

Chapter 10

Irrigation Development

10.1: River Basins

1. Covering a vast Malnad region with parts of western ghat belt, and with normal rain fall of over 1000 mm per year in the Deccan region, Karnataka state is endowed with enormous water resources. The state consists of five major river basins, namely, Krishna, Cauvery, Godavari, several west flowing rivers, and North and south Pennar. Of the total estimated catchment yield of 98,406 m. cum of rain fall water, about 48,000 m. cum of water is economically utilizable within the state. That is the main source of irrigation in the state.

2. The state is also endowed with enormous ground water potentials. As many as 380 watersheds ranging from 300 to 1400 sq. kms have been identified by the Ground Water Estimation Committee in 1997. Of these, 324 watersheds fall in the category of 'safe' watersheds. The total recharge rate, as estimated in 1994 is 1.40 million hectare meters, of which about 0.50 million hectare meters are being exploited currently. Though Karnataka was pioneer in the development of irrigation even before state re-organisation, recent pace of developments of this resource however, has been lagging behind many other states in India, making avenues for regional imbalances in agricultural development.

10.2: On Major and Medium Irrigation

3. Right from the time of Old Mysore state, the state was ahead of many other states in India in the development of major and medium irrigation schemes. By the end of year 2000, the state has invested under various plans, about Rs. 14,267 crore (Rs. 13,399 on major and medium irrigation, Rs. 868 crore on minor irrigation). As of April 2001, a total of 29.73 lakh hectares of irrigation potentials under major and minor irrigation schemes have been planned. Of these, the major, medium and minor (surface water) irrigation sources created so far is about 18.11 lakh hectares (by 2000-01), leaving a balance potential of about 11.63 lakh hectares to be completed in due course. The total potential of exploitable water resources in the state is of the order of 36.22 lakh hectares (including ground water to a tune of 9.08 lakh hectares).

4. The development of major and minor irrigation systems, of course are based on the field situations at the basin level, as shown in Table 10.1 and the estimated costs and expenditures incurred so far and the utilization status are shown in Tables 10.2 and 10.3.

Table 10.1: Basin-wise Potential for Major and Medium Irrigation (ha)

Basin	Status of projects		Planned (in ha.)	Potential Created (in ha.) upto 3/2001	Balance (in ha.)
Krishna Basin	Completed	Majour	206991	206991	0
		Medium	55913	55913	0
	Ongoing	Majour	1678092	1008712	669380 (39.89)
		Medium	52049	14930	37119 (71.13)
	New	Majour	74876	0	74876 (100)
		Medium	4370	0	4370 (100)
Cauvery Basin	Completed	Majour	167010	167010	0
		Medium	20148	20148	0
	Ongoing	Majour	480985	295146	185839 (38.64)
		Medium	41562	20808	20752 (49.93)
	New	Majour	0	0	0
		Medium	17785	0	17985 (100)
Godavari Basin	Completed	Majour	0	0	0
		Medium	0	0	0
	Ongoing	Majour	35614	16380	19234 (54.00)
		Medium	4747	4747	0
	New	Majour	0	0	0
		Medium	2752	0	2752 (100)
Other Basins	Completed	Majour	0	0	0
		Medium	2990	0	2990 (100)
	Ongoing	Majour	15702	0	15702 (100)
		Medium	0	0	0
	New	Majour	19425	0	19425 (100)
		Medium	42487	0	42487 (100)
Godavari Diversion Scheme			49859	0	49859 (100)

Note: 1. Figures in brackets are percentages.
2. All data are for end March 2001.

Table 10.2: Basin-wise Financial Costs of Major and Minor Irrigation

Basin	Status of projects	Adm. approved cost in Rs.lakhs		Present cost in Rs.lakhs	Expdr in Rs.lakhs upto 3/2001
Krishna Basin	Completed	Majour	8055	8055	8055 (100)
		Medium	2335	2335	2335 (100)
	Ongoing	Majour	524219	1618056	860388.31 (53.17)
		Medium	27988	60548.9	46520.29 (76.83)
	New	Majour	23293	93205	9529.78 (10.22)
		Medium	2695	4162	2973.41 (71.43)

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Basin	Status of projects	Adm. approved cost in Rs.lakhs		Present cost in Rs.lakhs	Expdr in Rs.lakhs upto 3/2001
		Majour	Medium		
Cauvery Basin	Completed	Majour	1008	5772	1124.62 (19.48)
		Medium	1958	1958	1958 (100)
	Ongoing	Majour	80348	610600	285733.83 (46.80)
		Medium	10450	47510	41947.23 (88.29)
	New	Majour	0	0	0
		Medium	2840	10563	442.35 (4.18)
Godavari Basin	Completed	Majour	0	0	0
		Medium	0	0	0
	Ongoing	Majour	25817	38500	28477.35 (73.97)
		Medium	3750	6570	6811 (100)
	New	Majour	0	0	0
		Medium	1412	2751	0
Other Basins	Completed	Majour	0	0	0
		Medium	410	410	410 (100)
	Ongoing	Majour	943	1225	2477.56 (202.24)
		Medium	0	0	0
	New	Majour	0	10958	0
		Medium	0	47472	75.97 (0.00)
Godavari Diversion Scheme			0	23709	49.45

Note: 1. Figures in brackets are percentages.

2. All data are for end March 2001.

Table 10.3: Status of Basin-wise Utilisation

Basin	Status of projects		Planned	Utilisation achieved (in TMc) upto 3/2001	Balance (in TMc)
Krishna Basin	Completed	Majour	86.7	86.7	0
		Medium	21.53	21.53	0
	Ongoing	Majour	469.9	318.05	151.85
		Medium	14.1	4.18	9.92
	New	Majour	16.14	0	16.14
		Medium	0.8	0	0.8
Cauvery Basin	Completed	Majour	126.6	126.6	0
		Medium	13.2	13.2	0
	Ongoing	Majour	1193.4	88.13	65.78
		Medium	14.7	7.99	6.71
	New	Majour	0	0	0
		Medium	15.75	0	15.75

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Basin	Status of projects		Planned	Utilisation achieved (in TMc) upto 3/2001	Balance (in TMc)
Godavari Basin	Completed	Majour	0	0	0
		Medium	0	0	0
	Ongoing	Majour	13.1	6.03	7.07
		Medium	1.17	1.17	0
	New	Majour	0	0	0
		Medium	1	0	1
Other Basins	Completed	Majour	0	0	0
		Medium	0.88	0.88	0
	Ongoing	Majour	13.65	0	13.65
		Medium	0	0	0
	New	Majour	14.27	0	14.27
		Medium	35.37	0	35.37
Godavari Diversion Scheme			23	0	23

Note: All data are for end March 2001.

5. The project wise details of irrigation projects in the four major basins, viewed as Completed, On-going and New Projects are shown in Annexure 10.1 of this chapter. In Godavari basin, the entire potential is yet to be exploited. On average, in both the Krishna and Cauvery basins, as much as 38-39 percent of the potential in the On going major irrigation projects, and 71 and 50 percent of potentials in On going medium irrigation projects in Krishna and Cauvery basins, respectively are yet to be achieved. As per the latest estimates as of April 2001, the balance potential of 11.62 lakh hectares under major and minor irrigation can come up at an additional cost of Rs. 13088 Crores. Once these projects are fully implemented, several districts in the Krishna basin (Belgaum, Bijapur, Shimoga, Bellary, Gulbarga, Chikmagalur, Chitradurga), Cauvery basin (Bangalore, Hassan, Kodagu, Mandya, Mysore, Tumkur) in other basins (U.Kannada and Tumkur) will be the beneficiaries. HPC is of the opinion that the major and minor irrigation potentials of the state should be fully completed within the next eight years.

6. As can be seen from Table 10.2, in financial terms, as of end 2001, on average, only 56 percentage of the estimated costs have been incurred for the entire river basin development towards irrigation. The identified costs of major and medium on-going and new projects is estimated to be of the order of Rs.16,000 crores. Among the major basins, development in the Krishna Basin and other basins such as Varahi Major and Mahadayi Medium are lagging behind. Apart from these Basinwise delays in completing the irrigation projects, specific projects which are lagging far behind the expected completion time in North Karnataka are: Upper Krishna I and II, Hippargi, Ghataprabha III, Markandya, Ramthal Lift, Bhima Flow, Bhima Lift, Upper Tunga II, Singatnur, Itagi Sasalwad, Basapur, Gandhorinala, Hodorayanahalla, and Kagna. Likewise, the serious backlogs in S. Karnataka are Hemavati, Yagachi, Taraka, Arkavaty, and Nanjapura. The delay in completing these projects has brought lots of hardship among the farmers, depriving them from development.

7. HPC FRRI is of the opinion that the balance cost of the these major and minor irrigation projects should be considered as Backlog and, immediate provisions are to be made

to complete them with in next eight years. The total estimated back log is of the order of Rs. 15,000 crores. Of this, at the rate of current annual plans, about Rs.7200 crores will be covered in this plan period. Therefore, HPC is of the opinion that an additional provision for Rs. 7800 crores be made towards the redressal of regional disparity due to gaps in irrigation potential. In Chapter Twenty Eight on Strategy of Development, this issue of completing the currently identified irrigation projects within next 8 years is discussed in some detail.

8. There is a serious problem with the irrigation schemes when it comes to implementation. Against the irrigation potentials created, the actual utilization has been quite low as can be seen from Table10.5. The net area under major and medium irrigation has been around 9.03 lakh hectares only, as against the created potential of 18.11 lakh hectares mentioned above. Much of the currently irrigated net area are covered by minor irrigation (to a tune of 13 lakh hectares). Therefore, some additional attention needs to be given regarding the better utilization of all the irrigation potentials created in the state. HPC FRRI suggests that several management and institutional mechanisms are required to reap the full benefit of irrigation facilities created. The major ones are, timely credit facilities, creation of Water User Associations for better water distribution, and training the farmers in utilisation of irrigation with proper cropping patterns, and finally the well functioning marketing and storage facilities.

9. During the last three years there has been some major progress on the irrigation front. As against a total of 23.6 lakh hectares in 1997-98, there has been an increase to 25.5 lakh hectares in Net area irrigated. Secondly, the share of irrigated land in North Karnataka has relatively improved. But the districts lagging behind the state average continue to be the same during the last three years.

Table 10.4: Net Area Irrigated 1997-98 and 2000-01

District	Net Area Irrigated (hectares)					
	Major and Medium (1997-98)	Minor (1997-98)	Total Maj+Med+ Minor		Ratio of net area irrigated to net area sown (%)	
			1997-98	2000-01	1997-98	2000-01
Bangalore Division	129278	414109	543387	582490	24.31	25.0
Bangalore (U)	-	16752	16752	21663	24.35	26.02
Bangalore (R)	6217	47179	53396	52520	19.44	17.59
Chitradurga* ¹	50502	71844	122346	64924	12.71	15.53
Davangere*	-	76854	76854	132354	33.82	34.40
Kolar	NA	NA	NA	63375	21.21	18.8
Shimoga	72289	101788	174077	134246	60.27	61.4
Tumkur	270	99692	99962	113408	18.27	19.2
Mysore Division	231702	243016	474718	479698	26.48	26.5
C. R. Nagar* ²	102992	43963	146955	46795	27.00	30.29
C. Magalore	4867	22916	27783	160811	8.93	8.7
D. Kannada* ³	-	99380	99380	68673	51.30	51.63
Hassan	27356	51270	78626	79045	20.73	21.7

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District	Net Area Irrigated (hectares)					
	Major and Medium (1997-98)	Minor (1997-98)	Total Maj+Med+ Minor		Ratio of net area irrigated to net area sown (%)	
			1997-98	2000-01	1997-98	2000-01
Kodagu	1708	1023	2731	3021	2.18	2.1
Mandya	94779	24464	119243	108022	46.98	43.8
Mysore*	NA	NA	120620	114016	30.50	29.24
Udipi*	NA	NA	NA	35865	34.19	35.28
Belgaum Division	189829	606239	796068	878173	25.57	27.0
Bagalkote*	NA	NA	NA	189844	40.88	42.42
Belgaum	65982	249824	315806	346831	38.00	40.7
Bijapur* ⁴	65476	220323	285799	133669	15.26	17.23
Dharwad* ⁵	58371	111184	169555	43569	12.10	13.14
Gadag*	NA	NA	65764	64613	17.54	17.47
Haveri*	NA	NA	73699	75253	20.43	20.79
U.Kannada	-	24908	24908	24394	22.62	22.1
Gulbarga Division	352669	195819	548488	607308	19.58	21.2
Bellary	98686	66814	165500	160210	30.40	32.9
Bidar	211	32806	33027	38041	9.79	10.2
Gulbarga	94923	31755	126678	157527	14.02	13.7
Koppal* ⁶	158849	64434	223283	106901	27.18	30.55
Raichur*	NA	NA	NA	144629	23.65	28.72
N. Karnataka	542498	802058	1344556	1485481	22.73	24.3
S. Karnataka	360980	657125	1018105	1062188	25.26	25.6
State Level	903478	1459183	2362661	2547669	23.76	24.8

*1 Chitradurga includes Davanagere;*2 C.R.Nagar includes Mysore;*3 Dakshin Kannada includes Udipi;*4 Bijapur includes

Bagalkote;*5 Dharwad includes Gadag and Haveri;*6 Koppal includes Raichur

NA = Not Available.

Sources: Karnataka at a Glance (GoK); Directorate of Economics and Statistics

10. One can also look at the recent status of developing the major irrigation systems in the state, in terms of three indicators for the North and South Karnataka. They are summarised in Table 10.5. Firstly, efforts should be made to achieve better utilization of the existing irrigation potentials created. In North Karnataka the utilization rate is just about 32 percent, though about 70 percent of the estimated costs have been already incurred. Still a significant potential is left in North Karnataka to raise the utilization rate.

Table 10.5: Status Of Exploitation Of Irrigation (Projects Completed) In North And South Karnataka.

	Percentage Utilisation (TMC)	Percentage Irrigated (Ha)	Percentage Expenditure (Rs)
Major Irrigation			
N. Karnataka	26.92	41.75	55.78
S. Karnataka	58.77	40.80	10.07
Medium Irrigation			
N. Karnataka	5.31	8.91	14.88
S. Karnataka	9.00	8.54	19.27
Total Major and Medium Irrigation			
N. Karnataka	32.23	50.66	70.66
S. Karnataka	67.77	49.34	29.34

10.3: Minor Irrigation

11. The problems of irrigation are of two types. In the heavy rainfall regions, there is a need to arrest rain water, by erecting rainwater harvesting structures. Otherwise, the benefit of heavy rain is available only for the kharif season, with other seasonal crop going as a dry crop. Districts like U. Kannada, D. Kannada, Udipi, Kodagu have this type of problems. Then, there are several districts, outside of heavy rainfall regions, where in additional major and minor irrigation facilities will have to be created. Bijapur, Dharwad, Gadag, Haveri, Gulbarga, Bidar, Tumkur and Chitradurga fall in this category. Apart from major and medium type irrigation structures, there is ample scope for lift irrigation in some of these districts. These can be in addition to the medium irrigations, along the river course and the tributaries. In the Chapter on Strategy of Development, this aspect will be dealt in some detail.

12. There are severe regional, inter-state and environmental problems because of which the expansion of major irrigation is going to be difficult in the future. Given the question of regional disparity, it looks that the option of redressal of deprivation and disparity seems to be in developing minor irrigation on a big scale, as the avenues for major irrigation are rather limited, and are not without environmental deterioration.

13. Minor irrigation schemes consist of tanks, lift irrigation, anicuts, pickups, *bhandaras*, salt water exclusion dams, vented dams etc. Minor irrigation schemes also look after other water related problems and issues. Among those, flood control (recently transferred to PWD), sea-erosion and river protection works, and some medium irrigation projects (6 in South Zone and 7 in North Zone) are included.

14. Table 10.6 shows the district level minor irrigation works in the state. Annexure 10.2 of this chapter shows the same at the Taluk level. The potential irrigation created is of the order of 9,25,645 hectares. A close look at the district level table reveals that there are a number of districts and taluks where the tank and other minor irrigation potentials can be expanded.

Table 10.6: Minor Irrigations Schemes in the State (1999-2000)

District	Minor Irrigation Tanks (Numbers)				Ratio of Tanks to million ha Geogr. Area
	TDB (<4 ha)	ZP (4-40 ha)	Minor Irrigation (>40 ha)	Total	
Bangalore Division	4850	8748	1572	15170	3119.47
Bangalore (U)	98	395	67	560	2575.78
Bangalore (R)	435	890	206	1531	26150.17
Chitradurga	8	133	166	307	398.34
Davangere	76	255	89	420	702.82
Kolar	1489	2461	336	4286	5498.63
Shimoga	2303	3414	327	6044	7129.17
Tumkur	441	1200	381	2022	1899.03
Mysore Division	4942	7152	548	12642	2890.52
C. R. Nagar	2	87	64	153	268.47
C. Magalore	1122	1624	122	2868	3971.89
D. Kannada	13	129	2	144	301.79
Hassan	2502	2933	174	5609	8465.11
Kodagu	434	679	33	1146	2798.85
Mandya	224	692	50	966	1938.81
Mysore	557	565	99	1221	1805.19
Udipi	88	443	4	535	1500.93
Belgaum Division	3504	3061	830	7395	1354.49
Bagalkote	0	0	49	49	74.37
Belgaum	117	490	210	817	607.71
Bijapur	0	0	92	92	87.33
Dharwad	408	496	107	1011	2365.86
Gadag	0	4	23	27	57.98
Haveri	721	1139	262	2122	4373.85
U.Kannada	2258	932	87	3277	3198.07
Gulbarga Division	447	670	372	1489	342.29
Bellary	39	101	61	201	247.17
Bidar	0	15	80	95	175.35
Gulbarga	76	311	134	521	323.57
Koppal	0	20	44	64	115.83
Raichur	332	223	53	608	727.41
N. Karnataka	3951	3731	1202	8884	905.32
S. Karnataka	9792	15900	2120	27812	3011.03
State Level	13743	19631	3322	36696	1926.32

Details at the Taluk level are given in Annexure Table 10.2;

Source: Department of Minor Irrigation

14. Some immediate comments can be on the extent of regional imbalance on the development of minor irrigation:

- As compared to South Karnataka, North Karnataka has just about 24% of minor irrigation tanks (of all types).
- Of these, Belgaum Division has a lion share of 20%, the rest of 4% being in Gulbarga Division.
- Mysore and Bangalore Divisions share 34 and 42 percentages, respectively.
- Chitradurga, Davangere, C.R. Nagar, D. Kannada, Udipi, Gadag, Bijapur, and selected areas of Gulbarga division can be considered to expand tank irrigation facilities.
- Apart from making up for the deficiencies, there is a greater need to de-silt the existing tanks. Under the World Bank support, currently about 5000 tanks have been taken up for this action. But still another 32,000 tanks are there requiring such immediate action, including the disputed Cauvery basin areas.
- The west flowing rivers need to be arrested to increase their water availability for agriculture. Construction of Vented dams should be expanded on a larger scale.
- As recommended by the 11th Finance Commission, sick and defunct lift irrigation schemes should be rejuvenated on a large scale.

10.4 : Ground Water Exploitation

15. There is enormous scope for exploiting ground water resources in Karnataka. Out of the remaining potential, another 0.45 million hectare meters can still be exploited at the state level. However, as many as 56 taluks fall in the category of 'Over developed in watershed'. Out of the total over developed taluks, as many as 98 percent of them fall in Southern Karnataka. It is high time that attention is now diverted to North Karnataka to explore the ground water potentials. However, in the Malnad areas the utilization of ground water is very meager, mainly due to field conditions. But newer watershed techniques can come in to raise the water availability in the Malnad areas also. In the plains the utilisation rates are generally higher. There are two different major problems with ground water development in Karnataka. First, according to the Department of Mines and Geology, as many as in 43 taluks over exploitation of ground water has taken place above 65% category (defined as Grey and Dark Taluks). Table 10.7 shows the taluks falling in these categories. There is an urgent need to construct artificial recharge structures in all such taluks and blocks. The same table shows the names of such districts, the number of such structures and the costs expenditures. The second problem is about the extent of alkalinity, nitrates, fluorides and other hardness factors. Because of these factors, a large number of taluks falling in the category of "White", are unfit for any ground water exploitation.

16. In order to balance the ground water exploitation, it is absolutely necessary to enhance the recharge structures all over the state, and in particularly in North Karnataka. Give the average cost of a structure in North Karnataka as Rs five lakh per structure, a total of Rs. 200 crore may have to earmarked for this purpose.

Table 10.7: Status of Ground Water Exploitation and Recharge Structures

District	Grey Taluks	Dark Taluks	Gr. Water Artificial Recharge Structures	
			No.	Expenditure (Rs lakhs)
Bangalore (U)		Anekal,Bangalore(U) Bangalore(S)	-	-
Bangalore (R)	Doddaballapur, Ramnagar	Channapatna,Devanhalli Hosakote	91	113.68
Chitradurga	Challlkere, Chtradurga		67	48.00
Davangere			-	-
Kolar	Chintamani,Gowrib idanur,Mulbagal,Si dlaghatta, Srinivaspur	Chikkaballapur Kolar Malur	36	86.06
Shimoga			7	12.75
Tumkur	Koratgere,Kunigal, Sira	Gubbi,Madhugiri,Tiptur Tumkur,Turuvekere	22	26.35
C. R. Nagar	C. R. Nagar	Kollagal	33	15.06
C. magalur			3	7.94
D. Kannada	Beltangadi	Bantwal Sulya	3	3.94
Hassan	Arsikere	Channarayapatna	20	19.38
Kodagu			-	-
Mandya			18	6.97
Mysore			23	16.76
Udipi			-	-
Bagalkote			52	49.95
Belgaum	Athani,Bailhongal	Chikodi,Hukeri	4	3.00
Bijapur	Bagewadi,Bijapur	Indi	3	2.85
Dharwad			-	-
Gadag			-	-
Haveri			-	-
U.Kannada			2	2.00
Bellary	H.B. Halli		22	12.28
Bidar	Bidar		35	25.28
Gulbarga			5	2.00
Koppal			6	5.18
Raichur	Kushtagi		12	7.59
N. Karnataka	7	3	141	110.13
S. Karnataka	15	18	323	356.89
State Level	22	21	464	467.02

17. Additionally, lift irrigation, watershed programmes, and well irrigation programmes will have to be enhanced in the irrigation water deficient regions, along with programmes to enhance in-situ water collections through watershed programmes. As far as possible, irrigation and water supply should be made as peoples' programmes (under watershed development or otherwise). A start has been made in this direction by involving as many as 380 co-operative societies under the Jalasamdardhana Yojana. Their performance should be closely watched and monitored, to draw lessons for the future of attaining regional balance in water distribution.

10.5: Drinking Water Supply for Urban and Rural Areas

18. The matter of water required for quality living is of greatest concern when it comes to regional disparity. This issue of urban and rural drinking water is dealt separately in Chapters Seventeen and Eighteen. But, the irrigation sector has a major role to play on this as well. The major and medium irrigation schemes can also be properly tuned to this aspect of regional disparity. Between 1980 to 2000, the rural water supply has been substantially augmented by adding borewells and piped water supply and mini water supply schemes. As many as 55156 borewells, 7565 piped water supply have been installed under various rural water supply schemes. But, given the fact that apart from the hamlets, over 27,000 villages are in the state, there is a need to guarantee drinking water supply to every village in the state.

19. When it comes to urban water supply, the dependency on river based major and minor irrigation system is still more. As between 1990 and 2000, piped water supply has been installed in 1925 towns, urban water supplies have been added in 482 towns, 195 Board Water supply schemes have been completed.

20. HPC has carried out a separate study on the functioning of drinking water supply schemes in the state. The borewell scheme covered just about 17% of the villages in the state. In most places (69%) the water supply was less than the 40 LPDC. The story is same in urban water supply as well. The details of the study are available in the Annexures to the Main Report. The HPC is of the opinion that all the towns in the state should receive assured drinking water by the end of year 2005. In the chapter on Strategies of Development, this aspect will be dealt in some details.

10.6: Irrigation Development Policy

21. Taking in to the potentials at the major, medium and minor irrigations, and also ground water exploitation, it has already been mentioned that about Rs. 15,000 crore will have to be earmarked for the development of irrigation sector in the state during the coming eight years. This will have to be phased out by emphasizing on the minor irrigation first, development of recharging structures for ground water potentials and completion of on-going major and medium irrigation projects and to undertake new projects.

22. Secondly, it is extremely important to recognize that it costs to supply water. With the approval of the government about formation of Water Users Association with effect from June 2000, the water users in major, medium and minor irrigation areas are to be encouraged to form such co-operative associations charged with the responsibilities of recovering the irrigation charges collectively. This will make the use of water more and more purposeful and productive. Such associations should be encouraged to work out the cropping patterns on

the basis of water availability, and individual farmers ability to pay for it. Furthermore, they can also work out a part of the User charges for investment towards groundwater recharging, construction of augmentation borewells and canals etc. Unless such a participatory water user system is introduced, the utilization of irrigation water may go in the wrong directions, of course at a very high cost to the State.

23. Thirdly, in the area of ground water development, particularly, in the management of artificial recharging, treatment of aquifers etc., private agencies can be encouraged to come up, either on a cooperative basis or on a corporate sector basis. This way of approaching the problems can reduce the regional imbalances on a faster way.

24. Finally, like in many programmes and schemes, one runs into some bad experience at the level of implementation etc. It is necessary to make the necessary corrections immediately on such schemes, or abandon them without wasting any more resource and time. The Lift irrigation schemes introduced in selected districts of North Karnataka are glaring examples. Almost 40% of the lift irrigation schemes implemented in districts of Raichur, Gulbarga, Bidar, Bellary and Bijapur are just not working. Even those working are providing just about 36% of potential water. A sum of Rs. 17.59 crore have been invested to get irrigation benefits to just about 9203 hectares. HPC is of the opinion that be it irrigation, or industry, the efficiency of the delivery system should be the guideline for rating the projects, and not just figures of implementation.

Annexure 10.1
Status Of Irrigation Projects
(As on 1-4-2001)

Sl.No.	Project	Utilisation (In TMC)			Financial (Rs. In lakhs)				Potential (in Hectares)		
		Planned	Utilisation acjoeved upto 3/2001	Balance	Adm. approved cost	Present cost	Expdr. upto 3/2001	Balance	Planned	Created upto 3/2001	Balance
1	2	3	4	5	6	7	8	9	10	11	12
I	Krishna Basin										
A	Completed Projects										
	Major Projects										
1	Ghataprabha I & II	32.45	32.45	0	7226	7226	7226	0	139383	139383	0
2	Tunga Anicut	11.5	11.5	0	331	331	331	0	8704	8704	0
3	Tungabhadra RB LLC	22.5	22.5	0	453	453	453	0	37504	37504	0
4	Vanivilas Sagar	8.2	8.2	0	45	45	45	0	9190	9190	0
5	Vijayanagar Channels	12.05	12.05	0	0	0	0	0	12210	12210	0
	Medium Projects										
6	Ambligola	1.4	1.4	0	116	116	116	0	2955	2955	0
7	Anjanapura	2.5	2.5	0	21	21	21	0	6736	6736	0
8	Areshankar	0.38	0.38	0	22	22	22	0	1255	1255	0
9	Bhadra Anicut	3.1	3.1	0	0	0	0	0	4466	4466	0
10	Chandrapalli	1.9	1.9	0	185	185	185	0	5223	5223	0

Contd...

Sl.No.	Project	Utilisation (In TMC)			Financial (Rs. In lakhs)				Potential (in Hectares)		
		Planned	Utilisation achieved upto 3/2001	Balance	Adm. approved cost	Present cost	Expdr. upto 3/2001	Balance	Planned	Created upto 3/2001	Balance
1	2	3	4	5	6	7	8	9	10	11	12
11	Chitwadgi	0.26	0.26	0	41	41	41	0	891	891	0
12	Dharma	2.2	2.2	0	133	133	133	0	5668	5668	0
13	Gayathri	0.45	0.45	0	40	40	40	0	2305	2305	0
14	Gokak Cannal	1.4	1.4	0	0	0	0	0	5757	5757	0
15	Hagaribommanahalli	2	2	0	395	395	395	0	2966	2966	0
16	Hatikuni	0.5	0.5	0	84	84	84	0	2145	2145	0
17	Jambadahalla	0.7	0.7	0	115	115	115	0	1538	1538	0
18	Kalaskop	0.33	0.33	0	20	20	20	0	1143	1143	0
19	Kanakanala	0.4	0.4	0	100	100	100	0	2064	2064	0
20	Kalchi Weir	0.53	0.53	0	43	43	43	0	1275	1275	0
21	Nagathana	0.08	0.08	0	15	15	15	0	650	650	0
22	Narayanapur	0.6	0.6	0	34	34	34	0	1624	1624	0
23	Narihalla	0.9	0.9	0	320	320	320	0	1512	1512	0
24	Rajolibunda	1.2	1.2	0	52	52	52	0	2380	2380	0
25	Ramanahalli	0.44	0.44	0	42	42	42	0	1943	1943	0
26	Soundagar	0.26	0.26	0	557	557	557	0	1417	1417	0
	Total I(A)	108.23	108.23	0	10390	10390	10390	0	262904	262904	0

Contd...

Sl.No.	Project	Utilisation (In TMC)			Financial (Rs. In lakhs)				Potential (in Hectares)		
		Planned	Utilisation achieved upto 3/2001	Balance	Adm. approved cost	Present cost	Expdr. upto 3/2001	Balance	Planned	Created upto 3/2001	Balance
1	2	3	4	5	6	7	8	9	10	11	12
B	On Going Projects										
	Major Projects:										
1	Bennithora	5.75	2.36	3.39	7223	22100	19617.92	2482.08	20236	8302	11934
2	Bhadra	61.7	61.7	0	3353	17977.41	17977.41	0	105570	105570	0
3	Bhima Lift	6	0	6	9417	18758	624.26	18133.74	24282	0	24282
4	Dudhganga	4	0	4	11000	12400	1268.06	11131.94	19668	0	19668
5	Ghataprabha III	45.15	14.68	30.47	9054	94700	46812.54	47887.46	178064	57908	120156
6	Hipparagi	8.56	0	8.56	18670	90100	4221.22	85878.78	70070	0	70070
7	Malaprabha	44	36.31	7.69	16209	81600	59262.17	22337.83	218191	180080	38111
8	TB LBC	92	91.93	0.07	19444	27510.99	27510.99	0	244381	244199	182
9	TB RB HLC	17.5	15.24	2.26	2600	10500	5144.53	5355.47	80910	70439	10471
10	U.K.P. Stage - I	119	95.83	23.17	121491	827155	677065.25	150089.75	424935	342214	82721
11	U.K.P. Statge - II	54	0	54	278617	323720	0	323720	197085	0	197085
12	Upper Tunga	12.24	0	12.24	27141	91535	883.96	82651.04	94700	0	94700
	Major Projects:										
13	Amarja	1.92	1.68	0.24	5780	9996	9409.45	586.55	8903	7802	1101
14	Basaoyra lift	0.6	0	0.6	986	936	124.51	511.49	2276	0	2276
15	F.C. to Ranikere	1.5	0.13	1.37	249	949.44	949.44	0	3238	283	2955
16	Gandhorinala	2.16	0	2.16	9417	13295	5617.07	7677.93	8094	0	8094

Contd...

Sl.No.	Project	Utilisation (In TMC)			Financial (Rs. In lakhs)				Potential (in Hectares)		
		Planned	Utilisation achieved upto 3/2001	Balance	Adm. approved cost	Present cost	Expdr. upto 3/2001	Balance	Planned	Created upto 3/2001	Balance
1	2	3	4	5	6	7	8	9	10	11	12
17	Hirehalla	2.27	0	2.27	635	15153	13583.1	1569.9	8013	0	8013
18	Hodirayanhalla	0	0	0	248	920	46.91	873.09	0	0	0
19	Lower Mullamai	3.08	1.13	1.95	7188	12405	11050.88	1354.12	9713	3566	6147
20	Maskinala	0.78	0	0.78	2357	4130	3713.39	416.61	2833	0	2833
21	Itagi Saslwad lift	0.55	0	0.55	800	800	61.08	738.92	5700	0	5700
22	Upper Mullamari	1.24	1.24	0	328	1964.46	1964.46	0	3279	3279	0
	Total - I (B):	484	322.24	161.76	552157	1678605.3	914908.6	763696.7	1730141	1023642	706499
C	New Projects										
	Major Project										
1	Markendeya	4	0	4	12000	22300	7077.6	15222.4	32375	0	32375
2	Ramthala Lift	4.5	0	4.5	4931	11405	0	11405	22260	0	22260
3	Singallur	7.64	0	7.64	6362	59500	2452.18	57047.82	20241	0	20241
	Medium Projects										
4	Harinala	0.8	0	0.8	2695	4162	2973.41	1188.59	4370	0	4370
	Total - I © :	16.94	0	16.94	25988	97367	12503.19	84863.81	79246	0	79246
	Total Krishna (Maj & Med)	609.17	430.47	178.7	588535	1786362.3	937801.79	848560.51	2072291	1286546	785745

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Sl.No.	Project	Utilisation (In TMC)			Financial (Rs. In lakhs)				Potential (in Hectares)		
		Planned	Utilisation achieved upto 3/2001	Balance	Adm. approved cost	Present cost	Expdr. upto 3/2001	Balance	Planned	Created upto 3/2001	Balance
1	2	3	4	5	6	7	8	9	10	11	12
E	Godavari Diversion Scheme										
1	Bhima Flow	9	0	9		18518	49.45	18468.55	42170	0	42170
2	Kagna	2	0	2		5191	0	5191	7689	0	7689
3	Hipparagi State - III	8	0	8		0	0	0	0	0	0
4	Upper Bhadra	4	0	4		0	0	0	0	0	0
	Total I(E)	23	0	23		23709	49.45	23659.55	49859	0	49859
H	Cavery Basin										
A	Completed Projects										
	Major Projects :										
1	Anicut Channels	57.7	57.7	0	0	4764	116.62	4647.38	77172	77172	0
2	K. R. Sagar	61.2	61.2	0	693	693	693	0	79312	79312	0
3	Nugu	7.7	7.7	0	315	315	315	0	10526	10526	0
	Medium Projects										
4	Byramangala	1	1	0	0	0	0	0	1617	1617	0
5	Chikkahole	0.7	0.7	0	424	424	424	0	1650	1650	0
6	Gundal	1.4	1.4	0	452	452	452	0	4048	4048	0
7	hebballa	0.4	0.4	0	54	54	54	0	1214	1214	0
8	kanva	1.2	1.2	0	35	35	35	0	2076	2076	0

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Sl.No.	Project	Utilisation (In TMC)			Financial (Rs. In lakhs)				Potential (in Hectares)		
		Planned	Utilisation achieved upto 3/2001	Balance	Adm. approved cost	Present cost	Expdr. upto 3/2001	Balance	Planned	Created upto 3/2001	Balance
1	2	3	4	5	6	7	8	9	10	11	12
9	Mangala	0.6	0.6	0	60	60	60	0	850	850	0
10	Markonahalli	4	4	0	35	35	35	0	4560	4560	0
11	Nallur Amanikere	0.3	0.3	0	517	517	517	0	1300	1300	0
12	Suvernativly	3.6	3.6	0	381	381	381	0	2833	2833	0
	Total II(A):	139.8	139.8	0	2966	7730	3082.62	4647.38	187160	187160	0
B	On Going Projects										
	Major Projects										
1	D.D. Irs Canal	1050	6.12	4.38	1850	30000	25978.18	4021.82	32376	18870	13506
2	Harangi	18	14.36	3.65	12200	37300	30772.31	6527.69	53538	42722	10816
3	Hemavathy	54.7	36.74	17.96	58800	371000	152277.16	218722.84	283596	190476	93120
4	Kabini	65	30.38	34.62	2480	112250	37403.3	74846.7	87900	41083	46817
5	K.R.S. Modn.	0	0	0	1480	35000	26688.64	8311.36	2125	0	2125
6	Yagachi	5.7	0.53	5.17	3538	25050	12614.24	12435.76	21450	1995	19455
	Medium Projects										
7	Arkavathy	3.1	0	3.1	2260	1000	6775.95	4224.05	6232	0	6232
8	Chiklihole	0.8	0.36	0.44	340	1800	1726.41	73.59	1184	526	658
9	Huchannakoplu L.I.S.	0.6	0	0.6	690	2750	1296.73	1453.27	2300	0	2300
10	Iggalur	1.8	1.5	0.3	1075	7000	4964.8	2235.2	4047	3367	678
11	Kamasamudra L.I.S.	0.8	0.21	0.59	630	2700	1823.93	876.07	3104	800	2304

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Sl.No.	Project	Utilisation (In TMC)			Financial (Rs. In lakhs)				Potential (in Hectares)		
		Planned	Utilisation achieved upto 3/2001	Balance	Adm. approved cost	Present cost	Expdr. upto 3/2001	Balance	Planned	Created upto 3/2001	Balance
1	2	3	4	5	6	7	8	9	10	11	12
12	Manchanabele	0.8	0.27	0.53	1850	6800	6761.25	38.75	3845	1288	2557
13	Taraka	3.2	3.2	0	170	5100	2734.17	2365.83	7090	7090	0
14	Uduthorehalla	1.2	0.05	1.15	3230	15610	11759.01	3850.99	6273	250	6023
15	Votehole	2.4	2.4	0	205	4750	4104.98	645.02	7487	7487	0
	Total - II (B):	168.6	96.11	72.49	90798	668110	327481.06	340628.94	522547	315956	206521
C	New Projects										
	Major Projects										
1	Changawadi	1.3	0	1.3	0	430	0	430	2600	0	2600
2	K.R.S. Extension	8.2	0	8.2	0	0	0	0	0	0	0
3	Lakshman Thirtha	1.5	0	1.5	0	1322	0	1322	2600	0	2800
4	Lokapavani	2	0	2	0	1016	0	1016	3000	0	3000
5	Purigali L.I.S.	1.4	0	1.4	0	925	0	925	3600	0	3600
6	Nanjapur L.I.S.	1.35	0	1.35	2840	2840	310.38	2529.12	4050	0	4050
7	Shima Modernisation	0	0	0	0	1000	131.97	868.03	0	0	0
8	Badanavalu	0	0	0	0	700	0	700	923	0	923
9	Banahalli L.I.S.	0	0	0	0	1050	0	1050	0	0	0
10	Kachenahalli L.I.S	0	0	0	0	1280	0	1280	1012	0	1012
	Total II©	15.75	0	15.75	2840	10563	442.85	10120.15	17985	0	17086
	Total Cauvery (Maj & Med)	324.15	235.941	88.24	96604	686403	331006.53	355396.47	727692	503116	224576

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Sl.No.	Project	Utilisation (In TMC)			Financial (Rs. In lakhs)				Potential (in Hectares)		
		Planned	Utilisation achieved upto 3/2001	Balance	Adm. approved cost	Present cost	Expdr. upto 3/2001	Balance	Planned	Created upto 3/2001	Balance
1	2	3	4	5	6	7	8	9	10	11	12
	Godavari Basin										
	Completed Projects										
	On Going Projects										
	Major Projects										
	Karanja	13.1	6.03	7.07	25817	38500	28477.35	10022.65	35614	16380	19234
	Medium Projects										
	Chulkinala	1.17	1.17	0	3750	6570	6811	259	4747	4747	0
	Total III(B)	14.27	7.2	7.07	29567	45070	34788.35	10281.65	40361	21127	19234
C	New Projects										
	Major Projects										
	Medium Projects										
1	Manjra Lift	1	0	1	1412	2751	0	2751	2752	0	2752
	Total Godavari Maj & Med	15.27	7.2	8.07	30979	47821	34788.35	13032.65	43113	21127	21986
IV	Other Basins										
A	Completed Projects										
	Major Projects										
	Medium Projects										
2	Teetha (North Pennor)	0.36	0.36	0	373	373	373	0	1214	0	1214
	Total IV(A)	0.88	0.88	0	410	410	410	0	2990	0	2990

Contd...

Sl.No.	Project	Utilisation (In TMC)			Financial (Rs. In lakh)				Potential (in Hectares)		
		Planned	Utilisation achieved upto 3/2001	Balance	Adm. approved cost	Present cost	Expdr. upto 3/2001	Balance	Planned	Created upto 3/2001	Balance
1	2	3	4	5	6	7	8	9	10	11	12
B	On Going Projects										
	Major Projects										
1	Varahi (West flowing)	13.65	0	13.65	943	1225	2477.56	9772.44	15702	0	15702
	Medium Projects										
C	New Projects										
	Major Projects										
1	Swarna	14.27	0	14.27	0	10958	0	10958	19425	0	19425
	Medium Projects										
2	Gurupur	3.54	0	3.54	0	6246	0	6246	3400	0	3400
3	Kalinadi	4.6	0	4.6	0	2471	0	2471	5156	0	5156
4	Kallur	6.51	0	6.51	0	4040	0	4040	8118	0	8118
5	Mahadayi Diversion	0	0	0	0	18076	75.97	18000	0	0	0
6	Mulky	5.9	0	5.9	0	4674	0	4674	5544	0	5544
7	Nerihole	5	0	5	0	2264	0	2264	9500	0	9500
8	Payasvani	1.68	0	1.68	0	1774	0	1774	2030	0	2030
9	Shalmal	1.2	0	1.2	0	1696	0	1696	2547	0	2547
10	Sharavathy	6.94	0	6.94	0	6231	0	6231	6192	0	6192
	Total IV©	49.64	0	49.64	0	58430	75.97	58354.03	61912	0	61912
	Total Other Basins										
	(Maj & Med)	64.17	0.88	63.29	1353	71090	2963.53	68126.47	80604	0	80604

Annexure 10.2

Taluk-Wise Details Of Minor Irrigation Tanks
In Karnataka As On 30.9.2000

Sl. No.	District		Taluk	TDB (<4 Ha)	ZP (4-40 Ha)	Minor Irrigation (>40 Ha)	Total	% to State Total
Belgaum Division								
1	Bagalkot	1	Badami	0	0	16	16	0.04
		2	Bagalkot	0	0	6	6	0.02
		3	Bilagi	0	0	4	4	0.01
		4	Hungund	0	0	12	12	0.03
		5	Jamkhandi	0	0	7	7	0.02
		6	Mudhol	0	0	4	4	0.01
2	Belgaum	7	Athani	0	3	34	37	0.10
		8	Bailhongala	0	125	35	160	0.44
		9	Belgaum	45	117	27	189	0.52
		10	Chikkodi	5	16	13	34	0.09
		11	Gokak	0	8	6	14	0.04
		12	Hukkeri	2	0	16	18	0.05
		13	Khanapur	59	194	39	292	0.80
		14	Raibagh	0	23	9	32	0.09
		15	Ramdurga	0	3	17	20	0.05
		16	Soundatti	6	1	14	21	0.06
3	Bijapur	17	B.Bagewadi	0	0	19	19	0.05
		18	Bijapur	0	0	30	30	0.08
		19	Indi	0	0	19	19	0.05
		20	Muddebihal	0	0	16	16	0.04
		21	Sindgi	0	0	8	8	0.02
4	Dharwad	22	Dharwad	71	64	39	174	0.47
		23	Hubli	0	35	9	44	0.12
		24	Kalghatgi	336	384	58	778	2.12
		25	Kundgol	1	13	1	15	0.04
		26	Navalgund	0	0	0	0	0.00
5	Gadag	27	Gadag	0	0	2	2	0.01
		28	Mundargi	0	0	9	9	0.02
		29	Naragund	0	0	0	0	0.00
		30	Ron	0	1	5	6	0.02
		31	Shirahatti	0	3	7	10	0.03

Contd...

Sl. No.	District		Taluk	TDB (<4 Ha)	ZP (4-40 Ha)	Minor Irrigation (>40 Ha)	Total	% to State Total
6	Haveri	32	Byadagi	145	149	24	318	0.87
		33	Hanagal	261	397	105	763	2.08
		34	Haveri	26	26	14	66	0.18
		35	Hirekerur	223	352	51	626	1.71
		36	Ranebennur	0	1	17	18	0.05
		37	Savanur	5	3	10	18	0.05
		38	Shiggaon	61	211	41	313	0.85
7	U. Kannada	39	Ankola	47	10	0	57	0.16
		40	Bhatka	129	9	0	138	0.38
		41	Honnavar	511	20	0	531	1.45
		42	Kumta	274	27	0	301	0.82
		43	Mundagod	336	167	28	531	1.45
		44	Siddapur	76	187	1	264	0.72
		45	Upa (Joida)	25	36	2	63	0.17
		46	Yellapur	139	80	0	219	0.60
		47	Sirsi	623	236	17	876	2.39
		48	Halyal	70	140	36	246	0.67
		49	Karwar	28	20	3	51	0.14
Gulbarga Division								
1	Bellary	1	Bellary	0	2	0	2	0.01
		2	Hadagali	0	11	8	19	0.05
		3	H.B. Halli	0	18	8	26	0.07
		4	Hospet	0	14	4	18	0.05
		5	Kudligi	8	37	26	71	0.19
		6	Sandur	31	19	15	65	0.18
2	Bidar	7	Siraguppa	0	0	0	0	0.00
		8	Aurad	0	3	27	30	0.08
		9	Basavakalyana	0	7	19	26	0.07
		10	Bhalki	0	2	7	9	0.02
		11	Bidar	0	1	16	17	0.05
		12	Humnabad	0	2	11	13	0.04
3	Gulbarga	13	Afzalpur	0	0	5	5	0.01
		14	Aland	0	0	7	7	0.02
		15	Chincholi	0	0	14	14	0.04
		16	Chittapur	0	0	14	14	0.04
		17	Gulbarga	0	0	12	12	0.03
		18	Jewargi	0	0	3	3	0.01

Contd...

Sl. No.	District		Taluk	TDB (<4 Ha)	ZP (4-40 Ha)	Minor Irrigation (>40 Ha)	Total	% to State Total
		19	Sedam	0	34	13	47	0.13
		20	Shahapur	21	60	8	89	0.24
		21	Shorapur	0	31	5	36	0.10
		22	Yadgiri	55	186	53	294	0.80
4	Koppal	23	Gangavati	0	3	10	13	0.04
		24	Koppal	0	11	8	19	0.05
		25	Kushtagi	0	5	18	23	0.06
		26	Yalburga	0	1	8	9	0.02
5	Raichur	27	Deodurga	12	39	11	62	0.17
		28	Lingasugur	0	6	14	20	0.05
		29	Manvi	0	6	4	10	0.03
		30	Raichur	320	170	23	513	1.40
		31	Sindhanur	0	2	1	3	0.01
Bangalore Division								
1	Bangalore (R)	1	Channapatna	17	60	35	112	0.31
		2	Devanahalli	14	89	14	117	0.32
		3	Doddaballapur	20	103	42	165	0.45
		4	Hoskote	31	141	26	198	0.54
		5	Kanakapura	87	131	21	239	0.65
		6	Magadi	171	146	29	346	0.94
		7	Nelamangala	73	162	23	258	0.70
		8	Ramanagara	22	58	16	96	0.26
2	Bangalore (U)	9	Bangalore North	20	83	15	118	0.32
		10	Bangalore South	31	140	26	197	0.54
		11	Anekal	47	172	26	245	0.67
3	Chitradurga	12	Challakere	0	30	46	76	0.21
		13	Chitradurga	0	16	28	44	0.12
		14	Hiriyur	0	16	39	55	0.15
		15	Holkere	0	31	23	54	0.15
		16	Hosadurga	8	33	16	57	0.16
		17	Molakalmur	0	7	14	21	0.06
4	Davangere	18	Channagiri	51	105	28	184	0.50
		19	Davangere	0	11	11	22	0.06
		20	Harapanahalli	3	45	20	68	0.19
		21	Harihara	0	1	0	1	0.00
		22	Honnalli	22	69	12	103	0.28
		23	Jagalur	0	24	18	42	0.11

Contd...

Sl. No.	District		Taluk	TDB (<4 Ha)	ZP (4-40 Ha)	Minor Irrigation (>40 Ha)	Total	% to State Total
5	Kolar	24	Bagepalli	159	245	30	434	1.18
		25	Bangarapet	261	340	13	614	1.67
		26	Chikkaballapura	52	88	21	161	0.44
		27	Chintamani	226	250	20	596	1.62
		28	Gowribidanur	23	78	87	188	0.51
		29	Gudibanda	20	46	13	79	0.22
		30	Kolar	86	243	44	373	1.02
		31	Malur	89	261	11	361	0.98
		32	Mulabagal	314	401	35	750	2.04
		33	Sidlaghatta	100	147	25	272	0.74
		34	Srinivasapura	159	262	37	458	1.25
6	Shimoga	35	Bhadravati	161	57	4	222	0.60
		36	Hosanagar	375	511	9	895	2.44
		37	Sagar	220	482	27	729	1.99
		38	Shikaripura	392	699	103	1194	3.25
		39	Shimoga	203	706	55	964	2.63
		40	Soraba	397	237	120	754	2.05
		41	Thirthahalli	555	722	9	1286	3.50
7	Tumkur	42	C.N. Halli	109	112	38	259	0.71
		43	Gubbi	31	155	29	215	0.59
		44	Koratagere	27	74	45	146	0.40
		45	Kunigal	57	135	37	229	0.62
		46	Madhgeri	36	126	56	218	0.59
		47	Pavagada	44	95	38	177	0.48
		48	Siraguppa	24	137	60	221	0.60
		49	Tiptur	8	130	23	161	0.44
		50	Tumkur	61	144	52	257	0.70
		51	Turuvekere	44	92	3	139	0.38
Mysore Division								
1	C.R. Nagar	1	C.R. Nagar	0	29	22	51	0.14
		2	Gundlupet	0	33	22	55	0.15
		3	Kollegal	2	10	14	26	0.07
		4	Yalandur	0	15	6	21	0.06
2	C. Magalur	5	C. Magalore	445	292	33	770	2.10
		6	Kadur	74	63	31	168	0.46
		7	Koppal	168	408	6	582	1.59
		8	Mudigere	79	209	7	295	0.80
		9	N.R. Pura	70	367	16	453	1.23
		10	Sringeri	200	154	0	354	0.96
		11	Tarikere	86	131	29	246	0.67

Contd...

Sl. No.	District		Taluk	TDB (<4 Ha)	ZP (4-40 Ha)	Minor Irrigation (>40 Ha)	Total	% to State Total
3	D. Kannada	12	Bantawal	0	36	1	37	0.10
		13	Belthangadi	11	20	0	31	0.08
		14	Mangalore	0	44	1	45	0.12
		15	Puttur	2	22	0	24	0.07
		16	Sullya	0	7	0	7	0.02
4	Hassan	17	Alur	61	497	5	563	1.53
		18	Arakalagodu	111	343	9	463	1.26
		19	Arasikere	111	121	34	266	0.72
		20	Belur	926	711	38	1675	4.56
		21	C.R. Patna	65	169	24	258	0.70
		22	Hassan	645	430	35	1110	3.02
		23	Holenarasipur	174	184	2	360	0.98
		24	Sakaleshpur	409	478	27	914	2.49
5	Kodagu	25	Madikeri	99	57	0	156	0.43
		26	Somawarpet	52	33	24	409	1.11
		27	Virajpet	283	289	9	581	1.58
6	Mandya	28	K.R. Pet	161	131	8	300	0.82
		29	<addur	0	104	11	115	0.31
		30	Malavalli	4	69	7	80	0.22
		31	Mandya	59	137	0	196	0.53
		32	Nagamangala	0	153	21	174	0.47
		33	Pandavapura	0	76	3	79	0.22
		34	Srirangapatna	0	22	0	22	0.06
7	Mysore	35	H.D. Kote	129	45	15	189	0.52
		36	Hunsur	0	86	48	134	0.37
		37	K. R. Nagar	81	60	0	141	0.38
		38	Mysore	38	85	14	137	0.37
		39	Nanjangud	0	31	8	39	0.11
		40	Periyapatna	306	227	12	545	1.49
		41	T. Narasipur	3	31	2	36	0.10
8	Udupi	42	Karkala	32	88	1	121	0.33
		43	Kundapur	18	196	1	215	0.59
		44	Udupi	38	159	2	199	0.54