

RET IRRIGATION PROJECT

Location		
1	Dam site	Near village Kutingpadar in Bhawanipatna sub-divn. of Kalahandi Dist.
2	Latitude	19 ⁰ -56'-08" N
3	Longitude	83 ⁰ -18'-42" E
4	Topo Sheet	65M/1,65M/5,64P/3 &64P/4
5	River	Ret
Hydrology		
1	Catchment area	262 Sqkm.
2	Mean monsoon rainfall	1198.74 mm.
3	Minimum monsoon rainfall	657.85 mm.
4	Maximum monsoon rainfall	2178.10 mm.
5	75% dependable rainfall	863.33 mm
6	75% dependable runoff	7610.30 Ham.
7	Maximum flood discharge	2620 Cumec.
Reservoir		
1	Gross storage capacity at FRL	6776.50 Ham.
2	Dead storage capacity	900 Ham.
3	Live storage capacity	5964.47 Ham.
4	Full Reservoir Level	R.L.305.00 M.
5	Maximum Water Level	R.L.305.00 M.
6	Dead Storage Level	R.L.287.40 M.
7	Submerged area at FRL	587 Ha.
8	T.B.L	R.L.308.00 M.
9	Submerged area at DSL	175.47 Ha.
10	Forest land submerged	142 Ha.
11	Agriculture land submerged	220 Ha.
12	No. of village affected	6 Nos. of village-Fully 7 Nos. of village-Partly
13	No. of families effected (a) S.T (b) S.C (c) General	129 Nos. 50 Nos. 68 Nos.

14	Population Effected	794 Nos.
Main Dam		
1	Type	Homogeneous Earth fill
2	Length of Dam	880 M.
3	Maximum Height of Dam	36.40 M.
4	Top width of Dam	5.75 M.
5	Deepest Bed Level	R.L.271.60 M.
6	U/S Slope D/S Slope	3:1 2.5:1
7	U/S Berm D/S Berm	6 M. 3 M.
Spillway		
1	Location	Central Ogee type
2	Type	Radial
3	Length of Spillway	87 M.
4	Crest Level of Spillway	R.L. 297.00 M.
5	Size & No. of gates	12.0 M x 6.0 M & 6Nos.
Distribution system		
1	GCA	14167 Ha.
2	CCA	8500 Ha.
3	Percentage of CCA to GCA	60%
4	Area irrigated during Kharif	7225 Ha.
5	Area irrigated during Rabi	2550 Ha.
6	Annual Irrigation	9775 Ha.
7	Intensity of Irrigation during Kharif	85%
8	Intensity of Irrigation during Rabi	30%
9	Annual Intensity of Irrigation	115%
10	Utilization Factor	65.98%
11	Length of Left Main Canal	17.51 Km.
12	Length of Right Main Canal	11.90 Km.
13	Capacity of Left Main Canal	5.66 Cumec.
14	Capacity of Right Main Canal	3.54 Cumec.
15	Left Ayacut/ Villages Irrigated	4890 Ha./ 46 villages.
16	Right Ayacut/ Villages Irrigated	3610 Ha./ 37 villages.

Estimated cost		
1	Cost of Head Works	Rs.6371.09 Lakh.
2	Cost of distribution system	Rs.2217.73 Lakh.
3	Provision for Civil works of Power House	Rs.25.00 Lakh.
4	Total estimated Cost of the project	Rs.8614.00 Lakh.
5	Cost per ha of annual irrigation	Rs.88,123.00
6	BC Ratio	1.68
7	Internal Rate of Return	17.76