

BUREAU OF ECONOMICS AND STATISTICS
KERALA STATE
NATIONAL SAMPLE SURVEY

N.S.S. Report No. 14

Report on villages in Kerala

Based on the data collected in 19th round of
National sample survey July 1964 to June 1965

TRIVANDRUM

1970

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8. N.S.S. Report No.8(1968) Report on the Consumer Expenditure in Kerala based on the 17th round of N.S.S. (September 1961 to July 1962)
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11. N.S.S. Report No.11(1968) Report on the consumer expenditure in Kerala based on the 18th round of National Sample Survey (February 1963 to January 1964)
12. N.S.S. Report No.12(1969) Report on employment and unemployment in Rural areas based on the data collected in the 16th round of National Sample Survey (July 1960 to June 1961).
13. N.S.S. Report No.13(1969) Report on the professions and liberal arts in Kerala based on the 18th round of National Sample Survey (February 1963 to January 1964).

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REPORT ON VILLAGES IN KERALA.

National Sample Survey 19th Round - (1964 - 65)

SECTION I.

1.1. Introduction.

During the 19th round of National Sample Survey some basic statistics about the villages in Kerala were also collected in the listing schedule O.1. The details covered are the distance between the village and the different centres and institutions serving the socio-economic needs of the villages in regard to education, health, communication, marketing, administration, etc. The results obtained are presented in this report.

1.2. As usual the survey was carried out in the State sample villages by the staff of the Bureau of Economics and Statistics, Kerala and in the Central Sample Villages by the staff of the Directorate of National Sample Survey, Government of India. The analysis of the State sample data was done in the Bureau of Economics and Statistics and that of the central sample data by the Indian Statistical Institute, Calcutta. The results arrived at from the two series were pooled and the combined estimates are furnished in this report.

SECTION II.

2.1. Sampling design.

A stratified unistage sampling design was adopted for the survey. The State was divided into 15 strata by grouping contiguous taluks homogeneous with respect to geographical climatic and crop considerations. Census Villages were the primary units for this part of the enquiry. The total sample size was 360 villages. A detailed note on sampling design as well as the procedure for arriving at the estimates is given in Appendix I.

2.2. Coverage.

The survey covered the entire rural area of the State.

2.3. Method of collection of data.

The data was collected by specially trained full-time Investigators by adopting interview method. Data on distance of the village from the nearest educational, health, administration Communication centre etc. were obtained from the village Offices.

2-4-Some important results of the survey are summarised in Section III. A facemile of the Schedule in which the data was collected during the 19th round is given in Appendix II.

SECTION III.

3.1. The results obtained after pooling the central and State Sample data are presented here.

3.2. The total number of census villages in the State as per 1961 census is 5901. The estimated number of villages in the State obtained from the Survey is 5899. The following table gives the number of villages estimated from the survey sub-sample-wise.

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Table 1.
Sub-sample wise estimated number of villages.

Sl. No.	Sub-sample				Combined
	1	2	3	4	
1	2	3	4	5	6
1. State Sample	5547	7297	5128	5353	5831
2. Central Sample	6212	5996	5825	5831	5966
3. Pooled	5880	6647	5477	5592	5899

It is worth pointing out that the number of villages estimated is not very much off the mark when compared with the actual number of villages in the State.

3.3. Availability of metalled roads.

The following table gives the distribution of villages according to the distance between the village and the nearest metalled road.

Table - 2.
Distribution of villages according to the distance between the village and the nearest metalled road.

Sl. No.	Distance in K.M.	No. of villages	Percentage
1	2	3	4
1	Less than 1 K.M.	3795	64.33
2	1 to 2 K.M.	672	11.39
3	2 to 3 K.M.	374	6.34
4	3 to 5 K.M.	393	6.66
5	5 to 8 K.M.	274	4.64
6	8 to 15 K.M.	322	5.46
7	15 K.M. and above	42	0.72
8	Not reported	27	0.46
Total		5899	100.00

The improvement of rural road communications is a must for the success of the Rural Development Programme. During the Five Year Plans, much attention has been bestowed on the expansion of rural roads. In this respect Kerala stands unique among the Indian States. From the above table it is seen that for nearly two thirds of the villages in Kerala, the nearest metalled road is at a distance of less than 1 K.M. In the case of another one fourth of the villages the distance between the village and the nearest road is less than 5 K.M. and only in 1% of the villages the nearest road is at a distance of more than 15 K.M. According to N.S.S. Report No.109 issued by the Government of India slightly less than one fifth of the villages in All India have metalled roads located at a distance of less than $\frac{1}{2}$ a mile (0.8 K.m.). The nearest metalled road is at a distance of more than $10\frac{1}{2}$ miles (16.8 K.M.) in the

case of one fourth of the villages.

3.4. Railway Station.

The distribution of the villages by distance from the nearest Railway Station is present in table 3.

Table 3.
Distribution of villages according to the distance from the nearest Railway Station.

Sl.No.	Distance in K.M.	No. of villages	Percentage
1	2	3	4
1	Less than 1 K.M.	269	4.56
2	1 - 2 K.M.	143	2.43
3	2 - 3 "	173	2.93
4	3 - 5 "	433	7.35
5	5 - 8 "	523	8.86
6	8 -15 "	1319	22.36
7	15 and above	2438	41.33
8	Not reported	601	10.18
	Total	5899	100.00

In nearly 5% of the villages there are Railway Stations at a distance of less than 1 K.M. In the case of All India in 2% of the villages the Railway Stations are located within a distance of $\frac{1}{2}$ a mile (0.8 K.M.) from the village. If the position obtaining in Kerala is compared to that of All India, the distribution of villages according to the distance from the nearest Railway Station is more or less same in both.

3.5. Post Offices.

The distribution of villages by distance from the nearest Post Office is presented in the following table.

Table 4.
Distribution of villages according to distance from the nearest Post Office.

Sl.No.	Distance in K.M.	No. of villages	Percentage
1	2	3	4
1	Less than 1 K.M.	3300	55.94
2	1 - 2 K.M.	1178	19.97
3	2 - 3 "	716	12.14
4	3 - 5 "	480	8.14
5	5 - 8 "	190	3.22
6	8 -15 "	32	0.56
7	15 K.M. & above	..	..
8	Not reported	2	0.03
	Total	5899	100.00

Post Offices are located in more than 55% of the villages within a distance of 1 K.M. from the village. In the case of All India slightly more than 15% of the villages have Post Offices located at a distance of less than $\frac{1}{2}$ a mile (0.8 K.M.). The nearest post office in the case of 12% of the villages in Kerala is at a distance of more than 3 K.M. whereas for 83% of the villages in All India the nearest post office is at a distance of more than $2\frac{1}{2}$ miles (4 K.M.). Thus the rural population in Kerala enjoys better postal facilities when compared to the rural population in all India.

3.6. Telegraph Offices.

The distribution of villages by distance from the telegraph office is presented in table No.5.

Table 5.
Distribution of villages according to distance from the nearest telegraph office.

Sl.No.	Distance in K.M.	No. of villages	Percentage
1	2	3	4
1	Less than 1 K.M.	405	6.86
2	1 - 2 K.M.	519	8.80
3	2 - 3 "	347	5.88
4	3 - 5 "	1337	22.66
5	5 - 8 "	1167	19.73
6	8 -15 "	1301	22.06
7	15 and above	775	13.14
8	Not reported	48	0.82
	Total	5899	100.00

Telegraph Offices are found located within a distance of 1 K.M. from the villages in nearly 7% of the villages in Kerala. Only 2% of the villages in the case of All India are having telegraph offices within a distance of $\frac{1}{2}$ a mile (0.8 K.M.) from the villages. The nearest telegraph Office is more than 15 K.M. from the village in the case of 14% of the villages in Kerala. The survey has shown that in respect of communication facilities the villages in Kerala are in a better position when compared to All India.

3.6. Bus Stop and Boat Stations.

The distribution of villages by distance from the nearest bus stop and boat stations is presented in the sub-joined table.

Table 6.
Distribution of villages according to distance from the nearest Bus Stop and Boat Station.

Sl.No.	Distance in K.M.	Bus Stop.		Boat Station	
		No. of villages	Percentage	No. of village	Percent- age.
1	2	3	4	5	6
1	Less than 1	3042	51.57	1548	26.24
2	1 - 2	773	13.10	132	2.24
3	2 - 3	496	8.41	133	2.25
					-/-

1	2	3	4	5	6
4	3 - 5	613	10.39	216	3.66
5	5 - 8	376	6.37	393	6.66
6	8 -15	366	6.21	567	9.62
7	15 and above	218	3.70	1990	33.73
8	Not reported	15	0.25	920	15.60
	Total	5899	100.00	5899	100.00

Slightly more than half of the villages in this State are having bus stops located within a distance of 1 K.M. from them. Only in 10% of the villages the nearest bus stop is at a distance of more than 8 K.M.

3.7. Schools.

The distribution of villages by distance from the nearest school is presented in the following table.

Table 7.
Distribution of villages according to distance from the nearest primary school, middle school & high school.

Sl. No	Distance in K.M.	Primary School.		Middle School.		High School.	
		No. of villages	Percent- age.	No. of villages.	Percent- age.	No. of villages.	Percent- age.
1	2	3	4	5	6	7	8
1.	Less than 1	4414	74.82	2506	42.43	1005	17.04
2.	1 - 2	717	12.15	1271	21.54	917	15.55
3.	2 - 3	462	7.83	771	13.07	801	13.53
4.	3 - 5	185	3.14	785	13.31	1582	26.82
5.	5 - 8	100	1.70	491	8.32	1007	17.07
6.	8 -15	..	..	61	1.04	390	6.60
7.	15 and above	..	..	..	..	171	2.90
8.	Not reported	21	0.36	14	0.24	26	0.44
	Total	5899	100.00	5899	100.00	5899	100.00

In Kerala nearly three fourth of the villages are having Primary Schools located within a distance of 1 K.M. from them. More than 40% of the villages are having Middle Schools at a distance of less than 1 K.M. It is also seen that out of 6 villages in Kerala one will have a high school within a distance of 1 K.M. In the case of All India slightly more than 50% of the villages are having a primary school, 7% of the villages are having a middle school and slightly more than 2% of the villages are having a high school located at a distance of less than $\frac{1}{2}$ a mile (0.8 K.M.) It may be noted that the literacy rate in Kerala is the highest in India and it is only natural that the State has better educational facilities compared to the rest of India.

3.8. Public Library.

The distribution of villages by distance from the nearest library is furnished in the following table:-

Table 8.
Distribution of villages according to distance from the nearest Public Library.

Sl.No.	Distance in K.M.	No. of villages	Percentage
1	2	3	4
1	Less than 1	2716	46.04
2	1 - 2	770	13.21
3	2 - 3	567	9.62
4	3 - 5	727	12.32
5	5 - 8	643	10.90
6	8 - 15	335	5.67
7	15 and above	116	1.97
8	Not reported	16	0.27
	Total	5899	100.00

3.9. Hospital.

The distribution of villages by distance from the nearest Health Centre, Hospital and Veterinary Hospital is presented in the following table.

Table 9.
Distribution of villages according to distance from the nearest Health Centre, Hospital and Veterinary Hospital.

Sl. No.	Distance in K.M.	Health Centre		Hospital		Veterinary Hospital	
		No. of villages	Percentage	No. of villages	Percentage	No. of villages	Percentage
1	2	3	4	5	6	7	8
1	Less than 1 K.M.	585	9.92	431	7.31	409	6.93
2	1 - 2	696	11.80	557	9.44	555	9.41
3	2 - 3	512	8.69	399	6.76	452	7.66
4	3 - 5	1602	27.16	1436	24.34	1387	23.51
5	5 - 8	1132	20.03	1313	22.26	1253	21.24
6	8 - 15	1163	19.93	904	15.32	1044	17.70
7	15 and above	531	9.00	804	13.64	780	13.23
8	Not reported	28	0.47	55	0.93	19	0.32
	Total	5899	100.00	5899	100.00	5899	100.00

Nearly 10% of the villages are having a health centre at a distance of less than 1 K.M. from the village in Kerala while only 2.32% of the villages are having a health centre located within a mile (0.8 K.M.) from the village in the case of All India. In one fifth of the villages in Kerala the distance between the nearest health centre and the village is more than 8 K.M. while the corresponding percentage in the case of All India is more than 60. In Kerala, slightly more than 7% of the villages are having hospitals located within a distance of 1 K.M. from the village whereas only 2% of the villages come under this category in the case of All India. 14% of the villages in Kerala have hospitals at a distance of more than 15 K.M. whereas 40% of the villages in India as a whole have hospitals at a distance of more than 10½ miles (16.8 K.M.). In the case of Veterinary hospitals also better facilities exist for villages in Kerala compared to those of All India.

3.10. Qualified doctors and midwives.

In Table No.10 the distribution of villages by distance from the nearest doctors and midwives is presented.

Table 10.
Distribution of villages according to distance from the nearest qualified Doctors and Midwives.

Sl. No.	Distance in K.M.	Qualified Doctor		Midwives	
		Graduate or licentiate		No. of villages	Percentage
		No. of villages	Percentage		
1	2	3	4	5	6
1	Less than 1	849	14.39	1534	26.00
2	1 - 2	696	11.80	829	14.05
3	2 - 3	450	7.63	786	13.32
4	3 - 5	1619	27.45	1528	25.90
5	5 - 8	1043	17.68	661	11.22
6	8 - 15	793	13.44	408	6.92
7	15 and above	394	6.68	143	2.42
8	Not reported	55	0.93	10	0.17
Total		5899	100.00	5899	100.00

Slightly more than 14% of the villages have the services of qualified doctors within a distance of 1 K.M. from the village. In the case of one fifth of the villages the distance between the village and the nearest doctor is more than 8 K.M. In the case of All India the doctor is within a reach of less than 3½ miles (5.6 K.M.) from the village for nearly one fourth of villages. The services of midwives are available within a distance of 1 K.M. from the village for slightly more than one fourth of the villages in Kerala.

3.11. The following table gives the distribution of villages according to the distance between the nearest market, cinema hall, source of electricity and scheduled banks.

Table 11.
Distribution of villages according to distance from the nearest Market, Cinema Hall, Source of Electricity and Schedule Bank.

Sl. No.	Distance in K.M.	Town		Cinema hall		Source of Electricity.		Schedule Bank			
		No. of villa- ges.	Per- cent- age.	No. of vill- ges.	Per- cent- age.	No. of villa- ges.	Per- cent- age.	No. of villa- ges.	Per- cent- age.		
1	2	3	4	5	6	7	8	9	10	11	12
1	Less than 1	1150	2.70	1383	23.43	291	4.93	3608	61.16	350	5.93
2	1 - 2	186	3.15	845	14.32	385	6.53	418	7.09	328	5.56
3	2 - 3	107	1.82	524	8.88	361	6.12	224	3.80	355	6.02
4	3 - 5	765	12.97	1182	20.05	1474	24.99	503	8.53	889	15.07
5	5 - 8	793	13.44	806	13.66	1073	18.19	422	7.15	978	16.58
6	8-15	1453	24.63	742	12.58	1522	25.80	349	5.92	1474	24.99
7	15 and above	1993	33.78	375	6.36	739	12.53	297	5.03	1322	22.41
8	Not reported	443	7.51	42	0.72	54	0.91	78	1.32	203	3.44
TOTAL		5899	100.00	5899	100.00	5899	100.00	5899	100.00	5899	100.00

3.12. Information on the rates at which a few selected consumer goods and services were available in the villages was also collected. The details thus obtained are presented below.

Table 12.

Item.	Rate (Rs. 0.00)
1 Minimum admission fee for-Cinema per adult per show	0.36
2 Minimum fee per visit of a Registered Doctor	10.68
3 Midwives minimum fee per delivery	3.30
4 Whole-time domestic servant (Male) wages per month	16.86
5 Barber's charges for a hair cut per adult per service	0.77
6 Tailoring charges for cotton shirt per adult per shirt	1.08
7 Washerman's charges for washing 100 pieces of clothes	11.60
8 Bullock cart fare per cart per K.M.	0.35
9 Grinding charges for grinding in flour 1 K.G. of wheat or barley.	0.09

APPENDIX I.Sampling design.

For this part of the 19th round N.S.S. a unistage sampling design with villages as the sampling units was adopted.

2. Stratification.

The State was divided into 15 strata. The strata were formed by grouping together contiguous taluks having similar population densities of altitudes and having good transport and communication facilities in such a way that the sum of size measures of the villages was the same for each stratum.

3. Allocation.

The allocation of villages to the State was made in such a manner as to make it a multiple of 24 to facilitate 4 samples of 6 villages each per stratum. The total sample size of the State was thus fixed at 360 villages.

4. Selection of villages.

Within each stratum the taluks were first arranged in a serpentine order (without breaking their geographical contiguity) and using the list of 1961 census villages four independent sub-samples of 12 villages each were selected with p/p_s circular systematically. In each sub-sample the villages with odd orders of selection formed the Central Sample and those with even orders of selection formed the State Sample.

5. Work Programme.

The survey period of one year (July 1964 to June 1965) was divided into six sub-rounds of two months duration each. In each stratum two Investigators were posted and each was allotted 6 villages. The 6 sample villages in any sub-sample of each stratum were numbered from 1 to 6 according to their order of selection and were visited in a definite order in each sub-round. Sample villages 1, 4, 3, 6, 5 and 2 were surveyed in sub-rounds 1-6 respectively.

Estimation Procedure.Notations.

- S - Subscript for 5th stratum
 i - ith sample village
 k - number of strata
 z - Village size used for selection
 Z_s - Sum of the village size in the sth stratum on (same for all s)
 y - Value of the characteristic
 f - Adjustment factor for Revenue village selection. Here f = 1.

State estimate of the total for a characteristic y for a sub-sample is given by

$$\hat{y} = \frac{z}{b} \sum_{i=1}^k f_{oi} \frac{y_{si}}{z_{si}}$$

The above procedure provides two independent estimates from the two sub-samples of the State Sample as well as from the Central Sample. The simple average of these estimates is the combined estimate.

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CENTRAL*

ORIGINAL*
DUPLICATE

GOVERNMENT OF INDIA NATIONAL SAMPLE SURVEY: 1964-65

Schedule O.1: General Schedule

RURAL

Nineteenth Round

(1) identification of Sample village

1. serial number		8. state
2. zone-state-region		9. district
3. stratum		10. tehsil/taluk/ thana*
4. sub-sample		11. village
5. sample village		12. hamlet(s)
6. sub-round		13. no. of households with incidence code 1 for (i) birth (ii) death
7. (i) no. of census villages in surveyed revenue village		
(ii) no. of revenue villages in sampled census village		

(2) particulars of field-work

sr. no.	Officer	name	roll no.	date(s)			signature	no. of additional schedules/sheets
				operation	receipt	despatch		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	1. investigator							
	2. inspector							
	3. field scrutiniser		x					

(3) list of hamlet groups and record of selection

sr. no.	name of hamlet	percent of population	hamlet group	random number
(1)	(2)	(3)	(4)	(5)

(3.2) particulars of household selection

sr. no.	item	household class code							inter-val		random start	
		13	12	11	21	22	23	to-tal	spe-ci-fied	un-spe-ci-fied	spe-ci-fied	us-ed R'
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1.	total no. of households											
2.	no. of sample households:											
	(a) combined sample											
	(b) schedule 16											
	(c)" 17											
	(d)" 12											
	(e)" 10.1											

(4.1) remarks by investigator

(4.2) comments by inspecting officer

(5) general information about the sample village

(5.1) distance of the village from the nearest

srl. no.	item	distance in (0.00) Km.	srl. no.	item	distance in (0.00) Km
(1)	(2)	(3)	(1)	(2)	(3)
1.	metalled road		11.	health centre	
2.	railway station		12.	hospital	
3.	post office		13.	qualified doctor	
4.	telegraph office		14.	midwife	
5.	bus stop		15.	veterinary hospital	
6.	boat station		16.	town(.....)	
7.	primary school		17.	market/hat	
8.	middle school		18.	cinema hall	
9.	high school/ higher secondary school		19.	source of elec- tricity	
10.	public library		20.	scheduled bank	

(5.2) rates of some selected consumer goods and services

srl. no.	description of goods/services	unit	rate per unit Rs. (0.00)
(1)	(2)	(3)	(4)
1.	cinema--min. admission fee per adult	show	
2.	arithmetic book--primary	book	
3.	max. fee per pupil--primary	month	
4.	min. fee per pupil--secondary	month	
5.	regd. doctor's (allopath) min. fee	visit	
6.	midwife's min. fee	delivery	
7.	wholetime domestic (male servant's wages	month	
8.	barber's charges for hair cut (adult)	service	
9.	tailoring charges for cotton shirt (adult)	shirt	
10.	washerman's charges for washing clothes	100 pcs.	
11.	bus fare per passenger	kilometer	
12.	bullock cart fare per cart	kilometer	
13.	grinding charges for.....	kilogram	

(5.3) school education

srl. no.	type of school	number of				tea- chers
		schools		students		
		govt.	total	sche- duled caste/ tribe	total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	primary					
2.	middle					
3.	high					
4.	others					

REPORTS ALREADY PUBLISHED

1. N. S. S. Report No. 1 (1963) Report on employment and unemployment in urban areas based on the data collected in the 14th round of N. S. S. (July 1958 to June 1959).
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11. do. No. 11 (1968) Report on the consumer expenditure in Kerala based on the 18th round of N. S. S. (February 1963 to June 1964).
12. do. No. 12 (1969) Report on the employment and unemployment in Rural areas based on the data collected in the 16th round of N. S. S. (July 1960 to June 1961).
13. do. No. 13 (1969) Report on the professions and liberal arts in Kerala based on the 18th round of N. S. S. (February 1963 to January 1964).