

# SAMAKOI IRRIGATION PROJECT

## SALIENT FEATURES

### 1. General.

- i) State : Orissa.
- ii) District : Angul
- iii) Sub-Division : Pallahara
- iv) Village : Biralamunda
- v) River : Samakoi
- vi) Location : Lat.21<sup>0</sup>-17'-50"N,Lon.85<sup>0</sup>-21'-20"E
- vii) Topo sheets : 73-G/7
- viii) Nearest Railway Station : Talcher
- ix) Nearest Town : Pallahara(38Km.)

### 2. Hydrology.

- i) Catchment area : 787.00Sq.Km.
- ii) RAIN FALL
  - 1. Maximum Annual Rainfall : 2260.60mm
  - 2. Minimum Annual Rainfall : 798.50mm
  - 3. Av. Annual Rainfall : 1696mm
  - 4. 75% dependable yield : 45,950Ham
  - 5. 75% dependable yield after keeping 10% reserve for upstream use. : 41355 Ham.
  - 6. 50% dependable yield : 65180 Ham.

### 3. Flood

- i) Design flood at Barrage Site : 2267cumecs

### 4. Principal Level

- i). T.B.L : 122.00 m.
- ii). M.W.L : 120.70m.
- iii). Pond Level : 118.00m.
- iv). Crest Level : 112.00
- v) Minimum B.L of River : 104.00

### 5. Barrage

- i).Location : Lat.21<sup>0</sup>-17'-50"N,Lon.85<sup>0</sup>-21'-20"E
- ii). Type : Both Ogee & Broadcrested
- iii)Length of Barrage : 78.00M

- iv).number of bays : 8Nos
- v) . Size of gate : 6.00 x 8.00m.
- vi) . Type of gate : Vertical

## 6. Detail of Command

- 1. G.C.A : 14,270Ha.
- 2. C.C.A : 9990Ha.

### Irrigation

- 1. Khariff : 9636Ha. (96%)
- 2. Rabi : 1250Ha.(12.5%)
- 3. Annual Irrigation : 10,886.00Ha.
- 4. Block benefited : Pallahara Block in Pallahara Sub-division. Kaniha Block in Talcher Sub-division

## 6. Canal System

### Left main canal

- 1. Discharge : 12.07Cumecs
- 2. Length : 15.30 Km.

### Right main canal

- 1. Discharge : 10.00Cumecs
- 2. Length : 18.00Km.

## 7. Cost

- i) Cost of Head Works : Rs. 1133.40 Lakhs
- ii) Cost of Canal System : Rs.3251.60 Lakhs.
- iii) Total : Rs.4385.00Lakhs
- iv)Cost per ha. of annual Irrigation : Rs.40281.00
- v) Cost per ha. of Irrigation : 43894.00

## 8. Benefit cost ratio

- i) B.c ratio at 10% rate of interest : 1.60
- ii) Financial return after 50 year of completion : (-)0.06
- iii) Internal rate of return (50 years) : 18.69