

HADUA IRRIGATION PROJECT

Location		
1	Dam site	Near village Kharod of Cuttack District.
2	Latitude	20 ⁰ -27'-50" N
3	Longitude	85 ⁰ -15'-30" E
4	Toposheet	73H/2,73H/3,73H/6,7311/7
5	River	Hadua (A tributary of river Mahanadi)
6	Nearest Railway station	Raj Athagarh
7	Nearest town	Narsinghpur
8	State Capital	Bhubaneswar
Hydrology		
1	Catchment area at Hadua Dam site	170 Sqkm.
2	Mean monsoon rainfall	1147 mm.
3	Minimum monsoon rainfall (In year 1977)	702 mm.
4	Maximum monsoon rainfall (In year 1983)	1662 mm.
5	75% dependable runoff	5895.45 Ham.
6	Designed flood discharge at Dam site	1725 Cumec.
7	Maximum Yield	25504.16 Ham.
8	Minimum Yield	4662.95 Ham.
9	Mean Yield	8284.03 Ham.
Reservoir Capacity and Submergence		
1	Gross storage capacity at FRL	3527.30 Ham.
2	Dead storage capacity	215 Ham.
3	Live storage capacity	3312.30 Ham.
4	Full Reservoir Level	R.L.126.00 M.
5	Maximum Water Level	R.L.126.00 M.
6	Dead Storage Level	R.L.99.80 M.
7	Free Board	3.80 M.

8	Bed level of river at dam site	R.L. 87.00 M.
9	Top Bank level	R.L. 129.80 M.
10	Water spread area at FRL	227 Ha.
11	Water spread area at DSL	31.50 Ha.
12	Silt provision (50 years)	500 Ham.
13	No. of villages fully submerged	02 Nos.
14	No. of villages partly submerged	02 Nos.
15	No. of families affected	43 Nos.
16	No. of population affected	233 Nos.
17	No. of villages fully submerged	02 Nos.
Main Dam		
1	Type	Earth fill
2	Length of Dam	366 M.
3	Height of Dam(From the deepest Bed level of the river)	42.80 M.
4	Top width of Dam	6 M.
Spillway		
1	Location	Centrally located
2	Type	Ogee type
3	Length of Spillway	48 M.
4	Crest Level of Spillway	R.L.114.00 M.
5	Design discharge of spillway	1725 Cumec.
6	No. and size of gates	3 Nos.(14M x 12M)
7	Thickness of Pier	3.0 M.
8	Clear Waterway	42 M.
Distribution system		
1	GCA	6074 Ha.
2	CCA	3948 Ha.
3	Area irrigated during Kharif	3555 Ha.
4	Area irrigated during Rabi	2173 Ha.
5	Annual Irrigation	5728 Ha.

6	Stabilizing command of Kharod minor: (i) GCA (ii) CCA (iii) Kharif area (iv) Rabi area	3300 Ha. 2145 Ha. 2145 Ha. 1180 Ha.
Canal System		
1	Head regulator discharge	5.20 Cumec.
2	Sill Level of Head regulator	R.L.95.00 M.
3	Length of Main canal	20.96 Km.
4	F.S.L at canal Head	96.20 M.
5	F.S.D at Canal Head	1.20 M.
6	Bed width of Canal Head	5.40 M.
Estimated cost		
1	Cost of the project	Rs.6148.00 Lakh.
2	Cost of Ha. of C.C.A	Rs.1.56 Lakh.
3	BC Ratio	2.27
4	Internal Rate of return	19.49