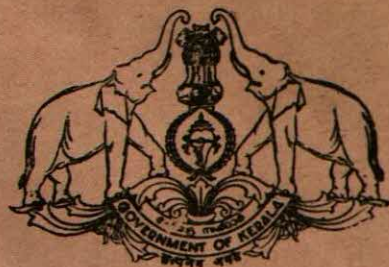


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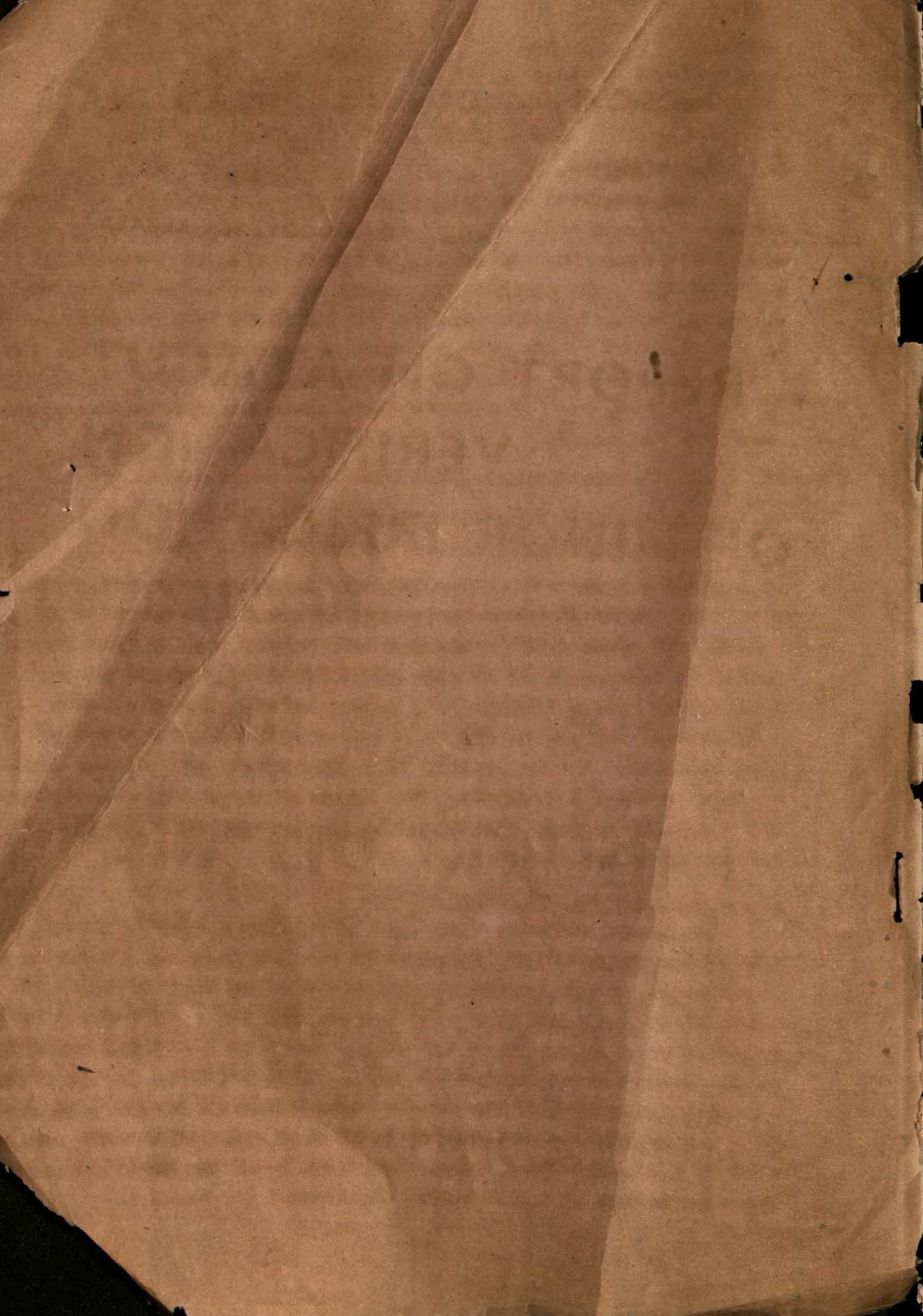


GOVT. OF KERALA

**REPORT ON AYACUT
VERIFICATION
OF MINOR IRRIGATION
PROJECTS
IN
IDUKKI DISTRICT**

DEPARTMENT OF
ECONOMICS & STATISTICS
DECEMBER 1985

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Report on the Evaluation Survey on Minor Irrigation
Projects in Idukki District

I. Introduction:-

The Committee constituted to review the progress of Ayacut verification and collection of accurate data relating to Minor Irrigation Projects. According to its decision the evaluation study of the Minor Irrigation Project has been conducted in Idukki District during 1984-85. Out of the 145 Minor Irrigation Projects in the district 15 projects had been selected for the study. The details such as the period of construction, total area benefitted by the project, cost of construction, cost of yearly maintenance etc. were collected.

Minor Irrigation Projects have been divided into two.

1. Class I projects which costs 2 lakhs and above and
2. Class II project which costs less than 2 lakhs.

Class I Minor Irrigation Projects includes lift irrigation projects. Class II Minor Irrigation projects were executed by P.W.D. But since 1976 Government had decided that the new works should be taken only by peoples participation. But now it is executed by P.W.D. itself. The annual maintenance of class I projects are done by P.W.D. A grant of Rs.500/- per hectare of land benefitted by the project have been sanctioned for the maintenance of class I projects. For class II Minor Irrigation projects the maintenance grant sanctioned by the Government is Rs.25/- per hectare of land benefitted.

II. Sample Design and Methodology:-

In Idukki district there are altogether 2 class I Minor Irrigation projects and 145 class II Minor Irrigation Projects. According to simple random selection one class I project and 14 class II projects had been selected so that the area covered by the selected projects is about 10% of the total area covered according to the Ayacut area reported by P.W.D. Data relating to the projects viz. the origin of the scheme, completion of the project, cost of construction, area benefitted, cost of maintenance are collected by the Junior Statistical Inspector's of the district under the supervision of the District Statistical Officer.

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Class I Minor Irrigation projects include lift irrigation project, class II Minor Irrigation projects have been classified into four.

- a) category - (1) Chira/Kulam/tank etc.
 b) category - (2) Thodu, Deepening of canal etc.
 c) category - (3) Cross bar
 and d) category - (4) Others

The details of selection of the Minor Irrigation projects are furnished below:-

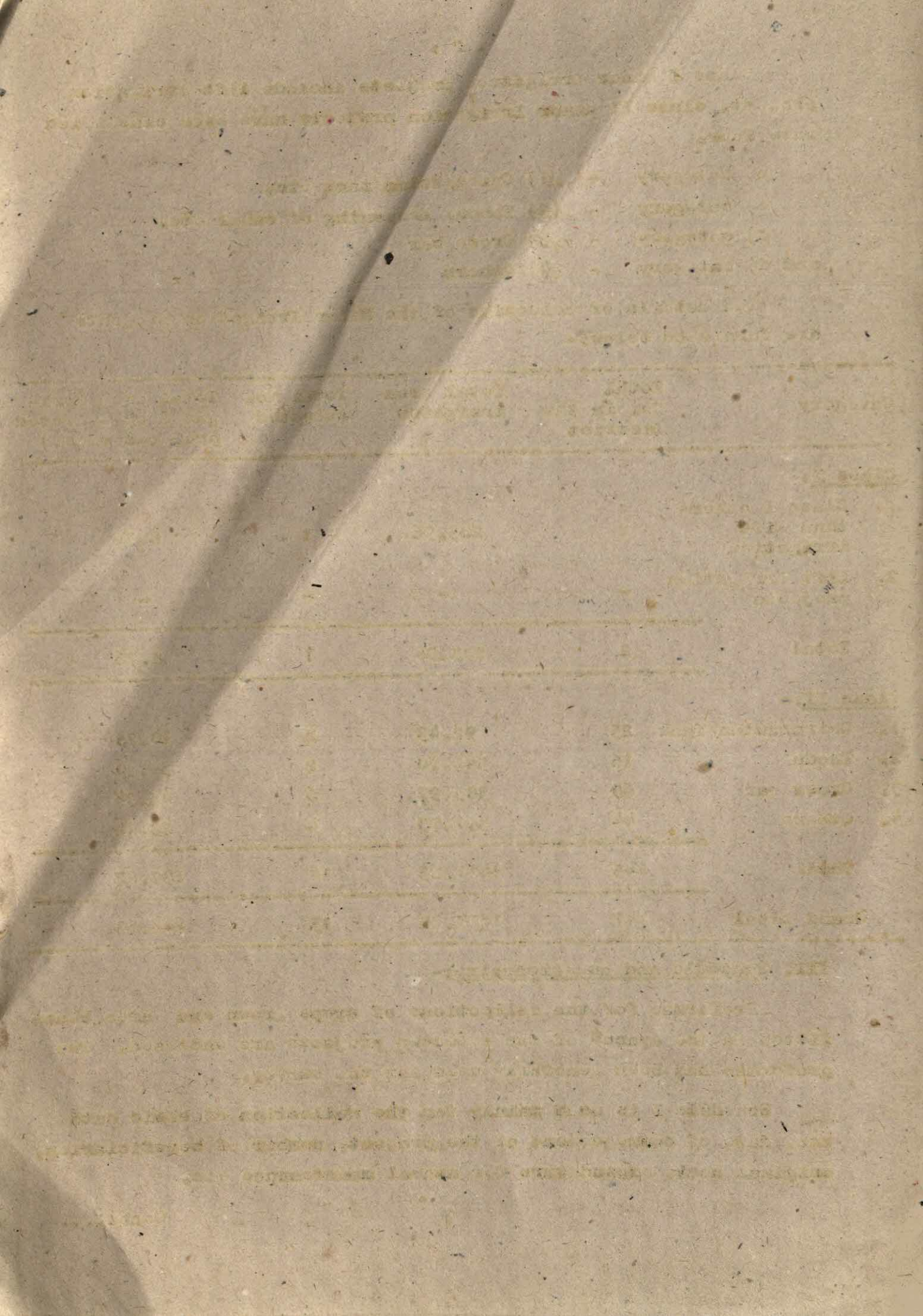
Category	Total No. in the District	Total area irrigated	Total No. selected	Total area irrigated by selected projects (Hts.)
Class I:-				
1. Class I other than lift irrigation	2	205.96	1	8.76
2. Lift irrigation projects	-	-	-	-
Total	2	205.96	1	8.76
Class II:-				
1. Chira/Kulam/Tank	25	92.43	2	10.25
2. Thodu	16	541.70	2	58.50
3. Cross bar	60	385.97	6	45.94
4. Others	44	391.73	4	23.18
Total	145	1411.83	14	137.87
Grand total	147	1617.79	15	146.63

III. Schedule and questionnaire:-

Proformae for the collections of crops grown and area benefitted in the Ayacut of the selected projects are enclosed. Two proformae had been generally used for the survey.

Schedule I is used mainly for the collection of basic data viz. date of commencement of the project, number of beneficiaries, original cost, expenditure for annual maintenance etc.

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Schedule II is meant for the collection of area irrigated from each survey numbers falling in the Ayacut region of each project. Irrigation particulars are collected crop-wise and Season-wise for the agricultural year 1983-84. The data collected by the field staff under the supervision of the District Officers and are compiled at the headquarters under the supervision of the Assistant Director.

IV. Results of the survey:-

Details collected from the selected Minor Irrigation Projects are analysed separately for different categories of Minor Irrigation projects.

- 1) a) Class I - projects other than lift irrigation projects.
b) Class I - Lift irrigation projects.
- 2) Class II Minor Irrigation Project.
 - a) Category 1) Chira/Kulam/tank
 - b) Category 2) Thodu
 - c) Category 3) Cross bar
 - d) Category 4) Others

Class I Minor Irrigation Projects other than lift irrigation projects

Class I Minor Irrigation Project other than lift irrigation project in Idukki District selected for the survey is Irrigation use of Suranganagar Waters by Kerala ryots in Vandanned Panchayat in Udumbanchola taluk. Total area under Ayacut verification of this project is 8.76 hectares and it was found about 6.60 hectares of land are benefitted by way of irrigation. This is about 75% of the total area under crops. Out of this above 80% is under paddy and the remaining portion is covered by Annual and perennial crops.

2) Class II Minor Irrigation projects:-

Out of 145 class II Minor Irrigation Projects 14 projects have been selected at simple random for the conduct of the survey. The number of different category of class II Minor Irrigation projects selected are as follows:-

1. Chira/Kulam/tank	:	2 Nos.
2. Thodu	:	2 "
3. Cross bar	:	6 "
4. Others	:	4 "

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Total area benefitted by the above class II Minor Irrigation projects selected from the survey is only 137.87 hectares. The details are as given below:-

Category	Total No. in the District (P.W.D.)	Total area irrigated in the Dist. (Hts.) (P.W.D.)	Total No. selected for study	Area under the selected projects (Hts.)	Actual Area irrigated (Hts.)
1. Chira/Kulam/tank	23	92.43	2	10.23	1.19
2. Thodu	16	541.70	2	58.50	40.39
3. Cross bar	60	385.97	6	45.94	33.63
4. Others	44	391.73	4	23.18	16.94
Total	145	1411.83	14	137.87	92.15

Total area benefitted by class II Minor Irrigation projects are appended in table II. Out of 92.43 hecets. of land covered by the project under category (1) only 10.73 hecets. are benefitted. This comes to only 12% of the original area. Category (2) is benefitted to 448.08 hecets. of land. This is about 83% of 541.70 hecets. of the land covered by this category of class II Minor Irrigation Projects. Category (3) cross bar are benefitted to 73% of the total area 385.97 hecets. of land covered this category. This is 282.55 hecets. Category (4) comes on area of 391.73 hecets. but only 286.29 hecets. ie. only 73% of the total area is benefitted by way of irrigation and flood protection. Altogether 1027.64 hecets of land out of 1411.83 total area is covered by the class II project. This is about 73%.

Table III (appended) give crop wise for paddy and annual and perennial crops. The table given below gives an overall idea of it.

Type of work	Paddy			Annual and Perennial crops
	Autumn	Winter	Summer	
1. Category (1) Chira/Kulam/Tank	1%	-	-	2%
2. Category (2) Thodu	-	28%	97%	94%
3. Category (3) Cross bar	53%	36%	3%	1%
4. Category (4) Others	46%	36%	-	3%
Total	100%	100%	100%	100%

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Table IV give the breakup of the area irrigated under paddy. Area irrigated category wise is also furnished.

Table V gives crop wise area irrigated. This shows that total net area irrigated in this district comes to 1031.71 hecets. and this is only 73.08% of the total Ayacut area according to P.W.D. records. Out of the total irrigated area only 75.57% is the area irrigated under paddy.

V. Maintenance of Minor Irrigation Projects:

For the annual maintenance of class I Minor Irrigation projects government sanction is a grant of Rs.500/- per hectare of the irrigated area, and for class II Projects Rs.25/- per hectare of the irrigated area is provided for the purpose. But it is found that only 4 projects have been brought under maintenance work. During 1980-81 only Rs.3800/- had been spent for this purpose. During 1981-82 and 1982-83 an amount of Rs.3000/- and Rs.700/- respectively have been spend for maintenance.

VI. Summary and conclusion:-

The results of the survey covering one class I Minor Irrigation project and 14 class II Minor Irrigation projects have revealed that only 73% of the Ayacut area according to P.W.D. records had been benefitted by the class II projects and 75% by class I projects. Out of this category (1) class II project was beneficial to 12% of the Ayacut area category (2) was beneficial to 83% and class (3) and class (4) Minor Irrigation ne beneficial to 73% each. This can be made more effective by giving more attention for the uptodate maintenance of the projects. Eventhough, they had been started some years ago, no attention was given for proper maintenance.

Following suggestions are made to make the yearly maintenance more effective.

- 1) The rate of grant sanctioned for class I Minor Irrigation Projects at the rate of Rs.500/- per hectare of the beneficial area and Rs.25/- per hectare of the beneficial area of class II projects should be enhanced.
- 2) Annual maintenance should be done under the supervision of a committee constituted by Government official and representatives of the local beneficiaries.

Improvement of Irrigation Statistics - Aypant Verification Survey - Iquitos District

Table - I

Category	Total No. in the District (F.V.D.)	Total area irrigated in the District (F.V.D.)	Total No. in each category selected for the survey	Total area irrigated by the selected category	Irrigated area as estimated from the survey
H.I. Class I	2	205.96	1	8.76	6.60
H.I.	-	-	-	-	-
Total Class I	2	205.96	1	8.76	6.60
Chiro, Yulian,					
Peru	25	92.43	2	10.25	1.19
Phavin	16	541.70	2	58.50	40.39
Gross Dec	60	385.97	6	45.94	33.63
Others	44	391.73	4	23.18	16.94
Total Class-II	145	1411.83	14	137.87	92.15

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Table - II

Net area irrigated by M.I. (Class II) works in Mukki District (Area in hect.)

Category of works	Total No. in the district (P.M.D.)	Total No. selected for the survey	Total area of irrigated according to P.M.D.	Total area irrigated (including P.F.) as estimated from the survey (Net)	Percentage of Col. 4 to Col. 4
Ohire, Melam Tanks etc.	25	2	92.43	10.73	12%
Thoda	16	2	541.70	448.08	83%
Cross bar thers	60	6	385.97	282.55	73%
	44	4	391.73	286.28	73%
Total	145	14	1411.83	1027.64	73%

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Table III

Gross area irrigated - crop rise as obtained from the survey - Tuluji district.
(Area in hect.)

TYPE OF CROP	WINTER			INDR			Summer			Annual & Perennial crops			
	1	2	3	4	5	6	7	8	9	10	11	12	13
1. MILK, MILK PHEE (INDR)		7.13 (1%)	-	36.05	-	-	-	-	-	-	3.61 (2%)	-	4.15
2. PHEE (INDR)		-	-	-	217.61 (28%)	-	-	22.41 (9%)	-	2.87	234.93 (94%)	-	-
3. Gross for (INDR)		976.76 (57%)	-	14.36	272.83 (36%)	-	9.16	2.69 (3%)	-	-	3.02 (1%)	-	91.06
4. Others (INDR)		105.22 (4%)	133.85	-	153.11 (36%)	125.40	-	-	-	-	7.77 (3%)	-	57.80
TOTAL		700.72	133.85	50.41	643.55	125.40	9.16	25.10	-	2.87	249.33	-	153.01

TABLE - IV

SEASONWISE GROUND AREA IRRIGATED - PADDY
(Area in hect.)

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Season	Chira/Talam Tank		Thodu		Cross bar		Others	
	I	F.P	I	F.P	I	F.P	I	F.P
1	2	3	4	5	6	7	8	9
Autumn	7.13	-	-	-	276.78	-	106.81	133.85
Winter	-	-	217.61	-	272.83	-	153.11	125.40
Summer	-	-	8.41	-	2.69	-	-	-

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Idheri District District - Table V.

NET AREA IRRIGATED - GRAY VINE AS OBTAINED FROM THE SURVEY (Area in Hect.)

Type of crop	Paddy			Tapioca & other seasonal crops			Annual crops			Perennial crops		
	I	U.I	F.P	I	U.I	F.P	I	U.I	F.P	I	U.I	F.P
1. Chiro, Khar Pank	7.12	36.05	-	-	-	-	-	-	-	2.61	4.15	-
2. Thaha	217.61	2.87	-	4.44	-	-	223.91	-	-	6.57	-	-
3. Gross bar	276.78	14.36	-	2.69	10.00	-	0.34	21.50	-	2.69	49.55	-
4. Others	453.11	-	125.06	1.70	57.80	-	-	-	-	5.07	-	-
Total	694.63	53.28	125.06	9.83	67.80	-	224.25	31.50	-	17.94	53.71	-

Net area irrigated - 1031.71

% Net area irrigated to total area = 73.08

Paddy area irrigated as % to total area irrigated - 75.57.

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Table - VI

Number of Class II - Minor Irrigation Works incurred maintenance expenditure during the last 5 years

Year	Canal, Tank, Pond	Union	Thodu	Gross bar	Others	Class I	L.I			
1	2	3	4	5	6	7	8	9	10	11
	No.	Expenditure (Rs.)	No.	Expenditure (Rs.)	No.	Expenditure (Rs.)	No.	Expenditure (Rs.)		
1979-80	-	-	-	-	-	-	-	-	-	-
1980-81	-	-	1	1700	-	-	1	2100	-	-
1981-82	-	-	1	-	1	3000	-	-	-	-
1982-83	-	-	-	-	1	700	-	-	-	-
Total	-	-	1	1700	2	3700	1	2100	-	-

Total No. of works (4)

Total expenditure 7500/-

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