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LAND USE
IN
MAYYANAD PANCHAYAT

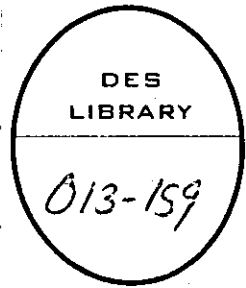
**** A PILOT STUDY ****

1995

DEPARTMENT OF ECONOMICS AND STATISTICS
THIRUVANTHAPURAM



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LAND USE IN MAYYANAD PANCHAYAT

I. Background of the survey

The seventy third and seventy fourth Constitutional Amendments relating to local self Governments have far reaching implications in terms of the administrative set up and developmental activities. To ensure effective formulation and implementation of development programmes at panchayat and municipality levels, there is need to build up reliable database regarding the physical and human resources in each panchayat or municipality, their limitations and the socio-economic condition of the people. An analysis of the available data at local self Government level, reveals that most of the basic data relating to the non agricultural sectors are either available or can be collected without much difficulty. For the agricultural sector even though block level data are generated under the revised design of the scheme for the establishment of an agency for reporting Agricultural Statistics (EARAS), they cannot be assured of the desired precision in the case of minor crops due to the small sample size. The present sample design was adopted for implementing the Crop Insurance Scheme, but the agencies involved in the scheme are now pressing for panchayat-wise yield data for the effective implementation of the Crop Insurance Scheme to the benefit of the farmers.

It is in this context that a workshop was organised by the State Planning Board in May 1993 to discuss the possibilities of generating panchayat level agricultural statistics. The workshop was attended by former Directors of Economics and Statistics Department, representatives of other departments like Agriculture, Forests, Panchayat, Survey and Land Records, Centre for Earth Science Studies, Land Use Board etc. The General consensus of the workshop was to conduct a complete enumeration of all agricultural holdings in the state for one year and the sampling method to be followed for estimation of area and production for the succeeding years. Meanwhile the subject committee VIII (Economic Affairs) of the Kerala Legislature also recommended to generate panchayat-wise agricultural statistics in co-operation with the staff of the Agricultural Department.

In order to work out the methodology, mandays and time required and to ascertain the practical difficulties involved in complete enumeration of all agricultural holdings, it was decided to conduct a pilot survey in one panchayat. It was at this time that the Association of Voluntary Agencies for Rural Development (AVARD) expressed their willingness to take up a complete enumeration of all agricultural holdings in Mayyanad panchayat of Kollam district along with their socio-economic survey in the panchayat. Accordingly the State Planning Board accorded sanction to the AVARD to carry out a complete enumeration of all agricultural holdings in Mayyanad panchayat.

II. Location of the panchayat

Mayyanadu panchayat is one of the five panchayat of Mukhathala Development Block in Kollam Taluk in Kollam District. It is located on the south western part of the district on the western part of NH 47. The head quarters of the panchayat is Mayyanadu about 10 kms. south of Kollam town and it is mainly a lowland region on the coastal belt. The Thiruvananthapuram-Kollam Railway line and the National Highway 47 are passing through this panchayat. This panchayat consists of Mayyanadu revenue village in full and small portions of Eravipuram and Thazhuthala villages. The total area of the panchayat as given in the census report is 1757 ha.

III. Demographic Features

The population of the panchayat according to 1991 census was 41011. The density of population in the panchayat (2334/sq.km) is very high compared to the density of population in Kollam District(967/sq.km) and the state (749/sq.km). But in literacy the panchayat with 80.67% is behind the district (90.47%) and state (89.81%).

The work participation rate in the panchayat is 27.86% as against 32.10% and 31.44% respectively for the district and the state.

Percentage Distribution of Workers

Category	Mayyanadu Panchayat	Kollam District	State
Main workers	24.80	27.95	28.53
Marginal workers	3.06	4.15	2.91
Work participation rate %	27.86	32.10	31.44

As regards employment in the Agricultural sector, only about 25% of the main workers of the panchayat are either cultivators or agricultural labourers while the corresponding percentage for Kollam District and the State stood at 39% and 38% respectively. This may be partially due to the predominance of coconut cultivation which is less labour intensive compared to seasonal crops. Another important feature of the working population in the panchayat is that over 22% of the main workers are in the Service Sector as against around 15% both in the District and State.

IV. Organisation of the survey

The enumerators selected by the AVARD from among the unemployed youths preferably graduates residing within the Mayyanadu panchayat were entrusted with the collection of data relating to land utilisation and area under crops through complete enumeration of all plots in the panchayat. The investigators appointed on daily wages were given training in data collection before deploying them for enumeration. Each enumerator was assigned a definite area and was instructed to visit all survey numbers in that area with the help of lithomaps and Field measurement Books. The overall supervision of the survey was carried out by the Deputy Director (E&S), Kollam assisted by the District Officer and other District Level Officers. Sri.K.Devadas and Sri.A.Neelakantan,U.D.Investigators of the Taluk Statistical Office were also associated with the survey work. The staff of the department received whole hearted support from the President and Executive Officer of the Panchayat and also the members of AVARD, in the conduct of survey. The reference period of the survey was 1993 calendar year.

V. Tabulation of Data.

Tabulation of data was done at the computer centre of the Economics and Statistics Department.

VI. Limitations of the Survey

1. The area of the panchayat given in this report may not agree with the area figures given in the Census report, as the source of the data are different.
2. Due to lack of experience on the part of enumerators the period of field work had to be extended.
3. Resurvey records were available for a part of the panchayat only.

4. The extracts of the resurvey records were obtained at a high cost.

VII. Main Findings

Land Utilisation Pattern

Table II shows the ward-wise utilisation pattern of land in Mayyanadu panchayat. Of the total geographical area of 1672 ha. building and courtyard occupies 11.09% and other non agricultural uses 7.15%. Cultivable waste, current fallow and other fallow altogether constitute only 5.68%. The net area under cultivation accounts for 74.58% compared to 56.83% in Kollam District. The above difference is due to the presence of considerable forest area (about one-third of the geographical area) in the district.

The important crops in the panchayat are coconut, paddy, tapioca, jack and mango. Coconut accounts for nearly 61% (1134 ha.) of the gross cropped area and the share of paddy is only 9.5% (176 ha.). Gross area under paddy is distributed almost equally between Autumn and Winter seasons. Though as per revenue records there is about 276 ha. of wet land in the panchayat the maximum area under paddy in a season during the period of survey was only 88 ha. during winter 1993. Ward 12 accounts for about one-third of the total paddy area followed by wards 8, 7, 11 and 5 respectively. Coconut, the main crop in the panchayat is cultivated in all wards and the area under this crop is distributed evenly in all wards in proportion to the geographical area of each ward. The panchayat being in the coastal belt is having a high intensity of coconut trees per ha. (233/ha.) compared to the accepted norms of 213/ha. in Kollam District. Crops other than coconut and paddy are distributed in all wards and are treated only as minor crops in the area.

Cropping Intensity

The gross cropped area as depicted by table IV comes to 1860 ha. The ratio between net area under cultivation and gross cropped area reckons to be approximately 2:3 and the percentage of gross cropped area to Geographical area of the panchayat is worked as 111.

Table IV represents ward-wise intensity of crops. The cropping intensity in the panchayat as a whole is worked out to be 149% as against 153% for the district. As revealed by the table, the intensity of crop is highest (186) in ward 8 and lowest (117) in ward 2.

Table - I
DEMOGRAPHIC PARTICULARS OF MAYYANAD PANCHAYAT
(As per 1991 Census)

1.	Area	No	1757	10. Main Workers	No	%
2.	Occupied Residential Houses	Nos	7759	Total	10170	24.80
				Male	7791	38.35
3.	Households	No	7777	Female	2739	11.49
4.	Population	Total	41011	11. Marginal Workers		
		Males	20314	Total	1255	3.06
		Females	20697	Male	765	3.77
5.	Population in the Age Group	0 - 6	5118	Female	490	2.37
6.	Scheduled Caste	Nos	4799	12. Work Participa- tion Rate		
7.	Scheduled Tribes	Nos	4	Total		27.86
8.	Literates	Total	33083	Male		42.12
		Males	16254	Female		13.86
		Females	16229			
9.	Literacy	Total	Percentage	80.67		
		Males	-do-	82.97		
		Females	-do-	78.41		
13. Percentage Distribution of Workers						
			Mayyanad Panchayat	Kollam District	State Total	
	Main Workers		24.80	27.95	28.53	
	Marginal Workers		3.06	4.15	2.91	
	Work Participation rate		27.86	32.10	31.44	

Table - II
DISTRIBUTION OF MAIN WORKERS
(As per 1991 Census)

Sl No	Distribution	Number	Percentage		
			Mayyanad Panchayat	Kollam District	State
1.	Cultivators	789	7.75	16.10	12.24
2.	Agricultural labours	1771	17.41	22.94	25.55
3.	Live Stock, Fishing, Forestry, Hunting, Plantations, Orchards and Other Activities	725	7.12	7.23	9.24
4.	Mining and Quarrying	25	0.25	0.61	0.99
5(a).	Manufacturing, Processing, Servicing and Repairs in household industry	145	1.43	1.85	2.58
5(b).	Manufacturing, Processing, Servicing and Repairs in other than household industries	1822	17.92	17.07	11.59
6.	Construction	471	4.63	3.15	4.00
7.	Trade and Commerce	1432	14.00	11.44	12.64
8.	Transport Storage and Communication	747	7.35	4.92	5.99
9.	Other Services	2243	22.05	14.69	15.18
	Total Main Workers	10170	100.00	100.00	100.00

TABLE - III
Land Utilisation

Sl.No.	Classification of land	Area (ha)		Percentage	
		Kollam Dst	Mayyanad pan	Kollam Dst	Mayyanad pan
1.	Total Geographical Area	251938	1672	100.00	100.00
2.	Forest	81438	---	32.34	---
3.	Land out to non-agricultural uses	23882	385	9.48	18.24
4.	Barren Uncultivable Land	550	2	0.22	0.12
5.	Permenant pastures and grazing land	18	1	0.01	0.06
6.	Land under miscellaneous (tree crops)	180	22	0.07	1.32
7.	Cultivable waste	584	9	0.23	0.54
8.	Fallow other than current fallow	656	28	0.26	1.67
9.	Current fallow	1414	58	0.56	3.47
10.	Net area sown	143116	1247	56.83	74.58
11.	Total cropped area	218826	1860	---	---

TABLE - IV
Area under Crops

Sl.No.	Crops	Area(ha)	% to total cropped area
1.	Paddy	176.39	9.48
2.	Tapioca	127.92	6.98
3.	Banana	35.46	1.91
4.	Coconut	1133.98	60.96
5.	Arecanut	15.99	0.86
6.	Cashew	40.04	2.15
7.	Pepper	53.03	2.85
8.	Jack	82.26	4.42
9.	Mango	75.88	4.04
10.	Tamarind	9.75	0.52
11.	Drumstick	20.02	1.08
12.	Tubers	17.33	0.93
13.	Other crops	72.85	3.92
	Total Cropped area	1860.10	100.00

Table - V
LAND UTILISATION - Ward Wise

Ward	B & CY	DNAU	B & UCL	OTREE	BLAND	CWASTE	CFALL	OFALL	TCLAND	TOTAL
1	23.17	6.54	0.04	1.15	0.02	1.05	6.62	3.85	125.00	169.45
2	15.25	7.96	0.00	0.71	0.00	0.00	0.32	2.14	67.01	93.39
3	6.35	5.77	0.62	2.41	0.02	0.25	3.05	1.21	82.38	106.15
4	10.59	4.35	0.05	0.79	0.00	0.00	0.00	1.67	84.64	102.06
5	9.13	4.54	0.05	2.94	0.05	4.94	0.29	0.33	116.60	138.89
6	7.03	6.11	0.16	1.15	0.00	0.04	0.23	0.58	52.01	69.11
7	16.64	9.32	0.00	1.24	0.00	0.00	1.29	0.00	124.30	152.79
8	17.11	10.85	0.42	2.70	0.18	0.20	7.38	4.33	82.25	125.42
9	19.02	18.21	0.59	2.42	0.19	1.21	11.89	3.42	157.06	214.01
10	16.99	17.47	0.09	1.42	0.00	0.19	1.95	4.70	77.39	120.20
11	16.96	6.27	0.00	3.39	0.04	1.02	8.79	1.84	80.89	121.28
12	10.89	11.44	0.11	0.01	0.00	0.00	7.31	4.23	115.42	149.41
13	14.26	8.63	0.00	1.51	0.00	0.19	4.48	0.11	81.69	111.07
Total	185.39	119.66	2.25	21.84	0.51	9.13	57.60	28.41	1247.44	1672.23

B & CY - Building and courtyard

DNAU - Other Non-Agricultural use

B & UCL - Barren & Uncultivable Land

OTREE - Miscellaneous tree crops

BLAND - Permanent pastures and other grazing land

CWASTE - Cultivable waste

CFALL - Current fallow

OFALLOW - Other Fallow

TCLAND - Total Cultivable Land

Table - VI
Ward Wise - Area under crops

Ward	Paddy			Tapioca			Banana			Coconut			Arecanut		
	Autumn	Winter	Summer	Total	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(11)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1	2.66	3.92	0.00	6.58	1.16	2.47	81.83	36.56	118.39	0.61	0.23	0.84			
2	0.00	0.00	0.00	0.00	0.51	1.56	46.28	19.39	65.67	0.48	0.12	0.6			
3	0.01	0.00	0.00	0.01	6.08	2.01	59.01	21.72	80.73	1.01	0.51	1.52			
4	0.00	0.00	0.00	0.00	0.57	1.13	57.36	25.59	82.95	1.04	0.5	1.54			
5	9.28	9.00	0.06	18.34	3.45	3.55	76.00	36.34	112.34	1.39	0.69	2.08			
6	2.31	2.24	0.00	4.55	6.96	1.65	37.53	11.84	49.37	0.98	0.37	1.35			
7	14.71	14.84	0.35	29.90	7.65	3.97	79.60	27.55	107.15	1.42	0.41	1.83			
8	17.84	17.91	0.09	35.84	16.07	2.44	43.67	19.48	63.15	0.54	0.34	0.88			
9	0.01	0.09	0.00	0.10	36.19	6.58	106.17	42.77	148.94	0.69	0.15	1.13			
10	1.15	1.15	0.00	2.30	18.90	1.59	55.41	17.09	72.50	0.15	0.09	0.23			
11	11.35	9.03	0.21	20.59	16.37	2.87	44.97	23.20	68.17	0.85	0.63	1.48			
12	28.65	28.65	0.00	57.30	6.77	3.20	58.35	26.61	84.96	1.01	0.34	1.35			
13	0.50	0.38	0.00	0.88	7.24	2.44	53.39	26.27	79.66	0.57	0.39	0.96			
Total	88.47	87.21	0.71	176.39	127.92	35.46	799.57	330.41	1133.98	10.73	5.26	15.99			

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Table - VI
Ward Wise - Area under crops

Ward	Cashew		Pepper		Jack	Mango	Tamarind	Drumstick	Tubers	Other crops	Total cropped area		
	Bearing	Young	Total	Bearing								Young	Total
(1)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
1	0.74	1.4	2.14	0.41	0.45	0.86	4.66	6.33	0.38	2.46	1.15	4.31	151.73
2	1.00	0.07	1.07	0.41	0.08	0.49	2.68	3.20	0.23	1.09	0.13	1.28	78.60
3	1.95	1.16	3.11	1.93	1.51	3.44	4.40	4.43	0.35	1.27	0.53	5.95	113.83
4	1.26	0.42	1.68	0.77	0.14	0.91	4.78	3.81	0.53	0.93	0.05	2.57	101.45
5	1.51	1.11	2.62	1.85	1.51	3.36	4.18	5.72	0.67	1.35	1.62	1.65	161.13
6	1.65	0.54	2.19	1.59	1.12	2.71	4.46	3.95	0.85	0.83	0.43	2.55	91.75
7	3.70	0.97	4.67	5.63	0.95	6.58	7.36	7.53	1.43	1.54	0.51	0.23	188.35
8	1.90	1.37	3.27	4.39	1.61	6.00	8.27	7.90	0.90	1.78	3.14	3.53	153.17
9	3.50	3.3	6.8	11.52	3.75	15.27	9.06	10.78	1.07	3.39	4.90	21.20	265.41
10	1.81	0.41	2.22	1.55	0.31	1.86	13.46	3.47	0.53	0.77	0.83	4.88	123.54
11	2.25	2.27	4.52	3.97	2.03	6.00	7.25	6.63	0.94	1.76	2.91	5.08	144.57
12	1.86	0.92	2.78	2.87	0.66	3.53	6.89	5.09	1.10	1.03	0.58	6.73	181.31
13	2.03	0.94	2.97	1.14	0.88	2.02	4.81	6.24	0.77	1.83	0.55	4.89	115.26
Total	25.16	14.88	40.04	38.03	15.00	53.03	82.26	75.08	9.75	20.02	17.33	72.85	1860.10

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Wardwise intensity of Crops
(In Numbers)

ward	Gross cropped area	Net area sown	Cropping Intensity	Coconut stand per hectare
1	151.73	125.00	121	242
2	78.60	67.01	117	252
3	113.02	82.38	138	245
4	101.45	84.64	120	203
5	161.13	116.60	138	217
6	81.75	52.81	155	289
7	188.35	124.30	152	250
8	153.17	82.25	186	247
9	265.41	157.06	169	198
10	123.54	77.39	160	198
11	144.57	80.89	179	240
12	161.31	115.42	157	255
13	115.26	81.69	141	245
Total	1860.89	1247.44	149	---

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