

BASANIA PROJECT

SAILENT FETURES

LOCATION:-

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| 1. State | Madhya Pradesh. |
| 2. District | Mandla. |
| 3. Latitude | 22 ⁰ 42.5' N) |
| 4. Longitude | 80 ⁰ 31' B) Top sheet64 <u>B</u> |
| 5. River | Narmada |
| 6. Location | 30 kms (18.75 miles) from Mandla Town |

Hydrology :-

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|--|-------------|-------------------|
| 1. Catchment area
Upto dam site | 9470Sq.kms | 3700 Sc.miles. |
| 2. Maximum annual
rainfall(1926) | 2342mm | 92.338 inches |
| 3. Minimum annual
rainfall(1899) | 680 mm | 26.785 inches |
| 4. Average annual
Rainfall | 1468mm | 57.78 inches |
| 5. Design flood | 39200 cumec | 13.81 lakh cusses |
| 6. Maximum observed
flood at jam Tara
(2.9.1970) | 17315 cumes | 6.1 lakh cusses |
| 7. Available runoff
at Be sania. | | |
| i) At 50% dependability | 0.588Mham | 4.78 MAF |
| ii) At 75% dependability | 0.414 Mham | 3.36 MAF |
| iii) At 90% dependability | 0.32 Mham | 2.60 MAF |
| iv) Maximum(year 1926) | 1.165 Mham | 9.483MAF |

v) Minimum (year 1899)	0.029 Mham	0.238 MAF
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8.Reservation for up-stream use.

1 Install stage	0.042 Mham	0.344MAF
2. Final –do-	0.105 Mham	0.848 MAF

Reservoir data:-

1. Maximum water level	482.41m	1583ft.
2. Full reservoir level	481.80 m	1581ft.
3. Dead storage level	460.25m	1510ft.
4. Water spread at F.R.L	14200ha	35090acres
5. Cross storage at F.R.L	0.196 Mham	1.59 M.A.F
6. Dead storage	0.012 Mham	0.091 M.A.F
7. Live storage0.	185 Mham	1.499 M.A.F
8. Average tail water level	437.08 m	1434ft.

Dam:-

(a)OVERFLOW DAM

1. Top of dam	485.55 m	1593ft.
2. Length of spillway	307.24 m	1008 ft.
3. Crest level	465.73 m	1528 ft.
4. Foundation drain go gallery level	443.62 m	1455.4ft.
5. Max. height above foundation	25.18 m	82.59 ft.
6. No.& size of crest gates	14 Nos of 18.28 mx16.1760 ft x 53ft	14 Nos of
7. No.& size of construction sluices	Nil	
8. Width of road on top of dam	7.62 m	25ft.

including parapets.

(b) **Non overflow dam including Transition.**

1. Top of dam	485.55m	1593ft
2. Length of Non-overflow	103 m	337.ft
3. Max.height above foundation	52m	170.60ft.

(c) **Earth Dam**

1. Top of dam	485.55m	1593ft.
2. Length of Earth dam	1.955km	1.22mils
3. Max. height above foundation	52.44m	172 ft.

(d) **Power Dam**

1. Top of dam	485.55m	1593ft.
2. Length of power dam	73.15m	240ft.
3. Max. Height above foundation	52m	170.60ft.
4. No. & size of penstock	8Nos. of 6.1m	3 Nos. of 20ft.

(including one extra) (Including one extra)

5. Centre line level of penstocks up stream.	452.93	1486ft
6. Max. discharge	156.6	5525

Power generation:-

1. No. & size of units to Be installed of	two units	two of 30,000kw
2. Type of Turbine	Francis	Francis
3. Installed capacity	60,000kw	60,000kw
4. Head (range of operation)	44.82m	147ft
5. Power development-		

Initial phase

1. Film power	26000kw	26000kw
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2. Secondary power	75 mkwh	75 mkwh
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FINAL PHASE

1. Firm power	16000kw	26000kw
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2. Secondary power	97mkwh	97mkwh
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ESTIMATE OF COST.

1. Dam & appurtenant work	Rs.1353.40 Lakhs.
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2. Cost of Raghavpur dam chargeable	Rs.168.27 Lakhs.
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3. Cost of Rosra chargeable to Basania	Rs.404.08 Lakhs.
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4. Total Cost of unit 1	Rs.1925.75 Lakhs.
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5. Cost of unit 1 chargeable to Basania	Rs.796.16 Lakhs.
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6. Cost of Hydro Electric installation	Rs.303.84 Lakhs.
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