

**GOVERNMENT OF Odisha**



**DEPARTMENT OF WATER RESOURCES**

**PARLAKHEMUNDI IRRIGATION DIVISION,  
PARLAKHEMUNDI**

**ANNUAL REPORT 2016-17 OF  
PARLAKHEMUNDI IRRIGATION DIVISION,  
PARLAKHEMUNDI, GAJAPATI**

## INTRODUCTION

Paralakhemundi Irrigation Division is newly created vide DOWR Notification No. 27386 dt.02.12.2014 with its head quarter at Paralakhemundi is one of the division under jurisdiction the Superintending Engineer Southern Irrigation Circle- II Paralakhemundi. Now the division office is functioning in "E" type quarter of M.I. Division Paralakhemundi. The jurisdiction of this division vests Rayagada & Gajapati districts comprising to Vansadhara & Nagavali basin.

The site location of the new division office building has been identified in the premises of Minor Irrigation colony for an extent of 1.70 Acres of land, Government in DOWR has been pleased to accord permission for construction of the new Division Office building vide DOWR Letter No. 25116 dt.28.10.2016. Accordingly the estimate for Rs.2.65 Crores has been sanctioned and in tendering process.

This division deals with

1. Mahendranaya barrage Project at Dambapur.
2. Jalanga Barrage Project at Karadasingi
3. Maintenance of Flood banks of river Vansadhara & Nagavali basin.

This division consists of three number of Sub-Divisions such as

1. Paralakhemundi Irrigation Sub-Division with head quarter at Paralakhemundi.
2. Mahendranaya Irrigation Sub-Division with head quarter at Paralakhemundi.
3. Gunupur Irrigation Sub-Division with head quarter at Gunupur.

Detail of Flood Banks of vansadhara & Nagavali basin comprising of

1. Capital Embankment - 8.141 Km.
2. Test Relief Embankment - 90.229 Km.
3. Other Agriculture Embankment - 10.522 Km.

## **BRIEF NOTE OF MAHENDRATANAYA RIVER**

The total length of the river is about 56 km. out of which about 32 km traverses through Gajapati District from its origin up to Chapara (A.P). Then it enters into Andhra Pradesh for a length of 6 km from Chapara (AP) up to Amara (Odisha). again it enters into Odisha-Andhra Pradesh common boundary from Amara (Odisha) up to Pathapatnam (AP) downstream of Paralakhemundi town for a length of 5km. The portion of common boundary the right side bank belongs to Odisha and left side bank is A.P. The rest 13 km flows in Andhra Pradesh and joins Vansadhara at about 5 km U/S of Gotta Barrage (AP) at Gulumuru village of A.P. Naturally the Mahendratanya River plays a hide & seek with people of two states.

The river runs in steep slope of mountain area. Hence the velocity of the river is more which likely to be side erosions. The catchment area of the river basin is 1233 Sq.km.

For using Mahendratanya river water A.P. Govt was designed a off sore project with a balancing reservoir at Regalapadu (A.P). Now the construction is in full swing. The flood flow canal from Chapara on left bank of Mahendratanya to Regalupadu (AP proposed balancing reservoir) is excavated earlier except some missing links to divert the Mahendratanya river water to the off sore balancing reservoir.

Jalanga Nalla: The Jalanga nalla is the main tributary of the Mahendratanya river. It originates from hilly area of Rayagada (Gajapati). It merges at Karadasingi in Mahendratanya river where it is proposed to construct a barrage across the confluence point of Mahendratanya & Jalanga nalla at Karadasingi. The survey & investigation work was entrusted to M/S OCC Ltd.

### **IRRIGATION PROJECT ON MAHENDRATANAYA:-**

It is proposed to provide immediate irrigation facilities in Rayagada, Gosani, Gumma block of Gajapati district and to create domestic needs of Paralakhemundi town. It is proposed to construct two numbers of barrage across river Mahendratanya at Dambapur about 5 km. downstream, from its origin and 2<sup>nd</sup> is at confluence point of Mahendratanya river & Jalanga Nalla at Karadasingi (downstream of Champapur) about 7 km. downstream of Dambapur for instant utilization of water.

## **BRIEF NOTE ON NAGAVALI RIVER**

COUNTRY - INDIA

SOURCE - LAKHBAHAL

LENGTH - 256.5 KM.

DISCHARGE FOR BAY OF BENGAL- AVERAGE - 24 M<sup>3</sup>/SEC

The River nagavali also known as river Langulya is one of the main river of southern Odisha and northern Andhra Pradesh state between Rusikulya & Godavari.

**Origin & Course:-** Nagavali river rises in the eastern slopes of the eastern Ghats near Lakhabahali in the Kalahandi District of Odisha at an elevation of about 1300 m. The geographical coordinates of the river are north latitude 18.10 to 19.44 & east longitudes of 82.53 to 84.05.

The total length of the river is about 256 km. of which 161 km are in Odisha & the rest in Andhra Pradesh. The catchment area of the basin is 9510 Sqkm. Nagavali is an interstate river with 4462km<sup>2</sup> & 5048 km<sup>2</sup> river basin area located in Odisha and Andhra Pradesh respectively.

The river basin receives 1000 mm average rainfall annually. The uplands of the river basin are hilly areas with predominantly tribal population. It drains parts of khalandi, Rayagada & Koraput District of Odisha and Srikakulam, Vizianagaram district of Andhra Pradesh.

### **Irrigation Projects of A.P Govt.**

Jhanjabati project 18° 51' 49" N 83° 26' 05" E is located at Rajyalaxmipur village on Komarada mandal of Vizianagaram District. It is rubber dam and first of its kind in Andhra Pradesh and India and the biggest in Asia. It is aimed to utilize 47 MC of available water and to irrigate/stabilize a total ayacut of 24640 Ac in Vizianagaram District. It was dedicated to Nation on 1<sup>st</sup> January 2006 by CM Y.S.R. Reddy. The rubber dam was installed as a concrete plate in technical collaboration with Hydro construct of Austria. Its size would be raised or reduced with the help of water pumped into it. It was planned to fix the rubber dam to a height of 3m to store water up to 125m msl. In the reservoir without causing submerging in the Odisha side of the river. However the prior agreement between Odisha & Andhra Pradesh on the project permit to raise the max reservoir lives submerging Odisha area up to 146.30 mt.

## **BRIEF NOTE ON VANSADHARA RIVER**

COUNTRY - INDIA

SOURCE - THUAMUL RAMPUR, KALYANSINGHPUR

LENGTH - 256.5 KM.

DISCHARGE FOR BAY OF BENGAL- AVERAGE - 25 M<sup>3</sup>/SEC

River Vansadhara is an important east flowing river between Rusikulya and Godavari in Odisha and Andhra Pradesh.

The river originates in the border of Thuamul Ramapur in the Kalahandi district and Kalyansinghpur in Rayagada district of Odisha and runs for a distance of about 254 km in the state of Odisha 29 km along the boundary between Odisha & Andhra Pradesh & further 82 km in Andhra Pradesh and it joins the Bay of Bengal at Kalingapatnam Andhra Pradesh. The total catchment area of river basin is about 10830 km<sup>2</sup>.

### **Mahendranaya:-**

### **Interstate Dispute:-**

Vansadhara river basin occupies 8015 km<sup>2</sup> in Odisha and the remaining 2815 km<sup>2</sup> flows in Andhra Pradesh. The river basin receives high annual average rainfall at magnitude of 1400mm. The portion of river lying in Rayagada District of Odisha is predominantly hilly and tribal population area.

Andhra & Odisha roughly estimated that 115 thousand million cubic feet water is available for use in the river. They entered into agreement to use the available river water in 50:50 ratio.

## STATUS REPORT

### BARRAGE ACROSS RIVER MAHENDRATANAYA AT DAMBAPUR

#### Project comprises of : Mahendratanaya Barrage

- a. Construction of barrage across River Mahendratanaya at Dambapur for an ayacut of 2000 Ha. by underground pressure pipe system.
- b. Construction of barrage across Jalanga River at Karadasingi for an ayacut of about 2040 Ha.(3000 GCA)

#### Barrage across River Mahendratanaya at Dambapur :

The agreement was drawn with M/s O.C.C Ltd., vide Agt. No. 235-F2/2008-09 for an amount Rs.9,09,06,747.50 being 24.44% excess over the amount put to tender. As per the Approved Drawing 1<sup>st</sup> interim deviation statement amounting to Rs **22,28,22,060.00** with a net excess of Rs.13,19,15,313.00 being 145.11% excess over the agreement value has been approved vide Lr.No 19894 dt 26.07.2013 of DOWR. The second interim deviation amounting to Rs. 2122.08 lakhs submitted to Govt. for necessary approval.

Agt. Amount-	Rs 9,09,06,747.00
Date of commencement-	27.11.2008
Date of completion-	26.02.2010
1 <sup>st</sup> EOT Sanctioned	26.02.2013 vide Lr no 19894/26.07.2013 (Govt. of Odisha, DOWR)
2 <sup>nd</sup> E.O.T.Applied	31.05.2017

**GATE WORKS:-**M/S OCC ltd has been awarded with for the work “**design, Supply, erection, commissioning and testing of under sluice gates with hoisting arrangements, stop logs gantry crane and lifting beam for operation of stop logs of Mahendratanaya Barrage Project**” at their offer rate of Rs10,69,02,739.00 including 10% over head charges and 1% cess vide DOWR Lr. no. 927 dt.15.01.2014. Agreement has already been executed with **Agreement no. 335-P1/2013-14** of CHID & date of commencement and completion as 14.02.2014 to 13.02.2016 respectively EOT applied up-to 30-06-2017. Up to date **expenditure up to 31.03.2017 is Rs 9,17,00,000.00**. Gate ten numbers & size of Barrage gate is 8.00 mts x 3.50 mts

### Detail of command

The command area is located in Rayagada & Gosani Tahasil of Paralakhemundi Revenue Sub-Division of Gajapati District under Paralakhemundi Assembly constituency

### CCA

The design CCA of Mahendratana Barrage project left side of river Mahendratana is 2000 hector under underground pressure system.

### Jalanga Irrigation Project:-

The project is contemplated for construction of barrage across river Mahendratana near village Karadasingi (just below the confluence of river Jalanga & Mahendratana). The design CCA of the project is 2040 hector on the right side of the river Mahendratana. The survey of Jalanga barrage project has been given to M/S OCC Ltd. Vide agreement no. 01- P1-2013-14 of CHID Berhampur for an agreement amount of Rs.58, 95,945.00. including 10% overhead charges. The date of commencement & completion was 24.04.2013 to 24.04.2014 respectively. The first EOT was sanctioned up-to 31.03.2015. The survey work has been almost completed.

### Land Acquisition & Alienation of Govt Land

**HEAD WORKS-** Land Acquisition proposal for 5.463 Ac. ( 0.688 Ac. in Rayagada Mouza and 4.775 Ac. in Padmapur Mouza) of **private land** is completed. The position of land is taken for ponding area of barrage, 28.897 Ac of **Govt. land** is required for construction of approach road, staff quarters, storage of construction materials etc for the project. Out of 28.897 Ac. of Govt. land, **(11.867 Acres Revenue land + 17.032 Acres Forest land)**. The details of land schedule are annexed.

**Clearance of Forest Land.** – The forest land has been cleared by Govt of Odisha Forest and environment department letter no 5891 dt 29.03.2016. Accordingly DFO Paralakhemundi has been requested to take necessary steps for felling of trees.

**Environment clearance: -**

As the ayacut area of the Project is 1010Ha (less than 2000 Ha), the environment clearance is not required as per Lr No 3431/SEIAA dt 30.05.2015 of Member Secretary, SEIAA, BBSR. Addressed to Executive Engineer, Chikiti Irrigation Division, Berhampur.

**Barrage across River Jalanga at Champapur :**

The Tender for the work “Construction of barrage over river Jalanga near village Champapur”, was invited by the Chief Engineer & Basin Manager, RVN Basin, Berhampur vide Identification No. CE & BM, (CHID)-01/2008-09 & (CHID)-04/2008-09 under turn-key basis with date of opening 02.08.2008 and 15.12.2008 respectively. But no bids were received.

Hence the survey and investigation work is given to M/S OCC. Ltd vide Agrt No 01-p1/2013-14 of CHID, Berhampur with date of commencement and completion 24.04.2013 .and 24.04.2014.respectively. The 1<sup>st</sup> EOT is Sanctioned up to 31.03.2015 The survey work is in progress **Agrt. Amount Rs.58,95,945.00** including 10%over head charges & up-to date expenditure is **Rs.55,00,000.00**.

**Distribution System by underground pressure pipe system:-**

The work was entrusted to M/S OCC Ltd. to study feasibility & preparation of DPR. Accordingly OCC Ltd. has submitted the DPR amounting to Rs. 51.77 Crores for an ayacut of 2000 Ha (for open canal system previously it was 1010 HA) and same has been submitted to Govt. DOWR vide Chief Engineer Basin Manager, RVN Basin, Berhampur. Lr. No.1496 (WE) Dated. 28-03-2017.





Mahendratanya Barrage across river Mahendratanya at village Dambapur (Rayagada Block of Gajapati District)



Launching apron at Gudari under NABARD Assistance vide Agreement no. 58-P1/2015-16 (work in progress)



Bikrampur under NABARD Assistance vide Agreement no. 110-P1/2015-16 (work in progress)