OBJECTIVES

➢ To estimate the sedimentation profile and assess the extent of sediment deposition in the reservoir for the reach of river Arun from about 5 km upstream to dam axis.

STUDIES CONDUCTED

➢ The simulation studies were carried out with observed daily flow series for the period from January 2009 to May 2013 by maintaining the downstream water level at dam axis at the FRL (El. 845 m) and MDDL (El. 835 m).
➢ The daily suspended sediment concentrations data at Uwagaon (600 m upstream of dam site) from March 1989 to November 1989 were used for developing sediment rating curve.
➢ Changes in bed level, cross section and velocity profile were computed at the end of the simulation period.
➢ Long term simulation studies were also carried out for the period from May 1975 to May 2013 using the daily flow series.

OBSERVATIONS

➢ Sediment deposition in the form of deltaic pattern was observed at the upstream reach of the reservoir.
➢ Due to the prevailing low velocities, the reservoir was observed to function as a desilting basin.

SIGNIFICANCE OF THE STUDIES

➢ As the reservoir was observed to function as a desilting basin, no separate desilting basin was required.