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**REPORT
ON
TIMELY REPORTING SURVEY
ON
AGRICULTURAL STATISTICS
IN
KERALA
1979-80**



TIMELY REPORTING SURVEY OF AGRICULTURAL STATISTICS IN KERALA 1979-1980

The fifth round of the EARCS surveys was conducted in the state during the agricultural year 1979-80.

The EARCS was started in the State during 1975-76 as part of a scheme to improve the quality and coverage of agricultural Statistics in the State. The general all India scheme of TRS designed to suit the conditions of the reporting States in India was adopted to the conditions of data collection in the non-reporting States of Kerala, Orissa and West Bengal by establishing an agency for collection of agricultural Statistics (EARCS), under this scheme it is envisaged to enumerate completely all the villages in the State over a period of six years. The details on land use, area under crops, area under irrigation, etc., are collected. In the first year i.e. 1975-76 ten percent of the villages in the States are taken up for the survey. In the succeeding years fifty percent of villages was taken during 1976-77, twenty percent during 1977-78 and 1978-79 each.

During the current year 1979-80 also twenty percent of villages was surveyed.

2. Design of the Survey:

There were 57 taluks in the State. Each of them was taken as a stratum for the purpose of the survey. A revenue village, which is the smallest defined unit of revenue administration in the State was taken as the first and last stage unit of sampling. During the first year of the survey 132 selected villages were taken up for enumeration, during 2nd year 200 villages and during 3rd and 4th years 265 villages each. During the current year also 265 villages were taken up for enumeration. The number of villages selected together with the number of total villages in the state is given below:

TABLE 1

Statement showing the number of selected villages
and total villages in the Districts

<i>Sl. No.</i>	<i>Name of District</i>	<i>No. of selected villages enumerated</i>	<i>Total No. of villages</i>
1.	Trivandrum	18	94
2.	Quilon	18	99
3.	Alleppey	18	99
4.	Kottayam	15	74
5.	Idukki	9	42
6.	Ernakulam	20	100
7.	Trichur	48	234
8.	Palghat	31	152
9.	Malappuram	25	122
10.	Kozhikode	25	123
11.	Cannanore	38	188
	State	265	1327

3. Scheme of Work:

For the purpose of conducting the field work, each revenue village was divided into a number of investigator units depending upon the number of investigators available the area under dry and wet land and also the number of crop cutting experiments to be conducted in each village. These units were as far as possible equal in extent and in all cases non overlapping with well defined boundaries. The units were formed on the basis of survey numbers in cases where clear demarcated natural or artificial boundaries were not possible.

The area enumeration and crop cutting experiments in each unit were done by the investigator. The area enumeration in the T.C. portion of the State was conducted based on the litho subdivisions marked in village maps. In Malabar area where field measurement books were available, the subdivision in these books were considered for enumeration.

The preliminary work was the preparation of a list of survey subdivision numbers according to basic tax register available in the village offices. The details required for area enumeration were collected by investigators following the above subdivision. In the case of T.C. area the litho maps give only litho subdivision which may comprise more than one subdivision in basic tax register. In these cases the details were collected according to litho subdivisions only.

The investigators visited wet lands three times during the agricultural year to collect data on seasonal and annual crops in the three seasons of Autumn, Winter & Summer. In the last visit data on land use, irrigation & perennial crops were collected. In dry lands two visits were made, corresponding to Khariff & Rabi seasons. During first visit data on seasonal and annual crops were collected and in the second visit data on perennial crops were collected.

Crop cutting experiments were confined to the villages selected for EARCS so as to facilitate the investigators posted in these villages to attend to the work also. During the year under report experiments on the following crops were conducted.

1. Paddy—Autumn, Winter & Summer seasons
2. Tapioca
3. Coconut
4. Arecanut
5. Cashew
6. Pepper
7. Tamarind
8. Pulses
9. Cotton
10. Groundnut

The experiments were planned in all taluks in the case of crops covering substantial area under them; but where the area under a crop did not cover a sizeable area, experiments were not planned.

TABLE 2

District-wise distribution of number of taluks in which experiment were planned crop-wise
1979-80

Districts	No. of Taluks were experiments were planned for each crop											
	Paddy						Minor Crops					
	Autumn	Winter	Summer	Tapioca	Coconut	Areanut	Cashew	Pepper	Tama- rind	Pulses	Cotton nut	
Trivandrum	4	4	4	4	4	4	4	4	4	3	..	..
Quilon	6	6	5	6	6	6	3	5	4	2	..	..
Alleppey	7	7	6	6	7	4	3	3	1	2	..	..
Kottayam	5	5	4	5	5	4	1	5	1	2	..	..
Idukki	4	4	..	4	2	1	1	4	..	2	..	..
Ernakulam	7	7	6	5	7	6	3	5	3	2	..	..
Trichur	5	5	5	4	5	4	4	3	3	4	..	..
Palghat	5	5	5	5	5	2	3	2	5	3	1	1
Malappuram	4	4	4	4	4	3	4	3	4	3	..	..
Kozhikode	4	4	4	4	3	3	3	4	3	2	..	..
Cannanore	6	6	6	6	5	5	6	5	3	5	..	..
State	57	57	49	55	53	42	35	43	31	30	1	1

TABLE 3

Table showing number of experiments planned and analysed in each district under each crop 1979-80

District	Paddy				Tapioca		Coconut		Arecanut			
	Autumn		Winter		A	B	A	B	A	B		
	A	B	A	B								
Trivandrum	114	109	114	114	96	96	126	126	50	50	25	25
Quilon	152	148	152	151	116	67	144	144	60	59	31	31
Alleppey	192	186	192	184	144	136	99	98	45	45	21	21
Kottayam	110	104	110	107	92	51	108	104	40	40	25	25
Idukki	66	42	66	66	..	..	54	54	20	2	10	10
Ernakulam	195	195	180	180	120	116	100	100	40	40	52	52
Trichur	140	134	140	136	126	114	106	104	45	44	50	50
Palghat	150	149	150	148	126	126	90	90	28	28	16	16
Malappuram	114	113	114	113	102	102	128	128	55	55	58	58
Kozhikode	96	84	96	96	100	93	110	110	75	75	40	40
Cannanore	162	149	162	162	170	177*	180	177	60	60	72	72
State	1491	1413	1476	1457	1192	1078	1245	1235	518	516	400	400

* 7 additional experiments conducted in Cannanore District.

A—Planned B—Analysed

TABLE 3—(Contd.)

Table showing number of experiments planned and analysed in each district under each crop 1979-80

District	Cashewnut		Pepper		Tamarind		Pulses		Groundnut		Cotton	
	A	B	A	B	A	B	A	B	A	B	A	B
Trivandrum	21	21	23	23	20	20	15	15	..	..	..	..
Quilon	25	25	30	30	20	20	10	10	..	..	..	..
Alleppey	15	15	20	20	5	5	15	15	..	..	..	..
Kottayam	5	5	35	35	5	5	10	..	..	..	..	..
Idukki	5	5	65	65	..	..	20	20	..	..	..	..
Ernakulam	18	18	27	27	15	15	10	10	..	..	..	..
Trichur	21	21	18	18	25	25	30	28	..	..	..	..
Palghat	41	38	10	10	59	50	25	25	30	30	30	30
Malappuram	75	75	20	20	21	20	20	20	..	..	..	..
Kozhikode	19	19	71	71	15	15	10	..	..	..	..	..
Cannanore	145	145	75	75	15	15	45	30	..	..	..	..
State	390	387	394	394	200	198	210	173	30	30	30	30

TABLE 4

Table showing number of experiments missed in each district crop-wise 1979-80

District	Paddy			Tapioca	Coconut	Areca nut	Cashew	Pepper	Tamarind	Pulses	Groundnut	Cotton
	Autumn	Winter	Summer									
Trivandrum	5	..	..	..	..	..	..	..	..	..	..	..
Quilon	4	1	49	..	1	..	..	..	..	..	..	..
Alleppey	6	8	8	1	..	..	..	..	..	..	..	..
Kottayam	6	3	41	4	..	..	..	..	..	10	..	..
Idukki	24	..	..	..	..	..	..	..	..	..	..	..
Ernakulam	..	..	4	..	..	..	..	..	..	..	..	..
Trichur	6	4	12	2	1	..	..	..	..	2	..	..
Palghat	1	2	..	..	..	..	3	..	1	..	..	..
Malappuram	1	1	..	..	..	..	..	..	1	..	..	..
Kozhikode	12	..	7	..	..	..	..	..	..	10	..	..
Cannanore	13	..	..	3	..	..	..	..	..	15	..	..
State	78	19	121	10	2	..	3	..	2	37	..	..

TABLE 5

Number of experiments missed in each district by reason 1979-80

District	Paddy (Autumn)				Paddy (Winter)				Paddy (Summer)				Tapioca			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Trivandrum	5	..	..	..	..	..	..	..	..	..	..	..	..
Quilon	4	..	..	..	1	..	..	..	49	..	..	..	..
Alleppey	..	5	..	1	..	4	..	4	..	8	..	..	..	1	..	..
Kottayam	6	..	..	..	3	..	..	..	41	..	4	..	..
Idukki	24	..	..	..	..	..	..	..	..	..	..	..	..
Ernakulam	1	..	3	..	..	..	..
Trichur	..	4	..	2	..	4	..	..	..	..	..	12	..	..	..	2
Palghat	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..
Malappuram	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Kozhikode	12	..	..	..	..	..	..	..	7	..	..	..	..
Cannanore	13	..	..	..	..	..	..	..	..	..	..	..	3
State	..	11	..	67	..	11	..	8	..	9	..	112	..	5	..	5

1—Primary Workers absence, leave, etc.

2—Prior harvest by cultivators

3—Rejected at the analysis stage

4—Other reasons.

Table 2 gives the district-wise break up of number of experiments planned crop-wise, the number of experiments actually conducted, analysed, the number of experiments missed and the number of experiments missed by reasons.

The number of crop cutting experiments to be conducted in a taluk for each of the crops is fixed at the State headquarters. The maximum number of experiment in a taluk for paddy was fixed as 30 for each season and 40 per tapioca for an year. The Regional Deputy Directors fixed the number of crop cutting experiments to be conducted in an investigator unit in consultation with the D.S.O. and Statistical Inspector. In fixing the number of experiments due consideration was given to the work load of the investigator and the area under the crop in the unit. Two experiments were to be conducted on a maximum in a village for paddy (each season) and for the tapioca.

Table 6 gives the distribution of investigators according to the number of experiments on paddy conducted by them.

TABLE 6

Distribution of investigators according to the number of experiments (Paddy) conducted by them 1979-80

No. of experiments	Number of Investigators			All
	Autumn	Winter	Summer	
1	279	305	260	844
2	251	288	144	683
3	112	66	49	227
4	29	31	31	161
5 to 8	26	27	43	96
More than 8	3	6	..	9
Total	700	733	527	1960

4. Organisation of the Survey

The Directorate of Economics and Statistics took up the responsibility of organisation of field work, the conduct of area enumeration and crop cutting experiment's analysis, reporting, etc. The pattern of staff both at headquarters and field is given below separately in Table 7.

To ensure quality of data and promptness of report, three Regional Tabulation Centres functioned with headquarters at Quilon, Ernakulam and Calicut. The Regional Tabulation Centre at Quilon had jurisdiction over

Trivandrum, Quilon, Kottayam and Idukki Districts; the Regional Tabulation Centre at Ernakulam had jurisdiction over Alleppey, Ernakulam, Trichur and Palghat districts and the third centre at Kozhikode had the remaining districts of Malappuram, Kozhikode and Cannanore under it.

TABLE 7

Statement showing the staff pattern at headquarters and field staff sanctioned

	<i>Under L.U.S. by State Government</i>	<i>Under EARCS by Government of India</i>	<i>Total</i>
A. Headquarters			
(i) Joint Director	..	1	1
(ii) Assistant Director	1	..	1
(iii) Research Officer	3	..	3
(iv) Research Assistant	4	..	4
(v) Compilers	2	6	8
B. Field staff			
(i) Deputy Director	..	3	3
(ii) Assistant Director	..	3	3
(iii) Regional Officer	..	3	3
(iv) Research Assistant	..	5	5
(v) Statistical Inspectors	51	49	100
(vi) Compilers	9	2	11
(vii) Investigators	159	641	800

The Statistical Inspectors posted at different taluks were primarily responsible for supervision and the timely completion of field work in the taluk. In the case of taluks where the work of field supervision was heavy additional inspectors were posted.

Time schedule:- The time schedule for completing each item of work relating to the survey is given in the instructions and the actual date of completion of these items is given below:

Schedule of completion of various items of work

Item of work	Season			Remarks
	Autumn	Winter	Summer	
(1)	(2)	(3)	(4)	(5)
A. Area enumeration				
(i) Wet land	October 1979	December 1979	May 1980	Only one visit was done due to shortage of staff
(ii) Dry land			June 1980	
B. Crop cutting				
1. Paddy Autumn	November 1979			
Do. Winter	February 1980			
Do. Summer	June 1980			
2. Tapioca	June 1980			
3. Coconut	June 1980			
4. Arecanut	June 1980			
5. Cashew	June 1980			
6. Pepper	February 1980			
7. Tamarind	March 1980			
8. Pulses	June 1980			
9. Groundnut	March 1980			
10. Cotton	March 1980			
C. Sample check in area and yield estimation surveys				
1. Area check in wet land	June 1980			
2. Area check in dry land	June 1980			
3. Supervision of crop cutting experiments on paddy	Autumn Winter Summer	14-11-1979 14-3-1980 30-7-1980		
4. Supervision of crop cutting experiments on Tapioca	June 1980			

Training

Training was given to the primary workers and also the supervisory officers at Taluk and District level. The training classes were organised at the district level for two days. Field training was also given to the field workers.

Period of Survey and reference period

The reference period of the survey was the Agricultural year, 1979-80 (July 1979 to June 1980). The field work of the survey was started in August 1979.

Schedules and instructions

The schedules used in the previous year was followed during this year also.

Supervision

(a) *Departmental Officers.*—Normal supervision were done by Departmental Officers in three tiers at the Taluk level by the Statistical Inspectors, at District level by District Statistical Officers and Additional District Statistical Inspectors and at Regional level by the Officers of the Regional Tabulation Centres. The Joint Director, Additional Director and Director also inspected the field work as often.

(b) *Supervision by the staff of Agriculture Department.*—Eventhough the Agricultural Department was associated with the supervision of field work the quantum of inspection was considerably low.

(c) *Scheme for improvement of crop statistics.*—Under the scheme of improvement of crop statistics the State Directorate of Economics and Statistics and the National Sample Survey Organisation, Government of India undertook this work on a 50:50 basis. Table 8 below gives the details of supervision.

Table showing the number of clusters/experiments supervised by Statistical Inspectors under the Scheme of ICS, the due date of completion and actual date of completion 1979-80

Season	Area enumeration		Due date of completion		Actual date of completion		Crop cutting experiments on paddy		
	No. of clusters for inspection	Inspected	Wet land	Dry land	Wet land	Dry land	No. of expts. allotted	No. of expts.	Date of completion
			date of completion	date of completion	date of completion				
Autumn	520	476	24-10-1979	..	31-10-1979	..	160	150	14-11-1979
Winter	532	464	29-1-1980	..	31-1-1980	..	160	158	14-3-1980
Summer	532	532	30-5-1980	..	30-6-1980	..	120	102	30-7-1980
All	1584	1472	..	30-6-1980	..	30-6-1980	440	410	..
						Tapioca	87	77	30-6-1980

NATURE OF FIELD DIFFICULTIES IN AREA ENUMERATION

I. Area Enumeration:

The State is intensively cropped. There are two types of land; the wet land and the dry land, paddy is the main crop in the wet lands. Usually two crops of paddy are raised in this type of land though occasionally a third crop is also raised according to the availability of water resources. The area enumeration in wet lands does not present much difficulty. However a few problems are present here also.

(i) *The shifting of crops seasons:*

Wet lands are enumerated three times in a year corresponding to three crop seasons namely Autumn, Winter and Summer. The Investigator usually will visit a field for area enumeration only once in a season. During the early period of the crop season it may happen that the crop may not have been sown, but will; if the field is usually sown and harvested in that season as revealed by local enquiry, enter the area under that season, but later due to unforeseen factors, the sowing may be delayed resulting in a shift of the area under the crop to the next season. Similarly, there are long duration and short duration paddy crop which the Investigator may not be able to distinguish. The investigator on visiting the standing crop may be misled into entering a crop under a season, but it may actually fall into the next season due to the long duration of the crop.

(ii) It has been instructed that a rough sketch may be drawn and area under season of visit marked. This is to identify the location of the patch in later visits and see whether the same patch remains uncultivated during the three seasons and in that case to record the area under current fallow. But in practice it has been found that the drawing of a sketch for the purpose is not easy as the investigator may not be able in many cases to find out the exact direction.

(iii) A lot of time is taken to identify the area in cases where conversion of wet land into dry land has taken place. The identification is difficult in cases where many contiguous survey numbers belonging to one cultivator lie in one stretch without any marking like survey stones etc. The problem is made more difficult if conversion has also taken place.

(iv) Where stretches of low lying wet lands where paddy is the only crop grown often get inundated by floods or breaches on bunds, the area enumeration has to be repeated to see whether the crop sown immediately preceding the floods or breach of bunds have survived. If not the cultivators may sow a second time which naturally will be delayed thus extending the harvest and crop season to the next season.

(v) In water logged area where conversion of wet land to dry land has taken place, in isolated patches the identification and measurement of area to record the extent of crops grown is a time consuming process especially when those patches are not easily accessible.

The area enumeration in dry lands poses difficulties. Some of them are discussed below.

(1) *Multiplicity of crops:—*

A garden land in Kerala often grows many crops, both seasonal and perennial. Except in the case of plantation areas, the enumeration of area under various crops take a lot of time. Even in the case of crops, other stray crops both seasonal and perennial are found.

(2) In the Travancore Cochin portion of Kerala, the area under crops, land utilisation etc., are recorded following the liho subdivision which is the identifiable unit. The old survey maps available are often damaged and in certain cases they are not even available. Since the last survey and settlement, arbitrary changes of boundaries have taken place, there by making identification difficult. After identification, if it is felt that the area under a unit is different from that recorded then physical measurement has to be done to record the change. In the Malabar Region, only the village maps are available. The primary worker has therefore to go by the F.M.B. register with the village office. It has been reported that the primary reporter had to make repeated visits to the village offices to get the registers.

(3) There are areas where large areas are marked by minor circuit numbers in the land survey. This is found in the case of former inaccessible areas, but since then cultivated intensely. Since in these cases, the extent under a number will be too large for identification, the area is divided according to the extent of land in the possession of different holders. In this case, all holders have to be contacted and enumeration done according to these holdings. The tallying of the total area according to records and the units of enumeration is often found difficult.

(4) The plots have in many cases a multiplicity of crops both perennial and seasonal. The allocation of area if left to the discretion of the primary worker may lead to serious errors. So the old method of annavari allocation is not followed. Instead the number of palms/standards under perennial crops are actually counted. This takes up too much time of the primary worker.

(5) The number of palms standards are converted into area by using norms of stands/hect. In plots where there are a number of crops grown and the population of trees/standards is intensive, scattered but spread out the converted area may be large/smaller than the physical area. This anomalous situation may lead to further contradiction in the gross and net area irrigated.

II. Crop Cutting:

1. The harvesting date of paddy given by the cultivator is often not firm with the result that the investigator has to make repeated visits to conduct an experiment. In certain localities the farmer himself cannot fix

a firm date as he has to harvest on a convenient date to avoid the over crowding of labourers. Sometimes harvesting is done very early in the morning and in rare cases even at night.

2. In water logged areas, the fixing of pegs to mark the experimental cut is difficult.

3. The labour charges allowed for one experiment on paddy namely Rs. 2 is too inadequate. The cultivators cannot and usually do not provide labourer for harvesting as all labourers with him will be engaged in harvesting of the main field. In Kerala the labour charges are high and the Investigators are finding it difficult to engage separate labour for harvesting with these charges.

4. The Land Reforms Act in Kerala vested with the Kudikidappukar the right of ownership extending up to ten cents. Most of these kudikidappukar are agricultural labourers and they leave early for work so that the harvesting of experimental trees falling in such lands entail repeated visit. Also the nuts are plucked by them in a haphazard way depending upon the necessities. It is often difficult to get correctly the details of the number of nuts plucked, the number plucked as tender, barren and good nuts etc.

III. General:

1. The work load of the primary reporter is very heavy. He has to cover about 2000 hectares, the wet land area has to be enumerated three times and dry land area two times. Besides he has to attend to crop cutting work on paddy, coconut, arecanut, cashew etc. It was found impossible to cover completely the above items of work in any year. The first visit to dry land to enumerate seasonal crop was uniformly the casualty in all the round including the round under report due to this shortage of primary workers.

2. Eventhough utmost vigilance has been exercised in keeping in position the sanctioned strength of primary reporters, rare instances to the contrary occurred due to certain administrative formalities which had to be observed. Any how the incidence of such cases were kept at a minimum.

3. The heavy work load it is feared may adversely effect the quality of data collected. The quality of data collected at the fag end of the round when the balance quantity of work to be completed is disproportionately large leave much to be desired for. In spite of every attempt to keep the inflow of data uniform, lapses had occured in many cases.

4. The absence of printing facilities with the Bureau has caused inconvenience in the conduct of the surveys. The Government Presses or agencies over crowded with many items of urgent work usually is not able to deliver printed materials in time.

8. Estimation Procedure:

The following estimates were prepared from the data collected in area enumeration.

1. Area under different utilisation
2. Source wise area irrigated
3. Area under Crops

The estimates were prepared as follows:

- (a) Land Utilisation and Irrigation

9. Estimation procedure:

The following estimates were prepared from the data collected in area enumeration.

1. area under different utilisation
2. source wise area irrigated
3. area under crops

The estimates were prepared as follows:

- (a) Land utilisation and irrigation

The following notations are used.

N = Number of villages in the stratum (taluk)

n = number of villages selected for area enumeration in the stratum

A = Area of stratum

a = area of selected villages

a_j = area of j th selected village

y_{ij} = area under the i th utilisation in the j th selected village

y_i = estimates of the i th utilisation

$v(y_i)$ = estimate of the variance of y_i

The y_i is given by

$$Y_i = \frac{\sum_{j=1}^n Y_{ij} \times A}{\sum_{j=1}^n a_j} = \frac{A}{a} \times \sum_{j=1}^n Y_{ij}$$

$$V(Y_i) = \frac{N(N-n)}{n(n-1)} \sum_{j=1}^n (Y_{ij} - R_i)^2$$

$$\text{Where } R_i = \frac{\sum_{j=1}^n Y_{ij}}{\sum_{j=1}^n a_j}$$

(b) Area under crops

The area under various crops are estimated as follows:

- N = Number of villages in a stratum (taluk)
 n = number of villages selected for area enumeration
 w = wet land area stratum
 D = dryland area stratum
 w_j = wet land area of j th village
 d_j = Dry land area of j th village
 y_{ij} = Area under the i th crop in the wet land
 x_{ij} = Area under the i th crop in the Dry land
 y_i = estimate of area under i th crop in wet land
 x_i = estimate of area under i th crop in Dry land

$$Y_i = \frac{\sum_{j=1}^n Y_{ij}}{\sum_{j=1}^n w_j} \times W$$

$$X_i = \frac{\sum_{j=1}^n y_{ij}}{\sum_{j=1}^n d_j} \times D$$

$$V(z_i) = V(y_i) + V(x_i)$$

$$= \frac{N(N-n)}{n(n-1)} \left\{ \sum_{j=1}^n (Y_{ij} - R_{i1} W_j)^2 + \sum_{j=1}^n (x_{ij} - R_{i2} d_j)^2 \right\}$$

$$\text{Where } R_{i1} = \frac{\sum_{j=1}^n Y_{ij}}{\sum_{j=1}^n W_j} \quad \text{and}$$

$$R_{i2} = \frac{\sum_{j=1}^n x_{ij}}{\sum_{j=1}^n d_j}$$

(c) The estimate of average yield is obtained as the simple average of the yield obtained from all the experiments in the stratum.

9. Survey Results

(a) *Land Utilisation.*—The estimates of area under various utilisation for each district for the year 1979-80 are given in Table I in the Appendix. Table 9 below shows the utilisation during 1975-76 to 1979-80.

TABLE 9

Land use classification in Kerala 1975-76 to 1979-80 (a) Area in '00 hectares (b) Percentage to total geographical area

Classification		1975-76	1976-77	1977-78	1978-79	1979-80
1. Total Geographical area	(a)	38855	38855	38855	38855	38855
	(b)	100.00	100.00	100.00	100.00	100.00
2. Forests	(a)	10815	10815	10815	10815	10815
	(b)	27.83	27.83	27.83	27.83	27.83
2. Land under non-agricultural use	(a)	2592	2604	2572	2604	2635
	(b)	6.67	6.70	6.62	6.70	6.78
4. Barren and uncultivable land	(a)	785	788	753	746	782
	(b)	2.02	2.03	1.94	1.92	2.01
5. Permanent pastures and grazing land	(a)	199	161	106	63	56
	(b)	0.51	0.41	0.27	0.16	0.14
6. Land under miscellaneous tree crops	(a)	842	727	680	664	655
	(b)	2.17	1.87	1.75	1.71	1.69
7. Cultivable waste land	(a)	1134	1157	1183	1233	1250
	(b)	2.92	2.98	3.04	3.17	3.22
8. Fallow other than current fallow	(a)	230	223	271	266	277
	(b)	0.59	0.57	0.70	0.68	0.71
9. Current fallow	(a)	356	374	461	423	434
	(b)	0.92	0.96	1.91	1.09	1.12
10. Net area sown	(a)	21892	22006	22013	22041	21951
	(b)	56.34	56.64	56.66	56.73	56.50

(d) *Production of important crops.*—The production of important crops are given below Table 10 together with production in previous year and percentage of variation. The estimates of production of paddy, coconut, arecanut, tapioca, pepper and cashewnut are based on the crop cutting experiments conducted during the period. In the case of other crops conventional estimate of average yield from ad hoc surveys were used to arrive at production.

TABLE 10

Production of Important Crops

(1)	Production ('00) tonnes				Percentage increase to previous year					
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
	1975-76	1976-77	1977-78	1978-79	1979-80	1976-77	1977-78	1978-79	1979-80	
Rice										
(Autumn)	5523	4877	5518	5448	5677	-11.70	13.4	-1.27	4.20	
(Winter)	5980	5877	5592	5300	5265	-1.72	-4.35	-5.22	-1.04	
(Summer)	1809	1786	1836	1986	2055	-1.27	2.80	8.17	3.47	
Total	13312	12540	12946	12734	12997	-5.30	3.24	-1.64	2.07	
Coconut (Million nuts)	3439	3348	3053	3211	3032	-2.63	-8.31	5.18	-5.5	
Areca nut (Do.)	11387	11303	10548	10919	10829	-0.74	-6.08	3.52	-0.32	
Cashew	1224	873	847	842	828	-29.32	-2.89	-0.59	-1.06	
Pepper	246	245	201	263	289	-0.41	-17.96	30.85	9.89	
Tapioca	53902	51253	41886	40440	40889	-4.91	-18.28	-3.45	1.11	
Rubber	1288	1393	1359	1237	1366	8.15	-2.44	-8.95	10.43	
Banana & Plantain	2510	2157	2720	3229	3059	-14.06	26.10	18.71	-5.26	
Cardamom	..	14	29	29	33	..	107.14	..	13.79	

The pattern in utilisation does not show any abnormal change over the years. The net sown area in the State was 56.50% to the geographical area for the year 1979-80.

(b) *Irrigated area.*—The estimated area irrigated is given in table II of the Appendix. The gross irrigated area was 398,480 hectares which is 13.95% of the total cropped area.

Area under crops.—The estimated area under different crops district-wise are given in Table III (a) to III (j) of Appendix. Tables III k, l & m give the area under high yield varieties and local varieties as well as irrigated and unirrigated.

The area under different crops estimated for the years 1975-76 to 1979-80 together with percentage to total cropped area are given in Table II below

TABLE 11

Area under Important Crops

Names of crop	Area in hectares										Percentage to total cropped area									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	1975-76	1976-77	1977-78	1978-79	1979-80	1975-76	1976-77	1977-78	1978-79	1979-80	1975-76	1976-77	1977-78	1978-79	1979-80	1975-76	1976-77	1977-78	1978-79	1979-80
Paddy (Autumn)	375043	363822	365111	346827	348373	12.58	12.26	12.49	12.02	12.21	12.58	12.26	12.49	12.02	12.21	12.58	12.26	12.49	12.02	12.21
Paddy (Winter)	396392	381678	370859	345727	339608	13.30	12.87	12.68	11.98	11.90	13.30	12.87	12.68	11.98	11.90	13.30	12.87	12.68	11.98	11.90
Paddy (Summer)	104587	108874	104404	106684	105285	3.51	3.67	3.57	3.70	3.69	3.51	3.67	3.57	3.70	3.69	3.51	3.67	3.57	3.70	3.69
Total	876022	854374	840374	799238	793266	29.39	28.80	28.74	27.70	27.79	29.39	28.80	28.74	27.70	27.79	29.39	28.80	28.74	27.70	27.79
Coconut	692945	694985	673479	660628	662657	23.74	23.43	23.03	22.89	23.22	23.74	23.43	23.03	22.89	23.22	23.74	23.43	23.03	22.89	23.22
Areca nut	76618	68356	62427	62317	60858	2.57	2.30	2.14	2.16	2.13	2.57	2.30	2.14	2.16	2.13	2.57	2.30	2.14	2.16	2.13
Cashewnut	109057	113326	126963	136552	139917	3.66	3.82	4.34	4.73	4.90	3.66	3.82	4.34	4.73	4.90	3.66	3.82	4.34	4.73	4.90
Pepper	108251	108666	101045	106743	105817	3.63	3.66	3.46	3.70	3.71	3.63	3.66	3.46	3.70	3.71	3.63	3.66	3.46	3.70	3.71
Tapioca	326865	323278	289722	273483	243763	10.96	10.90	9.91	9.48	8.54	10.96	10.90	9.91	9.48	8.54	10.96	10.90	9.91	9.48	8.54
Rubber	206686	219723	212271	214415	215474	6.93	7.07	7.26	7.43	7.55	6.93	7.07	7.26	7.43	7.55	6.93	7.07	7.26	7.43	7.55
Banana & Plantain	52280	51697	50100	53342	49558	1.75	1.74	1.71	1.85	1.74	1.75	1.74	1.71	1.85	1.74	1.75	1.74	1.71	1.85	1.74

TABLE I

Total Area and Classification of Area in each District 1979-80

District	(in hectares)					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Total geographical area according to village papers	Forest	Land put to Non-agricultural uses	Barren and uncultivable land	Permanent pastures and grazing land	Land under Miscellaneous tree crops
Trivandrum	218600	49861	16986	1866	39	222
Quilon	474290	236048	25150	2362	36	312
Alleppey	182270	518	29866	686	18	215
Kottayam	219550	8141	18302	2020	104	322
Idukki	515048	260993	14904	17729	2215	16189
Ernakulam	235319	8123	30379	2124	189	1343
Trichur	299390	103619	21596	2666	212	1340
Palghat	438980	136257	21318	13027	497	8669
Malappuram	363230	103417	17940	7748	421	2607
Kozhikode	371150	90876	21683	3730	284	19858
Cannanore	567670	83656	34373	24229	1615	14425
State	3985497	1081509	263497	78187	5630	65502

TABLE I (Contd.)

District	(1)	(8)	(9)	(10)	(11)	(12)	(13)
		Cultivable waste land	Fallow other than current fallow	Current fallow	Net area sown	Area sown more than once	Total cropped area
Trivandrum		2121	1795	1352	144358	74429	218787
Quilon		1493	1195	1859	205835	93989	299824
Alleppey		2213	1047	2955	144752	69190	213942
Kottayam		1451	2293	4763	182154	40037	222191
Idukki		38776	1196	1769	161277	3760	165037
Ernakulam		5255	2584	3908	181414	74711	256125
Trichur		4922	2933	4954	157148	71857	229005
Palghat		24187	5017	6871	212187	118249	330386
Malappuram		13601	4218	7118	206160	41759	247919
Kozhikode		5928	1815	2723	224853	62867	287720
Cannanore		25668	3591	5112	375001	8118	383119
State		125015	27684	49384	2195089	658966	2854055

TABLE II (a)
Source-wise Irrigation Statistics 1973-80

District	Government Land	Private Canal	Government tanks & wells	Private tanks & wells	Minor & Lift Irrigation	Other sources	Total
Trivandrum	6544	27	887	620	2122	1105	11305
Quilon	85	250	1506	562	664	1758	4825
Alleppey	2667	4	335	13952	6940	4574	28472
Kottayam	113	162	553	995	795	1157	3775
Idukki	63	84	206	128	108	473	1062
Ernakulam	18619	137	1240	8061	14292	4540	46889
Trichur	19316	401	989	7650	4822	1479	34657
Palghat	48672	315	196	6378	1407	413	57381
Malappuram	592	831	167	6891	4012	5859	18402
Kozhikode	4392	151	137	689	1733	927	8029
Cannanore	144	2938	252	4595	634	7393	15956
State	101207	5350	6468	50521	37529	29678	230753

TABLE II (b)
Area under Irrigation—Crop-wise (1979-80)

District	Paddy	Vegetable	Tubers	Coconut	Areca nut	Cloves nutmeg & cardamom	Other spices	Banana	Betel leaves	Sugar- cane	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	9628	226	28	1984	6	7	33	322	130	..	1254	13618
Quilon	2727	78	13	960	2	10	..	108	61	..	1621	5580
Alleppey	10932	202	145	19717	61	55	2	97	33	8	1830	33082
Kottayam	1295	76	..	307	2	468	2	100	3	..	1623	3876
Idukki	1332	1	..	141	3	10	..	4	..	..	18	1509
Ernakulam	62041	25	3	7607	608	564	78	660	104	..	4064	75754
Trichur	55655	105	6	25295	3766	173	60	690	31	..	1483	87264
Palghat	104110	1	..	2073	1014	..	36	466	2	202	1928	109832
Malappuram	15056	1067	78	2751	1947	..	..	1390	402	..	1352	24043
Kozhikode	7401	168	53	214	47	2	7	854	..	..	1335	10081
Cannanore	16822	1557	31	7974	4435	..	174	1482	2	2	1262	33541
State	286799	3506	357	69023	11891	1289	392	6173	768	212	17770	398180

TABLE III (a)
Area under Principal Crops 1979-80
(Paddy)

District	Area under the crop (hectares)				Percentage sampling error			
	Autumn	Winter	Summer	Total	Autumn	Winter	Summer	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	15560	15766	1237	32563	4.24	4.45	14.22	4.33
Quilon	23933	25059	903	49895	4.39	4.10	19.11	3.46
Alleppey	31722	19243	29094	80058	18.45	13.63	13.50	7.47
Kottayam	13222	10161	9545	32938	6.08	6.80	11.38	2.72
Idukki	3459	4112	255	7826	8.53	7.44	6.35	7.84
Ernakulam	43075	38852	19228	101155	4.03	5.22	7.27	3.09
Trichur	40975	48420	21259	110654	9.56	8.62	12.35	6.77
Palghat	88981	85721	4059	178761	2.56	4.23	12.39	2.97
Malappuram	39445	35209	5503	80157	5.71	5.03	20.78	4.54
Kozhikode	9753	28673	7345	45771	7.27	5.19	10.80	4.46
Cannanore	38248	28392	6857	73497	2.35	5.59	21.30	3.08
	348373	339608	105285	793266	2.34	2.10	5.47	1.59

TABLE III (b)

Area under Principal Crops 1979-80

Tapioca

District	Area under the crops (hectares)				Percentage of sampling error			
	Autumn	Winter	Summer	Total	Autumn	Winter	Summer	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	19521	21898	8043	49362	5.33	5.36	2.22	17.76
Quilon	22593	40032	1766	64391	6.56	6.95	0.51	7.57
Alleppey	3013	14801	1251	19065	3.95	15.45	0.52	19.94
Kottayam	1436	21948	631	24015	2.27	12.90	0.26	14.06
Idukki	1338	9441	314	11093	7.12	42.30	0.23	42.34
Ernakulam	3102	9077	610	12789	8.73	6.78	6.55	6.92
Trichur	1020	5190	463	6673	3.90	10.27	0.44	11.51
Palghat	5854	5231	1312	12397	6.51	9.80	2.14	13.49
Malappuram	6619	10501	1066	18186	3.19	13.12	2.02	14.26
Kozhikode	3408	3301	752	7470	4.42	9.97	1.23	12.52
Cantharore	1987	15380	955	18322	1.17	9.20	1.04	12.52
State	69891	156709	17163	243763	2.23	3.64	0.51	5.28

TABLE III (c)

Area under Principal Crops 1979-80

District	Coconut						
	Number of trees ('000)			Area (hectares)	Percentage of sampling error		
	Bearing	Young	Total		Bearing	Young	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trivandrum	9910	6771	16681	73485	6.49	3.57	9.57
Quilon	10593	7463	17996	84488	5.83	3.31	8.02
Alleppey	10407	4502	14909	62907	6.40	3.60	10.19
Kottayam	8213	2582	10795	49747	11.47	3.62	14.04
Idukki	1702	1062	2764	15794	33.53	31.81	54.74
Ernakulam	8486	5559	14045	61872	7.26	2.32	9.37
Trichur	8303	4388	12691	53549	7.17	2.64	9.64
Palghat	2739	2424	5163	21785	4.82	4.42	8.86
Malappuram	8837	5275	14112	60051	11.59	4.64	16.03
Kozhikode	15757	8295	24052	103672	15.13	5.62	20.50
Cannanore	10610	8436	19046	77109	9.04	4.42	13.14
State	95497	56757	152254	664450	3.38	1.57	4.70

TABLE III (d)

Area under Principal Crops 1979-80

Areca nut

District	Number of trees ('000)			Area (hectares)	Percentage of sampling error		
	Bearing	Young	Total		Bearing	Young	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trivandrum	5397	1312	6709	3142	10.01	1.03	11.98
Quilon	6729	3102	9831	4501	5.43	2.65	7.38
Alleppey	3844	2287	6131	2852	6.48	4.35	9.94
Kottayam	4414	1123	5537	2516	7.56	2.63	9.54
Idukki	3240	1837	5077	2309	19.12	45.08	57.54
Ernakulam	11595	2382	13977	6356	3.31	1.69	5.47
Trichur	12541	2355	14896	6774	8.31	1.32	9.07
Palghat	3571	1580	5151	2418	32.58	8.45	40.95
Malappuram	13862	3944	17806	8356	12.51	2.86	15.16
Kozhikode	11264	2883	14147	6636	18.79	2.52	21.13
Cannanore	19768	7514	27282	14998	5.68	2.24	7.01
State	96225	30319	126544	60858	5.44	1.95	7.21

TABLE III (e)

Area under Principal Crops 1979-80

Cashew

<i>District</i>	<i>No. of trees (‘000)</i>	<i>Area (hectares)</i>	<i>Percentage sampling error</i>
(1)	(2)	(3)	(4)
Trivandrum	1781	5937	21.82
Quilon	2554	8513	16.75
Alleppey	1186	3953	19.66
Kottayam	411	1370	24.00
Idukki	365	1217	0.21
Ernakulam	1219	4063	11.09
Trichur	2138	7127	11.27
Palghat	3813	12710	14.52
Malappuram	6237	20790	0.08
Kozhikode	1556	5187	20.90
Cannanore	20715	69050	10.92
State	41975	139917	5.84

TABLE III (f)
Area under Principal Crops 1979-80

District	No. of Standards ('000)	Area hectares	Pepper
			Percentage sampling error
(1)	(2)	(3)	(4)
Trivandrum	3047	5441	13.27
Quilon	5570	9946	11.56
Alleppey	2516	4493	22.67
Kottayam	7134	12739	15.52
Idukki	6071	10841	22.11
Ernakulam	3781	6752	11.78
Trichur	2087	3727	24.00
Palghat	824	1471	19.12
Malappuram	2021	3609	0.49
Kozhikode	11614	20739	26.78
Cannanore	14593	26059	16.11
State	59258	105817	7.47

TABLE III (g)

Area under Plantation Crops 1979-80

(Area in hectares)

<i>District</i>	<i>Rubber</i>	<i>Tea</i>	<i>Coffee</i>	<i>Cardamom</i>
(1)	(2)	(3)	(4)	(5)
Trivandrum	8246	1071	48	164
Quilon	34674	2012	378	149
Alleppey	4030	..	63	..
Kottayam	55805	2268	902	22
Idukki	16069	24124	5134	45170
Ernakulam	21488	30	172	..
Trichur	8963	442	33	..
Palghat	9372	665	2264	3574
Malappuram	17893	174	10	184
Kozhikode	17396	3389	30204	3331
Cannanore	21538	1451	18741	1266
State	215474	36126	57949	53920

TABLE III (h)

Area under Annual Crops 1979-80

(Area in hectares)

<i>District</i>	<i>Banana</i>	<i>Plantain</i>	<i>Sugarcane</i>	<i>Pineapple</i>	<i>Betel leaves</i>
(1)	(2)	(3)	(4)	(5)	(6)
Trivandrum	647	5815	21	469	170
Quilon	1563	3014	663	880	173
Alleppey	934	3275	2725	310	82
Kottayam	1125	3939	113	574	58
Idukki	211	2749	1747	360	8
Ernakulam	1414	3256	103	584	136
Trichur	1380	3270	2	485	85
Palghat	850	3215	2362	156	8
Malappuram	1994	1945	9	251	544
Kozhikode	1108	2823	5	571	54
Cannanore	1907	2124	40	1169	38
State	13133	36425	7790	5809	1356

TABLE III (i)
Area under other Seasonal Crops 1979-80

District	Pulses			Total	Jowar	Ragi	Other		Ginger
	Other pulses	Horse-gram	Rabi Other pulses				cereals & Millets	Chillies	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Trivandrum	42	55	3147	3244	..	19	2	..	120
Quilon	1199	813	1001	3013	..	27	..	..	1332
Alleppey	100	172	728	1000	..	8	..	..	201
Kottayam	98	11	1643	1752	..	4	..	..	3424
Idukki	141	10	1532	1683	30	341	127	..	894
Ernakulam	919	168	471	1558	5	4	180	..	3077
Trichur	2281	143	835	3259	..	47	146	4	191
Palghat	3893	3110	2901	9854	1839	879	1776	88	437
Malappuram	1640	71	1177	2888	..	17	52	101	562
Kozhikode	356	6	1063	1425	..	32	3	76	2630
Cannanore	70	532	4607	5209	60	16	108	650	1260
State	10689	5091	19105	34885	1934	1394	2394	919	14128

(Area in Hectares)

TABLE III (i) (Contd.)

Area in Hectares

District	Turnerie	Sweet potato	Tubers	Lemon grass	Vegetables	Sesamum	Groundnut	Cotton	Tabacco
(1)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Trivandrum	30	190	1865	36	502	13	7	..	..
Quilon	129	74	6031	26	377	3457	..	..	..
Alleppey	21	75	5015	25	903	6051	..	..	..
Kottayam	986	32	3273	11	786	61	..	..	..
Idukki	129	115	1745	2039	1224	133	..	..	..
Ernakulam	1132	68	2969	607	2670	2703	..	..	..
Trichur	118	178	2467	77	914	1487	..	..	..
Palghat	275	1721	2865	108	1819	1304	12581	5247	..
Malappuram	72	1451	2140	71	1805	1898	3	..	..
Kozhikode	596	89	3468	766	328	74	..	..	..
Canmarore	516	971	1665	2216	1946	426	80	..	453
State	4004	4964	33503	5982	13274	17607	12671	5247	453

TABLE III (i)

Area under other Perennial Crops 1979-1980

(Area in hectares.)

District	Jack	Mango	Tamarind	Papaya	Drumstick	Palmyrah	Cloves	Nutmug
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	7392	7437	1934	541	3083	798	90	76
Quilon	6211	6009	860	630	1255	64	59	193
Alleppey	3954	4586	227	773	1097	21	15	130
Kottayam	4000	4741	380	792	1694	567	269	697
Idukki	2305	1560	137	359	332	242	21	132
Ernakulam	4377	4412	695	1870	1101	320	80	1205
Trichur	3884	4645	1047	887	631	1118	9	335
Palghat	4242	5194	3278	560	884	7852	3	59
Malappuram	4445	5538	894	895	903	1127	21	127
Kozhikode	9031	7167	716	1017	2544	414	1	3
Cannanore	8909	7978	621	771	659	461	..	614
State	58750	59207	10789	9095	14183	12984	568	3571

TABLE III (j) (Contd)

District	(Area in hectares)									
	(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)		
	Cinnamon	Cocoa	Other fruit crops	Other oil seed trees	Fodder grass	Green manure crops	Other non food crops			
Trivandrum	16	488	1192	269	218	953	2191			
Quilon	28	1043	831	95	291	1014	1535			
Alleppey	15	2757	869	123	145	230	953			
Kottayam	106	6381	822	221	407	421	2243			
Idukki	31	1452	2292	75	473	171	2341			
Ernakulam	54	3603	712	204	84	235	3832			
Trichur	80	898	956	145	151	389	1778			
Palghat	218	284	2327	596	26	1571	10491			
Malappuram	..	385	821	33	18	2977	4522			
Kozhikode	149	1974	1274	90	104	1237	3656			
Cannanore	360	973	2452	128	178	1348	13782			
State	1057	20238	14548	1979	2095	10048	47324			

TABLE III (K)

Irrigated and Unirrigated area under High Yielding and other Varieties Autumn Paddy 1979-80

(In hectares)

District	High yielding		Other varieties		Total	
	Irrigated	Unirrigated	Irrigated	Unirrigated	Irrigated	Unirrigated
Trivandrum	889	1161	3300	10210	4189	11371
Quilon	412	10225	56	13240	468	23933
Alleppey	61	12323	..	19338	61	31661
Kottayam	25	8288	4	4905	29	13193
Idukki	134	3153	43	129	177	3282
Ernakulam	12486	7512	2480	20597	14966	28109
Trichur	1241	5734	1835	32165	3076	37899
Palghat	37137	29078	1491	21275	38628	50353
Malappuram	161	8075	313	30896	474	38971
Kozhikode	..	1444	..	8309	..	9753
Cannanore	..	2998	9	35241	9	38239
State	52546	89991	9531	196305	62077	286296
				205836		348373

TABLE III (1)

**Irrigated and Unirrigated area under High Yielding and other varieties
Winter Paddy 1979-80**

District	Highyielding			Other varieties			Total		
	Irrigated	Unirrigated	Total	Irrigated	Unirrigated	Total	Irrigated	Unirrigated	Total
	Trivandrum	155	561	716	4587	10463	15050	4742	11024	15766
Quilon	221	1203	1424	1741	21894	23635	1962	23097	25059
Alleppey	402	1674	2076	434	16733	17167	836	18407	19243
Kottayam	256	4226	4482	126	5553	5679	382	9779	10161
Idukki	705	964	1669	429	2014	2443	1134	2978	4112
Ernakulam	3934	207	4141	24395	10316	34711	28329	10523	38852
Trichur	6174	2291	8465	25570	14385	39955	31744	16676	48420
Palghat	42710	6493	49203	19729	16789	36518	62439	23282	85721
Malappuram	1913	5147	7060	7550	20599	28149	9463	25746	35209
Kozhikode	64	2223	2287	522	25864	26386	586	28087	28673
Cannanore	1629	1413	3042	10227	15123	25350	11856	16536	28392
State	58163	26402	84565	95310	159733	255043	153473	186135	339608

Irrigated and Un-irrigated areas under High yielding and other Varieties Summer Paddy
1979-80

District	High yielding				Other varieties				Total			
	Irrigated	Unirrigated	Total	Irrigated	Unirrigated	Total	Irrigated	Unirrigated	Total	Irrigated	Unirrigated	Total
Trivandrum	481	263	744	216	277	493	697	540	1237			
Quilon	174	192	366	123	414	537	297	606	903			
Alleppey	9676	10415	20091	359	8644	9003	10035	19059	29094			
Kottayam	648	7579	8227	236	1082	1318	884	8661	9545			
Idukki	8	207	215	13	27	40	21	234	255			
Ernakulam	3343	480	3823	15403	2	15405	18746	482	19228			
Trichur	9618	100	9718	11217	324	11541	20835	424	21259			
Palghat	2384	159	2543	1199	317	1516	3583	476	4059			
Malappuram	3561	85	3646	1558	299	1857	5119	384	5503			
Kozhikode	3283	1020	4303	2088	954	3042	5371	1974	7345			
Cannanore	1258	178	1436	3499	1922	5421	4757	2100	6857			
State	34434	20678	55112	35911	14262	50173	70345	34940	105285			

TABLE IV

District-wise production of important crops 1979-80

(in tonnes)

District	Rice				Total	Jowar	Ragi	Other cereals and Millets	Pulses	Sugarcane	Black pepper
	Autumn	Winter	Summer								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Trivandrum	23200	21909	1053	46162	..	16	1	775	104	1801	
Quilon	34970	45121	893	80984	..	23	..	2395	2917	3620	
Alleppey	51694	22857	76726	151277	..	7	..	839	13870	1173	
Kottayam	24398	15839	21568	61805	..	3	..	1254	619	1388	
Idukki	6590	8036	371	14997	13	293	81	1367	10709	2244	
Ernakulam	62365	53662	30492	146519	2	3	115	1116	638	1837	
Trichur	50067	65849	38592	154508	..	53	93	2327	8	552	
Palghat	203505	171093	6963	381561	828	615	1137	6080	16676	197	
Malappuram	52909	44419	10034	107362	..	15	33	2143	57	996	
Kozhikode	8513	36400	7848	52761	..	30	2	1084	31	7590	
Cannanore	49492	41276	10991	101759	27	24	69	4063	140	7505	
State	567703	526461	205531	1299695	870	1082	1531	23443	45769	28903	

TABLE IV—Contd.

District	Dry Chillies	Dry Ginger	Cured Turmeric	Processed cardamom	Betelnuts (Numbers in Million)	Tamarind	Mango	Jack	Banana	Other plantain
(1)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Trivandrum	..	293	59	10	334	4903	24512	24431	7415	31227
Quilon	..	3620	243	9	543	1779	26752	23061	15657	11179
Alleppéy	..	491	41	..	450	163	9173	16536	11442	10012
Kottayam	..	9625	1859	1	340	428	26536	15584	16271	19758
Idukki	..	2136	229	2765	306	170	2551	7524	2422	14473
Ernakulam	..	7714	2098	..	1114	942	27809	21163	16685	13050
Trichur	4	198	185	..	1447	2179	20354	15132	21859	8803
Palghat	78	730	446	219	350	8549	14400	18258	11345	6346
Malappuram	89	1009	109	11	1560	1590	47545	21945	26614	6117
Kozhikode	71	6588	1360	208	1807	1728	24844	41272	12775	9624
Cannanore	605	3421	1031	77	2578	1064	42927	42532	22541	14299
State	847	35825	7660	3300	10829	23495	267403	247438	165026	144888

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TABLE IV—Contd.

District	Raw Cashew- nut	Tapioca	Sweet potato	Ground- nut	Sesamum	Coconut (in million nuts)	Cotton bales of 170 Kg.	Tobacco	Tea	Coffee	Rubber
(1)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
Trivandrum	3022	850507	1147	6	3	350	..	..	833	36	5681
Quilon	7108	1030256	446	..	864	333	..	..	921	282	24651
Alleppey	2127	306947	452	..	1150	328	..	..	..	30	2687
Kottayam	773	481501	193	..	13	188	..	..	485	673	35373
Idukki	920	257690	719	..	31	50	..	..	39197	3712	10764
Ernakulam	1946	263453	411	..	838	312	..	..	..	128	13551
Trichur	1903	91754	1075	..	416	326	..	..	1148	25	6978
Palghat	3622	190294	11064	11122	352	73	8303	..	1305	840	4386
Malappuram	6694	242419	9862	3	645	297	..	..	41	4	10351
Kozhikode	2791	92852	566	..	23	498	..	..	6713	15086	10319
Cannanore	51857	281243	6057	71	247	277	..	869	1791	9360	11878
State	82763	4088916	31992	11202	4582	3032	8303	869	52434	30176	136619