

Department of Drinking Water Supply Rajiv Gandhi National Drinking Water Mission

Bharat Nirman: Rural drinking water

Bharat Nirman, a programme to build rural infrastructure, was launched by the Government of India in 2005 to be implemented in a period of four years from 2005-06 to 2008-09. Rural drinking water is one of the six components of Bharat Nirman. During the Bharat Nirman period, 55,067 un-covered and about 3.31 lakh slipped-back habitations were to be covered with provisions of drinking water facilities and 2.17 lakh quality-affected habitations were to be addressed for water quality problem.

While prioritizing the addressal of the water quality problem, Arsenic and Fluoride affected habitations have been accorded priority followed by Iron, Salinity, Nitrate and other contaminants. To ensure that habitations once provided with drinking water supply infrastructure do not slip back and face drinking water problem, sustainability of drinking water sources and systems has been accorded high priority. To achieve drinking water security at village/ habitation level, conjunctive use of water i.e. judicious use of rainwater, surface water and ground water is promoted.

To enable the rural community to shoulder responsibility in management, operation and maintenance of water supply systems at village level, decentralized, demand-driven, community-managed approach has been adopted. To further strengthen community participation in the drinking water sector for sustainability, National Rural Drinking Water Quality Monitoring & Surveillance programme was launched in February, 2006 under which 5 persons in each Gram Panchayat are to be trained to carry out regular surveillance of drinking water sources for which 100% financial assistance including water testing kits, are provided.

Physical Progress:

- i) Un-covered habitations: Against 55,067 un-covered habitations to be covered during the Bharat Nirman period, 54,477 habitations have been covered by August, 2009. The remaining habitations, of which many are in difficult areas lacking sustainable sources of drinking water, are proposed to be covered by end of 2011. The strategy adopted to cover uncovered habitations which include both Not Covered and Partially Covered habitations is to ensure that the rural population gets atleast 40 lpcd of safe water from sources lying within the village or nearby.
- **ii) Slipped-back habitations**: In case of slipped-back habitations, out of 3,31,604 habitations to be covered during the Bharat Nirman period, 3,62,801 habitations have been covered by June, 2009. The number is higher because some States have reported coverage in excess of the Bharat Nirman targets. Some of the States have not achieved full coverage of their targets and these habitations will be covered during 2009-10.
- **Quality-affected habitations**: In respect of rural water supply programme, 85% of the sources are ground-water based. The contamination which is found in groundwater based water supply programme is mainly of a chemical nature arising out of mostly geogenic causes. Under the National Rural Drinking Water Programme (NRDWP) chemical contaminants which are sought to be tackled are excess arsenic,

fluoride, iron, salinity and nitrate. Except for nitrate, all others are geogenic based. Nitrate occurs in drinking water due to leaching of chemical fertilizers and sewerage. The strategy of the Department is to prioritize addressing the problems of arsenic and fluoride in drinking water through alternative surface water sources. The treatment technologies that are available for removal of excess arsenic and fluoride are still not foolproof in respect of reject management issues. Though a target of 2.17 lakh quality affected habitations were identified under Bharat Nirman, the States submitted an action plan for covering only 1,95,813 such habitations. Thus on 1.4.2006, there were 7,067 habitations reported to be afflicted with arsenic and 29,030 habitations with fluoride contamination. Priority has been given to address the problems in these affected habitations. It must be admitted however, that due to expansion of testing, more areas are identified as having problems of quality.

At the beginning of Bharat Nirman period on 1.4.2006, there were 1,04,477 rural habitations affected with excess iron in drinking water sources. The focus of the Department is to tackle excess iron problem through aeration based technology or low-cost terra-cotta based filtration technique. States such as Karnataka and Orissa have already taken up the challenge of tackling this contamination through low-cost terracotta based filtration technology.

In respect of salinity, 12,425 habitations were having a problem at the beginning of Bharat Nirman period. Although there are a number of technologies like distillation, ion-exchange, R.O., Electro-dialysis etc. These are expensive solutions and the focus of the Department is to tackle this problem through dilution of groundwater through artificial recharge of groundwater.

The strategy of the Department to tackle excess nitrate is by improving sanitary conditions. At the beginning of Bharat Nirman period, 19,387 habitations were afflicted with excess nitrate.

As reported by the States, so far 50,167 habitations have been fully covered with safe water supply in the water quality affected habitations. In respect of 2.61 lakh water quality affected habitations, projects have been given technical and administrative approvals and are under execution. The goal of the Department is to cover all water quality affected habitations with safe drinking water by the end of 2011.

Financial Progress:

Under Bharat Nirman for rural water supply, it was envisaged that Rs. 25,300 crores as Central share would be required during 4 years. Accordingly, Rs. 4,098 crores in 2005-06 and Rs. 4,560 crores in 2006-07 were utilized. In the 11th Plan period, Rs.6,442.76 crores in 2007-08 and Rs. 7,298.79 crores in 2008-09 has already been utilized. This adds up to Rs. 13,741.55 crores. The budgetary allocation for 2009-10 is Rs. 8,000 crores, of which Rs. 3,350.01 crores has been released to the States.

Action Plan 2009-10 to 2011-12

For the remaining years of the 11th Plan, the proposed plan is as follows:

- a. Against 55,067 un-covered habitations to be covered during the Bharat Nirman period, 54,477 habitations have been covered by August, 2009. The remaining uncovered habitations will be covered by end of 2011.
- b. Of the quality affected habitations, in case of 50,167 habitations safe water is being supplied through completed projects. The remaining 2.61 lakh quality affected habitations are sought to be covered by the end of 2011.

Bharat Nirman - Rural drinking water Targets and Achievements

(Number of Habitations)

	Total (2005-06 to 2009-10)								Balance Habitations				
		Tar	get			Cove	erage		as on 29.9.2009				
	Un-	Slipped	Quality		Un-	Slipped	Quality		Un-	Slipped	Quality		
State/UT	covered	Back	affected	Total	covered	Back	affected	Total	covered	Back	affected	Total	
ANDHRA PRADESH	0	39109	2305	41414	0	28598	8307	36905	0	1146	0	1146	
ARUNACHAL PRADESH	870	6036	193	7099	668	870	1387	2925	0	1882	0	1882	
ASSAM	6689	37190	19861	63740	7375	9119	30892	47386	0	1517	0	1517	
BIHAR	0	84315	22258	106573	0	42705	24889	67594	0	4892	0	4892	
CHHATTISGARH	0	13982	7068	21050	0	29641	6063	35704	0	0	0	0	
GOA	14	0	0	14	6	1	0	7	0	0	0	0	
GUJARAT	36	8023	4728	12787	36	6046	12268	18350	0	0	0	0	
HARYANA	0	3881	360	4241	0	3085	561	3646	0	0	0	0	
HIMACHAL PRADESH	5743	13287	0	19030	6030	11203	0	17233	0	0	0	0	
JAMMU & KASHMIR	4348	8529	255	13132	3211	398	49	3658	0	2740	65	2805	
JHARKHAND	0	19575	1316	20891	0	17215	1694	18909	0	10	0	10	
KARNATAKA	9352	14369	21528	45249	5618	8905	18541	33064	0	0	2579	2579	
KERALA	8323	395	1427	10145	8859	3946	1670	14475	0	0	0	0	
M.P.	0	25666	2974	28640	0	39416	6036	45452	0	0	0	0	
MAHARASHTRA	24528	17010	11486	53024	17738	14338	14834	46910	0	0	0	0	
MANIPUR	0	1086	53	1139	0	517	74	591	0	0	0	0	
MEGHALAYA	314	4572	101	4987	250	3589	272	4111	0	752	0	752	
MIZORAM	138	851	26	1015	112	357	78	547	0	0	0	0	
NAGALAND	503	474	110	1087	262	141	242	645	0	61	0	61	
ORISSA	0	9859	23396	33255	0	39902	37378	77280	0	0	0	0	
PUNJAB	2265	7055	1791	11111	1833	2641	2822	7296	134	2606	0	2740	
RAJASTHAN	4512	38829	25170	68511	1907	27360	46304	75571	393	6320	0	6713	

	Total (2005-06 to 2009-10)									Balance Habitations				
		Tar	get			Cove	erage		as on 29.9.2009					
	Un-	Slipped	Quality		Un-	Slipped	Quality		Un-	Slipped	Quality			
State/UT	covered	Back	affected	Total	covered	Back	affected	Total	covered	Back	affected	Total		
SIKKIM	71	1037	34	1142	74	510	76	660	0	273	0	273		
TAMILNADU	0	30806	993	31799	0	33483	6751	40234	0	0	0	0		
TRIPURA	0	3879	1046	4925	0	825	7382	8207	0	0	0	0		
UTTAR PRADESH	0	10411	5940	16351	0	24629	9583	34212	0	0	0	0		
UTTARANCHAL	382	4279	0	4661	218	5611	0	5829	35	1917	0	1952		
WEST BENGAL	0	14469	19549	34018	0	7705	72340	80045	0	0	0	0		
A & N ISLANDS	71	42	36	149	94	0	26	120	8	0	0	8		
DADRA NAGAR														
HAVELI	49	0	0	49	66	0	0	66	0	0	0	0		
DAMAN & DIU	0	0	0	0	0	0	0	0	0	0	0	0		
DELHI	0	0	0	0	0	0	0	0	0	0	0	0		
LAKSHADWEEP	30	0	0	30	0	0	0	0	10	0	0	10		
PONDICHERRY	49	18	51	118	120	45	179	344	0	0	0	0		
CHANDIGARH	0	0	0	0	0	0	0	0	0	0	0	0		
TOTAL	68287	419034	174055	661376	54477	362801	310698	727976	580	24116	2644	27340		