



Government of Kerala



**Department of Economics & Statistics
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2006**



Government of Kerala

Report on
Survey of Minor Irrigation
Schemes in Kerala - 2004

DEPARTMENT OF ECONOMICS & STATISTICS
THIRUVANANTHAPURAM
2006

PREFACE

Minor Irrigation Works are being executed in the state by the Minor Irrigation Division of Irrigation Department and by the Local Bodies with a view to provide irrigation facilities to agriculture in the state. But many of the schemes became useless or incomplete due to various reasons. To know the current status of the schemes, a survey was proposed by the Subject Committee of Kerala Legislature and this Department was mandated to carryout survey.

The survey was conducted during 2004-2005 by the field staff of the department in addition to their normal duties under the supervision of the field level officers. This report was prepared in the survey and design division consists of Additional Director Sri. K. Narayanan, Joint Director Sri. S. Rajendran, Research Officer Smt. Mollykutty C Varkey and U.D. Compilers Sri. Rajendran Kuttikkad and Smt. B. Sujatha. Computer assistance was given by Sri S. Anirudhan MT Supervisor and Sri S. Saseendran UD Typist. Report printed in the Printing Division of the Directorate of Economics and Statistics by Sri. S. Raju L.D Compiler under the guidance of Sri. P.Krishna Kumar Research Assistant.

Suggestions on this report are most welcome.

Thiruvananthapuram
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M. R. Balakrishnan
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SURVEY ON MINOR IRRIGATION

Chapter I

INTRODUCTION

Kerala is blessed with a large number of water bodies like rivers, backwaters, lagoons and other numerous streams falling into them. We have two rainfall seasons in an year, i.e. June to August and October to November. The remaining periods are dry. We require regular supply of water for our cultivation. Due to the peculiarity of the rainfall and topography of the state, irrigation is the only dependable way- out for stability in water availability.

Irrigation is a manmade surety against the weather induced fluctuations in agricultural production. The planned exploitation of water resources augments the growth and diversification of agricultural production. Irrigation works are classified into major, medium and minor based on the extent of area benefited.

The role of Minor Irrigation is quite significant in countries like ours. Minor Irrigation can serve a large number of cultivators in a lower cost with in a short period. Moreover it can provide water to isolated areas also.

Though Minor Irrigation schemes are being undertaken with a view to provide irrigation facility to agriculture to the state, several schemes became useless or defunct after a few years due to various reasons. It is important to understand how many of them are functional and how many are defunct or not working. With this end in view, a survey on minor Irrigation works was proposed by the subcommittee of Kerala legislature to assess the status of various Minor Irrigation projects executed in the state. Consequently Department of Economics and Statistics was mandated to carryout a survey on Minor Irrigation schemes in the year 2004-05

Objectives

1. To assess the total number of Minor Irrigation projects started in the state in different periods and their cost.
2. Total area proposed for irrigation under these schemes and actual area benefited.
3. To study the current status of these schemes.
4. To find out the details of schemes completed but not working or defunct etc and the reasons for this.
5. To find out schemes which require repair or maintenance.
6. To list out the schemes not completed or pending for completion
7. Current status of schemes completed and under construction.

Methodology

The survey covered all the 14 districts. Investigators of the department conducted the fieldwork in addition to their normal duties. List of the schemes were collected from the Minor Irrigation wing of the Irrigation Department and from the local bodies. The investigators located the schemes and collected the details (status as on 31-03-2004) in the schedule designed for the purpose. The details were collected through local enquiry from the local bodies, from the beneficiaries of the schemes and from knowledgeable persons. Physical verification of the schemes was also done in possible cases.

Field Work

The survey was launched in the state on November 2004 and was completed by March 2005. Investigators conducted the fieldwork under the direct supervision of the Taluk Statistical Officers and overall control of the Deputy Directors and other district level officers. Training was imparted to the district level officers at the Directorate. The district level officers in turn imparted training to the field officials in the district. The schedules of the survey were scrutinized at the taluk and district offices. Before

processing the data, the schedules were further scrutinized in the Directorate to make it error free.

Computerisation of data

Software development and data processing of the survey was done in the computer division of the department. The data entry, verification and validation and table generation could be completed without much delay.

Concepts and definitions

1. Minor Irrigation projects – Schemes implemented by state Government, Central Government or panchayats directly or through the Minor Irrigation Department and on which any amount was spent before 31st March 2004 are included in this. Schemes, which were constructed by individuals by own expense or with the aid of Government, will not come under the purview of this survey.
2. Class I works – Schemes having ayacut area of 50 hectares and up to 2000 hectares will be classified as Minor Irrigation class I projects.
3. Class II Works – Schemes having an ayacut area below 50 hectares are class II projects.
4. Lift Irrigation Works – Works involving lifting of water by mechanical means, with a command area of not less than 40 hectares. In respect of works benefiting SC/ST, this limit is not insisted.
5. IPD- Yelah works – Aims to provide Minor Irrigation facilities to selected areas, where Intensive Paddy Development schemes of Agricultural department are implemented.
6. Community Irrigation Schemes – This Programme aims at augmenting the existing Capacity of surface and ground water facilities. It has been proposed in water deficit areas of the state. Those were actually integrated projects for augmenting irrigation facilities and drinking water facilities in chronically water deficient areas. This scheme is not being implemented at present. Through the survey it was visualized to get a first hand knowledge of the irrigation status of the state through small irrigation projects.

Mode Of Classification

At first Minor Irrigation schemes were divided according to the cost of works. As per this, the Minor Irrigation works in the state are divided into four categories, viz:-

(1) *Minor Irrigation Class I Works*

Works costing Rs 2 lakhs and above up to Rs 50 lakhs in plains with the upper limit up to Rs 60 lakhs in hilly areas.

(2) *Minor Irrigation Class II Works*

Works costing less than Rs 2 lakhs; but benefiting an area of not less than 5 acres (2 hectares). From 1982-83 onwards all the Minor Irrigation Class II works were ordered to be executed with Government funds by the Public Works Department.

(3) *Lift Irrigation Works*

Works involving lifting of water by mechanical means, with a command area of not less than 100 acres (40.05 hectares). In respect of works benefiting Scheduled Castes & Scheduled Tribes, this limit is not insisted.

(4) *Intensive Paddy Development Yelah Works (I.P.D.Yelah)*

This scheme aims at the provision of minor irrigation facilities to selected areas, where Intensive Paddy Development schemes of Agriculture Department are implemented.

Under modernization of Irrigation schemes in the country, Government of India adopted another mode of classification and as per this, the schemes were classified according to the extent of cultivable command area. As per this classification, schemes having a cultivable command area up to 2000 ha would be treated as Minor Irrigation Schemes. Out of these, schemes having an ayacut area below 50 ha will be classified as Minor Irrigation Class II Schemes and those having ayacut area of 50 ha or more would be treated as Minor Irrigation Class I Schemes.

Now as per the new Act introduced by Government of Kerala, to consolidate and amend the laws relating to construction of irrigation works, minor irrigation scheme means all small schemes benefiting an irrigable command area of not more than fifteen hectares.

Limitations of the Survey

1. The investigators could not locate many schemes started earlier because most of them are not existing now. Maximum life proposed for of class II schemes and IPD Yelah schemes is 15 years. Many schemes perished due to shortage of water, lack of maintenance, natural calamities, etc.
2. A large number of Minor Irrigation schemes as recorded by the implementing agencies are actually renovation or repair or extension and stabilization of the existing schemes. Thus one scheme might have been accounted several times depending upon the supplementary works done. This has resulted in the duplication of the number of schemes.
3. To locate many schemes (Kulam, Chira, etc.) by local enquiry was felt very difficult. It was also felt very difficult to identify whether a particular scheme was implemented by Government, Government agencies or by local bodies or not.

Chapter II

SURVEYS ON MINOR IRRIGATION SCHEMES

In order to attain better results of the prevailing projects, it is worth while to re evaluate the benefits of the projects to the beneficiaries. Hence field verification of Minor Irrigation projects was conducted during 1976, by the Public Works Department. After that a verification of ayacut of all completed Minor Irrigation works was conducted by revenue department and Public Works Department jointly during 1981-82. These two verification show considerable reduction in ayacut areas recorded by Irrigation Department.

Field verification 1976

	As per records	As per verification
Net Area	230900 Hector	74596 Hector
Gross area	275000 Hector	92155 Hector
No of schemes	7216	3980

Field Verification 1981-82

	As per records		As per verification	
	No	Area	Area	%
Class I	15	22547	11951	53
Class II	5127	72900	40916	56
Lift Irrigation	234	27548	22799	83
IPD	708	13348	7277	55
Total	6219	136343	82943	61

REASONS REPORTED FOR AYACUT REDUCTION

Some of the reasons reported for reduction in ayacut are shown below

1. Some of the major projects since completed have absorbed a certain portion of the ayacut area served by Minor Irrigation Schemes.
2. Some of the Minor Irrigation Schemes got damaged due to natural calamities have not since been repaired.
3. The maintenance of Minor Irrigation class II works after completion rest with the concerned panchayats and the panchayats failed to attend the maintenance due to lack of funds etc.

4. Change in land use pattern
5. The life of Minor Irrigation class II schemes and I PD Yelah is about 15 years maximum

Salient Features

The current survey on Minor Irrigation Schemes was conducted during 2004-05. In the survey district wise information regarding M I schemes which are functioning, not functioning, not completed, damaged etc. as on 2004 March were collected.

No of Schemes

The total number of Minor Irrigation Schemes surveyed is 20786. Out of which 7749 are class II projects, which accounts for 37.2% of the total projects. This is comparatively a low cost scheme, (which can irrigate up to 50 hectares of land). IPD Yelah Projects numbering 1877 stand next with 9.03% of the total Minor Irrigation Schemes. These schemes are intended to provide, irrigation facilities to selected areas where intensive paddy development schemes of Agriculture Dept are implemented. There are 558 (2.68%) class I Projects, 1952 (9.3%) Lift irrigation schemes, 1394 (6.7%) community Irrigation schemes and 832 (4.0%) salt water exclusion schemes. There are 6424(30.9%) schemes, which could not be classified separately. **Many of the projects completed by Irrigation department/Local bodies could not be identified category wise by the investigators from the description given in the records kept in the offices. Hence they are classified as 'others' for the purpose of this survey. The number and other details of this class are very high.** When classified based on types, Minor dams form 23.04% of the total schemes(4791 numbers). There are 4103 ponds and which constitute 19.7% of the total schemes. Besides these, there are 1108 wells, 141 Tube wells, 1952 Lift irrigation projects ,3817 sidewalls and 832 projects for preventing salt water.

Regarding number of Minor Irrigation Schemes, Kollam District is ahead of all districts with 1947 projects and Eranakulam stands second with 1832 projects. Thrissur district has least number of projects, It has only 921 schemes, Out of the 4791 minor

dams, 647 are in Malappuram district and 565 are in Kannur district. There are 573 ponds built under MI schemes in Kollam district and 721 in Thiruvananthapuram district.

Expenditure

The details such as amount spent by the government, local bodies and beneficiaries, ayacut area proposed, achieved etc were collected from the records kept in the Minor Irrigation offices and local bodies and the other details like current status, working status, if not working reason, actual beneficiaries, Ayacut area, area currently irrigated etc were collected through local enquiry from beneficiaries and knowledgeable persons. In the case of projects which were completed many years back, the records were not available in many cases. In such cases the expenditure, Ayacut area etc. could not be collected. In some other cases, the records were available, but the projects could not be identified since they might have been damaged due to natural calamities or some other reasons. All these facts affected a certain extent the accuracy of the data collected.

However as per the available data, it can be seen that an amount of Rs 29063 lakhs was spent for the construction of these projects by the state. This includes the fund expended by the government, local bodies and that of the beneficiaries. Govt. spent 54.6% of the total expenditure for this purpose. The contribution of local bodies is about 42.9% while that of the beneficiaries of the projects is 2.5%.

Since Class II projects out numbering all the other projects, expenditure for these class also stands ahead (28.27% of the total amount spent for these projects) of all other schemes. The average cost of a class II project comes about Rs 1.04 lakhs. This includes the govt. fund, contribution of local bodies and beneficiaries. Amount spent for lift irrigation is Rs 5781 lakhs, (19.89% of the total) which stands in the second place. Rs1856 lakhs (6.3%) spent for class I projects, Rs1751 lakhs (6.02%) for IPD projects, Rs 2254 lakhs (7.75%) for community irrigation schemes and Rs 689 lakhs (2.3%) for salt water exclusion schemes. For all the other projects, which could not be identified by type, an amount of Rs 8511 lakhs was spent (29.28% of the total amount).

Average cost of class I and Lift irrigation projects are comparatively higher than that of others, which is about 3.2 lakhs for Class I and 2.9 lakhs for Lift Irrigation.

Working Condition

Out of the 20786 schemes identified, 13403 (64.4%) schemes are in working condition, 3269 (15.72%) schemes are not working and 4114 (19.79%) schemes are not yet started. Among the districts, Alappuzha has 85.99% (1013) schemes completed out of the 1178 schemes Thrissur has 754 (81.86%) completed schemes out of the 921 schemes. Ernakulam district has maximum number of working projects in the state (1381). Then comes Palakkad with 1330 working Projects. The least number of projects working is in Idukki, 547 numbers which accounts 38.7% of the total of the district

Working Projects

Out of the 13403 schemes completed, 4584 (34.20%) schemes are Class II Projects, 4455 (33.23%) schemes in unidentified group, 386 (2.87%) Class I Projects, 1273 (9.49%) in IPD Yelah Projects, 1292 (9.63%) in Lift Irrigation, 872 (6.5%) in Community Irrigation and 541 (4.03%) projects for protection from salt water.

Thiruvananthapuram has maximum number of not working schemes 500 and it is 31.54% of the total schemes. In Idukki 748 (52.93%) schemes out of 1413 are not started and in Kollam 766 (39.34%) projects out of the total 1947 are not yet started.

In the 7383 not working and not started schemes, 3165 are in Class II projects (42.86%) and 1969 (26.66%) schemes are in others. 172 (2.32%) Class I schemes, 604 (8.18%) IPD Yelah, 660 (8.9%) Lift Irrigation, 522(7.07%) Community Irrigation Schemes and 291 (3.94%) Projects for preventing salt water are also included in this classification. When classified by type, the major portion comprises of ponds and minor dams (1992 Nos and 1620 Nos respectively).

Since the main objective of the survey is to find out the current status of the M I schemes, thrust was given to this area. Details of not working schemes were collected from records kept and by local enquiry. The total not working schemes (7383) are

classified into 7 categories. Out of the 7383 not working schemes, 1091 schemes are not completed. 191 schemes are completed but not started functioning. 1788 projects were damaged. 708 project could not be operated due to shortage of water. 630 projects are not utilised due to the change in Agricultural Pattern. 267 projects could not be operated due to paucity of electricity. 2708 schemes are not working due to some other reasons.

The reason for non completion and non-start were also inquired. Out of the 1282 projects found out in this category, 381 (29.7%) are not completed due to shortage of fund for construction. In the case of 161 schemes, (12.55%) contractors stopped the work due to some reasons. In 54 cases (4.2%), work could not be completed due to the protest from the public. In 74 cases (5.7%), the govt. abandoned the work. In 51 cases the work could not be completed due to shortage of water. There are many other reasons for this, which could not be classified. There are 561(43.7%) projects that are not completed due to reasons other than those mentioned above.

Major portion of not completed schemes are in Kozhikode District (394 Nos) and majority of them are community irrigation schemes and the main cause is paucity of fund. 190 not completed schemes are in Idukki and out of which 164 are class II projects. The main reason reported for non-completion is problem of finance.

Ayacut Area

As per the details collected, 623162 hectares of land was proposed for irrigation in the state. Out of this, 226339 hectares of land is proposed under irrigation through Class II projects. This accounts 36.32% of the total proposed area. 149785 Hectares were brought under irrigation by other unspecified schemes. It is a fact that the proposed area of irrigation through these schemes is far higher than the actual area achieved. The area achieved is 330853 Hectares - 53.09% of the area proposed. 29.94% of the total area brought under irrigation is through Class II projects, (99064 Hectares), 86603 Hectares, (26.17%) of Ayacut area has been achieved by other unspecified projects, 19596 Hectares, (5.92%) is achieved through Class I projects, 23409 (7.07%) through IPD Yelah Projects, 80292 (24.26%) through LI Schemes,

10744 Hectares (3.25%) through Community Irrigation projects and 11145 hectares (3.36%) is achieved the benefit of salt water exclusion schemes. Among the districts, Alappuzha has got the highest achievement of irrigated area, 57093 Hectares, (17.2% of the state total). Ernakulam has 15.2%(50432 Hectares) of the total achievement. 22205 Hectares (38.9%) of the ayacut achievement of Alappuzha district is through unclassified projects and 13372 Hectares (23.4%) is through lift irrigation schemes, 7105 Hectares (12.44%) through IPD Yelah projects. Only 3044 Hectares (5.38%) is by Class II projects, 5488 Hectares is achieved through Class I projects and 3796 hectares through community Irrigation schemes. The major projects of Alappuzha are Lift irrigation works, sidewall protection, Minor dams and other unspecified MI projects 2083 Hectares of area is brought under cultivation through salt water exclusion schemes.

In Ernakulam 14027 Hectares (27.8%) of land is brought under irrigation by unclassified projects. 34.2% i.e. 17248 Hectares by Lift irrigation and 13358 Hectares brought under irrigation by Class II projects (accounts 26.6% of the total). The major projects are Class II Projects, lift irrigation schemes and other unclassified projects. Ernakulam has the highest area proposed for irrigation and 55% (50432 Hectares) of this area is achieved. Ernakulam has the second highest ayacut area achievement Palakkad has achieved 80.23% of total proposed area and Pathanamthitta achieved 76.8% of the total proposed area and Alappuzha has 90.7% achievement. The least area achieved is in Kannur district. Only 15.9% of the proposed area is achieved there.

Even though the total area proposed for irrigation by M I projects is 623162 Hectares, the area brought under irrigation is 330853 hectares, i.e, 53.09% of the total area proposed. But the actual irrigated area is only 114806 Hectares. In this case also Alappuzha is in the top position. 19012 Hectares of land was brought under irrigation through MI schemes by this way. Out of this, 5478 Hectares are irrigated by IPD Yelah projects. 6268 Hectares are irrigated by unclassified projects. Here class II projects are not very prominent. 4091 Hectares were irrigated by Lift Irrigation Projects.

The area irrigated is far less than the area proposed. This is because many of the completed schemes are not functioning due to different reasons. Many projects were constructed years back and hence not functioning due to damages or some other reasons. Due to deficiency of water, uneconomic nature of paddy cultivation, paddy fields are converted for housing and for other purposes. Change in the cropping pattern etc. is another factor for shortage in area.

The number of beneficiaries proposed by M I Schemes is 789922. 63.5% (501577 beneficiaries) of the target is seen achieved. Majority of the beneficiaries are in Eranakulam and Alappuzha Districts. These Districts have the maximum irrigated area.

Conclusion

A sound database is the keynote of effective planning. Inadequacy of data of irrigation has been considered as a severe constraint in the process of irrigation planning. Large no of schemes under M I are being implemented in the state as a part of developmental programmes. The status of the M I schemes and the potential created are not being maintained regularly. Hence it is very essential to evaluate the ayacut achievements of M I schemes periodically.

The data obtained from the current survey are furnished in tables. The number of schemes functioning properly, defunct or damaged, not completed, not started, ayacut area achieved etc can be obtained from these tables. From this survey, it can be seen that a number of schemes require repairs so as to make it operational. Ayacut area achieved is much lesser than that of the proposed ayacut area.

It is essential to evaluate this kind of development schemes so as to ensure optimum return of the money expended for these schemes.

Table 1**NUMBER OF MINOR IRRIGATION SCHEMES ACCORDING TO PROJECT CLASS**

Sl. No	District	Class I	Class II	IPD Yelah	Lift Irrigation	Community Irrigation	Salt water Exclusion	Others	Total
1	Kasaragod	29	513	147	62	62	67	177	1057
2	Kannur	28	472	35	132	106	188	463	1424
3	Wayanad	27	674	31	203	30		315	1280
4	Kozhikkode	46	238	24	192	431	124	659	1714
5	Malappuram	29	862	61	90	75	101	265	1483
6	Palakkad	38	436	130	170	167		703	1644
7	Thrissur	20	172	33	291	43	50	312	921
8	Eranakulam	50	455	110	341	146	159	571	1832
9	Idukki	54	1160	21	31	9		138	1413
10	Kottayam	63	508	24	93	118	65	782	1653
11	Alappuzha	72	158	189	146	99	52	462	1178
12	Pathanamthitta	42	300	306	119	45		843	1655
13	Kollam	37	877	384	47	18	23	561	1947
14	Thiruvananthapuram	23	924	382	35	45	3	173	1585
State		558	7749	1877	1952	1394	832	6424	20786

Table 2
NUMBER OF MINOR IRRIGATION SCHEMES ACCORDING TO PROJECT TYPE

Sl. No	District	Well	Tube Well	Pond	Lift Irrigation	Side Protection Wall	Minor Dam	Salt Water Exclusion	Others	Total
1	Kasaragod	13	10	218	62	85	470	67	132	1057
2	Kannur	25	1	174	132	168	565	188	171	1424
3	Wayanad	201	2	253	203	96	390		135	1280
4	Kozhikkode	366	2	186	192	304	298	124	242	1714
5	Malappuram	36	2	256	90	137	647	101	214	1483
6	Palakkad	137	43	381	170	272	500		141	1644
7	Thrissur	44	11	112	291	63	136	50	214	921
8	Eranakulam	25	10	220	341	360	403	159	314	1832
9	Idukki	159	38	683	31	53	148		301	1413
10	Kottayam	77	10	213	93	470	344	65	381	1653
11	Alappuzha	10	4	19	146	283	230	52	434	1178
12	Pathanamthitta	7	3	94	119	659	174		599	1655
13	Kollam	5		573	47	460	237	23	602	1947
14	Thiruvananthapuram	3	5	721	35	407	249	3	162	1585
State		1108	141	4103	1952	3817	4791	832	4042	20786

Table 3

EXPENDITURE ON MINOR IRRIGATION SCHEMES BY GOVERNMENT ACCORDING TO PROJECT CLASS

(in Rs.)

Sl. No	District	Class I	Class II	IPD Yelah	Lift Irrigation	Community Irrigation	Salt water Exclusion	Others	Total
1	Kasaragod	9625600	30435025	4231000	1589945	3923200	3609986	5218597	58633353
2	Kannur	3869871	33675340	864500	6410607	9447942	8013490	16926466	79208216
3	Wayanad	10657810	15656774	678200	17316823	369166	0	8801301	53480074
4	Kozhikkode	8036100	24473409	1649840	9809429	15582814	9863265	35121813	104536670
5	Malappuram	13780693	45223142	3856110	19495639	5367700	1478309	27131608	116333201
6	Palakkad	9767249	21652115	11820440	21882742	4140214	0	60570266	129833026
7	Thrissur	8018109	10109009	2872570	51937483	69765	2315515	15290980	90613431
8	Eranakulam	11962628	2201100	1775179	167456645	1859627	3134066	11931467	200320712
9	Idukki	10626798	18979725	200000	1782000	600000	0	8848787	41037310
10	Kottayam	19477367	28006796	2314099	18725245	21885454	16121881	125231144	231761986
11	Alappuzha	6011898	4703550	9615651	12519984	5627924	2912700	48484716	89876423
12	Pathanamthitta	4192890	24355212	24047969	12991245	5572208	0	58538731	129698255
13	Kollam	17112755	73264616	44858535	13719739	3113434	5514154	37985488	195568721
14	Thiruvananthapuram	4348000	22098693	13791520	11666856	795940	28777	13308203	66037989
State		137487768	354834506	122575613	367304382	78355388	52992143	473389567	1586939367

Table 4**EXPENDITURE ON MINOR IRRIGATION SCHEMES BY LOCAL BODIES ACCORDING TO PROJECT CLASS****(in Rs.)**

Sl. No	District	Class I	Class II	IPD Yelah	Lift Irrigation	Community Irrigation	Salt water Exclusion	Others	Total
1	Kasaragod	491300	30969998	5988872	6169293	742856	1689501	12328528	58380348
2	Kannur	1356588	12208803	628738	8731761	4246856	9275190	22441552	58889488
3	Wayanad	2954505	48227451	2502571	34184505	3579018		32629694	124077744
4	Kozhikkode	2235187	37841805	1528792	27240213	72274249	10338100	61107051	212565397
5	Malappuram	1000000	42177271	125000	2880389	3312273	3386651	8705725	61587309
6	Palakkad	4345557	36717255	908000	22138768	16347231		50063168	130519979
7	Thrissur	2670000	6929102	1871095	42380216	7193874	557752	11606155	73208194
8	Eranakulam	4711059	18429610	2793407	25283351	6487731	10059521	23445906	91210585
9	Idukki	11861057	101927207	1814030	5104301	892238		9977364	131576197
10	Kottayam	7396152	45833037	2006187	3452696	9085247	1430082	32376852	101580253
11	Alappuzha	743800	2054921	448000	4018112	2687314	1064592	24168143	35184882
12	Pathanamthitta	200000	10665064	9212912	10211323	2337734		47206193	79833226
13	Kollam	1878165	18410101	13437044	1687080	2095631	150000	12774573	50432594
14	Thiruvananthapuram	100000	29349337	3187035	1222670	2351984		1290552	37501578
State		41943370	441740962	46451683	194704678	133634236	37951389	350121456	1246547774

Table 5

EXPENDITURE ON MINOR IRRIGATION SCHEMES BY BENEFICIARIES ACCORDING TO PROJECT CLASS**(in Rs.)**

Sl. No	District	Class I	Class II	IPD Yelah	Lift Irrigation	Community Irrigation	Salt water Exclusion	Others	Total
1	Kasaragod	10000	110253	97400	39180	14568	21797	129703	422901
2	Kannur	25000	733105	110841	804307	1396606	119766	968042	4157667
3	Wayanad	64750	2090611	92000	1769842	27675		793917	4838795
4	Kozhikkode		773134	72839	1056783	5260105	880960	1419532	9463353
5	Malappuram		492939		44500	40688	8474	394439	981040
6	Palakkad	214025	987090	443469	1240795	4157741		3416137	10459257
7	Thrissur	5002	83123	327000	3681898	1961	42500	3591319	7732803
8	Eranakulam	527910	69421	118908	4255466	285239	46389	1019816	6323149
9	Idukki	450000	2853760	10000				250000	3563760
10	Kottayam	652381	2896499	443523	562306	858933	121000	2696583	8231225
11	Alappuzha	188060	949755	919159	2069446	172824	74945	4926869	9301058
12	Pathanamthitta		178107	203389	354576			194728	930800
13	Kollam		97882	2096005	258920	880466	2135272	181844	5650389
14	Thiruvananthapuram		577541	219406	0			5988	802935
State		2137128	12893220	5153939	16138019	13096806	3451103	19988917	72859132

Table 6

**TOTAL EXPENDITURE ON MINOR IRRIGATION SCHEMES BY GOVERNMENT, LOCAL BODIES AND BENEFICIARIES
ACCORDING TO PROJECT CLASS**

(in Rs.)

Sl. No	District	Class I	Class II	IPD Yelah	Lift Irrigation	Community Irrigation	Salt water Exclusion	Others	Total
1	Kasaragod	10126900	61515276	10317272	7798418	4680624	5321284	17676828	117436602
2	Kannur	5251459	46617248	1604079	15946675	15091404	17408446	40336060	142255371
3	Wayanad	13677065	65974836	3272771	53271170	3975859		42224912	182396613
4	Kozhikkode	10271287	63088348	3251471	38106425	93117168	21082325	97648396	326565420
5	Malappuram	14780693	87893352	3981110	22420528	8720661	4873434	36231772	178901550
6	Palakkad	14326831	59356460	13171909	45262305	24645186		114049571	270812262
7	Thrissur	10693111	17121234	5070665	97999597	7265600	2915767	30488454	171554428
8	Eranakulam	17201597	20700131	4687494	196995462	8632597	13239976	36397189	297854446
9	Idukki	22937855	123760692	2024030	6886301	1492238		19076151	176177267
10	Kottayam	27525900	76736332	4763809	22740247	31829634	17672963	160304579	341573464
11	Alappuzha	6943758	7708226	10982810	18607542	8488062	4052237	77579728	134362363
12	Pathanamthitta	4392890	35198383	33464270	23557144	7909942		105939652	210462281
13	Kollam	18990920	91772599	60391584	15665739	6089531	7799426	50941905	251651704
14	Thiruvananthapuram	4448000	52025571	17197961	12889526	3147924	28777	14604743	104342502
	State	181568266	809468688	174181235	578147079	225086430	94394635	843499940	2906346273

Table 7

TOTAL EXPENDITURE AND PERCENTAGE OF EXPENDITURE ACCORDING TO PROJECT CLASS

Project Class	Expenditure (in Rs.)				Percentage of Expenditure			
	Government	Local Bodies	Beneficiaries	Total	Government	Local Bodies	Beneficiaries	Total
Class I	137487768	41943370	2137128	181568266	75.72	23.10	1.18	100
Class II	354834506	441740962	12893220	809468688	43.84	54.57	1.59	100
IPD Yelah	122575613	46451683	5153939	174181235	70.37	26.67	2.96	100
.Lift Irrigation	367304382	194704678	16138019	578147079	63.53	33.68	2.79	100
Community Irrigation	78355388	133634236	13096806	225086430	34.81	59.37	5.82	100
Salt Water Exclusion	52992143	37951389	3451103	94394635	56.14	40.21	3.65	100
Others	473389567	350121456	19988917	843499940	56.12	41.51	2.37	100
State	1586939367	1246547774	72859132	2906346273	54.60	42.89	2.51	100

Table 8

EXPENDITURE ON MINOR IRRIGATION SCHEMES BY GOVERNMENT ACCORDING TO PROJECT TYPE**(in Rs.)**

Sl. No	District	Well	Tube Well	Pond	Lift Irrigation	Side Protection Wall	Minor Dam	Salt Water Exclusion	Others	Total
1	Kasaragod	798300	991199	6903500	1589945	1741650	37445833	3609986	5552940	58633353
2	Kannur	983902		5838766	6410607	8050636	41704206	8013490	8206609	79208216
3	Wayanad	352867		5858005	17316823	1085692	25032034		3834653	53480074
4	Kozhikkode	14503607		7511990	9809429	14987163	32363920	9863265	15497296	104536670
5	Malappuram	1368200		11469780	19495639	13660378	59421462	1478309	9439433	116333201
6	Palakkad	1631415	150000	24094521	21882742	12136852	50790465		19147031	129833026
7	Thrissur	2148350		2793425	51937483	3615765	12038363	2315515	15764530	90613431
8	Eranakulam	778000	20000	1417298	167456645	10976598	11019205	3134066	5518900	200320712
9	Idukki	1676894	35000	17430737	1782000	2273857	4015789		13823033	41037310
10	Kottayam	4520964	934900	18707098	18725245	87950216	49112510	16121881	35689172	231761986
11	Alappuzha	43000		454300	12519984	33284325	18845879	2912700	21816235	89876423
12	Pathanamthitta	243189	255000	1485136	12991245	41690077	16903271		56130337	129698255
13	Kollam			6878256	13719739	80327118	33055712	5514154	56073742	195568721
14	Thiruvananthapuram		7694430	12541514	11666856	18853862	12062024	28777	3190526	66037989
State		29048688	10080529	123384326	367304382	330634189	403810673	52992143	269684437	1586939367

Table 9

EXPENDITURE ON MINOR IRRIGATION SCHEMES BY LOCAL BODIES ACCORDING TO PROJECT TYPE

(in Rs.)

Sl. No	District	Well	Tube Well	Pond	Lift Irrigation	Side Protection Wall	Minor Dam	Salt Water Exclusion	Others	Total
1	Kasaragod	276865	1556335	4629293	6169293	4413620	35233894	1689501	4411547	58380348
2	Kannur	1674462		5373940	8731761	14210069	15266512	9275190	4357554	58889488
3	Wayanad	12274235	265368	18127360	34184505	11723179	33980340		13522757	124077744
4	Kozhikkode	68862550	159462	27377652	27240213	31545899	30171042	10338100	16870479	212565397
5	Malappuram	1601099		15542025	2880389	6613945	19876989	3386651	11686211	61587309
6	Palakkad	5434288	6348867	33189687	22138768	15390245	37743604		10274520	130519979
7	Thrissur	1909295	343755	11326274	42380216	3133682	5540709	557752	8016511	73208194
8	Eranakulam	608195	188832	5522455	25283351	16296901	10084743	10059521	23166587	91210585
9	Idukki	14049742	4269847	61421207	5104301	3512434	16840500		26378166	131576197
10	Kottayam	16131821	299057	24532719	3452696	13773512	14000593	1430082	27959773	101580253
11	Alappuzha	715600	391784	50000	4018112	16920027	1041587	1064592	10983180	35184882
12	Pathanamthitta	362968	24419	2177026	10211323	25052742	7400118		34604630	79833226
13	Kollam	1346200		12310221	1687080	14615985	3975757	150000	16347351	50432594
14	Thiruvananthapuram	131300	100000	23785428	1222670	4541203	2270506		5450471	37501578
State		125378620	13947726	245365287	194704678	181743443	233426894	37951389	214029737	1246547774

Table 10

EXPENDITURE ON MINOR IRRIGATION SCHEMES BY BENEFICIARIES ACCORDING TO PROJECT TYPE**(in Rs.)**

Sl. No	District	Well	Tube Well	Pond	Lift Irrigation	Side Protection Wall	Minor Dam	Salt Water Exclusion	Others	Total
1	Kasaragod	0		0	39180	143071	218853	21797	0	422901
2	Kannur	338106		182989	804307	631518	457136	119766	1623845	4157667
3	Wayanad	592805		688500	1769842	540000	827997		419651	4838795
4	Kozhikkode	4434403		1327590	1056783	643906	318678	880960	801033	9463353
5	Malappuram	68045		567470	44500	191361	46128	8474	55062	981040
6	Palakkad	2650507	3557256	1515470	1240795	97523	612709		784997	10459257
7	Thrissur	872605	65000	82661	3681898	44588	566622	42500	2376929	7732803
8	Eranakulam	164500	3500	57569	4255466	323313	794883	46389	677529	6323149
9	Idukki	298976	71552	1939000		155700	99090		999442	3563760
10	Kottayam	1157893	133945	1644486	562306	590698	1377723	121000	2643174	8231225
11	Alappuzha	807925	50000	15000	2069446	1496118	768099	74945	4019525	9301058
12	Pathanamthitta			118046	354576	217119	75159		165900	930800
13	Kollam			10001	258920	1067310	1893035	2135272	285851	5650389
14	Thiruvananthapuram			324500	0	213694	39001		225740	802935
State		11385765	3881253	8473282	16138019	6355919	8095113	3451103	15078678	72859132

Table 11

**TOTAL EXPENDITURE ON MINOR IRRIGATION SCHEMES BY GOVERNMENT, LOCAL BODIES AND BENEFICIARIES
ACCORDING TO PROJECT TYPE**

(in Rs.)

Sl. No	District	Well	Tube Well	Pond	Lift Irrigation	Side Protection Wall	Minor Dam	Salt Water Exclusion	Others	Total
1	Kasaragod	1075165	2547534	11532793	7798418	6298341	72898580	5321284	9964487	117436602
2	Kannur	2996470	0	11395695	15946675	22892223	57427854	17408446	14188008	142255371
3	Wayanad	13219907	265368	24673865	53271170	13348871	59840371		17777061	182396613
4	Kozhikkode	87800560	159462	36217232	38106425	47176968	62853640	21082325	33168808	326565420
5	Malappuram	3037344	0	27579275	22420528	20465684	79344579	4873434	21180706	178901550
6	Palakkad	9716210	10056123	58799678	45262305	27624620	89146778		30206548	270812262
7	Thrissur	4930250	408755	14202360	97999597	6794035	18145694	2915767	26157970	171554428
8	Eranakulam	1550695	212332	6997322	196995462	27596812	21898831	13239976	29363016	297854446
9	Idukki	16025612	4376399	80790944	6886301	5941991	20955379		41200641	176177267
10	Kottayam	21810678	1367902	44884303	22740247	102314426	64490826	17672963	66292119	341573464
11	Alappuzha	1566525	441784	519300	18607542	51700470	20655565	4052237	36818940	134362363
12	Pathanamthitta	606157	279419	3780208	23557144	66959938	24378548		90900867	210462281
13	Kollam	1346200		19198478	15665739	96010413	38924504	7799426	72706944	251651704
14	Thiruvananthapuram	131300	7794430	36651442	12889526	23608759	14371531	28777	8866737	104342502
	State	165813073	27909508	377222895	578147079	518733551	645332680	94394635	498792852	2906346273

Table 12

TOTAL EXPENDITURE AND PERCENTAGE OF EXPENDITURE ON MINOR IRRIGATION SCHEMES

Sl. No	District	Total Expenditure (in Rs.)				Percentage			
		Government	Local bodies	Beneficiaries	Total	Government	Local bodies	Beneficiaries	Total
1	Kasaragod	58633353	58380348	422901	117436602	49.93	49.71	0.36	100
2	Kannur	79208216	58889488	4157667	142255371	55.68	41.40	2.92	100
3	Wayanad	53480074	124077744	4838795	182396613	29.32	68.03	2.65	100
4	Kozhikkode	104536670	212565397	9463353	326565420	32.01	65.09	2.90	100
5	Malappuram	116333201	61587309	981040	178901550	65.03	34.43	0.55	100
6	Palakkad	129833026	130519979	10459257	270812262	47.94	48.20	3.86	100
7	Thrissur	90613431	73208194	7732803	171554428	52.82	42.67	4.51	100
8	Eranakulam	200300714	91210585	6323149	297834448	67.25	30.62	2.12	100
9	Idukki	41037310	131576197	3563760	176177267	23.29	74.68	2.02	100
10	Kottayam	231761986	101580253	8231225	341573464	67.85	29.74	2.41	100
11	Alappuzha	89876423	35184882	9301058	134362363	66.89	26.19	6.92	100
12	Pathanamthitta	129698255	79833226	930800	210462281	61.63	37.93	0.44	100
13	Kollam	195568721	50432594	5650389	251651704	77.71	20.04	2.25	100
14	Thiruvananthapuram	66037989	37501578	802935	104342502	63.29	35.94	0.77	100
State		1586919369	1246547774	72859132	2906326275	54.60	42.89	2.51	100

Table 13

AREA AND BENEFICIARIES OF MINOR IRRIGATION SCHEMES

Sl. No	District	Ayacut Area (in Hect.)		Actual Area Irrigated (in Hect.)	Number Of Beneficiaries	
		Proposed	Achieved		Proposed	Achieved
1	Kasaragod	20438	12957	7843	37641	29519
2	Kannur	85061	13556	5217	56115	33379
3	Wayanad	15352	4563	3527	16140	7670
4	Kozhikkode	16431	5133	2170	30163	11614
5	Malappuram	73127	22738	12934	51439	45696
6	Palakkad	34260	27489	14925	57365	37735
7	Thrissur	57892	31801	6791	55977	21207
8	Eranakulam	91814	50432	15464	81004	61846
9	Idukki	39269	26582	6297	62710	30018
10	Kottayam	37466	22288	6016	47372	27058
11	Alappuzha	62912	57093	19012	72913	62439
12	Pathanamthitta	32944	25309	5576	78370	50143
13	Kollam	39007	18385	3810	76968	28155
14	Thiruvananthapuram	17189	12527	5224	65745	55098
State		623162	330853	114806	789922	501577

Table 14

AYACUT AREA PROPOSED UNDER MINOR IRRIGATION SCHEMES ACCORDING TO PROJECT CLASS (IN HECTARES)

Sl. No	District	Class I	Class II	IPD Yelah	Lift Irrigation	Community Irrigation	Salt water Exclusion	Others	Total
1	Kasaragod	2039	7139	3845	540	531	4179	2165	20438
2	Kannur	1715	43709	301	3359	758	3755	31464	85061
3	Wayanad	1298	7831	495	2445	269		3014	15352
4	Kozhikkode	2035	2540	318	1873	2407	1952	5306	16431
5	Malappuram	7262	43134	1196	11404	3222	2985	3924	73127
6	Palakkad	2537	7259	1776	6731	1461		14496	34260
7	Thrissur	1621	7366	3610	35552	1005	388	8350	57892
8	Eranakulam	2171	18799	1801	43649	2060	2089	21245	91814
9	Idukki	1765	32981	520	876	181		2946	39269
10	Kottayam	2729	9055	1021	1995	1337	2092	19237	37466
11	Alappuzha	5777	4232	8746	14217	4376	2493	23071	62912
12	Pathanamthitta	2332	9343	3534	8077	606		9052	32944
13	Kollam	1716	25419	5347	1167	515	926	3917	39007
14	Thiruvananthapuram	1614	7532	3430	2489	489	37	1598	17189
State		36611	226339	35940	134374	19217	20896	149785	623162

Table 15

AREA ACHIEVED UNDER MINOR IRRIGATION SCHEMES ACCORDING TO PROJECT CLASS (IN HECTARES)

Sl. No	District	Class I	Class II	IPD Yelah	Lift Irrigation	Community Irrigation	Salt water Exclusion	Others	Total
1	Kasaragod	1938	6575	1103	405	381	877	1678	12957
2	Kannur	751	5136	181	854	316	3037	3281	13556
3	Wayanad	578	2203	112	840	103		727	4563
4	Kozhikkode	732	548	128	355	984	1259	1127	5133
5	Malappuram	358	8401	434	5876	256	1402	6011	22738
6	Palakkad	1892	6028	1649	5342	965		11613	27489
7	Thrissur	906	2467	425	24610	405	540	2448	31801
8	Eranakulam	1662	13358	1519	17248	1782	836	14027	50432
9	Idukki	675	24307	400	493	47		660	26582
10	Kottayam	1718	4356	494	739	865	685	13431	22288
11	Alappuzha	5488	3044	7105	13372	3796	2083	22205	57093
12	Pathanamthitta	483	8247	2591	7121	316		6551	25309
13	Kollam	1264	9516	4713	810	117	416	1549	18385
14	Thiruvananthapuram	1151	4878	2555	2227	411	10	1295	12527
State		19596	99064	23409	80292	10744	11145	86603	330853

Table 16

ACTUAL AREA IRRIGATED UNDER MINOR IRRIGATION SCHEMES ACCORDING TO PROJECT CLASS (IN HECTARES)

Sl. No	District	Class I	Class II	IPD Yelah	Lift Irrigation	Community Irrigation	Salt water Exclusion	Others	Total
1	Kasaragod	1102	4125	1155	397	326	0	738	7843
2	Kannur	380	2197	125	469	336	0	1710	5217
3	Wayanad	157	1606	107	1190	43	0	424	3527
4	Kozhikkode	291	413	62	263	560	0	581	2170
5	Malappuram	421	7494	749	2418	454	0	1398	12934
6	Palakkad	783	3286	1025	3316	1058	0	5457	14925
7	Thrissur	302	1271	145	3872	202	0	999	6791
8	Eranakulam	860	3604	752	6849	533	0	2866	15464
9	Idukki	570	4358	359	361	35	0	614	6297
10	Kottayam	337	1815	278	815	117	0	2654	6016
11	Alappuzha	696	1378	5478	4091	1101	0	6268	19012
12	Pathanamthitta	410	1441	894	1076	78	0	1677	5576
13	Kollam	542	676	1704	399	159	0	330	3810
14	Thiruvananthapuram	214	3503	946	126	297	0	138	5224
State		7065	37167	13779	25642	5299	0	25854	114806

Table 17

AYACUT AREA PROPOSED UNDER MINOR IRRIGATION SCHEMES ACCORDING TO PROJECTS TYPE (IN HECTARES)

Sl. No	District	Well	Tube Well	Pond	Lift Irrigation	Side Protection Wall	Minor Dam	Salt Water Exclusion	Others	Total
1	Kasaragod	42	74	2954	540	624	11006	4179	1019	20438
2	Kannur	229		1002	3359	1617	43701	3755	31398	85061
3	Wayanad	2543	29	1525	2445	2611	4505		1694	15352
4	Kozhikkode	2121	5	1367	1873	1848	3336	1952	3929	16431
5	Malappuram	159		2147	11404	5781	46641	2985	4010	73127
6	Palakkad	349	214	5170	6731	5090	11029		5677	34260
7	Thrissur	72		4130	35552	6856	5889	388	5005	57892
8	Eranakulam	190	809	1341	43649	6988	19206	2089	17542	91814
9	Idukki	705	238	22727	876	2935	2841		8947	39269
10	Kottayam	2084	10	2306	1995	14035	6555	2092	8389	37466
11	Alappuzha	39	160	437	14217	13584	9913	2493	22069	62912
12	Pathanamthitta	52	28	936	8077	11893	4304		7654	32944
13	Kollam	38		802	1167	18077	2848	926	15149	39007
14	Thiruvananthapuram	22	40	5181	2489	5184	2720	37	1516	17189
State		8645	1607	52025	134374	97123	174494	20896	133998	623162

Table 18

AREA ACHIEVED UNDER MINOR IRRIGATION SCHEMES ACCORDING TO PROJECTS TYPE (IN HECTARES)

Sl. No	District	Well	Tube Well	Pond	Lift Irrigation	Side Protection Wall	Minor Dam	Salt Water Exclusion	Others	Total
1	Kasaragod	28	41	711	405	389	9516	877	990	12957
2	Kannur	81	19	478	854	1129	6235	3037	1723	13556
3	Wayanad	316	29	444	840	434	1620		880	4563
4	Kozhikkode	679		349	355	327	1330	1259	834	5133
5	Malappuram	104		1154	5876	5873	7350	1402	979	22738
6	Palakkad	337	191	4055	5342	4560	8790		4214	27489
7	Thrissur	54		773	24610	1207	1762	540	2855	31801
8	Eranakulam	158	652	897	17248	4620	12025	836	13996	50432
9	Idukki	264	42	18650	493	416	1703		5014	26582
10	Kottayam	281	6	516	739	9884	4180	685	5997	22288
11	Alappuzha	39	160	176	13372	12898	7848	2083	20517	57093
12	Pathanamthitta	50	15	759	7121	8907	3827		4630	25309
13	Kollam	26		525	810	5809	1774	416	9025	18385
14	Thiruvananthapuram	22	40	3768	2227	3655	1970	10	835	12527
State		2439	1195	33255	80292	60108	69930	11145	72489	330853

Table 19**ACTUAL AREA IRRIGATED UNDER MINOR IRRIGATION SCHEMES ACCORDING TO PROJECT TYPE (IN HECTARES)**

Sl. No	District	Well	Tube Well	Pond	Lift Irrigation	Side Protection Wall	Minor Dam	Salt Water Exclusion	Others	Total
1	Kasaragod	46		637	397	0	5891	0	872	7843
2	Kannur	70	10	557	469	0	3196	0	915	5217
3	Wayanad	112		256	1190	0	1337	0	632	3527
4	Kozhikkode	218		426	263	0	783	0	480	2170
5	Malappuram	167	3	1316	2418	0	7461	0	1569	12934
6	Palakkad	340	205	3221	3316	0	5668	0	2175	14925
7	Thrissur	70	3	626	3872	0	1089	0	1131	6791
8	Eranakulam	144	148	724	6849	0	4348	0	3251	15464
9	Idukki	142	38	2103	361	0	1499	0	2154	6297
10	Kottayam	20	7	366	815	0	1730	0	3078	6016
11	Alappuzha	39	70	210	4091	0	6378	0	8224	19012
12	Pathanamthitta	45	23	351	1076	0	971	0	3110	5576
13	Kollam	25		367	399	0	1247	0	1772	3810
14	Thiruvananthapuram	22	50	3216	126	0	783	0	1027	5224
State		1460	557	14376	25642	0	42381	0	30390	114806

Table 20**NUMBER OF BENEFICIARIES PROPOSED UNDER MINOR IRRIGATION SCHEMES ACCORDING TO PROJECT CLASS**

Sl. No	District	Class I	Class II	IPD Yelah	Lift Irrigation	Community Irrigation	Salt water Exclusion	Others	Total
1	Kasaragod	4989	18021	5062	2149	2013	2161	3246	37641
2	Kannur	1239	17140	838	4162	2731	11532	18473	56115
3	Wayanad	1158	6727	602	3205	178		4270	16140
4	Kozhikkode	944	4143	453	3641	9371	4194	7417	30163
5	Malappuram	1326	27360	2188	4756	2964	3384	9461	51439
6	Palakkad	2817	18335	3029	7790	3313		22081	57365
7	Thrissur	980	3063	813	37747	1155	3785	8434	55977
8	Eranakulam	2778	15499	3281	17512	4718	12107	25109	81004
9	Idukki	5855	46162	1586	4060	380		4667	62710
10	Kottayam	1953	14161	542	5760	5062	1693	18201	47372
11	Alappuzha	5124	10286	16297	8644	5453	3021	24088	72913
12	Pathanamthitta	2890	14932	11519	9994	2065		36970	78370
13	Kollam	7971	16501	26087	9990	1691	1275	13453	76968
14	Thiruvananthapuram	1172	46265	12874	1685	1538		2211	65745
State		41196	258595	85171	121095	42632	43152	198081	789922

Table 21**NUMBER OF BENEFICIARIES ACHIEVED UNDER MINOR IRRIGATION SCHEMES ACCORDING TO PROJECT CLASS**

Sl. No	District	Class I	Class II	IPD Yelah	Lift Irrigation	Community Irrigation	Salt water Exclusion	Others	Total
1	Kasaragod	3631	13829	4016	1777	1584	1900	2782	29519
2	Kannur	846	10320	764	2515	1471	6137	11326	33379
3	Wayanad	683	3639	213	1945	83		1107	7670
4	Kozhikkode	495	1652	184	942	1923	3454	2964	11614
5	Malappuram	1276	23101	1951	4489	2887	3010	8982	45696
6	Palakkad	1373	12710	2249	6626	2253		12524	37735
7	Thrissur	699	2559	220	9948	1047	1595	5139	21207
8	Eranakulam	2680	12811	2702	12832	3416	8873	18532	61846
9	Idukki	2111	22691	1054	1698	220		2244	30018
10	Kottayam	1093	6368	491	2608	1228	574	14696	27058
11	Alappuzha	4633	6002	15453	7232	4973	2731	21415	62439
12	Pathanamthitta	2644	11335	9184	4471	780		21729	50143
13	Kollam	2640	6522	10844	1407	473	200	6069	28155
14	Thiruvananthapuram	1132	41086	9185	610	1173		1912	55098
State		25936	174625	58510	59100	23511	28474	131421	501577

Table 22**NUMBER OF BENEFICIARIES PROPOSED UNDER MINOR IRRIGATION SCHEMES ACCORDING TO PROJECT TYPE**

Sl. No	District	Well	Tube Well	Pond	Lift Irrigation	Side Protection Wall	Minor Dam	Salt Water Exclusion	Others	Total
1	Kasaragod	256	66	4422	2149	2518	22301	2161	3768	37641
2	Kannur	884	50	3301	4162	6959	22388	11532	6839	56115
3	Wayanad	1367	32	2113	3205	2644	4352		2427	16140
4	Kozhikkode	8300		3624	3641	4414	2466	4194	3524	30163
5	Malappuram	804	23	6318	4756	4644	25924	3384	5586	51439
6	Palakkad	1583	1255	12019	7790	7562	18103		9053	57365
7	Thrissur	898		2203	37747	715	5740	3785	4889	55977
8	Eranakulam	845	85	5696	17512	16110	14878	12107	13771	81004
9	Idukki	6092	1206	26385	4060	2819	8856		13292	62710
10	Kottayam	4608	392	5053	5760	8601	11079	1693	10186	47372
11	Alappuzha	213	42	1130	8644	17929	18006	3021	23928	72913
12	Pathanamthitta	728	250	3860	9994	28859	8474		26205	78370
13	Kollam	325		4764	9990	34522	12131	1275	13961	76968
14	Thiruvananthapuram	425	480	27320	1685	18206	9290		8339	65745
State		27328	3881	108208	121095	156502	183988	43152	145768	789922

Table 23

NUMBER OF BENEFICIARIES ACHIEVED UNDER MINOR IRRIGATION SCHEMES ACCORDING TO PROJECT TYPE

Sl. No	District	Well	Tube Well	Pond	Lift Irrigation	Side Protection Wall	Minor Dam	Salt Water Exclusion	Others	Total
1	Kasaragod	256	10	3592	1777	2027	16895	1900	3062	29519
2	Kannur	651	50	2703	2515	3908	13175	6137	4240	33379
3	Wayanad	290		610	1945	208	3298		1319	7670
4	Kozhikkode	1622		892	942	1909	1641	3454	1154	11614
5	Malappuram	672	23	5530	4489	4418	22455	3010	5099	45696
6	Palakkad	1268	779	8353	6626	5139	11552		4018	37735
7	Thrissur	493		2099	9948	677	2925	1595	3470	21207
8	Eranakulam	647	85	4158	12832	13803	12467	8873	8981	61846
9	Idukki	3778	562	11850	1698	1455	4230		6445	30018
10	Kottayam	475	245	1302	2608	7414	6381	574	8059	27058
11	Alappuzha	213	22	413	7232	16421	16278	2731	19129	62439
12	Pathanamthitta	728	230	2300	4471	21922	4804		15688	50143
13	Kollam	222		2217	1407	12957	6340	200	4812	28155
14	Thiruvananthapuram	425	380	23081	610	16649	6678		7275	55098
State		11740	2386	69100	59100	108907	129119	28474	92751	501577

Table 24

NUMBER OF MINOR IRRIGATION SCHEMES ACCORDING TO STATUS OF FUNCTIONING

Sl. No	District	Working	Not working now	Not yet started	Total
1	Kasaragod	813	178	66	1057
2	Kannur	785	417	222	1424
3	Wayanad	603	206	471	1280
4	Kozhikkode	944	198	572	1714
5	Malappuram	1135	224	124	1483
6	Palakkad	1330	172	142	1644
7	Thrissur	754	32	135	921
8	Eranakulam	1381	273	178	1832
9	Idukki	547	118	748	1413
10	Kottayam	1119	259	275	1653
11	Alappuzha	1013	105	60	1178
12	Pathanamthitta	1077	341	237	1655
13	Kollam	935	246	766	1947
14	Thiruvananthapuram	967	500	118	1585
State		13403	3269	4114	20786

Table 25

NUMBER OF MINOR IRRIGATION SCHEMES WORKING ACCORDING TO PROJECT CLASS

Sl. No	District	Class I	Class II	IPD Yelah	Lift Irrigation	Community Irrigation	Salt water Exclusion	Others	Total
1	Kasaragod	27	403	110	51	44	48	130	813
2	Kannur	15	272	17	65	53	97	266	785
3	Wayanad	13	306	13	112	10		149	603
4	Kozhikkode	27	137	20	80	172	78	430	944
5	Malappuram	20	663	39	71	50	78	214	1135
6	Palakkad	34	349	96	125	145		581	1330
7	Thrissur	15	138	28	210	41	42	280	754
8	Eranakulam	45	285	75	266	118	126	466	1381
9	Idukki	27	452	16	12	4		36	547
10	Kottayam	26	291	16	77	85	23	601	1119
11	Alappuzha	69	109	176	127	88	37	407	1013
12	Pathanamthitta	25	195	189	63	23		582	1077
13	Kollam	31	323	282	24	8	12	255	935
14	Thiruvananthapuram	12	661	196	9	31		58	967
State		386	4584	1273	1292	872	541	4455	13403

Table 26

NUMBER OF MINOR IRRIGATION SCHEMES WORKING ACCORDING TO PROJECT TYPE

Sl. No	District	Well	Tube Well	Pond	Lift Irrigation	Side Protection Wall	Minor Dam	Salt Water Exclusion	Others	Total
1	Kasaragod	8	1	169	51	78	359	48	99	813
2	Kannur	16	1	87	65	109	310	97	100	785
3	Wayanad	35	1	88	112	74	215		78	603
4	Kozhikkode	159	1	78	80	264	143	78	141	944
5	Malappuram	24		197	71	106	508	78	151	1135
6	Palakkad	109	40	326	125	234	372		124	1330
7	Thrissur	42	11	97	210	48	118	42	186	754
8	Eranakulam	15	10	125	266	304	301	126	234	1381
9	Idukki	49	13	206	12	34	85		148	547
10	Kottayam	51	8	106	77	389	209	23	256	1119
11	Alappuzha	10	4	14	127	263	206	37	352	1013
12	Pathanamthitta	6	3	59	63	533	94		319	1077
13	Kollam	4		77	24	388	154	12	276	935
14	Thiruvananthapuram	3	4	482	9	249	97		123	967
State		531	97	2111	1292	3073	3171	541	2587	13403

Table 27

NOT STARTED /NOT WORKING MINOR IRRIGATION SCHEMES ACCORDING TO CURRENT STATUS

Sl. No	District	Not Completed	Not Started	Damaged	Scarcity of Water	Change of Agricultural method	Paucity of Electricity	Others	Total
1	Kasaragod	25	1	95	33	15	2	73	244
2	Kannur	102	10	317	50	27	39	94	639
3	Wayanad	56	6	128	50	22	70	345	677
4	Kozhikkode	364	30	130	40	11	61	134	770
5	Malappuram	28	6	166	43	18	11	76	348
6	Palakkad	48	2	140	31	2	9	82	314
7	Thrissur	57	19	16	14	1	10	50	167
8	Eranakulam	86	11	117	36	101	8	92	451
9	Idukki	131	59	66	203	4	23	380	866
10	Kottayam	103	13	78	30	65	26	219	534
11	Alappuzha	9	2	34	8	60		52	165
12	Pathanamthitta	24	21	146	85	59	2	241	578
13	Kollam	29	7	136	30	61	2	747	1012
14	Thiruvananthapuram	29	4	219	55	184	4	123	618
State		1091	191	1788	708	630	267	2708	7383

Table 28

NOT STARTED / NOT WORKING MINOR IRRIGATION SCHEMES ACCORDING TO CURRENT STATUS AND PROJECT CLASS

Project Class	Not Completed	Not Started	Damaged	Scarcity of Water	Change of Agricultural method	Paucity of Electricity	Others	Total
1.Class I	26	1	39	13	16	8	69	172
2.Class II	331	78	796	412	206	82	1260	3165
3.IPD Yelah	49	9	150	70	134	7	185	604
4.Lift Irrigation	222	27	131	23	21	95	141	660
5.Community Irrigation	215	17	90	28	37	61	74	522
6.Salt Water Exclusion	25	11	156	8	19	4	68	291
7.Others	223	48	426	154	197	10	911	1969
Total	1091	191	1788	708	630	267	2708	7383

Table 29

NOT STARTED / NOT WORKING MINOR IRRIGATION SCHEMES ACCORDING TO CURRENT STATUS AND PROJECT TYPE

Project Type	Not Completed	Not Started	Damaged	Scarcity of Water	Change of Agricultural method	Paucity of Electricity	Others	Total
Well	190	17	42	47	6	55	220	577
Tube Well	5	5	2	18	1	2	11	44
Pond	272	35	270	250	155	73	937	1992
Lift Irrigation	222	27	131	23	21	95	141	660
Side Wall	93	25	235	82	129	2	178	744
Minor Dam	150	33	747	158	171	6	355	1620
Salt Water Exclusion	25	11	156	8	19	4	68	291
Other	134	38	205	122	128	30	798	1455
State	1091	191	1788	708	630	267	2708	7383

Table 30**MINOR IRRIGATION SCHEMES NOT STARTED FUNCTIONING ACCORDING TO PROJECT CLASS**

Sl. No	District	Class I	Class II	IPD Yelah	Lift Irrigation	Community Irrigation	Salt water Exclusion	Others	Total
1	Kasaragod		13	23	6	5	3	16	66
2	Kannur	3	59	6	39	29	15	71	222
3	Wayanad	6	215	12	74	18		146	471
4	Kozhikkode	7	76	1	97	228	18	145	572
5	Malappuram	4	51	11	12	12	3	31	124
6	Palakkad	4	23	32	33	10		40	142
7	Thrissur	5	25	4	74	2	6	19	135
8	Eranakulam	2	23	12	60	17	17	47	178
9	Idukki	27	609	3	9	3		97	748
10	Kottayam	9	137	3	14	25	5	82	275
11	Alappuzha	1	11	11	14	2	3	18	60
12	Pathanamthitta	9	24	17	22	7		158	237
13	Kollam	4	467	35	10	4	1	245	766
14	Thiruvananthapuram		37	41	10	3	1	26	118
State		81	1770	211	474	365	72	1141	4114

Table 31

MINOR IRRIGATION SCHEMES NOT STARTED FUNCTIONING ACCORDING TO PROJECT TYPE

Sl. No	District	Well	Tube Well	Pond	Lift Irrigation	Side Protection Wall	Minor Dam	Salt Water Exclusion	Others	Total
1	Kasaragod	2		14	6	4	25	3	12	66
2	Kannur	8		39	39	27	64	15	30	222
3	Wayanad	149	1	106	74	16	81		44	471
4	Kozhikkode	192	1	94	97	32	60	18	78	572
5	Malappuram	7	1	20	12	8	38	3	35	124
6	Palakkad	28	3	26	33	7	30		15	142
7	Thrissur	2		11	74	9	10	6	23	135
8	Eranakulam	5		16	60	22	14	17	44	178
9	Idukki	84	24	438	9	9	46		138	748
10	Kottayam	22	2	88	14	37	34	5	73	275
11	Alappuzha			3	14	4	8	3	28	60
12	Pathanamthitta	1		6	22	39	18		151	237
13	Kollam			436	10	35	11	1	273	766
14	Thiruvananthapuram			45	10	16	23	1	23	118
State		500	32	1342	474	265	462	72	967	4114

Table 32

MINOR IRRIGATION SCHEMES NOT STARTED FUNCTIONING ACCORDING TO PROJECT CLASS

Sl. No	Project Class	Not Completed	Not Started	Damaged	Scarcity of water	Change of Agricultural method	Paucity of Electricity	Others	Total
1	Class I	26	1	2	7		8	37	81
2	Class II	331	78	27	192	11	70	1061	1770
3	IPD Ala	49	9	4	9	4	6	130	211
4	Lift Irrigation	222	27	14	11	7	87	106	474
5	Community Irrigation	215	17	8	6	7	58	54	365
6	Salt water water exclusion	25	11	2	2		3	29	72
7	Others	223	48	18	60	14	9	769	1141
State		1091	191	75	287	43	241	2186	4114

Table 33

MINOR IRRIGATION SCHEMES NOT STARTED FUNCTIONING ACCORDING TO PROJECT TYPE

Sl. No	Project Type	Not Completed	Not Started	Damaged	Scarcity of water	Change of Agricultural method	Paucity of Electricity	Others	Total
1	Well	190	17	9	33	1	53	197	500
2	Tube Well	5	5		9		2	11	32
3	Pond	272	35	12	123	17	64	819	1342
4	Lift Irrigation	222	27	14	11	7	87	107	475
5	Side Wall	93	25	4	16	3	2	122	265
6	Minor Dam	150	33	26	32	9	4	208	462
7	Salt water Exclusion	25	11	2	2		3	29	72
8	Other	134	38	8	61	6	26	693	966
State		1091	191	75	287	43	241	2186	4114

Table 34

MINOR IRRIGATION SCHEMES ACCORDING TO REASON OF NOT WORKING NOW

Sl. No	District	Damaged	Scarcity of water	Change of Agricultural method	Paucity of Electricity	Others	Total
1	Kasaragod	93	33	14	1	37	178
2	Kannur	308	31	22	3	53	417
3	Wayanad	111	32	8	8	47	206
4	Kozhikkode	119	23	9	3	44	198
5	Malappuram	158	31	18	1	16	224
6	Palakkad	136	29	2	1	4	172
7	Thrissur	16	13	1	2		32
8	Eranakulam	108	28	99	1	37	273
9	Idukki	60	37	4	3	14	118
10	Kottayam	78	24	62		95	259
11	Alappuzha	33	3	55		14	105
12	Pathanamthitta	144	80	56		61	341
13	Kollam	135	8	58	2	43	246
14	Thiruvananthapuram	214	49	179	1	57	500
State		1713	421	587	26	522	3269

Table 35

MINOR IRRIGATION SCHEMES NOT WORKING NOW ACCORDING TO PROJECT CLASS

Sl. No	District	Class I	Class II	IPD Yelah	Lift Irrigation	Community Irrigation	Salt water Exclusion	Others	Total
1	Kasaragod	2	97	14	5	13	16	31	178
2	Kannur	10	141	12	28	24	76	126	417
3	Wayanad	8	153	6	17	2		20	206
4	Kozhikkode	12	25	3	15	31	28	84	198
5	Malappuram	5	148	11	7	13	20	20	224
6	Palakkad		64	2	12	12		82	172
7	Thrissur		9	1	7		2	13	32
8	Eranakulam	3	147	23	15	11	16	58	273
9	Idukki		99	2	10	2		5	118
10	Kottayam	28	80	5	2	8	37	99	259
11	Alappuzha	2	38	2	5	9	12	37	105
12	Pathanamthitta	8	81	100	34	15		103	341
13	Kollam	2	87	67	13	6	10	61	246
14	Thiruvananthapuram	11	226	145	16	11	2	89	500
State		91	1395	393	186	157	219	828	3269

Table 36

MINOR IRRIGATION SCHEMES NOT WORKING NOW ACCORDING TO PROJECT TYPE

Sl. No	District	Well	Tube Well	Pond	Lift Irrigation	Side Protection Wall	Minor Dam	Salt Water Exclusion	Others	Total
1	Kasaragod	3	9	35	5	3	86	16	21	178
2	Kannur	1		48	28	32	191	76	41	417
3	Wayanad	17		59	17	6	94		13	206
4	Kozhikkode	15		14	15	8	95	28	23	198
5	Malappuram	5	1	39	7	23	101	20	28	224
6	Palakkad			29	12	31	98		2	172
7	Thrissur			4	7	6	8	2	5	32
8	Eranakulam	5		79	15	34	88	16	36	273
9	Idukki	26	1	39	10	10	17		15	118
10	Kottayam	4		19	2	44	101	37	52	259
11	Alappuzha			2	5	16	16	12	54	105
12	Pathanamthitta			29	34	87	62		129	341
13	Kollam	1		60	13	37	72	10	53	246
14	Thiruvananthapuram		1	194	16	142	129	2	16	500
State		77	12	650	186	479	1158	219	488	3269

Table 37

NUMBER OF MINOR IRRIGATION SCHEMES NOT STARTED/INCOMPLETE ACCORDING TO CURRENT STATUS

Sl. No	District	Scarcity of fund	Work stopped by Contractor	Protest of public	Govt abandoned	Scarcity of Water	Others	Total
1	Kasaragod	2	4		10	4	6	26
2	Kannur	37	9	5	4	3	54	112
3	Wayanad	6	17	5	1	2	31	62
4	Kozhikkode	118	42	17	11	8	198	394
5	Malappuram	5	4	4	2	4	15	34
6	Palakkad	11	7		4	6	22	50
7	Thrissur	22	3	2	2		47	76
8	Eranakulam	23	31	4	7	2	30	97
9	Idukki	75	21	10	13	15	56	190
10	Kottayam	57	8	1	1	3	46	116
11	Alappuzha	2	2	1			6	11
12	Pathanamthitta	11	5	2	11	1	15	45
13	Kollam	10	7	1			18	36
14	Thiruvananthapuram	2	1	2	8	3	17	33
	State	381	161	54	74	51	561	1282

Table 38

MINOR IRRIGATION SCHEMES NOT STARTED/INCOMPLETE ACCORDING TO CURRENT STATUS AND PROJECT CLASS

Project Class	Scarcity of fund	Work stopped by Contractor	Protest of public	Government abandoned	Scarcity of Water	Others	Total
Class I	8	4	1			14	27
Class II	145	52	24	28	24	136	409
IPD Yelah	8	13	3	11	2	21	58
Lift Irrigation	72	26	7	9	5	130	249
Community Irrigation	59	26	8	10	7	122	232
Protection from Salt water	9	8		1		18	36
Others	80	32	11	15	13	120	271
State	381	161	54	74	51	561	1282

Table 39

MINOR IRRIGATION SCHEMES NOT STARTED/ INCOMPLETE ACCORDING TO CURRENT STATUS AND PROJECT TYPE

Sl. No	Project Type	Scarcity of fund	Work stopped by Contractor	Protest of public	Govt abandoned	Scarcity of Water	Others	Total
1	Well	64	19	12	6	8	98	207
2	Tube Well	1	2			4	3	10
3	Pond	105	44	10	17	12	119	307
4	.Lift Irrigation	72	26	7	9	5	130	249
5	Side Wall	42	19	8	8	4	37	118
6	Minor Dam	39	21	11	21	11	80	183
7	Salt Water Exclusion	9	8		1		18	36
8	Other	49	22	6	12	7	76	172
State		381	161	54	74	51	561	1282

Table 40**MINOR IRRIGATION SCHEMES NOT STARTED/INCOMPLETE ACCORDING TO CURRENT STATUS AND PROJECT CLASS**

Sl. No	District	Class I	Class II	IPD Yelah	Lift Irrigation	Community Irrigation	Salt water Exclusion	Others	Total
1	Kasaragod		2	13	5	2		4	26
2	Kannur	1	35	1	16	12	10	37	112
3	Wayanad		25	7	13	1		16	62
4	Kozhikkode	5	38	1	78	171	13	88	394
5	Malappuram	1	17	1	3	4	2	6	34
6	Palakkad	2	10	2	16	7		13	50
7	Thrissur	4	3	1	56	1	2	9	76
8	Eranakulam	2	14	10	30	15	8	18	97
9	Idukki	6	164	1	5	1		13	190
10	Kottayam	3	67	1	9	14	1	21	116
11	Alappuzha		1	1	1			8	11
12	Pathanamthitta	1	3	5	7	2		27	45
13	Kollam	2	14	8	5	2		5	36
14	Thiruvananthapuram		16	6	5			6	33
State		27	409	58	249	232	36	271	1282

Table 41

MINOR IRRIGATION SCHEMES NOT STARTED/INCOMPLETE ACCORDING TO CURRENT STATUS AND PROJECT TYPE

Sl. No	District	Well	Tube Well	Pond	Lift Irrigation	Side Protection Wall	Minor Dam	Salt Water Exclusion	Others	Total
1	Kasaragod	1		2	5	1	16		1	26
2	Kannur	3		24	16	18	34	10	7	112
3	Wayanad	12		16	13		16		5	62
4	Kozhikkode	139	1	64	78	25	33	13	41	394
5	Malappuram	3		8	3	5	10	2	3	34
6	Palakkad		3	16	16	2	9		4	50
7	Thrissur	2		1	56	5	3	2	7	76
8	Eranakulam	4		8	30	17	7	8	23	97
9	Idukki	30	6	87	5	5	20		37	190
10	Kottayam	12		63	9	8	10	1	13	116
11	Alappuzha				1	2	3		5	11
12	Pathanamthitta	1		2	7	18	9		8	45
13	Kollam			8	5	6	4		13	36
14	Thiruvananthapuram			8	5	6	9		5	33
	State	207	10	307	249	118	183	36	172	1282