

SUBERNAREKHA IRRIGATION PROJECT

Location		
1	Dam site	In Mayurbhanga, Balasore District.
2	Latitude	21 ⁰ -30' to 22 ⁰ -18' N
3	Longitude	86 ⁰ -35' to 87 ⁰ -15' E
4	Topo sheet	73(J/11, J/12, J/16, K/9, K/13, K/14, N/4, O/1 and O/2)
5	Nearest Railway station	Balasore
6	River	Subernarekha
7	Ayacut Boundary	Ayacut is bounded by Orissa-Bihar & Orissa-West Bengal border on North River Budhabalanga on South-West.
Hydrology		
	<u>Subernarekha Catchment area</u>	
	(a) At out fall to Sea	18,951 Sqkm.
	(b) In Co-Basin States (i) Orissa (ii) West Bengal (iii) Bihar	3201 Sqkm. 2160 Sqkm. 13590 Sqkm.
1	(c) Orissa Catchment in (i) Kharkhai Basin (ii) Balance catchment down stream	1554 Sqkm. 1647 Sqkm.
	(d) Catchment area at Kokpara	14320 Sqkm.
	(e) Catchment area at Kokpara	13629 Sqkm.
	(f) Catchment area at Ichha Dam	2850 Sqkm.
	(g) Free Catchment area at Galudih after Construction of Chandilb and Ichha Dam.	5133 Sqkm.
2	75% dependable yield at kokpara	5551 Mcbm.
3	Share of Co-basin states at Kokpara as per TPA 1978	5554 Mcbm.
4	Share of Co-basin states at Galudih on the basis of TPA	5283 Mcbm.

Reservoir		
1	<u>Catchment Area</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	55.0 SqKm. 76.5 SqKm. 47.0 Sq.Km.
2	<u>Dead storage capacity</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	212.0 Ham. 190.5 Ham. 190.0 Ham.
3	<u>Live storage capacity</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	4588 Ham. 21410 Ham. 25971 Ham.
4	<u>Gross storage capacity</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	4800 Ham. 21600 Ham. 26161 Ham.
5	<u>W.S area at M.W.L</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	968 Ha. 2928 Ha. 2759 Ha.
6	<u>W.S area at F.R.L</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	640 Ha. 2600 Ha. 2525 Ha.
7	<u>Dead Storage Level</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	R.L.64.28 M. R.L.57.90 M. R.L.48.03 M.
8	<u>Full Reservoir Level</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	R.L.74.30 M. R.L.76.60 M. R.L.72.60 M.
9	<u>Maximum Water Level</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	R.L.75.80 M. R.L.78.10 M. R.L.74.10 M.

10	<u>Top Bank Level</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	R.L.78.30 M. R.L.80.60 M. R.L.76.60 M.
11	<u>Peak Design Flood</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	1064.2 Cumec. 1457.8 Cumec. 893.6 Cumec.
Main Dam		
1	<u>Type</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	Rolled filled Earth Dam Rolled filled Earth Dam Rolled filled Earth Dam
2	<u>Length of Dam</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	3.52 Km. 7.36 Km. 9.95 Km.
3	<u>Maximum Height of Dam</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	23.10 M. 30.40 M. 38.00 M.
4	<u>Average Height of Dam</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	9.80 M. 11.80 M. 12.60 M.
Spillway		
1	<u>Type</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	Ungated chute spillway Ungated chute spillway Ungated chute spillway
2	<u>Length of Spillway</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	170 M. 35 M. 15 M.

3	<u>Discharge through Spillway</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	182 Cumec. 113 Cumec. 32 Cumec.
4	<u>River</u> (i) Haldia Reservoir (ii) Jambhira Reservoir (iii) Bauranalla Reservoir	Chipat Nallah Jambhira Reservoir Bauranalla
Distribution system		
1	GCA	1,70,263 Ha.
2	CCA	1,21,808 Ha.
3	Net CCA	1,09,627 Ha.
4	Kharif Intensity	92%
5	Rabi Intensity	64%
6	Rabi Summer Intensity	12%
7	Perennials Intensity	3%
8	Total Annual Intensity	171%
9	Kharif Area	1,00,857 Ha.
10	Rabi Area	70,161 Ha.
11	Rabi Summer Area	13,155 Ha.
12	Perennials Area	3,289 Ha,
13	Annual Irrigated Area	1,87,462 Ha.
14	<u>Subernarekha Main canal Ex. GRBC</u> (i) Length (ii) Designed discharge (iii) GCA (iv) CCA	46.50 Km. 118.50 Cumec. 10630 Ha. 6938 Ha.
15	<u>Betnoti Branch canal Ex. SMC</u> (i) Length (ii) Designed discharge (iii) GCA (iv) CCA	27.485 Km. 60.0 Cumec. 46146 Ha. 22836 Ha.
16	<u>Subernarekha Branch canal Ex. SMC</u> (i) Length (ii) Designed discharge (iii) GCA (iv) CCA	20.21 Km. 11.0 Cumec. 14324 Ha. 7339 Ha.
17	<u>Haldia Right Main canal</u> (i) Length (ii) Designed discharge (iii) GCA (iv) CCA	8.19 Km. 3.73 Cumec. 5432 Ha. 3950 Ha.

18	<u>Palbani Main canal (Left)</u> (i) Length (ii) Designed discharge (iii) GCA (iv) CCA	6.75 Km. 1.50 Cumec. 2158 Ha. 1570 Ha.
19	<u>Jambhira Right Main canal</u> (i) Length (ii) Designed discharge (iii) GCA (iv) CCA	19.01 Km. 3.805 Cumec. 4831 Ha. 3530 Ha.
20	<u>Jambhira Left Main canal</u> (i) Length (ii) Designed discharge (iii) GCA (iv) CCA	75.51 Km. 27.0 Cumec. 42585 Ha. 31109 Ha.
21	<u>Baisinga Main canal</u> (i) Length (ii) Designed discharge (iii) GCA (iv) CCA	58.56 Km. 27.50 Cumec. 44157 Ha. 32355 Ha.