

GOVERNMENT OF ODISHA



DEPARTMENT OF WATER RESOURCES

ANNUAL REPORT FOR THE YEAR 2016-17

JAGATSINGHPUR IRRIGATION DIVISION

May-2017

**Executive Engineer,
Jagatsinghpur Irrigation Division.**

ANNUAL REPORT OF JSGATSINGHPUR IRRIGATION DIVISION

(A) JAGATSINGHPUR IRRIGATION DIVISION AT A GLANCE

The Jagatsinghpur Irrigation Division is geographically bound by River Devi on South, Hansua Channel on the North, Bay of Bengal on the East and River Kathajodi & Biluakhai on the West. This Division has an Ayacut of 34,870.00 Ha. The entire Ayacut comes under Machhagaon Canal System in Delta Stage-I. The Ayacut is being served by 666.605 Km. length of canal system, the details of which is furnished below.

(B) IRRIGATION POTENTIAL OF JAGATSINGHPUR DISTRICT.

Sl. No.	Name of Canal	Length of M. canal.	Length of Distributaries , Minors & Sub minors	Ayacut Area in Ha.
1	Machhagaon Main Canal & its Distributaries	52.425 Km.	614.18 Km.	34870.00

(C) The Ayacut Area in Block wise are as follows

Sl. No	Name of the Block	Certified Ayacut In Ha.	Programmed for Kharif 2015 in Ha.	Remarks
1	Cuttack Sadar	786.50	786.50	
2	Biridi	5045.64	5045.64	
3	Raghunathpur	3815.26	3815.26	
4	Jagatsinghpur	11557.65	11557.65	
5	Tirtol	2199.34	2199.34	
6	Naugaon	1216.44	1216.44	
7	Balikuda	10248.60	10248.60	
	Total	34869.43	34869.43	

This year though scanty of rainfall occurred; due to rotational water supply we have provided irrigation to all canals except some partial irrigation to nearly 520.00 Ha. Out of

34870.00 Ha. Rabi irrigation could not be provided due to renovation of Machhagaon canal under ADB funding.

(D) ESTABLISHMENT:

The staff position of the Division is attached separately.

EMBANKMENTS

Jagatsinghpur Irrigation Division is being covered by 218.98 Km. of Embankments of different classification as detailed below. The entire area is subjected to high flood and tidal surge of Bay of Bengal . A Network of drainage channels in the area being blocked during flood also cause parallel problem of water logging. Added together, flood situation in the District is one of the greatest sorrow and is being handled with due diligence on a regular basis.. The meandering action of the rivers creates frequent new situations and challenges to be addressed during current years.

Attempts have been made to propose Major restorations through mega funding schemes but still problems persist. With available annual funds, repair and restoration works are being taken up. This year with allotted funds, all repair and restoration works have been made to all embankments to face any unexpected challenges. Arrangement is being made for temporary protection measures at critical points. All sluices have also been repaired in view of flood situation.

The details River/Saline Embankments are as follows

Capital Embankment

Sl. No	Name of the Embankment	Length in K.M.	District
	Kathajodi Left Embankment from RD 7.800 Km to 14.865 Km	7.07	Jagatsinghpur
	Biluakhai left embankment from RD14.685 Km to 21.123 Km	6.438	Jagatsinghpur
	Biluakhai Right embankment from RD 00 to 13.860 Km (Sankharisahi to Nilamahahal sluice via Bagalpur)	13.86	Jagatsinghpur
	Devi left embankment from RD 00 to 10.660 Km (sankharisahi to Nilamahahal sluice via Parbatipur)	10.660	Jagatsinghpur
	C.E. 86A (Biluakhai left Embkt. from RD 21.123Km to 30.400Km.) (Nilamahahal to Mundilo)	9.28	Jagatsinghpur
	Devi Left Embankment RD 30.400 Km to 54.100 Km Km	23.700	Jagatsinghpur
	Devi left Embankment from RD 54.100 Km to 64.00 Km (Sikharaghat to Dahanikhia)	9.90	Jagatsinghpur

	Devi left Embankment from RD 64.00 Km to 74.00 Km (Dahanikhia to Muguranalha)	10	Jagatsinghpur
	Devi left Embankment from Mutunia to Dahanikhia	3.20	Puri
	Total C.E.	94.11	
Saline Embankment			
	Devi left Embankment from RD 74.00 Km to 86.874 Km (Muguranalha to Bandar)	12.874	Jagatsinghpur
	Saline embankment from Bandar to Kathagadi sluice	11.90	Jagatsinghpur
	Saline embankment from Kathagadi sluice to Balabhadrapur	11.726	Jagatsinghpur
	Basanta Saline gherry	3.00	Jagatsinghpur
	Muguranalha to Basanta	10.00	Jagatsinghpur
	Prasanpur saline gherry	4.40	Jagatsinghpur
	Total S.E.	53.90	
Other Agriculture Embankment			
	Hansua Right embankment	4.00	Jagatsinghpur
	Devi left Embankment at Talada & Tarasahi Island. (Right Arm from Suankan to Risol via Kulasahi, Talada & Edbansha)	7.50	Puri
	Devi left Embankment at Talada & Tarasahi Island. (Left Arm from Suankan to Tarasahi via Paikhala)	4.00	Jagatsinghpur
	Tuntuna left embankment from Sogal to Podana	3.00	Jagatsinghpur
	Alaka left embankment from Machhagaon to Bharioda	9.70	Jagatsinghpur
	Hansua Right Embankment from RD Purunabasanta to Badpal	26.00	Jagatsinghpur
	Rankei left embankment	2.00	Jagatsinghpur
	Rankei Right Embankment	3.00	
	Total OAE	59.20	
Temporary Relief Embankment			
	T.R. Embankment from Borikina to Sumuda	11.40	Jagatsinghpur
	Total TRE	11.40	Jagatsinghpur

ABSTRACT OF EMBANKMENT FOR JAGAT SinghPUR DISTRICT

C.E. in KM	S.E. in KM	OAE in KM	TRE in KM	Total Length in KM
90.91	53.90	51.70	11.40	207.91

ABSTRACT OF EMBANKMENT FOR PURI DISTRICT

C.E. in KM	S.E. in KM	OAE in KM	TRE in KM	
3.20	-	7.50	-	10.70

2. This Division has got allotment from various head for improvement of Canal, River Embankment and Saline Embankment. Out of these, all works have been taken up by inviting tenders and accordingly all the canals have been repaired with bed clearance and irrigation provided smoothly

In view of flood occurrence, the embankments along with sluices under the Division were repaired much earlier before flood season starts and flood fighting materials were ready, and the Division was fully prepared to face the ensuing flood.

The details of fund allocation for the year 2016-17 with up to date expenditure are mentioned as follows.

Head of Account	No of Works.	Budget Provision for 2016-17 in Lakh.	Allotment Received during 2016-17 up to Mar' 2017 in Lakh.	Expenditure up to 31st Mar'2017 in Lakh.	% achieved
Plan Head					
RIDF	8 Nos	1256.17	1256.17	1110.00	88.36
Sub-Total		1256.17	1256.17	1110.00	88.36
IRC & IS	<i>2 Nos</i>	256.00	241.00	241.00	100
Sub-Total		256.00	241.00	241.00	100
State Plan River Embankment	13 Nos	378.56	383.28	400	100
State Plan River Embankment (Flood Restoration)	6 Nos	490.00	490.00	462.67	94.42
State Plan Saline Embankment	5 Nos	100.00	107.25	107.25	100
ADB (Survey)	4 Nos	10.66	10.66	5.91	55.44
ADB(CIG)		95.83	95.83	95.83	100
ADB (WORK)	3 Nos	76.00	76.00	75.79	99.72
Sub-Total		1151.05	1163.02	1147.45	98.66
		2663.22	2660.19	2498.45	93.92
Non-Plan					
Roads & Bridges	6 Nos	97.00	97.00	97.00	100
Non-Plan Road Maintenance	7 Nos	45.00	46.00	45.00	100

<u>Non-Plan Critical</u>					
Canal Critical	71 Nos	520	510.00	510.00	100
RE Critical	16 Nos	175.00	170.00	170.00	100
SE Critical	3 Nos	50.00	50.00	50.00	100
Sub-Total:-		745.00	735.00	735.00	100
<u>Non-Plan Head.</u>					
DS-I MR		225.00	245.00	245.00	100
DS-I SR		50.00	50.00	50.00	100
DS-I (Residential Building)		18.00	20.00	20.00	100
DS-I (Non-Residential Building)		18.00	18.00	18.00	100
DS-I T&P		2.00	2.00	2.00	100
REMR		169.38	169.38	169.38	100
REMR (Residential Building)		6.00	6.00	5.90	98.33
REMR (Non-Residential Building)		6.00	6.00	6.00	100
RE T&P		1.00	1.00	1.00	100
Saline M/R		50.00	56.33	56.33	100
Saline T&P		0.50	0.50	0.50	100
Sub Total:-		545.88	574.21	574.11	100
<i>Non-Plan Grand Total:-</i>		<i>1290.88</i>	<i>1309.21</i>	<i>1309.11</i>	<i>100</i>
<i>Plan & Non-Plan Grand Total</i>		<i>3954.10</i>	<i>3969.40</i>	<i>3807.56</i>	<i>95.92</i>

Status of important works

3. STATUS OF RIDF WORKS.

(Rupees in Lakhs)

Sl. No.	Name of Work	Scheme.	Agreement Amount in Lakh.	Status of work
1	Protection to Talada Island & Tarasahi Gherry on Devi left embankment. under RIDF-XVII	RIDF-XVII Awarded to OCC	2186.36	<i>Work is in progress & likely to be completed by June-2017</i>
2	Protection to Scoured bank on Devi left embankment at Garej From R.D. 66.310 K.M. to 67.050 K.M. (Working R.D. 66.440 K.M. to 67.090 K.M.) under RIDF-XVII	RIDF-XVII Awarded to OCC	345.89	<i>Work completed</i>
3	Renovation of Spur at Daleighai of Kathajori left embankment from R.D. 7.800 K.M. to 14.600 K.M. under RIDF - XVII	RIDF-XVII Awarded to OCC	1517.59	<i>Work is in progress & likely to be completed by June-2017</i>
4	Raising & strengthening of River embankments of Devi left and Biluakhai right in 22 Mouza under RIDF - XVII	RIDF-XVII Awarded to OCC	825.24	<i>Work is in progress & likely to be completed by June-2017</i>
5	Protection to Scoured bank on Devi left embankment near village Gandakula, Salabelapur, Sribantapur, Dhanuharabellari under RIDF-XVIII	RIDF-XVII Awarded to OCC	1427.98	<i>Work completed</i>
6	Construction of spur at R.D. 3.550 K.M. on Devi left embankment at Alipada. (Protection to scoured bank on Devi left embankment from R.D. 3.340 K.M. to 4.300 K.m. by providing , lanching apron & stone revetment under RIDF - XV	RIDF-XV Awarded to OCC	717.65	<i>Work Completed</i>
7	Protection to scoured bank on Devi left embankment at Dekani near Machhagaon from RD 72.505 Km to 72.669 Km. (Working RD 72.505 Km to 72.721 Km) under RIDF-XVIII	XVIII OCC MOU	164.00	<i>Work is completed</i>
8	Renovation of 2 Nos high level spur, low level spurs, Launching and packing on Devi left embankment from RD 44.00 Km to 45.020 Km near Tumbeswar and Devidol under RIDF-XVIII	XVIII OCC MOU	665.00	<i>Work completed</i>

Due to paucity of fund, the restoration work of the vulnerable points like Daleighai, Alipada, Talada, & Tarasahi, Garej, Gandakula could not be taken up earlier, but on getting fund from RIDF, the above works have been taken up and the river meandering has been greatly reduced.

Adequate free board has been achieved and the flood has been controlled to a great extent and the people are safe from flood havoc.

The list of vulnerable points, embankment wise under Jagatsinghpur Irrigation Division for the year 2016 are as follows.

Sl. No.	River Basin	Name of River Embankment	Location of Vulnerable points	Name of District / Block / Constituency	Length	Remarks
1	2	3	4	5	6	7
1	Lower Mahanadi Basin	Kathajodi left Embankment	Daleighai	JSPur / Biridi / Tirtol	400 Mtr	The place is situated on a bend. River Sedua strikes the left bank almost at right angle though embankment is safe, it needs watch & ward during Flood.
2	-do-	Devi left Embankment	Rahamba	Cuttack / Kantapada / Niali	300 Mtr	Deep channel is close to the embankment. Damage low level spurs are to be renovated. Embankment has been raised and widened & is safe still it needs watch & ward arrangement during Flood.
3	-do-	Devi left embankment	Khalagaon (Muguranallah)	JSPur / Balikuda / Balikuda-Erasama	200 Mtr	River flowing close to the toe of the embankment.
4	-do-	-do-	Palluribanka	-do-	300 Mtr	River flowing close to the toe of the embankment & it is critically vulnerable.

5	-do-	-do-	Dhanuharbellari	-do-	145 Mtr	River flowing close to the toe of the embankment.
6	-do-	-do-	Barakolinasi	-do-	200 Mtr	River flowing close to the toe of the embankment & it is critically vulnerable.
7	-do-	-do-	Dekani	-do-	640 Mtr	Severely scoured near embankment
8	-do-	-do-	Bhandisahi	JSPur / Naugaon / JSPur	150 Mtr	Severely scoured near embankment
9	-do-	-do-	Bhandisahi	Puri / Kakatpur / Kakatpur	300 Mtr	Nose of spur damaged.
10	-do-	Hansua	Dihampur	JSPur / Balikuda / Balikuda-Erasama	400 Mtr	Severely scoured near embankment

Total length of saline embankment under Jagatsinghpur Irrigation Division is 53.90 km, out of which, improvement of Devi left saline embankment from Bandar to Kathagadi sluice of around 11.90 km is under progress and the rest saline embankment 42.00 km is left to be improved. The scope of work in the package from Bandara to Kathagadi sluice is for Raising and Strengthening of Saline embankment for a length of 11.90 km, which consists of : - 1) Bandar to Kathagadi Sluice 11.90 km 2) Number of sluices 5 Nos. The existing embankment was constructed for the protection of the villages, people and their cultivated land. The maintenance of embankment was not taken up properly. In course of time, there were several breaches and the embankment was scoured at many places, consequently intrusion of saline water frequently damaging the standing crop in the area. To solve the problem of saline intrusion, now the work of Raising and Strengthening of this embankment with reconstruction of existing sluices as per revised design and construction of new sluices have been proposed to be taken up under NCRMP.

The following works under NCRMP are in progress and the details are as follows

Sl. No.	Name of Work	Scheme.	Agreement Amount /Deviation Amout (Rs. in Lakh)	Status of work
1	Raising & Strengthening of saline Embankment Bandara to Kathagadi sluice from RD 12.874 Km to 17.380 Km (Reach-1) Package No NCRMP/OR/JSD/01(A)	NCRMP	1875.57/ 2146.39	Completed
2	Raising & Strengthening of saline Embankment Bandara to Kathagadi sluice from RD 17.380 Km to 24.774 Km (Reach-2) Package No NCRMP/OR/JSD/01(B)	NCRMP	2603.03/ 2835.15	Completed
Total			4478.60/ 4981.54	

After implementation of the project the entire project area comprising 42 numbers of villages will come under better and improved communication system, there by facilitating the administration to reach affected people during emergency for smooth evacuation and rescue operation. The problem like water logging, saline intrusion can be kept at bay. This will certainly enhance the productivity of the crop land directly and boost the economic standards of the farming community. The project will carve a niche especially for the weaker sections (SC / ST & OBC) of the society who can avail a secured occupational output from age – old practices like fishing, farming, cottage industries etc. by improved access to the market places, service centers and knowledge centers, besides many other downstream indirect benefits. Besides socio – economic benefits, the project will attract ecological and environmental endliness due to segregation of undue influence & ingress of the devastating agencies with minimal amplitude both on floral and faunal front. This will provide a better recipe for the fresh water resources of the area due to reduction of influence of saline water on the land side. Once the embankments are improved the influence of tidal surges can be minimized, saline ingress will be discouraged - there by the drinking water problem of the locality will be solved markedly. Thus in a nutshell, it is in fitness of the things to say that this project is in the nick of the time. Given the location of the area and number of people inhabiting it, the work for raising and strengthening of the embankments with sluices is a sine qua none. It will minimize the effect on loss of life and

property of the inhabitants. The benefits to the locality will be manifold directly and indirectly in socio-economic front. This will also boost better administration, surveillance, education, health, sanitation, drainage, agriculture and many more.

Further following two projects under IRC & IS scheme have been approved by state TAC and State Technical Agency and the work will be taken up very soon.

Sl. No.	Name of the work	Agreement Amount Rs in Lakh)	Status of work
1	Improvement to service road on left bank of Disty No.10 from RD 0.00 Km to 3.220 Km	271.73	Work is in progress and is likely to be completed by May-2017
2	Improvement to service road on left bank of Disty No.13 from RD 4.730 Km to 12.330 Km	428.79	Work is in progress and is likely to be completed by Jan-2018
	Total	882.64	

In the above context, it is a continuous demand of the public as well as peoples representative to construct a bypass road from College square to Purohitapur to tackle the traffic problem in Jagatsinghpur town and on completion of the project it will help a lot to avoid traffic problem. At present the work is greatly hampering due to non shifting of electric poles by the electry Department along the alignment of the road.

The road on Disty. No 13 as mentioned above needs improvement from WBM road to blacktopping road in view of rapid growth of traffic. and accordingly the work has already been started and likely to be completed by January 2018.

Additional information on future Flood Control works.

The following 9 Nos of proposals have been kept for permanent restoration of river embankment in various locations under Jagatsinghpur District and have been approved by State TAC on dt. 14/05/2015. The works will be taken up after allocation of fund.

Sl. No	Name of the work	Amount approved in TAC (Rupees in Lakh)	Remarks
1	Construction of Drainage Sluice-cum-VRB at RD 74.00 Km on Devi left embankment over Muguranalla near village Khalgaon	345.12	The civil work is already completed & the gate works will be completed by May 2018
2	Protection to scoured bank on Devi left embankment providing 4 nos. of spur near village Gandakul	794.83	To be taken up under EAP
3	Protection to scoured bank on Devi left embankment providing 3 nos. of spur near village Barakulinasi	356.04	-do-
4	Protection to scoured bank on Devi left embankment providing 5 nos. of spur near village Pauliribanka	601.88	-do-
5	Protection to scoured bank on Devi left embankment providing 3 nos. of spur near village Sribantapur	490.11	-do-
6	Protection to scoured bank on Devi left embankment providing 4 nos. of spur near village Padaruan	400.50	-do-
7	Construction of 11 nos of spurs between RD 3.300 Km to RD 4.500 Km of Devi left embankment near village Kharmanga and Alipada	878.54	-do-
8	Raising & Strengthening of Saline Embankment from Muguranalla to Balabhadrapur from RD 7.00 Km to 12.874 Km	4334.20	DPR Submitted for administrative approval
9	Raising & Strengthening of Saline Embankment from Muguranalla to Balabhadrapur from RD 24.800 Km to 36.500 Km	7223.50	DPR Submitted,
Total		15424.72	

ROAD NETWORK UNDER THIS DIVISION

Length in K.M.

Sl. No	Category	Total Length	Embankment used as road (Length)	Present condition of Road				Remarks
				Earthen	WBM	Black topped	Concrete	
1	2	3	4	5	6	7	8	9
A.	River Embankment							
1	Capital	94.11	90.96	56.945	14.253	21.762		

	Embankment							
2	Other Agricultural Embankment	59.20	18.00	12.00	3.00	3.00		
3	Saline Embankment	53.90	53.90	53.90				
4	Test Relief Embankment	11.40	11.40	9.40	2.00			
	Total:	218.61	174.26	132.245	22.253	24.762		
B.	Canal Embankment							
1.	Main Canal & its System	643.522	491.490	125.732	184.741	172.510	146507	
	Total:	643.522	491.490	125.732	181.741	172.510	16.507	

Further, following 2 nos of road projects under IRC & IS are to be posed before TAC for approval and the work will be taken up on getting fund.

Sl. No	Name of the work	Estimated Amount (Rs. in Lakh)	Constituency-	Block
1	Improvement to right bank service road of Machhagaon canal from RD 17.500 Km to 25.415 Km	900.56	Tirtol	Biridi
2	Improvement to service road on right bank of Disty No.10 from RD 9.40 Km to 14.80 Km	507.48	Tirtol	Tirtol
	Total	1408.04		

4. PANI PANCHAYAT:-

There are 75 Nos. of Pani Panchayats, 5 Nos. of Distributory Committees and 1 No. Project Committee under the Division.

Fresh Elections are to be conducted and Farmer's Organizations are to be formed for the entire 75 Pani Panchayat, 5 Nos Distributory Committee and 1 No Project Committee. During 2016-17 fresh election for 12 nosPP have been formed. Election for the rest of PPw will be formed during 2017-18.

Further, the following two stories of changes are the mile stone of the Division for achieving success.

Strategies for "Raising & Strengthening of Saline Embankment from Bandar to Kathagadi Sluice" under NCRMP: A Story of Change

General

In the recent decades, natural disasters have raised their ugly heads in spatio - temporal domain both in respect of frequency and intensity claiming heavy loss of life and property. The causes are manifold. Studies have revealed that, floods are the lone causes for one-third of the natural disasters. Coupled with this, cyclones, tsunamis, tidal surge, saline ingress have inflicted seriously on the socio-economic profile of the coastal areas. Odisha, one out of the nine coast line states in India, has a total coastal stretch of 476 km covering the districts of Ganjam, Puri, Jagatsinghpur, Kendrapara, Bhadrak and Balasore. Generally the coastal plains face the problems like beach erosion, fragility of river mouth, tidal action, saline ingress, water logging and consequent impact on ecosystem. The effect of problem gets amplified due to high population density characterizing the coastal tracks of Odisha. The super cyclone of 1999 in Odisha coast is a pointer in this direction which has prompted the authorities to take immediate measures to curb the crisis though complete elimination is beyond the clutches of human beings. These measures include both structural and non-structural components. The structural measures include raising and strengthening of the existing river embankments, construction of new embankments, renovation of existing sluices, construction of new sluices, improvement to drainage system, construction of emergency shelter centers, and construction of river training works, sea walls, dredging of river mouths and drainage channels, slope protection measures, etc. Whereas the non-structural measures, which are equally important especially in the era of advanced telecommunication, include flood forecasting, mapping, zoning, increasing mass awareness, administrative preparedness, evacuation etc. Since complete escape from the wrath and fury of these disasters is not possible because of multitude of factors, the way left is to adopt both the structural and nonstructural measures to work in tandem effectively to minimize the losses and to attenuate the amplitude of losses. The Raising & strengthening of Saline Embankment from Bandar to Kathagadi sluice for a length of 11.90 Kms plays the major role in combating the tidal surge and ingress of Saline water in to nearby villages giving protection to human life and their properties.

Location

The area in question in this assignment pertains to the raising & strengthening of existing saline embankment of Devi left embankment from Bandar to Kathagadi sluice from RD 12874m to RD 24774m measuring a total length of 11.90 km. The key plan presents the proposed portion for

raising and strengthening of saline embankment from a length of 11.90 Km. out of total 53.90 Km of Saline Embankment of Jagatsinghpur Irrigation Division. In addition to this, 6 numbers of drainage sluices in this portion have been constructed to facilitate prompt drainage. As far as geographic location is concerned, the area lies in the district of Jagatsinghpur stretching between latitudes from 19° 58' 45" N to 20° 03' 01" N and longitudes from 86° 21' 45" E to 86° 25' 14" E.

Historic Over view

Taking a glance at the history of natural events, it can be stated that the area has been marred by natural disasters like Super Cyclone of 1999, cyclonic storms originating in the Bay of Bengal and flood havocs of major rivers viz; Devi, Kathagadi, Balijori Nadi and Boitakulia Nadi. The most recent one is the Super Cyclone that occurred on 29th & 30th October 1999, the place of occurrence which is not far away from the project location. Despite that, the area has a potential for maritime activities in addition to old practice of agriculture, fishery and allied activities, but most of the people in the locality are Fishermen and they depend on river fishing to maintain their livelihood. Besides, a few depend on betel garden. The fishing actives of the Fishermen can be more developed if the embankment is raised & strengthened with good communication facility on the top of the bank for marketing their fish and betel product. Part of the work is an old saline embankment that is in existence since British period in India; and this has been maintained by the Department of Water Resources, Government of Odisha from time to time as per the requirement and availability of fund. To protect the interest of the inhabiting community, the raising and strengthening of the embankment is most essential as the existing profile was low.

Geographic Aspects

Geographically, the project area lies between latitude of 19° 58' 45" N to 20° 03' 01" N and longitude of 86° 21' 45" E and 86° 25' 14" E. This mostly covers Balikuda Block in the district of Jagatsinghpur. This embankment is protecting 42 villages of 9 Gram Panchayats having an area of affected land of 25236.43 Acres with population of 40184 and household of 6695 numbers. As far as topographic aspects are concerned, the area lies close to the Bay of Bengal. River systems viz; Devi, Kathagadi, Balijori Nadi and Boitakulia Nadi are the main drainage lines of the area. The area being situated in the deltaic stage of major river / drainage systems is of flat terrain. Balikuda is 16 Km. away from Jagatsinghpur District Head Quarter & 90 Km. away from Odisha State Capital, Bhubaneswar.

Climate

The climatic condition of the area is generally hot with high humidity during April and May & cold during December and January. The monsoon generally breaks during the month of June. The average annual normal rainfall is 1451.60 mm. In addition to monsoon rainfall, the area receives from

cyclonic storms substantially. The average temperature varies from a minimum of 11.2°C to a maximum of 42.4°C. The variation of wind speed is spectacular which assumed as high as 350 km/hour during the Super Cyclone of 1999.

Topographical Features

Rivers viz; Devi, Kathagadi, Balijori Nadi, Boitakulia Nadi and the Bay of Bengal have characterized the prominent topographic features of the location. In the project area, the general elevation of land varies from RL 0.50 mtr to RL 4.00 mtr. Flood plains, river banks, and the coastal stretch are the topographic features of the area. The Bay of Bengal is close to the project site. From the history of natural disasters visiting this area, it is observed that floods and tidal surge have played significantly. Most of the topographic features are the result of the recent geologic activity i.e., alluvial deposits.

Ground Water Scenario

The thick sedimentary pile in the coastal track contains extensive fresh aquifer zones with vast development possibilities, despite constraints of salinity hazards. This calls for a strategy of balanced groundwater development without dislocating hydrodynamic or hydro chemical balance, which may lead to sea water ingress in coastal aquifer and also declining trend of ground water level due to over-exploitation. Similarly optimal development of ground water conjunctively with surface water will ameliorate the water logging situations in canal commands, induce multiple cropping, increase irrigation intensity and agriculture production. Thus the long term exploration of ground water resources requires an in-depth understanding of the aquifer distribution and characteristics under varied hydro geomorphic and hydro geological condition in the state.

Extent of Embankment and its growth

Total length of saline embankment under Jagatsinghpur Irrigation Division is 53.90 km, out of which this project Devi left saline embankment from Bandar to Kathagadi sluice is 11.90 km and the rest saline embankment of 42.00 km is left to be improved. The scope of work in the package is for Raising and Strengthening of Saline embankment for a length of 11.90 km, which consists of : - 1) Bandar to Kathagadi Sluice 11.90 km 2) Number of sluices 6 Nos. The existing embankment was constructed for the protection of the villages, people and their cultivated land. The maintenance of embankment was not taken up properly due to paucity of fund. In course of time, there were several breaches and the embankment was scoured at many places, consequently causing intrusion of saline water frequently damaging the standing crop in the area. To solve the problem of saline intrusion, now the work of Raising and Strengthening of this embankment with reconstruction of existing sluices as per revised design and construction of new sluices have been taken up.

NCRMP

The area in question in this assignment pertains to the Raising & Strengthening of existing saline embankment of Devi left embankment from Bandar to Kathagadi sluice from RD 12874m to RD 24774m measuring a total length of 11.90 km. The key plan presents for raising and strengthening of saline embankment for a length of 11.90 Km. out of total 53.90 Km. In addition to this 6 numbers of sluices in this portion have been constructed to facilitate drainage.

Sociological Aspect

As far as sociological aspects of the area are concerned, the project area is completely in rural settlements. The occupation is marked by agriculture & pisciculture. The population consists of 19.60% of the scheduled caste and 0.17 % scheduled tribe community. The labour force is 29.86 % of the population of 2001 census. As such, though the project is in progress, the entire community are availing many benefits, especially the socially and economically backward classes. The area is inhabited by people of varying socio-economic profile, mostly by SC/ST & OBC communities whose activity relate mainly to fishing and agricultural and allied activities. Keeping the future potential for future development of port activities at paradeep and consequent socio-economic growth, this embankment has a good communication future due to the expansion of the port project. It is in fitness of things to say that, the project area is not only potential from future economic front but also socially important.

Demographic Aspects

As per the latest census data available, the total number of population to be benefited is 38418. The decadal growth of population is 45%. Keeping in view the trend of population growth, 5706 numbers of people are to be benefited in future. As regards to the structure of population in the project area, it can be stated that the male female ratio is 1 : 1 in view of 50.04% male and 49.96% female of the population of Balikuda Block i.e. total population is 1,51,279 out of which male population is 75,702 and female population is 75,577 as per census 2001.

SALINE EMBANKMENT DETAILS

In total 53.90 km length of saline embankment is there under Jagatsinghpur Irrigation Division, Jagatsinghpur. Out of this, only 11.90 km is pertinent to this assignment. This stretches from Bandar to Kathagadi sluice. The existing profile of the embankment was not upto requirement both from hydraulic and structural points of view. The level of the existing embankment was around R.L. 2.1 m, which was quite inadequate to withstand the vagaries due to observed HTL of 5.5 m. Further the profile was neither in regular shape nor motorable. There by during disasters, these areas were remained inaccessible. So the present profile, that has been raised to RL 6.00m which encompasses

a free board of 1.2 m above the observed HTL of 4.80mtr. The top width has been kept as 3.66 Mtr & side slopes of 2H : 1V. The sea side slopes have been provided with granite stone packing in gabion boxes made out of hexagonal zinc wire coated with PVC for better stability. In sea facing portion, toe wall with launching & packing have also been provided to tackle the wave action of tides. The country side slopes have been provided with turfing.

PROJECT APPRECIATION (BENEFITS)

This project envisaging raising and strengthening of 11.90 km stretch of the coastal habitation along the existing drainage system with construction of 6 numbers of sluices is a bold step to protect the interest of the coastal habitats in Balikuda Block of Jagatsinghpur District which was frequently subjected to cyclonic storm imparting consequent loss of life and property.

- (i) The existing embankments in the project area were incapable to protect the coastal habitation from the wrath and furry of the devastating agencies, especially cyclonic storm and tidal surges. During 2014-15, though the Raising & Strengthening work of the embankment was in progress, it has played an important role during cyclone-HUD HUD where in, the Saline tidal surge could not enter the cultivated land & the farmers have yielded maximum paddy production and the pisciculture has also shown maximum production.
- (ii) After implementation of the project the entire project area comprising 42 numbers of villages under 9 G.Ps have been improved with communication system, there by facilitating the administration to reach the affected people during emergency for smooth evacuation and rescue operation. The inhabitants of the area (38418 Nos) have availed the benefit of this embankment.
- (iii) The problem like water logging, saline intrusion has been kept at bay. This has certainly enhanced the productivity of the crop and the economic standards of the farming community.
- (iv) The project has carved a niche especially for the weaker sections (SC / ST & OBC) of the society who can avail a secured occupational output from age - old practices like fishing, farming, cottage industries etc. by improved access to the market places, service centers and knowledge centers. Besides socio - economic benefits, the project has attracted ecological and environmental friendliness due to segregation of undue influence & ingress of the devastating agencies with minimal amplitude both on floral and faunal front.

***Executive Engineer,
Jagatsinghpur Irrigation Division***

ESTABLISHMENT RETURNS OF GAZETTED AND NON-GAZETTED EMPLOYEES OF OFFICE OF THE EXECUTIVE ENGINEER, JAGATSingHPUR IRR. DIVISION FOR THE MONTH OF 03/2017														
Sl No	Name of the post	Post sanctioned	Post Existing	post vacant	Name of the Employees	Whether Gen/S.C./S.T.	Date of birth	Date of joining into Govt. Service	Date of joining in the Present post	Date of joining in this Divn. Office	Date of joining in the circle	Present place of posting	Date of Retirement from Govt. Service	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Head Clerk	1	-	1		VACANT								
	Senior Clerk	2	2		Sarangdhar Singh	General								
1	senior clerk				Jogendra kumar Mallick	SC	06.07.1966	18.07.1990	18.07.1990	06.06.2005		jspur	31.07.2026	
2	junior stenographer	1	1	-	Anil kumar rout	General	06.07.1974	04.06.2008	04.06.2008	04.06.2008		jspur	31.07.2034	
3	Draughts man	1	1		Abhaya Charan Nayak	General	17.11.1960	16.07.1982	16.07.1982	01.07.2015			30.11.2020	
4	Tracer	1	-	1	Vacant									
5	Junior clerk	8	7	1	Akshaya kumar mishra	General	21.02.1969	07.11.1997	07.11.1997	21.05.1998		jspur	28.02.2029	
					Chintamani Behera	SEBC	15.08.1966	20.06.1995	20.06.1995	01.09.2003		jspur	31.08.2026	
					Bijaya kumar saho	OBC	26.09.1973	12.04.1996	12.04.1996	01.03.2006		jspur	30.09.2033	
					Sudhansu sekhar Senapati	General	07.04.1970	17.06.1996	17.06.1996	25.08.1998		jspur	30.04.2030	
					Raghunath Paital	SEBC	02.06.1975	30.05.2008	30.05.2008	30.05.2008		jspur	30.06.2035	
					Niranjan Rout	General	19.04.1973	28.11.1994	28.11.1994			jspur	30.04.2033	
					Idrish Mahammad	General	09.05.1973	31.03.1999	31.03.1999	01.06.2016	31.03.1999	jspur	31.03.2033	
					VACANT									
6	Revenue clerk	1	1	-	Sisir kumar Bhuyan	General	28.01.1971	22.07.2000	22.07.2000	22.07.2000		jspur	31.01.2031	
7	patrol	4	3	1	Ramesh chandra Lenka	General	02.05.1970	14.02.1991	14.02.1991			jspur	31.05.2030	
					Santosh Kumar Pati	General	10.05.1969	01.03.1997	01.03.1997	01.03.1997		jspur	31.05.2029	
					Pradipta Kumar Sahoo	OBC	01.06.1972	05.03.1997	05.03.1997	05.03.1997		jspur	30.06.2032	
					VACANT									
8	Daffary	1	-	1	VACANT									
9	River Guard	2	1	1	VACAVT									
					Chitta ranjan Mohanty	General	15.09.1975	07.10.1996	07.10.1996	07.10.1996		jspur	30.09.2035	
10	Treasury Guard	3	-	3	VACANT									
11	Peon	11	11	-	Kishore chandra Behera	OBC	10.10.1962	19.04.1991	19.04.1991	19.04.1991		jspur	31.10.2022	
					Kartik chandra parida	General	28.05.1960	24.05.1985	11.09.1997	11.09.1997		jspur	31.05.2020	
					Akshaya kumar Biswal	General	15.08.1957	02.03.1976	04.10.1978	04.10.1978		jspur	31.08.2017	
					Ananta kumar Jena	General	10.06.1978	09.01.1998	09.01.1998	09.01.1998		jspur	30.06.2038	
					Duryadhana Pallei	OBC	18.07.1965	27.05.1992	20.03.1998	21.09.2005		jspur	31.07.2025	
					Dhirendra kumar Swain	General	19.10.1975	09.01.1998	09.01.1998	09.01.1998		jspur	31.10.2035	
					Manas Ranjan Bisoi	General	09.06.1969	19.03.1997	19.03.1997	19.03.1997		jspur	30.06.2029	
					Chakradhar Das	General	03.05.1957	23.08.1975	23.08.1975	23.08.1975		jspur	31.05.2017	

ESTABLISHMENT RETURNS OF GAZETTED AND NON-GAZETTED EMPLOYEES OF OFFICE OF THE EXECUTIVE ENGINEER, JAGATSIINGHPUR IRR. DIVISION FOR THE MONTH OF														
Sl No	Name of the post	Post sanctioned	Post Existing	post vacant	Name of the Employees	Whether Gen/s.c/s.t	Date of birth	Date of joining into govt. Service	Date of joining in the Present post	Date of joining in this Divn. Office	Date of joining in the circle	Present place of posting	Date of Retirement from Govt. Service	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Executive Engineer	1	1	-	Umakanta Mohanty	General	15.09.1962	31.05.1989	22.08.2003	06.09.2014	06.09.2014	Jspur Irr. Divn	30.09.2022	
2	Deputy Executive Engineer	1	NIL	1	Vacant									
3	Divisional Accounts officer	1	-	1	Vacant									
4	Asst. Ex. Engineer	4	4	NIL	Sangrama Keshari Nayak	General	18.02.1960	04.11.1981	26.02.2014	01.08.2013	01.08.2013	Jspur Alp. Sub-Divn	29.02.2020	
					Satyannarayana pothala	General	20.07.1963	16.06.1993	28.06.2001	26.10.2011	26.10.2011	Jspur Irr. Divn	31.07.2023	
					Dalapati Mandal	SC	20.03.1962	26.11.1982	03.11.2014	01.06.2016	03.11.2014	JSPUR BKD Sub-Division Balia	31.03.2022	
					Debabrata Mohanty	General	03.11.1957	18.09.1982	26.02.2014	12.08.2013	12.08.2013	Jspur BKD. Sub-Divn	30.11.2017	
5	Asst. Engineer	17	9	-	Akhil Chandra Barik.	SC	21.01.1962	20.07.1990	11.09.2013	01.07.2015	01.07.2015	Jspur Birabar Irr. Section	31.07.2022	Deputed to PMUJ
					Pradeep Kumar Pani	SC	02.05.1964	25.07.1987	11.09.2013	01.07.2015	01.07.2015	Jspur Irr Divn	31.05.2024	
					Gobardhan Panigrahi	General	18.03.1966	01.01.1995	15.11.2013	01.06.2015	01.07.2015	JSPUR Balia section.	11.03.2026	
					Ansar Khan	General	06.04.1962	03.12.1983	11.09.2013	25.06.2011	25.06.2011	Jspur Machhagaon Section	30.04.2022	
					Narendranath Jena	General	16.07.1964	02.11.1989	11.09.2103	30.06.2012	30.06.2012	Jspur Daleighai Section	31.07.2024	
					Kailash Chandra Nayak	General	28.02.1962	06.07.1988	01.02.2012	25.10.2010	25.10.2010	Jspur. Borikina Section	28.02.2022	
					Himansu Panda	General	07.05.1965	19.01.1998	15.11.2015	01.07.2015	01.07.2015	JSPUR. Punaga Irr. Section	31.05.2025	
					Prasant Kumar Mohanty	General	07.05.1963	14.08.1990	15.11.2015	12.07.2015	12.07.2015	JSPUR Irrn Sub-Division		
					Fakira Charan Saha	General	18.04.1965	18.04.1987	11.09.2013	05.10.2012	05.10.2012	Jspur Alp Section	30.04.2025	
6	Junior Engineer		8		Jagatri Barik.	SC	18.07.1983	23.04.2007	23.04.2007	01.07.2015	01.06.2016	JSPUR Redhua Section Balia		
					Anita Das	General	25.10.1979	08.04.2011	08.04.2011	08.04.2011	08.04.2011	Jspur Irr. Divn	31.10.2039	
					Susama Sahoo	OBC	13.05.1981	28.01.2008	28.01.2008	28.01.2008	28.01.2008	Jspur Alp. Canal Section	31.05.2041	
					Sagarika Behera	OBC	08.07.1983	07.03.2007	07.03.2007	07.03.2007	07.03.2007	Jspur Redhua Section	31.07.2043	
					Pradipta Kumar Das	SC	01.07.1981	07.04.2013	07.04.2013	07.04.2013	07.04.2013	Jspur Birabarapatana section	31.07.2041	
					Manoranjana Mohapatra	General	01.06.1969	25.04.2014	25.04.2014	25.04.2014	25.04.2014	Jspur Punanga Section	30.06.2029	
					Debiprasad Mishra	General	10.06.1971	26.12.2008	26.12.2008	01.12.2011	01.12.2011	Jspur Alanahat Section	31.08.2031	
					Anil Kumar Routray	General	14.04.1971	30.01.2008	30.01.2014	02.02.2015	30.01.2008	Jspur Nauagaon section	30.04.2031	

Executive Engineer,
Jagatsinghpur Irr. Division

UP-TO DATE VACANCY POSITION IN RESPECT OF BASE LEVEL GROUP-C AND GROUP-D POST UNDER EXECUTIVE ENGINEER, JAGATSingHPUR IRRIGATION DIVISION, REGULAR AND WAGES BESTABLISHMENT As on 31.03.2017.									
Name of the office	Vacancy position of Group-c post				Vacancy position of Group-D post				Remark
	Name of the post	Sanction strength	Men in position	vacancy	Name of the post	Sanction strength	Men in position	vacancy	
1	2	3	4	5	6	7	8	9	
Office of the Executive Engineer Jagatsinghpur IrrigationDivn	Head cleark	1	Nil	1	Dafftary	1	NIL	1	
	Senior cleark	2	2	NIL	Peon	11	11	NIL	
	J.Steno	1	1	Nil	N.W.M	1	1	NIL	
	Junior cleark	8	7	1	Treasury Guard	3	NIL	3	
	Draughtsman	1	1	NIL	River Guard	2	1	1	
	Tracer	1	Nil	1	C/k	3	2	Nil	1 No.absconded since 10 year
	Revenue cleark	1	1	Nil	W/k	4	4	Nil	
	Patrol	4	3	1					1 No.absconded since 10 year
	Total	19	15	4		25	19	5	
	Wages Establishment.								
Patrol	3	1	2	Worksarkar	5	4	1		
Amin	1	Nil	1	Mate	5	2	3		
Jeep Driver	2	Nil	2	Khalasi	95	50	45		
				Gauge Reader	3	1	2		
				N.W.M	8	3	5		
Total	6	1	5	Total	116	60	56		

Executive Engineer,
Jagatsinghpur Irr. Division