



GOVERNMENT OF ODISHA

DEPARTMENT OF WATER RESOURCES

STATUS REPORT

OF

LOWER SUKTEL IRRIGATION PROJECT

DISTRICT- BOLANGIR

(For the month of June'2012)

Approved Estimated Cost Rs. 217.13 crore (At 1994 Price level)

First revised Cost Rs.1041.81 Crore (At 2009 Price level)

June'2012
Engineer,

Suktel Project,

Chief Construction

*Lower
Bolangir.*

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**- LOWER SUKTEL IRRIGATION PROJECT -
DIST. BOLANGIR, ODISHA**

SALIENT FEATURES

I. GENERAL

- | | | | |
|----|-------------------------|---|------------------------|
| 1. | State | : | Odisha |
| 2. | District | : | Bolangir |
| 3. | Sub Division | : | Bolangir |
| 4. | Village | : | Near village Magurbeda |
| 5. | River | : | Suktel |
| 6. | Basin | : | Mahanadi |
| 7. | Nearest Railway Station | : | Bolangir |

II. LOCATION

- | | | | |
|-----|------------------|---|--|
| 1. | Latitude | : | 20 ⁰ -46 ¹ -26 ¹¹ N |
| 2. | Longitude | : | 83 ⁰ -20 ¹ -51 ¹¹ E |
| 3. | Topo sheet - | | |
| (a) | Dam Axis | : | 64 P/6 |
| (b) | Catchment's area | : | 64 P/1, P/2, P/5, P/9, L/13 & L/14. |

III. HYDROLOGY

- | | | | |
|----|-------------------------|---|-----------------------|
| 1. | Catchments Area | : | 1275 sq.km.(127500ha) |
| 2. | Maximum annual rainfall | : | 1775.21 mm. |
| 3. | Minimum annual rainfall | : | 726.95 mm. |
| 4. | Mean annual rainfall | : | 1267 mm. |

IV. FLOOD

- | | | | |
|----|--------------------------------|---|--------------|
| 1. | Design flood at Dam site | : | 8540 cumecs. |
| 2. | High Flood Level (30.08.1982): | : | 185.280 m. |

V. RESERVOIR DETAILS

- | | | | |
|----|----------------------------|---|------------|
| 1. | Top Bank Level (TBL) | : | 210.00 m. |
| 2. | Maximum Water Level (MWL): | : | 206.00 m. |
| 3. | Full Reservoir Level (FRL) | : | 206.00 m. |
| 4. | Dead Storage Level (DSL) | : | 197.00 m. |
| 5. | Free Board | : | 4.00 m. |
| 6. | Deepest Bed Level | : | 176.525 m. |

VI. RESORVOIR CAPACITITES AND SUBMERGENCE-

1.	Gross Storage at F.R.L.	:	32,028 ham.
2.	Dead storage at D.S.L.	:	5,685 ham.
3.	Submergence at FRL	:	11373.37Ac or 4602.74 ha
4.	Forest land submergence	:	583 ha
5.	Private land submergence	:	10052.93 Ac or 4068.20 ha
6.	Govt. Land submergence	:	786 ha.
7.	Population to be affected	:	14,380 (4160 families) as per 1996 survey.
8.	No of villages to be affected:	:	29 (fully -15 & partly - 14)
9.	Transmission line affected	:	Nil
10.	Road communication submerged:	:	10.2 km. (2.2 Km S.H. No. 42& 8 km. Village Road)
11.	Tribal population affected	:	1222 families

VII. DAM

(a) Main Dam-

1.	Type	:	Earth Dam
2.	Length	:	1410 m. (Including Spillway)
3.	Maximum Height	:	30 m
4.	Top width of Dam	:	6 m
5.	Demand for Khariff	:	14806 ham
6.	Demand for Rabi	:	6021.95 ham.
7.	Water supply	:	1780.00 ham
8.	Total	:	22616.95 ham. or 22617 ham

(b) Spillway-

1.	Location	:	Centrally located
2.	Type	:	Ogee Type
3.	Length (Gross)	:	177 m.
4.	Number of bays	:	10 nos.
5.	Size of gates	:	15m x 9m.
6.	Crest Level of Spillway	:	197.00m.
7.	Type of gates	:	Radial
8.	Thickness of Piers	:	3.00m.

(c) Dyke-I

1.	Position	:	Right Side
2.	Type	:	Earth (Homogenous earth fill)
3.	Length	:	910 m.

- | | | | |
|----|-------------------|---|-------|
| 4. | Maximum Height | : | 16 m. |
| 5. | Top width of Dyke | : | 6 m. |
- 3-

Dyke-II

- | | | | |
|----|-------------------|---|-------------------------------|
| 1. | Position | : | Left Side |
| 2. | Type | : | Earth (Homogenous earth fill) |
| 3. | Length | : | 412 m. |
| 4. | Maximum Height | : | 3 m. |
| 5. | Top width of Dyke | : | 6 m. |

VIII. DETAILS OF COMMAND

- | | | | |
|----|------------------------------------|---|--|
| 1. | Gross Command Area (G.C.A.): | : | 33,571 ha. |
| 2. | Culturable Command Area (CCA): | : | 31,830 ha. (Irrigate 177 villages in Bolangir and 12 villages in Sonepur district) |
| 3. | C.C.A. of Right main Canal | : | 21,630 ha |
| 4. | C.C.A. of Left main Canal | : | 10,200 ha. |
| 5. | District wise CCA | : | Bolangir - { 29,841 ha |
| 6. | <u>Irrigation</u> | : | Sonepur - { 1,989 ha |
| | (a) Khariff | : | 27,055 ha. |
| | (b) Rabi | : | 13,369 ha. |
| | (c) Annual | : | 40,424 ha |
| 7. | Intensity of Irrigation | : | |
| | (a) Khariff | : | 85% |
| | (b) Rabi | : | 42% |
| | (c) Annual | : | 127% |
| 8. | Net Catchment Area of the Project: | : | 1130 Sq K.M |

IX. CANAL SYSTEM

1. LENGTH OF MAIN CANAL

A) Left Main Canal

Main Canal-10.76 Km
 Disttributary-34.50 Km(Aprox)
 Minor & Sub-Minor-119.49 Km

B) Right Main Canal

Main Canal-23.84 Km
 Disttributary-64.25 Km
 Minor & Sub-Minor-170.83 Km (Aprox)

B) HEAD DISCHARGE

LMC : 15.31 Cumecs

RMC: 25.508 Cumecs

C) C.C.A. (COMMAND)

LMC : 10.200ha
 Total : - 10,200 ha

RMC: 21,630 ha

D) BLOCK WISE C.C.A.

<u>Bolangir District</u>	<u>Left</u>	<u>Right</u>
Bolangir Block -	2,205 ha	5,226 ha
Puintala Block-	-	14,415 ha
Loisingha Block -	7,995 ha	-
<u>Sonepur District</u>		
Tarbha Block -	-	1,989 ha
<hr/>		
Total -	<u>10,200 ha</u>	<u>21,630 ha</u>
Bolangir District-	10,200 ha	19,641 ha
Sonepur District-	-	1,989 ha

E) FSL AT CANAL HEAD

LMC : 196.50m RMC : 196.50m.

F) BED WIDTH

LMC : 5.50 m RMC : 14.10 m.

G) FULL SUPPLY DEPTH

LMC : 2.50 m RMC : 2.00 m

X. COST

	<u>Original</u>	<u>Ist Revised</u>
1. Cost of Head works (Unit-I)	Rs. 16,947.71 Lakhs	88645.17 Lakhs
2. Cost of Canal System (Unit-II)	Rs. 4,765.08 Lakhs	15535.61 Lakhs
3. Total	Rs. 21,712,79 Lakhs	104180.78 Lakhs
	Say Rs. 217.13 Cr.	1041.81 Cr.
	At 1996 price level	at 2010 price level
H) Cost per Hect. Of Annual Irrigation-		Rs.4,43,322.00

XI. BENEFITS

1. Anticipated additional annual produce	:	1,03,169 Tonnes
2. Value of additional produce	:	Rs21,625 Lakhs
3. B.C. Ratio	:	1.414

STATUS REPORT OF LOWER SUKTEL IRRIGATION PROJECT BRIEF DESCRIPTION OF THE PROJECT

Lower Suktel Irrigation Project is a major irrigation scheme. It is proposed across the river Suktel, a tributary of river Tel, a major right tributary of river Mahanadi in Odisha.

The Dam site is located near village Magurbeda 20 km away from Bolangir town in Bolangir district, Odisha State, at a Latitude of 20^o-46'-26" N & Longitude of 83^o-20'-51" E. Bolangir District is predominantly a drought affected area. The distance from Bolangir town to Bhubaneswar, the state capital of Odisha is about 327 km. by road & 409 Km by Railway (Via-Sambalpur) under S.E. Railway.

Scope of the Project includes Construction of a 1410 m long and 30m. High Earthen Dam with a Spillway of 177 m. long to be located centrally across river Suktel. There are two main Canals, Right main canal taking off from right dyke having a length of 23.84 km. & the left main canal taking off from earth dam having a length of 10.76 km including the length of two nos of distributaries of about 35 kms. The total culturable command area of the Project is 31830 ha. in 189 villages in Bolangir & Sonapur District. On completion, the project will irrigate 29841 ha. in Bolangir district spreading over 177 villages of Sonapur district in 12 villages. Further this project will supply 20 Cusecs of drinking water to Bolangir town.

The project under implementation with Central loan assistance from AIBP under the long term action plan (LTAP) of K.B.K. District at an estimated cost of Rs. 217.13 Crores at 1994 Price level. C.W.C. Clearance obtained vide letter no. 16/27/96-PA (N)/273-369 dated 11.02.1997. The revised estimate of the project amounting to Rs.1041.81 Crs. has been approved by CWC (At 2009 Price Level) on 9.11.2010.

STATUS OF APPROVALS: -

(A) FOREST CLEARANCE AND COMPENSATORY AFFORESTATION.

The Proposal for diversion of Forest land for (583+55) 637.68 ha i.e. 1575.70 Ac. has been approved by Govt. of India, Ministry of Environment & Forest, vide their letter No. 8-3-/94 F. C. dtd. 6.7.98. As per the afforestation amounting to Rs. 159.26 Lakhs has been deposited to the D.F.O. (East) Bolangir.

The total requirement of land for compensatory Afforestation is 823.10 ha. i.e. 2033.03 Ac., for these activities 106.00Ac in Bolangir Tahasil, 1114.23Ac in Tusura Tahasil, 179.34Ac in Titilagarh Tahasil and 633.46Ac in Patnagarh Tahasil i.e. 2033.03Ac in Bolangir District has been muted in favour of Forest Deptt. The total Compensatory Afforestation has been initiated

in Bolangir District instead of other districts like Sundargarh as per decision of 3rd R.A.C. meeting.

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Alienation of extra area (2033.03-1575.70) 457.33Ac. (185.15ha) has been muted due to stone patches, vallies and forest growth found in patches during joint verification.

(B) NET PRESENT VALUE (N.P.V.)

For 637.68 ha of forest area diverted in respect of L.S.I.P. The N.P.V. comes to Rs. 3698.54 lakhs. The total amount has been deposited in favour of D.F.O.(East) Bolangir vide Lr. No.162 (WE) dt.19.1.2008 & Lr.No.1151 (WE) dt.7.4.08 ,Lr.No.2044(WE) dt. 15.7.08 and Lr. No.2232(WE)Dt. 30.7.08 of Executive Engineer, Lower Suktel R.R.C&B Division, Bolangir.

(C) TREE FELLING

All the papers related to tree enumeration in submerged villages i.e. Pardhiapli , Koindapali, Khuntapali, Kakhal, Kutensilet, Santelen, Chudapali, Barpita, Dhulsar, Barapudgia & Bhatapali has been handed over to D.F.O. Bolangir (East) Division & Divisional Manager, O.F.D.C for necessary felling for which joint enumeration survey has been completed. Felling work was taken up by OFDC staff, but stopped by resistance from oustees. (Due to non receipt of compensation in fruit bearing trees)

DIFFERENT CLEARANCE OF THE PROJECT.

Sl. No.	Description	Sanctioning Authority	Order No. & Date	Remarks
1.	T.A.C. Clearance	C.W.C. Govt. of India (in 66 th meeting of Advisory Committee)	16/27/96 - PA (N) 275 Dt. 28.02.1997	
2.	Environmental & forest clearance	MOE & F, GOI Stage - I Stage - II	J- 12011/38/96- IA-I Dt.4.12.1998 8-3/94-FC Dt. 10.01.2005	
3.	Investment Clearance	Planning Commission G.O.I.	1 & CAD Dt. 25.06.1999 For Rs.217.13Cr.	Investment clearance for Rs.1041.80Cr. by Planning Commission has been accepted on 16.3.2010.
4.	R &R Clearance	Ministry of Welfare G.O.I.	20011/3/97 TDB Dt. 27.11.98	
5.	Administrative Approval	W.R. Deptt. Govt. of Odisha	36614 Dt. 11.10.1999 For Rs.217.13Cr. and Administrative approval has been accorded by Govt. DOWR for Rs. 1041.81	Revised Administrative approval accorded.

			Crores vide Order No. 23558 Dt. 20.9.10	
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Land acquisition for Lower Suktel Irrigation Project, Bolangir		
A.	Full submerged villages(Private Land) for Reservoir	Area in acre
1	Pardhiapali	279.97
2	Koindapali	496.23
	Total	776.20
B	Partly submerged villages(Private Land) for Reservoir	
1	Antapali	503.67
2	Badtelenpali	426.30
3	Banchhorpali	660.27
4	Bijapati	276.39
5	Budabahal	239.10
6	Dungripali	752.22
7	Kakhal	254.42
8	Khagsabahal	438.06
9	Khuntpali	944.11
10	Kumiapali	706.70
11	Kutensilet	143.09
12	Podhmund	197.86
13	Santelenpali	247.22
14	Barpita	141.19
15	Barapudgia	269.36
16	Bhatpali	92.60
17	Bhundimuhan	296.17
18	Chudapali	481.51
19	Dhulsar	414.69
20	Dumerpita	111.72
21	Kankara	411.70
22	Kapilbahal	575.26
23	Sargadpali	18.12
24	Tabalbanji	14.81
25	Tusrabahal	128.28
26	Uchhabahal	129.54
27	Garjan	331.00
	Total A+B (776.20 Ac + 9205.36)	9981.56 Ac
C	Private land required for other purpose	
i	COLONY	
1	Magurbeda	24.01
ii	D/S DAM	
1	Pardhiapali	31.88
iii	ROAD	
1	Bandhanghor	2.57
2	MAGURBEDA	7.72
3	Pardhiapali	5.19

	Total	71.37 Ac
	GRAND TOTAL (A+B+C)	10052.93 Ac
		Or 4068.20 Ha

LAND ACQUISITION POSITION OF LOWER SUKTEL PROJECT, BOLANGIR

A. Reservoir - Total Village affected - 29 nos.

Out of this 2 nos village fully submerged i.e. Pardhiapali & Koindapali.

B. Dame site Colony at village Magurbeda 31.73 Ac in 5 land cases.

C. Approach Road 2.57 Ac of village Bandhanghore in 2 land cases.

D. LOWER SUKTEL RIGHT MAIN CANAL UP TO 23.84 KM.

1.

Description of land	Total land required	Requisition field	Possession received	Balance
Govt. Land	12.66 Ha	12.66 Ha	Nil	-
Forest Land	23.25 Ha	Alienation proposal submitted	Nil	-
Pvt. Agriculture Land	153.65 Ha	79.73 Ha	Nil	69.01 Ha

2. Private land 376.14 Ha 19 L.A. cases of 17 villages. Till yet no land handed to R.O.

3. Length of distribution system of Right main Canal.

Main Canal - 23.84 Km

Distributary - 64.25 Km

Minor & Sub Minor - 170.83 Km

Total Land required for distribution system - 1051.00 Ac.

Requisition filed - 197.07 Ac in 10 cases.

Balance to be filed by R.O. - 170.55 Ac in 6 cases.

Declaration 4(1) notice - 4 nos cases.

Declaration 6(1) notice - 3 nos cases.

Ongoing structural works:-

Agt. No. 1F₂, 2F₂, 3F₂ of 2010-11 = 3 Nos

Agt. Value for 3 Nos work = Rs.105.74 Lakhs

Cumulative Targeted execute up to 3/12- Rs. 26.61 Lakhs

Cumulative Executed value up to this month- Rs. 14.82 Lakhs

Executed during the month: - Rs. Nil

Agreement No. 3 F₂/2011-12 has not been closed as the blasting area licence could not obtained by the agency.

Socio-Economic & Cultural Survey

The institute for Socio Economic Development, Bhubaneswar has signed agreement for taking up the Socio-Economic of 29 villages under Lower Suktel Irrigation Project, Bolangir on 15.7.09 and to complete by 15.3.10. The institute has so far completed Socio-Economic survey in respect of thirteen nos of villages:- 1) Kakhal, 2) Kutensilet, 3) Satelenpali, 4) Khagsabahal, 5) Pardhiapali, 6) Koindapali, 7) Chudapali, 8) Khuntpali, 9) Barapudugia, 10) Podhmund, 11) Dhulusar, 12) Barpita, 13) Kankara. The D.F/ A.F. list and entitlement matrix of all these villages have been published in the respective villages inviting objection if any. The objections are being complied and R & R Action Plan of each village will be prepared by 20.10.10 and will be placed in the next RPDAC for approval.

The Socio-Economic survey work is under progress in village- Badtelenpali.

Due to various problems in the field & non-co-operation by the villagers the survey is interrupted & delayed for which extension of time has been allowed upto 15.9.10 on request.

Status of resettlement and rehabilitation

Joint verification and enumeration of DF

Joint verification and enumeration of DF was done in 1997 in respect of 25 villages and 4160 DF identified. Subsequent enumeration conducted during 2002 to 2004 in 14 villages and identified 4162 DF. Now the approximate no. DF is calculated to be 9212 in all the 29 villages. Out of this S.T. 2350 and others 6862.

The lists of Displaced Family and Affected Family in respect 5 villages i.e. Pardhiapali, Koindapali, Khutapali Kakhal and Bandhanghore have been approved by RPDAC. and RA estimate in respect of 4 villages i.e. Pardhiapali, Koindapali, Khuntpali & Kakhal have been sanctioned. The table will show in detail:-

Name of the village	Pardhiapali		Khuntpali		Koindapali		Kakhal		Bandhanghore	
	DF	AF	DF	AF	DF	AF	DF	AF	DF	AF
Scheduled Tribe	23	3	78	0	90	18	58	0	0	0
Scheduled Caste	60	3	66	0	222	11	42	0	0	0
General	144	34	447	66	123	40	138	0	26	41
Total	227	40	591	66	435	69	238	0	26	41
Handicapped	10	0	7	0	13	0	5	0	0	0
Orphan	0	0	2	0	2	0	0	0	0	0
Widow	22	5	62	5	23	7	15	0	1	1
Divorcee	0	0	3	0	3	0	4	0	0	0
Above 18 years age.	189	35	510	61	381	56	211	0	25	40
Above 30 years unmarried daughter	6	0	7	0	13	6	3	0	0	0

R&R Sanction

Sl No.	Name of Village	No Of DF for Sanction	No of AF more than 75% lose	No of DF already Sanctioned	Estimated amount for Sanction DF & AF	Sanctioned amount for DF at 2006 ORR Policy	Already Sanctioned Amount for DF at 1996 ORR Policy
1	Pardhiapali	223	125	195	16,13,29,000/-	9,37,89,000/-	24,53,000,00/-
2	Koindapali	364	164	327	25,16,39,400/-	16,01,96,400/-	
3	Kutensilet	179	34	105	10,52,49,000/-	5,29,83,000/-	-
4	Kakhal	210	60	156	12,99,07,600/-	7,68,49,600/-	8,19,52,000/-
5	Khuntapali	539	87	523	28,28,62,400/-	-	20,50,28,000/-
Total		1515	470	1306	93,09,87,400/-	38,38,18,000/-	53,22,80,000/-

Identification of land for Resettlement purpose

The R & R colony is being developed at the following villages.

Sl.No.	Name of the village.	Area identified in Ac.	Area of possession taken in Ac.	No.of families to be accommodated.
1.	Larkipali & Sadeipali	177.657	139.70	850
2.	Khujenpali	86.62	86.62	453
3.	Haradatal	17.00	-	80
4	Dudukasira	95.34	-	800

The Executive Engineer, L.S., R.R.C. & B. has constructed school building, Anganwadi centre, community centre and a over head tank for providing drinking water facilities. Connectivity roads have been developed. The Executive Engineer, LS RRC & B will take up further development works in the colony after allotment of land and dwelling of D.Fs in the R & R colony.

Constitution of committee for allotment of Govt.land

As per the resolution of the meeting on 8.10.09 held under the Chairmanship of Collector, Bolangir, a committee has been constituted headed by of the A.D.M., Bolangir for allotment of Govt. land for homestead purpose & other R.& R. matters.

The committee met on 3.12.09 and visited the proposed R.& R. colony at Khujenpali, Larkipali & Sadeipali. The committee will further decide on modalities of allotting house site to the D.Fs. after disbursement of RA. Again the meeting will be convened shortly.

R & R PLANNING

Options from Displaced families of village Pardhiapali, Koindapali, Kakhal, Khutapali & Bandhanghore for resettlement have been obtained and planned for resettlement as per the following manner.

Name of Village	No. of options	Place of Resettlement.			
		Khujenpali	Dudukasira	Larkipali	Own arrangement
Khutapali	591	--	--	591	--
Pardhiapali	227	--	--	203	24
Koindapali	435	244	107	39	45
Kakhal	238	33	--	3	202
Bandhanghore	26	--	--	--	26
Total	1517	277	107	836	297

After completion of Socio-Economic & cultural survey and approval of RPDAC as well as sanctioned by the DOWR, R& R action plan will be implemented.

R.P.D.A.C.:

The 1st RPDAC meeting was held on 17.12.2007. Thereafter no meeting has been convened. After the General Election- 2009 the proposal for re-constitution of RPDAC as recommended by R.D.C. (ND) Sambalpur has been approved by Government, Revenue & Disaster Manager vide notification order No. 25282/ R & DM Dt. 26.6.2010. It is learnt that the RPDAC for Lower Suktel Project is to be re-constituted with the revised list of members. Collector Bolangir has written R.D.C. (N.D) Sambalpur in this regard vide his Lr. No. 1477 Dt. 20.11.2010.

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