



**GOVERNMENT OF ODISHA**

**DEPARTMENT OF WATER RESOURCES**

**ANNUAL ACTIVITY REPORT**

**FOR THE YEAR 2016-17**

**KORAPUT INVESTIGATION DIVISION, JEYPORE.**

**Executive Engineer,  
Koraput Investigation Division,  
Jeypore.**

## KORAPUT INVESTIGATION DIVISION

### Activities at a glance:-

This office is actively involved in investigating the possibility of extracting irrigation and hydropower potential of rivers and big nallahs in almost undivided koraput district. Out of this search, the following projects are emerged with techno- economical viability.

1) **NABRANGPUR IRRIGATION PROJECT**:-An irrigation project of size 15000 Ha CCA almost with no head works as the water is to be drawn from existing Indravati Reservoir through a tunnel. All surveys, TAC clearance completed, CWC compliance is almost complete. Forest Diversion Proposal is under progress.

2) **LOWER BHASKEL IRRIGATION PROJECT**:-A diversion scheme of 14000 Ha of CCA in river Bhaskel and its tributary Angi. River survey, command area survey are completed. Catchment area survey is under progress. DPR is also under progress.

3) **TURI GUNTAT IRRIGATION PROJECT**:-A diversion scheme on river Turi and Guntat interlinked for a common pond to irrigate 9135 Ha. All survey works completed. DPR submitted to CWC after TAC clearance. Stage-I forest diversion proposal is completed.

4) **GOVINDPALLI INTEGRATED PROJECT**:- A reservoir scheme on river Saptadhara and Dharmagarh is planned to irrigate about 24000 Ha of Mathili and Malkanagiri block of Malkanagiri district. The area being sensitised of LWE, careful but steady progress in investigation continues. River survey, foundation explorations are under progress.

5) **MIDDLE KOLAB MULTIPURPOSE PROJECT**:-This is a project of very high potential of irrigation- about 30,000 Ha and power potential of about 200 MW. The Survey and Investigation work is entrusted to M/S WAPCOS limited. Final stage survey is under progress. DPR will be shortly presented to CWC. Environmental clearance has been accorded by MOEF, GOI.

6) **UPPER VANSADHARA IRRIGATION PROJECT**:- A medium project is pushed to be activated in Rayagada district on Vansadhara River by an irrigation potential of 10,000 Ha CCA. The work is entrusted to M/S WAPCOS LTD. All the survey works are completed. DPR is also completed. Environmental clearance is halted due to non-submission of FDP in the offing.

7) **LOWER NAGAVALI IRRIGATION PROJECT**:-Carrying a potential of 8500 Ha on its head, this project got a green signal from CWC for activism. Surveys, DPR are completed in all respect. M/S OCC LTD. has been asked to offer rates for Environmental clearance. FDP is under progress.

8) **JHANJAVATI IRRIGATION PROJECT**:-Project feasibility study is approved. This project once cornered due to LWE activists is now given the momentum- a dream comes true for the poor and wretched people around it. It is proposed to hand over the project to M.I if the ayacut comes to be less than 2000 Ha. The investigation is in full swing.

The descriptions given above are general outline of the project at a glance. A somewhat detail information of above projects are covered in following pages.

# NAWARANGPUR IRRIGATION PROJECT.

## Project in Brief

Reservoir of Upper Indravati irrigation Project reserves water of river Indravati and its three tributaries i.e., Podagada, Kapoor and Muran. A single reservoir is built by connecting them through link channels. At present water from this reservoir is used for power generation and the power house release outlets to river Hati. A barrage across river Hati provides irrigation of about 85000 Ha in Kalahandi district. This project was completed during 1999. Since then people of Nawarangpur district are demanding for irrigation in down Stream of Indravati River claiming their riparian rights. Three nos. of temporary cross bunds built in D/s of Indravati dam by OHPC were damaged in course of time.

Since July, 2010 several preliminary data had been gathered and evaluated to assess the surplus water of Indravati reservoir that can be utilised for irrigating the uncommand area of Nawarangpur district. Several alternatives for letting out water from Indravati reservoir have been thought along with its merits and demerits. Finally a Committee headed by Engineer-in- Chief, water recourses recommended the proposal of letting out water through a tunnel. There after in review meeting on dtd 8.8.2012 chaired by Hon'ble Chief Minister, Odisha, it has been decided to accelerate the S/I works of Nawarangpur irrigation Project (D/s of Indravati Dam).

## SALIENT FEATURES

### 1. LOCATION

a.	State	Odisha
b.	District	Nawarangpur
c.	Block	Tentulikhunti
d.	Village	Deopalli
e.	River	Indravati
f.	Latitude	19°-16'20" N
g.	Longitude	82°- 49'-14" E
h.	Toposheet Reference	65-I/7, 65-I/8, 65-I/11, 65- I/12, 65- I/15, 65-I/16,
i.	Nearest Rail Head	Jeypore
j.	Nearest Airport	Visakhapatnam
k.	Distance from State Capital to Project Site	About 600 Km.

### 2. HYDROLOGY

a.	Catchment Area	Not Applicable
b.	Maximum Annual Monsoon Rainfall	1880 mm.
c.	Minimum Annual Monsoon Rainfall	776 mm.
d.	Net 75% Dependable Yield	212948 Ham
e.	Design Flood Discharge	Not Applicable
f.	Average Normal Rainfall	1527 mm.

### 3. IRRIGATION

a.	G.C.A	21500 Ha
b.	C.C.A.	15000 Ha.
c.	Percentage of C.C.A. to G.C.A.	70%
d.	Area under irrigation during Kharriff	15000Ha.
e.	Area under irrigation during Rabi	Nil
f.	Intensity of Irrigation	100 %

#### 4. SUBMERGENCE

a.	Area to be Submerged at FRL	Nil
b.	No. of villages to be submerged	Nil
c.	Length of NH to be submerged	Nil
d.	Length of MDR to be submerged	Nil
e.	Forest Area to be submerged	Nil
f.	No. of families to be affected	Nil
g.	Cultivated land to be submerged	Nil
h.	Land required for Head works	
	Private Land	15.00 Ha.
	Revenue Land	11.00Ha
	Forest Land	Nil
i.	Land required for Distribution System	
	Private Land	217.00 Ha
	Revenue Land	11.00 Ha
	Forest Land	Nil
	<b>TOTAL</b>	<b>254.73Ha</b>

#### 5. CANAL SYSTEM

a.	Left Main Canal	
	Length	52.35km
	CCA	15000 Ha

#### 6. ESTIMATED COST. (At the price level for the Year 2012-13)

a.	Cost of Head Works	Rs. 4135Lakhs
b.	Cost of Distribution System	Rs20159Lakhs
c.	Total Cost of the Project	Rs. 24294 Lakhs
d.	Cost per Hectare of Annual Irrigation	Rs1.62 Lakhs
e.	B.C.Ratio	1.921

#### PRESENT STATUS :-

An irrigation project of size 15000 Ha CCA almost with no head works as the water is to be drawn from existing Indravati Reservoir through a tunnel. All surveys, TAC clearance completed ,CWC compliance is completed. Forest Diversion Proposal is under progress.

## LOWER BHASKEL IRRIGATION PROJECT

### Project in Brief

Proposed Lower Bhaskel irrigation Project envisages construction of two diversion weirs, one near village Durkdongri across river Bhaskel and the other near village Badalma across river Angi

### SALIENT FEATURES

#### A. DIVERSION WEIR ACROSS RIVER BHASKEL

1.	District	Nawarangpur
2.	Village	Durk dongri
3.	Latitude	19 <sup>0</sup> 25' 27" N
4.	Longitude	82 <sup>0</sup> 18' 10" E
5	River	Bhaskel
6	Toposheet reference	65-I/7,I/3,I/4,I/8,I/16
7	Type	Diversion Weir
8	Catchment area	1210 sq km.
	Free catchment area	1428-333(MIP)=1095Sqkm
9	Pond Level	570m
10	Pond area	285 Ha.

#### B. DIVERSION WEIR ACROSS RIVER ANGI

1.	District	Nawarangpur
2.	Village	Badalma
3.	Latitude	19 <sup>0</sup> 24' 06"
4.	Longitude	82 <sup>0</sup> 19' 31"
5	River	Angi
6	Toposheet reference	65-I/7,I/3,I/4,I/8,I/16
7	Type	Diversion Weir
8	Catchment area	218 sq km.
	Free catchment area	1428-333(MIP)=1095Sqkm
9	Pond Level	570m
10	pond area	333 Ha.
<b>IRRIGATION</b>		
1.	G.C.A.	21258.00 Ha
2.	C.C.A.( 85% of G.C.A)	14408 Ha
3.	Blocks to be benefited	Kosagumuda, Dabugan
<b>ESTIMATED COST</b>		
		Rs.2.47 crores.

### PRESENT STATUS

A diversion scheme of 14000 Ha of CCA in river Bhaskel and its tributary Angi. Command area survey and pond area survey will be completed during the year 2017-18.

# TURI GUNTAT IRRIGATION PROJECT

## Project in Brief

Turi Guntat Irrigation Project is an integrated diversion weir scheme proposed to be constructed across river Turi and Guntat near village Chatahandi & Deula respectively in Nabarangpur Block of Nabarangpur District. The Project site is situated at about 13 Km from Nabarangpur.

It is meant for providing irrigation to the command area on right side of river Indravati which is deprived of irrigation facilities from Indravati reservoir. Considering the constant demand of people of Nabarangpur district, who were deprived of their riparian rights after construction of Indravati multipurpose project, this project has been selected for immediate implementation.

## SALIENT FEATURES

### (A) DIVERSION WEIR ACROSS RIVER TURI

#### I. LOCATION

a.	State	Odisha
b.	District	Nabarangapur
c.	Sub Division	Nabarangapur
d.	Village	Chatahandi
e.	River	Turi
f.	Latitude	19 <sup>0</sup> 16' 55" N
g.	Longitude	82 <sup>0</sup> 26' 24" E
h.	Toposheet reference.	65- 1/7 , 65- 1/8, 65- 1/10, 65-1/11, 65-1/3, 65-1/4 and 65-1/6,
i.	Nearest Railway Station	Jeypore.( Koraput)

#### II. HYDROLOGY

1.	Catchment Area	381 Sqkm
2.	Rain fall	
a.	Maximum Annual Monsoon Rainfall	1784.65mm
b.	Minimum Annual Monsoon Rainfall	874mm
c.	Average Annual Rainfall	1418mm
d.	75% Dependable annual Yield	622Ham
e.	75% Dependable annual Yield	236.95MCM
3.	Design Flood Discharge at Barrage site	2724Cumecs

#### III. PRINCIPAL LEVELS

a.	T.B.L.	568.50 m
b.	H.F.L.	566.00 m.
c.	Pond Level	563.00 m.
d.	F.S.L. of Canal	562.50m
e.	Barrage bays	558.00 m.
f.	Under Sluices	557.00 m
g.	Average B.L. of River	557.435 m.
h.	Deepest B.L.of River	556.765 m.

#### IV. SUBMERGENCE

a.	Govt Land	76.00 Ha.
b.	Private Land	80.00 Ha.
	<b>Total</b>	<b>156 Ha</b>

#### V. Barrage and Afflux Bunds

a.	Type of Barrage	Concrete
b.	Length of Barrage	136.00 m
c.	Number of Bays	7 Nos.
d.	Size of Gates	10.00m x 5.00m
e.	Number of under sluices	4 Nos.
f.	Size of under sluice gates	10.00m x 6.00m
g.	Type of Gate	Vertical

## VI. DISTRIBUTION SYSTEM

TURI MAIN CANAL		
a.	Discharge	4.49 Cumecs
b.	Length	25.60 Km
c.	C.C.A	4488 Ha

### (B) DIVERSION WEIR ACROSS RIVER GUNTANT

#### I. LOCATION

a.	State	Odisha
b.	District	Nabarangapur
c.	Sub Division	Nabarangapur
d.	Village	Deula
e.	River	Guntat
f.	Latitude	19 <sup>0</sup> 15 ' 29 " N
g.	Longitude	82 <sup>0</sup> 28 ' 22 " E
h.	Toposheet Reference	65- 1/7 , 65- 1/8, 65- 1/10, 65-1/11, 65-1/3, 65-1/4 and 65-1/6,
i.	Nearest Railway Station	Jeypore. ( Koraput)

#### II. HYDROLOGY

1.	Catchment Area	231.00 Sq.km
2.	Rain Fall.	
a.	Maximum Annual Monsoon Rainfall	1879 mm
b.	Minimum Annual Monsoon Rainfall	845 mm
c.	75% Dependable annual Yield	643.00Ham
d.	75% Dependable annual Yield	148.59MCM
e.	Average Annual Rainfall	1509 mm
3.	Design Flood Discharge at barrage site	1726Cumecs

#### III. PRINCIPAL LEVELS

a.	T.B.L.	566.50 m
b.	H.F.L.	564.50 m
c.	Pond Level	562.00 m
d.	F.S.L. of Canal	561.50m
e.	Barrage bays	557.00 m
f.	Under Sluices	556.00 m
g.	Average B.L. of River	556.210 m
h.	Deepest B.L .of River	555.775 m

#### IV. SUBMERGENCE

a.	Govt Land	82.00 Ha.
b.	Private Land	68.00 Ha.
	<b>Total</b>	150.00 Ha

#### V. Barrage and Afflux Bunds

a.	Type of barrage	Concrete
b.	Length of Barrage	98.00 m.
c.	Number of Bays	6 Nos.
d.	Size of Gates	10.00 m. x 5.00 m
e.	Number of under sluices	2 Nos.
f.	Size of under sluice gates	10.00 m. x 6.00 m.
g.	Type of Gate	Vertical

## VI. DISTRIBUTION SYSTEM.

<b>i) Guntat Main Canal</b>		
a.	Discharge	3.95 Cumecs
b.	Length	10.20 Km.
c.	C.C.A	4200 Ha.
<b>ii) Bikrampur Minor</b>		
a.	C.C.A	447 Ha.

### IRRIGATION

a.	G.C.A.	10300 Ha
b.	C.C.A.	9135 Ha
c.	Area under irrigation during Kharrif	8000 Ha
d.	Area under irrigation during Rabi	Nil
e.	Intensity of Irrigation	88%
f.	Annual irrigation	8000 Ha

### ESTIMATED COST. (At price level for the year 2008-2009)

a.	Total Cost of the Project	Rs.11920.28 Lakhs
b.	Cost per Hectare of CCA	Rs.1.30 Lakhs.
c.	B.C.Ratio	1.822

### PRESENT STATUS

The feasibility report of the project has been accepted by CWC. The DPR has also been submitted to CWC. Compliance to the 1<sup>st</sup> & 2<sup>nd</sup> observations of CWC has been made. Approval of DPR is awaited from CWC.

1. Entire Survey and preparation of DPR has been completed departmentally.
2. All land details under Unit-I & Unit-II are collected with RoR and village sheets.
3. Preparation of Forest diversion proposal is taken up by OCC Ltd.

**Remarks:** - FDP has been cleared by State Govt. & proposal sent to MoEF, New Delhi . Stage -I clearance completed. And Stage-II clearance will be taken up.



# GOVINDAPALLI IRRIGATION PROJECT

## Project in Brief

The Govindapalli integrated project is a reservoir scheme which envisages construction of two earth dams across rivers Rangapani (Saptadhara) and Garia for providing irrigation facility to drought prone areas of Malkangiri district . At present the dam on river Garia is excluded from the plan and will be included subsequently to harness the partial benefit within a short span .

## SALIENT FEATURES

### (A) SAPTADHARA DAM

#### **1. LOCATION**

(a)	State	Odisha
(b)	District	Koraput
(c)	Village	Damanguda
(d)	Tahasil	Mathili
(e)	River & Basin	Saptadhra, Kolab Basin
(f)	Latitude	18°- 36'-22" N,
(g)	Longitude	82°- 16'-20" E,
(h)	Toposheet	64-J/2, 3, 6,7, 10 & 65 F/14

#### **2. HYDROLOGY**

(a)	Catchment Area	408 Sq. Km.
(b)	Maximum Monsoon Rainfall	2611 mm
(c)	Minimum Annual Rainfall	856 mm
(d)	75% Dependable Monsoon Run-Off	24289 Ham
(e)	Design flood(100yrs.)	5980Cumecs

#### **3. RESERVOIR**

(a)	F.R.L	315 m
(b)	M.W.L	316m
(c)	D.S.L	290.00 m
(d)	Gross Storage Capacity at FRL	23699 Ham.
(e)	Live Storage Capacity at FRL	18863 Ham.
(f)	Area under Submergence	995 Ha.
(g)	Deepest B.L.	255.81m

#### **4. IRRIGATION**

(a)	G.C.A.	30000 Ha
(b)	C.C.A.	24000 Ha
(c)	Intensity of Irrigation during Khariff	90%
(d)	Intensity of Irrigation during Rabi	50%
(e)	Area under Irrigation during Khariff	18900 Ha
(f)	Area under Irrigation during Rabi	10500 Ha
(g)	Total Annual Irrigation at 135% intensity	29400 Ha

### B) GARIA DAM

#### **1. LOCATION**

(a)	State	Odisha
(b)	District	Koraput
(c)	Village	Govindapalli
(d)	Tahasil	Mathili
(e)	River & Basin	Garia, Kolab Basin
(f)	Latitude	13°- 34'-03" N,
(g)	Longitude	82°- 17'-18" E,
(h)	Toposheet	65-J/2, 3, 6,7, 10 & 65 F/14

## 2. HYDROLOGY

(a)	Catchment Area	121 Sqkm
(b)	Maximum Monsoon Rainfall	mm
(c)	Minimum Annual Rainfall	mm
(d)	75% Dependable Year Monsoon Run-Off	8750 Ham
(e)	flood(100yrs.)	1845 Cumecs

## 3. RESERVOIR

(a)	F.R.L	315 m
(b)	M.W.L	316m
(c)	D.S.L	290.00 m
(d)	Gross Storage Capacity at FRL	3978 Ham.
(e)	Dead Storage Capacity at FRL	3098 Ham.
(f)	Area under Submergence	158.25 Ha.
(g)	Deepest B.L.	+268.65m

## 4. IRRIGATION

(a)	G.C.A.	10000 Ha
(b)	C.C.A.	7500 Ha
(c)	Intensity of Irrigation during Khariff	90%
(d)	Intensity of Irrigation during Rabi	27%
(e)	Area under Irrigation during Khariff	6750 Ha
(f)	Area under Irrigation during Rabi	2025 Ha
(g)	Total Annual Irrigation at 135% intensity	8775 Ha

## PRESENT STATUS

The reservoir survey completed. The river survey & Drilling works will be taken up.

## MIDDLE KOLAB MULTIPURPOSE PROJECT

### Project in Brief

It is proposed to Construct a barrage/ dam across river Kolab at Amlabhata, about 5.00km downstream of confluence of Joura nallah with river Kolab near Dumajori village in Koraput district of Odisha State. The free catchment area intercepted at dam site in downstream side of Kolab dam will be 1590 Sqkm. A dam is proposed at village Khasigurha with FRL 540M on Kasabal & Moulijodi nallah which are small tributaries of river Kolab. A flood flow channel / Pressure conduit of length about 2.00 km. is proposed from the barrage/ dam to divert the flood water of Kolab River into the reservoir to be created due to construction of dam across kasabal & Moulijodi nallahs. Another dam is proposed on Kerajodi nallah a small tributary of river Kolab near the village Kerapadar with FRL of 528m. A link canal of length about 24 km is proposed to connect both the reservoirs to be created due to construction of dams across kasabal & Kerajodi nallahs. It is proposed to generate Hydro power at a power house proposed near village Kudukagurha as about 268m gross head will be available. Annual power generation of 1554 MU is possible with average annual output of 177 MW by installing turbines of 285MW installed capacity. After power generation the power house release will be picked up by constructing a barrage on Kerajodi Nalla Tailrace at Kudukagurha. It is proposed to create an irrigation potential of 30000 Ha in Baipariguda & Mathili blocks of Koraput & Malkangiri district respectively.

### SALIENT FEATURES

SL NO.	Description	Dam across river Kasabal & Maulijodi at Khasigurha	Dam across river Kerajodi Nalla at Kerapadar	Barrage across the river Kolab at Amlabhata	Barrage across Kerajodi Nalla Tailrace at Kudukagurha
		(A)	(B)	(C)	(D)
1.	District	Koraput	Koraput	Koraput	Malkangiri
2.	Village	Khasigurha	Kerapadar	Amlabhata	Kudukagurha
3.	River	Kasabal	Kerajodi	Kolab	Kerajodi
4.	Latitude	18° 57' 28" N	18° 45' 34" N	18° 59' 45" N	18° 44' 35" N
5.	Longitude	82° 16' 17" E	82° 10' 24" E	82° 17' 12" E	82° 08' 56" E
6.	Toposheet Reference	65 J/1, J/2, J/3, J/5, J/6, J/7			
7.	Type	Dam	Dam	Barrage	Barrage
8.	Catchment Area	1590 Sq Km			
9.	Pond Level (F.R.L )	540	528	542	260
10.	Submergence	719 Ha	550 Ha	Nil	50 Ha
11.	C.C.A	30000 Ha			
12.	Block to be benefited	Baipariguda & Mathili.			
13.	Probable Cost	1396.77 Crores			

### PRESENT STATUS

This is a project of very high potential of irrigation- about 30,000 Ha and power potential of about 200 MW. The Survey and Investigation work is entrusted to M/S WAPCOS limited. Final stage survey of 10% command area is under progress. The agency is advised to submit the DPR & compliance directly to CWC. Environmental clearance has been accorded by MOEF , GOI.

# UPPER VANSADHARA IRRIGATION PROJECT

## Project in Brief

Proposal for construction of Upper Vansadhara Irrigation Project is for exploration of water potential of river Vansadhara. River Vasandhara is a medium sized east flowing river. After exploring different alternatives, it is proposed to build an earth dam and a reservoir for providing irrigation facility to the drought prone area of Rayagada district and to remove existing regional imbalance. A suitable site has been selected considering geotechnical features to reduce submergence to the maximum possible extent.

The present proposal envisages construction of an earth dam, a gated spillway in river course and construction of two contour canals on either side of river Vansadhara to provide irrigation to a command area of 9633 Ha in Rayagada District.

The field works were completed departmentally. The works e.g. preparation of Feasibility report, DPR, EIA & EMP & R&R plan etc have been awarded to WAPCOS Ltd.

## SALIENT FEATURES

### **1. LOCATION**

(a)	State	Odisha
(b)	District	Rayagada
(c)	Village	Tovapadar
(d)	Tahasil	Muniguda
(e)	River & Basin	Vansadhara
(f)	Latitude	19° 45' N
(g)	Longitude	85° 30'E
(h)	Toposheet Reference	65-M/5, 65-M/7,65-M/9, 65M/10
(i)	Nearest Railway Station	Muniguda

### **2. HYDROLOGY**

(a)	Catchment Area	529 Sqkm
(b)	Maximum Monsoon Rainfall	1749 mm
(c)	Minimum Annual Rainfall	707 mm
(d)	Mean Annual Rainfall	1294 mm
(e)	75% Dependable Rainfall of	
	(i) Catchment	1152 mm
	(ii) Ayacut	1055 mm
(f)	Maximum Design Flood Discharge	6280 Cumecs

### **3. RESERVOIR**

(a)	Full Reservoir Level (FRL)	328 m
(b)	Dead Storage Level (DSL)	316 m
(c)	Gross Storage Capacity	10531 Ham
(d)	Dead Storage Capacity	2077 Ham
(e)	Submergence	1397.394Ha

### **4. RUNOFF at Dam Site**

(a)	At 50% Dependability	230.53 MCM
(b)	At 75% Dependability	177.38 MCM
(c)	At 90% Dependability	84.61 MCM

## 5. HEAD WORKS

(A)	<b>Main Dam</b>	
(a)	Type	Earth Dam
(b)	Average Height of Dam	37 m
(c)	Top Width of Dam	10.5 m
(d)	Slope	
	U/s	3:1
	D/s	2.5:1
(e)	Length of Earth Dam	1050 m
(f)	Top Bank Level (TBL)	331 m
(B)	<b>Spillway</b>	
(a)	Type	Chute spillway with Radial Crest gates
(b)	Length of Spillway	247.5 m
(c)	Average height of spillway	28 m
(d)	Crest level of Spillway	322 m

## 6. IRRIGATION

(a)	Gross Command Area (GCA)	14973 Ha
(b)	Culturable Command Area (CCA)	9633 Ha
(c)	Percentage of GCA to CCA	64%
(d)	Intensity of Irrigation(Khariff)	95%
(e)	Intensity of Irrigation (Rabi)	67%
(f)	Area irrigated during Khariff	9107 Ha
(g)	Area irrigated during Rabi	6427 Ha
(h)	Annual Irrigation	15534 Ha

## 7. Estimated Cost. (At price level for the year 2009-10)

(A)	<b>Unit-I Civil Works</b>	
(a)	Direct Charges	221.760 Cr.
(b)	Indirect Charges	2.24 Cr.
(c)	Total civil works	224.00 Cr.
(B)	<b>Unit-II Main canal and Branches Distribution System</b>	
(a)	Direct Charges	235.71 Cr.
(b)	Indirect Charges	2.19 Cr.
(c)	Total civil works	237.90 Cr.
(d)	Total cost of the Project	461.90 Cr.
(e)	B.C. Ratio	1.79
(f)	IRR	13.15

## PRESENT STATUS

The survey & Investigation works of the project has been assigned to WAPCOS Ltd. as cited below. The feasibility report has been accepted by CWC.

The DPR was submitted to CWC by WAPCOS Ltd for approval. The compliance to the observations made by CWC has also been submitted by WAPCOS Ltd. WAPCOS Ltd. has been requested time and again to follow up approval of DPR at CWC. TOR in Form -I submitted to SEIAA, Bhubaneswar for Environmental Clearance, Power point presentation on TOR was delivered to SECA on 6<sup>TH</sup> Feb.2017 by WAPCOS Ltd. but the clearance is postponed due to non submission of FDP .So the processing of FDP is taken on war footing basis .

The target date of completion is 24.10.2017 as per the program submitted by WAPCOS Ltd. The progress is not at par with the revised work programme furnished by WAPCOS Ltd as per review of works taken by E.I.C, P & D on dtd 19.10.2016. with an alarming consequence after which WAPCOS has sprang up into action .

# LOWER NAGAVALI IRRIGATION PROJECT

## Project in Brief

Lower Nagavali irrigation project envisages construction of a dam across river Nagavali for providing irrigation facilities to drought prone areas of Rayagada district.

The proposed command area of project in Kalyansinghpur, Kolnara & Rayagada blocks of the district completely depend upon natural rain fall which is inadequate, untimely and unevenly distributed. The project is badly necessary to improve the agricultural output & economy of the region and to mitigate the misery of people who mostly belong to Scheduled Caste & Scheduled Tribe.

## SALIENT FEATURES

### 1. LOCATION

a.	State	Odisha
b.	District	Rayagada
c.	Block	Kalyansinghpur
d.	Village	Bheja
e.	Latitude	19° 23' N
f.	Longitude	83° 21'45" E
g.	River	Nagavali
h.	Toposheet Reference	65-M/2, 65-M/3, 65M/4, 65 M/6, 65 M/7, 65M/8, 65M/10, 65M/11
i.	Nearest Rail Head	Rayagada
j.	Nearest Airport	Bhubaneswar
k.	Distance from State Capital to Project Site	About 415 Km.

### 2. HYDROLOGY

a.	Catchment Area	1176 Sq. Km.
b.	Maximum Annual Monsoon Rainfall	2098.60 mm.
c.	Minimum Annual Monsoon Rainfall	772.80 mm.
d.	Net 75% Dependable Yield	17677.46 Ham
e.	Design Flood Discharge	9196.0 Cumecs
f.	Average Normal Rainfall	1313.10 mm

### 3. RESERVOIR

a.	Gross Storage Capacity at FRL	4374.90 Ham.
b.	Live Storage Capacity	3148.90 Ham.
c.	Dead Storage Capacity	1226.00 Ham.
d.	Full Reservoir Level (FRL)	300m
e.	Dead Storage Level (DSL)	285m
f.	Top Bank Level (TBL)	303m

### 4. DAM

a.	Type of Dam	Homogeneous Rolled Earth Fill
b.	Total Length	508.00 m.
c.	Max. Height	51.49 m.
d.	Top Width of Dam	6.00 m

### 5. SPILLWAY

a.	Type	Centrally located Ogee Crested
b.	Effective Length	120.00 M.
c.	Crest Level	288.00 M.
d.	Spillway Capacity	9196.00 cumes
e.	No. of Bays	10
f.	Size of Radial Gates	14.00 m x 16.00m

## 6. IRRIGATION

a.	G.C.A	14000 Ha
b.	C.C.A.	8500 Ha.
c	Percentage of C.C.A to G.C.A	80%
d	Area under irrigation during Kharriff	7640 Ha.
e.	Area under irrigation during Rabi	4816 Ha.
f.	Intensity of Irrigation	146.54%

## 7. SUBMERGENCE

a.	Submergence Area at FRL	368.00 Ha.
b.	No. of villages to be submerged	6 Nos.
c	Length of NH to be submerged	Nil
d	Length of MDR to be submerged	Nil
e.	Forest Area to be submerged	38.00 Ha.
f.	No. of families to be affected	640
g.	Cultivated land to be submerged	232.33 Ha.
h.	Land required for Head works	
	Private Land	207.33 Ha.
	Revenue Land	122.67Ha
	Forest Land	38.00Ha
i.	Land required for Distribution System	
	Private Land	67.67 Ha
	Revenue Land	29.00 Ha
	Forest Land	76.43 Ha

## 8. CANAL SYSTEM

a.	Left Main Canal	
	Length	19.44 Km
	CCA	4930.00Ha
b.	Right Main Canal	
	Length	14.08 Km
	CCA	3570.00Ha

## 9. ESTIMATED COST. (At price level for the year2011-12)

a.	Cost of Head Works	Rs. 24089.20Lakhs
b.	Cost of Distribution System	Rs. 9633.78Lakhs
c	Total Cost of the Project	Rs. 33723.00 Lakhs
d	Cost per Hectare of Annual Irrigation	Rs. 2.71 Lakhs
e.	B.C.Ratio	1.88

## PRESENT STATUS

The works like preparation of DPR, EIA & EMP study and R&R plan had been awarded to NIT, Rourkela .

On 18.04.2013, N.I.T submitted the proposal for diversion of forestland required in area to be submerged for construction of reservoir only along with revised Terms of Reference. Forest land required for execution of canal has not been submitted. The ToR in Form-I was presented on dtd 26.12.2014 by Vision Tech consultancy at state pollution control board, BBSR. The observation made by SEIAA has been complied .

Mean while NIT ,Rourkela was ousted from preparing further work like EIA ,EMP Study and Environmental clearance etc. M/s OCC Ltd has been asked to offer rate for the above works .

# JHANJAVATI BARRAGE PROJECT

## Project in Brief

The Jhanjavati barrage Project is a Barrage Project proposed in Nagavali basin on Jhanjavati river near village Chintaguda, Narayanpatna block in Koraput District. The project envisages construction of a Barrage on Jhanjavati River having catchment area of 393 Sq.Km. this barrage will provide irrigation to 1900 Ha during Khariff period in Koraput District.

The topography of catchment area is hilly terrain bound with hillocks. The catchment is mostly covered with forest. There is no submergence at M.W.L condition. The command area is almost plain having ideal topography for contour canal system. The natural ground slope is well defined with a well-developed drainage network. Command area will be covered by flow irrigation.

The command area is mostly inhabited by poor, tribal and backward people. The socio-economic conditions of the people are miserable. After construction of the project, the agriculture sector will be developed remarkably. The green development in the vicinity will certainly uplift the socio-economic conditions of the people by providing self-employment directly or indirectly.

## SALIENT FEATURES

### 1. LOCATION

a.	State	Odisha
b.	District	Koraput
c.	Block	Narayanpatna
d.	Nearest Village	Chintaguda
e.	Latitude	18° 53'46"N
f.	Longitude	83° 12' 0.5" E
g.	River	Jhanjavati
h.	Toposheet Reference	65-M/4, 65-N/1
i.	Nearest Rail Head	Laxmipur
j.	Nearest Airport	Bhubaneswar
k.	Distance from State Capital to Project Site	About 483 Km.

### 2. HYDROLOGY

a.	Catchment Area	393 Sq. Km.
b.	Maximum Annual Monsoon Rainfall	1128 mm.
c.	Minimum Annual Monsoon Rainfall	697 mm.
d.	Net 75% Dependable Yield	4495 Ham
e.	Design Flood Discharge	4240 Cumecs

### 3. Flood

a.	Design flood at structure site	4240 Cumecs.
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### 4. Principal Levels

a.	T.B.L.	277.00 m
b.	M.W.L.	276.00 m
c.	Pond Level	275.00 m
d.	Crest Level	269.00 m
e.	Avg. Bed Level	268.00 m
f.	Min Bed Level	267.007 m



## 5. Submergence Details

a.	Submergence at M.W.L.	No submergence
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## 6. Barrage and Afflux Bunds

a.	<b>Barrage</b>	
	Latitude	18° 53'46"N
	Longitude	83° 12' 0.5" E
	Type	Concrete barrage with sloping glacis
	Length of Barrage	160.00 m
	Nos of bays	14 Nos
	Size of gates	6 m x 10 m
	Type of gates	radial
b.	Afflux Bunds	NA

## 7. Details of command

a.	G.C.A	2700 Ha
b.	C.C.A.	1900 Ha.
c	Percentage of C.C.A to G.C.A	70%
d	Area under irrigation during Kharriff	1900 Ha.
e.	Area under irrigation during Rabi	Nil
f.	Annual Irrigation	1900 Ha

## 8. Cost of project

Rs 8513.00 Lakhs

## 9. Canal system

a.	Left Main Canal	
	Discharge	2.00 Cumec.
	Length of canal	18.10 Km

## PRESENT STATUS

The feasibility report of the project has been recommended by TAC in 92th meeting held on 17.07.2017.

The 2<sup>nd</sup> revised survey and investigation estimate for the project has been sanctioned works like preparation of for an amount of Rs 53,72,000/- .

The hydrology study, River survey, Barrage Base survey, catchment Survey etc have been completed. The Command area survey, canal alignment survey and micro planning survey are under progress. Soon after finalisation of the above mentioned survey, DPR for the project will be prepared.

This project once cornered due to LWE activists is now given the momentum- a dream comes true for the poor and wretched people around it

Staff Position of Koraput Investigation Division

Staff Position (Regular Establishment) as on 21/12/2017 of Koraput Investigation Division, Jeypre.						
Group	Sl. No.	Name of post	Sanctioned strength	Man in Position	Vacantcy position	Remarks.
A	1	Executive Engineer	1	1	0	
	2	Asst, Executive Engineer	3	1	2	
	Total Group- A		4	2	2	
B	1	Asst Engineer	4	4	0	
	2	Junior Engineer	6	2	4	
	3	Head Clerk	1	0	1	
	4	Divisional Accountant	1	0	1	
	Total Group- B		12	6	6	
C	1	Draughts Man	1	0	1	
	2	Junior Steno	1	0	1	
	3	Senior Clerk	1	0	1	
	4	Junior Clerk	5	2	3	
Total Group- C		8	2	6		
D	1	Daftary	1	1	0	
	2	P e o n	7	5	2	
	3	Night watch man-cum-sweeper	1	1	0	
	Total Group- D		9	7	2	
Grand total Regular establishment			33	17	16	

Staff Position (Work charged establishment) as on 21/12/2017						
C	1	Jeep Driver	1	1	0	
D	1	Progress Recorder	2	2	0	
	2	Watch Man	3	2	1	
Total work charged establishment			6	5	1	

Executive Engineer  
Koraput Investigation Division, Jeypre

Works Allotment & Expenditure (Plan Head) as on 21/12/2017 (2017-18)						
Sl.No.	Head	Allotment received	Expenditure amount	Surrender amount	Balance	Remarks
Non-residential building						
1	Non res Bldg.	150000	0	150000	0	
Major Works						
2	789-Major Works	1200000	776739	0	423261	
3	800-Major Works	500000	478275	0	21725	
Tools & Plants (T & P )						
1	Tools & Plants	450000	265905	0	184095	
Work charged Salary						
1	Pay	625000	547869	0	77131	
2	D.A.	390000	339622	0	50378	
3	H.R.A.	9000	7146	0	1854	
4	R.C.M.	5000	0	0	5000	
5	T.A.	5000	4862	0	138	
	TOTAL=	3334000	2420418	150000	763582	
Establishment Allotment & Expenditure (non-Plan) as on 22/12/2017 (2017-18)						
Sl.No.	Head`	Allotment received	Expenditure amount	Surrender amount	Balance	Remarks
Pay & Allowances						
1	Pay	5450000	3924513	0	1525487	
2	D.A.	2950000	2871558	0	78442	
3	H.R.A.	52000	26520	0	25480	
4	O.A.	20000	16192	0	3808	
5	R.C.M.	50000	40000	0	10000	
6	T.A.	48000	17334	0	30666	
Contingencies						
1	Electricity	15000	0	0	15000	
2	Water Charges	4000	0	0	4000	
3	Telephone	20000	7887	0	12113	
4	Office contingency	40000	8621	0	31379	
Others						
1	Comp. consumables	9000	0	0	9000	
2	Spare & services	2000	0	0	2000	
3	Consulting charges	2000	0	0	2000	
4	Upgr. Of computer	5000	0	0	5000	
	TOTAL=	8667000	6912625	0	1754375	

Executive Engineer  
Koraput Investigation Division, Jeypore