



Case Study from Dhanbad District, Jharkhand

NIRSA WATER SUPPLY SCHEME OF DHANBAD DISTRICT CONSTRUCTED UNDER ARWSP

Dhanbad district is famous for the coal deposits; large scale coal mining is undertaken by various collieries of Coal India Ltd. which is an undertaking of Govt. of India. Dhanbad is synonymous to energy capital of India. Here Jharia, Katras and Nirsa are the chief nucleus of coal production and transportation. Nirsa village of Dhanbad district, is situated both side of on NH2 known as Grand trunk road and has a population of as per 1991 census 13261. This village is the head quarter of the development block of the same name and has inter college, several schools, three nationalized bank, B.D.O office and other block level offices of different departments.

The drilled tube well are not success in the area because of coal mines and mining activities in the vicinity of this village, in summer season the ground water goes very down . There was an old water supply scheme which supply 15000 gallon water per day and the per capita quantity supply was 11 lpcd. This quantity is quiet in sufficient and not distributed evenly among all villagers.

Therefore, drinking water supply scheme is ARWSP scheme was prepared in the year August 1998 with a drinking water supply provision for following villages and population.

1. Nirsa – 13261
2. Bhamal – 3531
3. Bhaljoria – 1653
4. Pithakyari – 1500

The Nirsa water supply scheme under ARWSP was sanctioned on 10.6.1999 for Rs. 283.14 lakh and the actual construction was started in month October, 2001 Year. The scheme was completed in every respect in April 03 and since then regular water supply is being provided through this scheme. The main component constructed under this scheme is listed below.

1.	Length of distribution mains	:	17.259 km
2.	Length of rising mains	:	1.095 km
3.	Slow sand filter size 5mx10mx2.7m	:	6 nos.
	Capacity	:	11.7 KLD/Hr.
4.	Sedimentation Tank size 18mx4.5mx3.00m	:	2 nos.
5.	Clear water sump size 7.7mx7.7mx3.00m	:	1 no.
	Capacity	:	180 Kilo liter
6.	Elevated Service Reservoir of 21 m staging	:	1 no.
	Capacity	:	450 Kilo liter
7.	Everyday water supply quantity	:	1135 kilo liter/day
8.	Details of pumping system		
	(i) Raw water pump	:	2 nos., 20 HP, Head -30m
	(ii) Clear water pump	:	2 nos., 30 HP, Head- 46m

At present about 45% of house holds are given water supply from this scheme through house connections, at the rate of 70 lpcd and 55% of the population are being fed through stand post on a regular basis.

This is the first drinking water supply scheme based on the water of coal pit in the state of Jharkhand. The Baijana pit is open cast coal pit water, spread in about 1.0 km length. Even in summer season, the water level in coal pit does not fall down more than 2 meters.

This is a successful story of water supply scheme which is based on open cast coal pit water. The water is being regularly supplied through this scheme, since more than five years without any problem. The villagers are very much satisfied by the performance of scheme.