

## KANUPUR IRRIGATION PROJECT

<b>Location</b>		
1	Dam site	Near village Basudevpur of Champua Sub-divn. of Keonjhar District. of state Orissa.
2	Latitude	22 <sup>0</sup> -02'-03" N
3	Longitude	85 <sup>0</sup> -30'-47" E
4	River	Baitarani
5	Nearest Railway station	Deojhar
<b>Hydrology</b>		
1	Catchment area	1525 Sqkm.
2	Mean monsoon rainfall	1343.84 mm.
3	Maximum monsoon rainfall	2132.70 mm.
4	75% dependable rainfall	1087.50 mm.
5	75% dependable Annual yield	449.92 MCM.
6	Runoff Factor	38.76%
7	Design Flood discharge	14450 Cumec.
<b>Reservoir Capacity &amp; Submergence</b>		
1	Gross storage capacity at F.R.L	331.02 MCM.
2	Dead storage capacity at D.S.L	62.05 MCM.
3	Live storage capacity	268.97 MCM.
4	Full Reservoir Level	R.L. 440.00 M.
5	Maximum Water Level	R.L. 440.00 M.
6	Dead Storage Level	R.L. 425.00 M.
7	Submerged area at F.R.L	2600.00 Ha.
8	Free Board	3.50 M.
9	Top Bank level	R.L. 443.50 M.
10	Deepest bed level	RL 404.00 M.
11	Forest Land submerged	171.404 Ha.
12	Cultivated Area submerged	1849.037 Ha.

13	Population to be affected	3557 Nos.
14	No. of village affected	16 Nos.(09 villages fully and 07 villages partly)
15	Road communication submerged	11.50 Km.
<b>Main Dam</b>		
1	Type	Homogeneous, Rock filled Earthen Dam with controlled spillway
2	Length of Dam	3247 M.
3	Maximum Height of dam	39.50 M.
4	Top width of Dam	7.50 M.
5	Total length of Dam including spillway length	3460 M.
<b>Spillway</b>		
1	Location	Centrally located
2	Type	Ogee type
3	Length of Spillway	213 M.
4	Crest Level of Spillway	RL 428.00 M.
5	Design flood discharge	14450 Cumec.
6	No. of Bays	12 Nos.
7	Size of gates	15.0 M x 12.0 M
8	Type of gates	Radial
<b>Distribution system</b>		
1	GCA	39437 Ha.
2	CCA	29578 Ha.
3	Percentage of CCA to GCA	75%
4	Area irrigated during Kharif	24555 Ha.
5	Area irrigated during Rabi	17154 Ha.
6	Area irrigated during Summer	6000 Ha.
7	Intensity of Irrigation during Kharif	83%
8	Intensity of Irrigation during Rabi	58%
9	Intensity of Irrigation during Summer	20.28%
10	Annual intensity of Irrigation	161.28%

<b>Estimated cost</b>		
1	Total Cost of the project	Rs.106751.35 Lakh.
2	Cost per Ha. of annual irrigation	Rs.360913.00
3	B.C Ratio at 10% interest	2.368
4	Internal rate of return	17.48%
5	Value of additional Yield product	Rs.31462.78 Lakh.
6	Anticipate additional annual products	335055 Qtls.