



Trend Analysis of Drinking Water Availability in Rural Maharashtra

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ABSTRACT

This paper has been attempt analyze to trend of drinking water availability as well as financial allocation in rural sector, improving the adequacy and quality of water supplies is a priority for rural development in the state. Since Independence India has a significant progress in various sector of rural development Efforts have been made to bring about rapid and sustainable Development and socio-economic transformation in rural India. With an integrated approach towards improving the quality of life of rural poor and ensuring equity and effective peoples participation. The thrust of rural development programmes has been make a frontal attack on poverty through one of the Drinking water. Rural water supply is a state subject the state government have been implementing the rural Water supply programme under the state sector minimum needs programme.

KEYWORDS

Drinking water supply, Water demand, government policy, Drinking water Expenditure, water rate

Introduction:

Most investments in water improvements come from the public sector but not from health sector budgets. As a result water improvements are often health related interventions come without cost the budget of the health sector. Investment in water supplies, structural institutional efforts, population coverage, and coverage by village/habitations/wadi/tandas from the basis of the explanation over the period of the up to twelfth five year plans. Despite the growing level of investment in water and sanitation over the past four and increasing number of people lack access to adequate. Maharashtra was the first state in India to come out with a white paper on Drinking water supply. The govt. of Maharashtra has implemented various schemes for improving the water supply. Apart from government agencies, World Bank, German development bank and other NGOs are actively involved in implementing water supply scheme in rural area in Maharashtra. In Maharashtra state major portion of land comes under drought prone area and the solapur is one of the districts of drought prone area of Maharashtra. The average rainfall is not more than 450 mm per year. Because of high temperature throughout the every year the district suffers from lack of availability of water for drinking as well as agriculture purpose. Drinking water availability and access to safe potable water have been an area of deep concern mainly due to the multifarious challenge these pose in managing and ensuring a sustainable supply for the fast growing population. In many part of rural area Availability of potable water has a direct relationship with health indicators. The existence of source of drinking water in rural area is one of the most important indicators of Development that reflect the economic prosperity of a village.

Objectives of study:

The main objectives of this research are to examine the Economic Analysis and Effects of Drinking Water Availability in Rural Area Scheme.

- 1) To examine the status of rural drinking water availability in Maharashtra
- 2) To study the trend in rural drinking water availability in rural area in Maharashtra

Hypotheses of the Study:

- 1) The drinking water availability in rural area of Maharashtra is inadequate.
- 2) Does the government expenditure (cost) on drinking water

is increasing.

Methodology:

This study is mainly conducted to find drinking water availability and their economic analysis of rural area in Maharashtra also the analysis of the nature of drinking water. Water availability it has been secondary data has been used. Economic analysis was carried out using graphical tools.

Scope of the Study:

Scope of study is limited to Maharashtra rural area to find drinking water availability in the rural area.

Result and Discussion:

Expenditure trends in drinking water availability national perspectives: Our country has large population and also high rate of growth and it is very difficult also challenges for the government to provide safe, adequate, quality and quantity of drinking water supply within limited supply. In over 65 years of political independence and economic development India has not been able to ensure the most basic of human needs safe drinking water for all its citizens. The central and state government intervention which was reflected both in term of successive five year plans. Systematic approach to provision of water supply in India started with the commencement of five year plans in 1951. During the period (1951-74) drinking water supply schemes has been taken up in the main under the programmes for community development and welfare of backward classes. Through at the five year plans, the central government introduced a variety of policies and programs to address the issue of drinking water. The investments rural drinking water policy initiative taken by government of India under various five year plans. The investments in rural drinking water (1951-2012) are given the following table.

Table no. 1 Investments in rural drinking water (1951-2012)

Plan Period	Investment (Crore)	
	Centre	State
First (1951-56)	0	3
Second (1956-61)	0	30
Third (1961-66)	0	48
Fourth (1969-74)	34	208

Plan Period	Investment (Crore)	
	Centre	State
Fifth (1974-79)	157	348
Sixth (1980-85)	895	1530
Seventh (1985-90)	1906	2471
Eighth (1992-97)	4140	5084
Ninth (1997-2002)	8455	10773
Tenth (2002-2007)	16254	15102
Eleventh (2007-2012)	39211	49000
Total	71052	84597

Source: Twelfth plane five year: An overview Vol. p.p.300

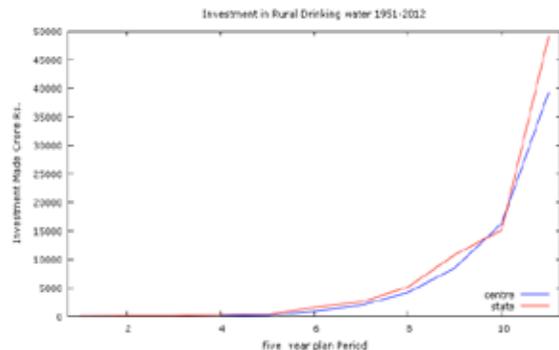


Figure No.1

Since the beginning of the sixth five year plan (1980-85) and the launch of the international drinking water supply and sanitation decade (1981-90), government of India's committed to water availability sector has increased at present this sector investment constitute a significantly percentage of the national budget. Central government has funded constitutes about 40% of total investment in the sector almost 5% of investment comes from external support agencies (ESA). It is estimated that since fourth plan started special fund provided separate this sector. As against the planed central outlay of Rs.39300 crore is Rs. 39221 crore in additions the states are expected to spend Rs.49000 crore. Despite the combined efforts of both the central and the states by investing more than Rs.1,50,000 crore the goal of providing safe and adequate drinking water to every rural persons in the country.

Bhart Niramn:

For the rural water supply, component of Bharat Nirman; it was envisaged that the year wise allocation for ARWSP/NRD-WPP (Rural Water Supply Component) of Bharat Nirman is given following Table.

Table No.2 Allocation under ARWSP/NRDWPP (in Rs. Crore)

Year	Allocation
2005-06	4,060.00
2006-07	5,200.00
2007-08	6,500.00
2008-09	7,300.00
2009-10	8,000.00
2010-11	9,000.00
2011-12	9,350.00

Source: Ministry of Rural Development of Drinking Water Supply 2012

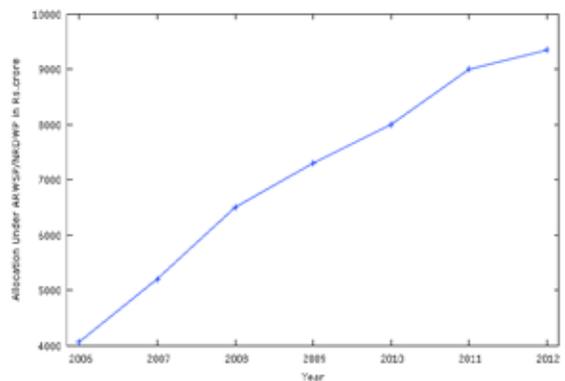


Figure No.2

Bharat Nirman as a plan to be implement from 2005-06. The objective of the Bharat Nirman component was "Every habitation to have a safe source of Drinking water.

Accordingly in 2005-06, Rs.4,098 crore and in 2006-07 Rs.4,560 crore were utilized in the 11th plan period in 2007-08, Rs.6,442.76 crore in 2008-09, Rs.7,298.79 crore, in 2009-10 Rs.7,989.72 crores and in 2010-11, Rs.8986.74 crore have been expediting for 2011-12 Rs.9350 crore is the budget for rural drinking water out of which Rs.3919.68 crore have been utilized up to 30.09.2011.

Variety of programmes were launched and implemented but their implementation could not yield commendable result as the goal of providing safe drinking water for all still away and the problem has not reduced significantly. Rural water supply sector was given extreme importance in the planning process.

Trends in rural drinking water supply sector in Maharashtra:

Maharashtra created out of a bifurcation of the erstwhile Bombay presidency (containing western Maharashtra and Kōkan regions) and adding to it the Marathawada region from the erstwhile Hyderabad as well as the Vidharbha region from the former central provinces and Berar. This history of the state continues to have relevance today. Maharashtra is the most urbanized state in India also is the third largest and the second most populated state in India. While its water coverage is better than most of the other states, service levels in most areas are grossly inadequate. Some areas experience server water scarcity especially in summer months, and water must be brought in by tankers. In rural areas, only 55% of the villages have a supply of more than 40 liters per-capita per-day (lpcd). The state government has implemented various schemes for improving the water supply coverage over a period of time. Without a change in basic approach, policies and institutional framework. It will be impossible for the state and local governments to provide universal access to these services, especially for the poor-poor peoples, and ensure their inclusive sustainability. The state water supply and sanitation department (WSSD) appointed the Sukthankar committee to develop a roadmap for improvement in water sector in the state. The committee recommended setting up an independent entity to regulate water tariffs and service standards. Sukthankar committee analysis is that there is no emphasis on consumer preferences and source and system sustainability in the supply driven approach. Community orientation approach is best for rural areas.

Major source of rural drinking water supply in Maharashtra:

Maharashtra is having with sizable water resources with an average rainfall of 100 mm, there is variation in the spatial distribution of rainfall across the state. The highest rainfall (6000 mm) occurs over the western Ghats (Sahyadri) Farming the drought prone area which account for almost a third of the states geographic area. The occurrence of drought is com-

mon in the region as the rainfall is highly variation between years. Due to subduced and scanty rainfall, water availability in some parts of the state has become alarming, especially in Aurangabad, Jalana, Beed, Osmanabad, Nanded, Ahamadnagar, Nashik, Jalgaon, Pune, Satara, Sangli, Solapur and Buldhana districts. These districts are facing very severe water scarcity.

Surface water:

Around 400 rivers in Maharashtra with a total length of approximately 20000 km. The basin wise average annual water Availability is following table.

Table No.3 The basin wise average annual Availability of water.

Major Basins	Average Annual Availability mm ³
Godavari	50,880
Tapi	9,118
Narmada	580
Krishna	34,032
West following basin (Konkan)	69,210
State (Total)	1,63,820

Source: Dept. Of Irrigation Maharashtra

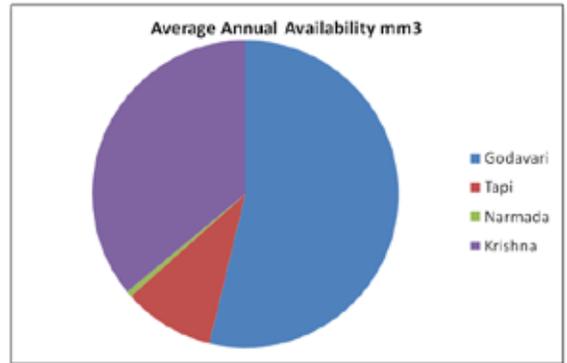


Figure No. 3

The state of Maharashtra faces a severe problem with regard to ensuring supply of safe and adequate drinking water in rural area. The factor have a dramatic impact on sustainability of sources for water supply, especially during February-May the situation is exacerbated by unregulated ground water abstraction for purpose of irrigation and industrial uses. The holistic management of groundwater resources is typically absent according to a recent census of India 2011 Assessment. The Tap water is the main source of drinking water (67.9 percent) in Maharashtra whereas well (14.4 percent), hand pump (9.9 percent) and tube well (5.7 percent) are other sources of drinking water.

Table No. 4 Sources Of Drinking Water As Per Census 2011

Percent of Households having										Availability of Dinking water source		
Sr.No.	District	Tap water	Well water	Handpump	Tubewell	Spring	River, Canal	Tank, pond, lake	Any other source	Within The Premises	Near the Premises	Away
1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Mumbai	97.8	0.1	1.2	0.0	0.1	0.1	0.2	0.6	84.9	13.4	1.7
2.	Mumbai Suburban	96.5	0.3	0.4	0.3	0.1	0.2	0.6	1.6	77.2	19.3	3.5
3.	Thane	80.8	8.7	5.1	3.7	0.2	0.4	0.4	0.6	71.9	20.2	7.9
4.	Raigad	73.9	12.9	4.7	6.2	0.6	0.7	0.3	0.7	56.8	30.8	12.4
5.	Ratnagiri	60.5	28.9	1.2	4.1	3.2	1.1	0.6	0.4	46.8	36.8	16.4
6.	Sindhudurg	30.7	62.1	0.8	2.9	2.3	0.3	0.6	0.3	54.6	30.0	15.4
7.	Nashik	63.2	25.7	5.6	3.3	0.7	0.5	0.4	0.7	58.5	28.8	12.8
8.	Dhule	83.9	7.1	5.8	1.5	0.6	0.2	0.3	0.6	60.2	31.0	8.8
9.	Nandurbar	56.8	6.1	25.8	4.0	4.4	2.1	0.1	0.7	36.9	47.2	15.9
10.	Jalgaon	88.7	4.5	3.1	1.6	0.1	0.2	0.2	1.6	64.3	26.8	8.9
11.	Ahmadnagar	50.4	30.2	7.3	8.5	0.3	0.7	0.6	2.0	53.6	28.4	18.0
12.	Pune	80.6	8.9	3.7	4.9	0.3	0.3	0.4	0.9	75.9	17.7	6.4
13.	Satara	73.4	10.1	7.2	6.8	1.3	0.3	0.2	0.6	65.5	25.9	8.6
14.	Sangli	67.3	13.9	6.9	9.9	0.1	0.4	0.4	1.1	64.8	23.9	11.3
15.	Solapur	57.0	17.7	14.3	8.1	0.1	0.9	0.6	1.2	49.8	35.6	14.6
16.	Kolhapur	85.4	4.9	2.5	5.4	0.4	0.3	0.3	0.7	74.5	19.5	6.0
17.	Aurangabad	62.4	20.0	8.0	6.5	0.2	0.2	0.5	2.2	57.3	26.9	15.8
18.	Jalna	41.4	27.8	18.9	9.0	0.1	0.4	0.4	2.0	38.6	35.7	25.7
19.	Parbhani	41.2	13.7	31.4	10.8	0.1	0.7	0.4	1.7	43.7	34.0	22.3
20.	Hingoli	35.9	20.8	26.4	14.7	0.1	0.3	0.3	1.6	36.8	37.9	25.3
21.	Beed	42.4	20.5	22.5	12.0	0.1	0.6	0.5	1.3	38.5	39.0	22.5
22.	Nanded	47.0	15.8	16.3	17.7	0.1	0.2	0.6	2.2	38.1	36.3	25.6
23.	Osmanabad	56.6	9.3	15.2	15.0	0.1	0.3	2.0	1.5	42.6	38.2	19.2
24.	Latur	58.4	11.3	11.4	16.5	0.1	0.1	0.8	1.4	48.9	33.3	17.9
25.	Buldhana	54.1	24.1	16.0	4.0	0.1	0.2	0.3	1.1	44.8	32.2	23.0
26.	Akola	58.7	9.0	21.7	9.3	0.1	0.4	0.2	0.7	48.7	32.9	18.4
27.	Washim	41.1	37.5	14.0	6.0	0.1	0.1	0.2	1.0	35.9	31.9	32.2
28.	Amravati	77.8	8.9	10.6	1.7	0.1	0.1	0.1	0.7	55.6	31.5	12.9
29.	Yavatmal	43.9	29.1	19.6	5.6	0.1	0.4	0.3	1.0	35.7	37.0	27.3
30.	Wardha	63.5	17.9	12.9	5.2	0.0	0.1	0.1	0.4	57.2	31.1	11.8
31.	Nagpur	76.4	11.8	8.2	2.8	0.1	0.0	0.3	0.5	71.4	20.7	8.0

Percent of Households having										Availability of Dinking water source		
Sr.No.	District	Tap water	Well water	Handpump	Tubewell	Spring	River, Canal	Tank, pond, lake	Any other source	Within The Premises	Near the Premises	Away
32.	Bhandara	38.0	25.7	29.3	6.5	0.0	0.1	0.1	0.3	40.1	39.6	20.3
33.	Gondiya	17.5	37.4	38.7	6.1	0.0	0.0	0.1	0.2	32.7	46*0	21.3 *
34.	Chandrapur	40.6	21.0	27.5	10.0	0.1	0.2	0.1	0.5	41.0	36.6	22.3
35.	Gadchiroli	19.5	36.3	39.6	3.6	0.3	0.3	0.1	0.3	27.0	43.3	29.7
Maharashtra State		67.9	14.4	9.9	5.7	0.3	0.4	0.4	1.0	59.4	27.5	13.1

Source - Registrar General of India 2011

According to National simple survey result 69th round conducted July-December 2012 was remarked for survey on "Drinking water Sanitation, Hygiene and Housing condition" some of the important estimates one presented following Table.

Table No.5 Percentage distribution of households by principal source of drinking water.

Source	Rural area	
	July 2008-June 2009	July-Dec. 2012
Tap	58.9	62.8
Tubewell/Hand pump	20.3	19.5
Protected/Unprotected well	18.2	15.3
Tank/pond (reserved for drinking)	0.7	0.6
Others	1.9	1.8
All	100	100

Source : DES, Gom. *provisional

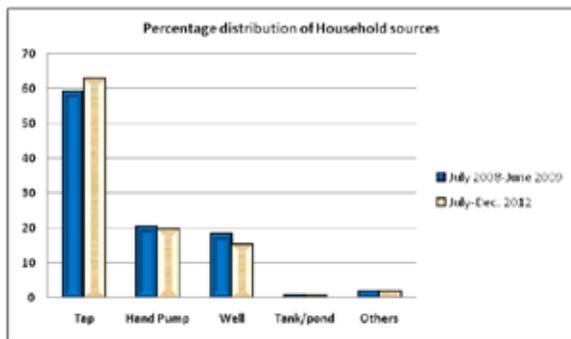


Figure No. 4

The percentage of household depending on "Tap" as the principal source of drinking water has increase in rural area as compared to 2008-09 (65th NSS round)

Ground water:

33.6 in Maharashtra still percentage households dependent on Groundwater with water supply schemes in rural Maharashtra.

Dug wells:

Commonly are dry in summer and have been abandoned as major source of supply. In the state 14.4 percent of household having dug well Availability of Drinking water source.

Hand pumps:

According to Economic survey of Maharashtra 2012-13 indicate that 9.9 percent of household having using drinking water source in Maharashtra.

Status of rural drinking water in Maharashtra:

Govt. of Maharashtra, since the certain of this state, has adopted various measures for drinking water supply to rural areas. In spite of spending thousands of crores of rupees over the years, even now many villages/wadis do not get adequate

potable drinking water as a result of these efforts, government rural water supply coverage increased from about 86 percent, in 1981 to 95 percent, in 2001 and 99 percent, in 2004 (GOI 2011). However this apparently high rate of coverage hides considerable variation in the quality of coverage. According to the draft report of the Sukthankar committee (2011). Setup by the government of Maharashtra as April 1, 2000, the availability of state drinking water is a following table.

Table No.6 Safe drinking water supply in villages.

Category	Number of Villages	No. of Wadis.
FC villages fully covered (per capita supply of more than 40 lpcd)	22209	29149
SS-villages with safe source (SS) but inadequate supply (i.e. Per capita supply between 10 to 40 lpcd)	13636	10317
NSS-villages with No safe source (i.e. per capita supply of 10 lpcd)	3333	4362
NC-villages not at all covered by safe source	1224	1706
Total	40402	455228

Source: Sukthankar committee report on operation and maintenance of rural and urban water supply schemes volume II background information January 2000



Figure No.5

Rural drinking water scenario at present:

In 1999 survey was done to classify villages under for categories: not covered (NC) partially covered (PC) water quality affected (WQ) and slipped back. NC included the villages where 1 per capita water availability per day was below ten liters. For pc this figure was 20 liters per capita per day (lpcd). Slipped back were the villages were either the wells went dry or the contraction was damaged over the years and hence have to be included for the new schemes. In 2005 another survey was done and more update information was made available.

The state has taken various funds were made available under different internal and external agencies. Those funds Maharashtra is utilizing the large funds has targeted number of vil-

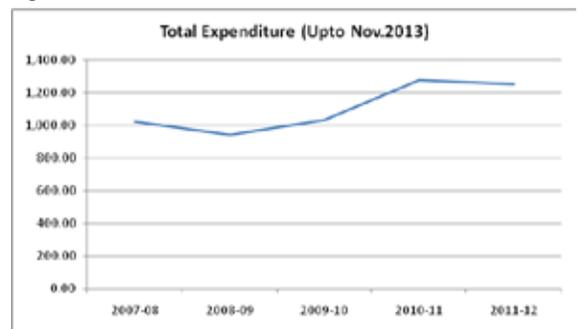
ages. The following table show the picture state has taken various measures to availability of drinking water.

Table no.7 Present status of rural drinking water in Maharashtra.

Year	Villages/Wadis tackled		(Rs.Crore) Expenditure
	Target	Achievement	
2007-08	14,975	9,785	1,021.12
2008-09	19,877	19,877	943.64
2009-10	11,639	7,465	1,033.63
2010-11	09,745	8,987	1,275.48
2011-12	6,502	6,364	1,252.92
2012-13	5,940	1,686	428.69

Source: Water supply and sanitation department GOM.

Figure No.6



During 2011-12 under the NRDWP programme, 6.3 villages/Wadis were tackled against the target of 6502 incurring and expenditure of Rs.1252.92 crore.

In the Maharashtra state have not been successful in collecting user fees levied on water, which are essential to ensure efficient operation and maintenance of the system (field observation). It is very expensive to create and maintain drinking water assets. This is evident from the data on per capita expenditure on the drinking water sector in Maharashtra.

Table No. 8

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	2013
Expenditure	22.33	26.62	26.49	26.37	23.49	23.38	23.27	34.52	34.35	34.98

Source: Financing Rural Infrastructure Ranking: Trends and alternative to public finance Siddhartha Mitra.

The law revenues imply that the rural drinking water sector is actually massively subsidized by the government.

Figure No.7

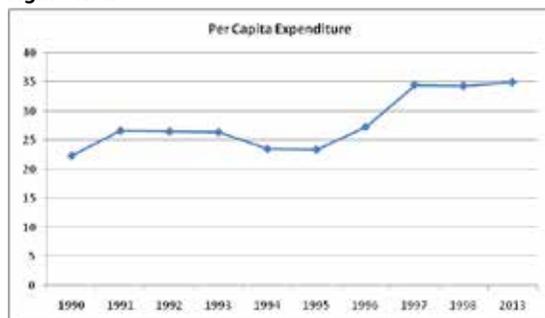


Table No. 9 State Drinking Water Supply Cost (Cost per m³)

Particular	Public Capital Investment	Cucrring cost	Remark
Rural supply			
A) Surface water source	Rs.10/-	5	Tap Water supply
B) Ground water source			
1) Dug well	Rs.25/-	5	
2) Handpump	Rs.15/-	4	
3) Power pumps	Rs.5/-	2	
4) Tanker	Rs. 1000/-	50	
5) Rain water harvesting	Rs.1500/-		

Source: Maharashtra water and irregation commission report 1999. P.G. 738

Above table shown the per capita annual 20 m³ water supply criteria adopted then the tap water source system supply of water then per capita 400 Rs. Water rater given by the people. So question that is unequal water pricing rate in rural are people have hot got the safe water because this rate is very high.

Table No.10 Post trend analysis of the drinking water schemes.

Description	Period	Highlight
Dug well Era	1960-70	<ul style="list-style-type: none"> • Providing dug wells • Mainly manual drawing, sparingly with power pumps.
Bore well Era	1971-85	<ul style="list-style-type: none"> • Bore well digging technology introduced • Providing hand pumps and power pumps on bore wells • Asonadate around 2.2 lakh hand pumps and 14,000 pumps/piped water supply schemes functioning in the state. • Large scale digging of bore wells for irrigation purposes (around 20 lakhs bore well dug) causes drying up of bore wells for drinking water supply • About 90,000 community dug well.
Rural piped water supply		<ul style="list-style-type: none"> • Increase in the number of piped water supply schemes in rural areas based on surface water sources. • First world bank project with a cost of INR 504.25 crores implemented during the period 1991 to 1998 implementing 17 single village schemes and 47 multi village schemes covering 560 villages in 10 districts. • DFID project (1999-2000) building 3 regional schemes in 3 districts costing INR 74.3 crores • A white paper on drinking water supply was published in 1995 to set direction to the plans and programmes to solve drinking water problems.
Master plan Era	1997-2000	<ul style="list-style-type: none"> • Highest expenditure for regional and single village piped water supply schemes. • Estimated cost of INR 7,300 crores. • December 2002 expenditure INR 4,500 crores • As on date 1,907 ongoing schemes which require INR 1,750 crores for completion
The policy reform Era	Since 2000	<ul style="list-style-type: none"> • First state in India to adopt a state wide new reform policy in water supply and sanitation sector. • Demand driven approach to delivery of rural water supply and sanitation services. • Use of participatory processes • Adoption of 10% capita cost sharing and 100% of 0 and m cost sharing by beneficiaries. • Shifting role of government from direct provider of service to that of policy formulation and capacity support. • Beneficiaries to participate in planning implementation and 0 and m of facilities. • Emphasis on women involvement in water and sanitation related decision making through VWSCs (village water supply committees and Mahila Mandals) • Introduced norms for social audit of the activities under the new policy. • A three pronged strategy was adopted for water conservation, preservation and utilization through increasing water supply, managing demand and regulating over abstraction of ground water. • Well designed IEC campaigns to precede planning / designing of schemes. • Independent monitoring and evaluation studies by reputed institutions • Human resource development or village level employees.

Source : MRWSS (2008)

Physical progress of water supply schemes: Maharashtra

As rural water supply schemes major classified into internally funded under NRDWP and externally funded World Bank other agencies. As per census 2011 there are 19.6% villages in the state of Maharashtra where at least 10 households have to travel more than 500 meter for fetching drinking water. The govt. should priorities providing drinking water and tap connection to such household.

Externally funded schemes:

Several external multilateral and bilateral agencies provide financial funds to the rural drinking water sector in India as well as government of Maharashtra. The principal external support agencies include the bilateral agencies of the Netherlands, Denmark, Germany (KfW) and the United Kingdom (Dept. for Int'l development Former's, the overseas development agency.)

Multilaterals agencies:

Such as the Work Bank, UNDP, UNICEF and the European Union.

External donor assistance accelerated at the beginning of the international drinking water and sanitation decade and during that period donor assistance accounted for almost. 6 percent of total sector investment. States has received donor support, with loans from World Bank and KfW constituting more than half of all financial assistance to the sector. The important role of external support agencies, however, has been to provide demonstration and experimentation at the project level. Most agencies have performed this role, with variation in the degree to which they have followed government policies. For example in Maharashtra, most donor assisted projects have emphasized innovative features as conditions for landing, such as rural people (household) participation cost sharing and cost recovery.

UNICEF has been active in India since the 1950s. in the past, this organization providing drilling bore well and hardware for the extensive hand pump program. Now a day's focus on

community development activities.

Assistance from Denmark and Netherlands to the rural water supply sector in India date from the early 1970s. focused mainly on technical support to identify problem. The impact of donor assistance on the policy strategy and approach of the central and state government is uneven.

State had several external development partners also assisted the state government. The World Bank first Indian rural water supply project (1991-98) provided US \$110 million to improves access through support for 17 single village schemes and 47 multi-village schemes in 560 village of 10 districts. Water supply designed to serve a population of 450,000.

Table no.11 World Bank funded drinking water supply schemes in Maharashtra.

Indictor	Target Number	Actual Number		Achievement	
		Sep. 2009	June 2011	Sep.2009	June 2011
District	26	26	26	100%	100%
Village panchayat	2,800 3,391		3,007	121%	107%
Schemes	2,800	2,298	2,985	82%	107%
Beneficiaries millions	8,846	6,700	8,787	76%	99%

Source: WSSD Govt. of Maharashtra 2012

Jalswarajya Yojana: (Project)

At present; the implementation of the project is beign carried in 3,008 grampanchayats. Since implemented were to be made available to 11.27 lakh households there by benefecries

87.90 lakh people. Upto now 2010 a total expenditure of Rs. 1,115.34 crore was incurred. The following table have shown the details physical progress of Jalswarya Yojana.

Table No.12 Physical Progress of Jalswarajaya Yojana

Region	Selected	covered in the project	Successfull in having regular water supply
Amaravati	554	464	440
Aurangabad	852	812	754
Kokan	353	323	294
Nagpur	741	646	611
Nashik	380	288	258
Pune	511	475	459

Source: Water supply department, GOM.

Apale pani (Our Water):

In order to Govt. of Maharashtra department to accept support from the German development bank, rural Water supply project, 'Aapale Pani' at present 256 schemes (61 in phase I and 195 in phase II) are being implemented to 793 habitations of 237 gram panchayat. Upto Nov 2010 provided to 793 habituation in 224 gram panchayat. Through 243 schemes incurring total expenditure of Rs. 95.69 crore.

Internally funded schemes:

The state government up to 2010-11 9,745 villages/wadis were identified as facing problem of drinking water as per comprehensive action plan for the year were tackled with an expenditure 555.62 crore. Scarcity programme is implemented every year during the period from October to June in water scarcity affected villages and wadis.

The scheme wise number of villages/wadis covered under this programme during the year given in following table.

Table No. 13 Villages/Wadis covered under scarcity water supply scheme

Scheme	No of villages								
	Oct 2008 To 2009	Oct 2009 To 10	2010 To 11	2011 To 12	No of Wadis	2008 To 09	2009 To 10	2010 to 11	2011 To 12
1) Construction of new bore well	2,820	3,141	829	2,096	1,317	1,061	676	2,199	
2) Special repairs to piped water	890	863	194	463	166	32	26	49	
3) Special repairs to bore well	3,756	3,118	691	1,035	3,911	690	278	1,785	
4) Temporary supplementary piped water	226	271	69	138	21	20	5	44	
5) Supply of water by tankers/bullock carts	2,467	2,070	1,488	1,404	2884	1535	250	4,768	
6) Requisition of private wells	2798	4347	24	2182	501	616	40	1,859	
7) Deping/desiltation of existing wells	338	230	0	336	59	127	0	122	
8) Construction of Budkies	23	4	605	0	0	0	741	0	

Source: Water supply department, GOM.

Table presented that village covered under scarcity water supply scheme almost 8 schemes under scarcity water supply scheme variation of these villages covered high coverage of villages with drinking water sources but scarcity problem face villages. Villages covered in 2009 and 2011 is high because in this year rainfall is decreasing.

Shivkalin Pani Sathavan Yojana (Plan)

Since 2002 being implemented upto Jan 2013 in all 10,715 habitation were selected under this scheme to implement 27,410 measures, of which 10,092 habitation were tackled and 23,462 measures were completed in 9,251 habitations incurring total expenditure of Rs. 373.40 crore.

MJP: (Maharashtra Jeevan Pradhikaran)

MJP has completed 11,127 rural water supply schemes since implemented. Were Ongoing schemes are 185 which is costing Rs. 1414 crores covering 2171 habitations (1081 villages and 1090 wadis) is in progress upto march 2012, 945 crore have been spend on this scheme.

Important Findings:

The major findings of the present study are as follows:

- 1) The government investment in drinking water improvements which structural Institutional efforts, since 1951 was

compressive effort by the government of India.

- 2) Since the beginning of the sixth five year plan (1980-85) government was Committed to drinking water provision expenditure increased a significantly percentage of the union budget.
- 3) Government has been committed to attain the MDG'S having by 2015' in terms of coverage of population. This trends of policies natural sector accelerated rural water supply programmes and Bharat Nirman.
- 4) In Maharashtra rural drinking water availability programme was taken various funds were made available under different internal and external agencies. Those funds are utilization the large level has targeted number of villages.
- 5) In 1999 government of Maharashtra committed tankers free Maharashtra this goal has not satisfaction at present stage.
- 6) Increase number of villages under the Various programmes, of scarcity water supply schemes.

Conclusion:

analyzed fact that the progress and achievement in rural drinking water availability sector view focused plan period; village coverage, providing safe drinking water to all people has assigned the highest priority for drinking water supply. Successive five year plans. Since have stressed the imperative to develop water availability schemes rapidly increasing.

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