

The Present Status of the Kangsabati-Kumari Reservoir in Bankura District, West Bengal

S.S. De Dalal and M. De

River Research Institute, West Bengal
11A, Mirza Ghalib Street, Kolkata - 87, INDIA

ABSTRACT

The Kangsabati Reservoir Project in West Bengal consists of two earthen dams, one across the river Kangsabati and the other across the river Kumari near their confluence. The Kangsabati portion was completed about a decade earlier than the Kumari. Since the start of the reservoir operation a number of capacity surveys on the two portions of the reservoir have been conducted by River Research Institute, West Bengal. Recently some studies have been made on the Kangsabati in 2000-01 and on the Kumari in 2001-02. The present paper deals with these studies.

It is found that the extent of reduction of capacity in the dead storage zone is 28%, while the total storage loss is 10% in 36 years in the Kangsabati portion. The values are found 20% and 8% respectively in 27 years in the Kumari portion. It is observed that the rate of capacity loss has been reduced in the last decade in comparison with the earlier time and the rate of siltation is lower, 9 ha-m/yr/100 sq. km in the Kangsabati and 8 ha-m/yr/100 sq km compared the other reservoirs situated in the chhotanagpur plateau, that is, the Mayurakshi, Panchet and Maithon (more than 12 ha-m/yr/100 sq km). However, the rate is about 2.5 times the predicted value and warrants soil conservation measures in the vast catchment area.

The brownish sediment is mainly loam and fines (silt + clay) are more in the deeper zone compared to the back portion of the reservoir. The test results indicate that the sediment is exploitable due to high clay content and good plant nutrient values (N-P-K). The low value of dissolved solids of the reservoir water indicates that the water is good for prolonged irrigation uses.