

Sluicer

Indrawati III Hydropower Plant, Nepal

Challenge

Indrawati III is a 7.5 MW run-of-river hydropower plant exposed to severe sediment inflow during the monsoon season.

Large volumes of silt accumulated in the existing desilting tanks, requiring frequent shutdowns for cleaning and resulting in significant production losses. A solution was needed to continuously remove sediments while maintaining uninterrupted power generation.



Sediment accumulation



Two SediCon Sluicers installed in the desilting tanks



Continuous sediment discharge during operation

Solution

SediCon supplied two custom-designed Sluicers installed in the existing desilting tanks. The system continuously removes settled sediments without interrupting plant operation, allowing the desanders to remain effective during periods of high sediment inflow.

SediCon provided design, supply, installation, testing and commissioning of the complete system. Since commissioning, the Sluicers have operated continuously and regularly remove several thousand tons of sediment that can accumulate during a single night.



Project Location

Project facts

Client: National Hydro Power Company (NHPC)
Project: Indrawati III HEP
Location: Nepal
Technology: 2 x SediCon Sluicers
Installed capacity: 7.5 MW
Annual production: 50 GWh
Design discharge: 14 m³/s

Results and benefits

- Measured capacity of 2,000 t/h
- Sediment concentrations >500 kg/m³
- Continuous plant operation
- Minimal water consumption
- Removes thousands of tons overnight
- In operation since 2017

For more than 30 years, SediCon has developed and supplied proprietary sediment handling technologies from Trondheim, Norway. Our solutions for reservoirs, intakes, desanders and tunnels have been successfully implemented in hydropower projects in more than 20 countries across five continents.