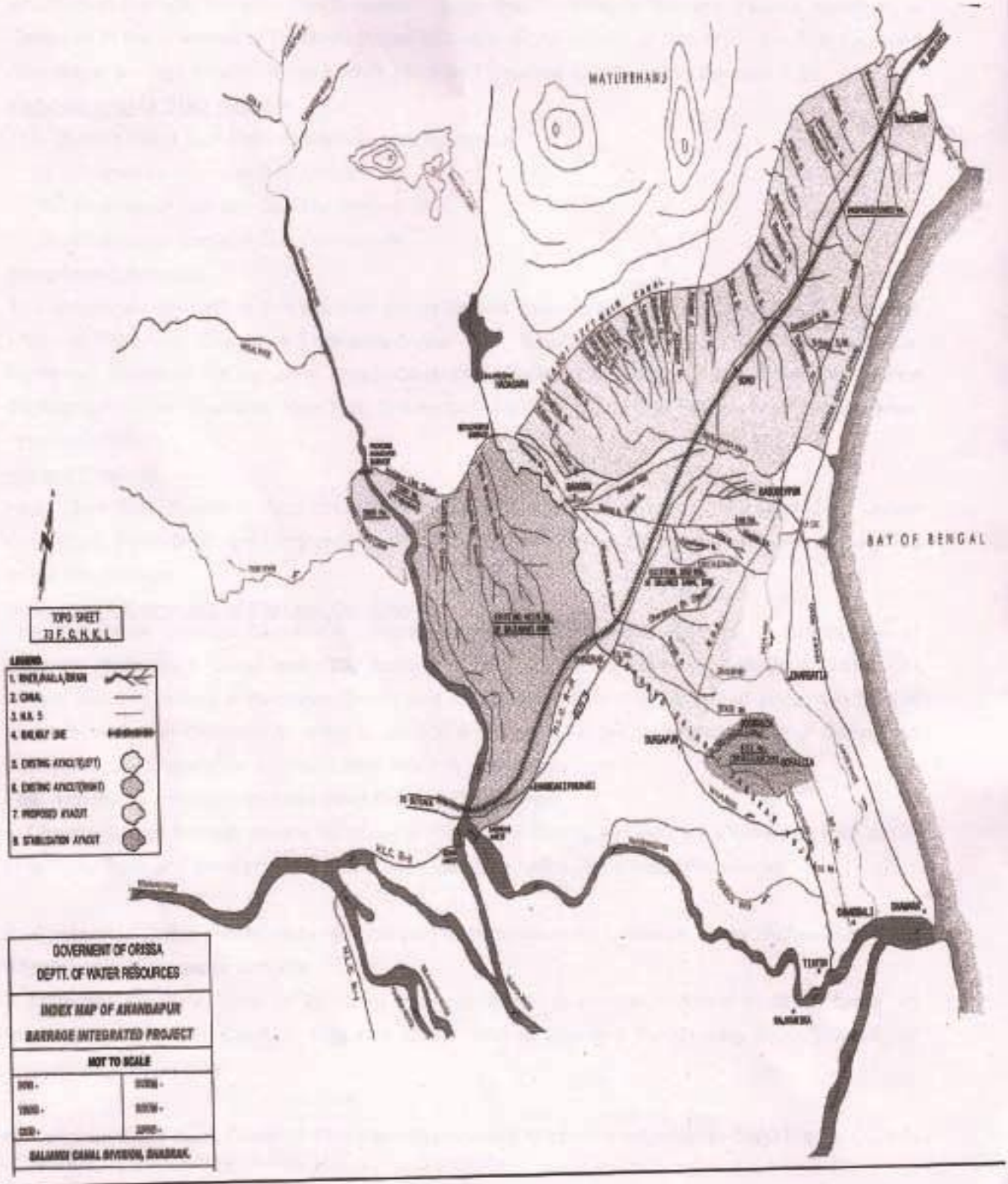
ANNUAL REPORT

FOR THE YEAR 2015-16

ANANDAPUR BARRAGE DIVISION
SALAPADA

EXECUTIVE ENGINEER
ANANDAPUR BARRAGE DIVISION,
SALAPADA, KEONJHAR

INDEX MAP



BRIEF NOTE ON ANANDAPUR BARRAGE DIVISION

Anandapur Barrage Division which comes under the Anandapur Barrage Project functions at Salapada in the premises of Baitarani Irrigation Colony in the vicinity of Chief Construction Engineer, Anandapur Barrage Project. It has its own office and it started functioning in the year-2008.

Establishments Staff position

This Division has 3 Sub-Divisions and 9 sections namely.

- i) Anandapur Barrage Sub-Division -I
- ii) Anandapur Barrage Sub-Division -II
- iii) Anandapur Barrage Sub-Division -III

Sanctioned strength

The sanctioned strength of this Division are as follows Executive Engineer-1 No, Deputy Executive Engineer-1no, Asst. Executive Engineers-3 nos, Asst. Engineers-5 nos, Junior Engineers-6 nos, Divisional Accounts Officer-1no, Head Clerk-1no, Senior Clerk-2no, Junior Clerk-7no, Junior Stenographer-1no, Draughts Man-1no, Tracer-1no, Dafftery-1no, Peon-10nos, Night Watch Man-1no(Total-42nos)

Vacant Position

Head Clerk-1no, Divisional Account Officer-1no, Junior Engineer(Estr)-1no, Senior Clerk-2nos, Junior Clerk-2nos, Peon-5nos are lying vacant. There are 56 nos of Work-Charged employees are working under this Division.

Main works Entrusted to Barrage Division

The Anandapur Barrage Division is created mainly to irrigate 5000 Hacters by construction of Baitarani Right Bank Canal and 1200 Hacters by construction of Baitarani Left Bank Canal with Minors and sub minors in Keonjhar District and with construction of a barrage of about 491.60m of length across river Baitarani in order to provide a feeding channel up to Bidyadharpur Barrage to provide irrigation facility for another 53800 Hacters in Balasore District.

The main works entrusted to Anandapur Barrage Division are,

- 1.. Construction of Barrage across Baitarani at Anandapur having 491.60m total waterway with 25nos of spillway Bays and 8nos of under sluice bays including Left & Right Head Regulators.
- 2.. Errection of Gates and stoplogs with hoisting arrangements for spillways, under sluices and Head Regulators of Anandapur barrage.
- 3.. Baitarani Left Bank Canal of 28.50Km length proposed to provide irrigation to 1200 Hacter in Anandapur & Hatadihi Block of Keonjhar District and to augment the existing 92000 ayacut_ of Salandi Irrigation system.
- 4.. Baitarani Right Bank Canal of 16Km length proposed to provide irrigation to 5000 Hacter CCA in Ghasipura Block of Keonjhar District.

5. Survey investigation, Fixing of alignment work pertaining to land acquisition for Minors & sub minors for Baitarani Left Bank Canal & Baitarani Right Bank Canal and subsequently execution of Minors & sub minors.

6..Besides these Non Residential works like the maintenance work for office of Chief Construction Engineer, office of Spl. Land Acquisition Officer, Salapada office of Quality control Executive Engineer, Barrage Colony and vehicle maintenance for all these above mentioned offices. In the addition to this Division is also entrusted to look after the needs of CWC, New Delhi relating to Anandapur Barrage Project and liaison office at Bhubaneswar.

5. ANANDAPUR BARRAGE:

(a) Barrage Civil Works:

Construction activities of Barrage started from 01.01.2009 through the Agency, M/s Simplex Infrastructures Limited, Kolkata against the agreement amount of Rs. 251.54crore with the stipulation to complete it within 36 calendar months i.e. by 31.12.2011. But due to various reasons the work period extended up to 30.06.16. It seems, as on date that all its components will be completed by 30.06.2017 in all respect to built up the reservoir. Total work expenditure on barrage by April 2016 is Rs.327.73 Crore including escalation. of Rs. 35.23Crore.

Present physical status of Barrage

(a) Barrage Civil Work

1. In case of Barrage 33nos of bays, civil structured work of Right head Regulator RHS flank out wall and deck slab of bridge are completed.
2. Raft and pier work of Left head Regulator and flank wall of left U/s are going on.
3. Right side U/s flared out wall, D/s flank and fiared out wall are yet to be constructed.
4. Left side flank & flared out wall both U/s and D/s are yet to be taken up.
5. Rip rap work is yet to be taken up.

(b) Barrage Gate Works:

The Gate and Hoist works of barrage as well as both the head regulators have been awarded to M/s OCCL, Bhubaneswar for Rs. 94.47crore on 31.03.2010 to complete the work by 30.03.2013 (36 calendar months). The Agency is fabricating all the components in their Central Workshop at Rasulgarh and transporting in phase manner to barrage site for installation. First stage embedded parts are being installed in the groove of the piers during pier concreting and installation of second stage embedded parts has been going on. It has been programmed to erect rest nos. gates in coming working season and to complete all the gates by 30.06.2017. Till date Rs. 77.82 Crore has been paid as advance to M/s OCCL in three advance instalments to go ahead with the work. The Bill submitted by M/S OCCL against the advance taken is not adjusted due to scrutinisation and pass and payment made at the Division level for want of Mechanical Personnel.

- Out of 33nos of gate in barrage 7nos in Left & Right head Regulator , 7nos of Gate works are completed.

(c) Baitarani Left Bank Canal (BLBC) [28.50Km length]

The canal off-takes from left head regulator of the Anandapur barrage and outfalls at the upstream of the Bidyadharpur barrage to work as feeder canal to carry water from river Baitarani to river Salandi. The design discharge of the canal is 165.00cumecs and the main canal is entirely cement concrete lining.

BLBC from RD 0.00 to 9.00Km-This reach of canal is being constructed through the Agency, M/s Sadbhav Engineering Limited, Gujrat for agreement value of Rs. 79.24crore with date of commencement as 11.04.2012 and stipulated date of completion on 10.10.2013 (18 calendar months).

i) Canal work is completed from RD 0.350Km to RD 1.080Km

ii) Lining work is taken up from RD4.86Km to RD5.60Km from which 740m lining work is completed.

BLBC from RD 9.00 to 13.50Km:- Construction of BLBC from RD 9.00 Km to RD 13.50 Km has been entrusted to M/s Sarala Project Works Pvt. Ltd, Hyderabad for Rs. 49.37crore on 04.03.2014 with the stipulation to complete it by 03.08.2015 (17 calendar months).

Canal lining work is taken up from RD9.60 Km to 10.40 Km and 4nos of structures completed during this reach.

BLBC from RD 13.50 to 17.75Km:- Construction of BLBC from RD 13.50Km to RD 17.50Km has been entrusted to M/s Biraja Construction Pvt. Ltd, Jajpur for Rs. 29.60 crore on 26.09.15 with the stipulation to complete it by 25.02.17 (17 calendar months).

- Canal excavation & lining work is taken up from Rd13.50Km to 15.20Km

BLBC from RD 17.75 to 28.5 Km:- Tender Process is going on for this reach of canal. It is proposed to complete this Canal system i.e. BLBC from RD 0.00Km to RD 28.50Km including distribution network by March 2019.

(d) Baitarani Right Bank Canal (BRBC) [16.00Km length]

The canal off-takes from right head regulator of the Anandapur barrage having design discharge of 10.00cumecs to irrigate about 5000ha of land in right bank of river Baitarani. The canal is entirely cement concrete lined. Due to delay in survey and land acquisition works, the tender activities in this system have not been initiated yet. Priority has now been given to expedite such activities without any delay.

6. LAND ACQUISITION STATUS Up to 30.04.2016

Barrage (21 Villages)

Total Land to be acquired (Including Approach Road)
Land already acquired

= 831.995 acres in 21 villages
= 640.615 acres in 17 villages

Baitarani Left Bank Canal(BLBC)- 39 Villages

Land to be acquired (Main Canal)
Minors & Sub-minors

= 874.83Ac.
= 170 Ac
= 1044.83Ac.

Total

Land Acquired Till-30.03.2016 = 412.15 Ac (23 Villages)
 Baitarani Right Bank Canal (BRBC) - 18 villages
 Total land to be acquired (Main Canal of 16km) = 198 Ac
 Minor and Sub-minor = 350.45 Ac
 Total = 548.45

Baitarani Right Bank Canal (BRBC) Main Canal

Up to Kusei River-(Up to 10km)

Total Land to be acquired in 11nos of Villages = 125.67Ac

Beyond Kusei

Total land to be acquired (Main Canal of 7 Villages) = 72.33Ac.
 Total Land to be acquired = 125.67 +72.33 = 198.00 Ac

7. PHYSICAL PLANNING:

Sl.	Major items of work	Physical planning for completion of the Project				Remarks
		up to 2015-16	2016-17	2017-18	2018-19	
1.	Barrage	85%	15%	-	-	
2.	Main canal & branches	24%	40%	26%	-	
3.	Distribution system	-	-	45%	55%	

The construction of Barrage & Canal is delayed due to the following most important reasons:-

1. Initially for procuring aggregates the approved quarry was Gohira & Gurusingha. But the stone is not available there in sufficient quantity at present. Due to new environment policy enacted by Govt. of India it became practically difficult in getting new quarry for minor minerals. Contractors are procuring the aggregates from a distant place and incurring more expenditure.
2. Land Acquisition is the major problem. Till now only a overall 47% of land is acquired and in two reaches the % of Land Acquisition is more than 70% which is only achieved recently. There is a stretch of land of around 4Km within the reach from RD 0.00 Km to 9.00Km which is not acquired in Padmapur Mouza. The acquired lands are not in a continuous stretch and in piecemeal manner due to which it become practically difficult in case of agencies for execution of the work.
3. The villagers are not allowing lifting Moorum by using their village C.C roads because of possibility of damage as these roads are not constructed considering plying of heavily loaded vehicles. So the agency has to arrange alternate road in agricultural field for lifting of moorum which cannot be developed and becomes useless once it rains.
4. The canal passes in deep cutting zone. Even in summer season the water table is at higher level. The soil is of black cotton soil and having more water retaining capacity. It becomes practically difficult due to intermittent rain for moving of loaded vehicles and equipments. This happened more agravatively during the working season this year.
5. Due to new Land Acquisition policy brought by Govt. of India and subsequent adopted by Odisha Govt. the people who have received their value of land earlier are agitating regarding the low

payment made to them earlier by the department and protesting at site for more payment citing the enhanced payment made to the people at present for same area of land acquired earlier in nearby village.

6. Protest made by villagers of tail end reach of canal for changing of alignment which is not finalised due to severe protest of many villages. This delayed the survey work and land acquisition and ultimately the execution of canal is delayed.

7. In construction of Barrage the construction is delayed due to late receiving of drawings from CWC, Govt. of India. Till now some of are pending with the CWC. Some of the structure site conditions are required to be inspected by Geologists and CWC technical personnel. But the visit of the CWC team is not finalised till now. Eviction of the people from Govt. land in right side of barrage is required for ensuring construction work and construction of diversion road.

Canal work (BLBC)

1. The construction of canal work is taken up from RD.0.00Km to 17.75 Km.
2. Tender process is going on for the rest stretch of Baitarani Left Bank Canal i.e. from RD.17.75 Km to 24.08Km.
3. As the land acquired are not in a continuous stretch the construction of canal is taken in different stretches according to convenient.

Baitarani Right Bank Canal

The canal construction work of Baitarani Right Bank Canal is not taken up yet as the land acquisition for the right canal has not been completed.



13/7/16

Executive Engineer
Anandapur Barrage Division
Salapada

Financial Progress (Major works)

Rupees in Lakh

Sl. No.	Name of work/ Agmt. No.	Agreement Amount/ Deviation Amount/Total amount including probable escalation	Expndr. upto 03/2015	Target for the year 2015-16	Expndr. during 03/2016	Expndr. during this year	Total Expndr. including price escal.
1	2	3	4	5	6	7	8
1	Construction of Anandapur Barrage across river Baitarani including left & right Head Regulators. Agreement No. - 05 F2 of 2008-09.	25154.44 31630.01 38122.00	26510.37	5090.00	445.34	5910.16	32420.53
2	Design, supply, fabrication, transportation, erection, commissioning and testing of gates and stop-logs with hoisting arrangements for spillways and under sluices and head regulators of Anandapur Barrage. Agmt. No. - 68F2 of 2009-10.	9447.15	6474.56	2972.59	0.00	1308.45	7783.01
3	Construction of approach road & Haul roads to the working area for the gate works of Anandapur Barrage (MOU No-1 of 2015-16)	594.14	0.00	0.00	196.06	196.06	196.06
4	Excavation & concrete lining of BLBC from RD 0.00Km to RD 9.00Km including Structures & Service Road. Agmt. No. 01F2 of 2012-13.	7923.93	1265.84	4000.00	71.54	642.73	1908.57
5	Excavation & concrete lining of BLBC from RD 9.00Km to RD 13.50Km including Structures & Service Road. Agmt. No. 107 F2 of 2013-14.	4936.60	230.81	2500.00	101.50	622.63	853.44
6	Construction of proposed Sub-Division office building at Anandapur of Anandapur Barrage Project. Agreement No 3 F2 of 2011-12.	19.52	8.08	11.44	0.00	0.00	8.08
7	Construction of one block Twin Double storied 4 nos. 'D' type Quarters (D 9 to D12) at Anandapur Barrage Colony, Salapada Agreement No 1 F2 of 2015-16.	40.56	32.10	8.46	0.00	0.00	32.10
8	Excavation & concrete lining of BLBC from RD 13.50Km to RD17.75Km excluding Structures & including of Service Road .Agmt. No02 F2 of 2015-16.	2960.26	0.00	775.00	25.44	71.85	71.85
9	Conducting Geo-technical investigation work such as exploration of differment soil parameters & calculation of SBC for the purpose of construction of BLBC (Agreement No.05 F2 of 2015-16)	20.32	0.00	20.32	13.44	13.44	13.44
	Total Expenditure:	64064.48	34489.66	15394.35	854.40	8797.42	43287.08
	Percentage of Expenditure:				5.55%	57.15%	

Physical Progress (Major Works)

1. **Name of Work:** Construction of Anandapur Barrage across river Baitarani including left & right Head Regulators. Agreement No. - 05 F2 of 2008-09.

Sl. No.	Item of work	Estimated Quantity/ Dev. Qty.	Executed upto 03/2015	Target for the year 2015-16	Executed During 03/2016	Total During this year	Upto-date Total
1	2	3	4	5	6	7	8
1	Earthwork in foundation excavation. (in th. cum)	1877.80	1568.06	309.740	7.830	180.322	1748.38
2	Hard Rock in foundation excavation. (in th. cum)	100.00	98.29	1.710	0.000	0.000	98.29
3	Medium Hard Rock in found ⁿ excavation. (in th. cum)	24.09	24.09	0.000	0.000	0.000	24.09
4	PCC M - 10 grade. (in th. cum).	55.57	34.37	21.20	1.05	5.982	40.35
5	PCC M - 15 grade. (in th. cum).	13.95	5.17	8.78	0.177	1.188	6.35
6	RCC M - 20 grade. (in th. cum).	247.17	189.68	54.49	3.454	39.53	229.22
7	RCC M - 25 grade. (in th. cum).	9.56	4.19	5.37	0.109	2.46	6.65
8	HYSR Reinforcement bars (in MT.)	23153.50	17074.67	6078.83	403.47	3389.53	20464.20

2. **Name of Work:** Excavation & cement concrete lining of Baitarani Left Bank Canal from RD 0.00Km to RD 9.00Km including Structures & Service Road. Agreement No- 1F2 of 2012-13.

Sl. No.	Item of work	Estimated Quantity/ Dev. Qty.	Executed upto 03/2015	Target for the year 2015-16	Executed During 03/2016	Total During this year	Upto-date Total
1	2	3	4	5	6	7	8
1	Earthwork in excavation/ filling. (in th. cum)	2248.75	714.35	1000.00	11.790	49.47	763.82
2	Hard Rock in excavation. (in th. cum)	21.16	0.00	10.00	0.00	0.00	0.00
3	Structures in Nos. (VRB = 11 + CD 13)	24.00	4.00	15.00	2.00	3.00	7.00
4	All grade of concrete (for structures)	32.25	5.19	20.00	0.34	3.06	8.24
5	Canal Lining in th. cum. (393.20 sqm)	51.79	4.41	35.00	0.63	1.664	6.07
6	Service Road in Km.	9.00	0.00	6.00	0.00	0.00	0.00

3. **Name of Work:** Excavation & cement concrete lining of Baitarani Left Bank Canal from RD 9.00Km to RD 13.50Km including Structures & Service Road. Agreement No- 107F2 of 2013-14.

Sl. No.	Item of work	Estimated Quantity/ Dev. Qty.	Executed upto 03/2015	Target for the year 2015-16	Executed During 03/2016	Total During this year	Upto-date Total
1	2	3	4	5	6	7	8
1	Earthwork in excavation/ filling. (in th. cum)	1739.747	137.615	21.25	37.74	27.42	165.04
2	Structures in Nos. (VRB = 05 + CD 05)	10.00	2.00	6.00	0.00	1.00	3.00
3	All grade of concrete (for structures)	12.392	1.29	7.00	0.86	5.90	7.19
4	Canal Lining in th. cum.	24.874	0.00	5.00	0.00	0.00	0.00

4. **Name of Work:** Construction of one Block Twin Double storied 4 Nos "D" type Building at Barrage Colony, Agreement No- 01F2 of 2015-16.

Sl. No.	Item of work	Estimated Quantity/ Dev. Qty.	Executed upto 03/2015	Target for the year 2015-16	Executed Durin 9 03/20 16	Total During this year	Upto-date Total
1	2	3	4	5	6	7	8
1	All grade of concrete (for structures)	155.68	0.00	100.00	20.00	162.005	162.005
2	Brick Works in Cum	311.68	0.00	250.00	11.79	278.78	278.78
3	HYSD Reinforcement bars (in Qntl.)	94.70	0.00	50.00	0.00	94.70	94.70

5. **Name of Work:** Excavation & cement concrete lining of Baitarani Left Bank Canal from RD 13.50Km to RD 17.75Km including Service Road. Agreement No- 02F2 of 2015-16.

Sl. No.	Item of work	Estimated Quantity/ Dev. Qty.	Executed upto 03/2015	Target for the year 2015-16	Executed Durin 9 03/20 16	Total During this year	Upto-date Total
1	2	3	4	5	6	7	8
1	Earthwork in excavation/ filling. (in th. cum)	837.373	0.00	837.37	47.11	133.049	133.049
2	Hard Rock in excavation. (in th. cum)	74.99	0.00	64.00	0.00	0.00	0.00
4	Canal Lining in th. cum.	20.188	0.00	1.00	0.00	0.00	0.00


13/7/16

Executive Engineer...
Solapur Barrage Division
Solapada

LIST OF WORKS UNDER RESIDENTIAL, NON-RESIDENTIAL BUILDING & OTHER WORKS FOR THE YEAR-2015-16

SL NO	NAME OF THE WORK	Tender reference	Amount allotted (In lakhs)	AGREEMENT NO	AGREEMENT AMOUNT	DATE OF COMMENCEMENT	DATE OF COMPLETION	NAME OF THE AGENCY	Amount spent upto 31.03.2016
1	Renovation of Administrative Building of Chief Construction Engineer, Anandapur Barrage Project, Salapada	Sanctioned Estimate No 104(S)/CCE dt. 27.08.2015	Rs.4,55,691.00	03F2 2015-17	Rs. 4,54,888.00	20.12.2015	18.01.2016	Saroj kumar Hota	Rs. 4,54,888.00
2	Disemantling to "E" type quarter at Anandapur Jail of Bailtarani Left Bank Canal	Sanctioned Estimate No 92(S)/CCE dt. 21.05.2015	Rs.1,17,245.00	04F2 2015-17	Rs. 1,16,019.00	20.12.2015	03.01.2016	Madhusudan Sahoo	Rs.1,16,019
3	Conducting Geo-Technical investigation work for determination of different soil parameters & calculation of Safe Bearing Capacity(SBC) for the purpose of Bailtarani Left Bank Canal	Sanctioned Estimate No 99(S)/CCE dt. 03.07.2015	Rs.23,90,200.65	05F2 2015-17	Rs. 20,31,910.00	12.01.2016	11.04.2016	Orbital Infrastructure Consultancy & Research PVT Ltd	Rs. 13,44,050.00
4	Furnishing the chamber of Chief Construction Engineer, Anandapur Barrage Project, Salapada	Sanctioned Estimate No114(S)/CCE dt. 27.11.2015	Rs. 2,37,201.00	06F2 2015-17	Rs.2,36,628.00	20.01.2016	03.02.2016	Saroj kumar Hota	Rs. 2,36,628.00
5	Installation of 250KVA transformer with L.T line to supply system for purpose of hoisting and operating the gates of Anandapur Barrage	Sanctioned Estimate No 44(S)/CCE dt. 18.11.2015	Rs.19,81,866.00	07F2 2015-17	Rs. 18,84,785.00	05.02.2016	04.04.2016	Gobardhana Sahoo	Rs.13,84,744.00
6	Renovation & maintenance of Administrative Building of Chief Construction Engineer, Anandapur Barrage Project, Salapada(Ground floor)	Sanctioned Estimate No 128(S)/CCE dt. 25.01.2016	Rs.4,40,070.00	08F2 2015-17	Rs. 4,37,813.00	01.03.2016	15.03.2016	Saroj kumar Hota	Rs. 4,37,813.00
7	Conducting Geo-Technical investigation such as Exploration/Drilling, conducting in-situ permeability test, determination of C-φ value of hydraulic conducting of Block-1 Anandapur Barrage (Part-I)	Splitup proposal approved by CCE, ABP, Salapada vide Sanctioned Estimate No 102(S)/CCE dt. 27.08.2015	Rs.49,660.00	9 F2 2015-16	Rs.49,440.00	03.03.2016	17.03.2016	M/S P.S foundation Pro. P.k Sarangi	Rs. 49,440.00

8	Conducting Geo-Technical Investigation such as Exploration/Drilling, conducting In-situ permeability test, determination of C-φ value of hydraulic conducting of Block-I Anandapur Barrage (Part-I)	Sanctioned Estimate No 102(S)/CCE dt. 27.08.2016	Rs.49,560.00	10 F2 2015-16	Rs.49,440.00	04.03.2016	18.03.2016	M/S P.S foundation Pro. P.k Sarangi	Rs. 49,440.00
9	Conducting Geo-Technical Investigation such as Exploration/Drilling, conducting In-situ permeability test, determination of C-φ value of hydraulic conducting of Block-I Anandapur Barrage (Part-II)	Sanctioned Estimate No 102(S)/CCE dt. 27.08.2016	Rs.49,560.00	11 F2 2015-16	Rs.49,440.00	08.03.2016	22.03.2016	M/S P.S foundation Pro. P.k Sarangi	Rs. 49,440.00
10	Conducting Geo-Technical Investigation such as Exploration/Drilling, conducting In-situ permeability test, determination of C-φ value of hydraulic conducting of Block-I Anandapur Barrage (Part-IV)	Sanctioned Estimate No 102(S)/CCE dt. 27.08.2016	Rs. 49,560.00	12 F2 2015-16	Rs.49,440.00	10.03.2016	24.03.2016	M/S P.S foundation Pro. P.k Sarangi	Rs. 49,440.00
11	Conducting plate load test at Block-I of Anandapur Barrage (Part-I) Conducting plate load test at Block-I of Anandapur	Splitup proposal approved by CCE, ABP, Selepada vide Sanctioned Estimate No 94(S)/CCE dt.	Rs. 44,912.00	13 F2 2015-16	Rs.44,800.00	10.03.2016	24.03.2016	Orbital Infrastructure Consultancy & Research PVT Ltd	Rs.44,800.00
12	Conducting plate load test at Block-I of Anandapur Barrage (Part-II)	Sanctioned Estimate No 94(S)/CCE dt. 30.06.2015	Rs.48,087.00	14 F2 2015-16	Rs. 45,622.00	10.03.2016	30.03.2016	Orbital Infrastructure Consultancy & Research PVT Ltd	Rs. 45,622.00
13	Conducting plate load test at Block-I of Anandapur Barrage (Part-III)	Sanctioned Estimate No 94(S)/CCE dt. 30.06.2015	Rs.47,629.00	15 F2 2015-16	Rs. 47,160.00	17.03.2016	31.03.2016	Orbital Infrastructure Consultancy & Research PVT Ltd	Rs. 47,160.00

Executive Engineer
Anandapur Barrage Division
Selepada