

## Motakotada Dam

|                                      |  |
|--------------------------------------|--|
| Location                             | 23.7211° N, 73.1019° E                 |
| State                                | Gujarat                                |
| Nearest City                         | Idar                                   |
| Year of Completion                   | 1980                                   |
| Operated and Maintained by           | Gujarat Engineering Research Institute |
| River Basin                          | Sabarmati                              |
| River                                | Local Vangha                           |
| Dam Type                             | Earthfill Embankment                   |
| Height above lowest foundation level | 18.0 m                                 |
| Dam length                           | 695.0 m                                |
| Reservoir Area                       | 770078.0 m <sup>2</sup>                |
| Gross storage capacity               | 3269000.0 m <sup>3</sup>               |
| Effective storage capacity           | 3069000.0 m <sup>3</sup>               |

## CATCHMENT CHARACTERISTICS

| Catchment Properties    | Values                      |
|-------------------------|-----------------------------|
| Area of catchment       | 20.3 km <sup>2</sup>        |
| Perimeter of catchment  | 26.0 km                     |
| Basin Length            | 9229.6 m                    |
| Form factor             | 0.23833                     |
| Circularity ratio       | 0.37610                     |
| Elongation ratio        | 0.55068                     |
| Highest Stream order    | 5                           |
| Max elevation           | 328.0 m                     |
| Min elevation           | 175.0 m                     |
| Mean bifurcation ratio  | 2.3801                      |
| Stream frequency        | 76.7390 per km <sup>2</sup> |
| Relief                  | 153.00 m                    |
| Drainage density        | 10.2920 km/km <sup>2</sup>  |
| Length of overland flow | 48.580 m                    |

## CATCHMENT CLIMATOLOGY

