

Chapter – 5

ANALYSIS OF SECONDARY DATA

Chapter Contents

PART – I	
NATIONAL LEVEL ANALYSIS	
5.1	NATIONAL RURAL DRINKING WATER PROGRAMME 105
5.2	ANALYSIS OF FINANCIAL PROGRESS DATA 106
5.3	ANALYSIS OF OPERATIONAL DATA 123
PART – II	
ANALYSIS FOR GUJARAT STATE	
5.4	FINANCIAL PROGRESS OF RURAL WATER SUPPLY SCHEMES .. 141
5.5	DISTRICT WISE ANALYSIS OF OPERATIONAL DATA 148
5.6	CAPITAL COST OF INVESTMENTS IN FOUR REGIONAL RURAL WATER SUPPLY SCHEMES 162
5.7	MAJOR FINDINGS 163
	REFERENCES 168

Chapter – 5

ANALYSIS OF SECONDARY DATA

As discussed in chapter – 2, water availability is a problem in some of the areas of India and to improve accessibility of water and to improve quality of available water has continuously remained one of the focus areas for the Government of India. To meet with this, numerous efforts have been taken under five year plans in India. NRDWP is a body instituted for this purpose at all India level. This chapter is based on the analysis of secondary data. A vast variety of data are available for different states of the entire country as well as different districts of these states. In order to get comprehensive idea about number of water supply schemes on going / new, along with their coverage of habitation / allotted fund and expenditure incurred, state wise data for all the states have been analyzed. Special attention is given to the study of Gujarat state. For this secondary data related to different districts are collected. A special focus is given to the four schemes to which this study relates.

PART – I

NATIONAL LEVEL ANALYSIS

5.1 NATIONAL RURAL DRINKING WATER PROGRAMME

The NRDWP was established in 2009. This is a 100% centrally sponsored programme¹. The role of Ministry of Drinking Water and Sanitation is to provide funds to the State Governments on the basis of allocation criteria which will include the rural population, the extent of Desert Development Program / Drought Prone Area Program / Hill Area Development Program areas. However, flexibility is available with the Department to allocate more funds to the States which show better performance during the course of the implementation of the programme. The fund allocation for different national rural drinking water schemes and the individual schemes utilize funds in different manners. The ongoing schemes, new schemes and achieved schemes are for various states and districts. In 2009, for e.g. there are 55,216 schemes ongoing, 1,35,281 are new schemes, 1,48,633 are achieved schemes and 2,29,544 are covered habitations.

The amount of allocation for each state is decided based² on (i) rural population (ii) rural SC and ST population (iii) area under desert, drought prone, hilly areas (iv) extent of devolution of management of schemes to *Panchayats* which are to be utilized for Operation and Maintenance. Year wise data is available from <http://www.ddws.nic.in> about allocation, release and expenditure incurred out of central fund. The states are also contributing to the same³.

As NRDWP came into existence in 2009, the data are available from 2009-10 onwards only. Complete annual data are available up to 2014-15. Therefore, the analysis based on available data is carried out for 6 years. The available data can be bifurcated in to 2 parts (1) financial progress data and (2) operational data.

- (1) Amongst the financial data collected are: allocation of funds by centre to various states, release of funds by centre to various states and the expenditure incurred out of released funds. For some of the years, 'other deposits' are also there. This is part of source of funds and therefore the years when other deposits are there, expenditure are derived as percentage of (Release + other deposits).
- (2) The operational data relates to schemes in various categories e.g. new, ongoing and achieved, the habitations covered and the total cost.

The following para, presents the analysis.

5.2 ANALYSIS OF FINANCIAL PROGRESS DATA

Based on the data available for fund allocation by Centre etc. the following computations are carried out.

- (i) Percentage of funds released (centre) to percentage of funds allocated (centre), state wise.
- (ii) Percentage of expenditure incurred (centre) to percentage of funds released centre state wise.
- (iii) To know the relative status of various states, the percentage share of state for each of the above, for all six years is derived.

The above details are presented from Table 5.1 to Table 5.12, from year 2009-10 to 2014-2015. The average percentage of release to allocation and of expenditure to release or expenditure to (Release + other deposits) is also presented in Table 5.14. The average share of each state over a period of 2009-15 for allocation, release and expenditure is presented in Table 5.15.

2009-10: Table 5.1 presents the analysis for the year 2009-10. It is noticed that 12 out of 28 states have released fund greater than the allocation, and 8 out of 28 states have expenditure greater than release.

Table 5.1 Allocation, Release and Expenditure of Central Funds: 2009-10

Sr. No	State	Allocation Central (₹ Crores)	Release Central (₹ Crores)	Col.(2)as % of Col.(1)	Expenditure Central (₹ Crores)	Expenditure as % of Release
		1	2	3	4	5
1	Andhra Pradesh	437.09	537.37	122.94	394.45	73.40
2	Arunachal Pradesh	180.00	178.20	99.00	193.74	108.72
3	Assam	301.60	323.50	107.26	269.34	83.26
4	Bihar	372.21	186.11	50.00	279.36	150.10
5	Chhattisgarh	116.01	128.22	110.52	104.06	81.16
6	Goa	5.64	3.32	58.87	0.50	15.06
7	Gujarat	482.75	482.75	100.00	511.83	106.02
8	Haryana	207.89	206.89	99.52	132.35	63.97
9	Himachal Pradesh	138.52	182.85	132.00	160.03	87.52
10	Jammu & Kashmir	447.74	402.51	89.90	383.49	95.27
11	Jharkhand	149.29	111.34	74.58	86.04	77.28
12	Karnataka	573.67	627.86	109.45	473.71	75.45
13	Kerala	152.77	152.04	99.52	150.56	99.03
14	Madhya Pradesh	367.66	379.66	103.26	354.30	93.32
15	Maharashtra	652.43	647.81	99.29	625.59	96.57
16	Manipur	61.60	38.57	62.61	30.17	78.22
17	Meghalaya	70.40	79.40	112.78	68.57	86.36
18	Mizoram	50.40	55.26	109.64	51.39	93.00
19	Nagaland	52.00	47.06	90.50	71.58	152.10
20	Odisha	187.13	226.66	121.12	198.57	87.61
21	Punjab	81.71	88.81	108.69	110.15	124.03
22	Rajasthan	1,036.46	1,012.16	97.66	671.29	66.32
23	Sikkim	21.60	20.60	95.37	28.94	140.49
24	Tamil Nadu	320.43	317.95	99.23	370.44	116.51
25	Tripura	62.40	77.40	124.04	77.35	99.94
26	Uttar Pradesh	959.12	956.36	99.71	967.38	101.15
27	Uttarakhand	126.16	124.90	99.00	64.07	51.30
28	West Bengal	372.29	394.30	105.91	128.30	32.54
		7,986.97	7,989.86	100.04	6,957.55	87.08

(Source: Column no (1), (2), (4) from <http://indiawater.nic.in>, & column (3) & (5) derived by calculation)

Note: Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi, Lakshadweep and Puducherry are not considered because they have not received allocation.

It is observed that 12 states have allocation and release higher than the average of ₹285 crores. It can be seen that 11 states have expenditure higher than the average of ₹248 crores. It is noticed that Andhra Pradesh, Gujarat, Jammu & Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh, have allocation, release and expenditure higher than the average. The main issues in successful scheme implementation are institutional development, financial viability and protection of water sources apart from the leakages in distribution system.

To examine fund allocation, release and expenditure share of all states, the computations are carried out and are presented in Table 5.2 (2009-10). As per Table 5.2 for the year 2009-10 percentage of fund allocated to Rajasthan is highest followed by Uttar Pradesh (12.01%), Maharashtra (8.17%), Karnataka (7.18%) and Gujarat (6.04%). Thus, only 5 states out of 28 have 46% allocation of funds. When release of the funds is examined, for the State of Rajasthan it is highest at 12.67% followed by Uttar Pradesh (11.97%), Maharashtra (8.11%), Karnataka (7.86%) and Andhra Pradesh (6.73%). Thus, for allocation Andhra Pradesh is at 7th place but for release it stands at 5th place. Thus, about 47% of funds are released to 5 states out of 28 states. When actual expenditure incurred is examined, Rajasthan does not remain at top. Instead Uttar Pradesh is at the top at 13.90% of expenditure from central funds, followed by Rajasthan (9.65%), Maharashtra (8.99%), Gujarat (7.36%) and Karnataka (6.81%). Thus, 5 out of 28 states are incurring about 47% of total expenditure.

Table 5.2 States Share in Allocation, Release and Expenditure of Central Funds: 2009-10

Sr. No	State	Percentage of Allocation Central	Percentage of Release Central	Percentage of Expenditure Central
1	Andhra Pradesh	5.47	6.73	5.67
2	Arunachal Pradesh	2.25	2.23	2.78
3	Assam	3.78	4.05	3.87
4	Bihar	4.66	2.33	4.02
5	Chhattisgarh	1.45	1.60	1.50
6	Goa	0.07	0.04	0.01
7	Gujarat	6.04	6.04	7.36
8	Haryana	2.60	2.59	1.90
9	Himachal Pradesh	1.73	2.29	2.30
10	Jammu & Kashmir	5.61	5.04	5.51
11	Jharkhand	1.87	1.39	1.24
12	Karnataka	7.18	7.86	6.81
13	Kerala	1.91	1.90	2.16
14	Madhya Pradesh	4.60	4.75	5.09
15	Maharashtra	8.17	8.11	8.99
16	Manipur	0.77	0.48	0.43
17	Meghalaya	0.88	0.99	0.99
18	Mizoram	0.63	0.69	0.74
19	Nagaland	0.65	0.59	1.03
20	Odisha	2.34	2.84	2.85
21	Punjab	1.02	1.11	1.58
22	Rajasthan	12.98	12.67	9.65
23	Sikkim	0.27	0.26	0.42
24	Tamil Nadu	4.01	3.98	5.32
25	Tripura	0.78	0.97	1.11
26	Uttar Pradesh	12.01	11.97	13.90
27	Uttarakhand	1.58	1.56	0.92
28	West Bengal	4.66	4.94	1.84
	Total	100	100	100

(Source: Percentage derived by own calculation)

Note: Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi, Lakshadweep and Puducherry are not considered because they have not received allocation.

2010-11: Table 5.3 presents the data and calculation for the year 2010-11. It is observed that 16 out of 30 states have release fund greater than the allocation. In case of 6 out of 30 states have expenditure greater than release. It can be seen that 10 states have release fund higher than the average of ₹298.06 crores. 12 states have allocation fund higher than the average of ₹284.78 crores. It is observed that 12 out of 30 states have expenditure higher than the average of ₹267.03 crores. It is found that Andhra Pradesh, Tamil Nadu, Uttar Pradesh and West Bengal have allocation, release and expenditure higher than the average.

Table 5.3 Allocation, Release and Expenditure of Central Funds: 2010-11

Sr. No	State	Allocation Central (₹ Crores)	Release Central (₹ Crores)	Col.(2)as % of Col.(1)	Expenditure Central	Expenditure as % of Release
		1	2	3	4	5
1	Andaman & Nicobar	1.01	0	0.00	0	0.00
2	Andhra Pradesh	491.02	558.78	113.80	423.38	75.77
3	Arunachal Pradesh	123.35	200	162.14	173.64	86.82
4	Assam	449.64	487.48	108.42	480.55	98.58
5	Bihar	341.46	170.73	50.00	425.91	249.46
6	Chhattisgarh	130.27	122.01	93.66	97.77	80.13
7	Goa	5.34	0	0.00	1.16	0.00
8	Gujarat	542.67	609.1	112.24	527.29	86.57
9	Haryana	233.69	276.9	118.49	201.57	72.80
10	Himachal Pradesh	133.71	194.36	145.36	165.59	85.20
11	Jammu & Kashmir	449.22	468.91	104.38	506.52	108.02
12	Jharkhand	165.93	129.95	78.32	128.19	98.65
13	Karnataka	644.92	703.8	109.13	573.93	81.55
14	Kerala	144.28	159.83	110.78	137.97	86.32
15	Madhya Pradesh	399.04	388.32	97.31	326.42	84.06
16	Maharashtra	733.27	718.42	97.97	713.79	99.36
17	Manipur	54.61	52.77	96.63	69.27	131.27
18	Meghalaya	63.48	84.88	133.71	70.47	83.02
19	Mizoram	46.00	61.58	133.87	0	0.00
20	Nagaland	79.51	77.52	97.50	80.63	104.01
21	Odisha	204.88	294.76	143.87	211.11	71.62
22	Puducherry	1.54	0	0.00	0	0.00
23	Punjab	82.21	106.59	129.66	108.93	102.20
24	Rajasthan	1,165.44	1,099.49	94.34	852.82	77.57
25	Sikkim	26.24	23.2	88.41	19.27	83.06
26	Tamilnadu	316.91	393.53	124.18	303.41	77.10
27	Tripura	57.17	74.66	130.59	67.2	90.01
28	Uttar Pradesh	899.12	848.68	94.39	933.28	109.97
29	Uttarakhand	139.39	136.41	97.86	55.38	40.60
30	West Bengal	418.03	499.19	119.41	355.55	71.23
	Total	8,543.35	8,941.85	104.66	8,011.00	89.59

(Source: Column no (1), (2), (4) from <http://indiawater.nic.in>, & column (3) & (5) derived by calculation)

Note: Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi and Lakshadweep are not considered because they have not received allocation.

To examine fund allocation, release and expenditure share of all states, the computation are carried out and are presented in Table 5.4. As per Table 5.4 for the year 2010-11 percentage of fund allocated to Rajasthan is highest (13.64%) followed by Uttar Pradesh (10.52%), Maharashtra (8.58%), Karnataka (7.55%) and Gujarat (6.35%). When release of the funds is examined, for the State of Rajasthan it is highest at 12.30% followed by Uttar Pradesh (9.49%), Maharashtra (8.03%), Karnataka (7.87%), and Gujarat (6.81%). When actual expenditure incurred is examined, Rajasthan does not remain at top. Instead Uttar Pradesh is at the top at 11.65% of expenditure out of central funds, followed by Rajasthan (10.65%), Maharashtra (8.91%), Karnataka (7.16%) and

Gujarat (6.58%). Thus Rajasthan, Uttar Pradesh and Maharashtra have consistently remained at top regarding allocation and release of funds. The top 5 out of 30 states have 46% of allocation and about 45% of release and expenditure of the central funds.

Table 5.4 States Share in Allocation, Release and Expenditure of Central Funds: 2010-11

Sr. No	State	Percentage of Allocation Central	Percentage of Release Central	Percentage of Expenditure Central
1	Andaman & Nicobar	0.01	0.00	0.00
2	Andhra Pradesh	5.75	6.25	5.28
3	Arunachal Pradesh	1.44	2.24	2.17
4	Assam	5.26	5.45	6.00
5	Bihar	4.00	1.91	5.32
6	Chhattisgarh	1.52	1.36	1.22
7	Goa	0.06	0.00	0.01
8	Gujarat	6.35	6.81	6.58
9	Haryana	2.74	3.10	2.52
10	Himachal Pradesh	1.57	2.17	2.07
11	Jammu & Kashmir	5.26	5.24	6.32
12	Jharkhand	1.94	1.45	1.60
13	Karnataka	7.55	7.87	7.16
14	Kerala	1.69	1.79	1.72
15	Madhya Pradesh	4.67	4.34	4.07
16	Maharashtra	8.58	8.03	8.91
17	Manipur	0.64	0.59	0.86
18	Meghalaya	0.74	0.95	0.88
19	Mizoram	0.54	0.69	0.00
20	Nagaland	0.93	0.87	1.01
21	Odisha	2.40	3.30	2.64
22	Puducherry	0.02	0.00	0.00
23	Punjab	0.96	1.19	1.36
24	Rajasthan	13.64	12.30	10.65
25	Sikkim	0.31	0.26	0.24
26	Tamilnadu	3.71	4.40	3.79
27	Tripura	0.67	0.83	0.84
28	Uttar Pradesh	10.52	9.49	11.65
29	Uttarakhand	1.63	1.53	0.69
30	West Bengal	4.89	5.58	4.44
	Total	100	100	100

(Source: Percentage derived by own calculation)

Note: Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi and Lakshadweep are not considered because they have not received allocation.

2011-12: Table 5.5 and Table 5.6 present the data and analysis for the year 2011-12. From the Table 5.5 it is observed that 11 out of 28 states have release funds greater than allocation. However, 15 out of 28 states have expenditure greater than release. It is seen that in certain states expenditure incurred is more than fund release states. It is noticed that 12 states have allocation fund higher than the average of ₹297.5 crores and 11 states have release fund higher than the

average of ₹302.64 crores. It can be seen that 12 states have expenditure higher than average of ₹320.81 crores. It is noticed that Andhra Pradesh, Assam, Bihar, Gujarat, Jammu & Kashmir, Karnataka, Maharashtra, Rajasthan, Uttar Pradesh, West Bengal have allocation, release and expenditure higher than the average.

Table 5.5 Allocation, Release and Expenditure of Central Funds: 2011-12

Sr. No	State	Allocation Central (₹ Crores)	Release Central (₹ Crores)	Col.(2) as % of Col.(1)	Expenditure Central	Expenditure as % of Release
		1	2	3	4	5
1	Andhra Pradesh	546.32	462.47	84.65	446.37	96.52
2	Arunachal Pradesh	120.56	184.83	153.31	215.78	116.75
3	Assam	435.58	522.44	119.94	468.61	89.70
4	Bihar	374.98	330.02	88.01	367.30	111.30
5	Chhattisgarh	143.57	139.06	96.86	141.12	101.48
6	Goa	5.20	5.01	96.35	1.16	23.15
7	Gujarat	478.89	571.05	119.24	467.70	81.90
8	Haryana	210.51	237.74	112.94	344.71	144.99
9	Himachal Pradesh	131.47	146.03	111.07	145.97	99.96
10	Jammu & Kashmir	436.21	420.42	96.38	507.07	120.61
11	Jharkhand	162.52	148.17	91.17	169.84	114.63
12	Karnataka	687.11	667.78	97.19	782.85	117.23
13	Kerala	144.43	113.39	78.51	126.98	111.99
14	Madhya Pradesh	371.97	292.78	78.71	379.30	129.55
15	Maharashtra	728.35	718.35	98.63	642.20	89.40
16	Manipur	53.39	47.60	89.16	47.03	98.80
17	Meghalaya	61.67	95.89	155.49	85.44	89.10
18	Mizoram	39.67	38.83	97.88	54.03	139.14
19	Nagaland	81.68	80.91	99.06	81.82	101.12
20	Odisha	206.55	171.05	82.81	239.60	140.08
21	Punjab	88.02	123.44	140.24	122.32	99.09
22	Rajasthan	1,083.57	1,153.76	106.48	1,429.18	123.87
23	Sikkim	28.10	69.19	246.23	24.49	35.40
24	Tamil Nadu	330.04	429.55	130.15	287.60	66.95
25	Tripura	56.20	83.86	149.22	108.37	129.23
26	Uttar Pradesh	843.30	802.32	95.14	754.20	94.00
27	Uttarakhand	136.54	75.57	55.35	67.29	89.04
28	West Bengal	343.60	342.51	99.68	474.46	138.52
Total		8,330.00	8,474.02	101.73	8,982.79	106

(Source: Column no (1), (2), (4), from <http://indiawater.nic.in>, & column (3) & (5) derived by calculation)

Note: Andaman & Nicobar, Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi, Lakshadweep and Puducherry are not considered because they have not received allocation.

To examine fund allocation, release and expenditure share of all states, the computations are carried out and are presented in Table 5.6. As per Table 5.6 for the year 2011-12 percentage of fund allocated to Rajasthan is highest at 13.01% followed by Uttar Pradesh (10.12%), Maharashtra (8.74%), Karnataka (8.25%), and Andhra Pradesh (6.56%). When release of the funds is examined, again for the State of Rajasthan it is highest at 13.62% followed by Uttar Pradesh (9.47%), Maharashtra (8.48%), Karnataka (7.88%), and Gujarat (6.74%). For

actual expenditure incurred also, Rajasthan (15.91%) is at the top, followed by Karnataka (8.71%), Uttar Pradesh (8.40%), Maharashtra (7.15%) and Assam (5.22%). Thus, for all three aspects, Rajasthan is at the top. The top 5 out of 28 states have 46% allocation and release of fund and 45% expenditure of the central fund.

Table 5.6 States Share in Allocation, Release and Expenditure of Central Fund: 2011-12

Sr. No	State	Percentage of Allocation Central	Percentage of Release Central	Percentage of Expenditure Central
1	Andhra Pradesh	6.56	5.46	4.97
2	Arunachal Pradesh	1.45	2.18	2.40
3	Assam	5.23	6.17	5.22
4	Bihar	4.50	3.89	4.09
5	Chhattisgarh	1.72	1.64	1.57
6	Goa	0.06	0.06	0.01
7	Gujarat	5.75	6.74	5.21
8	Haryana	2.53	2.81	3.84
9	Himachal Pradesh	1.58	1.72	1.62
10	Jammu & Kashmir	5.24	4.96	5.64
11	Jharkhand	1.95	1.75	1.89
12	Karnataka	8.25	7.88	8.71
13	Kerala	1.73	1.34	1.41
14	Madhya Pradesh	4.47	3.46	4.22
15	Maharashtra	8.74	8.48	7.15
16	Manipur	0.64	0.56	0.52
17	Meghalaya	0.74	1.13	0.95
18	Mizoram	0.48	0.46	0.60
19	Nagaland	0.98	0.95	0.91
20	Odisha	2.48	2.02	2.67
21	Punjab	1.06	1.46	1.36
22	Rajasthan	13.01	13.62	15.91
23	Sikkim	0.34	0.82	0.27
24	Tamil Nadu	3.96	5.07	3.20
25	Tripura	0.67	0.99	1.21
26	Uttar Pradesh	10.12	9.47	8.40
27	Uttarakhand	1.64	0.89	0.75
28	West Bengal	4.12	4.04	5.28
	Total	100	100	100

(Sources: Percentage derived by own calculation)

Note: Andaman & Nicobar, Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi, Lakshadweep and Puducherry are not considering considered because they have not received allocation.

It is noticed that in Rajasthan release of funds was higher for 2011-12 as compared to 2010-11 both in absolute terms as well as percentage share. For Uttar Pradesh release of fund had declined from 2010-11 to 2011-12 both in absolute terms as well as percentage share. Another important point worth mentioning is that in 2011-12, both allocation and release of funds in absolute terms have gone down. However, the expenditure incurred from central funds has gone up.

2012-13: Table 5.7 and Table 5.8 present the data and analysis for the year 2012-13. From the Table 5.7 it is observed that 12 out of 30 states have release fund greater than allocation. It can be seen that 12 states have expenditure greater than release fund. 12 states have allocation fund higher than the average of ₹343 crores. It is noticed that 12 states have release fund higher than the average of ₹349 crores. It is found that 11 states have expenditure higher than the average of ₹332.60 crores. It is observed that Andhra Pradesh, Assam, Gujarat, Jammu & Kashmir, Karnataka, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal have allocation, release fund and expenditure higher than the average.

Table 5.7 Allocation, Release and Expenditure of Central Funds: 2012-13

Sr. No	State	Allocation Central (₹ Crores)	Release Central (₹ Crores)	Col.(2) as % of Col.(1)	Expenditure Central	Expenditure as % of Release
		1	2	3	4	5
1	Andaman & Nicobar	1.15	0.78	67.83	0.00	0.00
2	Andhra Pradesh	563.39	485.14	86.11	672.82	138.69
3	Arunachal Pradesh	145.32	223.22	153.61	220.65	98.85
4	Assam	525.71	659.21	125.39	594.02	90.11
5	Bihar	484.24	224.30	46.32	293.09	130.67
6	Chhattisgarh	168.89	148.64	88.01	162.85	109.56
7	Goa	6.07	0.03	0.49	0.00	0.00
8	Gujarat	578.29	717.47	124.07	797.93	111.21
9	Haryana	250.24	313.41	125.24	275.54	87.92
10	Himachal Pradesh	153.59	129.90	84.58	124.06	95.50
11	Jammu & Kashmir	510.76	474.50	92.90	488.09	102.86
12	Jharkhand	191.86	243.43	126.88	204.87	84.16
13	Karnataka	922.67	869.24	94.21	874.78	100.64
14	Kerala	193.59	249.04	128.64	193.62	77.75
15	Madhya Pradesh	447.33	539.56	120.62	426.56	79.06
16	Maharashtra	897.96	846.48	94.27	612.61	72.37
17	Manipur	69.99	66.21	94.60	59.61	90.03
18	Meghalaya	73.96	97.61	131.98	101.44	103.92
19	Mizoram	48.35	47.92	99.11	33.88	70.70
20	Nagaland	110.25	110.20	99.95	108.56	98.51
21	Odisha	243.91	210.58	86.34	249.39	118.43
22	Puducherry	1.75	0.88	50.29	0.00	0.00
23	Punjab	101.90	144.27	141.58	121.22	84.02
24	Rajasthan	1,352.54	1,411.36	104.35	1,314.18	93.11
25	Sikkim	36.69	32.36	88.20	38.89	120.18
26	Tamil Nadu	394.82	570.17	144.41	625.00	109.62
27	Tripura	70.66	100.59	142.36	99.36	98.78
28	Uttar Pradesh	1,060.87	980.06	92.38	600.77	61.30
29	Uttarakhand	159.74	74.28	46.50	147.99	199.23
30	West Bengal	523.53	502.36	95.96	536.43	106.78
	Total	10,290.02	1,0473.20	101.78	9,978.21	95.27

(Source: Column no (1), (2), (4) from <http://indiawater.nic.in>, & column (3) & (5) derived by calculation)

Note: Chandigarh, Dadar & Nagar haveli, Daman & Diu, Delhi, and Lakshadweep are not considered because they have not received allocation.

To examine fund allocation, release and expenditure share of all states, the computation are carried out and are presented in Table 5.8. As per Table 5.8 in the year 2012-13 percentage of central fund allocated to Rajasthan is highest (13.14%) followed by Uttar Pradesh (10.31%), Karnataka (8.97%), Maharashtra (8.73%) and Gujarat (5.62%). When release of the central funds is examined, for the State of Rajasthan it is highest at 13.48% followed by Uttar Pradesh (9.36%), Karnataka (8.30%), Maharashtra (8.08%) and Gujarat (6.85%). When actual expenditure incurred out of central funds is examined, again Rajasthan is at top (13.17%) followed by Karnataka (8.77%), Gujarat (8%), Andhra Pradesh (6.74%) and Tamil Nadu (6.26%). The top 5 out of 30 states have 46% of allocation and release of fund and 43% of expenditure of the central fund.

Table 5.8 States Share in Allocation, Release and Expenditure of Central Funds: 2012-13

Sr. No	State	Percentage of Allocation Central	Percentage of Release Central	Percentage of Expenditure Central
1	Andaman & Nicobar	0.01	0.01	0.00
2	Andhra Pradesh	5.48	4.63	6.74
3	Arunachal Pradesh	1.41	2.13	2.21
4	Assam	5.11	6.29	5.95
5	Bihar	4.71	2.14	2.94
6	Chhattisgarh	1.64	1.42	1.63
7	Goa	0.06	0.00	0.00
8	Gujarat	5.62	6.85	8.00
9	Haryana	2.43	2.99	2.76
10	Himachal Pradesh	1.49	1.24	1.24
11	Jammu & Kashmir	4.96	4.53	4.89
12	Jharkhand	1.86	2.32	2.05
13	Karnataka	8.97	8.30	8.77
14	Kerala	1.88	2.38	1.94
15	Madhya Pradesh	4.35	5.15	4.27
16	Maharashtra	8.73	8.08	6.14
17	Manipur	0.68	0.63	0.60
18	Meghalaya	0.72	0.93	1.02
19	Mizoram	0.47	0.46	0.34
20	Nagaland	1.07	1.05	1.09
21	Odisha	2.37	2.01	2.50
22	Puducherry	0.02	0.01	0.00
23	Punjab	0.99	1.38	1.21
24	Rajasthan	13.14	13.48	13.17
25	Sikkim	0.36	0.31	0.39
26	Tamil Nadu	3.84	5.44	6.26
27	Tripura	0.69	0.96	1.00
28	Uttar Pradesh	10.31	9.36	6.02
29	Uttarakhand	1.55	0.71	1.48
30	West Bengal	5.09	4.80	5.38
	Total	100.00	100.00	100.00

(Source: Percentage derived by own calculation)

Note: Chandigarh, Dadar & Nagar haveli, Daman & Diu, Delhi, and Lakshadweep are not considered because they have not received allocation.

Thus, for all three aspects, Rajasthan is consistently at the top. It is noticed that for Rajasthan share of release of central funds had declined in 2012-13 to 13.48% from 13.62% in 2011-12. However, it is worth noting that total allocation, release of funds and expenditure has increased in 2012-13 as compared to 2011-12. However, for Rajasthan for the year 2012-13, expenditure out of central funds has gone down.

2013-14: Table 5.9 and Table 5.10 present data and analysis for the year 2013-14. Table 5.9 displays financial progress of state wise allocation, release and expenditure in 2013-14.

Table 5.9 Allocation, Release and Expenditure of Central Funds: 2013-14

Sr. No	State	Allocation Central (₹ Crores)	Release Central (₹ crores)	Col.(2) as % of Col.(1)	Expenditure Central	Expenditure as % of Release
		1	2	3	4	5
1	Andaman & Nicobar	1.04	0.09	8.65	0.64	711.11
2	Andhra Pradesh	635.44	631.52	99.38	662.40	104.89
3	Arunachal Pradesh	201.23	237.32	117.93	230.97	97.32
4	Assam	470.00	514.98	109.57	635.18	123.34
5	Bihar	432.38	338.95	78.39	307.43	90.70
6	Chhattisgarh	136.13	135.20	99.32	172.38	127.50
7	Goa	5.50	0.00	0.00	2.22	0.00
8	Gujarat	533.73	515.07	96.50	627.95	121.92
9	Haryana	229.46	229.52	100.03	301.15	131.21
10	Himachal Pradesh	138.51	130.81	94.44	153.33	117.22
11	Jammu & Kashmir	462.43	414.82	89.70	499.79	120.48
12	Jharkhand	172.85	243.29	140.75	277.96	114.25
13	Karnataka	868.76	897.29	103.28	928.81	103.51
14	Kerala	155.58	212.04	136.29	265.10	125.02
15	Madhya Pradesh	404.81	474.95	117.33	484.09	101.92
16	Maharashtra	788.48	690.27	87.54	657.46	95.25
17	Manipur	58.75	55.30	94.13	54.17	97.96
18	Meghalaya	92.18	103.40	112.17	114.81	111.03
19	Mizoram	38.41	44.89	116.87	33.37	74.34
20	Nagaland	56.66	61.07	107.78	52.38	85.77
21	Odisha	227.35	317.07	139.46	288.08	90.86
22	Puducherry	1.59	0.06	3.77	0.00	0.00
23	Punjab	96.89	147.95	152.70	159.05	107.50
24	Rajasthan	1,231.05	1,332.49	108.24	1,461.51	109.68
25	Sikkim	16.88	26.56	157.35	71.25	268.26
26	Tamil Nadu	273.63	387.11	141.47	527.57	136.28
27	Tripura	59.29	89.93	151.68	94.19	104.74
28	Uttar Pradesh	923.18	794.93	86.11	858.50	108.00
29	Uttarakhand	145.58	87.61	60.18	138.59	158.19
30	West Bengal	490.63	485.83	99.02	757.11	155.84
	Total	9,348.40	9,600.32	102.69	10,817.44	112.68

(Source: Column no (1), (2), (4) from <http://indiawater.nic.in>, & column (3) & (5) derived by calculation)

Note: Chandigarh, Dadar & Nagar haveli, Daman & Diu, Delhi, and Lakshadweep are not considered because they have not received allocation.

It is observed that 16 out of 30 states have release fund greater than allocation. It can be seen that 20 states have expenditure greater than release fund. It is noticed that 11 states have allocated fund higher than the average of ₹311.61 crores, and 12 states have released fund higher than the average of ₹320 crores. It is found that 11 states have expenditure higher than average of ₹360.58 crores. It is observed that Andhra Pradesh, Assam, Gujarat, Jammu & Kashmir, Karnataka, Maharashtra, Madhya Pradesh, Rajasthan, Uttar Pradesh, West Bengal have allocation, release of fund and expenditure higher than the average. As the total expenditure incurred is higher than the total released funds, it is observed that for most of the state's expenditure is higher than the released funds.

To examine the share of each state in fund allocation, release and expenditure the computations are carried out and are presented in Table 5.10. In Table 5.10 for the year 2013-14 percentage of fund allocated to Rajasthan (13.17%) is highest followed by Uttar Pradesh (9.88%), Karnataka (9.29%), Maharashtra (8.43%) and Andhra Pradesh (6.58%). When release of the funds is examined, for the State of Rajasthan it is highest at 13.88% followed by Karnataka (8.59%), Uttar Pradesh (7.94%), Andhra Pradesh (6.12%) and Maharashtra (6.08%). When actual expenditure incurred is examined, Rajasthan is at 13.51% at top followed by Karnataka (8.59%), Uttar Pradesh (7.94%), West Bengal (7%) and Andhra Pradesh (6.12%). Thus, Rajasthan is having highest share in allocation, release and expenditure. The top 5 out of 30 states have 47% of allocation of funds and 42% of release of funds and 43% of total expenditure.

It is important to note that for the year 2013-14 the allocation and release of central funds to state has reduced as compared to previous year however the expenditure out of the central fund has moved up. It is seen that in certain states expenditure incurred is more than fund released.

Table 5.10 States Share in Allocation, Release and Expenditure of Central Funds: 2013-14

Sr. No	State	Percentage of Allocation Central	Percentage of Release Central	Percentage of Expenditure Central
1	Andaman & Nicobar	0.01	0.00	0.01
2	Andhra Pradesh	6.80	6.58	6.12
3	Arunachal Pradesh	2.15	2.47	2.14
4	Assam	5.03	5.36	5.87
5	Bihar	4.63	3.53	2.84
6	Chhattisgarh	1.46	1.41	1.59
7	Goa	0.06	0.00	0.02
8	Gujarat	5.71	5.37	5.80
9	Haryana	2.45	2.39	2.78
10	Himachal Pradesh	1.48	1.36	1.42
11	Jammu & Kashmir	4.95	4.32	4.62
12	Jharkhand	1.85	2.53	2.57
13	Karnataka	9.29	9.35	8.59
14	Kerala	1.66	2.21	2.45
15	Madhya Pradesh	4.33	4.95	4.48
16	Maharashtra	8.43	7.19	6.08
17	Manipur	0.63	0.58	0.50
18	Meghalaya	0.99	1.08	1.06
19	Mizoram	0.41	0.47	0.31
20	Nagaland	0.61	0.64	0.48
21	Odisha	2.43	3.30	2.66
22	Puducherry	0.02	0.00	0.00
23	Punjab	1.04	1.54	1.47
24	Rajasthan	13.17	13.88	13.51
25	Sikkim	0.18	0.28	0.66
26	Tamil Nadu	2.93	4.03	4.88
27	Tripura	0.63	0.94	0.87
28	Uttar Pradesh	9.88	8.28	7.94
29	Uttarakhand	1.56	0.91	1.28
30	West Bengal	5.25	5.06	7.00
	Total	100.00	100.00	100.00

(Source: Percentage derived by own calculation)

Note: Chandigarh, Dadar & Nagar haveli, Daman & Diu, Delhi, and Lakshadweep are not considered because they have not received allocation.

2014-15: Table 5.11 and Table 5.12 present the data and analysis for the year 2014-15. Table 5.11 shows financial progress of state wise allocation, release and expenditure in 2014-15. It is observed that 17 out of 31 states have release fund greater than allocation. For Maharashtra release of funds had increased from ₹690.27 crores in 2013-14 to ₹748.23 crores in 2014-15. It is seen that for 18 states expenditure incurred is more than fund release. States like, Gujarat, Maharashtra, Karnataka and Uttar Pradesh had spent more than fund released. It is noticed that 12 states have fund allocation higher than the average of ₹286 crores. Similarly, 12 states have release fund higher than the average of ₹292 crores. It is found that 12 states have expenditure higher than average of ₹311.67 crores. It is observed that Andhra Pradesh, Assam, Bihar, Gujarat, Jammu &

Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal have allocation, release of fund and expenditure higher than the average.

Table 5.11 Allocation, Release and Expenditure of Central Funds: 2014-15

Sr. No	State	Allocation Central (₹ Crores)	Release Central (₹ Crores)	Col.(2) as % of Col.(1)	Expenditure Central	Expenditure as % of Release
		1	2	3	4	5
1	Andaman & Nicobar	0.86	0.81	94.19	0.43	53.09
2	Andhra Pradesh	364.30	377.78	103.70	427.08	113.05
3	Arunachal Pradesh	64.21	109.83	171.05	119.50	108.80
4	Assam	501.10	545.87	108.93	551.31	101.00
5	Bihar	441.07	340.48	77.19	381.90	112.17
6	Chhattisgarh	159.08	150.74	94.76	165.22	109.61
7	Goa	4.61	0.00	0.00	0.00	0.00
8	Gujarat	509.48	405.58	79.61	491.44	121.17
9	Haryana	213.04	277.98	130.48	228.82	82.32
10	Himachal Pradesh	131.84	120.89	91.69	120.18	99.41
11	Jammu & Kashmir	441.33	474.41	107.50	458.03	96.55
12	Jharkhand	169.86	175.18	103.13	206.88	118.10
13	Karnataka	605.38	563.91	93.15	622.37	110.37
14	Kerala	115.59	124.10	107.36	131.86	106.25
15	Madhya Pradesh	397.18	440.18	110.83	398.77	90.59
16	Maharashtra	780.06	748.23	95.92	901.96	120.55
17	Manipur	90.35	88.54	98.00	76.09	85.94
18	Meghalaya	44.61	69.50	155.79	81.02	116.58
19	Mizoram	42.43	34.50	81.31	39.81	115.39
20	Nagaland	103.19	101.44	98.30	86.45	85.22
21	Odisha	205.69	230.67	112.14	257.29	111.54
22	Puducherry	1.62	0.00	0.00	0.00	0.00
23	Punjab	93.88	97.38	103.73	90.23	92.66
24	Rajasthan	1,194.46	1,304.64	109.22	1,303.41	99.91
25	Sikkim	30.38	31.70	104.34	32.03	101.04
26	Tamil Nadu	367.36	382.46	104.11	432.39	113.05
27	Telangana	200.65	212.24	105.78	189.25	89.17
28	Tripura	62.06	68.31	110.07	64.81	94.88
29	Uttar Pradesh	962.43	1,036.30	107.68	1,146.18	110.60
30	Uttarakhand	135.01	111.48	82.57	152.94	137.19
31	West Bengal	436.53	431.09	98.75	503.91	116.89
	Total	8,869.64	9,056.22	102.10	9,661.56	106.68

(Source: Column no (1), (2), (4) from <http://indiawater.nic.in>, & column (3) & (5) derived by calculation)

Note: Chandigarh, Dadar & Nagar haveli, Daman & Diu, Delhi and Lakshadweep are not considered because they have not received allocation.

To examine allocation, release, and expenditure share of all states, the computations are carried out and presented in Table 5.12 (2014-15). As per Table 5.12 in the year 2014-15 percentage of central fund allocated to Rajasthan (13.47%) is highest followed by Uttar Pradesh (10.85%), Maharashtra (8.79%), Karnataka (6.83%) and Gujarat (5.74%). When release of the central funds is examined, for the State of Rajasthan it is highest (14.41%) followed by Uttar

Pradesh (11.44%), Maharashtra (8.26%), Karnataka (6.23%) and Assam (6.03%). When actual expenditure incurred is examined, Rajasthan with 13.49% is at the top followed by Uttar Pradesh (11.86%), Maharashtra (9.34%), Karnataka (6.44%) and Assam (5.71%). The top 5 out of 31 states have 46% allocation and release of funds and 47% of total expenditure.

There is a consistency in state's share regarding allocation, release and expenditure. It is noticed that for Assam, expenditure has declined from 2013-14 to 2014-15 both in absolute terms as well as percentage of share.

Table 5.12 States Share in Allocation, Release and Expenditure of Central Funds: 2014-15

Sr. No	State	Percentage of Allocation Central	Percentage of Release Central	Percentage of Expenditure Central
1	Andaman & Nicobar	0.01	0.01	0.00
2	Andhra Pradesh	4.11	4.17	4.42
3	Arunachal Pradesh	0.72	1.21	1.24
4	Assam	5.65	6.03	5.71
5	Bihar	4.97	3.76	3.95
6	Chhattisgarh	1.79	1.66	1.71
7	Goa	0.05	0.00	0.00
8	Gujarat	5.74	4.48	5.09
9	Haryana	2.40	3.07	2.37
10	Himachal Pradesh	1.49	1.33	1.24
11	Jammu & Kashmir	4.98	5.24	4.74
12	Jharkhand	1.92	1.93	2.14
13	Karnataka	6.83	6.23	6.44
14	Kerala	1.30	1.37	1.36
15	Madhya Pradesh	4.48	4.86	4.13
16	Maharashtra	8.79	8.26	9.34
17	Manipur	1.02	0.98	0.79
18	Meghalaya	0.50	0.77	0.84
19	Mizoram	0.48	0.38	0.41
20	Nagaland	1.16	1.12	0.89
21	Odisha	2.32	2.55	2.66
22	Puducherry	0.02	0.00	0.00
23	Punjab	1.06	1.08	0.93
24	Rajasthan	13.47	14.41	13.49
25	Sikkim	0.34	0.35	0.33
26	Tamil Nadu	4.14	4.22	4.48
27	Telangana	2.26	2.34	1.96
28	Tripura	0.70	0.75	0.67
29	Uttar Pradesh	10.85	11.44	11.86
30	Uttarakhand	1.52	1.23	1.58
31	West Bengal	4.92	4.76	5.22
	Total	100.00	100.00	100.00

(Source: Percentage derived by own calculation)

Note: Chandigarh, Dadar & Nagar haveli, Daman & Diu, Delhi and Lakshadweep are not considered because they have not received allocation.

Table 5.13 Total Allocation, Release and Expenditure of Central Funds for State wise 2009 – 2015

Year	Allocation Central (₹ Crores)	Release Central (₹ Crores)	Expenditure Central (₹ Crores)
2009 – 10	7,986.97	7,989.86	6,957.55
2010 – 11	8,543.35	8,941.85	8,011.00
2011 – 12	8,330.00	8,474.02	8,982.79
2012 – 13	10,290.02	10,473.20	9,978.21
2013 – 14	9,348.40	9,600.32	10,817.44
2014 – 15	8,869.64	9,056.22	9,661.56

(Source: Compiled from Tables 5.1 to 5.12)

Table 5.13 describes the total allocation, release and expenditure of central funds to the states from the year 2009-10 to 2014-15. From the table 5.13 it can be observed that allocation and release have increased substantially in the year 2012-13. However, it has declined during the 2013-14 and 2014-15. It is noticed that the expenditure has kept on increasing each year up to 2013-14 and it has declined during 2014-15.

Average for 2009-15

Release and expenditure sometimes have a little time lag. Therefore, in one year release may be higher percentage of allocation or expenditure may be higher percentage of (Release + Deposit). To average out these fluctuations, average is derived from the year 2009-10 to 2014-15, of release as percentage of allocation and expenditure as percentage of Release and this is presented in Table 5.14

From the Table 5.14 it is observed that during last six years in certain states, percentage of expenditure was more as compared to fund release. Bihar, Jammu & Kashmir, Manipur, Nagaland, Uttar Pradesh, Uttarakhand, West Bengal etc. had made more expenditure as compared to funds centrally released by the Government. However, major difference was found in case of Bihar where percentage of expenditure is 140% as compared to fund released. It is noticed that for certain states, percentage of release was more compared to allocation fund. Meghalaya, Tripura, Punjab, Sikkim, Haryana, Kerala, Tamil Nadu and Assam etc. had more release of funds as compared to allocation of funds centrally announced by the Government. However, major difference was found in case of Arunachal Pradesh where percentage of release is 142.84% as compared to allocation.

Table 5.14 Average Percentage of Release and Expenditure (2009 - 2015)

Sr. No	State	Percentage of Release Against the Allocation	Percentage of Expenditure Against the Release
1	Andaman & Nicobar	28.44	127.37
2	Andhra Pradesh	101.76	100.39
3	Arunachal Pradesh	142.84	102.88
4	Assam	113.25	97.66
5	Bihar	64.99	140.73
6	Chhattisgarh	97.19	101.57
7	Goa	25.95	6.37
8	Gujarat	105.28	104.80
9	Haryana	114.45	97.20
10	Himachal Pradesh	109.86	97.47
11	Jammu & Kashmir	96.79	107.30
12	Jharkhand	102.47	101.18
13	Karnataka	101.07	98.12
14	Kerala	110.18	101.06
15	Madhya Pradesh	104.68	96.42
16	Maharashtra	95.60	95.58
17	Manipur	89.19	97.04
18	Meghalaya	133.65	98.34
19	Mizoram	106.45	82.10
20	Nagaland	98.85	104.46
21	Odisha	114.29	103.36
22	Puducherry	9.01	0.00
23	Punjab	129.43	101.58
24	Rajasthan	103.38	95.08
25	Sikkim	129.98	124.74
26	Tamil Nadu	123.92	103.25
27	Telangana	17.63	14.86
28	Tripura	134.66	102.93
29	Uttar Pradesh	95.90	97.50
30	Uttarakhand	73.58	112.59
31	West Bengal	103.12	103.63
	Average	96.06	94.11

(Source: Percentage derived by own calculation)

Note: Chandigarh, Dadar & Nagar haveli, Daman & Diu, Delhi and Lakshadweep are not considered because they have not received allocation.

The Table 5.15 presents the data to examine the share of each state in fund allocation, release and expenditure. The computations are carried out and are presented in Table 5.15 (2009 to 2015). It is observed that highest allocation was made to Rajasthan at 13.23% of fund allocated by Centre, followed by Uttar Pradesh (10.62%) and Maharashtra (8.58%). When release of the funds is examined for the state of Rajasthan again, it is at the highest at 13.39% followed by Uttar Pradesh (10%), Maharashtra (8.03%). When actual expenditure incurred is examined, Rajasthan with 12.73% is at top of expenditure incurred from central funds, followed by Uttar Pradesh (9.96%) and Maharashtra (7.77%). Thus, for all three aspects of allocation, release and expenditure, these three states are at the top.

Table 5.15 States Share Allocation, Release and Expenditure: Average of 2009-2015

Sr. No	State	Allocation Central (₹ Crores)	Release Central (₹ Crores)	Expenditure Central (₹ Crores)
		1	2	4
1	Andaman & Nicobar	0.01	0.00	0.00
2	Andhra Pradesh	5.69	5.64	5.54
3	Arunachal Pradesh	1.57	2.08	2.16
4	Assam	5.01	5.56	5.44
5	Bihar	4.58	2.93	3.86
6	Chhattisgarh	1.60	1.52	1.54
7	Goa	0.06	0.02	0.01
8	Gujarat	5.87	6.05	6.34
9	Haryana	2.53	2.82	2.69
10	Himachal Pradesh	1.56	1.69	1.65
11	Jammu & Kashmir	5.16	4.89	5.29
12	Jharkhand	1.90	1.90	1.92
13	Karnataka	8.01	7.91	7.75
14	Kerala	1.70	1.83	1.84
15	Madhya Pradesh	4.48	4.58	4.38
16	Maharashtra	8.58	8.03	7.77
17	Manipur	0.73	0.64	0.62
18	Meghalaya	0.76	0.98	0.96
19	Mizoram	0.50	0.52	0.40
20	Nagaland	0.90	0.87	0.90
21	Odisha	2.39	2.67	2.66
22	Puducherry	0.01	0.00	0.00
23	Punjab	1.02	1.29	1.32
24	Rajasthan	13.23	13.39	12.73
25	Sikkim	0.30	0.38	0.38
26	Tamil Nadu	3.76	4.52	4.65
27	Telangana	0.38	0.39	0.33
28	Tripura	0.69	0.91	0.95
29	Uttar Pradesh	10.62	10.00	9.96
30	Uttarakhand	1.58	1.14	1.12
31	West Bengal	4.82	4.86	4.86
		100.00	100.00	100.00

(Source: Percentage derived by own calculation)

Note: Chandigarh, Dadar & Nagar haveli, Daman & Diu, Delhi and Lakshadweep are not considered because they have not received allocation.

5.3 ANALYSIS OF OPERATIONAL DATA

Out of total 36 Indian states the RRWSS is implemented in 27 states. Out of these 27 states, for 10 states “Review of Effectiveness of Rural Water Supply Schemes in India” is carried out under the World Bank⁴. These 10 states are: Andhra Pradesh, Karnataka, Kerala, Maharashtra, Odisha, Punjab, Tamil Nadu, Uttar Pradesh, Uttarakhand, and West Bengal for the period 2008.

The present data relates to water supply schemes by NRDWP for the years 2009 to 2015. The data relates to the ongoing schemes, new schemes, achieved schemes, habitations and total cost.

Water supply schemes in different States of India by NRDWP

Like previous analysis here also data are collected for a period of 6 years from 2009-10 to 2014-15. The data relates to, new schemes, ongoing schemes, achieved schemes, habitations covered and the total cost. For each of the item, the share of each state in total is derived by percentage analysis. In addition to this, for each state cost per habitation and cost per scheme are also derived. Meanings of each of the data item are given in the footnotes to the Table. The data collected and analysis of the same are presented in Tables 5.16 to 5.23.

Table 5.16 gives details of ongoing, new and achieved scheme along with habitation and total cost for year 2009-10. It can be seen that maximum percentage of ongoing schemes are in Karnataka. The maximum percentage of new schemes is in Chhattisgarh. The state in which ongoing schemes are very less, merely 0.01%, is Puducherry. In case of achieved schemes, Chhattisgarh, Bihar and Jharkhand are ahead of all other states with percentage share of 18.67%, 17.84% and 17%. The total cost is maximum for Maharashtra followed by Rajasthan which are ₹6287.38 crores and ₹4141.61 crores respectively. The number and nature of the schemes is influenced by the characteristics of the area and habitations to be served. Because of this reason 106 schemes are ongoing for 229 habitations in Sikkim and 31 ongoing schemes for 570 habitations in Kerala. There are seven union territories viz., Andaman and Nicobar, Chandigarh, Dadra & Nagar Haveli, Daman and Diu, Delhi, Lakshadweep and Puducherry. Here, no schemes are available because areas have been covered by piped water drinking water supply network from union territory plan and hence the states scheme is not implemented in union territory (UT)⁵. When cost per habitation is examined, it is found to be highest for Haryana followed by Mizoram. When cost per scheme is examined, it is found that it is the highest for the state of Kerala at ₹4.55 crores.

Table – 5.16 State wise Water Supply Schemes (NRDWP): 2009-10

Sr. No	State	No. of Ongoing Schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieved Schemes	Percentage of Achieved Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
1	Andhra Pradesh	2,827	5.12	1,704	1.26	3,197	2.15	9,153	4.11	2,344.10	7.54	0.30	0.26
2	Arunachal Pradesh	619	1.12	461	0.34	639	0.43	1,047	0.47	412.17	1.33	0.24	0.39
3	Assam	2,490	4.51	12,631	9.34	12,741	8.57	20,772	9.32	1,243.89	4.00	0.04	0.06
4	Bihar	10,911	19.76	25,957	19.19	26,519	17.84	40,868	18.34	1,768.75	5.69	0.03	0.04
5	Chhattisgarh	2,070	3.75	27,813	20.56	27,744	18.67	27,343	12.27	632.94	2.03	0.01	0.02
6	Gujarat	709	1.28	1,333	0.99	1,743	1.17	2,754	1.24	1,409.40	4.53	0.37	0.51
7	Haryana	824	1.49	187	0.14	743	0.50	1,210	0.54	1,081.86	3.48	0.62	0.89
8	Himachal Pradesh	1,203	2.18	555	0.41	869	0.58	10,640	4.78	2,119.18	6.81	0.81	0.20
9	Jammu & Kashmir	410	0.74	7	0.01	166	0.11	1,545	0.69	609.11	1.96	1.04	0.39
10	Jharkhand	1,655	3.00	24,581	18.17	25,267	17.00	17,188	7.71	145.21	0.47	0.00	0.01
11	Karnataka	13,368	24.21	8,674	6.41	10,817	7.28	17,995	8.08	2,470.60	7.94	0.08	0.14
12	Kerala	31	0.06	2	0.00	14	0.01	571	0.26	213.68	0.69	4.55	0.37
13	Madhya Pradesh	527	0.95	8,011	5.92	8,173	5.50	742	0.33	308.23	0.99	0.02	0.42
14	Maharashtra	8,997	16.29	260	0.19	5,225	3.52	14,575	6.54	6,287.38	20.21	0.43	0.43
15	Manipur	387	0.70	105	0.08	316	0.21	459	0.21	64.35	0.21	0.08	0.14
16	Meghalaya	1,050	1.90	222	0.16	282	0.19	1,927	0.86	396.01	1.27	0.25	0.21
17	Mizoram	125	0.23	0	0.00	125	0.08	126	0.06	66.43	0.21	0.27	0.53
18	Nagaland	1	0.00	81	0.06	49	0.03	82	0.04	34.61	0.11	0.26	0.42
19	Odisha	2,089	3.78	10,296	7.61	9,395	6.32	18,868	8.47	1,110.68	3.57	0.05	0.06
20	Puducherry	7	0.01	17	0.01	24	0.02	40	0.02	12.22	0.04	0.25	0.31
21	Punjab	1,123	2.03	547	0.40	1,094	0.74	2,627	1.18	528.72	1.70	0.19	0.20

Table – 5.16 Continued

Sr. No	State	No. of Ongoing Schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieved Schemes	Percentage of Achieved Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
22	Rajasthan	1,762	3.19	3,258	2.41	4,555	3.06	8,963	4.02	4,141.61	13.32	0.43	0.46
23	Sikkim	106	0.19	264	0.20	201	0.14	229	0.10	45.23	0.15	0.08	0.20
24	Tamil Nadu	418	0.76	7,460	5.51	7,750	5.21	10,602	4.76	1,682.22	5.41	0.11	0.16
25	Tripura	216	0.39	530	0.39	295	0.20	1,728	0.78	128.75	0.41	0.12	0.07
26	Uttar Pradesh	303	0.55	26	0.02	10	0.01	3,118	1.40	206.76	0.66	0.61	0.07
27	Uttarakhand	605	1.10	285	0.21	645	0.43	2,165	0.97	280.54	0.90	0.18	0.13
28	West Bengal	383	0.69	14	0.01	35	0.02	5,457	2.45	1,360.15	4.37	3.15	0.25
	Total	55,216	100.00	1,35,281	100.00	1,48,633	100.00	2,22,794	100.00	31,104.78	100.00	0.52	0.26

(Sources: Column no (1), (3), (5), (7), (9) from <http://indiawater.nic.in> and column no (2), (4), (6), (8), (10), (11), and (12) derived by calculation)

Note: Andaman & Nicobar, Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi, Goa and Lakshadweep are not considered because they have no ongoing, new and achieved schemes

Note: Ongoing scheme: Scheme completion date \geq 01/04/2009 and commencement date $<$ 01/04/2009.

New scheme: Commencement date \geq 01/04/2009.

Achieved scheme: Scheme completion date \leq 11/01/2015.

Habitation: It is a term used to define a group of families living in proximity to each other, within a village. It could have either heterogeneous or homogenous demographic pattern. There can be more than one habitation in a village but not vice versa.

Table – 5.17 State wise Water Supply Schemes (NRDWP): 2010-11

Sr. No	State	No. of Ongoing Schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieved Schemes	Percentage of Achieved Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
1	Andaman & Nicobar	0	0.00	10	0.01	3	0.00	17	0.01	9.24	0.03	0.71	0.54
2	Andhra Pradesh	1,586	3.90	3,423	1.85	3,978	2.34	9,158	3.33	2,515.85	7.24	0.28	0.27
3	Arunachal Pradesh	65	0.16	1,153	0.62	721	0.42	1,138	0.41	129.35	0.37	0.07	0.11
4	Assam	1,853	4.56	10,200	5.53	8,500	4.99	16,266	5.92	914.51	2.63	0.04	0.06
5	Bihar	4,742	11.67	11,371	6.16	14,531	8.53	30,857	11.23	918.13	2.64	0.03	0.03
6	Chhattisgarh	1,181	2.91	34,784	18.84	21,934	12.88	27,092	9.86	627.67	1.81	0.01	0.02
7	Goa	2	0.00	2	0.00	2	0.00	51	0.02	159.52	0.46	26.59	3.13
8	Gujarat	213	0.52	1,230	0.67	1,315	0.77	3,194	1.16	1,038.91	2.99	0.38	0.33
9	Haryana	699	1.72	993	0.54	1,048	0.62	2,030	0.74	4,176.44	12.02	1.52	2.06
10	Himachal Pradesh	977	2.41	777	0.42	695	0.41	13,763	5.01	1,450.11	4.17	0.59	0.11
11	Jammu & Kashmir	631	1.55	849	0.46	406	0.24	3,784	1.38	1,540.70	4.44	0.82	0.41
12	Jharkhand	2,146	5.28	32,519	17.61	29,037	17.05	24,431	8.89	713.24	2.05	0.01	0.03
13	Karnataka	8,128	20.01	17,503	9.48	15,475	9.09	23,626	8.60	3,691.99	10.63	0.09	0.16
14	Kerala	224	0.55	6	0.00	114	0.07	3,109	1.13	1,406.26	4.05	4.09	0.45
15	Madhya Pradesh	874	2.15	23,189	12.56	23,117	13.58	20,816	7.58	657.98	1.89	0.01	0.03
16	Maharashtra	7,909	19.47	686	0.37	6,395	3.76	13,786	5.02	3,738.51	10.76	0.25	0.27
17	Manipur	379	0.93	108	0.06	241	0.14	481	0.18	65.71	0.19	0.09	0.14
18	Meghalaya	1,337	3.29	877	0.48	624	0.37	3,160	1.15	652.26	1.88	0.23	0.21
19	Mizoram	23	0.06	105	0.06	122	0.07	130	0.05	54.90	0.16	0.22	0.42
20	Nagaland	124	0.31	5	0.00	121	0.07	130	0.05	63.94	0.18	0.26	0.49
21	Odisha	2,443	6.01	10,389	5.63	10,411	6.11	19,131	6.96	1,036.35	2.98	0.04	0.05
22	Puducherry	6	0.01	4	0.00	10	0.01	18	0.01	2.42	0.01	0.12	0.13

Table – 5.17 Continued

Sr. No	State	No. of Ongoing Schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieved Schemes	Percentage of Achieved Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
23	Punjab	681	1.68	1,082	0.59	1,258	0.74	2,381	0.87	699.99	2.02	0.23	0.29
24	Rajasthan	1,948	4.80	19,731	10.69	17,264	10.14	26,032	9.48	5,104.86	14.70	0.13	0.20
25	Sikkim	324	0.80	84	0.05	298	0.18	235	0.09	46.46	0.13	0.07	0.20
26	Tamil Nadu	151	0.37	9,301	5.04	9,138	5.37	12,494	4.55	666.11	1.92	0.04	0.05
27	Tripura	406	1.00	2,060	1.12	802	0.47	3,074	1.12	186.67	0.54	0.06	0.06
28	Uttar Pradesh	205	0.50	1	0.00	176	0.10	3,087	1.12	196.94	0.57	0.52	0.06
29	Uttarakhand	974	2.40	509	0.28	1,007	0.59	3,420	1.25	468.21	1.35	0.19	0.14
30	West Bengal	387	0.95	1,661	0.90	1534	0.90	7,789	2.84	1,803.71	5.19	0.50	0.23
	Total	40,618	100.00	1,84,612	100.00	1,70,277	100.00	2,74,680	100.00	34,736.90	100.00	1.27	0.36

(Sources: Column no (1), (3), (5), (7), (9) from <http://indiawater.nic.in>, and column no (2), (4), (6), (8), (10), (11), and (12) derived by calculation)

Note: Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi and Lakshadweep are not considered because they have no ongoing, new and achieved schemes

Note: Ongoing scheme: Scheme completion date \geq 01/04/2010 and commencement date $<$ 01/04/2010.

New scheme: Commencement date \geq 01/04/2010.

Achieved scheme: Scheme completion date \leq 11/01/2015.

Habitation: It is a term used to define a group of families living in proximity to each other, within a village. It could have either heterogeneous or homogenous demographic pattern. There can be more than one habitation in a village but not vice versa.

Table 5.17 presents the operational data and its analysis for the year 2010-11. The maximum number of ongoing scheme was in Karnataka at 8,128 (20.01%). The maximum number of new scheme was in Chhattisgarh at 34,784 (18.84%). The maximum percentage of achieved schemes was observed in Jharkhand in the year 2010 at 17.05%. The highest percentage of habitations is found 11.23% in Bihar. For many states, it is less than 1%. It is noticed that Rajasthan has the highest proportion of total cost. The highest cost per scheme ₹26.59 crores and per habitation ₹3.13 crores is found for Goa. Majority of the villages in Goa State in general exhibit semi urban nature. The requirement of water in most of the rural areas is that of a medium class town. Most of the villages are covered under the seven regional water supply schemes and very few villages are covered with local sources. Therefore, majority of rural population in Goa are covered under treated water.⁶

Table 5.18 summarizes the data for the year 2011-12. Karnataka remains at the top with 21.91% in ongoing schemes. The maximum percentage of new and achieved schemes was observed in Jharkhand at 19.32% and 18.46%. The maximum percentage of habitation covered for Jharkhand at 9.87%. Consistently for 2nd year it is observed that highest proportion of total cost is incurred by Rajasthan with 23.72%. This is followed by Karnataka at 11.28%. The highest cost per scheme ₹7.52 crores and per habitation ₹17.14 crores is found for Kerala.

Table 5.19 presents the data and analysis for the operational aspects for the year 2012-13. It can be seen that maximum percentage of ongoing schemes are in Karnataka (21.99%) followed by Maharashtra (12.76%). The maximum percentages of new schemes are in Karnataka. The state in which, ongoing schemes are minimum is Puducherry. In case of achieved schemes, Karnataka, Jharkhand and Madhya Pradesh are ahead of all other states with percentage of schemes achieved at 21.07%, 13.20% and 13.61%.

Table – 5.18 State wise Water Supply Schemes (NRDWP): 2011-12

Sr. No	State	No. of Ongoing Schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieved Schemes	Percentage of Achieved Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
1	Andhra Pradesh	2,678	7.00	1,607	0.86	4,157	1.98	7,717	2.69	2,078.19	5.50	0.35	0.50
2	Arunachal Pradesh	118	0.31	525	0.28	625	0.30	641	0.22	142.64	0.38	0.12	0.23
3	Assam	2,544	6.65	7,902	4.22	9,527	4.55	15,108	5.27	936.09	2.48	0.05	0.10
4	Bihar	1,770	4.62	6492	3.47	8,227	3.93	19,780	6.90	295.64	0.78	0.02	0.04
5	Chhattisgarh	1,713	4.47	29,817	15.92	28,982	13.83	26,470	9.23	690.36	1.83	0.01	0.02
6	Gujarat	118	0.31	824	0.44	849	0.41	2,360	0.82	873.08	2.31	0.49	1.03
7	Haryana	393	1.03	917	0.49	1,137	0.54	1,910	0.67	970.02	2.57	0.44	0.85
8	Himachal Pradesh	847	2.21	681	0.36	1,259	0.60	11,006	3.84	799.03	2.11	0.36	0.63
9	Jammu & Kashmir	1,250	3.27	535	0.29	954	0.46	5,913	2.06	2,292.57	6.07	0.99	2.40
10	Jharkhand	2,886	7.54	36,196	19.32	38,677	18.46	28,294	9.87	1,391.29	3.68	0.02	0.04
11	Karnataka	8,388	21.91	21,209	11.32	27,067	12.92	25,655	8.95	4,262.89	11.28	0.08	0.16
12	Kerala	149	0.39	11	0.01	75	0.04	2,770	0.97	1,285.19	3.40	7.52	17.14
13	Madhya Pradesh	356	0.93	28,490	15.21	28,553	13.63	22,080	7.70	591.47	1.56	0.01	0.02
14	Maharashtra	7,439	19.43	13,818	7.38	18,451	8.80	21,625	7.54	5,898.65	15.61	0.17	0.32
15	Manipur	423	1.10	139	0.07	447	0.21	572	0.20	107.81	0.29	0.15	0.24
16	Meghalaya	1,739	4.54	1,174	0.63	1,579	0.75	3,463	1.21	902.15	2.39	0.22	0.57
17	Mizoram	4	0.01	125	0.07	125	0.06	128	0.04	81.06	0.21	0.32	0.65
18	Nagaland	5	0.01	171	0.09	179	0.09	176	0.06	50.94	0.13	0.15	0.29
19	Odisha	1,830	4.78	11,095	5.92	11,893	5.68	17,338	6.05	926.15	2.45	0.04	0.08
20	Punjab	553	1.44	1,117	0.60	1,288	0.61	1,990	0.69	691.92	1.83	0.25	0.54
21	Rajasthan	902	2.36	15,442	8.24	15,530	7.41	21,264	7.42	8,965.53	23.72	0.28	0.58
22	Sikkim	60	0.16	197	0.11	189	0.09	256	0.09	60.45	0.16	0.13	0.32

Table – 5.18 Continued

Sr. No	State	No. of Ongoing Schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieved Schemes	Percentage of Achieved Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
23	Tamil Nadu	51	0.13	6,268	3.35	6,305	3.01	12,976	4.53	735.00	1.94	0.06	0.12
24	Tripura	745	1.95	1,829	0.98	1,832	0.87	3923	1.37	294.06	0.78	0.07	0.16
25	Uttar Pradesh	48	0.13	152	0.08	199	0.09	24,306	8.48	632.42	1.67	1.80	3.18
26	Uttarakhand	615	1.61	411	0.22	922	0.44	2,670	0.93	381.32	1.01	0.27	0.41
27	West Bengal	658	1.72	206	0.11	524	0.25	6,245	2.18	1,459.40	3.86	1.36	2.79
	Total	38,282	100.00	1,87,350	100.00	2,09,552	100.00	2,86,636	100.00	37,795.32	100.00	0.99	1.70

(Sources: Column no (1), (3), (5), (7), (9) from <http://indiawater.nic.in> and column no (2), (4), (6), (8), (10), (11), and (12) derived by calculation)

Note: Andaman & Nicobar, Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi, Goa, Lakshadweep and Puducherry are not considered because they have no ongoing, new and achieved schemes

Note: Ongoing scheme: Scheme completion date \geq 01/04/2011 and commencement date $<$ 01/04/2011.

New scheme: Commencement date \geq 01/04/2011

Achieved scheme: Scheme completion date \leq 11/01/2015.

Habitation: It is a term used to define a group of families living in proximity to each other, within a village. It could have either heterogeneous or homogenous demographic pattern. There can be more than one habitation in a village but not vice versa.

Table – 5.19 State wise Water Supply Schemes (NRDWP): 2012-13

Sr. No	State	No. of Ongoing Schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieved Schemes	Percentage of Achieved Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
1	Andhra Pradesh	2,904	6.21	2,836	1.22	4,536	2.04	9,889	2.90	2,567.50	4.91	0.25	0.26
2	Arunachal Pradesh	60	0.13	793	0.34	823	0.37	785	0.23	154.43	0.30	0.09	0.20
3	Assam	1,860	3.97	7,836	3.37	5,920	2.66	14,933	4.38	1,125.64	2.15	0.07	0.08
4	Bihar	2,867	6.13	7,150	3.07	9,885	4.45	23,562	6.92	911.45	1.74	0.05	0.04
5	Chhattisgarh	4,510	9.64	33,879	14.57	28,947	13.03	34,343	10.08	1,360.11	2.60	0.02	0.04
6	Goa	2	0.00	0	0.00	0	0.00	47	0.01	159.50	0.30	79.75	3.39
7	Gujarat	867	1.85	1,234	0.53	1,578	0.71	4,598	1.35	2,484.13	4.75	0.68	0.54
8	Haryana	987	2.11	1,245	0.54	1,173	0.53	3,689	1.08	1,659.91	3.17	0.49	0.45
9	Himachal Pradesh	613	1.31	279	0.12	589	0.27	8,625	2.53	822.68	1.57	0.56	0.10
10	Jammu & Kashmir	2,503	5.35	975	0.42	1,629	0.73	8,586	2.52	4,531.61	8.66	0.89	0.53
11	Jharkhand	2,103	4.49	28,115	12.09	29,324	13.20	21,452	6.30	1,382.59	2.64	0.02	0.06
12	Karnataka	10,289	21.99	54,457	23.42	46,825	21.07	39,270	11.53	8,124.83	15.53	0.07	0.21
13	Kerala	203	0.43	40	0.02	89	0.04	3,644	1.07	2,000.51	3.82	6.03	0.55
14	Madhya Pradesh	667	1.43	30,863	13.27	30,235	13.61	26,623	7.81	878.78	1.68	0.01	0.03
15	Maharashtra	5,971	12.76	8,189	3.52	9,319	4.19	16,021	4.70	5,473.06	10.46	0.23	0.34
16	Manipur	394	0.84	22	0.01	259	0.12	454	0.13	120.47	0.23	0.18	0.27
17	Meghalaya	2,044	4.37	606	0.26	759	0.34	3,159	0.93	880.97	1.68	0.26	0.28
18	Mizoram	9	0.02	51	0.02	49	0.02	60	0.02	125.88	0.24	1.15	2.10
19	Nagaland	2	0.00	173	0.07	175	0.08	176	0.05	69.72	0.13	0.20	0.40
20	Odisha	2,118	4.53	25,316	10.89	22,823	10.27	30,029	8.81	2,007.92	3.84	0.04	0.07
21	Puducherry	1	0.00	21	0.01	21	0.01	30	0.01	17.08	0.03	0.40	0.57

Table – 5.19 Continued

Sr. No	State	No. of Ongoing Schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieved Schemes	Percentage of Achieved Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
22	Punjab	418	0.89	981	0.42	760	0.34	1,700	0.50	616.98	1.18	0.29	0.36
23	Rajasthan	2,077	4.44	8,585	3.69	9,795	4.41	15,335	4.50	7,729.26	14.78	0.38	0.50
24	Sikkim	288	0.62	222	0.10	295	0.13	433	0.13	91.47	0.17	0.11	0.21
25	Tamil Nadu	30	0.06	14,482	6.23	11,628	5.23	25,557	7.50	3,041.24	5.81	0.12	0.12
26	Tripura	844	1.80	2,160	0.93	1,317	0.59	3,771	1.11	282.04	0.54	0.07	0.07
27	Uttar Pradesh	10	0.02	96	0.04	100	0.04	26,330	7.73	332.73	0.64	1.62	0.01
28	Uttarakhand	1,511	3.23	347	0.15	1,661	0.75	4,206	1.23	646.61	1.24	0.18	0.15
29	West Bengal	643	1.37	1,579	0.68	1,719	0.77	13,415	3.94	2,712.54	5.19	0.69	0.20
	Total	46795	100.00	2,32,532	100.00	2,22,233	100.00	3,40,722	100.00	52,311.64	100.00	3.27	0.42

(Sources: Column no (1), (3), (5), (7), (9) from <http://indiawater.nic.in>) and column no (2), (4), (6), (8), (10), (11), and (12) derived by calculation)

Note: Andaman & Nicobar, Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi and Lakshadweep are not considered because they have no ongoing, new and achieved schemes

Note: Ongoing scheme: Scheme completion date \geq 01/04/2012 and commencement date $<$ 01/04/2012.

New scheme: Commencement date \geq 01/04/2012.

Achieved scheme: Scheme completion date \leq 11/01/2015.

Habitation: It is a term used to define a group of families living in proximity to each other, within a village. It could have either heterogeneous or homogenous demographic pattern. There can be more than one habitation in a village but not vice versa.

The percentages of habitations range from less than 1% to 11.53%. The maximum percentage of habitations is covered in Karnataka at 11.53% of total habitation covered. It is noticed that in Karnataka total cost had risen in 2012-13 to 15.53% from 11.28% in 2011-12. The highest cost per scheme ₹79.75 crores and per habitation ₹ 3.39 crores is found for Goa.

Table 5.20 presents the data and analysis for the operational aspects for the year 2013-14. It can be seen that maximum percentage of ongoing schemes are in Karnataka (32.38%) and minimum in Andaman Nicobar. Similarly, maximum percentage of new schemes is in Karnataka. Maximum numbers of ongoing and achieved schemes were found in Karnataka and minimum for the same was observed in Andaman Nicobar. It is noticed that for Rajasthan total cost had risen from 2012-13 to 2013-14 both in absolute and percentage terms. The cost for Rajasthan was 24.67 % of total cost of the year. The highest cost per scheme ₹8.90 crores is found for Kerala and highest cost per habitation ₹1.05 crores is found for Andaman & Nicobar. The possible reason for highest cost per habitation for Andaman & Nicobar can be that Port Blair and Car Nicobar have protected water supply. In Teressa and Nancowry, wells are the only source of potable water. Water for drinking purpose has to be imported to Chowra Island, as the ground water is not suitable for drinking.⁷

Table 5.21 presents the data and analysis for the operational aspects for the year 2014-15. It can be seen that maximum percentage of ongoing schemes, new scheme and achieved schemes are observed for Karnataka at 38.51%, 22.44% and 30.20% of total schemes in respective category. It can be seen that maximum percentage of habitation are for Odisha at 12.31%. It is noticed that for Rajasthan the share in total cost had risen from 2013-14 to 2014-15 that is from 24.67% to 42.02%. The highest cost per scheme ₹13.49 crores is found for Kerala and highest cost per habitation ₹1.60 crores is found for Rajasthan.

Table – 5.20 State wise Water Supply Schemes (NRDWP): 2013-14

Sr. No	State	No. of Ongoing Schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieved Schemes	Percentage of Achieved Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
1	Andaman & Nicobar	0	0.00	8	0.00	0	0.00	9	0.00	9.49	0.02	1.19	1.05
2	Andhra Pradesh	4,187	6.93	3,181	1.66	6,765	3.05	9,663	3.04	2,686.95	4.51	0.19	0.28
3	Arunachal Pradesh	128	0.21	591	0.31	703	0.32	706	0.22	147.21	0.25	0.10	0.21
4	Assam	2,849	4.72	4,163	2.18	6,450	2.90	13,539	4.26	1,051.85	1.77	0.08	0.08
5	Bihar	1,375	2.28	5,552	2.90	6,681	3.01	21,961	6.91	1,475.68	2.48	0.11	0.07
6	Chhattisgarh	3,298	5.46	16,087	8.41	17,240	7.76	19,717	6.20	700.04	1.18	0.02	0.04
7	Gujarat	1,997	3.31	2,524	1.32	3,096	1.39	5,848	1.84	1,538.40	2.58	0.20	0.26
8	Haryana	1,566	2.59	484	0.25	1,827	0.82	4,140	1.30	1,722.75	2.89	0.44	0.42
9	Himachal Pradesh	386	0.64	213	0.11	351	0.16	7,626	2.40	1,067.17	1.79	1.12	0.14
10	Jammu & Kashmir	2,072	3.43	357	0.19	942	0.42	9,424	2.96	3,621.34	6.08	1.07	0.38
11	Jharkhand	1,039	1.72	11,623	6.08	12,574	5.66	10,169	3.20	533.41	0.90	0.02	0.05
12	Karnataka	19,560	32.38	59,051	30.87	71,986	32.42	42,049	13.23	9,494.52	15.94	0.06	0.23
13	Kerala	42	0.07	2	0.00	25	0.01	1,170	0.37	613.96	1.03	8.90	0.52
14	Madhya Pradesh	1,506	2.49	29,393	15.36	29,634	13.35	25,674	8.08	1,252.47	2.10	0.02	0.05
15	Maharashtra	4,062	6.72	6,907	3.61	7,075	3.19	11,375	3.58	4,661.95	7.83	0.26	0.41
16	Manipur	370	0.61	56	0.03	233	0.10	437	0.14	91.08	0.15	0.14	0.21
17	Meghalaya	3,778	6.25	606	0.32	1,945	0.88	4,367	1.37	1,470.24	2.47	0.23	0.34
18	Mizoram	0	0.00	42	0.02	40	0.02	47	0.01	42.16	0.07	0.51	0.90
19	Nagaland	80	0.13	4	0.00	84	0.04	85	0.03	60.33	0.10	0.36	0.71
20	Odisha	4,546	7.53	33,195	17.35	33,848	15.24	36,402	11.45	2,114.20	3.55	0.03	0.06
21	Punjab	501	0.83	844	0.44	1,100	0.50	1,744	0.55	638.01	1.07	0.26	0.37
22	Rajasthan	1,435	2.38	2,528	1.32	3,114	1.40	17,497	5.50	14,692.51	24.67	2.08	0.84

Table – 5.20 Continued

Sr. No	State	No. of Ongoing Schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieved Schemes	Percentage of Achieved Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
23	Sikkim	305	0.50	82	0.04	372	0.17	430	0.14	72.33	0.12	0.10	0.17
24	Tamil Nadu	3,129	5.18	12,431	6.50	13,735	6.19	26,557	8.35	3,578.66	6.01	0.12	0.13
25	Tripura	752	1.24	867	0.45	906	0.41	2073	0.65	230.97	0.39	0.09	0.11
26	Uttar Pradesh	92	0.15	157	0.08	227	0.10	26,387	8.30	1,052.89	1.77	2.21	0.04
27	Uttarakhand	395	0.65	198	0.10	403	0.18	2,612	0.82	401.11	0.67	0.40	0.15
28	West Bengal	961	1.59	168	0.09	702	0.32	16,208	5.10	4,527.68	7.60	2.47	0.28
	Total	60,411	100.00	1,91,314	100.00	2,22,058	100.00	3,17,916	100.00	59,549.36	100.00	0.81	0.30

(Sources: Column no (1), (3), (5), (7), (9) from <http://indiawater.nic.in>) and column no (2), (4), (6), (8), (10), (11), and (12) derived by calculation)

Note: Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi, Goa, Lakshadweep and Puducherry are not considered because they have no ongoing, new and achieved schemes

Note: Ongoing scheme: Scheme completion date \geq 01/04/2013 and commencement date $<$ 01/04/2013.

New scheme: Commencement date \geq 01/04/2013.

Achieved scheme: Scheme completion date \leq 11/01/2015.

Habitation: It is a term used to define a group of families living in proximity to each other, within a village. It could have either heterogeneous or homogenous demographic pattern. There can be more than one habitation in a village but not vice versa.

Table – 5.21 State wise Water Supply Schemes (NRDWP): 2014-15

Sr. No	State	No. of Ongoing Schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieved Schemes	Percentage of Achieved Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
1	Andaman & Nicobar	8	0.01	0	0.00	0	0.00	9	0.00	9.49	0.01	1.19	1.05
2	Andhra Pradesh	795	0.93	235	0.13	558	0.54	3,985	1.20	1,359.06	1.41	0.86	0.34
3	Arunachal Pradesh	128	0.15	219	0.12	54	0.05	382	0.11	154.09	0.16	0.38	0.40
4	Assam	4,017	4.70	6,931	3.82	3,477	3.34	19,538	5.88	1,533.14	1.59	0.11	0.08
5	Bihar	286	0.33	6,310	3.48	3,812	3.66	17,768	5.34	439.89	0.46	0.04	0.02
6	Chhattisgarh	7,279	8.52	26,238	14.46	11,812	11.35	31,488	9.47	1,121.89	1.16	0.02	0.04
7	Gujarat	2,015	2.36	1,672	0.92	1,657	1.59	5,624	1.69	1,727.87	1.79	0.32	0.31
8	Haryana	1,892	2.22	23	0.01	1,075	1.03	3,366	1.01	1,750.11	1.82	0.59	0.52
9	Himachal Pradesh	380	0.44	172	0.09	230	0.22	6,701	2.02	1,116.96	1.16	1.43	0.17
10	Jammu & Kashmir	1,916	2.24	2,193	1.21	1,246	1.20	9,663	2.91	3,450.33	3.58	0.64	0.36
11	Jharkhand	2,225	2.61	24,383	13.44	2,297	2.21	19,075	5.74	673.84	0.70	0.02	0.04
12	Karnataka	32,891	38.51	40,716	22.44	31,423	30.20	40,713	12.25	13,100.32	13.59	0.12	0.32
13	Kerala	56	0.07	0	0.00	40	0.04	1,203	0.36	12,95.05	1.34	13.49	1.08
14	Madhya Pradesh	2,872	3.36	23,281	12.83	13,286	12.77	22,385	6.73	1,135.97	1.18	0.03	0.05
15	Maharashtra	7,752	9.08	9,472	5.22	5,166	4.97	20,780	6.25	8,926.66	9.26	0.40	0.43
16	Manipur	638	0.75	84	0.05	316	0.30	839	0.25	123.24	0.13	0.12	0.15
17	Meghalaya	2,744	3.21	28	0.02	861	0.83	3,008	0.90	1,245.10	1.29	0.34	0.41
18	Mizoram	30	0.04	51	0.03	22	0.02	83	0.02	74.26	0.08	0.72	0.89
19	Nagaland	4	0.00	450	0.25	367	0.35	392	0.12	50.52	0.05	0.06	0.13
20	Odisha	7,429	8.70	31,076	17.13	15,315	14.72	40,937	12.31	3,045.20	3.16	0.06	0.07
21	Punjab	414	0.48	285	0.16	369	0.35	854	0.26	350.91	0.36	0.33	0.41
22	Rajasthan	2,187	2.56	1,847	1.02	1,991	1.91	25,390	7.64	40510.74	42.02	6.72	1.60

Table – 5.21 Continued

Sr. No	State	No. of Ongoing Schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieved Schemes	Percentage of Achieved Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
23	Sikkim	413	0.48	57	0.03	332	0.32	498	0.15	74.46	0.08	0.09	0.15
24	Tamil Nadu	4,045	4.74	3,152	1.74	6,352	6.11	21,907	6.59	4,157.21	4.31	0.31	0.19
25	Telangana	666	0.78	450	0.25	459	0.44	2,326	0.70	940.81	0.98	0.60	0.40
26	Tripura	860	1.01	1,607	0.89	613	0.59	2,861	0.86	311.92	0.32	0.10	0.11
27	Uttar Pradesh	101	0.12	129	0.07	27	0.03	7,439	2.24	898.55	0.93	3.50	0.12
28	Uttarakhand	312	0.37	199	0.11	167	0.16	2,364	0.71	682.81	0.71	1.01	0.29
29	West Bengal	1,045	1.22	198	0.11	716	0.69	20,887	6.28	6,137.47	6.37	3.13	0.29
	Total	85,400	100.00	1,81,458	100.00	1,04,040	100.00	3,32,465	100.00	96,397.87	100.00	0.81	0.30

(Sources: Column no (1), (3), (5), (7), (9) from <http://indiawater.nic.in> and column no (2), (4), (6), (8), (10), (11), and (12) derived by calculation)

Note: Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi, Goa, Lakshadweep and Puducherry are not considered because they have no ongoing, new and achieved schemes

Note: Ongoing scheme: Scheme completion date \geq 01/04/2014 and commencement date $<$ 01/04/2014.

New scheme: Commencement date \geq 01/04/2014.

Achieved scheme: Scheme completion date \leq 11/01/2015.

Habitation: It is a term used to define a group of families living in proximity to each other, within a village. It could have either heterogeneous or homogenous demographic pattern. There can be more than one habitation in a village but not vice versa.

Table 5.22 describes the total number of schemes taken up at the national level. This is inclusive of ongoing, new and achieved schemes. It also includes total number of habitations, total cost and cost per scheme and cost per habitation.

Table 5.22 Total Number of Schemes Taken up for the Year 2009 - 2015

Sr. No	Year	Total States	No. of Ongoing Schemes	No. of New Schemes	No. of Scheme Achieve	Total No. of Habitation	Total Cost (₹ Crores)	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
1	2009-10	28	55,216	1,35,281	1,48,633	2,22,794	31,104.78	0.52	0.26
2	2010-11	30	40,618	1,84,612	1,70,277	2,74,680	34,736.90	1.27	0.36
3	2011-12	27	38,282	1,87,350	2,09,552	2,86,636	37,795.32	0.99	1.70
4	2012-13	29	46,795	2,32,532	2,22,233	3,40,722	52,311.64	3.27	0.42
5	2013-14	28	60,411	1,91,314	2,22,058	3,17,916	59,549.36	0.81	0.30
6	2014-15	29	85,400	1,81,458	1,04,040	3,32,465	96,397.87	0.81	0.30
Average								1.28	0.56

(Source: Tables 5.15 to 5.21)

From the Table 5.22 it can be observed that the number of new schemes have kept on increasing each year up to 2012-13. However, it has declined during 2013-14 and 2014-15. For ongoing schemes fluctuating trend is observed. For the year 2010-11 and 2011-12 it has declined. However, for the year 2013-14 and 2014-15 it has increased. For the increase in number it can be interpreted that the schemes that are newly commenced in preceding years are transferred to ongoing status and therefore it has gone up. Achieved schemes have gone down drastically for 2014-15. Number of habitations covered has also gone up each year except a fall in 2013-14. As it is usual practice to take up various schemes every year based on demand and requests from the rural community, it is possible that the number of new scheme has declined during the year 2014-15.⁸

Table 5.23 presents the state wise details about percentage of ongoing schemes, new schemes, achieved schemes, total cost and habitations. From the Table it can be observed that percentage of ongoing schemes for Karnataka is highest (26.50%). For Maharashtra it is found to be about 14%. Thus, only two states have around 40% of the ongoing schemes. The remaining 60% are divided between remaining 29 states.

Table 5.23 Average Percentage of Ongoing, New, Achieved Schemes, Total Habitations, Total Cost and Cost per Scheme and Cost per Habitation

Sr. No	State	% of Ongoing Schemes	% of New Schemes	% of Achieved Schemes	% of Habitation	% Total Cost	Average Cost per Scheme (₹ Crores)	Average Cost per Habitation (₹ Crores)
1	Andaman & Nicobar	0.00	0.00	0.00	0.00	0.01	0.52	0.44
2	Andhra Pradesh	5.02	1.16	2.02	2.88	5.19	0.37	0.32
3	Arunachal Pradesh	0.35	0.34	0.32	0.28	0.47	0.17	0.26
4	Assam	4.85	4.74	4.50	5.84	2.44	0.07	0.08
5	Bihar	7.47	6.38	6.90	9.27	2.30	0.05	0.04
6	Chhattisgarh	5.79	15.46	12.92	9.52	1.77	0.02	0.03
7	Goa	0.00	0.00	0.00	0.01	0.13	17.72	1.09
8	Gujarat	1.61	0.81	1.01	1.35	3.16	0.41	0.50
9	Haryana	1.86	0.33	0.67	0.89	4.33	0.68	0.87
10	Himachal Pradesh	1.53	0.25	0.37	3.43	2.94	0.81	0.23
11	Jammu & Kashmir	2.76	0.43	0.53	2.09	5.13	0.91	0.75
12	Jharkhand	4.11	14.45	12.26	6.95	1.74	0.02	0.04
13	Karnataka	26.50	17.32	18.83	10.44	12.49	0.08	0.20
14	Kerala	0.26	0.01	0.04	0.69	2.39	7.43	3.35
15	Madhya Pradesh	1.89	12.53	12.07	6.37	1.57	0.02	0.10
16	Maharashtra	13.96	3.38	4.74	5.61	12.36	0.29	0.37
17	Manipur	0.82	0.05	0.18	0.19	0.20	0.13	0.19
18	Meghalaya	3.93	0.31	0.56	1.07	1.83	0.26	0.34
19	Mizoram	0.06	0.03	0.05	0.03	0.16	0.53	0.92
20	Nagaland	0.08	0.08	0.11	0.06	0.12	0.22	0.41
21	Odisha	5.89	10.76	9.72	9.01	3.26	0.04	0.07
22	Puducherry	0.00	0.00	0.01	0.01	0.01	0.13	0.17
23	Punjab	1.23	0.44	0.55	0.68	1.36	0.26	0.36
24	Rajasthan	3.29	4.56	4.72	6.43	22.20	1.67	0.70
25	Sikkim	0.46	0.09	0.17	0.12	0.14	0.10	0.21
26	Tamil Nadu	1.87	4.73	5.19	6.05	4.23	0.13	0.13
27	Telangana	0.13	0.04	0.07	0.12	0.16	0.10	0.07
28	Tripura	1.23	0.79	0.52	0.98	0.50	0.09	0.10
29	Uttar Pradesh	0.25	0.05	0.06	4.88	1.04	1.71	0.58
30	Uttarakhand	1.56	0.18	0.43	0.99	0.98	0.37	0.21
31	West Bengal	1.26	0.32	0.49	3.80	5.43	1.88	0.67
	Total	100.00	100.00	100.00	100.00	100.00	1.20	0.44

(Source: Percentage derived by own calculation)

Note: Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi, and Lakshadweep are not considered because they have no ongoing, new and achieved schemes

Habitation: It is a term used to define a group of families living in proximity to each other, within a village. It could have either heterogeneous or homogenous demographic pattern. There can be more than one habitation in a village but not vice versa.

It is further observed that eleven states have less than 1% (of total) ongoing schemes. They are Andaman & Nicobar, Arunachal Pradesh, Goa, Kerala, Manipur, Mizoram, Nagaland, Puducherry, Sikkim, Telangana and Uttar Pradesh. For the new schemes also, Karnataka is at the top having about 17.32%

of the states followed by Chhattisgarh (15.46%), Jharkhand (14.45%), Madhya Pradesh (12.53%) and Odisha (10.76%). For the achieved scheme also, Karnataka is at the top having about 19% of state followed by Chhattisgarh (12.92%), Jharkhand (12.26%) and Madhya Pradesh (12.07%). It is noticed that percentage of habitations of Karnataka is 10.44% followed by Chhattisgarh (9.52%). It is observed that percentage of total cost in Rajasthan is highest (22.20%). It is noticed that cost per schemes of Goa is highest (₹17.72 crores). Similarly, cost per habitations of Kerala is highest (₹3.35 crores). The main issues in successful scheme implementation are institutional development, financial viability and protection of water sources apart from the leakages in distribution system.

PART – II

ANALYSIS FOR GUJARAT STATE

5.4 FINANCIAL PROGRESS OF RURAL WATER SUPPLY SCHEMES

As the study relates to the state of Gujarat, an attempt is made to collect, compile and analyze the data for the state of Gujarat. Mainly the data were available from GWSSB, for the years 2011-12, 2012-13 and 2013-14 from the administrative report. The data related to (a) Original provision, (b) revised provision (c) grant received and (d) actual expenditure incurred. The schemes are mainly classified as RWSS_m and Sardar Sarovar Canal. The RWSS_m are further divided into:

- (A) General -GWSSB, non – divisible expenditure S.C., GWSSB, WASMO, non-divisible expenditure for S.C. -WASMO.
- (B) RWSS_m Tribal GWSSB, WASMO, Under Tribal Development Department and Special Provision - 93 under Tribal Development Department.
- (C) Schedule Caste Sub- plan. And data for water supply based on Sardar Sarovar Canal is further divided into: (a) Budgetary resources from GWSSB

and Non- divisible expenditure for S.C Board GWIL, Non- divisible expenditure for S.C. - GWIL (b) Institutional loan borrowings (c) Company equity GWIL.

From the Table 5.24, it can be observed that for the year 2011-12⁹ the state Government has made original and revised provision of ₹1,78,000 lakhs for RWSS_m and water supply scheme based on SSC. It is seen that percentage of original and revised provision of the total was 43.84% for RWSS_m and 56.16% was for SSC. The total grant received from the state Government was ₹87,400 lakhs against the total provision ₹1,78,000 lakhs i.e. about 49.10% were received as grant of total provision. About 80% of grant was for RWSS_m and 20% of grant was for water supply based on SSC. The actual expenditure incurred was of ₹1,26,421.04 lakhs for RWSS_m and water supply based on SSC taken together. About 45.08% of total expenditure was for RWSS_m and 54.92% was for SSC. The actual expenditure was found more than the grant received. In the year 2011-12 the state government has made the grant ₹28,430 lakhs for RWSS_m and ₹8,770 lakhs for water supply scheme based on SSC instead actual expenditure incurred is ₹40,210.64 lakhs for RWSS_m and ₹57,911.70 lakhs for water supply scheme based on SSC. From the data published it can be inferred that the excess of expenditure over grant is funded by GWSSB and GWIL respectively. In the same year the state government has not made the grant but actual expenditure in the category of Non- divisible is ₹210.42 lakhs for RWSS_m. It can be inferred that this is funded by WASMO. Thus, it is observed that the GWSSB, GWIL and WASMO are also actively contributing towards RWSS_m, and for water supply based on SSC.

For the year 2012-13¹⁰ the state Government has made the original and revised provision of ₹2,34,850 lakhs for RWSS_m and water supply scheme based on SSC. It is seen that percentage of original and revised provision of the total was 26.55% for RWSS_m and 73.45% was for SSC. The total grant received from the state Government ₹1,17,250 lakhs against the total provision ₹2,34,850 lakhs i.e. about 49.93% were received as percentage of total grant. About 47% of grant was for RWSS_m and 53% of grant was for water supply based on SSC. The actual expenditure incurred was of ₹2,65,511.16 lakhs for RWSS_m and water

supply based on SSC taken together. About 25.82% of total expenditure was for RWSS_m and 74.17% was for SSC. The actual expenditure was found more than the grant received. In the year 2012-13 against the grant of ₹26,500 lakhs actual expenditure incurred was ₹48,386.28 lakhs for RWSS_m. It is observed that the GWSSB is actively contributing towards RWSS_m. For the water supply based on SSC ₹1,75,858.29 lakhs are incurred as expenditure out of institutional loan borrowings. This is not appearing in grant. Naturally, this contributes to excess of expenditure over grant received.

It can be observed that for the year 2013-14¹¹ the state Government has made original provision of ₹2,58,800 lakhs for RWSS_m and water supply scheme based on SSC and a revised provision of ₹2,57,435.75 lakhs. It is seen that percentage of original and revised provision of the total was 36.26% (35.91%) for RWSS_m and 63.75% (64.08%) was for SSC. The total grant received from the state Government was ₹1,30,599.84 lakhs against the total provision ₹2,57,435.75 lakhs i.e. about 50.73% were received as percentage of total revised provision. About 66% of grant was for RWSS_m and 34% of grant was for water supply based on SSC. The actual expenditure incurred was made of ₹1,74,064.59 lakhs for RWSS_m and water supply based on SSC taken together. About 47.51% of total expenditure was for RWSS_m and 52.49% was for SSC. The actual expenditure was found more than the grant received. In the year 2013-14 against the grant of ₹31,301.67 lakhs, actual expenditure is ₹79,083.08 lakhs for SSC. It is observed that the GWIL is actively contributing towards SSC.

Table 5.24 Scheme wise Financial Progress

Sr. No	Name of Schemes	Original Provision (₹ In Lakhs)			Revised Provision (₹ In Lakhs)			Grant Received (₹ In Lakhs)			Actual Expenditure Incurred (₹ In Lakhs)		
		2011-12	2012-13	2013-14	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
1	Rural Water Supply Schemes												
	(A) Rural Water Supply Scheme- General							-	-	-	-	-	-
	Gujarat Water Supply and Sewerage Board							28,430	26,500	-	40,210.64	48,386.28	60,683.71
	Non divisible expenditure S.C.-GWSSB	32,430	30,000	45,620	32,430	30,000	45,620	-	-	42,620	2,604.20	296.54	5,961.58
	WASMO							4,000	3,500	3,000	2,245.87	25,84.31	4,440.51
	Non divisible expenditure for S.C.- WASMO							-	-	-	210.42	-	-
	Sub –Total (A)	32,430	30,000	45,620	32,430	30,000	45,620	32,430	30,000	45,620	45,271.13	51,267.13	71,085.80
	Percentage to Grand total (A)	18.22	12.77	17.63	18.22	12.77	17.72	37.11	25.59	34.93	35.81	19.31	40.84
	(B-1) Rural Water Supply Scheme- Tribal	24,000		34,600	24,000		34,600	-	-	-	-	-	-
	GWSSB		19,000			19,000		24,000	17,000	30,043	8,,729.56	15,651.37	10,238.06
	By WASMO							0.00	2,000	4,556.84	1,327.80	264.67	273.96
	(B-2) Under Tribal Development Department	8,200	7,400	7,400	8,200	7,400	6,649	0.00	0.00	0.00	0.00	0.00	0.00
	(B-3) Special Provision-93 under Tribal Development Department	200	200	200	200	200	186.75	0.00	0.00	0.00	0.00	0.00	0.00
	Sub Total (B)	32,400	26,600	42,200	32,400	26,600	41,435.75	24,000	19,000	34,599.84	10,057.36	15,916.04	10,512.02
	Percentage to Grand total (B)	18.20	11.33	16.31	18.20	11.33	16.09	27.46	16.20	26.49	7.96	5.99	6.04
	(C) Scheduled Caste Sub- plan	13,200	5,750	6,000	13,200	5,750	5,400	13,200	5,750	5,400	1,659.49	1,379.99	1,089.19
	Percentage to Grand total (C)	7.42	2.45	2.32	7.42	2.45	2.10	15.10	4.90	4.13	1.31	0.52	0.63
	Sub-Total - 1 (A + B + C)	78,030	62,350	93,820	78,030	62,350	92,455.75	69,630	54,750	85,619.84	56,987.98	68,563.16	82,687.01
	Percentage to Grand total (A + B + C)	43.84	26.55	36.26	43.84	26.55	35.91	79.67	46.69	65.55	45.08	25.82	47.51

Table – 5.24 Continued

Sr. No	Name of schemes	Original Provision (₹ In Lakhs)			Revised Provision (₹ In Lakhs)			Grant Received (₹ In Lakhs)			Actual Expenditure Incurred (₹ In Lakhs)		
		2011-12	2012-13	2013-14	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
2	Water Supply Scheme based on Sardar Sarovar Canal												
	(A) Budgetary Resources	16,770	22,490	43,980	16,770	62,490	43,980	-	-	-	-	-	-
	GWSSB	-	-		-	-		8,000	10,000	12,678.33	7,235.47	5,737.79	9,535.43
	Non divisible expenditure for S.C. –Board										683.89	188.25	218.12
	GWIL	-	-		-	-		8,770	52,490	31,301.67	57,911.70	9,276.89	79,083.08
	Non divisible expenditure for S.C.- GWIL	-	-		-	-		-	-	-	3,602	5,876.82	1,540.91
	Sub –Total (A)	16,770	22,490	43,980	16,770	62,490	43,980	16,770	62,490	43,980	69,433.06	21,079.75	90,377.58
	Percentage to Grand total (A)	9.42	9.58	16.99	9.42	26.61	17.08	19.19	53.30	33.68	54.92	7.94	51.92
	(B) Institutional loan borrowings (N.B.R)	82,200	1,50,000	1,20,000	82,200	1,10,000	1,20,000	0.00	0.00	0.00	0.00	1,75,858.29	0.00
	Percentage to Grand total (B)	46.18	63.87	46.37	46.18	46.84	46.61	0.00	0.00	0.00	0.00	66.23	0.00
	(C) Company Equity GWIL	1,000	10	1,000	1,000	10	1,000	1,000	10	1,000	0.00	10	1,000
	Percentage to Grand total (C)	0.56	0.00	0.39	0.56	0.00	0.39	1.14	0.00	0.77	0.00	0.00	0.57
	Sub – Total – 2 (A + B + C)	99,970	1,72,500	1,64,980	99,970	1,72,500	1,64,980	17,770	62,500	44,980	69,433.06	1,96,948	91,377.58
	Percentage to Grand total (A + B + C)	56.16	73.45	63.75	56.16	73.45	64.08	20.33	53.30	34.45	54.92	74.17	52.49
	Grand total of (1) and (2)	1,78,000	2,34,850	2,58,800	1,78,000	2,34,850	2,57,435.75	87,400	1,17,250	1,30,599.84	1,26,421.04	2,65,511.16	1,74,064.59

(Source: Financial report of GWSSB 2011-12, 2012-13, 2013-14)

As the study relates to the state of Gujarat an attempt is made to collect, compile and analyze the data for the state of Gujarat. Mainly the data were available from GWSSB, for the year 2012-13 and 2013-14 from the administrative report.^{10,11} The data related to (i) number of schemes (ii) covered habitations (iii) estimated cost and (iv) total expenditure, under RWSS_m various programme. The RWSS_m are further divided into (a) NRDWP coverage, (b) NRDWP Quality problem (c) NRDWP Desert Development Programme (d) Minimum Needs Programme (WSS-47) each of this are further divided in two parts: scheme completed and under progress.

In the table 5.25, data for the year 2012-13 presents the following: coverage of 17 schemes, both completed and under progress. These schemes covered 1,233 habitations, on which estimated cost was ₹45,830.49 lakhs and total expenditure was ₹31,185.42 lakhs. Under NRDWP QP no completed scheme of which is general and tribal area but under progress total number of scheme is 4. These schemes covered 325 habitations on which estimated cost was ₹26,831.08 lakhs and expenditure was ₹5,814.46 lakhs. NRDWP DDP of 27 schemes, both completed and under progress. These schemes covered 961 habitations on which estimated cost was ₹24,704.55 lakhs and total expenditure was ₹11,522.33 lakhs. Minimum Needs programme (WSS-47) had 17 schemes, both completed and under progress. These schemes covered 856 habitations on which estimated cost was ₹32,595.30 lakhs and total expenditure was ₹21,677.63 lakhs. It is observed that percentages of expenditure to estimated cost for NRDWP coverage, NRDWP QP, NRDWP DDP and MNP (WSS-47) is at 68.04%, 21.67%, 46.64% and 66.51%. Overall, it is noticed that the percentage of expenditure to estimated cost was 54.02%. In the table data for the year 2013-14 presents the following: NRDWP coverage of 35 schemes both completed and under progress. These schemes covered 2,366 habitations, on which estimated cost was ₹71,778.41 lakhs and total expenditure was ₹52,211.07 lakhs. Under NRDWP QP of which is general and tribal area but under progress total number of scheme is 5. These schemes covered 433 habitations, on which estimated cost was ₹28,810.40 lakhs and total expenditure was ₹13,470.46 lakhs. NRDWP DDP of 37 schemes, both completed and under progress.

Table – 5.25 RWSS_m Completed and Under Progress for the Year 2012-13 and 2013-14

Programme	2012-13 (₹ In Lakhs)				2013-14 (₹ in Lakhs)			
	No. of Scheme	Covered Habitation	Estimated Cost	Total Expend	No. of Scheme	Covered Habitation	Estimated Cost	Total Expend.
A National Rural drinking Water Programme (NRDWP) coverage								
A-1 Scheme completed								
General	5	259	14,148.07	13,412.83	4	265	12,374.75	11,436.35
Tribal Area	1	107	867.41	1,257.50	4	312	2,391.32	2,554.31
Total A-1	6	366	15,015.48	14,670.33	8	577	14,766.07	13,990.66
Percentage (A-1)	9.23	10.84	11.55	20.90	8.42	11.64	8.23	8.94
A-2 Under Progress								
General	3	372	14,037.81	12,076.61	12	613	25,891.21	19,607.60
Tribal Area	8	495	16,777.20	4,438.48	15	1,176	31,121.13	18,612.81
Total A-2	11	867	30,815.01	16,515.09	27	1,789	57,012.34	38,220.41
Percentage (A-2)	16.92	25.69	23.71	23.53	28.42	36.10	31.76	24.72
Total A	17	1,233	45,830.49	31,185.42	35	2,366	71,778.41	52,211.07
Percentage (A)	26.15	36.53	35.26	44.42	36.84	47.75	39.99	33.36
B NRDWP - QP								
B-1 Completed								
General	-	-	-	-	2	68	1,746.90	1,181.03
Tribal Area	-	-	-	-	0	0	0.00	0.00
Total B-1	-	-	-	-	2	68	1,746.90	1,181.03
Percentage (B-1)	0.00	0.00	0.00	0.00	2.11	1.37	9.97	0.75
B-2 Under progress								
General	3	145	14,709.08	1,626.77	2	185	14,941.50	6,967.59
Tribal Area	1	180	12,122.00	4,187.69	1	180	12,122.00	5,321.84
Tribal B-2	4	325	26,831.08	5,814.46	3	365	27,063.50	12,289.43
Percentage (B-2)	6.15	9.63	20.65	8.28	3.16	7.37	15.07	7.85
Total B	4	325	26,831.08	5,814.46	5	433	28,810.40	13,470.46
Percentage (B)	6.15	9.63	20.65	8.28	5.26	8.74	16.05	8.60
C NRDWP - DDP								
C-1 Completed								
General	5	179	8,468.16	6,181.61	6	554	24,040.18	22,062.13
Percentage (C-1)	7.69	5.30	6.52	8.81	6.32	11.18	13.39	14.10
C-2 Under progress								
General	22	782	16,236.39	5,340.72	31	1,097	21,292.13	12,301.15
Percentage (C-2)	33.85	23.17	12.49	7.61	32.63	22.14	11.86	7.86
Total -C	27	961	24,704.55	11,522.33	37	1,651	45,332.31	34,363.28
Percentage (C)	41.54	28.47	19.01	16.42	38.95	33.32	25.25	21.96
D MNP (WSS-47)								
D-1 Completed								
General	5	170	7,016.86	7,711.12	12	287	24,711.45	23,263.60
Tribal area	1	93	2,321.95	3,118.09	0	0	0	0
Total D-1	6	263	9,338.81	10,829.21	12	287	24,711.45	23,263.60
Percentage (D-1)	9.23	7.79	7.19	15.43	12.63	5.79	13.77	14.87
D-2 Under progress								
General	2	138	4841.27	2638.25	6	218	8874.21	3188.94
Tribal area	9	455	18415.22	8210.17	0	0	0	0
Total D-2	11	593	23256.49	10,848.42	6	218	8,874.21	3,188.94
Percentage (D-2)	16.92	17.57	17.89	15.45	6.32	4.40	4.94	2.04
Total -D	17	856	32595.30	21,677.63	18	505	33,585.66	26,452.54
Percentage (D)	26.15	25.36	25.08	30.88	18.95	10.19	18.71	16.91
Grand Total	65	3,375	1,29,961.42	70,199.84	95	4,955	1,79,506.78	1,56,497.35

(Source: GWSSB Report 2012-13, 2013-14)

These schemes covered 1,651 habitations, on which estimated cost was ₹45,332.31 lakhs and total expenditure was ₹34,363.28 lakhs. Minimum Needs programme (WSS-47) had 18 schemes, both completed and under progress. These schemes covered 505 habitations, on which estimated cost was ₹33,585.66 lakhs and total expenditure was ₹26,452.54 lakhs. It is observed that percentage of expenditure to estimated cost for NRDWP coverage, NRDWP QP, NRDWP DDP and MNP (WSS-47) is at 72.74%, 46.76%, 75.80%, and 78.76%. Overall, it is noticed that percentage of expenditure to estimated cost was 87.18%.

5.5 DISTRICT WISE ANALYSIS OF OPERATIONAL DATA

Like previous analysis here also data are collected for a period of 6 years from 2009-10 to 2014-15³. The data relates to, new schemes, ongoing schemes, achieved schemes, habitations covered and the total cost for each of the item, the share of each district in total is derived by percentage analysis. In addition to this for each district cost per habitation and cost per scheme are also derived. Meaning of each of the data item is given in the foot note to the Table.

District wise Water Supply

The data is related to total water supply schemes from year 2009 to 2015.

2009-10: Table 5.26 presents district wise data and analysis for operational aspects for the year 2009-10. It gives details regarding ongoing, new and achieved schemes along with habitations covered and total cost for the year. It can be seen that maximum percentage of ongoing schemes are in Valsad (19.66%) followed by in Surendranagar (14.43%). In the Valsad district total schemes are 791, among them highest schemes are achieved schemes at 354, 298 are new schemes and 139 are ongoing scheme. For achieved schemes Valsad, Panchmahal and Navsari are at the top with 20.36%, 18.40% and 10.70% of total schemes achieved. Banaskantha and Rajkot district share is 17.06% and 11.71% of the total cost. Cost per scheme is highest for Bhavnagar at ₹32.91 crores followed by Gandhinagar ₹29.68 crores. Cost per habitation is found to be highest for Gandhinagar at ₹10.79 crores.

Table – 5.26 District wise Water Supply Schemes (NRDWP): 2009-10

Sr. No	District	No. of Ongoing schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieve Schemes	Percentage of Achieve Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
1	Ahmedabad	5	0.71	0	0.00	5	0.29	5	0.18	0.7	0.05	0.07	0.14
2	Amreli	0	0.00	5	0.37	4	0.23	27	0.98	153.91	10.92	17.10	5.70
3	Anand	43	6.08	10	0.75	52	2.99	53	1.92	6.78	0.48	0.06	0.13
4	Banaskantha	39	5.52	10	0.75	45	2.59	263	9.55	240.42	17.06	2.56	0.91
5	Bharuch	48	6.79	6	0.45	52	2.99	54	1.96	6.28	0.45	0.06	0.12
6	Bhavnagar	4	0.57	0	0.00	0	0.00	35	1.27	131.62	9.34	32.91	3.76
7	Dang	0	0.00	20	1.50	20	1.15	20	0.73	2.89	0.21	0.07	0.14
8	Dohad	34	4.81	75	5.62	61	3.51	110	3.99	13.01	0.92	0.08	0.12
9	Gandhinagar	2	0.28	0	0.00	2	0.12	11	0.40	118.71	8.42	29.68	10.79
10	Jamnagar	1	0.14	32	2.40	31	1.78	30	1.09	3.08	0.22	0.05	0.10
11	Junagadh	2	0.28	4	0.30	2	0.12	108	3.92	128.01	9.08	16.00	1.19
12	Kheda	4	0.57	91	6.82	95	5.46	89	3.23	4.41	0.31	0.02	0.05
13	Narmada	3	0.42	6	0.45	9	0.52	9	0.33	1.54	0.11	0.09	0.17
14	Navsari	2	0.28	190	14.23	186	10.70	191	6.94	13.18	0.94	0.03	0.07
15	Panchmahal	86	12.16	247	18.50	320	18.40	310	11.26	34.82	2.47	0.05	0.11
16	Patan	2	0.28	0	0.00	1	0.06	20	0.73	4.69	0.33	1.56	0.23
17	Porbandar	1	0.14	4	0.30	2	0.12	129	4.68	83.46	5.92	11.92	0.65
18	Rajkot	13	1.84	88	6.59	85	4.89	316	11.47	165.05	11.71	0.89	0.52
19	Sabarkantha	60	8.49	131	9.81	163	9.37	187	6.79	17.87	1.27	0.05	0.10
20	Surat	20	2.83	14	1.05	34	1.96	28	1.02	3.92	0.28	0.06	0.14
21	Surendranagar	102	14.43	81	6.07	98	5.64	172	6.25	112.85	8.01	0.40	0.66
22	Tapi	18	2.55	0	0.00	18	1.04	17	0.62	1.96	0.14	0.05	0.12
23	Vadodara	79	11.17	23	1.72	100	5.75	156	5.66	133.91	9.50	0.66	0.86
24	Valsad	139	19.66	298	22.32	354	20.36	414	15.03	26.34	1.87	0.03	0.06
	Total	707	100.00	1,335	100.00	1,739	100.00	2,754	100.00	1,409.41	100.00	4.77	1.12

(Sources: Column no (1), (3), (5), (7), (9) from <http://indiawater.nic.in> and column no (2), (4), (6), (8), (10), (11), and (12) derived by calculation)

Note: Kutch and Mahesana are not considered because they have no ongoing, new, achieve schemes, habitations and total cost.

Note: Ongoing scheme: Scheme completion date > = 01/04/2009 and commencement date < 01/04/2009.

New scheme: Commencement date > = 01/04/2009

Achieved scheme: Scheme completion date < = 11/01/2015.

Habitation: It is a term used to define a group of families living in proximity to each other, within a village. It could have either heterogeneous or homogenous demographic pattern. There can be more than one habitation in a village but not vice versa.

Table – 5.27 District wise Water Supply Schemes (NRDWP): 2010-11

Sr. No	District	No. of Ongoing schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieve Schemes	Percentage of Achieve Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
1	Amreli	2	0.95	0	0.00	1	0.08	7	0.22	66.17	6.37	22.06	9.45
2	Anand	1	0.48	176	14.27	156	12.07	165	5.17	14.12	1.36	0.04	0.09
3	Banaskantha	13	6.19	10	0.81	19	1.47	241	7.55	237.82	22.89	5.66	0.99
4	Bharuch	4	1.90	14	1.14	18	1.39	18	0.56	2.58	0.25	0.07	0.14
5	Bhavnagar	1	0.48	6	0.49	1	0.08	8	0.25	0.16	0.02	0.02	0.02
6	Dang	0	0.00	28	2.27	27	2.09	28	0.88	1.58	0.15	0.03	0.06
7	Dohad	46	21.90	21	1.70	66	5.11	52	1.63	9	0.87	0.07	0.17
8	Gandhinagar	1	0.48	0	0.00	1	0.08	1	0.03	0.05	0.00	0.03	0.05
9	Jamnagar	2	0.95	18	1.46	14	1.08	42	1.31	6.56	0.63	0.19	0.16
10	Junagadh	3	1.43	1	0.08	2	0.15	103	3.22	78.61	7.57	13.10	0.76
11	Kutch	11	5.24	36	2.92	35	2.71	677	21.20	32.03	3.08	0.39	0.05
12	Kheda	0	0.00	124	10.06	124	9.60	123	3.85	5.48	0.53	0.02	0.04
13	Narmada	7	3.33	51	4.14	57	4.41	58	1.82	7.29	0.70	0.06	0.13
14	Navsari	0	0.00	182	14.76	155	12.00	181	5.67	13.22	1.27	0.04	0.07
15	Panchmahal	4	1.90	3	0.24	7	0.54	7	0.22	0.95	0.09	0.07	0.14
16	Patan	1	0.48	0	0.00	1	0.08	20	0.63	2.35	0.23	1.18	0.12
17	Porbandar	3	1.43	3	0.24	3	0.23	128	4.01	82.54	7.95	9.17	0.64
18	Rajkot	15	7.14	8	0.65	21	1.63	212	6.64	143.01	13.77	3.25	0.67
19	Sabarkantha	12	5.71	364	29.52	317	24.54	851	26.64	308.87	29.73	0.45	0.36
20	Surat	0	0.00	7	0.57	7	0.54	7	0.22	1.76	0.17	0.13	0.25
21	Surendranagar	19	9.05	4	0.32	23	1.78	29	0.91	7.52	0.72	0.16	0.26
22	Tapi	58	27.62	1	0.08	59	4.57	58	1.82	6.03	0.58	0.05	0.10
23	Vadodara	4	1.90	81	6.57	84	6.50	82	2.57	5.99	0.58	0.04	0.07
24	Valsad	3	1.43	95	7.70	94	7.28	96	3.01	5.09	0.49	0.03	0.05
	Total	210	100.00	1233	100.00	1,292	100.00	3,194	100.00	1,038.78	100.00	2.35	0.62

(Sources: Column no (1), (3), (5), (7), (9) from <http://indiawater.nic.in>) and column no (2), (4), (6), (8), (10), (11), and (12) derived by calculation)

Note: Ahmadabad and Mahesana are not considered because they have no ongoing, new, achieve schemes, habitations and total cost.

Note: Ongoing scheme: Scheme completion date >= 01/04/2010 and commencement date< 01/04/2010.

New scheme: Commencement date >= 01/04/2010

Achieved scheme: Scheme completion date <= 11/01/2015.

Habitation: It is a term used to define a group of families living in proximity to each other, within a village. It could have either heterogeneous or homogenous demographic pattern. There can be more than one habitation in a village but not vice versa.

2010-11: Table 5.27 presents district wise data and analysis for operational aspects for the year 2010-11. It gives details of ongoing, new and achieved schemes along with habitations covered and total cost for the year. It can be seen that Kutch district is introduced in 2010-11. It can be seen that maximum percentage of ongoing schemes is in Tapi (27.62%) followed by Dohad (21.90%). In the Sabarkantha district total schemes are 693, among them highest schemes are 317 which are achieved schemes, 364 are new schemes 12 are ongoing schemes. In case of achieved schemes Sabarkantha, Anand, & Navsari are sequentially higher than other districts with 24.54 %, 12.07 % and 12% of total schemes achieved. Total cost is highest for Sabarkantha and Banaskantha district which is 29.73% and 22.89% respectively. In the year 2010-11, Kheda and Surat districts are noted for no ongoing schemes. Cost per scheme and habitation is found to be highest for Amreli at ₹22.06 crores and ₹9.45 crores respectively, followed by Junagadh district at ₹13.10 crores for cost per scheme.

2011-12: Table 5.28 presents district wise data and analysis for operational aspects for the year 2011-12. It gives details of ongoing, new and achieved scheme along with habitations covered and total cost for the year. It is noted that Mahesana district is introduced in 2011-12. It can be seen that maximum percentage of ongoing schemes is in Banaskantha (38.98%). In the Navsari district total schemes are 330, among them 131 are achieved schemes, 199 are new schemes and there is no ongoing scheme. In case of achieved schemes, Kutch, Navsari, Narmada and Banaskantha are sequentially higher than other districts with 17.27 %, 14.41 %, 11.99% and 10.56% of total schemes achieved. The highest percentage of habitations is found in Banaskantha district (33.93%). Banaskantha district has highest share of total cost at 37.26%. In the year 2011-12, Amreli, Anand, Dang, Junagadh, Kheda, Navsari, Panchmahal, Rajkot, Surat, Surendranagar and Tapi districts are noted for no ongoing schemes. Cost per scheme is found to be highest for Surat at ₹92.49 crores. Cost per habitation is found to be highest for Mahesana district at ₹45 crores.

Table – 5.28 District wise Water Supply Schemes (NRDWP): 2011-12

Sr. No	District	No. of Ongoing schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieve Schemes	Percentage of Achieve Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
1	Ahmedabad	4	3.39	1	0.12	5	0.55	26	2.02	22.05	2.53	2.21	0.85
2	Amreli	0	0.00	1	0.12	1	0.11	3	0.23	7.82	0.90	3.91	2.61
3	Anand	0	0.00	37	4.49	35	3.85	33	2.56	3.71	0.42	0.05	0.11
4	Banaskantha	46	38.98	53	6.43	96	10.56	437	33.93	325.33	37.26	1.67	0.74
5	Bharuch	1	0.85	14	1.70	7	0.77	84	6.52	36.23	4.15	1.65	0.43
6	Dang	0	0.00	29	3.52	29	3.19	29	2.25	1.1	0.13	0.02	0.04
7	Dohad	1	0.85	0	0.00	12	1.32	1	0.08	0.07	0.01	0.01	0.07
8	Gandhinagar	11	9.32	12	1.46	0	0.00	23	1.79	0.99	0.11	0.04	0.04
9	Jamnagar	1	0.85	0	0.00	4	0.44	1	0.08	0.14	0.02	0.03	0.14
10	Junagadh	0	0.00	4	0.49	0	0.00	4	0.31	2.98	0.34	0.75	0.75
11	Kutch	19	16.10	0	0.00	157	17.27	19	1.48	49.98	5.72	0.28	2.63
12	Kheda	0	0.00	157	19.05	0	0.00	155	12.03	6.62	0.76	0.04	0.04
13	Mahesana	1	0.85	0	0.00	91	10.01	1	0.08	45	5.15	0.49	45.00
14	Narmada	18	15.25	91	11.04	109	11.99	109	8.46	32.96	3.78	0.15	0.30
15	Navsari	0	0.00	199	24.15	131	14.41	131	10.17	8.09	0.93	0.02	0.06
16	Panchmahal	0	0.00	1	0.12	1	0.11	1	0.08	0.01	0.00	0.01	0.01
17	Porbandar	1	0.85	0	0.00	1	0.11	1	0.08	12.91	1.48	6.46	12.91
18	Rajkot	0	0.00	1	0.12	1	0.11	1	0.08	0.01	0.00	0.01	0.01
19	Sabarkantha	10	8.47	48	5.83	53	5.83	53	4.11	3.98	0.46	0.04	0.08
20	Surat	0	0.00	2	0.24	0	0.00	0	0.00	184.98	21.19	92.49	0.00
21	Surendranagar	0	0.00	9	1.09	9	0.99	9	0.70	33.23	3.81	1.85	3.69
22	Tapi	0	0.00	25	3.03	25	2.75	25	1.94	71.94	8.24	1.44	2.88
23	Vadodara	4	3.39	81	9.83	85	9.35	85	6.60	2.04	0.23	0.01	0.02
24	Valsad	1	0.85	59	7.16	57	6.27	57	4.43	20.91	2.39	0.18	0.37
	Total	118	100.00	824	100.00	909	100.00	1288	100.00	873.08	100.00	4.74	3.07

(Sources: Column no (1), (3), (5), (7), (9) from <http://indiawater.nic.in>) and column no (2), (4), (6), (8), (10), (11), and (12) derived by calculation)

Note: Bhavnagar and Patan are not considered because they have no ongoing, new, achieve schemes, habitations and total cost.)

Note: Ongoing scheme: scheme completion date >= 01/04/2011 and commencement date< 01/04/2011.

New scheme: commencement date >= 01/04/2011

Achieved scheme: scheme completion date <= 11/01/2015.

Habitation: It is a term used to define a group of families living in proximity to each other, within a village. It could have either heterogeneous or homogenous demographic pattern. There can be more than one habitation in a village but not vice versa).

Table – 5.29 District wise Water Supply Schemes (NRDWP): 2012-13

Sr. No	District	No. of Ongoing schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieve Schemes	Percentage of Achieve Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
1	Ahmedabad	76	8.77	22	1.78	50	3.17	86	1.87	10.65	0.43	0.07	0.12
2	Amreli	1	0.12	1	0.08	2	0.13	4	0.09	7.83	0.32	1.96	1.96
3	Anand	48	5.54	73	5.92	109	6.91	251	5.46	92.45	3.72	0.40	0.37
4	Banaskantha	15	1.73	63	5.11	56	3.55	819	17.81	642.79	25.88	4.80	0.78
5	Bharuch	47	5.42	21	1.70	67	4.25	68	1.48	2.77	0.11	0.02	0.04
6	Bhavnagar	1	0.12	2	0.16	3	0.19	4	0.09	60.6	2.44	10.10	15.15
7	Dang	2	0.23	36	2.92	29	1.84	42	0.91	2.46	0.10	0.04	0.06
8	Gandhinagar	39	4.50	28	2.27	63	3.99	67	1.46	12.12	0.49	0.09	0.18
9	Jamnagar	29	3.34	11	0.89	33	2.09	41	0.89	6.29	0.25	0.09	0.15
10	Junagadh	8	0.92	20	1.62	10	0.63	115	2.50	33.88	1.36	0.89	0.29
11	Kutch	57	6.57	11	0.89	55	3.49	143	3.11	147.36	5.93	1.20	1.03
12	Kheda	18	2.08	55	4.46	65	4.12	163	3.55	28.68	1.15	0.21	0.18
13	Mahesana	14	1.61	22	1.78	22	1.39	33	0.72	3.14	0.13	0.05	0.10
14	Narmada	68	7.84	53	4.29	119	7.54	218	4.74	31.72	1.28	0.13	0.15
15	Navsari	50	5.77	120	9.72	80	5.07	272	5.92	10.05	0.40	0.04	0.04
16	Panchmahal	0	0.00	1	0.08	1	0.06	22	0.48	11.48	0.46	5.74	0.52
17	Patan	68	7.84	50	4.05	108	6.84	320	6.96	125.89	5.07	0.56	0.39
18	Porbandar	4	0.46	2	0.16	6	0.38	129	2.81	127.6	5.14	10.63	0.99
19	Rajkot	20	2.31	2	0.16	22	1.39	127	2.76	165.49	6.66	3.76	1.30
20	Sabarkantha	185	21.34	422	34.20	450	28.52	608	13.22	238.49	9.60	0.23	0.39
21	Surat	1	0.12	9	0.73	3	0.19	268	5.83	185.94	7.49	14.30	0.69
22	Surendranagar	20	2.31	0	0.00	20	1.27	40	0.87	110.67	4.46	2.77	2.77
23	Tapi	93	10.73	63	5.11	79	5.01	135	2.94	19.22	0.77	0.08	0.14
24	Vadodara	2	0.23	55	4.46	55	3.49	302	6.57	286.67	11.54	2.56	0.95
25	Valsad	1	0.12	92	7.46	71	4.50	321	6.98	119.92	4.83	0.73	0.37
	Total	867	100.00	1,234	100.00	1,578	100.00	4,598	100.00	2,484.16	100.00	2.46	1.16

(Sources: Column no (1), (3), (5), (7), (9) from <http://indiawater.nic.in> and column no (2), (4), (6), (8), (10), (11), and (12) derived by calculation)

Note: Dohad is not considered because no ongoing, new, achieve schemes, habitations and total cost.

Note: Ongoing scheme: scheme completion date >= 01/04/2012 and commencement date< 01/04/2012.

New scheme: commencement date >= 01/04/2012

Achieved scheme: scheme completion date <= 11/01/2015.

Habitation: It is a term used to define a group of families living in proximity to each other, within a village. It could have either heterogeneous or homogenous demographic pattern. There can be more than one habitation in a village but not vice versa.

2012-13: Table 5.29 presents district wise data and analysis for operational aspects for the year 2012-13. It gives details of ongoing, new and achieved schemes along with habitations covered and total cost for the year. It can be seen that maximum percentage of ongoing schemes is in Sabarkantha (21.34%). In the Sabarkantha district total schemes are 1,057, among them highest schemes are 450 which are achieved schemes, 422 are new schemes, 185 are ongoing scheme. In case of achieved schemes Sabarkantha, Narmada and Anand are sequentially higher than other districts with 28.52%, 7.54 %, and 6.91% of total scheme achieved. The highest percentage of habitations is found in Banaskantha district (17.81%). Banaskantha district has highest share in total cost at 25.88%. In the year 2012-13, Panchmahal district is noted for no ongoing schemes. Cost per scheme is found to be highest for Surat at ₹14.30 crores. Cost per habitation is found to be highest for Bhavnagar district at ₹15.15 crores.

2013-14: Table 5.30 presents district wise data and analysis for operational aspects for the year 2013-14. It gives details of ongoing, new and achieved scheme along with habitations covered and total cost for the year. It can be seen that maximum percentage of ongoing schemes is in Mahesana (22.78%). In the Valsad district total schemes are 730, among them highest schemes are 433 which are new schemes, 205 are achieved schemes 92 are ongoing schemes. In case of achieved schemes, Mahesana, Sabarkantha, Panchmahal and Navsari are sequentially higher than other districts with 14.70%, 10.53 %, 8.91% and 8.33% of total scheme achieved. The highest percentage of habitations is found in Banaskantha district (15.03%). Banaskantha district has highest share in total cost at 37.38%. In the year 2013-14, Junagadh district is noted for no ongoing schemes. Cost per scheme is found to be highest for Junagadh at ₹14.65 crores. Cost per habitation is found to be highest for Porbandar district at ₹1.03 crores.

Table – 5.30 District wise Water Supply Schemes (NRDWP): 2013-14

Sr. No	District	No. of Ongoing schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieve Schemes	Percentage of Achieve Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
1	Ahmedabad	72	3.61	8	0.32	61	1.97	102	1.74	20.19	1.31	0.14	0.20
2	Amreli	27	1.35	0	0.00	23	0.74	29	0.50	11.1	0.72	0.22	0.38
3	Anand	35	1.75	62	2.46	78	2.52	217	3.71	88.64	5.76	0.51	0.41
4	Banaskantha	79	3.96	75	2.97	147	4.75	879	15.03	575.03	37.38	1.91	0.65
5	Bharuch	173	8.66	89	3.53	246	7.95	311	5.32	121	7.87	0.24	0.39
6	Bhavnagar	45	2.25	0	0.00	12	0.39	45	0.77	5.66	0.37	0.10	0.13
7	Dang	19	0.95	89	3.53	18	0.58	96	1.64	43.5	2.83	0.35	0.45
8	Dohad	117	5.86	12	0.48	96	3.10	124	2.12	19.49	1.27	0.09	0.16
9	Gandhinagar	19	0.95	5	0.20	19	0.61	24	0.41	2.73	0.18	0.06	0.11
10	Jamnagar	11	0.55	10	0.40	5	0.16	40	0.68	27.25	1.77	1.05	0.68
11	Junagadh	0	0.00	2	0.08	0	0.00	48	0.82	29.29	1.90	14.65	0.61
12	Kutch	40	2.00	6	0.24	20	0.65	46	0.79	5.04	0.33	0.08	0.11
13	Kheda	67	3.36	98	3.88	128	4.13	194	3.32	27.49	1.79	0.09	0.14
14	Mahesana	455	22.78	3	0.12	455	14.70	285	4.87	2.54	0.17	0.00	0.01
15	Narmada	17	0.85	244	9.67	70	2.26	211	3.61	11.82	0.77	0.04	0.06
16	Navsari	22	1.10	406	16.09	258	8.33	402	6.87	21.38	1.39	0.03	0.05
17	Panchmahal	43	2.15	235	9.31	276	8.91	242	4.14	10.27	0.67	0.02	0.04
18	Patan	30	1.50	5	0.20	25	0.81	177	3.03	84.69	5.51	1.41	0.48
19	Porbandar	15	0.75	5	0.20	13	0.42	114	1.95	117.45	7.63	3.56	1.03
20	Rajkot	79	3.96	0	0.00	37	1.20	80	1.37	15	0.98	0.13	0.19
21	Sabarkantha	252	12.62	233	9.23	326	10.53	406	6.94	55.98	3.64	0.07	0.14
22	Surat	161	8.06	219	8.68	233	7.53	454	7.76	51.31	3.34	0.08	0.11
23	Surendranagar	28	1.40	8	0.32	22	0.71	36	0.62	12.93	0.84	0.22	0.36

Table – 5.30 Continued

Sr. No	District	No. of Ongoing schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieve Schemes	Percentage of Achieve Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
24	Tapi	94	4.71	189	7.49	250	8.07	387	6.62	23.17	1.51	0.04	0.06
25	Vadodara	5	0.25	88	3.49	73	2.36	147	2.51	49.38	3.21	0.30	0.34
26	Valsad	92	4.61	433	17.16	205	6.62	752	12.86	106.07	6.89	0.15	0.14
	Total	1,997	100.00	2,524	100.00	3,096	100.00	5,848	100.00	1,538.4	100.00	0.98	0.29

(Sources: Column no (1), (3), (5), (7), (9) from <http://indiawater.nic.in> and column no (2), (4), (6), (8), (10), (11), and (12) derived by calculation)

Note: Ongoing scheme: Scheme completion date \geq 01/04/2013 and commencement date $<$ 01/04/2013.

New scheme: Commencement date \geq 01/04/2013

Achieved scheme: Scheme completion date \leq 11/01/2015.

Habitation: It is a term used to define a group of families living in proximity to each other, within a village. It could have either heterogeneous or homogenous demographic pattern. There can be more than one habitation in a village but not vice versa.

Table – 5.31 District wise Water Supply Schemes (NRDWP): 2014-15

Sr. No	District	No. of Ongoing schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieve Schemes	Percentage of Achieve Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
1	Ahmedabad	15	0.74	2	0.12	17	1.03	33	0.59	2.75	0.16	0.08	0.08
2	Anand	67	3.33	28	1.67	43	2.60	89	1.58	6.4	0.37	0.05	0.07
3	Aravalli	182	9.03	116	6.94	231	13.94	362	6.44	185.83	10.85	0.35	0.51
4	Banaskantha	23	1.14	19	1.14	34	2.05	721	12.83	611.97	35.73	8.05	0.85
5	Bharuch	95	4.71	80	4.78	28	1.69	395	7.03	269.55	15.74	1.33	0.68
6	Bhavnagar	0	0.00	8	0.48	0	0.00	75	1.33	28.22	1.65	3.53	0.38
7	Botad	4	0.20	1	0.06	3	0.18	12	0.21	4.36	0.25	0.55	0.36
8	Chhotaudepur	23	1.14	33	1.97	46	2.78	53	0.94	4.98	0.29	0.05	0.09
9	Dang	2	0.10	148	8.85	1	0.06	102	1.82	8.71	0.51	0.06	0.09
10	Dwarka	12	0.60	0	0.00	5	0.30	12	0.21	3.18	0.19	0.19	0.27
11	Dohad	0	0.00	74	4.43	5	0.30	74	1.32	12.48	0.73	0.16	0.17
12	Gandhinagar	45	2.23	0	0.00	44	2.66	43	0.77	6.99	0.41	0.08	0.16
13	Jamnagar	20	0.99	1	0.06	7	0.42	21	0.37	4.03	0.24	0.14	0.19
14	Junagadh	2	0.10	1	0.06	0	0.00	91	1.62	65.92	3.85	21.97	0.72
15	Kutch	54	2.68	7	0.42	25	1.51	92	1.64	48.88	2.85	0.57	0.53
16	Kheda	92	4.57	19	1.14	73	4.41	118	2.10	18.61	1.09	0.10	0.16
17	Mahesana	14	0.69	0	0.00	11	0.66	80	1.42	6.87	0.40	0.27	0.09
18	Mahisagar	5	0.25	2	0.12	4	0.24	6	0.11	1.82	0.11	0.17	0.30
19	Morbi	0	0.00	18	1.08	1	0.06	81	1.44	0.2	0.01	0.01	0.00
20	Narmada	256	12.70	238	14.23	42	2.53	283	5.04	22.63	1.32	0.04	0.08
21	Navsari	11	0.55	312	18.66	45	2.72	325	5.78	16.26	0.95	0.04	0.05
22	Panchmahal	60	2.98	131	7.83	69	4.16	170	3.03	11.18	0.65	0.04	0.07
23	Patan	33	1.64	6	0.36	32	1.93	188	3.35	9.79	0.57	0.14	0.05

Table – 5.31 Continued

Sr. No	District	No. of Ongoing schemes	Percentage of Ongoing Schemes	No. of New Schemes	Percentage of New Schemes	No. of Achieve Schemes	Percentage of Achieve Schemes	Total No. of Habitation	Percentage of Total Habitation	Total Cost (₹ Crores)	Percentage of Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
		1	2	3	4	5	6	7	8	9	10	11	12
26	Surat	59	2.93	22	1.32	64	3.86	121	2.15	14.77	0.86	0.10	0.12
27	Surendranagar	3	0.15	2	0.12	1	0.06	407	7.24	139.37	8.14	23.23	0.34
28	Tapi	276	13.70	0	0.00	267	16.11	375	6.67	23.68	1.38	0.04	0.06
29	Vadodara	163	8.09	50	2.99	164	9.90	217	3.86	28.48	1.66	0.08	0.13
30	Valsad	264	13.10	289	17.28	152	9.17	806	14.34	95.68	5.59	0.14	0.12
	Total	2,015	100	1,672	100	1,657	100	5,619	100	1,712.92	100	2.06	0.24

(Sources: Column no (1), (3), (5), (7), (9) from <http://indiawater.nic.in>) and column no (2), (4), (6), (8), (10), (11), and (12) derived by calculation)

Note: Amreli, Gir Somnath and Rajkot are not considered because they have no ongoing, new, achieve schemes, habitations and total cost.

Note: Ongoing scheme: Scheme completion date \geq 01/04/2014 and commencement date $<$ 01/04/2014.

New scheme: Commencement date \geq 01/04/2014

Achieved scheme: Scheme completion date \leq 11/01/2015.

Habitation: It is a term used to define a group of families living in proximity to each other, within a village. It could have either heterogeneous or homogenous demographic pattern. There can be more than one habitation in a village but not vice versa.

2014-15: Table 5.31 presents district wise data and analysis for operational aspects for the year 2014-15. It gives details of ongoing, new and achieved scheme along with habitations covered and total cost for the year. It can be seen that the Aravalli, Botad, Dwarka, Gir Somnath, Mahisagar and Morbi districts are introduced in the year 2014-15. It can be seen that maximum percentage of ongoing schemes is in Tapi (13.70%) followed by Valsad (13.10%), Narmada (12.70%) and Sabarkantha districts (10.22%). It is noticed that highest percentage of new schemes is in Navsari (18.66%). In case of achieved schemes, Tapi, Sabarkantha, Vadodara and Valsad are sequentially higher than other districts with 16.11%, 13.04 %, 9.90% and 9.17% of total schemes achieved. The highest percentage of habitations is found in Valsad district (14.34%). It is noticed Banaskantha has highest share in the total cost for the year. In the year 2014-15, Bhavnagar, Gir Somnath, Dohad, Morbi and Rajkot districts are noted for no ongoing schemes. Cost per scheme is found to be highest for Surendranagar at ₹23.23 crores. Cost per habitations highest ₹0.85 crores, is noted for Banaskantha.

Table 5.32 describes the total number of schemes taken up at the district level. This is inclusive of ongoing, new and achieved schemes. It also includes total number of habitations, total cost and cost per scheme and cost per habitation.

Table 5.32 Total Number of Schemes Taken up District wise 2009 - 2015

Year	Total District	Number of Ongoing Schemes	Number of New Schemes	Number of Achieved Schemes	Total Number of Habitations	Total Cost	Average Cost per Scheme (₹ Crores)	Average Cost per Habitation (₹ Crores)
2009 – 10	24	707	1,335	1,739	2,754	1,409.41	4.77	1.12
2010 – 11	24	210	1,233	1,292	3,194	1,038.78	2.35	0.62
2011 – 12	24	118	824	909	1,288	873.08	4.74	3.07
2012 – 13	25	867	1,234	1,578	4,598	2,484.16	2.46	1.16
2013 – 14	26	1,997	2,524	3,096	5,848	1,538.40	0.98	0.29
2014 – 15	30	2,015	1,672	1,657	5,619	1,712.92	2.06	0.24
Average							2.89	1.08

(Source: Compiled from Tables 5.26 to 5.31)

From the Table 5.32 it can be observed that the number of new schemes have kept on increasing each year up to 2013-14. For ongoing schemes fluctuating trend is observed. For the year 2010-11 and 2011-12 it has declined. However,

for the year 2013-14 and 2014-15 it has increased. For the increase in number it can be interpreted that the schemes that are newly commenced in preceding years are transferred to ongoing status and therefore it has gone up. Achieved schemes have gone down drastically for 2014-15. Number of habitations covered has also gone up each year except a fall in 2011-12. However for decline in ongoing scheme following reason can be exhibited. It is usual practice to take up various schemes every year based on demand and requests from the rural community. However, it seldom happens that all taken up schemes are completed in that financial year. So, remaining schemes are carried forward in next year however during that if community manage to have water supply from other alternative source or funding from other agencies in that case some such schemes are left and only remaining schemes are carried forward⁸.

Table 5.33 presents district wise average for operational aspects from the year 2009-10 to 2014- 2015. As per the Table 5.33 the proportion of number of ongoing schemes for Sabarkantha is highest followed by Tapi. Similarly, in new schemes, Navsari is highest at 16.27% followed by Sabarkantha (15.38%) and Valsad (13.18%). As compared to the other districts, it ranges from 7% to 15%. It is observed that achieved schemes for Sabarkantha is highest at 15.30% followed by Valsad (9.03%) and Navsari (8.87%). It is noticed that percentage of habitations of Banaskantha is at the highest at 16.12% followed by Sabarkantha (10.27%) and Valsad (9.44%). It is observed that proportion of total cost for Banaskantha is highest at 29.37%. It is noticed that cost per schemes for Surat is highest at ₹17.84 crores followed by Junagadh (₹11.27 crores). It is notice that cost per habitations for Mahesana is highest ₹7.54 crores.

Table 5.33 Average Percentage of the Ongoing, New, Achieved Schemes and Also Total Cost and Total Habitation

Sr. No	District	% of Ongoing Schemes	% of New Schemes	% of Achieve Schemes	% of Habitation	% of Total Cost	Average Cost per Scheme (₹ Crores)	Average Cost per Habitation (₹ Crores)
1	Ahmedabad	2.87	0.39	1.17	1.07	0.75	0.43	0.23
2	Amreli	0.40	0.10	0.22	0.34	3.21	7.54	3.35
3	Anand	2.86	4.93	5.16	3.40	2.02	0.18	0.19
4	Aravalli	1.51	1.16	2.32	1.07	1.81	0.06	0.09
5	Banaskantha	9.59	2.87	4.16	16.12	29.37	4.10	0.82
6	Bharuch	4.72	2.22	3.17	3.81	4.76	0.56	0.30
7	Bhavnagar	0.57	0.19	0.11	0.62	2.30	7.77	3.24
8	Botad	0.03	0.01	0.03	0.04	0.04	0.09	0.06
9	Chhotaudepur	0.19	0.33	0.46	0.16	0.05	0.01	0.02
10	Dang	0.21	3.77	1.49	1.37	0.66	0.09	0.14
11	Dwarka	0.10	0.00	0.05	0.04	0.03	0.03	0.05
12	Dohad	5.57	2.04	2.22	1.52	0.63	0.06	0.11
13	Gandhinagar	2.96	0.66	1.24	0.81	1.60	5.00	1.89
14	Jamnagar	1.14	0.87	1.00	0.74	0.52	0.39	0.26
15	Junagadh	0.46	0.44	0.15	2.07	4.02	11.27	0.84
16	Kutch	5.43	0.75	4.27	4.70	2.99	0.25	0.58
17	Kheda	1.76	7.57	4.62	4.68	0.94	0.05	0.09
18	Mahesana	4.32	0.32	4.46	1.18	0.98	0.15	7.54
19	Mahisagar	0.04	0.02	0.04	0.02	0.02	0.03	0.05
20	Morbi	0.00	0.18	0.01	0.24	0.00	0.00	0.00
21	Narmada	6.73	7.30	4.88	4.00	1.33	0.08	1.32
22	Navsari	1.28	16.27	8.87	6.89	0.98	0.03	0.06
23	Panchmahal	3.20	6.01	5.36	3.20	0.72	0.98	0.15
24	Patan	1.96	0.77	1.62	2.45	1.95	0.81	0.21
25	Porbandar	0.85	0.18	0.48	2.39	4.81	6.99	2.75
26	Rajkot	2.54	1.25	1.54	3.73	5.52	1.34	0.45
27	Sabarkantha	11.14	15.38	15.30	10.27	7.90	0.15	0.21
28	Surat	2.32	2.10	2.35	2.83	5.55	17.84	0.22
29	Surendranagar	4.55	1.32	1.74	2.77	4.33	4.77	1.34
30	Tapi	9.88	2.62	6.26	3.43	2.10	0.28	0.56
31	Vadodara	4.17	4.84	6.22	4.63	4.45	0.60	0.38
32	Valsad	6.63	13.18	9.03	9.44	3.68	0.21	0.19
		100.00	100.00	100.00	100.00	100.00	2.25	0.86

(Source: Derived by own calculation)

Note: Gir Somnath is not considering due to has no ongoing, new, achieve schemes, habitations and total cost.

Habitation: It is a term used to define a group of families living in proximity to each other, within a village. It could have either heterogeneous or homogenous demographic pattern. There can be more than one habitation in a village but not vice versa.

5.6 CAPITAL COST OF INVESTMENTS IN FOUR REGIONAL RURAL WATER SUPPLY SCHEMES

As mentioned in the chapter on Research Methodology, 4 RRWSS of Gujarat are selected for primary data collection, through questionnaire. In this para the details about the scheme are presented relating to total cost of respective scheme, the annual burden of Maintenance and Repair cost, cost per capita, water requirement for 2011 and 2031 and present cost of water. These schemes are Iswariya scheme, Gadhada scheme, Mandvi scheme and Variyav scheme in Gujarat state.

Table 5.34 Basic Details for Sample Schemes

Particulars	Iswariya Schemes	Gadhada Schemes	Mandvi Schemes	Variyav Schemes
Cost of schemes (₹)	13,74,77,000	36,86,89,920	17,47,09,800	79,23,53,000
Annual Burden (M&R Cost) (₹/1000 liter)	67,32,000	2,37,79,500	11,61,24,719	10,73,31,615
Populations 2011	1,05,156	1,89,384	81,257	6,12,020
Populations 2031	1,64,314	2,95,938	1,26,965	9,56,282
Water Requirement As Per 2011 (liter per day)	73,60,920	1,32,56,880	56,87,990	4,28,41,400
Water Requirement As Per 2031 (liter per day)	1,15,01,980	2,07,15,660	88,87,550	6,69,39,740
Cost Per Capita (A) 2011* (₹)	1307.36	1946.78	2150.09	1294.65
Estimate Cost Per Capita (B) 2031* (₹)	836.67	1245.84	1376.05	828.58
Present Cost 2011** (₹)	2.51	4.91	55.93	6.86
Present Cost 2031** (₹)	1.60	3.14	35.80	4.39

(Source: Evaluation report 2007)

Note: From WASMO Report

* Cost per capita = Cost of scheme / Ultimate stage of population 2031 / 2011

** Present cost = $\frac{\text{Annual Burden} \times 1000}{\text{Water Requirement} \times 365}$

Table 5.34 presents the details about the schemes relating to total cost of respective scheme, annual burden of maintenance and repair cost, population 2011 and 2031, water requirement as per 2011 and 2031 estimates, cost per capita 2011 and 2031 and present cost of four schemes. It can be seen that the highest cost is for Variyav scheme at ₹79,23,53,000 but the population covered is also highest. Therefore, the cost per capita is highest in Gadhada scheme at ₹2,150.09 in the year 2011 and ₹1,376.05 for the year 2031. It is observed that

the annual burden of maintenance and repairs cost is highest in Mandvi scheme at ₹11,61,24,719. Also, the present cost 2011 is highest in Mandvi scheme at ₹55.93 compared to the other three schemes. Mandvi scheme covers desert area as well as border area and location of population villages are scattered. Population in the villages is less than other districts due to desertic tarrant. Cost and time over run are due to unexpected heavy rains in the Kutch region.

5.7 MAJOR FINDINGS

This chapter discussed the operational and financial details regarding the schemes with the help of data published by NRDWP. As NRDWP was established in the year 2009, data are available from 2009-10 onwards only. The chapter took the review of various states for a span of six years 2009-10 to 2014-15 regarding new, achieved and ongoing schemes. The data were also gathered about the financial aspects of schemes viz, from the total cost of all schemes, cost per scheme was derived and from the total number of habitations covered, cost per habitation was derived. A similar kind of calculation was carried out at district level for the state of Gujarat. Based on the analysis following major findings are made.

1. Allocation and expenditure from 2009 to 2015 related findings

1. In the year 2009-10, 12 out of 28 states have release fund greater than the allocation. 8 out of 28 states have expenditure greater than release. It is noticed that Andhra Pradesh, Gujarat, Jammu & Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh, have allocation, release and expenditure higher than the average.
2. In the year 2010-11, 16 out of 30 states have release fund greater than the allocation. 6 out of 30 states have expenditure greater than release fund. It is found that Andhra Pradesh, Tamil Nadu, Uttar Pradesh and West Bengal have allocation, release and expenditure higher than the average.

3. In the year 2011-12, 11 out of 28 states have release fund greater than allocation and 15 out of 28 states have expenditure greater than release. It is noticed that Andhra Pradesh, Assam, Bihar, Gujarat, Jammu & Kashmir, Karnataka, Maharashtra, Rajasthan, Uttar Pradesh, West Bengal have allocation fund, release and expenditure higher than the average.
4. In the year 2012-13, 12 out of 30 states have release fund greater than allocation. It can be seen that 12 states have expenditure greater than release fund. It is observed that Andhra Pradesh, Assam, Gujarat, Jammu & Kashmir, Karnataka, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal have allocation, release fund and expenditure higher than the average.
5. In the year 2013-14, 16 out of 30 states have release fund greater than allocation. It can be seen that 20 states have expenditure greater than release fund. It is observed that Andhra Pradesh, Assam, Gujarat, Jammu & Kashmir, Karnataka, Maharashtra, Madhya Pradesh, Rajasthan, Uttar Pradesh, West Bengal have allocation, release of fund and expenditure higher than the average.
6. In the year 2014-15, 17 out of 31 states have release fund greater than allocation and 18 out of 31 states have expenditure greater than release funds. It is observed that Andhra Pradesh, Assam, Bihar, Gujarat, Jammu & Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal have allocation, release of fund and expenditure higher than the average.
7. When year wise trend is examined for allocation, release and expenditure related to central funds, it is observed that over a period of time allocation and release have kept on increasing up to 2012-13 and it has declined during the year 2013-14 and 2014-15. It is noticed that the expenditure has kept on increasing each year up to 2013-14 and it has declined during 2014-15.
8. Examining over a period of six years, on an average it is found that release is about 96% of allocation and expenditure is about 94% of release of central funds.

2. State's share in Allocation, Release and Expenditure:

1. For the year 2009-10, percentage of fund allocated and released are highest for Rajasthan at 12.98% and at 12.67%. When actual expenditure incurred is examined, Rajasthan does not remain at top. Instead, Uttar Pradesh is at the top at 13.90%. Only 5 out of 28 states have 46% allocation of funds, 47% of release of funds and 47% of total expenditure out of central funds.
2. For the year 2010-11, percentage of fund allocated and released are highest for Rajasthan at 13.64% and at 12.30%. When actual expenditure incurred is examined, Rajasthan does not remain at the top. Instead, Uttar Pradesh is at the top at 11.65% expenditure out of central funds. Only top 5 states have 46% of allocation and about 45% of release and expenditure of the central funds.
3. For the year 2011-12, percentage of fund allocation, release and expenditure are highest for Rajasthan at 13.01%, 13.62% and 15.91%. Thus, for all three aspects, Rajasthan is at the top. It is noticed that for Rajasthan release of funds was higher for 2011-12 as compared to 2010-11, both in absolute terms as well as percentage share. 5 out of 28 states have 46% of allocation and release of funds and 45% of total expenditure.
4. For the year 2012-13, percentages of central funds allocation, release and expenditure is highest for Rajasthan at 13.14%, 13.48% and 13.17%. For all three aspects, Rajasthan is consistently at the top. 5 out of 30 states have 46% of allocation and release of funds and 43% of expenditure of the central fund.
5. For the year 2013-14, percentage of fund allocation, release and expenditure are highest for Rajasthan at 13.71%, 13.88% and 13.51%. 5 out of 30 states have 47% allocation of funds, 42% of release of funds, 43% of total expenditure.
6. For the year 2014-15, percentage of central fund allocation, release and expenditure are highest for Rajasthan at 13.47%, 14.41% and 13.49%. The

top 5 out of 31 states have 46% allocation and release of funds and 47% of total expenditure.

7. For the time period 2009- 10 to 2014-15, when the state wise status is examined, on an average, it is found that for all three aspects of allocation, release and expenditure, Rajasthan, Uttar Pradesh and Maharashtra are at the top.

3. Analysis of operational and financial details of schemes with reference to states:

For 4 operational aspects and one financial aspect data were collected, viz. ongoing schemes, new schemes, achieved schemes, habitations and total cost. From this, cost per scheme and cost per habitation are derived. Moreover, the percentage share of each state for ongoing schemes, new schemes, achieved schemes, habitations and total cost are also derived. Table 5.35 presents the findings in summarized form regarding highest share in ongoing schemes, highest share in new schemes, highest share in achieved scheme, highest share in habitations covered and highest share in total cost for all 6 years. Moreover, it also presents the state with highest cost per scheme and highest cost per habitation.

Table 5.35 Analysis of Operational and Financial Details of Schemes with Reference to States

Year	Ongoing	New	Achieved	Habitations	Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
2009-10	Karnataka 24.21%	Chhattisgarh 20.56%	Chhattisgarh 18.67%	Bihar 18.34%	Maharashtra 20.21%	Kerala ₹4.55	Haryana ₹0.89
2010-11	Karnataka 20.01%	Chhattisgarh 18.84%	Jharkhand 17.05%	Bihar 11.23%	Rajasthan 14.70%	Goa ₹26.59	Goa ₹3.13
2011-12	Karnataka 21.91%	Jharkhand 19.32%	Jharkhand 18.46%	Jharkhand 9.87%	Rajasthan 23.72%	Kerala ₹7.52	Kerala ₹17.14
2012-13	Karnataka 21.99%	Karnataka 23.42%	Karnataka 21.07%	Karnataka 11.53%	Karnataka 15.53%	Goa ₹79.75	Goa ₹3.39
2013-14	Karnataka 32.38%	Karnataka 30.87%	Karnataka 32.42%	Karnataka 13.23%	Rajasthan 24.67%	Kerala ₹8.90	Andaman & Nicobar ₹1.05
2014-15	Karnataka 38.51%	Karnataka 22.44%	Karnataka 30.20%	Odisha 12.31%	Rajasthan 42.02%	Kerala ₹13.49	Rajasthan ₹1.60

(Source: Compiled from Table 5.16 to 5.21)

From the table 5.35 it is observed that taking 2009-10 to 2014-15 on the whole, for all 6 years Karnataka has highest share in ongoing scheme. For new schemes and achieved schemes, for 3 years Karnataka has highest share and for 2 years Jharkhand has highest share. For highest share in habitations covered, it is Bihar (2), Karnataka (2), Jharkhand (1) and Odisha (1). For total cost Rajasthan has highest share in 4 out of 6 years. Cost per scheme is found to be highest for Kerala for 4 years out of 6 years. Cost per habitation was found to be highest for different states for different years except that Goa had highest cost per habitation twice out of 6 years.

4. Analysis of operational and financial details of schemes with reference to districts:

Table 5.26 to 5.31 presented year wise data and analysis for the ongoing schemes, new schemes, achieved schemes, habitations, total cost, cost per scheme and cost per habitation for each district of Gujarat. For the summary of important findings from these six Tables Table 5.36 is prepared that presents the details about the district having highest percentage share, for each year under study for all 7 aspects as narrated above.

Table 5.36 Analysis of Operational and Financial Details of Schemes with Reference to Districts

Year	Ongoing	New	Achieved	Habitations	Total Cost	Cost per Scheme (₹ Crores)	Cost per Habitation (₹ Crores)
2009-10	Surendranagar 14.43%	Valsad 22.32%	Valsad 20.36%	Valsad 15.03%	Banaskantha 17.06%	Bhavnagar ₹32.91	Gandhinagar ₹10.79
2010-11	Tapi 27.62%	Sabarkantha 29.52%	Sabarkantha 24.54%	Sabarkantha 26.64%	Sabarkantha 29.73%	Amreli ₹22.06	Amreli ₹9.45
2011-12	Banaskantha 38.98%	Navsari 24.15%	Kutch 17.27%	Banaskantha 33.93%	Banaskantha 27.26%	Surat ₹92.49	Mahesana ₹45.00
2012-13	Sabarkantha 21.34%	Sabarkantha 34.20%	Sabarkantha 28.52%	Banaskantha 17.81%	Banaskantha 25.88%	Surat ₹14.30	Bhavnagar ₹15.15
2013-14	Mahesana 22.78%	Navsari 16.09%	Mahesana 14.70%	Banaskantha 15.03%	Banaskantha 37.38%	Junagadh ₹14.65	Porbandar ₹1.03
2014-15	Tapi 13.70%	Navsari 18.66%	Tapi 16.11%	Valsad 14.34%	Banaskantha 35.73%	Surendranagar ₹23.23	Banaskantha ₹0.85

(Source: Compile from Table 5.26 to 5.31)

It can be noticed that for most of the aspects and for most of the years, Amreli, Banaskantha, Bhavnagar, Mahesana, Sabarkantha, Surendranagar, Tapi and Valsad are leading.

5. Capital cost of investment in four regional rural water supply schemes:

On examining cost per scheme for selected 4 schemes the highest cost is for Variyav scheme at ₹79,23,53,000. The population covered is also highest for Variyav scheme. The cost per capita is highest for Gadhada scheme at ₹2,150.09 (2011) and ₹1,376.05 (2031). It is observed that the annual burden of maintenance and repairs cost is highest for Mandvi scheme at ₹11,61,24,719. The present cost is highest in Mandvi scheme at ₹55.93 compared to other three schemes. Mandvi scheme is covering desert area as well as border area and population and villages are located in scattered manner. Population in the villages is less than other districts due to desertic tarrant.



REFERENCES

- 1 NRDWP Ministry of Drinking Water and Sanitation Government of India. www.wasmo.org/downloads/nrdwp_sujoy_majumdar.pdf, Accessed on 14/06/2013.
- 2 NRDWP Programme .<http://www.rural.nic.in/sites/downloads/our-schemes-glance/salientfeatu resnrdwp.pdf>, Accessed on 18/01/2013.
- 3 NRDWP Report (2009-14), <http://indiawater.nic.in>, Accessed on 12/01/2015.
- 4 The World Bank Report (2008), Review of Effectiveness of Rural Water Supply Schemes, Sustainable Development Unit, South Asia Region, *Press Services Pvt. Ltd.*, New, (pp.1-180).
- 5 Union Compliance Civil Territories Report 32 (2015), http://www.cag.gov.in/sites/default/files/audit_report_files/Union_Compliance_Civil_Territories_Report_32_2015_chap_2.pdf, Accessed on 21-1-2015.

- 6 Government of Goa, Eleventh Five Year Plan 2007-2012 and Annual Plan 2007-08, (p. 353).
- 7 Shriram A.N (2010), Transmission Dynamics of Diurnally Sub Periodic Wuchereria Bancroft Transmitted by 1952 (dipteral: culicid) in Andaman & Nicobar Islands, Ph.D. Thesis, India, Vector control Research Centre, Pondicherry University.
- 8 GWSSB, Deputy Executive Engineer
- 9 GWSSB Report (2011-12), Annual Administrative Report, (pp.1-60).
- 10 GWSSB Report (2012-13), Annual Administrative Report, (pp.1-66).
- 11 GWSSB Report (2013-14), Annual Administrative Report, (pp.1-64).