

UPPER LANTH IRRIGATION PROJECT

SALIENT FEATURES

1. Location of Dam site :

- i) State : Orissa
- ii) Nearest Village : Chikili
- iii) River : Lanth
- iv) District : Bolangir
- v) Sub-Division : Patnagarh
- vi) Police Station : Patnagarh
- vii) Location : Lat.- E 82⁰-53'-20" W
Long.-N 20⁰-38'-50" S
- viii) Toposheet Reference : 64 P/2, 64 L/14
- ix) Nearest Railway Station : Kantabanjhi

2. Hydrology :

- i) Catchment area River Lanth at Dam Site : 189.07 Sq.Km.
- ii) Mean Annual Monsoon Rainfall : 1099.67 mm
- iii) Maximum Annual Monsoon Rainfall : 1508.10 mm
- iv) Minimum Annual Rainfall : 102.00 mm
- v) Runoff available at the dam site in a 75% dependable year : 4697.27 Ham.
- vi) Spillway design flood at dam site : 1864.60 Cum.
- vii) Toposheet of catchment area : 64 P/2, 64 L/14
- viii) Type of Spillway : Solid Gravity
- ix) Crest level of spillway : 289.50 m.
- x) Length of spillway : 99.00 m.

3. Ayacut :

i) District : Bolangir

4. Command Area :

- i) Gross Command Area (G.C.A.) : 6170 Ha.
- ii) Cultivated Command Area
C.C.A. (76.17% of G.C.A.) : 4700 Ha.
- iii) C.C.A. of Right Canal Ayacut : 647.60 Ha.
- iv) C.C.A. of Left Canal Ayacut : 4052.40 Ha.
- v) Area Irrigated Annually : 6105 Ha.
- vi) District wise C.C.A. : Bolangir 4700Ha.

5. Reservoir :

- i) Full Reservoir Level : 295.50 M.
- ii) M.W.L : 295.50 M.
- iii) Crest Level of Gates : 289.00 M.
- iv) Dead Storage Level : 285.00 M.
- v) Gross Storage at F.R.L. : 4650 Ham.
- vi) Live Storage : 4086.00 Ham.
- vii) Dead Storage : 564 Ham.
- viii) Water Spread at F.R.L. : 784 Ha.
- ix) Submergence
 - a. No. of village : 2 Villages
 - Submerged & Families : 595 families
 - b. Road communication
 - Submerged : Nil
- x) Population to be affected : 1000 Nos.

6. Type of Dam :

i)	Type of dam	: Earth Dam Homogenous type
ii)	Length of Spillway	: 99.00 M.
iii)	No. of gates including	: 7 Nos.(12M.X6.5M size)
iv)	Total length of Earth Dam	: 2495 M.
v)	Free Board	: 3.0 M.
vi)	T.B.L.	: 298.5 M.
vii)	Top width	: 6.00 M.
viii)	Deepest	: 275 M.
ix)	Maximum high of dam from bed Level	: 22.5 M.
x)	D.S.L.	: 285.00 M.
xi)	F.R.L.	: 295.5 M.
xii)	Annual Intensity of Irrigation	: 130%
xiii)	Area Irrigated during Khariff	: 3990 Ha.
xiv)	Area Irrigated during Rabi	: 2115 Ha.
xv)	Area Irrigated during Annually	: 6105 Ha.
xvi)	Length of Right Main Canal	: 6.66 Km.
xvii)	Length of Left Main Canal	: 16.08 Km.

7. Power Generation :

i)	Proposed Hydl. Power Unit to be installed in main canal	: 1 No.
ii)	Cost of installation	: 12.806 Lakhs.

8. Cost of Estimates :

- i) Cost of head works : 3560.84 Lakhs.
- ii) Cost of distribution : 1325.354 Lakhs.
- iii) Cost per Ha. or annual irrigation : 80246.00
- iv) Cost per Ha. of C.C.A. : 1,04,234.00
- iv) B.C. Ratio at 10% rate of Interest : 2.04
- v) Internal rate of return (30 year) : 22.28