

CENSUS OF INDIA

1971

SERIES 19

TAMIL NADU

PART IV

HOUSING REPORT AND TABLES

K. CHOCKALINGAM
of the Indian Administrative Service
DIRECTOR OF CENSUS OPERATIONS,
TAMIL NADU AND PONDICHERRY.

1973

CENSUS OF INDIA, 1971

PUBLICATION PROGRAMME

TAMIL NADU

(Series 19 will relate to Tamil Nadu only. Under this series, the following publications will be issued.)

Portrait of Population	A Descriptive Analysis of 71 Census data
Part I-A	General Report (First Part)
Part I-B	General Report (Second Part)
Part I-C	Subsidiary Tables
Part II A	General Population Tables (A Series)
Part II-B	Economic Tables (B Series)
Part II-C (i)	Distribution of Population—Mother-tongue, Religion, Scheduled Castes and Scheduled Tribes
Part II-C (ii)	Other Social & Cultural Tables and Fertility Tables
Part II-D	Migration Tables
Part III	Establishments—Report and Tables
@Part IV	Housing Report and Tables
Part V	Special Tables and Ethnographic Notes on Scheduled Castes and Scheduled Tribes
Part VI-A	Town Directory
Part VI-B	Special Survey Reports on Selected Towns
Part VI-C	Survey Reports on Selected Villages
* Part VIII A & B	Administration Report on Enumeration & Tabulation (for official use only)
Part IX	State Census Atlas
Part IX-A	Administrative Atlas
Part X	District Census Hand Books
* A	Village and Town Directory
* B	Village and Town-wise Primary Census Abstract
C	Analytical Report, Administrative Statements and District Census Tables
	Special Studies and other Miscellaneous Reports

ALL INDIA PUBLICATIONS

Volumes similar to those indicated above are being published at the All India level. Apart from these, All India Census Tables on 1% sample basis, as Part II (Special) and a Special Report on Graduates and Technical Personnel as Part VII are also being published.

* Already published. @ Present publication.

PREFACE

This volume carries all the statistics collected during 1970 in respect of houses that were enumerated throughout the State as a preliminary to the main count made in 1971. A brief report is also added.

Housenumbering and enumeration of houses as a preliminary to regular Census has been in vogue for long. But, of late, there has been demand made of the Census Organisation for statistics regarding housing itself, so that reliable data for the country as a whole would be available for planning housing development schemes. The need for such statistics is deemed necessary in pursuance of the recommendations of the General Assembly of the United Nations that in order to get over serious deficiencies in regard to housing, it is first necessary to get reliable basic data on the existing levels of housing development available in various parts of the country. Such a survey has been done in all the States of India prior to the Census of 1961 by canvassing a uniform houselist. The data collected was published along with an analytical report.

In 1971 Census, even though in general, the pattern of 1961 was followed in houselisting, data relating to establishments, was collected in a different schedule. The houselist contained only essential details like the number of people and rooms in the house, material used for walls and roofs etc.

The analytical report on the housing data has been presented in Part-IV-A along with a few subsidiary tables computed out of the main tables. The data collected is given in Part IV-B in four different tables. These tables show the figures for State and Districts with the rural—urban break-up and separately for the Cities, i.e., towns with a population of over one lakh. These data have been arrived at from a 20% sample of the general Houselist data. Wherever practicable, a comparative picture of the conditions of housing in 1960 and 1970 has been indicated.

I hope that the data presented in this volume will be of help to those engaged in in-depth study of the subject. I am grateful to my Deputy Directors, Sarvashri V. Selvaraj, V. Arumugam, T. R. Rajagopalan and V. R. Chandran and my Assistant Directors, M. K. Subramaniam and N. Rama Rao and M. Panchapakesan, Investigator who assisted me in the preparation of this report. Sri R. Narayanan, Tabulation Officer and Sri R. Sundaresan and Sri T. R. Thanikachalam, Statistical Assistants helped in the preparation of the tables. Sri A. Rajamani, Draftsman prepared the maps and charts and Sri N. D. Rajan, Photographer furnished the photos for this publication.

I acknowledge the services of the following in the preparation of this volume.

Scrutiny of schedules, editing, coding and punching and taping :

1. Sri J. Thomas Machado, Tabulation Officer
2. Sri A. V. Vallinathan, Tabulation Officer
3. Sri K. Ramaswami, Senior Technical Assistant
4. Sri C. Umapathi, Senior Technical Assistant
5. Sri C. Muthukrishnan, Senior Technical Assistant
6. Sri T. S. Veliah, Senior Technical Assistant
7. Sri K. Vaidyanathan, Statistical Assistant

Preparation of Subsidiary Tables, inset statements and reading of the proofs :	1. **Kumari T. Kalyani, Assistant Compiler**
	2. Kumari V. Santha, Assistant Compiler
	3. Kumari S. Ambujam, Assistant Compiler
	4. Srimathi Manimekalai, Assistant Compiler
	5. Sri P. Rajagopal, Assistant Compiler
Preparation of maps and charts :	1. Sri N. Chandran, Draftsman
	2. Sri M. Kothandaraman, Computor
Preparation of motif for cover page :	Sri A. Ramadoss, Statistical Assistant
Printing :	M/s. Alamu Printing Works, Madras-600014.

I thank all the officers and staff for their co-operation in bringing out this publication.

I am also grateful to Sri A. Chandra Sekhar, I.A.S., Registrar General and Census Commissioner, India and Sri K. D. Ballal, I.A.S., Deputy Registrar General, India, for their guidance and help in bringing out this volume.

Madras
24—4—73

K. CHOCKALINGAM, I.A.S.
Director of Census Operations

CONTENTS

PART IV–A REPORT ON HOUSING AND SUBSIDIARY TABLES

CHAPTER		Pages
I.	Introductory	1— 14
	Annexures I to IX	16— 68
II.	Uses to which Census Houses are put	69— 89
	Subsidiary Tables	
	H–I. 1 Distribution of 1,000 Census Houses by vacant and different types of occupied Census Houses	90— 93
	H–I. 2 Distribution of 1,000 Census Houses for selected types of use among rural and urban areas	94
III.	Material of wall and roof of houses	95—146
	Subsidiary Tables	
	H–II. 1 Distribution of 1,000 Census Houses by predominant material of wall in rural and urban areas separately	147—149
	H–II. 1(A) Distribution of 1,000 Residential Census Houses by predominant material of wall in rural and urban areas separately	150—151
	H–II. 2 Distribution of 1,000 Census Houses by predominant material of roof in rural and urban areas separately	152—154
	H–II. 2(A) Distribution of 1,000 Residential Census Houses by predominant material of roof in rural and urban areas separately	155—156
IV.	Households and number of rooms occupied	157—178
	Subsidiary Tables	
	H–III. 1 Distribution of 1,000 Census Households by number of rooms occupied	179—180
	H–III. 2 Number of Persons, Males and Females per room and persons per household	181—188

Pages

CHAPTER—(Contd.)

V. Tenure Status 189—199

Subsidiary Table

H-IV. 1 Distribution of 1,000 Census Households living in Census Houses according to size of the household in rural and urban areas separately 200—202

PART IV-B HOUSING TABLES

TABLES Pages

Introductory Note

H-I Census Houses and the uses to which they are put 1— 7

H-II Distribution of Census Houses by predominant material of wall and predominant material of roof 9—15

Appendix to Table H-II

Distribution of Residential Census Houses by material of wall cross-classified by material of roof 16

H-III Households classified by number of members and by number of rooms occupied 17—27

H-IV Households classified by size and tenure status 29—38

CHARTS, MAPS AND PHOTOGRAPHS

CHARTS Facing Page

1. Distribution of 1,000 Census Houses by pure dwellings, shop/workshop-*cum*-residence, non-dwellings and vacant 74

2. Distribution of 1,000 Census Houses by pure dwellings, mixed dwellings, non-dwellings and vacant (Cities) 76

3. Distribution of 1,000 Census Houses used as mixed dwelling and non-dwelling (total) 78

4. Proportion of Census Houses in different uses among rural and urban areas 82

MAPS

		Facing Page
1.	Administrative Divisions, 1971	Frontispiece
2.	Notional Map of Kuthambakkam Village	6
3.	Notional Map of E.B. No. 39 in Theni-Allinagaram Municipality	6
4.	Predominant Material of Wall (in rural areas)	98
5.	Predominant Material of Wall (in urban areas)	99
6.	Predominant Material of Roof (in rural areas)	108
7.	Predominant Material of Roof (in urban areas)	109
8.	Households by number of rooms	158
9.	Tenure Status of Households (in rural and urban areas)	188

PHOTOGRAPHS

		Facing Page
1.	An old type structure with a lengthy pial in front of the house	70
2.	A two-storeyed modern house in a rural area	
3.	A pucca modern house and an old katcha hut side by side in a semi-urban tract	71
4.	A front view of an old pucca residential street house in a city	
5.	Newly built fire proof cottages for the poor	72
6.	A view of the houses constructed for the low-income group in Madras City	
7.	A new housing colony for low-income group in Madras City	73
8.	A view of the newly sprung-up Besant Nagar Housing Colony near Adyar, Madras	
9.	A medium sized hut built with mud wall and grass roof	96
10.	An old structure with brick wall and country tiled roof	
11.	A hut in a slum area with palm leaves as roof and mud walls	97
12.	A poor man's eating place housed in a katcha structure	

PHOTOGRAPHS—(Contd.) Facing **Page**

13. A conical shaped hut with grass as roof material
14. The view of a timber depot with wood as wall and asbestos sheets as roof — 106

15. A typical poor man's house with tile and tin as roof and wall materials
16. A view of the fire proof low cost cottages for the poor in Madras — 107

PART IV-A

REPORT ON HOUSING

REPORT ON HOUSING

CHAPTER I

INTRODUCTORY

The object of Population Census is to ascertain, record and tabulate certain particulars relating to every man, woman and child living in the country at a given point of time. It is, therefore, necessary to ensure that every person is enumerated but once. To achieve this object, location of habitations where population exist is necessary. A majority of the population live in buildings mostly used as dwellings while a minority live in houses used partly as residences and partly for other uses. Identification of groups of persons living in buildings used wholly or partly as residences is done by listing all such houses in an area or locality and ascertaining the number of inhabitants in them on the day of visit by the enumerator commissioned for this work. Houses in any area being numerous and well spread out, each such house needs to be identified on the ground by assigning a Door Number. In certain areas, door numbers are assigned as a permanent measure while in other areas, it is done on a temporary basis for Population Census. Not all houses are pucca. Some may be pucca while some others may be katcha huts, but all houses whether pucca or katcha used for human occupation have to be taken into account to ensure a complete count of the persons inhabiting them.

House-numbering and Houselisting

2. Usually the first stage in a Population Census, viz. House-numbering and Houselisting is done a few months ahead of the actual Census count. This work when completed provides a basis for the larger task of actual population count, in that, it helps to carve precisely the enumeration unit out of the recognised larger administrative units of District/Taluk/Village and Town, to estimate the manpower required for enumeration work as well as the quantity of Census schedules to be used for canvassing and to make necessary arrangements to meet these basic requirements.

3. In the earlier Censuses prior to 1961, the collection of details at the houselisting stage varied from State to State and no uniformity in the contents of the schedule was maintained. Except for purposes of counting of population, the Houselist was not used for any other purpose.

Housing data in Censuses 1881—1951

4. A brief indication of the information on housing conditions collected during the Houselisting Operations done in Tamil Nadu at the Censuses prior to 1961 is given below. In 1871, structural condition of houses —whether tiled, thatched or terraced was collected. In 1881, such details were not collected. In 1891, the same information was obtained. Such details were not gathered in 1901. In 1911 Census, in addition to the details collected in 1891 Census, data on industrial establishments engaging 20 persons or more, and the kind of fuel used were collected. Industrial establishments were classified as using mechanical power and no mechanical power. Details about briskness of activity in these establishments were also obtained. In 1921 also, this special industrial census was continued. Information about the nature of the roof of the house was collected. The 1931 Census Houselist obtained details about houses ordinarily used as residence; buildings not ordinarily used as residence; nature of occupant and remarks as to whether the house was uninhabited or used as a shop, temple, jail or toddy shop. For the 1941 Census, the contents of the Houselist was further improved in that the inmates of houses were classified with reference to religion, number of adults and children population, estimated number of inmates of institutions and floating population. Information on the nature of private buildings such as pucca and katcha, tiled and thatched, was obtained. For the 1951 Census, originally a Houselist was designed to collect details of houses giving the following information: (1) House Number and (2) Persons entitled to vote under the franchise with details of (a) name (b) father's or husband's name (c) sex (d) age and (e) community. After further consideration, no Houselist was actually prepared for any area in the composite Madras State.

Need for Housing Census

5. The United Nations Organisation in the Statistical publication entitled "M. No. 28 — General Principles for Housing Census" have indicated that Governments would find it necessary and convenient to conduct a Housing Census, in or around 1960 in connection with their Population Census. The lack of adequate housing has in the opinion of the United Nations, constituted one of the major deficiencies in the standard of living among large sections of population of the world, and serious social problems emerge from shortage of housing. The displacement of population from rural to urban areas and high population growth observed throughout the world in recent decades show that unless housing development programme is given momentum, the shortage of adequate housing would be greater than at present. The Governments are seized of this problem and are taking great interest in the programme of financing housing and community development programmes as the welfare of the population depends to a large extent on the number and quality of housing facilities available. It was desirable to survey the existing conditions at that point of time and assess the present and future needs on housing by effecting comparisons among nations and regions.

Houselisting in 1961 Census

6. With these objectives in view, the then Registrar General, India, introduced a major change in the House-numbering and Houselisting Operations for the 1961 Census and combined this operation to obtain certain basic information on the Housing conditions prevailing in the country in consultation with the National Buildings Organisation of the Government of India. The National Buildings Organisation was seized of the growing need for adequate housing facilities and were taking steps to meet the housing shortage by regional and national planning. In effect, the simple house-listing operations meant for the limited purpose of ensuring precise Population Census count turned into a Housing Census. Not only that, the 1961 Indian Census Houselist gathered details of all buildings whether used as residence or put to other uses while the United Nations Housing Census suggested the collection, compilation and analysis of statistical data pertaining to only housing units or occupants thereof.

Houselisting in 1961 and 1971

7. The Houselist schedules canvassed at the 1961 and 1971 Censuses respectively are given as Annexures I and II for facility of reference. The instructions issued to the enumerators for canvassing the 1971 Houselist schedule is reproduced in Annexure III. The contents of 1971 Census Houselist schedule closely follows that of 1961 Census except that the details of Census houses used as establishments have been covered by a separate schedule—Establishment Schedule. This Establishment Schedule covered all houses used for industrial, trade, or other avocations. The 1971 Census Establishment schedule is given in Annexure IV and the instructions for canvassing the schedule is given in Annexure V.

8. The present volume confines to the analysis of data yielded by the Houselist schedule. The analysis of the data yielded by the Establishment schedule is being presented in Part III of the Census publications relating to Tamil Nadu.

Houselist Schedule, 1971

9. The 1971 Census Houselist covered the following items of information :

(1) Building Number

(2) Census House Number

(3) Predominant construction material of Census house by (a) wall material and (b) roof material

(4) Purpose for which Census house is used–residence, shop, shop-*cum*-residence, business, factory, workshop, workshop-*cum*-residence, school, bank, commercial house, office, hospital, hotel etc., or vacant

(5) Whether the Census house is used wholly or partly as an establishment

(6) Households living in the house with names of heads of households and whether the head belongs to Scheduled Caste/Schedules Tribe

(7) Number of living rooms occupied by the household

(8) Whether the household lives in owned or rented house

(9) Number of persons by sex normally residing in the household on the day of visit by the enumerator

(10) Whether the household cultivates land

Collection of additional data on Housing

10. While planning for the 1971 Census, it was originally contemplated to gather some additional information on Housing such as age of the house, area of the house, basic amenities available in the house, viz. electric power, water supply, privy etc. The type of fuel used for cooking was also sought to be collected. Some of these particulars were to be collected on an Area Sample basis. Pretesting of the draft of 1971 Census Houselist schedule in the field revealed that eliciting precise details to some questions such as the age of the house was difficult. Further, calculating the area of the Census house involved much time which would result in employing more enumerators or extending the period of houselisting operations and would create administrative problems. The Planning Commission was of the view that the collection of particulars of availability of amenities like electricity, water supply and privy in Census houses of rural areas may not be meaningful while in urban areas the local bodies or civic authorities might be able to supply the required details and that in a quick operation like Census, collection of detailed data on housing may not be attempted in view of the time and expenditure involved as well as the unreliability of response to these questions. With these considerations in mind, it was decided to canvass a schedule which was basically the same as the Houselist schedule used in 1961 Census, so that the 1971 results might be comparable and also indicate the changes in the pattern of usage of Census houses, construction material of wall and roof and congestion of accommodation with reference to the number of rooms occupied per household.

Permanent House-numbering

11. Well before the House-numbering and Houselisting Operations of the 1971 Census was thought of, the Registrar General suggested the introduction of a permanent house-numbering scheme throughout this country during the inter-censal period. The details of the scheme on permanent house-numbering formulated by the Registrar General is given in Annexure VI for information.

12. The introduction of the scheme on permanent house-numbering by the Registrar General in all States goes as far back as 1947 when the preliminaries for the 1951 Census was taken up. Previously the houses were not assigned numbers except in municipal corporations or notified towns. At the time of every Census, temporary numbers used to be given in a series and the houses listed so that it served as a frame for Census enumeration. No scientific method of giving house-numbers was followed. It was, therefore, thought by the then Registrar General that the scheme of permanent house-numbering if introduced on a rational basis might serve to identify any person living in any area and that the coverage of Census count will be complete as the chances of missing a house and thereby its inhabitants would be far and few. It was also felt that the scheme when implemented and properly maintained would serve usefully to other Departments of the Government like Posts and Telegraphs, Elections, and Local Bodies in their day-to-day administration.

13. In the then composite Madras State, on the eve of the 1951 Census and the first General Elections of 1952, a permanent scheme of house-numbering was introduced by the State Government in all the areas. The present scheme on House-numbering formulated by the Registrar General, India, closely follows the general arrangement of numbering of houses and its maintenance in subsequent years implemented by the State Government. As such, the Madras (now Tamil Nadu) House-numbering System can be considered as a forerunner in this respect and considered to be the best in the country.

14. The house-numbering and houselisting operations of the 1971 Census were conducted a year ahead of the actual population count. The operations were conducted during 1st to 28th February 1970, in this State. The same operation for the 1961 Census was done from the 1st October, 1960 to 31st October, 1960.

House-numbering in Tamil Nadu

15. It would be relevant to give a brief idea of the house-numbering scheme in existence in the State. The Government of the composite Madras State settled the details of the scheme of permanent house-numbering in August 1948 and ordered its implementation over a period of two years. The intention of the State Government was that the house numbers assigned under the scheme are to be maintained on a permanent basis and should

serve all purposes such as preparation of electoral rolls, assessment of house tax by local bodies, for postal purposes, etc., and that every dwelling should be readily identifiable by a number attached to it so long as it existed and this number should get importance through common use. The responsibility for maintenance of house numbers in Class I Panchayats and Municipalities and the Corporation of Madras vested with the executive authorities and the expenditure incurred was met by the Local Bodies. The houses were numbered along the streets, proceeding from North to South. The house was defined as below: " A dwelling with a separate main entrance should be treated as a distinct house and numbered accordingly, irrespective of the number of persons residing in it. A dwelling may harbour more than one family, but unless each of the families have independent access outside, it should be treated as a single house ". Such houses whether inhabited or vacant were given a separate number irrespective of whether they formed part of the same building and/or were situated in the same compound or belonged to the same owner and irrespective of whether they were being used for residential or non-residential purposes. Places of worship like temples, mosques, churches as also shops, offices etc., were given numbers.

House-number in Panchayats and Municipalities

16. Each Panchayat and Municipality was treated as a separate unit for purposes of house-numbering scheme. In major panchayats, municipalities, and the Corporation of Madras, the existing arrangement is, that the houses in each street have been numbered in one series, irrespective of the size of the street, and this arrangement was left undisturbed. Old houses that have been omitted to be given numbers and new houses which come up were to be given sub-numbers or fresh ones in continuation of the series according to the existing plan of numbering with reference to the location of the houses in the street in which they were situated. The existing wards and divisions were to be revised taking into account the size of new electorate for election to Local Bodies under adult suffrage. For the purpose of identification of voter, it was considered desirable to preserve the well established localities in the area as such in the new scheme of numbering. The localities are to be first numbered in one series for the whole town. The streets which are known only by names should then be numbered in one series separately for each locality. Any new street in the locality has to be duly numbered according to its location therein. The existing numbers marked on the houses will remain unchanged. The number of the street was to be painted on the name plate or board at the entrance to the street. In respect of each major panchayat or municipality including the Corporation of Madras, a list in the following form was to be maintained :

No. and name of the locality (in serial order)	No. and name of the street (in serial order of Street Nos.)	House Numbers in the street in Col. 2	Total No. of houses in the street in Col. 2
(1)	(2)	(3)	(4)

House-number in Villages and minor Panchayats

17. Each revenue village or portion of a village lying outside the limits of a Panchayat or Municipality was treated as a separate area for house-numbering scheme. In minor panchayats and villages, the area should be sPlit up into compact blocks of 100 houses in each block with slight variations and the houses numbered in one series. A block was to consist of a group of adjoining streets or other compact local area with well defined boundaries. The number was to be done clockwise, if the houses are scattered or by streets, proceeding from north to south (or east to west), the numbering in each street being done from east to west (or north to south), odd numbers being given to houses on the right and even numbers to those on the left side. In a small village, the numbering was to be done in one series throughout the village. Numbering of blocks was to be done in the case of larger villages and villages with hamlets. The numbers of houses were to be marked in the centre of the lintel of the front door, or on the front door, or next to it on the wall. The number should be half an inch thick and two and half inches high. A rough plan of the village, not necessarily to scale was to be prepared by the Village Karnam showing the location of blocks, street numbers and the house numbers in each street and block. A key to the plan in the following form was to be recorded on the plan itself:

Number of the block in serial order	Name of the street comprising the block in Col. 1	House Number in the blocks (by streets)	Total Number of houses in the block (by streets)
(1)	(2)	(3)	(4)

Uptodating of the System of House-numbering

18. The house-numbering was uptodated once in five years when the electoral rolls were to be revised and published. Annual maintenance certificates were obtained from the Collectors of districts. At the time of the 1961 Census enumeration, the then Superintendent of Census Operations reviewed the scheme of permanent house-numbering in the State and took up the matter with the State Government for issuing instructions to the authorities concerned to accept suggestions made by him on house-numbering in the areas under their charge. This position was accepted by the State Government who issued necessary instructions in this regard. The house-numbering was reviewed in each area and brought uptodate as on 30th September, 1960 as a preparation for the 1960 houselisting to be done from 1st October, 1960.

Committee on Permanent House-numbering

19. Prior to my taking over charge in March 1969 as Director, a committee was constituted in September 1968 for the implementation of the scheme on permanent house-numbering on a scientific basis. The Chief Electoral Officer of the Government of Tamil Nadu was the Chairman and the Inspector of Municipal Councils, Director of Rural Development and representatives of Posts and Telegraphs Departments were members and the Deputy Director of Census Operations was the Convenor of the Committee. The Committee decided that the house-numbering should be checked in the villages by the Revenue Inspector and overchecked by the Deputy Tahsildars and Tahsildars. The Committee also decided that the house-numbering system should be the same as was in practice, the first number being in the north-western corner and the last in the south-eastern corner and that in all town panchayats and well laid out panchayats, instead of house-numbering blocks, a switch over be made to the ward-street system of house-numbering. In slum areas where there were no well formed streets or roads, it was decided to consider the entire locality as one street and allot house numbers. The Committee also decided that in the case of Railway Colonies, P.W.D. quarters etc., the house numbers already given should not be erased but at the same time, such numbers need not be fitted into permanent house numbering scheme and separate house numbers could be given as in the case of other buildings. As regards the fixing of house number plates, the same could be taken in a phased manner over a period of 2 to 3 years and that the number plates should be fixed as close to the entrance as possible. The choice of the material of the house numbering plate was left to the discretion of the panchayats, but the numbers to be painted would be 1 cm. thick and 7 cms. high.

20. The aims of the Committee as may be seen were more to uptodate the existing system than to modify it. The system of permanent house-numbering in Tamil Nadu was adopted in toto for 1970 houselisting and enumeration in March–April 1971.

Notional Maps drawn during Houselisting

21. The Houselisting operations of 1970 has produced a very useful document, viz. notional maps of villages and towns indicating the layout of village site/streets and geographical location of houses with important land marks. This record though not drawn to scale provides very useful details of the general arrangements of buildings, residential as well as non-residential with important land marks. In village maps the outer boundaries, village site, roads, cart tracks, hills, rivers, streams etc. are given with boundaries for the different enumerator blocks into which the village was divided. For each block, a map has been prepared indicating the layout of the houses on the village site with details of roads, streets, cart tracks, etc. Important topographical details such as tanks, rivers, streams etc. are marked thus locating every single house on ground in the area. Houses are shown as pucca and katcha by symbols □ and △ respectively with and without shading to differentiate residential and non-residential houses. The starting point of house numbers and the end point of the house numbers as well as the direction of the sequence of house numbers are also indicated in the notional maps of blocks. In the case of towns, special stress was laid on town boundaries and clear demarcation of the different wards or localities. Then a map for the ward or locality and for segments of a ward or locality of a town, if the ward or locality is too big was prepared indicating all topographical details and houses with their numbers as in the case of rural area maps. Two copies of such maps were prepared. One copy was kept in the offices of the Charge Officers and the other copy was brought to my office after the Houselisting was over.

22. The notional maps prepared at the 1971 Census have been arranged enumerator blockwise for each village and town of a taluk and bound so as to facilitate easy reference and for future use for special surveys to be conducted.

23. Specimen notional maps for two blocks are reproduced in the opposite page for the benefit of the readers.

Conduct of Houselisting Operations, 1970

24. As was indicated earlier, the houselisting operations were done from 1st February, 1970 to 28th February, 1970, in all areas of Tamil Nadu. For this purpose, the entire State excluding Madras City comprising of 13 districts was divided into 221 charges. Madras district which is identical with Madras City was divided into 4 charges. Each district was under the charge of a District Census Officer who was responsible for the operations in the entire district. Taluks, independent sub-taluks, and municipal corporations and towns, townships and cantonments were formed into separate charges under the control of a Charge Officer who was responsible for the houselisting operations in that area and responsible to the District Census Officer. Each Charge was further demarcated into Supervisor's Circles comprising of an average, 4 to 5 enumerator blocks under the control of a Supervisor. An enumerator's block is comprised of about 125 to 175 households.

25. The District Census Officer was also the Collector of the district. Tahsildars, Deputy Tahsildars in charge of independent sub-taluks, Municipal Commissioners and Executive Officers of townships and cantonments were appointed as Charge Officers. Supervisors were mostly officials of the district revenue establishments and State and Central Government offices. Enumerators were drawn from village officials, teachers of schools run by the Goverment and Local Bodies etc. The break-up of enumerators and supervisors drawn from different sources are indicated below. For the category of Supervisors, Assistants from Government Offices and Municipal Offices were employed in addition to the services of some headmasters of schools.

	Enumerators	Supervisors
Teachers	55,961	10,673
Village Officers	3,703	19
Other Govt. employees	2,133	4,635
Central Govt. Employees	39	37
Others	29	...
Total ...	**61,865**	**15,364**

Nearly 90% of the enumerators were drawn from the teaching staff of Government and aided schools. About 69% of the supervisors were from the category of teachers.

26. For doing the work of houselisting operations, a small amount of honorarium was paid to the enumerators and supervisors to meet the out of pocket expenses, soon after the conclusion of the houselisting operations. An enumerator was expected to cover about 125—150 households for houselisting and an honorarium of Rs. 15/- was paid for this work. The supervisor was also paid the same amount for supervisory work in his circle consisting of 4 to 5 enumerator blocks. As a token of appreciation of the work done by higher level of supervisory officials, the following amounts were paid to them as honorarium.

Charge Officer	Lump sum honorarium of Rs. 150/- for houselisting and enumeration
Personal Assistants to the Collectors and District Census Officers	Lump sum honorarium of Rs. 300/- for both the operations

Training of Enumerators for Houselisting

27. Collection of detailed information in the houselists by a large number of part-time enumeration personnel with varying levels of education will not be successful unless they are given proper training in the concepts adopted and understand the precise nature of information to be collected. Training has also to be imparted for more than one day with a practice enumeration in their areas. To impart training at a central place at headquarters of the State will be a stupendous task. In the previous Censuses, the

National Map of

KUTHAMBAKKAM VILLAGE

Block No. 1

ARKONAM TALUK

Arkonam Junc. to Katpadi Junc.

Mahendravadi R. S. 101

112 111 110 109 108 107 106 105 104 103 102

RAILWAY QUARTERS

93-B 93-A 93-2 93-1 95 95 A-3 95 B 94 95 A-2 95-A 99 Bajanai Kovil 92-B 92 92-A 91 89-A VEERAGHAPURAM 89 88 87 85 84 83 82 81 80-A 84-A 80-C 96 96-A

100 100 F E 100 100 100 100 100 D C B A ARUNTHATHIAR HOUSES

96 B-2 96-B

13-H 13-G 13-F E D C B A 13 13 13 13 13 13 9-B 9 A 3-B 3 C 3 A 1 A 1 Bajanai Kovil 5 NARIKUPPAM 2 14 14 14 14 12 10 8 6 2 2 2 2 2 C B A E D C B A

58 57 55 51 49 47 54 56 54 A 50 48 71-A P. U. School 65 67 63 62 42 41 25-C Muthiyalamman Temple 35-B 37 35-A 25 25-B

Tank Anjeniar Temple 71-B 80-1 80 78 77 76 75 74 75-A 72 70 68 66 64 KUTHAMBAKKAM

40 39 35 31 29 26-B 26-A VEDALAVADI Bajanai Kovil 40-A 38 36 34 33 32 28-A 28 27 26-1 26

18 18-A 24-A 23 22 21 VEDALAVADI KANDIGAI 18-B 19-B 20

113 Flour Mill

45 46 43 44

LEGEND

- Pucca House
- Katcha House

Notional Map of

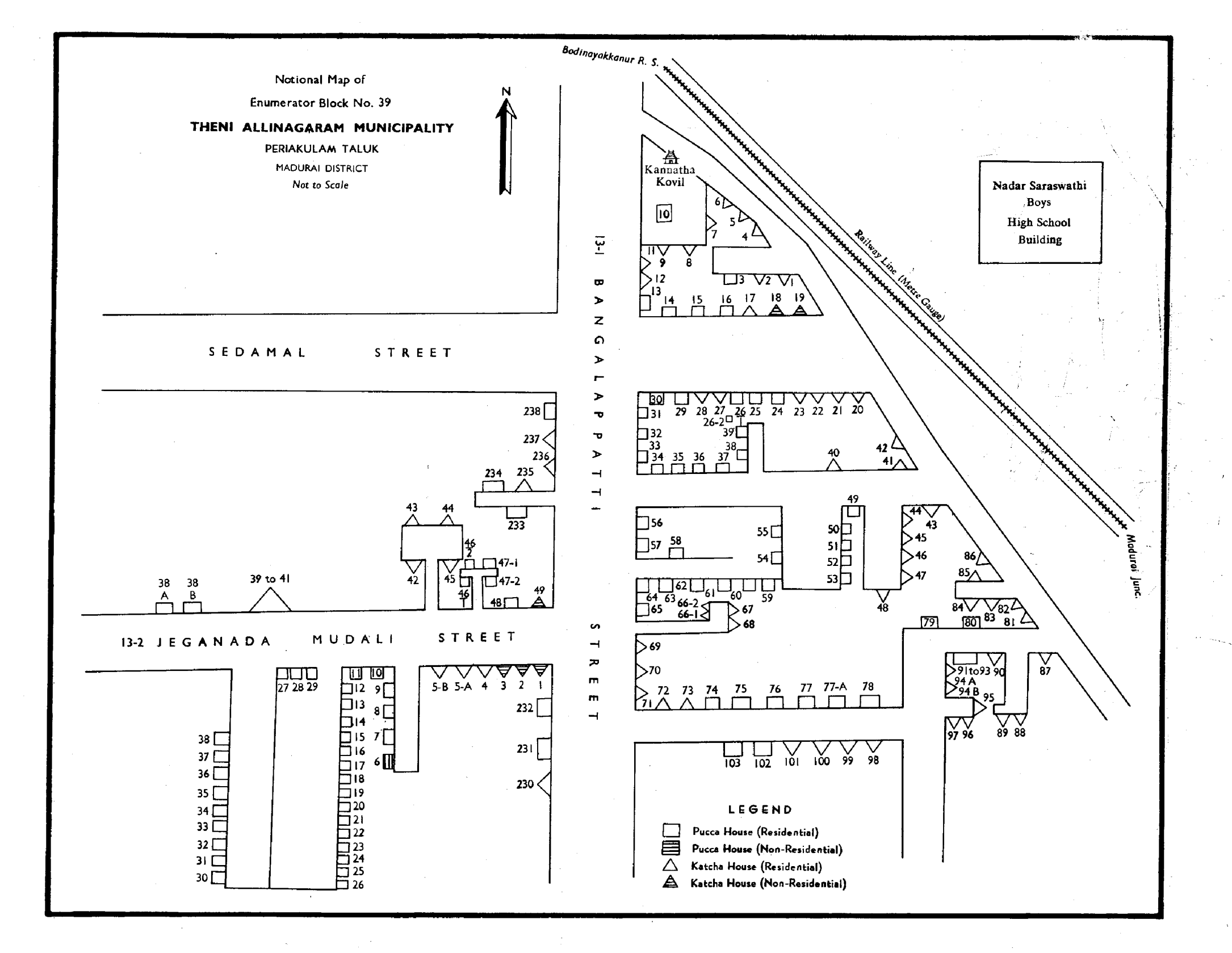
Enumerator Block No. 39

THENI ALLINAGARAM MUNICIPALITY

PERIAKULAM TALUK

MADURAI DISTRICT

Not to Scale



practice was that the Director and his deputies went round the districts to train the Charge Officers who in turn took up the training of enumerators and supervisors. I felt that burdened as they were, the Charge Officers—Tahsildars and Municipal Commissioners might not find sufficient time for training the enumeration agency. I took up the task of training the enumeration staff on myself. Graduates were recruited for the various posts in my office, given intensive training in the concepts of the 1971 Census, and subjected to a test. After this test, they were deputed for training the field staff who would be actually doing the enumeration work. The Deputy Directors and the two Assistant Directors of Census Operations of my office went round the districts and conducted training classes for Charge Officers. The Charge Officers were informed that they would be responsible for the training of the enumerators and supervisors to be employed in their areas but all possible help was extended to them by deputing the regular Census staff to assist them in conducting the training classes. The Charge Officers were requested to ensure the attendance of the enumeration agency at the training classes. At each training class, a batch of not more than 80 persons was imparted training by the staff of my office, and the earlier practice of gathering all the enumerators and supervisors of a charge in one place at a time for training was abandoned. The attendance at these training classes at various centres was good. Two training classes were held for every batch. In the morning, instructions of a general nature were given and in the afternoon, there was field demonstration by conducting a mock enumeration. In the next class, there was a general discussion by the enumerators and supervisors in which doubts were raised and clarified so as to enable them to do the work accurately. The entire training programme went through successfully.

28. I feel, that instead of holding the Charge Officers responsible for training the field staff, viz. enumerators and supervisors, the procedure followed in this State, by deputing some of the regular Census staff, Tabulation Officers, Statistical Assistants and Senior Computors who are in a better position to understand the concepts used and the exact data to be gathered in the Census schedules may be followed in future Censuses also so that the Charge Officers will be relieved to a certain extent of the burden of training the field staff. The Charge Officers will, however, be responsible for the proper conduct of the training classes. Mock enumeration in field can be better handled by the Census staff who will help the enumerators and supervisors in doing the actual work correctly. If more than one training class has to be conducted, one can be taken by the Charge Officer and the other by the regular Census staff deputed to assist the Charge Officer. Since the regular Census staff are given instructions and training in the concepts and questionnaire more intensively at the headquarters in accordance with the instructions of the Registrar General, India and are having higher level of education, they ought to be in a better position to give training to the field staff effectively.

Definition of basic concepts

29. Three important concepts are used in the houselisting operations connected with the 1971 Census. They are: (1) Building, (2) Census House and (3) Household. They are explained here briefly for the benefit of the readers :

Building

30. The building is a readily distinguishable structure or group of structures which is taken as a unit for house-numbering. It is generally a single structure and sometimes made up of more than one component unit which is used or likely to be used as dwelling (residence) or establishment such as shop, workshop, factory etc. or as godown, stores, cattle shed etc. or a combination of any one of these such as shop-*cum*-residence, workshop-*cum*-residence, etc.

31. Sometimes a series of buildings may be found along a street which are joined with one another by common walls on either side looking like a continuous structure. These different units are practically independent of one another and likely to have been built at different times and owned by different persons. In such cases though the whole structure with all adjoining units apparently appear to be one building, each portion should be treated as separate building and given a separate number.

32. If there are more than one structure within an enclosed or open compound (premises) belonging to the same person, e.g., the main house, the servants' quarters, the garage etc., only one building number should be given for this group and each of the

constituent separate structures assigned a sub-number like 1(1), 1(2), 1(3) and so on, provided these structures satisfy the definition of a "Census House", given hereafter. A building under construction, the roof of which has been completed should be given a number in the serial order.

33. In 1961 Census Houselisting Operations, the building was defined as every building with a separate main entrance which was treated as an entity and given a number by which it would be distinguished from outside. The definition for building in 1971 is the same as was in 1961. Both the definitions referred to independent structures. While in 1961 definition, emphasis was laid on every building treated as a separate entity and having a separate main entrance, in 1971 definition, the stress on main entrance was not laid. Perhaps this is due to the fact that for purposes of a building, it may not be necessary that each sub-unit of a building treated as a "Census House" should possess a separate main entrance. Thus a building having more than one Census house would naturally have more than one main entrance and as such the emphasis that a building should have a separate main entrance was considered superfluous.

34. A Census House has been defined as a building or part of a building having a separate main entrance from the road or common courtyard or staircase, etc., used or recognised as a separate unit. It may be inhabited or vacant. It may be used for residential or non-residential purposes or both.

Census House

35. In 1961, a Census House was defined as a unit which is viable and which could be distinguished. It could be used as a dwelling, a shop–*cum*–dwelling or a place of business, school or workshop. It could be inhabited or vacant. It could be a structure or part of a structure. As long as it was a unit for the purpose of common living or work, it is to be treated as a Census House. If a building has a number of flats or blocks which are ***independent of one another*** having separate entrances of their own from the road or a common staircase or a common courtyard leading to a main gate, such flats or blocks were treated as separate Census Houses. If within a large enclosed area there are separate buildings, then each such building will be one or more separate Census Houses. If all the structures within an enclosed compound were together treated as one building, then each such structure with a separate entrance was treated as a Census House.

36. The definition of Census house may sometimes be difficult of application in its literal sense in the context of varying patterns of structures and their usage. In cities and towns, one comes across a situation when a flat in the occupation of one household as residence may have four rooms or so and all the rooms may have direct entrance from a common courtyard or a staircase. If the definition of the Census house stated above is literally followed, then each such room would be considered as separate Census house which does not realistically reflect the situation of the number of houses. In such cases "singleness" of use of these rooms along with the main house by the household has to be taken into account and the entire flat consisting of four rooms should be treated as one Census house. If on the other hand, each one of these rooms had been occupied by independent households, then each with a separate main entrance will be treated as a separate Census house. In exceptional cases like hostels, buildings, etc., which have a number of rooms with an opening from each room into a common verandah or a courtyard or staircase, the entire hostel/building has to be treated as one Census house. In some rural parts, it may so hap pen that a household occupies a group of huts within an enclosed fence which has one main entrance Each of the apparently separate structures is an integral part of the housing unit as such, and to be realistic, each such group is to be treated as one Census house. Built-up sites whether assigned a number or not for property tax by local authorities are not taken into account for listing. Only where a structure with four walls and a roof has come up it was to be treated as a Census house and listed. Instances may also come up where in some areas the very nature of construction of the house is such that a conical roof almost touches the ground and an entrance is provided and there may not be any wall as such. Such structures are to be treated as buildings and houses-numbered for listing.

37. In the 1961 Census definition of the house, emphasis was not laid on the provision of a main entrance for a Census house but emphasis was made on its use either for common living or work. In the present Census, emphasis has been laid in the Census houses having a separate entrance of their own leading to a road or common way or a staircase. Both the

definitions recognised the fact that Census house is an integral part of the building and functions as a sub-unit of the building.

Household

38. It refers to a group of persons who commonly live together and take their meals from a common kitchen unless the exigencies of work prevented any of them from doing so. There may be one member, two member households or multi-member households. Only such groups as living together and taking meals from a common kitchen is recognised as a household. There may also be households of persons related by blood or of unrelated persons. The latter group comprises of boarding houses, hostels, residential hotels, orphanages, rescue homes, ashrams, etc., which are termed "Institutional household". The 1961 and 1971 definition of household is identical.

39. The concept of a 'Census house', as may be seen has a foolproof definition. In rural areas where there is apparently more buildings and less congestion, a building and a Census house are co-terminus and is usually inhabited by a single household. On the other hand, in urban areas, the buildings being lesser than what would be needed for the inhabitants, a building houses more than one household, each occupying a portion or a room with a separate entrance leading to a common verandah or courtyard, satisfying the definition of a Census house and comes to be recognised as such. This results in not reflecting a true picture of the lack of housing facilities if such cases are not correlated with the essential facilities of water supply, privy, etc., available to them. These limitations have to be kept in mind while using the data presented in the following Chapters.

Other Conceptual Definitions

40. The other concepts used in regard to material of roof and wall, vacant houses, establishments, owned or rented and room are indicated hereunder.

Material of wall

41. The material out of which the major portion of the walls of the houses are made, as for example, grass, leaves, reeds, bamboo, unburnt or burnt bricks, mud, stone, cement, concrete, timber etc., has to be indicated. Where a combination of any of them is used in the construction of wall, the material used in constructing the main portion of the house is to be recorded.

Material of roof

42. The material out of which most of the outer roofs exposed to weather (not the ceiling) is made, i.e., tiles, thatch, corrugated iron, zinc or asbestos cement sheets, concrete, slate, etc. should be recorded. In the case of multi-storeyed building, the intermediate floor or floors will be the roof of the lower floor. If the roof is mainly made of bricks, stone etc., and has mud or cement or lime plaster, in such cases, the material of roof would be bricks, stone etc., which constitute the fabric of the roof.

Establishment

43. An establishment is a place where goods are produced or manufactured, not solely for domestic consumption or where servicing and/or repairing is done, such as factory, workshop or household industry or servicing and/or repair workshop or a place where retail or wholesale business is carried on or commercial services are rendered or an office, public or private, or a place of entertainment, or where educational, religious, social or entertainment services are rendered. It is necessary that in all these places, one or more persons should be actually working. Thus, an establishment will cover manufacturing, trade and other establishments where people work, a factory or workshop or workshop-*cum*-residence or a trading or other establishment, i.e., where some kind of production, processing, repair or servicing is undertaken or where goods or articles are made and sold or some business is being carried on, such as a grocery or provision shop, restaurant, bank, hotel or an office—government or commercial firm—or an institution such as school, college, hospital, dispensary etc., where one or more persons are working. An establishment may occupy a Census house or a group of Census houses or a part of a Census house.

Owned or rented house

44. If a household is occupying a Census house owned by itself without paying anything—in cash or in kind to anyone else in the form of rent for occupying the house, then the household is considered as living in own house. A household hiring a flat or house, taken on ownership basis, on payment of instalments, is to be regarded as living in its own house in spite of the fact that all instalments have not been paid. If the household pays rent to some one else for occupation of the house, then, it will be considered as hiring a rental house.

Such cases will include households living in rent free accommodation.

Living rooms

45. A room should have four walls with a doorway with a roof overhead and should be wide and long enough for a person to sleep. It should at least have a length of not less than 2 metres and a breadth of 1½ metres and 2 metres in height. An enclosed room which is used in common for sleeping, sitting, dining, storing and cooking should be regarded as a room. Unenclosed verandah, kitchen, store, garage, cattle shed and latrine and rooms in which a household industry such as handloom weaving is located and which are not normally used for living or sleeping are excluded from the definition of a living room.

46. In certain areas, conical shaped huts or tents in which persons reside would be found. In this improvised accommodation, there will be no four walls to a room and the definition of room mentioned above would not be strictly applicable. In such cases, the conical hut or tent should be construed as constituting a room.

Vacant

47. If in a Census house it was found at the time of houselisting that no person is living in it and that Census house is not being used for any other purposes also, it is treated as "vacant". Mere fact that the house was locked because of occupants being absent temporarily on pilgrimage or visit to other places, such Census houses were not treated as vacant.

Institutional Households

48. Houselisting was started on the first of February, 1970 and went on without any particular difficulty. One concept, viz. "Institutional Household" about which there was a last minute effort to clarify such cases with the abbreviation "Inst.", along with the name of the head of household in Col. 9 of the schedule created some problems. On this basis, instructions were issued from my office to all District Census and Charge Officers and this last minute effort after the conclusion of the training classes, did not produce the desired results. Several enumerators wrote "Kudithana Nilayam" in Col. 9. Some mistook the houses that bore the name "Nilayam", e.g., 'Anbu Nilayam' as institutional households. The total number of institutional households thus reported were very high, which did not reflect the true picture. I directed the Deputy Directors of Census Operations of Saidapet and Madras City to carry out a check in at least one block in their jurisdiction to find out the accuracy of returns for institutional households. In many cases it was found that the word "institution" was not recorded in Col. 9 of the Houselist schedule while in the Household Abstract, the total number of households as in col. 8 had been repeated. There was also another misinterpretation of certain houses used as Establishment-*cum*-residence as institutional households.

49. In certain enumerator's blocks, in institutional houses having large number of rooms where persons reside, each room was treated as separate Census houses and as institutional households.

Houselisting and Census Act, 1948

50. Houselisting operations conducted as a preliminary to the Census Operations does not as a matter of fact come within the purview of the Census Act of 1948. Executive instructions were issued for the canvassing of the houselist schedule. I am of the opinion that non-inclusion of the canvassing of Houselist schedule in the Census Act of 1948 does not affect the details gathered since the executive instructions issued in this respect carries the same weightage in implementation just like the provisions of the Census Act.

Quality of Houselisting

51. The quality of the work of the enumeration agency was generally of a good standard. Since more than 60,000 persons with varying levels of education who were new to this kind of statistical enquiry were utilised by giving training for short durations, there were cases where in some places, the quality of work was low. Generally, taking the operations as a whole there was overall good performance.

The Filled-in Schedules

52. After the completion of houselisting operations, the Charge Officers were instructed to send one copy of houselist, both copies of establishment schedules and houselist abstracts and one copy of notional map to this office. They were instructed to retain with them one copy of the houselist and one copy of notional map for distribution to the enumerators during the regular Census enumeration in March, 1971 for reference and return,

The records to be sent to this office were asked to be arranged in the ascending order of location code number and sent. The Charge Officers were also instructed to verify and ensure that the houselist records of each block had the page number on the right hand corner of the form. They were also asked not to fold the houselists since such folding would damage the records. The Charge Officers were required to properly pack these records and to send them to the concerned Collector's office before 9th March, 1970. The Deputy Directors of Census Operations were instructed to make arrangements to collect the records from the Collector's office and despatch to Madras by lorry so as to reach by 12th March, 1970. All these records were received at the Coding and Punching Cell at 25/3, Chamiers Road, Madras. Four teams of persons—each team consisting of one Statistical Assistant and 3 or 4 Lower Division Clerks were entrusted with the work of receipt and arrangement of the houslist records. From each district, an Assistant of the Collector's office also accompanied the records and only after verification of the records with that of the chargelist to ensure that all houselists have been received, the Assistant was sent back.

53. Instructions were also issued to ensure that one copy of the houselist and notional map retained by the Charge officers were stored in strong rooms or record rooms where there was some protection against white ants, etc. The Charge officers were also instructed to periodically inspect and verify and send a certificate in this regard once in a month to the Collector, copy marked to this office. The Deputy Directors also made periodical checks during their tour.

54. Since certain new taluks were formed after the Houselisting and before the regular Census enumeration done in March, 1971, the houselist records and notional maps relating to the jurisdiction to the newly created charges were transferred to them in November, 1970.

Houselist Population

55. The total population as arrived at from the Houselist Abstract during Houselisting was 39,792,388 consisting of 20,130,869 males and 19,661,519 females registering a growth rate of 21·2% for the State during the decade 1960 to 1970. The final district-wise population as recorded during houselisting is given in Annexure VII. Madras City registered the highest increase of 40·9% and Chingleput the next highest, the decadal increase being 28·2%. In all the districts, the increase was more than 15%. As soon as the charge abstracts for houselisting were received, the percentage of growth of population during the decade was worked out comparing with the 1960 houselist population and the taluks where the rate of increase was less than 15 per cent, were taken up for investigation lest there should be any under-enumeration in these areas. There were 9 taluks, four in North Arcot, two in Thanjavur, one each in South Arcot, Dharmapuri and Salem which registered growth rate of even less than 10% for the decade and there were 24 taluks which registered increase of 10% to 15%. I wrote to the Collectors giving them the taluk-wise houslist population figures of 1960 and 1970 and also the percentage increase and requested them to investigate and find out the reasons for the low growth in the taluks where the rate of growth was less than 15%. Myself and my Deputy Director also investigated personally some cases. Almost in every district, except Kanyakumari, there were taluks which recorded less than 15 per cent increase, the maximum number of taluks being in Thanjavur. In some cases, especially in Srivilliputhur taluk of Ramanathapuram district, Collector attributed migration as the reason for the low increase. This preliminary investigation was really useful since it spotlighted areas where more vigilance and supervision was called for during the general Census enumeration.

Mechanical Processing of Houselist Schedules

56. The houselist schedules soon after their receipt in the Coding and Punching Cell of my office were scrutinised, edited and coded and then transferred to punch-cards. The data in the punched cards were transferred to magnetic tapes on the Southern Railway Computer at the State level and the magnetic tapes were sent to the Data Processing Division of the Office of the Registrar General, India, New Delhi for preparation of four Housing Tables. In the following paragraphs a brief note of the various processes involved in my office in this respect is given.

57. As mechanical processing of Census schedules and computerisation was a new kind of work, sufficient, care was bestowed for planning in advance to assess the need for mechanical equipment and its installation

furniture, stationery like punch-cards, recruitment of operators for card punches and verifiers, staff for scrutiny, editing and coding of the entries in the Houeslist schedule etc., as well as supervisory staff. Mechanical tabulation equipment of punchers and verifiers weresu pplied by the I.B.M. Ltd. in two batches.

58. The I.B.M. Engineer was consulted in regard to the setting up of the machines according to their standards and then installed. The installation started on 29—4—70 and completed on 20—5—70. Though the machines were installed quickly, machine breakdowns were there and were set right after some period of time.

59. Sophisticated mechanical tabulation equipment required special furniture for the operators. Specification for the tables and chairs for operators, card trays, cabinets, etc., were given by the Registrar General, India and special orders were placed with the Government agencies and private firms for supply.

60. The operation of card punches and verifiers needs trained operators. Availability of trained and experienced operators had to be taken into account. Further, as we needed operators for two shifts in order to complete the schedule of work, more operators were needed. A training programme on punching and verifying operations was conducted for all technical staff consisting of Assistant Compilers to Tabulation Officers for about a week. A background for successful operations of the Coding and Punching Cell was explained with details as to how the documents were to be punched and cards prepared. Emphasis was laid throughout for ensuring quality. Though training schools exist for the training of operators of punchers and verifiers, not much reliance could be placed on the persons stating that they were trained earlier. Job training after selection and appointment was felt and they were intensively trained on the job to be done so as to achieve the targets with an eye on quality. A period of about 3 weeks was thus consumed for this intensive training.

Tabulation of Houslist Data

61. The transfer of data from the houselists to punch-cards requires scrutiny and coding of entries in the houselists. For this also the staff had to be trained in various stages listed above. An intensive training programme for a period of a fortnight was organised and the staff recruited were given to understand the basic concepts adopted in the Houselist operations as well as the purpose for which the information is gathered therein. The list of codes to be adopted as well as the procedure of sampling adopted for preparation of Housing Tables are given in Annexure VIII. These were explained to the coding staff and after testing them in practical work, they were entrusted with the work.

Editing of Houselist Schedules

62. A thorough scrutiny of houselist formed the first stage of tabulation. This was followed by editing to remove obvious errors in the information recorded in the houselist. This was necessary in view of the fact that the data had to be processed by mechanical tabulation equipment. The omission to give Location Code Structure was dealt by noting the same now with reference to the information available in the chargelist prepared for the Administrative Unit. The omission to indicate line number was corrected so as to be in a continuous series. The building No. and Census house No. recorded in Cols. 2 and 3 and the household No. in Col. 8 were checked with reference to the details given in the Establishment Schedule. The scrutiny of entries in columns 4, 5, 10, 11, 12, 13, 14, 15 and 16 was done only in respect of sampled Census Houses and all the households contained in that Census House. Wherever blank was found in Col. 3, it was filled up with reference to relevant information available in connected columns. On the whole, I found that editing was necessary and it was helpful in the transfer of data to punch-cards for final processing on electronic computer.

63. For purposes of sample selection, the following operational units were adopted.

1. In the case of rural areas, taluk or independent sub-taluk was taken as the Operational Unit. Each City and Non-City urban area (consisting of all the towns other than City) in a district constituted separate operational units.

2. *Sampling* : Samples were selected independently for the operational units which contain a number of enumerator blocks. A separate random start was made for each operational unit and the selection in one operational unit was a continuous process. Every fifth house was selected in

each operational unit systematically from the beginning with the random start. A control chart was used to serve as a check in the selection of samples.

3. *Coding and Punching*: The code structure prepared by the Registrar General was used for this purpose. The entries in Cols. 3, 4, 5, 6, 10, 11, 12 and 16 in the Houselist schedule were coded.

4. *Tables*: Four Tables known as "H" series tables were prepared from the data collected in the houselist. They are:

(i) H–I: Census Houses and the uses to which they are put.

(ii) H–II: Distribution of Census Houses by predominant material of wall and predominant material of roof.

(iii) H–III: Households classified by the number of members and number of rooms occupied.

(iv) H–IV: Households classified by size and tenure status.

Details of Housing Tables prepared

(i) Table H–I presents data for total, rural and urban areas of the State and Districts. In addition, data are presented for each city in a district. It gives an account of the uses to which the Census Houses are put. This Table corresponds to Table E.I of 1961 Census.

(ii) Table H–II was prepared for the same units as for Table H–I. The structural condition of the Census Houses by use of different materials in the construction of wall/roof for the houses are presented. This Table corresponds to Table E-IV of the previous Census.

(iii) Table H–III is also presented for the same units as in Tables H–I and H–II. It helps in understanding the extent of congestion and overcrowding in Census Houses occupied by the households. The comparative Table of 1961 Census is Table E–V.

(iv) Table H–IV also presents data for the same units as in Tables H–I, H–II and H–III. This Table gives information of the size of households (one person, 2 persons, 3 persons, 4 persons, 5 persons and six and more persons) and whether such households are residing in owned or rented houses. This Table somewhat corresponds to Table E–II of 1961 Census. In E–II Table of 1961, tenurial status for households was given without cross classification by size of households.

64. The data collected for all the four Tables was on a 20% sample of Census houses. But while presenting figures in all the Tables, the figures obtained from sampled houses for the different characteristics were projected by the use of multipliers at the Office of the Registrar General, India. A note on the methodology adopted for working out the multipliers and the estimates is presented in Annexure IX. The main tables giving absolute figures for the State/Districts and each City will be found in Part IV-B – Housing Tables, the second part of this volume.

Housing Subsidiary Tables

65. For purposes of analysis of the data given in the main tables, the subsidiary tables were prepared in my office.

Two Subsidiary Tables from Table H–I were prepared. They are:

H-I. 1 Distribution of 1,000 Census houses by vacant and different types of occupied Census houses. Distribution is presented for all the areas of State, Districts and for Cities.

H-I. 2 Distribution of 1,000 Census houses for selected types of use among rural and urban areas. Distribution is given for State and Districts.

Four Subsidiary Tables have been prepared from Table H-II as indicated below:

H-II. 1 Distribution of 1,000 Census houses by predominant material of wall in rural and urban areas separately. Distribution has been shown for State District/City.

H-II. 1(A) Distribution of 1,000 residential Census houses by prodominant material of wall in rural and urban areas separately. Distribution is for State/District/City.

H-II. 2 Distribution of 1,000 Census houses by predominant material of roof in rural and urban areas separately. Distribution in respect of State, Districts and Cities are presented.

H-II. 2(A) Distribution of 1,000 residential Census houses by predominant material of roof in rural and urban areas separately. Distribution has been given for State, Districts and Cities.

Two Subsidiary Tables - H-III. 1 and H-III. 2 were prepared from Table H-III.

H-III. 1 Distribution of 1,000 Census households by number of rooms occupied. Distribution is given for all areas of the State, Districts and for Cities.

H-III. 2 Number of males and females per room and persons per household. Figures have been worked for the State and District for total, rural and urban and for Cities.

Only one Subsidiary Table - H-IV. 1 - 'Distribution of 1,000 Census households living in Census houses according to size of the household in rural and urban areas separately' was prepared from Table H-IV. Distribution is shown for State/District/City.

65. The analysis and observations made in the coming Chapters are based on the figures worked out from main tables and subsidiary tables. The subsidiary tables are presented at the end of each Chapter to which they relate. The main tables are, however, presented in a separate part at the end as indicated earlier in this Chapter. It is hoped that the figures presented and analysis made in this volume will enable the readers to appreciate the picture on housing conditions in Tamil Nadu.

ANNEX

Name of District: .....(Code No.....)

Name of Island/Taluk/Tehsil/Thana/Anchal/Town.....(Code No.....)

Name of Village/Ward/Mohalla/(Enumerator's Block).....(Code No.....)

CENSUS OF

HOUSE

Line No.	Building Number (Municipal or local authority or Census number) if any.	Building Number (Column 2) with sub-numbers for each Census house.	Purpose for which Census house used, *e g.*, dwelling, shop, shop-*cum*-dwelling, business, factory, workshop, school or other institution, jail, hostel, hotel, etc.	If this Census house is used as an establishment, workshop or factory			
				Name of establishment or proprietor	Name of product (s) repair or servicing undertaken	Average No. of persons employed daily last week (including proprietor, or household members if working)	Kind of fuel or power if machinery is used
1	2	3	4	5	6	7	8
1							
2							
3							
4							
5							
6							
7							
8							
9							
0							

URE 1

INDIA 1961.

LIST

Description of Census House		Sub-number of each Census household with Census house number (Column 3)	Name of the Head of Household	Number of rooms in Census house-hold	Does the house-hold live in own or rented house ? (a) Cwned (O) (b) Rented (R)	Number of persons residing in Census household on day of visit			Remarks
Material of wall	Material of roof					Males	Females	Total	
9	10	11	12	13	14	15	16	17	18

ANNEX

CENSUS OF

HOUSE

Name of District..... Code No.....

Name of Taluk/Tehsil/Thana/Anchal/Island..... ..... Code No.....

Line No.	Building No. (Municipal or Local Authority or Census No.)	Census House No.	Predominant construction material of Census House		Purpose for which Census House is used, *e. g.*, residence, shop, shop-*cum*-residence, business, factory, workshop, workshop-*cum*-residence, school, bank, commercial house, office, hospital, hotel, etc., or Vacant	Is it used wholly or partly as an establishment? Yes or No. If *yes*, enter further details in the Establishment Schedule and indicate the serial No. of that entry here
			Material of Wall	Material of Roof		
1	2	3	4	5	6	7
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						

Note : Please do not write in the spaces enclosed by dotted lines in Cols. 4, 5, 6, 10 & 12. These are meant for use in the Tabulation Offices for coding.

Signature of Enumerator..... Date.....

U R E II

INDIA 1971

LIST

Name of Village or Town..... Code No..... .....

Name or Number of Ward/Mohalla/Enumerator's Block..... Code No.....

If used wholly or partly as a residence									
Household No.	Name of the Head of Household	If S.C. or S.T., write name of Caste/Tribe	No. of living rooms in the occupation of Census Household	Does the household live in owned or rented house? (*i*) Owned (O) (*ii*) Rented (R)	No. of persons normally residing in Census Household on day of visit of the enumerator			Does the household cultivate land? (Yes or No)	Remarks
					Males	Females	Total		
8	9	10	11	12	13	14	15	16	17
		.....		.....					
		.....		.....					
		.....		.....					
		.....		.....					
		.....		.....					
		.....		.....					
		.....		.....					
		.....		.....					
		.....		.....					
		.....		.....					
				Total					

Signature of Supervisor..... Date..... .....

ANNEXURE III

INSTRUCTIONS TO ENUMERATORS FOR FILLING UP THE HOUSELIST SCHEDULE, 1971

HOUSELIST

General

Census is a national undertaking of great importance, indispensable to intelligent and efficient public administration apart from the other multifarious ways it serves the scholar, the businessman, industrialist, the country's planners, the electoral authorities etc. Census has become a regular feature in every progressive country, whatever be its size and political set-up and they are conducted at regular intervals to fulfil well-defined objectives.

2. The job entrusted to you, viz., the house-numbering and houselisting is an essential preliminary step to the population census. Apart from mere listing of houses, you will be collecting some essential data on housing, as also separately on manufacturing, trading and service establishments which will be useful to the country's planners. You have, therefore, an important role to play. The quality and quantity of your contribution depends on how well you apply yourself to this task, understand the instructions thoroughly and carry out your responsibilities with the care that it demands.

3. You will be required to prepare lay-out sketches showing the location of houses within the area allotted to you and number all the houses, residential or other-wise and list them and fill up some essential particulars in the schedules given to you. The house-numbering sketches prepared by you may form the basis for a permanent system of house-numbering that may be introduced and maintained by the local bodies concerned in future.

House-numbering and preparation of Notional maps

4. *Rural areas* : The first operation will be allotment of distinguishing numbers to each building, house and household.

5. Before the actual affixing of house numbers on doors an essential step to be taken is to prepare a rough notional map of the entire village and decide on whether the village should be sub-divided into blocks and if so, how ? Normally a small village of less than 125 houses need not be sub-divided into blocks. But if a village has one or more hamlets, irrespective of the size, it is desirable to divide the area of the village into blocks so that each hamlet with the adjoining area is recognised as a separate house-numbering block of the village. It is important that the dividing lines between one block and another should be clearly demarcated. Such dividing lines, besides following some natural boundaries wherever possible should also be indicated by the Survey number that fall on either side of the dividing line in cadastrally surveyed villages. In villages which are not cadastrally surveyed, the line can be indicated by the name of the owners of the fields, on either side of the line or by the name of the field, if any. A notional map showing the general topographical details of a whole revenue village particularly if a survey map is already available with the Village Revenue officials, will greatly help. This notional map should indicate the prominent features and land marks such as the village site, roads, cart tracks, hills, rivers, *nallahs*, etc. Clear demarcation lines of blocks are important so that any to define at the foot of the map the boundaries of a particular block is covered by a specific block without giving scope for any doubt. It may be desirable to define at the foot of the map the boundaries of each block clearly.

6. Having thus prepared the village map, each block of the village as demarcated on the village map should be taken up for a detailed sketching of the layout. In this detailed sketch the emphasis is mainly on the lay-out of the houses on the village site. The sketch should show all the roads, streets and cart tracks. The names of the streets, if any, should be shown on these sketches. All topographical details, important features and public buildings should be prominently shown. Then every single building or house should be located on this sketch. It will be of advantage if the *Pucca* and *Kachha* houses are shown by some conventional signs like a square □ for a *Pucca* house and a triangle △ for a *Kachha* house, further depicting them as residential or non-residential as follows :

□ *Pucca* residential house ; for *Pucca* non-residential house shade the square.

△ *Kachha* residential house ; for *Kachha* non-residential house shade the triangle.

It is difficult to evolve a comprehensive definition of the terms 'Pucca' and 'Kachha' houses to cover different patterns of structures all over the country. The categorisation of the houses as *Pucca* or *Kachha* for the purpose of depicting them on the lay-out sketches is purely to facilitate identification. Also, as *Kachha* houses are not likely to be long-lasting, any one referring to the lay-out sketches a few years later can easily distinguish settlement areas which are likely to have undergone a change. For the purpose of the preparation of lay-out sketches, a *Pucca* house may be treated as one which has its walls and roof made of the following materials :

Wall material : Burnt Bricks, stone (duly packed with lime or cement), cement concrete or timber, etc.

Roof Material : Tiles, GCI* sheets, asbestos cement sheets, RBC*, RCC* and timber, etc.

*Note : G.C.I—Galvanized Corrugated Iron, R.B.C.—Reinforced Brick Concrete and R.C.C.—Reinforced Cement Concrete

Houses, the walls and or roof of which are made of materials other than those mentioned above such as unburnt bricks, bamboo, mud, grass, reeds, thatch etc., or loosely packed stone, burnt bricks etc., may be treated as *Kachha* houses.

7. When once the location of every building/house is fixed on the plan, it will be a simple matter to decide on a convenient method of numbering the buildings/houses in one series following certain principles. No hard and fast rule can be laid as to the direction in which the house numbers should run (*i.e.,*) left to right or in a clockwise order or north-east to south-west and so on. Much depends on the lay-out. So long as some convenient and intelligible order is followed it should be all right. The numbers allotted to each house should be marked on the sketch and with the help of arrow marks at convenient intervals, the direction in which the house numbers run should be indicated. This is particularly important when streets cut across one another and the house-numbering series along a street get interrupted. It will be of advantage, if the numbers are roughly marked in pencil on this sketch and later verified with the actual state of things on ground to see if the order of numbering indicated on the sketch would be convenient or if any slight changes are needed, for, after all the sketch is only a rough one and the actual state of buildings on ground may suggest a more intelligible order of numbering at some places.

8. Where villages are not cadastrally surveyed and the village boundaries not fixed by survey, it is essential that the limits of each village are defined by some permanent features so that it may be known that any house falling in any such areas may be reckoned along with a particular village.

9. In the forest areas, all habitations are not on settled pattern. There are forest villages which may be just like other revenue villages or *mauzas*. For such villages procedure for preparing normal lay-out plan sketches may be followed. But apart from such villages, there would be clusters of habitations spread out in the forest. It will be facilitating, if for the purpose of netting such clusters a lay-out plan is prepared of the Forest area comprising the lowest administrative unit (such as, beat of a Forest Guard in some States). Then the clusters should be drawn on the lay-out sketch. Name of the cluster should also be written, if there be one. If there be no name, then it would be necessary to identify it with reference to any known permanent feature such as a hill stream, a range of hills, road and so on. After drawing the boundaries of such clusters on the lay-out, the location of each of the houses should be indicated on it and number assigned to each house. Habitations (clusters) falling within the area of the smallest forest administrative unit should be taken as one village for the purpose of house-numbering and houselisting.

Since it is likely that some of the tribal habitations may change their locations now and then, it is necessary to define the location of a habitation area with reference to any known permanent feature as indicated above in regard to the clusters in Forest areas.

10. *Urban Areas:* The preparation of notional maps and the house-numbering sketches in urban areas should essentially follow the same procedure as in the rural areas excepting that in most urban units, the Draughtsman of the Municipal administration might have already prepared town maps perhaps even to scale and these may come extremely useful. It has been found from experience that the boundaries of towns are often times loosely defined and not properly demarcated giving rise to several doubts regarding the areas lying on the out-skirts of towns. It is important that the map should very clearly indicate the boundaries by means of definite survey numbers and also other permanent features. Sometimes one side of a road falls within the town limits and the other side excluded as it may be outside the defined boundary of the town. All these should be carefully verified on ground before the maps are certified to be correct by the supervising authorities. Cases of sub-urban growth adjoining the limits of a town and such cases as one side of a street falling outside the limits of a town should be brought to the notice of the superior officers who will have to ensure that such built up areas are properly accounted for within the administrative units in which they fall.

11. But what is essential is that very detailed plans showing the location of every building and census house along every road and street in each ward, locality or *mohalla* of a town should be clearly prepared. In view of the very large number and close location of houses in urban areas it may be necessary to have a large number of sketches each covering a limited area. Each town would probably have already been divided into some permanent *mohallas* or localities or wards. A large map of the entire town indicating the boundaries of each of the sub-units into which the town has been divided should be prepared. On this map, the main roads and other topographical details and important public buildings etc., may be shown for clear identification of the boundaries of each *mohalla*/locality/ward etc. Next, a skeleton map of each locality/ward or block should be prepared in which all the roads and streets should be clearly indicated and their names also written. Then each building and house should be located on this skeleton map. May be that even a locality/ward may be too large an area to indicate all houses on a single map. In such a case a ward map showing the segments and separate lay-out map for each one of the segments may be prepared and on these segments the buildings and houses should be clearly located and the house-numbers shown. It may be an advantage if the non-residential houses are distinguished from the residential houses as indicated in para 6 of these instructions. Here again the important permanent buildings may be indicated such as say, town-hall, large office building, court building, post office, hospital, school, church, market building etc.

12. As stated earlier most towns may already be having a satisfactory house-numbering system. This need not be disturbed and may be adopted for the purpose of preparation of the house-numbering maps referred to above. The house-numbering can be brought up-to-date with the help of these lay-out maps. If there be no proper system of house-numbering in the town, then you will have to assign numbers to the houses in the lay-out sketch (es) of your jurisdiction in the manner indicated hereafter.

Numbering of Buildings and Census Houses in rural as well as urban areas:

13. You have to give numbers to "Buildings" and "Census houses" in all areas. The instructions below will guide you to determine what a building and a census house are for the purpose of houselisting. The building is a readily distinguishable structure or group of structures which is taken as the unit for housenumbering. The entire building may be deemed one census house or sometimes parts of it, as will be explained. The objective is to ultimately number and list out all physical units of constructions which are used for different purposes, residential or otherwise.

14. *Building*: A "building" is generally a single structure but sometimes made up of more than one component unit, which are used or likely to be used as dwellings (residences) or establishments such as shops, workshops, factories, etc., or as godowns, stores, cattle-sheds etc., or in combination with any of these such as, shop-*cum*-residence, or workshop-*cum*-residence, etc.

15. Sometimes a series of different buildings may be found along a street which are joined with one another by common walls on either side looking like a continuous structure. These different units are practically independent of one another and likely to have been built at different times and owned by different persons. In such cases though the whole structure with all the adjoining units apparently appears to be one building, each portion should be treated as separate building and given separate number.

16. If there are more than one structure within an enclosed or open compound (premises) belonging to the same person *e.g.*, the main house, the servant's quarters, the garage etc., only one building number should be given for this group and each of the constituent separate structures assigned a sub-number like 1 (1), 1 (2), 1 (3) and so on provided these structures satisfy the definition of a 'Census House' given hereafter.

17. The buildings should be numbered as follows:

(i) If the locality consists of a number of streets in a village, the buildings in the various streets in a village, should be numbered continuously. Streets should be taken in uniform order from North-east to South-west. It has been observed that the best way of numbering the buildings is to continue with one consecutive serial on one side of the street and complete the numbering on that side before crossing over to the end of the other side of the street and continuing with the serial, stopping finally opposite to where the first number began.

(ii) In a town/city, enumeration block, the numbering will have to respect the axis of the street and not any preconceived geographical direction like North-east etc.

(iii) Arabic numerals *e.g.* (*1, 2, 3,.....*) should be used for building numbers.

(iv) A building under construction, the roof of which has been completed should be given a number in the serial.

(v) If a new building either *Pucca* or *Kachha* is found after the house-numbering has been completed or in the midst of buildings already numbered, it should be given a new number which may bear a sub-number of the adjacent building number, *e.g.* 10/1.....

NOTE: These should not be numbered as 10 (1) or 10 (2) etc., as such numbering would apply to census houses within the same building. On the other hand, 10/1 would mean a separate building that has come up after building No. 10.

18. *Census House*: A "Census house" is a building or part of a building having a separate main entrance from the road or common court-yard or stair-case etc., used or recognised as a separate unit. It may be inhabited or vacant. It may be used for a residential or non-residential purpose or both.

19. If a building has a number of flats or blocks which *are independent of one another* having separate entrances of their own from the road or a common stair-case or a common court-yard leading to a main gate, they will be considered as separate census houses. If within a large enclosed area there are separate buildings, then each such building will be one or more separate census houses. If all the structures within an enclosed compound are together treated as one building then each structure with a separate entrance should be treated as a separate census house.

20. Each census house should be numbered. If a building by itself is a single census house, then the number of the census house is the same as the building number. But if different parts or constituent units of a building qualify to be treated as separate census houses, each census house should be given a sub-number within brackets to the building number as 10(1), 10(2) etc., or 11(1), 11(2), 11(3), etc.

21. The order in which census houses within a building are to be numbered, should be continuous, preferably clockwise or in any convenient manner if it is difficult to do it clockwise.

22. The definition of census house may sometimes be difficult of application in its literal sense in the context of varying patterns of structures and their usage. For example, in cities and towns, one does come across a situation when a flat in the occupation of one household as residence may be made up of four rooms or so and all the rooms may have direct entrance from a common court-yard, or a stair-case. In terms of the definition of a census house each of these rooms having entrances from the common stair-case etc., may qualify to be treated as census houses. But it does not realistically reflect

the situation of the number of houses. In such cases, 'singleness' of use of these rooms along with the main house by the household should be taken into account and the entire flat comprising four rooms should be treated as one census house only and assigned one number. If on the other hand each one of these rooms had been separately occupied by independent households and if each portion had separate main entrance then each will be justified to be treated as a separate census house. In a hostel building even if the door of each room in which an inmate lives opens on to a common verandah or stair-case as it happens almost invariably, the entire hostel building may have to be treated as one census house only. In some parts of the country in the rural areas, the pattern of habitation is such that a single household occupies a group of huts within an enclosed fence which has one main entrance. Each of the apparently separate structures is an integral part of the housing unit as such. In such cases it may be more realistic to treat the group as one census house. Care should be taken to ascertain if only one household occupies such a unit or shared by more than one household. Thus the definition of a census house will have to be applied having due regard to the actual situation in such exceptional cases.

23. It is usual to find in municipal towns/cities that every site whether built upon or not is numbered by the municipal authorities on property basis. Such open sites even if they are enclosed by a compound wall should not be listed for census purposes. Only where a structure with four walls and a roof has come up, should it be treated as a census house and listed. But in some areas the very nature of construction of houses is such that, for example, a conical roof almost touches the ground and an entrance is also provided, and there may not be any wall as such. Such structures should of course be treated as buildings and houses and numbered and listed.

24. *Household*: A household is a group of persons who commonly live together and would take their meals from a common kitchen unless the exigencies of work prevented any of them from doing so. There may be 'one member household, two-member household or multi-member household.' For census purposes each one of these types is regarded as a "Household". Again, there may be a household of persons related by blood or household of unrelated persons; the latter are Boarding Houses, Hostels, Residential Hotels, Orphanages, Rescue Homes, *Ashrams* etc. These are called "Institutional Households".

Each household will be listed according to the instructions that follow (*see* paras 44 & 45) and a distinguishing number allotted to each household. As each household will be related to the physical structure of a census house, the household number as such need not be painted on the door of each census house. Only the building and census house number will be painted.

HOUSELISTING

25. After the preparation of the notional house-numbering maps and the numbering of the houses, the next step is to list them in the prescribed form (Houselist).

26. At the 1971 Census, a houselist schedule and an establishment schedule will be canvassed on universal basis. Specimen forms of the schedules to be so canvassed are given at the end of this book.

The following instructions will guide you in filling the houselist :

27. On the top of the houselist form, provision is made to note the name of District with Code No., name of Taluk/Tehsil/Thana/Anchal/Island/Code No., name of Village/Town/Code No., name or No. of Ward, *Mohalla*, Enumerator's Block Code No. The entries here are to be filled in by you very carefully. The Location Code is the method by which every village or town in any tehsil or police station in every district of State is identified by a combination of numbers. For this purpose every district, tehsil or police station, village or town/ward/mohalla/enumerator's block in your State would have been allotted code numbers. Your Charge Superintendent or the Supervisor would have indicated to you the district, tehsil or police station and the village or town/ward/mohalla/enumerator's block code numbers pertaining to you. You shall have to enter them in the relevant spaces against the names of the various jurisdictional units. *Please note that the town number is to be given in Roman figures to distinguish it from the village number which will be indicated by Arabic numerals.*

NOTE : Please do not write anything in spaces enclosed by dotted lines in column Nos. 4, 5, 6, 10 and 12. These are meant for writing code numbers in the tabulation offices.

28. Every line in the Houselist is to be numbered serially. The line numbers should be continuous for your block. Arabic numerals should be used for this purpose, *e.g.*, 1, 2, 3, 4 etc.....

Col. 1 : Line Number

29. Before you start houselisting, every building will bear a number. Some Municipal towns may have satisfactory system of numbering the buildings and after preparation of the lay-out sketch of your area, you would have given the same number to the building located on the sketch.

Col. 2 : Building No. (Municipal or local authority or census No.)

30. There would be cases where the Municipal numbers or local authority numbers are not found satisfactory and therefore you would have given numbers to various buildings by way of updating the numbering or revising it. In any case you would have assigned a number to every building in the lay-out sketch. The third contingency is that numbering did not exist earlier and you have numbered the buildings and assigned them the number on the lay-out sketch and marked them on the building itself.

31. The number which has been assigned in the lay-out sketch in any of the three modes described above and marked or put on the building should be written in this column.

32. If the building has a well-known name then the name of the building should also be recorded in this column in addition to the number of the building.

The purpose of this column is to readily identify every building by the number found on it and by local name if any the building may bear.

33. The attributes of a census house have been described earlier and in accordance with those instructions you would have allotted census house number to a building or to a part of a building.

Col. 3: Census House Number

34. If there is only one census house in the building, then the number of the census house will be the same as the building number, which will be repeated in this column.

35. If there be more than one census house in a building (as mentioned in paras 19 and 20) *e.g.*, in building No. 10, there are three census houses then against the first census house, you will record "10(1)", for the second "10(2)" and for the third "10(3)" in this column. Column 2, Building number, will be entered in the first line only against which census house No. 10(1) would have been mentioned in Col. 3. Column 2 will remain blank against census house No. 10(2) and 10(3).

NOTE: You should *not* indicate them as 10/1 or 10/2 etc., as that would be followed in the allotment of a number to a new building not previously numbered that has come up after building No. 10.

Columns 4-5: Predominant construction materials of census house.

36. In these columns you will have to note the materials of wall and roof.

37. Under this column, the material out of which the major portion of the walls of the house are made, as for example, grass, leaves, reeds, bamboo, unburnt bricks, mud, burnt bricks, stone, cement concrete, timber etc., should be written. Where a house consists of separate structures each having walls made out of different materials, the material out of which the walls of the main portion of the house mostly used for living or sleeping are made, are to be recorded.

Col. 4: Material of Wall

38. The material out of which most of the outer roofs exposed to the weather and not the ceiling is made *i.e.*, tiles, thatch, corrugated iron, zinc or asbestos cement sheets or concrete, slate, tiles, etc., should be written. In the case of a multi-storeyed building the intermediate floor or floors will be the roof of the lower floor. If the roof is mainly made of bricks, stone etc., and has a mud plaster, cement plaster or lime plaster exposed to the sky, the material of roof in such cases will *not* be "mud", "cement" or "lime" respectively but it will be "brick", "stone" etc., which constitute the fabric of the roof

Col. 5: Material of Roof

39. The actual use to which a census house is put is to be recorded here keeping in mind the broad categorisation such as (these are purely illustrative):

Col. 6: Purpose for which Census House is used *e.g.*, residence, shop, shop-*cum*-residence, business, factory, workshop, workshop - *cum* - residence, school, bank, commercial house, office, hospital, hotel, etc., or vacant

(1) Residence, shop-*cum*-residence, workshop-*cum*-residence.

(2) Factory/workshop and workshed etc. Factory should be written if it is registered under Indian Factories Act. A 'workshop' is a place where any kind of production, repair or servicing goes on or where goods and articles are made and sold, but is not large enough to be a factory. It is not necessary that some machinery should exist. Even a place where some household industry (as defined in para 78) such as say, handloom weaving, *bidi* rolling, *papad* making, toy making etc., is carried on, it should be noted as a workshop here. If it is also used as a residence it should be noted as workshop-*cum*-residence. Make searching enquiry if a house is used for the purpose of production of any goods or engaged in some processing or repairing even on a Household Industry basis as these are not likely to be apparent to a casual observer.

(3) Shop: A shop is a place where articles are bought and/or sold for cash or for credit.

(4) Office, business house, bank, etc. Business house is that where transactions in money or other articles take place.

(5) Hospital, Dispensary, Health Centre, Doctor's clinic, etc.

(6) School and other educational institution.

(7) Hotel, *sarai, dharamshala,* tourist house, inspection house, etc.

(8) Restaurant, sweetmeat shop and eating place. (A sweetmeat shop where sweetmeat is being made and sold should be recorded as a Workshop).

(9) Place of entertainment such as cinema house, theatre, community-gathering (Panchayatghar) etc.

(10) Place of worship *e.g.*, temple, church, mosque, gurudwara, etc.

(11) Institution such as orphanage, rescue home, jail, reformatory, children home, etc.

(12) Others *e.g.*, cattle-shed, garage, godown, laundry, petrol bunk, passenger shelter, etc., the exact use to be fully described.

(13) If the census house is found vacant, *i.e.*, if no person is living in it at the time of enumeration and it is not being used for any of the purposes listed above, write 'vacant' in this Col. If the census house is locked because the occupants have gone on journey or pilgrimage, then it may *not* be treated as "vacant", but the use to which it is put recorded here and the fact that the occupants have gone on a journey/pilgrimage, noted in the 'Remarks' column as "House locked, occupants on journey/pilgrimage etc."

NOTE : The reason for vacancy such as 'dilapidated', 'under repair', 'incomplete construction', 'want of tenant', etc., may be recorded in the "Remarks" column.

Definition of an Establishment :

Col. 7 : Is it used wholly or partly as an Establishment ? Yes or No. If yes, enter further details in the Establishment Schedule and indicate the Serial No. of that entry here

40. An "Establishment" is a place where goods are produced or manufactured not solely for domestic consumption or where servicing and/or repairing is done such as factory, workshop or household industry or servicing and or repair workshop or a place where retail or wholesale business is carried on or commercial services are rendered or an office, public or private or a place of entertainment or where educational, religious, social or entertainment services are rendered. It is necessary that in all these places one or more persons should be actually working. Thus an establishment will cover manufacturing, trade and other establishments where people work.

Examples :

A factory or a workshop or workshop-*cum*-residence or a trading or other establishment, *i.e.*, where some kind of production, processing, repair or servicing is undertaken or where goods or articles are made and sold, or some business is being carried on such as a grocery shop, a *pan* shop, restaurant, bank, hotel or an office is functioning such as Government office, commercial office, or an institution is being run such as school, college, hospital, dispensary, etc., and where one or more persons are working.

An Establishment may occupy a census house or a group of census houses or a part of a census house.

41. This column applies only in cases where the census house is used as an Establishment as defined above. Sometimes the act of production, processing or servicing may not be apparent especially if carried on as a household industry *e.g.*, when a handloom is located inside a house and is not in operation at the time of enumerator's visit or if some other type of household industry such as *papad* making or toy manufacturing or *bidi* rolling etc., is done, say in some interior portion of the house. You should make searching enquiries to see if any production, processing or servicing is done or any business is carried on or any institution is being run in any part of the house not readily seen from outside.

If 'Yes' is recorded here, go to the Establishment Schedule, and fill up further particulars in that Schedule. Please fill in the Serial No. of the entry as given in the Establishment Schedule in this column after 'Yes'.

42. It is possible that some kind of production or processing is undertaken in the house by the members of the household for *purely domestic consumption.* For example, hand pounding of rice, preparation of spices like, *haldi* (turmeric), chillies, etc., or say, knitting of woollen garments, embroidery work, loin loom weaving and so on, meant for household use only and not for sale. In such cases, the house should not be treated as an 'Establishment'.

COLUMNS 8 to 16

43. These columns will relate to census houses which are used wholly or partly as a residence. If, therefore, a particular census house is not being used for residential purposes at all even partly, as will be evident from entry in Column 6, put 'X' in each of the columns 8 to 16.

Col. 8 : Household Number

44. A 'household' is a group of persons who commonly live together and would take their meals from a common kitchen unless the exigencies of work prevented any of them from doing so. It may be made up of related or un-related persons. A cook or a servant living in the house of his employer and taking his food there is part of that household. A hostel where a number of un-related persons live together is an institutional household. So also a Jail.

45. There may be more than one household in a census house. Each household should be given a separate number. This can be done by using the alphabets as (a), (b), (c) etc., as affixes to the census house No. For example, if building No. 2 is also a census house and has three households, the household numbers will be 2(a), 2(b) and 2 (c). If building number 4 has two census houses, the houses will be numbered as 4(1) and 4(2). If within these houses there are respectively 3 and 2 households then they will be numbered as 4(1) (a), 4(1)(b), 4(1)(c) and 4(2)(a) and 4(2)(b) respectively. If, however, building No. 3 is also a census house and has only one household, the household No. to be entered in this column will be No. 3 only.

46. In the above cases of household Nos. 2(b), 2(c), 4(1)(b), 4(1)(c) and 4(2)(b), there will be no entries against them in Cols. 3 to 7. Cols. 3 to 7 will be filled for the entire census houses, 2, 4(1) or 4(2 as the case may be, once. There is no need to repeat Cols. 3 to 7 in each line for which entries are made for more than one household against that census house in Cols. 8 to 16.

Col. 9 : Name of the head of household

47. The name of the Head of each household should be written. The Head of the household for census purposes is a person who is recognised as such in the household. He is generally the person who bears the chief responsibility for the maintenance of the household and takes decisions on behalf of the household. The Head of the household need not necessarily be the eldest male member, but may even be a female or a younger member of either sex. You need not enter into any long argument about it but record the name of the person who is recognised by the Household as its Head. In the case of institutions like boarding houses, messes chummeries which should be regarded as households of un-related person living together and which may be called Institutional Households, the Manager or Superintendent or the person who has administrative responsibility or who by common consent is regarded as the Head of the household. In the case of an absentee *dejure* 'Head', the person on whom the responsibility of managing the affairs of the household falls at the time of enumeration, should be regarded as the Head.

Col. 10: If S.C. or S.T., write name of caste/tribe

48. You will have been furnished with a list of Scheduled Castes and Scheduled Tribes notified for your area. Ascertain if the head of the household belongs to a Scheduled Caste or a Scheduled Tribe and check whether the Caste/Tribe is scheduled as per your list. If so,

for Scheduled Caste write "S.C." and record name of caste,
for Scheduled Tribe write "S.T." and record name of tribe,
for others write "X"

For a household belonging to Scheduled Caste, check religion of the head of the household. He or she should be either a Hindu or a Sikh. There cannot be a S.C. in any other religion. Scheduled Tribes may belong to any religion.

49. In a case where the head of the household belongs to Scheduled Caste/Scheduled Tribe even if any other member of the household (except institutional households) does not belong to SC/ST then write SC/ST as the case may be and mention the Caste/Tribe to which he belongs. On the other hand if the head does not belong to SC/ST but any other member of the household does belong to SC/ST, write 'X' in this column.

In the case of all 'Institutional Households' write 'X' in this column irrespective of whether the head belongs to a S.C./S.T or not.

Col. 11 : No. of living rooms in the occupation of census household

51. A room should have four walls with a door way with a roof over head and should be wide and long enough for a person to sleep in *i.e.*, it should have a length of not less than 2 metres and a breadth of at least 1½ metres and 2 metres in height. An enclosed room, however, which is used in common for sleeping, sitting, dining, storing and cooking etc., should be regarded as a room. An unenclosed verandah, kitchen, store, garage, cattle-shed and latrine and rooms in which a household industry such as a handloom is located which are not normally usable for living or sleeping etc., are excluded from the definition of a room for the purpose of this column.

52. If there is only one household in a census house the counting of rooms will not be difficult. But if a census house consists of a number of households, the number of rooms occupied by each household has to be entered against the name of each Head of household. In cases where a room is occupied by more than one household or they share more than one room, the number of rooms should be given together against a bracket as common to such households.

53. One is likely to come across conical shaped hut or tent in which human-beings reside. In such improvised accommodation, there will be no four walls to a room and, therefore, the above definition would not strictly apply to such types of accommodation. In such cases, the tent or conical hut etc., may in itself be construed to be a room.

Col. 12 : Does the household live in owned or rented house : (i) Owned (O), (ii) Rented (R)

54. If a household is occupying a census house owned by itself and is not paying anything to anybody in the form of rent then the household may be considered as living in own house. This should be recorded by 'O'. A household living in a flat or a house taken on 'ownership' basis on payment of instalments, should be regarded as living in its own house, notwithstanding that all instalments have not been paid.

55. If the household lives in rented house write 'R'. A housing unit is rented if rent is paid or contracted for, by the occupants in cash or in kind. Where an owner permits a household to live in a house rent free, even then the household should be treated as living in a rented house. For example, rent free accommodation provided to employees by Government, Institutions, Companies etc. In such cases, you should treat the house as rented and write 'R'.

Cols. 13 to 15 : No. of persons normally residing in census household on day of the visit of the enumerator

56. Enter the number of males normally residing in the household in column 13, females in col. 14 and total number of persons in column 15 (Col. 13+Col. 14).

57. In these columns normal residents are to be recorded even though some of them may be absent on the day of enumerator's visit. Casual visitors should be excluded as they will be considered at their respective places of normal residence. But a person who has stayed with the household for a period of 3

months or more should, however, be included. Correspondingly, normal residents absent for over 3 months or more should be excluded from the household in which they normally reside.

Total of these columns should be struck at the end of each page and after completion of houselisting grand total of the block should be struck at the bottom of the last form.

Col. 16 : Does the household cultivate land ? (Yes or No)

58. If the household is cultivating any land then you have to record the answer 'Yes', otherwise 'No'. For determining whether a household is cultivating or not, it should be necessary to ascertain if one or more persons in the household are engaged in cultivation of land or supervision or direction of cultivation of land owned or held from Government or from private persons or institutions for payment in money, kind or share. Encroachers who cultivate land encroached upon will be regarded as cultivating households for the purpose of this column. If the household has a visitor who cultivates land elsewhere, it cannot be deemed that the household as such is a cultivating household. Unless the Head/or other members of the household are engaged in cultivation of their own, the household should not be reckoned as a cultivating household. A household whose members merely work on somebody else's land for wages should not be treated as a cultivating household.

Col. 17 : Remarks

59. If there is an entry in Col. 6 as 'Vacant', you have to record the reason such as "dilapidated", "under repair", "incomplete construction", "want of tenant" etc., in this column.

60. After you have completed filling up of the houselist for your block, you will prepare a duplicate copy of the houselist, for which you would be given adequate number of blank forms.

ANNEXURE IV

CENSUS OF INDIA, 1971

ESTABLISHMENT SCHEDULE

Name of District.....Code No..... Name of Village or Town.....Code No.....

Name of Taluk/Tehsil/Thana/Anchal/Island.....Code No..... Name or No. of Ward/Mohalla/Enumerator's Block.....Code No .....

Serial No.	Census House No.	Name of the Establishment or of the proprietor	Is the establishment (a) Govt./Quasi Govt. (b) Private (c) Co-operative Institution	Average number of persons working daily last week or in the last working season, including proprietors and/or family workers	If any manufacturing, processing or servicing is done			If used as a trading establishment		If used as any other establishment, describe *e.g.*, Govt. Office, School, Hospital, Railway station, Barber's saloon, Cinema theatre, Hotel, Tea shop, etc.
					Is it (a) Household Industry (b) Registered Factory (c Unregistered Workshop	Description of the products, processing or servicing done	Type of fuel or power used	Description of goods bought/sold	Whether (a) Wholesale or (b) Retail	
1	2	3	4	5	6	7	8	9	10	11
1										
2										
3										
4										
5										
6										
7										
8										
9										
0										

NOTE.—Please do not write in the spaces enclosed by dotted lines in cols. 4, 6, 7, 8, 9, 10 and 11. These are meant for use in the Tabulation Offices for coding.

Signature of Enumerator.....Date..... Signature of Supervisor.....Date.....

ANNEXURE V

CENSUS OF INDIA, 1971

INSTRUCTIONS TO ENUMERATORS FOR FILLING UP THE ESTABLISHMENT SCHEDULE

1. Instead of loading the main Houselist form itself with questions pertaining to Establishments, it has been decided to have a separate schedule in which particulars of each establishment are to be recorded. (See the Establishment Schedule given in Annexure IV).

2. The term "Establishment" has been defined in para 40 of this booklet. You are requested to study it carefully, before filling the 'Establishment Schedule (See page 25).'

3. *The respondents should be fully assured that the information collected in these schedules will be treated as completely confidential and is meant for statistical purposes and will not be used as evidence against any individual or establishment for any purpose. The respondents should be encouraged to furnish truthful replies without any reservation.*

4. At the top of the schedule provision is made for noting the Location Code No. and name of the areas concerned. This should be the same as those noted on the top of Houselist which you will be canvassing simultaneously. You should fill the Location Code Numbers etc., correctly.

5. The columns of the Establishment Schedule can be classified into four broad groups :

(i) Columns 1 to 5 are of uniform applicability and entries have to be made in respect of all the establishments ;

(ii) Columns 6 to 8 pertain to manufacturing, processing, etc. establishments ;

(iii) Columns 9 to 10 relate to trading establishments ; and

(iv) Column 11 refers to "other" Establishments which are covered in columns 6 to 10.

Thus, it will be seen that the columns falling within groups (ii) to (iv) are mutually exclusive, while those in group (i) are common to all.

Col. 1 : Serial Number

6. In this column the establishments are to be entered one after another serially. Arabic numerals should be used for this purpose i.e., 1, 2 3, etc.

Col. 2 : Census House Number

7. The Census house number to be noted is the same as that in column 3 of the Houselist and against which 'Yes' is written in column 7 of the Houselist indicating that the Census house is used as an establishment.

8. A point to be noted here is that it is likely that a single factory or workshop may be spread over more than one Census house adjoining one another. Therefore, while in Col. 2 of this schedule a number of Census houses may be noted in respect of that particular unit of production, processing or repairing, trade or business etc., the entries in Col. 3 onwards will be one only for that group of houses covered by a single unit of production or business etc., establishment. For example, if a single tea factory in Assam or business establishment in Calcutta should be spread over two or three adjacent buildings, each of the buildings should not be shown as a separate factory or establishment but the House Nos. of all these buildings shown in Col. 2 should be bracketted together and the particulars of the single tea factory or establishment entered in the subsequent columns against this group of houses. If on the other hand the activities of a large firm or an office are carried on in buildings located far away in different localities, each of the Census houses in the different localities will have to be treated as a separate establishment and the particulars of the establishment relating to that particular Census house should be listed in this schedule.

Col. 3 : Name of the Establishment or of the proprietor

9. In this column write the name of the establishment in the case of factories, large manufacturing concerns, a shop or business establishment, banks, office etc., which usually bear a distinct name. Where an establishment has no separate name as in the case of small workshops and establishments like confectionaries, small tea shops, Dhobi's establishment, household industries etc., write the name of the owner as "So and so's Halwa shop" etc. This is to help easy identification.

Col. 4 : Is the Establishment— (a) Govt./Quasi Govt. (b) Private (c) Co-operative Institution

10. Enter here whether establishment enumerated belongs to public sector *i.e.*, Govt./Quasi Govt. managed, including establishments run by local authorities, or to private sector, or a co-operative enterprise. Please do not write in the column only (a) or (b) or (c) but write

(1) "Govt.—Public Sector, or Quasi Govt.—Public Sector, or Local Authority—Public Sector

(2) Private
or

(3) Co-operative.

There may be many schools or libraries etc., which are not owned by any particular individual or group of individuals. These may be owned by people in general and managed by Managing Committees. Such establishments should be treated as "private" as distinguished from Govt./Quasi Govt. or run by local authorities or co-operative enterprises.

11. An establishment will be treated as a Govt./Quasi Govt. institution if the Central or State Govt. or a Local Authority such as the Zilla Parishad, City Corporation or Municipality etc., completely owns or has a majority of shares as to control the management of the establishment.

12. Private establishments are those owned and managed by private individuals or corporate bodies not being co-operative institutions or Govt. or Quasi Govt. Institutions.

13. Establishments registered under the Co-operative Societies Registration Law of the State alone fall in the category of "Co-operative".

Col. 5 : Average number of persons working daily last week or in the last working season, including proprietors and/or family workers

14. In this column, the information has to be entered relating to the total number of workers including the apprentices, paid or unpaid and also including owner(s) or proprietor(s) of the establishment and any of their family members if they also work in the establishment and also the hired workers, if any. It is not necessary that an establishment should necessarily have paid workers. A small shop run in the same house where the owner lives and the business is attended to by just one person of the household is also an establishment. The average number of persons working per day in the establishment during the week preceding the day of your visit should be recorded. For computing the average number of persons working per day if the establishment remained closed owing to holiday etc., such day(s) should be ignored and only the 'days' on which the establishment worked should be taken into account. If during the week preceding your visit, the establishment remained closed either due to strike or lock-out, the week during which the establishment worked preceding such strike or lock-out should be taken into account for reckoning the average number of persons working. The hired workers should normally be in full time employment.

15. Some establishments such as a sugar factory, rice mill etc., may be seasonal in character and may not be actually working at the time of the present listing. You should then ascertain the particulars of such establishments with reference to the last working season.

16. In case more than one product is produced, or more than one item of business is conducted or several types of services are rendered, it is not necessary to enquire the number of persons employed in the production/business/servicing of each type of product, business or service that is covered against that serial number. For example in a large textile mill there may be the weaving section, dyeing section, laboratory, repairing section, sales section etc. It is not necessary to ascertain the employment in each section. The total employment has to be ascertained. The major activity of the establishment will be described in subsequent columns.

" Columns 6, 7 and 8 : If any manufacturing, processing or servicing is done ".

17. These columns relate only to such establishments in which goods are manufactured or some kind of processing or servicing is done and/or repairs are carried on.

18. *Household Industry : Definition*

Col. 6 : Is it (a) Household Industry (b) Registered Factory (c) Unregistered workshop ?

A 'Household Industry ' is defined as an industry conducted by the Head of the household himself/herself and/or mainly by the members of the household at home or within the village in rural areas, and only within the premises of the house where the household lives in urban areas. The industry should not be run on the scale of a registered factory.

19. Thus, there are four ingredients of a household industry :—

(i) nature of activity

(ii) participation

(iii) location

(iv) size

20. (i) *Nature of activity* : A Household industry should relate to production, processing, servicing, repairing or making and selling (but not merely selling) of goods. It does not include professions such as a Pleader or Doctor or Barber, Musician, Dancer, Washerman (Dhobi), Astrologer etc., or merely trade or business even if such professions, trade or services are conducted at home by members of household.

21. (ii) *Participation* : The Head of the household and/or one or more members of the household must participate in such an industry. If it is run primarily by hired labourers, the 'participation' ingredient of the household members will not be satisfied and it will not be a 'Household Industry'. The industry may run with the help of hired workers but the head and/or members of the household must be mainly participating in the industry and not solely dependent on hired workers. Besides "actual work", participation also includes "supervision and direction."

22. (iii) *Location* : The industry should be located within the premises of the house where the household lives in urban areas ; if it is situated at a place other than at home, it will not be termed as household industry in urban areas. In rural areas' however, the industry may be either at home or anywhere within the village limits. In rural areas, ven though, the industry is not situated at home, there is a greater possibility of the members of the household participating in it if it is located within the village limits.

23. (iv) *Size* : The industry should not be on the scale of a registered factory. Irrespective of the location and participation by the members of the household, if the industry or workshop is registered under the Factories Act, then it will not be a household industry.

24. Thus it will be clear that any industry which can be termed as 'Household Industry' must satisfy all the four ingredients mentioned above.

25. *Registered Factory*: A factory which is registered under the Indian Factories Act should be treated as a "Registered Factory". Any other workshop merely licenced by the Municipal or any other authority or registered for any other purpose should not be treated as a registered factory unless it is registered under the Indian Factories Act.

26. *Unregistered Workshop*: Workshop is a place where some kind of 'production, processing, servicing, repairing or making of goods for sale' is going on. A workshop which is registered under the Indian Factories Act should be treated as a registered factory and others as unregistered workshops. Workshops which are run as household industry should be treated as household industry and entered as such.

27. When you come across an establishment where some kind of manufacturing, processing or servicing etc., is done, you should ascertain whether it is a household industry or a registered factory or a workshop not registered under the Factories Act and write whatever it actually is in this column. Please note that workshops merely licenced or entered in the registers of a local authority are not to be considered as registered factories unless registered under the Indian Factories Act. All workshops other than household industries and not registered under the Indian Factories Act should be treated as unregistered workshops even if they are merely licenced as workshops by the local authorities. Please do not write (a) or (b) or (c) in the column but write "Household Industry" or "Registered Factory" or "Unregistered Workshop", as the case may be.

Col. 7: Description of the products, processing or servicing done

28. The description of the actual work relating to products, processing and servicing which is done in the Household Industry, factory or workshop that is being listed is to be recorded here, *e.g.*, handloom weaving, lace knitting, *oil ghani* etc., manufacturing of G.I. pipes, electroplating, motor or cycle repairing, iron foundry, paper making or book binding, printing and dyeing, shoe making, sweetmeat making, etc. If in any establishment more than one article is produced or more than one kind of processing or servicing or repairing is done, indicate only the major kind of products or processing or repairing or servicing etc.

Col. 8: Type of fuel or power used

29. Enter here the description of the power or fuel used for the running of the factory, workshop (or household industry if it is run on power or fuel). The fuels can be kerosene, soft coke, petrol, diesel, gas, coal, wood, etc. Electricity and steam etc. are some of the sources of power. Some units may be run by animal power such as *oil ghani*. Some may be run by merely human energy such as carpet making, pottery making etc. Enter the description of fuel or power used for the production, processing, servicing etc., that is carried on in the establishment. There may be instances where more than one fuel or power is used, in such cases, only the fuel or power which is used in running the primary unit of the industry will be noted in this column.

30. *Columns 9 and 10 are to be filled in respect of trading establishments or establishments which render commercial services only.*

31. Trading or business establishments are those where some trading *i.e.*, transactions involving sale and/or purchase of goods go on.

Establishments rendering commercial services are the banks, money lending firms, Pawn shops. etc.

Col. 9: Description of goods bought/sold

32. If it is a trading establishment, you should ascertain what are the goods bought and/or sold and write the description in this column. If there are more than one type of goods bought/sold by the establishment, you should give description of the main item of goods bought/sold by the establishment.

33. In the case of establishments rendering commercial services such as in the case of Banks etc., you should write the description of the services rendered, as in the case of a bank, you should write "banking services".

Col. 10: Whether (a) wholesale or (b) retail

34. For all trading establishments, you should ascertain in respect of the goods mentioned in column 9, whether they are sold/bought in wholesale or in retail and write as the case may be.

35. You may come across certain establishments wherein both types of trade *i.e.*, wholesale and retail go on. In such cases, you should ascertain in which category *i e.*, wholesale or retail; the volume of trade is greater and record the category accordingly.

36. In the case of establishments rendering commercial services, *e.g.*, bank etc., please do not write any of the two categories *i.e.*, 'wholesale' or 'retail' but put an 'X' in this column.

Col. 11: If used as any other establishment, describe e.g., Govt. Office, School, Hospital, Railway Station, Barber's Saloon, Cinema Theatre, Hotel, Tea shop, etc.

37. Two specific types of establishments have been covered in columns 6 to 10. Column 11 relates to the remaining types of establishments not covered by columns 6 to 10. You have to describe such establishments in this column, *e.g.*, Govt. Office School, Hospital. Railway Station, Orphange, Rescue Home, Barber's saloon, Cinema theatre, Hotel, Tea shop, Lawyer's office, Doctor's clinic, Laundry, etc.

General

38. It is possible that in a particular establishment, more than one activity is being undertaken within the same premises. For example, say in a betel shop, *bidi* rolling is also being undertaken or in a grocery shop a flour mill is also located, or in the doctor's clinic medicines are sold. In such cases the establishment should be identified having regard to the major activity and recorded as such in the relevant columns pertaining to the major activity.

39. But if different activities are undertaken in different census houses quite cut off from one another though under the same title or ownership, each such census house should be treated as a separate establishment and recorded as such against that census house in this schedule. It may, however, be noted that where processing for the production of an article is carried on in separate adjoining census houses, all the census houses should be treated as a single establishment and recorded as such. If on the other hand the activities of a large firm or an office are carried on in buildings located far away in different localities, each of the census houses in the different localities will have to be treated as a separate establishment and the particulars of the establishment relating to that particular census house should be listed in this schedule.

40. After you have completed filling up of the Establishment Schedule for your block, you will prepare a duplicate copy of the Establishment Schedule, for which you would be given adequate number of blank forms.

ANNEXURE VI

SCHEME ON PERMANENT HOUSE NUMBERING

MANUAL OF INSTRUCTIONS

CHAPTER I

INTRODUCTION

Objectives

The objective of the house numbering scheme is to have a uniform system of house numbering throughout the country and to maintain it effectively and continuously so that it can serve all purposes, official as well as non-official, requiring the location of the citizen at his household or the location of a house.

2. The advantage of having such a permanent scheme of house numbering is obvious and it is in the interest of persons living in the houses as well as of the local authorities and the Government to maintain the house numbers.

3. Day after day the need for locating every house and household is increasingly felt such as for purposes of providing postal and telegraphic services, health and family planning programmes, socio-economic surveys, preparation of electoral rolls, housing and population censuses and so on.

4. A good house numbering system will serve the needs of the public, the local authorities, all Government departments and all other agencies who have to deal wilh the location and identification of the house or household.

5. This is one of the basic needs of proper administration and it is unfortunate that in most areas except on the eve of the census taking when some temporary house numbering is done no permanent system of house numbering prevails.

6. It should be the objective of a good house numbering scheme that even an absolute stranger on entering a village or town should be able to easily locate a required building or house with the help of an intelligible system of house numbering.

7. It is also important that there should be no duplication or multiplication of house numbers as it sometimes happens when different agencies paint different house numbers on houses to suit their needs; only one good and permanent system should be able to serve the purposes of all.

8. It is now proposed to achive this.

Purpose of the Manual

There are considerable variations in regard to practices in house numbering prevailing in the various States where some system of house numbering exists. Some variations may be due to local conditions and the others may be due to the absence of a co-ordinating agency. The need is to have as far as possible a uniform system of house numbering throughout the country with complete coverage and least variations between the States. The Manual is a step towards achieving the maximum amount of standardization essential to meet these needs. If there is a satisfactory system of permanent house numbering already in existence such as in large citis or other urban units, they need not be completely upset but as far as possible be brought in line with the instructions in this Manual. The Manual provides an outline and brief discussions of most of the details which should be considered by the State Goverments for implementing the house numbering scheme in their States.

CHAPTER II

AGENCY AND UNITS FOR HOUSE NUMBERING

State Level

It is desirable that the system of house numbering should be given effect to in each State under the direction of the State Government at the Secretariat level. The General Administration Department of the State Government dealing with Elections, Census, etc., or the Local Administration and Panchayati Raj Department appears to be the most suitable Secretariat Department to co-ordinate the work and get the work done by the District Officers.

The State Government may be assisted by a committee of executives made up of the Director of Municipalities, Director of Panchayats, Chief Electoral Officer, the Superintendent of Census Operations and a representative of the Posts & Telegraphs Department. The Superintendent of Census Operations can be the convenor of the committee.

District Level

At the district level the District Collector may be entrusted with the responsibility of giving effect to the system of house numbering. He is considered most suitable as he, as the Chief Administrative Officer of the district is generally put in charge of important operations like elections and census and is likely to be most interested in introducing a satisfactory system of permanent house numbering which is so very essential for the above operations, apart from the various other extremely useful purposes that the house numbering will serve. The District Collector will of course use the agency of the Panchayat Department, the Municipal authorities, the Revenue authorities and others in getting through the work.

The following authorities may be made responsible for house numbering at the town and village level :

Town and Village Level

Urban Areas—The Commissioners of City Corporations, the Commissioners or Executive Officers of Municipalities, the Executive Officers of Cantonment Boards, the administrative, authorities of project townships etc., the Executive Officers of the Urban Panchayats or any other authorities as the State Government may decide will be responsible for the introduction and maintenance of a permanent system of house numbering in their respective areas.

Rural Areas—The Executive Officer of the Panchayat, if any, the village headman or Patwari or any other authority as the District Collector may decide.

Area units under the house numbering scheme

Urban Areas—The area falling within the defined limits of a Municipal Corporation, Municipal Town, Cantonment, Urban Panchayat or any other Urban unit will be the unit for working out a house numbering plan for the Urban unit.

Rural Areas—In the rural areas, the revenue village which has a definite surveyed boundary or the village Panchayat if its jurisdiction is conterminous with a revenue village, or a cluster of houses with district identity bearing a distinct name as in Tribal habitations in the midst of forests etc., will form the units under the house numbering scheme. It is, however, observed that in some States as in Madras, Village Panchayat is taken as a unit for house numbering even if it is made up of more than one revenue village or part of a revenue village but treating the portions of the Panchayat covering each revenue village as separate block for the purpose of house numbering. There is no objection to continuing this system. As the jurisdictions of Panchayats are likely to change often on various considerations such as population size, political considerations etc., it is desirable to have a more permanent unit *viz.*, the Revenue village as a permanent house numbering unit. The State Governments may consider the possibility of constituting the Village Panchayats in such a way that each Panchayat covers one or more whole revenue villages and avoid portions of revenue villages falling in different Panchayats. This may be convenient from the point of various aspects of administration.

Units for house numbering

All structures or parts of strucrures having separate access from a road or common courtyard, staircase etc., and which are normally recognised as separate units for all practical purposes, whether used as dwellings or non-dwellings should each bear a distinct house number. When a cluster of structures form one unit as for example, a main building, out-houses and garage within a compound which has a main entrance, then one common number may be given to this cluster but with sub-numbers to each separate unit of this cluster. Similarly in rural areas also where a main living hut, a grain storing shed and a cattle shed are separate structures but all together form one cluster they should be given one main house number with each individual structure bearing sub-numbers. But if within a large compound a number of independent housing or other building units exist as for example, a number of housing units of a railway colony within a compound or a factory building and separate living quarters within a compound etc., each should bear distinct house number. At the compound gate the house numbers falling within the compound could perhaps be exhibited. The mode of numbering the houses and how they should be marked etc., will be explained in a subsequent chapter of this manual.

CHAPTER III

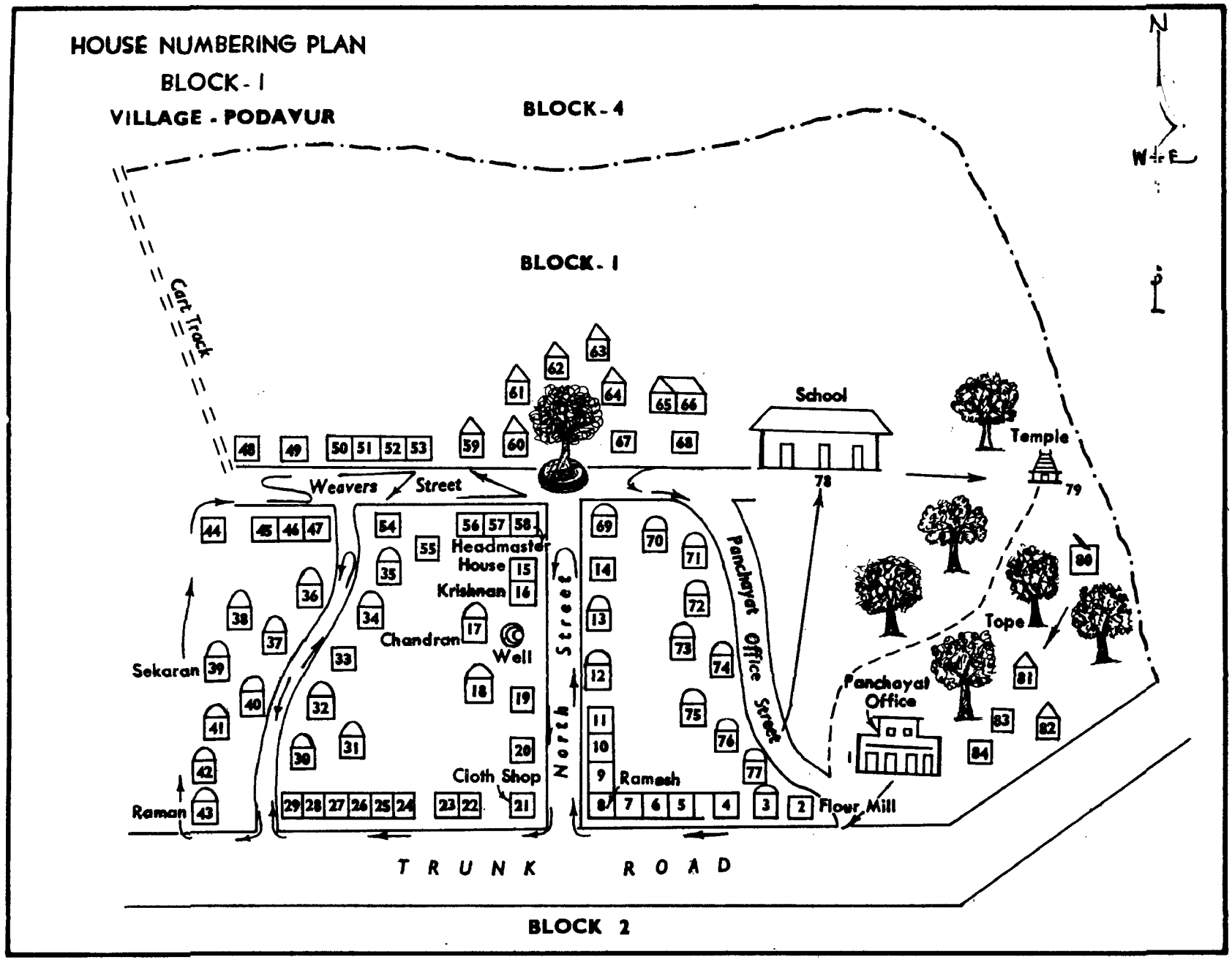
PREPARATION OF A GOOD PLAN OF HOUSE NUMBERING & HOUSELISTING

General—The ideal aimed at is that a stranger on entering a village or town if he has to locate any area or a house should be able to approach the Panchayat ghar or the Municipal Office and at once be guided by a large plan of the village or town exhibited on a wall in which the entire layout of the village or town is given with the prominent land marks, streets etc., and the position of each house with its number indicated. One would need hardly any other guide than this to locate any house in the village or town. The house numbering plan should be the pride of the Panchayat or the Municipality. On each house or building the actual house number corresponding to the one given on the map should have been prominently painted or an embossed house numbering plate affixed. How we should set about this and the principles to be followed in house numbering will be explained presently.

Naming of Streets—It will greatly facilitate location of house numbers if every road and street in every town and village is given a definite name. In several towns the streets though not all, are generally named. There are a number not yet named. It will be desirable as a preliminary step to get all the roads and streets in every village and town properly named. Often times the roads and streets are named after historical personages, national leaders and even local personalities. There can be no objection to this. But where a controversy is likely to arise it is desirable to name a road or street by some permanent feature of the place such as say, Sivan temple street, Railway station road, Stadium road, Mosque street, etc., etc. The Municipalities and Panchayats should be persuaded to get all the roads and streets properly named.

Note—Particular care should be taken of areas lying adjacent to the demarcated limits of Urban units which often times look like a part of the Urban units but actually lie outside their boundary and should be properly included in the Rural units within whose limits such areas lie.

Figure - I


HOUSE NUMBERING PLAN
BLOCK - I
VILLAGE - PODAVUR
BLOCK - 4
BLOCK - I
BLOCK 2
N
W
E
S
Cart Track
Weavers Street
School
Temple
Tope
Headmaster House
Krishnan
Chandran
Well
Sekaran
Raman
Cloth Shop
Ramesh
North Street
Panchayat Office Street
Panchayat Office
Flour Mill
TRUNK ROAD

Preparation of notional maps

Rural Areas—The first step to be taken before the actual affixing of house numbers on doors is to prepare a rough notional map of the entire village and decide on whether the village should be subdivided into blocks and if so how? Normally a small village of less than 125 houses need not be subdivided into blocks. But if a village has one or more hamlets, irrespective of the size, it is desirable to divide the area of the village into blocks so that each hamlet with the adjoining area is recognised as a separate block of a village. It is important that the dividing lines between one block and another should be clearly demarcated. Such dividing lines, besides following some natural boundaries wherever possible should also be indicated by the Survey numbers that fall on either side of the dividing line in cadastrally surveyed villages. A notional map showing the general topographical details of a whole revenue village particularly if a survey map is already available with the village revenue officials will greatly help. This notional map should indicate the prominent features and land marks such as the village site, roads, cart tracks, hills, rivers, nallahs, etc. A model of a notional map is given in figure 1. Clear demarcation lines of blocks are important so that any structure coming anywhere within the boundaries of a particular block is covered by a specific block without giving scope for any doubt. It may be desirable to define at the foot of the map the boundaries of each block clearly.

Having thus prepared the village map, then each block of the village as demarcated on the village map should be taken up for a detailed sketching of the layout. In this detailed sketch the emphasis is mainly on the layout of the houses in the village site. The sketch should show all the roads, streets and cart tracks. The names of the streets should be shown on these sketches. All topographical details, important features and public buildings should be prominently shown. Then every single building or house should be located on this sketch. It will be an advantage if the pucca houses are shown say by a square and the thatched houses by a triangle. When once the location of every building and house is fixed on the plan it will be a simple matter to decide on a convenient method of numbering the houses in one series following certain principles No hard and fast rule can be laid as to the direction in which the house numbers should run i.e., left to right or in a clock-wise order or north-east to south-west and so on. Much depends on the layout. So long as some convenient and intelligible order is followed it should be all right. The numbers allotted to each house should be marked on the sketch and with the help of arrow marks at intervals the direction in which the house numbers run should be indicated. This is particularly important when streets cut across one another and the house numbering series along a street get interrupted. It will be of advantage if the numbers are roughly marked in pencil on this sketch and later verified with the actual state of things on ground to see if the order of numbering indicated on the sketch would be convenient or if any slight changes are needed for after all the sketch is only a rough one and the actual state of buildings on ground may suggest a more intelligible order of numbering at some places. It may also help easy identification if the name of the owner or occupier or the purpose for which a house is used is also indicated on the layout sketch at some key points and here and there in the middle of a series also, particulaly when there are clusters of houses. Whenever odd houses are found strewn about within the area of fields etc., it will be necessary to indicate the Survey Number in which such isolated houses are located. A few principles to be observed in house numbering will be explained in subsequent portions of this Manual.

Where villages are not cadastrally surveyed and the village boundaries not fixed by survey, it is essential that the limits of each village are defined by some permanent features so that it may be known that any house falling in any such areas may be reckoned along with a particular village. In the Forest areas it may be desirable to take each Forest range officer's jurisdiction, map it and locate all the clusters of habitations having distinct names, each of which would be treated as a separate village for the purpose of house numbering. Since it is likely that some of the tribal habitations may change their location now and then, it is necessary to define the location of a habitation area with reference to any known permanent feature such as a hill stream, a range of hills, road and so on.

Urban Areas—The preparation of notional maps and the house numbering sketches in Urban areas should essentially follow the same procedure as in the rural areas excepting that in most Urban units the draughtsman of the municipal administration might have already prepared town maps perhaps even to scale and these may come extremely useful. It has been found from experience that the boundaries of towns are often times loosely defined and not properly demarcated giving rise to several doubts regarding the areas lying on the outskirts of towns. It is important that the map should very clearly indicate the boundaries by means of definite Survey Numbers and also other permanent features. Sometimes one side of a road falls within the town limits and the other side excluded along the outer boundaries of towns. All these should be carefully verified on ground before the maps are certified.

The system to be followed in the division of towns into convenient locations/wards, blocks or streets for the purpose of house numbering will be explained later. But what is essential is that very detailed plans showing the location of every building or house along every road and street in each ward, locality or block of a town should be clearly prepared. In view of the very large number and close location of houses in urban areas it may be necessary to have a large number of sketches each covering a limited area. Each town would probably have already been divided into some permanent mohallas or localities or wards. A large map of the entire town indicating the boundaries of each of these units into which the town has been divided should be prepared. On this map the main roads and other topographical details and important public buildings etc., may be shown for clear identification of the boundaries of each mohalla/locality/ward etc. Next a skeleton map of each locality/ward or block should be prepared in which all the roads and streets should be clearly indicated and their names also written. Then

Note—It may be stressed again that it is important that the local administration should be persuaded to get every road and street named.

each building or house should be located on this skeleton map. May be that even a locality/ward may be too large to indicate all houses. In such a case a ward map showing the segments and a separate layout map for each one of the segments may be prepared and on these segments the buildings and houses should be clearly located and the house number shown. It may be an advantage if the non-residential houses are distinguished from the residential houses by showing them in a different colour. Here again the important permanent buildings may be indicated such as say town hall, post office, hospital, school, church, market building etc.

As already stated most towns may already be having a satisfactory house numbering system. This need not be disturbed and may be adopted for the purpose of preparation of the house numbering maps referred to above. The house numbering can be brought upto date with the help of these layout maps. Where a rationalised house numbering is proposed to be introduced for the first time, these maps will greatly help. The house numbering to be adopted can be indicated on these sketches following one of the systematic methods that will be described in the subsequent paragraphs of this Manual and after a reverification on the ground the house numbers allotted to each building or house.

Some sample notional house numbering maps are given as appendix to this Manual.

Certification of maps

The house numbering maps of villages which may be initially prepared by the village officers for the survey of Panchayat should be closely checked not only in office but also on the field by a Revenue Inspector or any other superior officer who should attest the maps and then ultimately certified by the Tahsildar/ Mamlatdar. The Tahsildar/Mamlatdar should conduct a fair percentage of check in the field themselves.

In urban areas, the house numbering plans of smaller non-municipal towns should be verified by the Tahsildars personally and attested. In Municipal Towns the Commissioner of Municipality should personally check the sketches and house numbering and attest the sketches. The Deputy or Assistant Collector in charge of the revenue subdivision of the district should inspect the house numbering and certify the sketches.

Houselists

On the completion of the preparation of the house numbering maps, a simple houselist should be prepared in the following form :

ANNEXURE VI

HOUSELIST

District.....

Tahsil.....

Name of town/village..... (in block letters)

Name of locality/ward No.....

Block No.....

Name and No. of the street.....

.....

House Number		Brief description of the house		Purpose for which the house is used	Name of Head of household in respect of dwellings and the name of the firm or other institution or the proprietor in respect of non-dwellings
Residential	Non-residential	*Wall* Mud, brick, stone, cement blocks, bamboo, wattle, tin, etc.	*Roof* Thatch, mud, reinforced cement concrete, asbestos sheets, tin, tiles, stone, shingle, etc.	Dwelling, shop, shop-*cum*-dwelling, workshop, school, temple, public library, police station, etc.	
1	2	3	4	5	6
1(1)		Brick	R.C.C.	Dwelling	Ram Singh
1(2)		Brick	Tiles	Dwellings (Servant's Quarters)	(Vacant)
	1(3)	Brick	Tin	Garage	Ram Singh
	2	Hollow cement block	Asbestos sheet	Workshop	Apex engineering Co.
	3	Stone	Brick	Temple	Hanuman Temple
4		Mud	Thatch	Shop-*cum*-dwelling	Dulasi
	5(1)	Brick	A.C. sheet	Hospital	Zilla Parishad Hospital
	5(2)	Brick	A.C. sheet	Hospital (Isolation shed)	Zilla Parishad Hospital
5(3)		Brick	A.C. sheet	Dwelling (Doctor's quarters)	Dr. Prasad
	6	Brick	Brick (Madras terrace).	Shop	Babu Lal Cloth Stores
7		Mud	Mud	Dwelling	(*a*) Ram Krishan (*b*) Prakash (*Note*—Two households being in one house)
	8	Mud	Thatch	Dilapidated	.....
9		Wood	Tin	Co-operative shop-*cum*-dwelling	Usman Khan

NOTE—Where the same structure is partly residential and partly non-residential and each portion had not been separately numbered, the common house number should be indicated under residential in column 1 (*e.g.*, house Nos. 4 and 9 in the above specimen form).

Signature of house lister.....

Date.....

Signature of verifier.....

Date.....

In the above form some sample entries are also made for guidance. The houselist serves a very useful purpose to enable the identification of houses and also to rebuild the house number even if the house numbers were to be missing. Such a houselist will also be extremely useful in the conduct of any surveys apart from its utility for the Municipal and Panchayat administration. This houselist should be brought up to date annually when the house numbers are also checked and brought up-to-date. The houselist can be prepared by any employee of the Municipal or Panchayat office in Urban areas and by the Village Officers or by Panchayat Secretary in Rural areas. A cent per cent verification should be done by a higher official and ultimately certified by the Municipal Commissioner or Tahsildar as the case may be.

Copies of house numbering plans and houselists to be prepared

When once the house numbering plans are finalised and houselists are prepared, six copies should be taken and they should be preserved with the following authorities :—

Rural—Village Karnam/Patwari : one copy; Panchayat Office : two copies; Tahsildar : one copy; State Census Office : one copy; Office of the Director of Panchayats : one copy.

Urban—Municipal or Panchayat Office : three copies; Revenue Subdivisional Office : one copy; State Census Office : one copy; Office of the Director of Municipal Administration : one copy.

Standard size of the maps

To facilitate the house numbering sketches to be conveniently bound say for a Tahsil or a District, as a whole, it will be necessary to prepare these maps on a standard size of fairly thick paper—probably drawing paper of size 30" × 28" which is generally available in the market.

It is best that the State Government arranges to issue the paper needed of standard size to all villages and towns through the Collectors of Districts.

Enlarged maps to be exhibited

Besides the preparation of the house numbering sketches and houselists as indicated above, these should be exhibited on the wall of the Panchayat or Municipal Office on a large sized map indicating the layout of the entire village or town showing the topographical details, the division of the area into blocks, the layout of streets and the location of every house and the number allotted to it. In the Municipal towns obviously it will not be possible to exhibit the detailed sketches showing the house numbering of every locality at the Central Office on a large scale. If there are Ward Offices, these can be exhibited in those offices, while in the Central Office the general map of the town showing the important topographical details and the demarcation of the wards should be exhibited.

It will not be possible to lay down the standard size of these large scale maps. Much depends on the availability of the wall space in the Panchayat Ghar or the Municipal Office. A good large map of the entire village or town showing boldly the layout of the houses in the village/town should do pride to the office and should be exhibited prominently in the office concerned which can be a good guide for any administrator, scholar or visitor.

CHAPTER IV

SYSTEMS OF HOUSE NUMBERING

Soon after the skeleton layout maps are prepared and before allotting house numbers it should be considered what would be the most convenient system of house numbering that can be introduced as a permanent measure where a systematic house numbering does not already exist. The sketches referred to in the foregoing paragraphs provide the frame work. If a convenient system of house numbering is decided upon it is easy to allot the house numbers to each of the houses on the sketches and then later get these painted on the houses and the houselist prepared. The job is then completed.

The following are the systems of house numbering recommended:

Rural Areas

Small villages—In rural areas if a village is small say, with a maximum of 125 houses or less and it is not made up of separate hamlets, all the houses of the village can be numbered off in one series in some orderly manner such as say, following a clockwise order if it is a cluster of houses or continuously along a street from one end to other end on one side and then cross over and continue the numbering on the other side of the street till reaching the point opposite to where the numbering started. The house numbering series can run on to cover the other streets or other clusters in one continuous order.

Large villages—In larger villages or where a village has one or more separate hamlets then it is desirable to break up the village into convenient blocks each block having about 100

houses or slightly more or less. Wherever there are separate hamlets, irrespective of the number of houses in the hamlet, it is desirable to treat each hamlet as a separate block. The blocks so formed should be numbered off in a convenient order, clockwise or anti-clockwise or from left to right or from north to south, depending on the demarcation of the blocks. It is desirable that the first block starts with the main village. Within each block all the houses will be numbered in one continuous series. The house numbers to be allotted to each house will bear the block number followed by a hyphen and then the house number as 1-29 or 2-46 etc.

It is quite likely that some very large villages may have well laid out streets and clearly distinguishable localities or wards. In such cases, the locality—street—house numbering system as in urban areas can be adopted. This system will be explained under urban areas

Urban Areas

In urban areas two systems of house numbering have been found to be convenient : (1) Block house numbering system and (2) Locality/Ward—street—house numbering system.

(1) *Block—house numbering system*—This is the same as indicated for large villages in rural areas. The town will be divided into convenient blocks each block consisting of a group of adjoining streets or other compact local area with well-defined boundaries. Each block may have about 100 to 125 houses. First of all, each block so formed will be allotted a block number. Then in each block the houses are numbered in a logical way, each house number being indicated by block number and the house number. Thus a number bearing 2-30 would mean that it is a house with number 30 in block number 2 of the town.

This system of block—house numbering will be adequate in the smaller towns though there is no objection if they followed the system that will be explained in the next paragraph.

(2) *Locality/ward—street—house numbering system*—This system is found to be by far the most suitable in all large towns usually divided into well established Mohallas or localities or wards bearing distinct local names and covered by roads, streets, lanes and bye-lanes. Each one of the localities will be demarcated and will be allotted a code number. Within each locality each road and a street will also be allotted separate serial numbers. Along each road or street the houses are numbered off in one series. Thus, a house number under this system will be made up of a code indicating the locality number, the street number and the house number. Thus, a number like 2-4-99 would mean house No. 99 in street No. 4 of locality No. 2. But in order to obviate the need for painting the entire code of three numbers on each door it is suggested that at the end of each road and street a prominent metal plate, cement block or wooden board be fixed on which the locality number and the street numbers are marked along with the name of the street. Much confusion can be saved if every road and every street is properly named. Each house in that street or lane will be painted with only the serial number of the house that falls in that street or lane.

It is likely some times that a large main road such as say, Mount Road in Madras, may pass right through the city cutting across a number of localities. In such contingencies, a large road can by itself be treated as one locality bearing a locality number and since there will be only one road it can bear number 1 for street number and the buildings can be numbered off continuously right along the entire road. But it may also be possible that some smaller roads bearing a common name may be cutting through more than one locality and it may create some confusion if the house numbers along this road in each locality are given separate series of numbers in which case one may find the same number being painted on the houses falling in the two different localities on the same road though the code numbers of the locality and the street might have been indicated on separate boards in each locality. In such cases, there is no objection if the houses are continuously numbered from one end to the other end of the street by one continuous series even if it passes through more than one locality but at every end of the street falling within each locality the locality number and the street number and the name of the street should be given.

Wherever possible the town administrations should be encouraged to put up the house numbering sketches mounted on posts as one often comes across in several colonies in Delhi. These sketches should show the lay out of the houses and the numbers of all the streets and all topographical details such as parks and other public buildings, etc.

In some cities, instead of a locality the electoral ward of the city or town may have been taken as the major unit into which the city or town is divided. There can be no objection to this so long as these are well recognised units with definite boundaries and are likely to be fairly permanent. Where a ward—street—house numbering system has been adopted, if there were any changes in the ward boundaries at any subsequent stage it is important to ensure that any new streets added to, or existing streets deleted from a ward is properly numbered and the correct ward number also indicated in streets affected by such changes. Since the street is the unit for the house number series the actual house numbers on the doors of houses are not likely to get affected if an entire street or lane is transferred from one ward to another. But if on the door of each house the entire code of ward and street number had been painted, then obviously these require to be altered whenever changes in the boundaries of wards affect them.

Where there are no streets but a cluster of houses exist as probably in a slum area of a town, such a slum area can be allotted a street number series and all the houses within that cluster numbered off in some logical order or if such cluster is close to any other road or street the houses in the cluster can be numbered in the series along with the houses in that street, thus, treating this cluster as belonging to that adjoining street.

CHAPTER V

MODE OF AFFIXING HOUSE NUMBER

All houses to be numbered

It is important not to leave out any house from numbering. All existing buildings whether residential or non-residential, whether occupied or unoccupied, including temples, churches, mosques, shops, office buildings, etc., are to be numbered. Houses with separate main entrances and built for use as separate dwellings should be numbered as separate houses though they form part of the same building or be situated in the same compound belonging to the same owner and irrespective of the number of families actually in occupation. Even the huts used or likely to be used for residential or non-residential purposes should be numbered. Where a new colony has sprung up, it should be treated as part of an existing block or treated as a new block. A Railway colony should also be numbered in the same way as in the case of a new colony. Reserve forest areas should be treated as a part of village or panchayat. Areas under the control of military anthorities may be numbered in consultation with the military authorities. In this regard, care should be taken to see that the numbers given by the authorities concerned are not interfered with but it should be ensured that there should be no ambiguity in two sets of numbers. It is desirable to see that as far as possible the local numbers given by authorities such as the Railways, P.W.D., etc., in certain colonies of their own are made to fit into the general house numbering scheme without having to give another number. For example, if in a city the buildings in a Railway colony had already been numbered in a series by the Railway authorities, such colony need only be recognised as a separate locality or block of the town and the house numbers already given by the Railway authorities fitted into the general house numbering scheme. Supposing they had given a single number for a cluster of buildings in a compound, for the purpose of the house numbering seheme sub-numbers can be allotted to each building.

In the rural areas, it is the responsibility of the village officers or the Panchayat authorities as the Collector may decide to ensure that all the structures within the limits of their village have been invariably allotted a house number whereas in urban areas the responsibility for house numbering lies on the local civic authorities concerned. Affixing of permanent house numbering plates should be encouraged. But the numbering should strictly conform to the house numbering plan and should not be left to the discretion of some contractors who are known to fix house number plates indiscriminately. It is, therefore, essential that a basic detail of the house numbering plan should be drawn up in each village and town which should be duly approved by higher authorities on the lines already indicated before the actual affixing of the numbers on houses starts. This chapter of the Manual gives some guidance as to how the numbers should be actually marked.

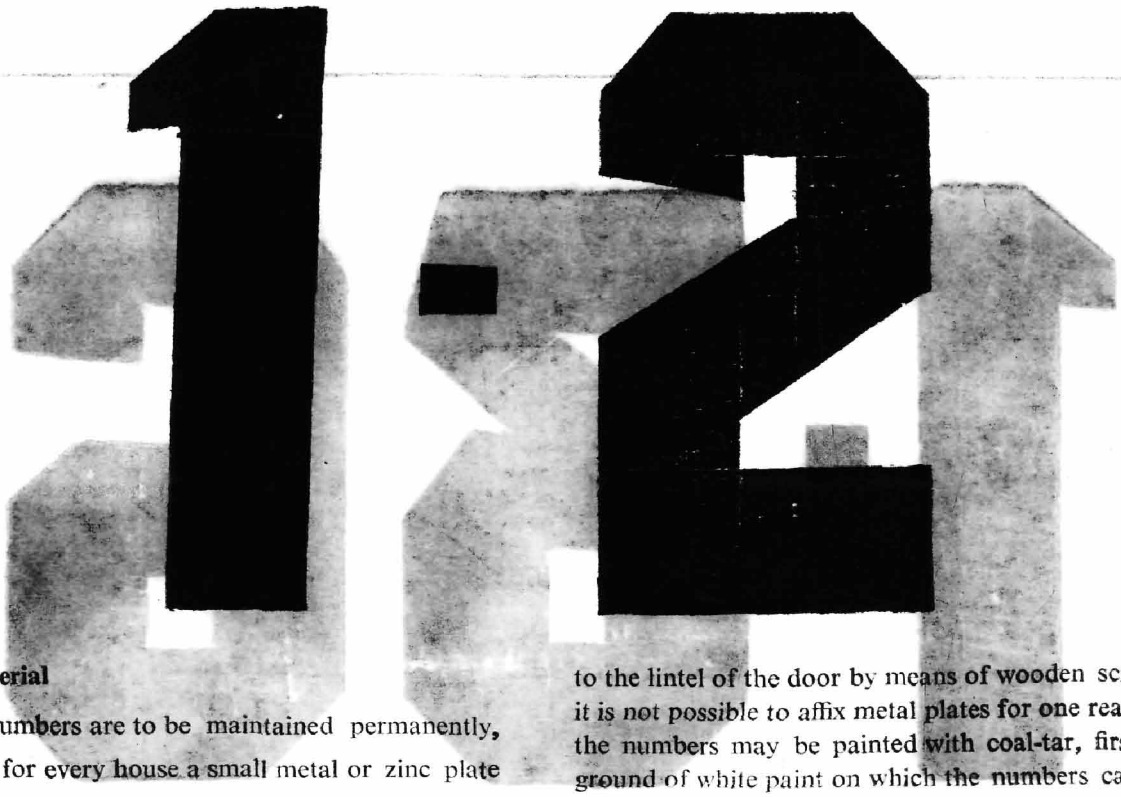
Place where house number is to be affixed

The best place to mark the house number is the centre of the lintel of the front door of the house or the number may be marked on the front door itself or next to it on the wall. Where there is no durable door worth the name, as for instance, in some huts, a small portion of the wall near the entrance to the house should be white washed, if this has not been done by the owner and the number marked on the white washed portion. In case of huts which have neither doors nor walls for there may be constructions where a sloping thatched roof itself reaches the ground without walls, the number may be marked on any suitable beam, pillar or flat part in the house or failing all this on a small metal plate (preferably zinc) or wooden board which can be hung by a wire or rope from the roof of the dwelling at or as near to the entrance as possible and acknowledgement of the receipt of the number plate or board should be obtained from the person residing in the dwelling. It may not be practicable with the existing resources to affix house number plates in all the houses immediately in the villages. Therefore, this may be made voluntary on the part of Panchayats. But house numbers should be marked by using some cheap material as geru, tar or chunam. Since the houses are generally white washed on festival occasions these numbers are likely to be obliterated. While the villagers may be educated to have these numbers repainted neatly, it should be the responsibility of the Panchayat to ensure that annually all the house numbers are repainted and kept intact. Small embossed house numbering plates are found to be cheap and convenient and even if covered by colour-wash during festivals the numbers would be distinguishable. In rural areas, where durable house numbering plates cannot be affixed on all the houses immediately, house number plates should be affixed at least to certain permanent structures in the village like pucca houses located at strategic points, school buildings, hospital buildings, temples, etc., to start with. In such cases the Panchayat may take up the supply of embossed house numbering plates for the entire village in a staggered fashion during the course of say, 2 to 3 years.

In the selection of places on the houses for making the numbers, uniformity of location is ideal but where deviations cannot be avoided, they should be subjected again to some uniformity. This would facilitate location of numbers without any effort. Wherever fresh numbering is done, all the old numbers, if any, should be completely obliterated.

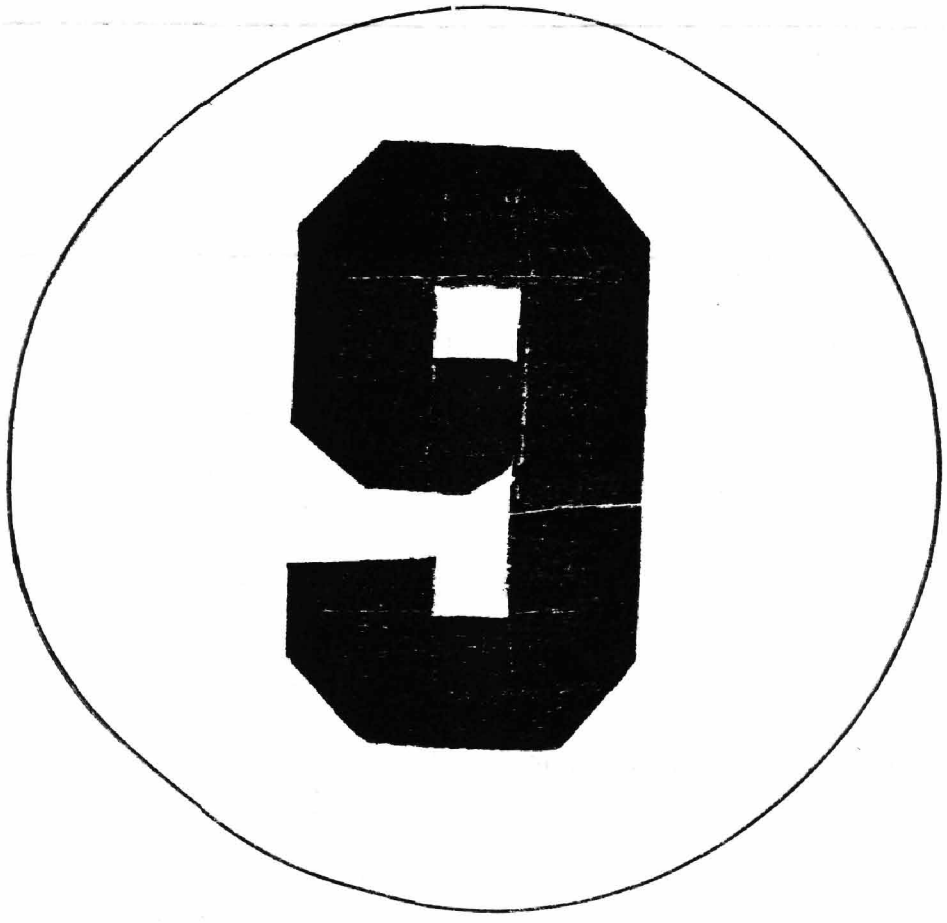
Size and form of the housenumbering numerals

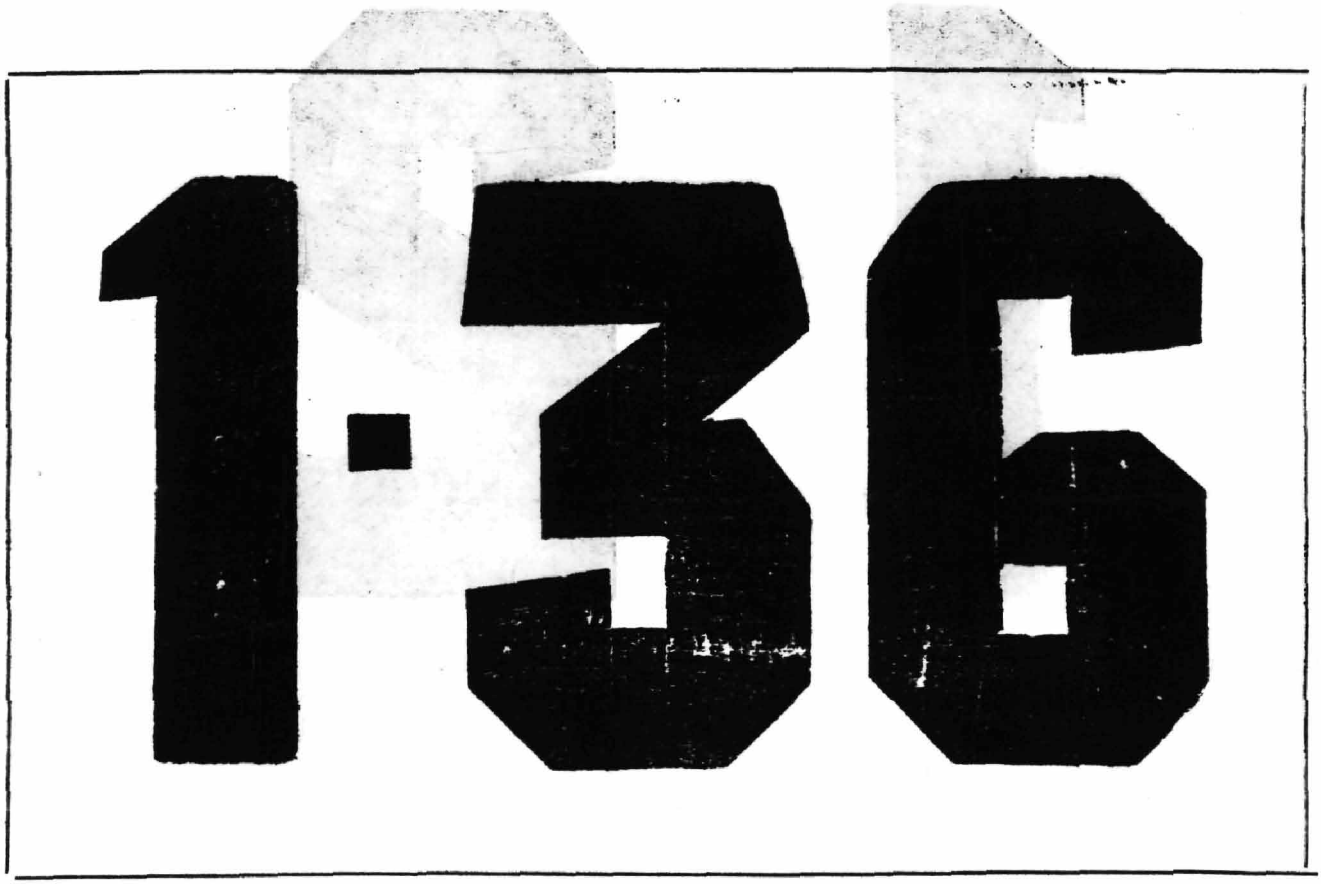
The size of the numerals for housenumbering will be half an inch in thickness and 2½" in height. Only international forms of numerals should be used and not the local language versions. To give an idea, the number below illustrates the size :



House numbering material

Since the house numbers are to be maintained permanently, it is desirable to have for every house a small metal or zinc plate with a house number embossed on it. The plate may be affixed to the lintel of the door by means of wooden screw or nails. If it is not possible to affix metal plates for one reason or the other, the numbers may be painted with coal-tar, first giving a background of white paint on which the numbers can be marked in black thus:





Correct way of indicating Block number and House number in Rural areas

In situations where the village is split up into blocks for house numbering purposes, and the houses in each block numbered in a separate series, the actual number to be painted on each house will indicate the block number as well as house number. The correct way of giving the house number is that the block number may come first, then the house number after a hyphen. Thus the number 1—15 means house number is 15 in block No. 1.

Division into wards and streets and numbering and naming of each street

Urban Areas—In urban areas, where the locality-street-house numbering is proposed to be introduced, the town or city may be divided into wards or mohallas which have well recognised and permanent physical boundaries and local people are well acquainted with them. The localities may be numbered serially from North-East to South-West or from North-West to South-East or in a clockwise direction or in whichever manner that is most convenient. All the main streets within each locality in which the town is divided are to be numbered serially and each street to be assigned a definite number. If there are slums or similar concentrations of houses not served by definite streets, such a block can be assigned a number in the street number series. In the alternative the cluster can be attached to the nearest street and the houses can be numbered in the same series as those of the street to which the cluster is attached. In situations where the streets had not been named before, it is desirable that each street should be given a name which should come into common usage as the people are more likely to remember the name of a street than its number. In order to achieve identification at any time without any difficulty, it is generally preferable to name the roads, streets, etc., in terms of permanent features rather than names of personalities. It is very essential for

FIGURE 2

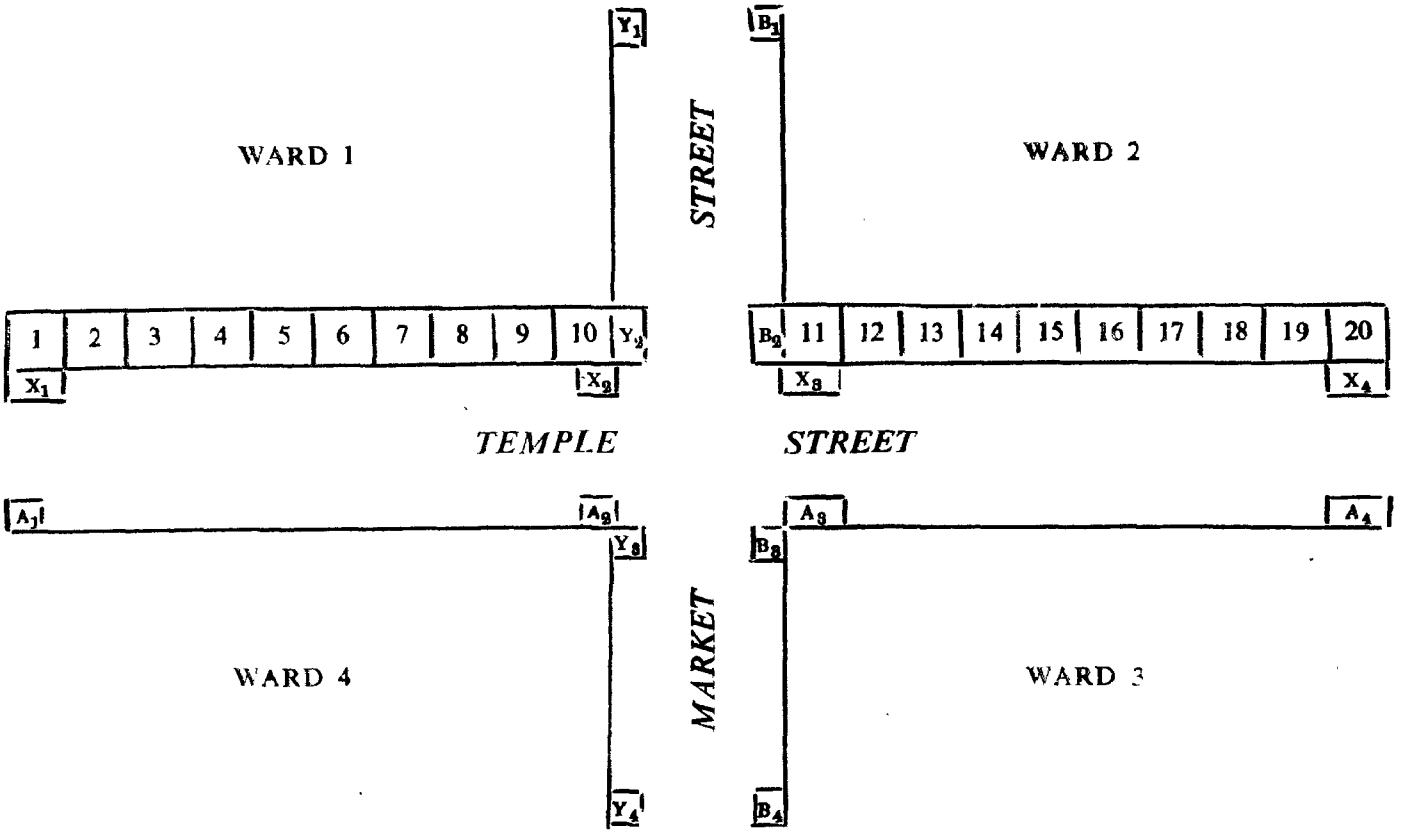


FIGURE 3

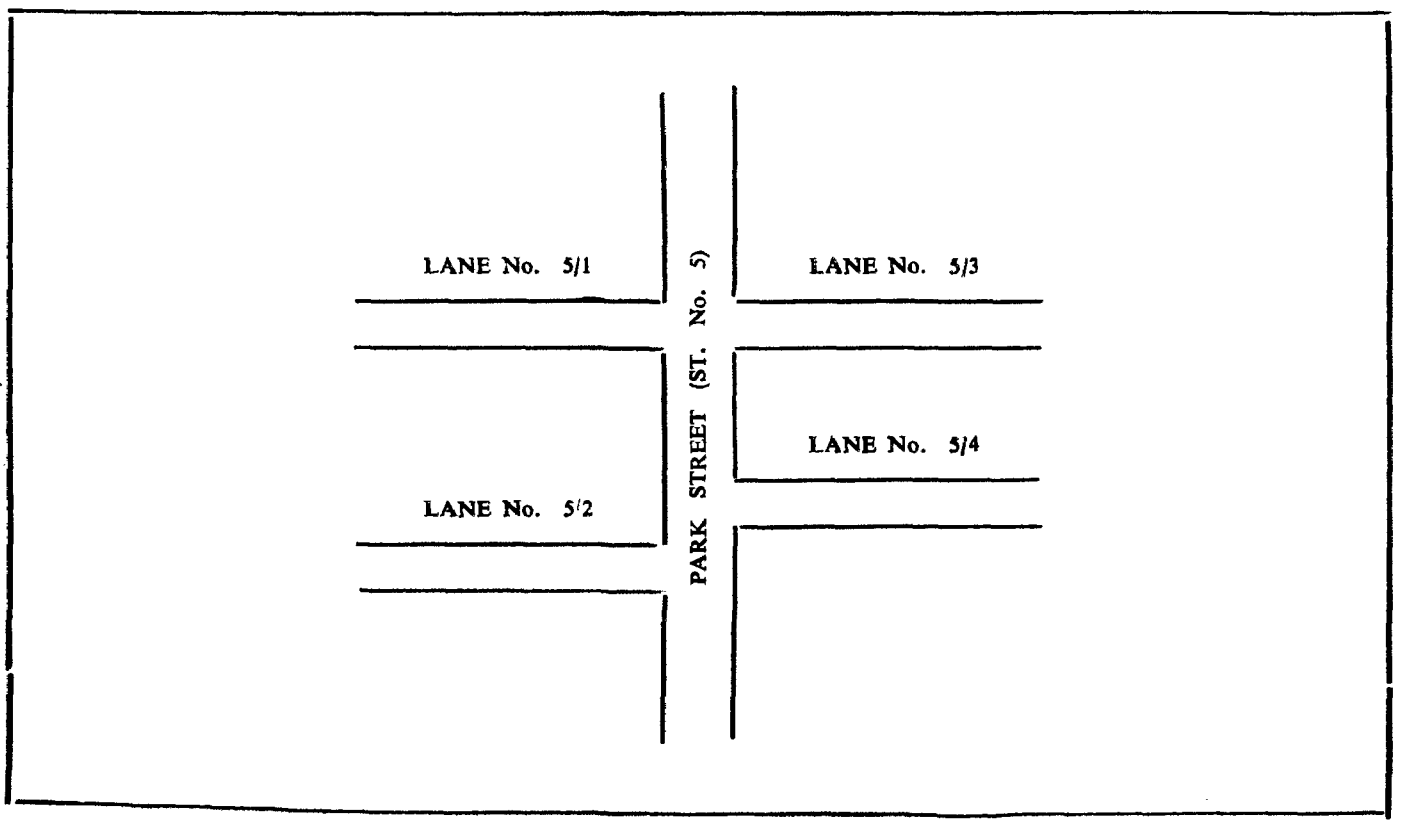
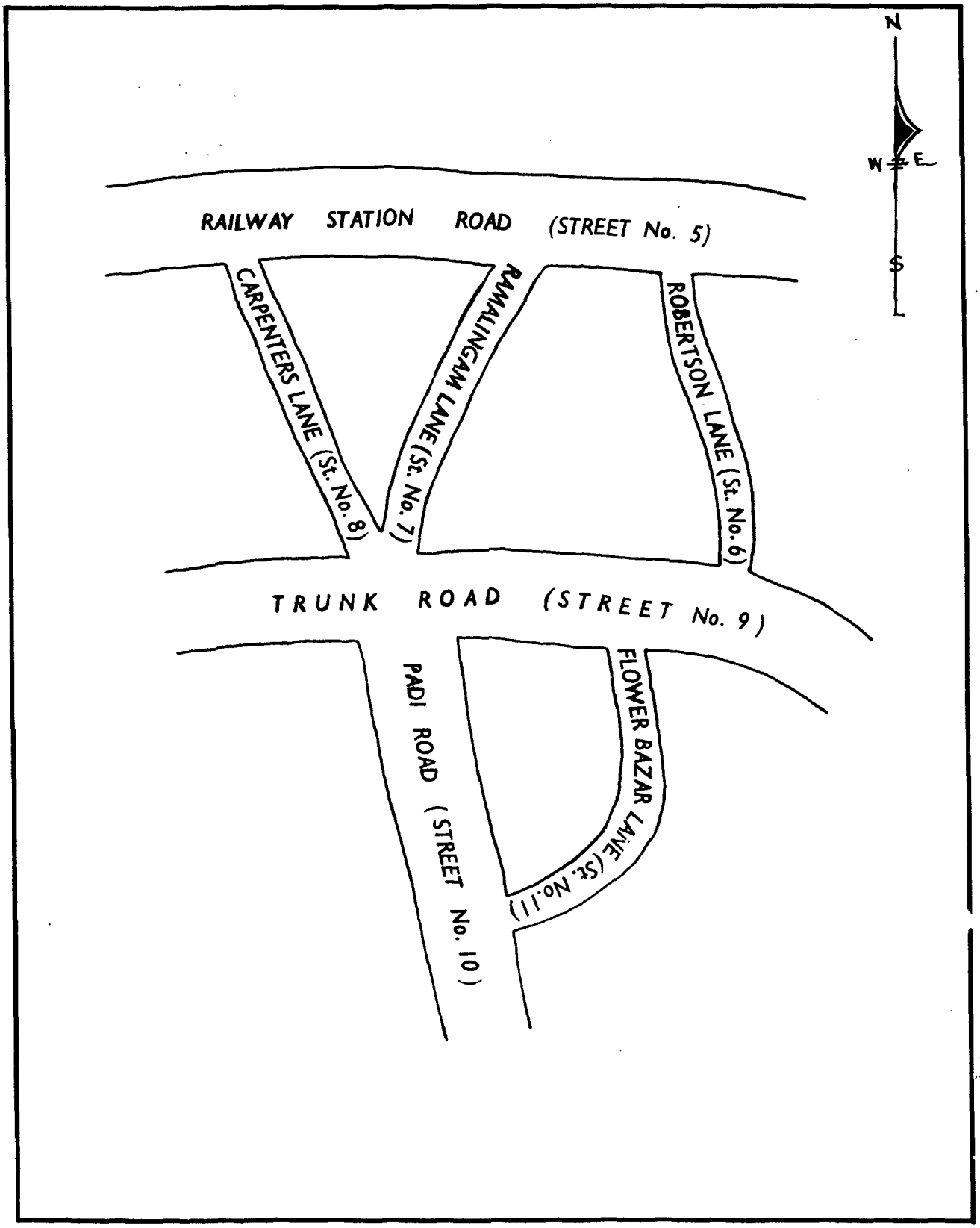
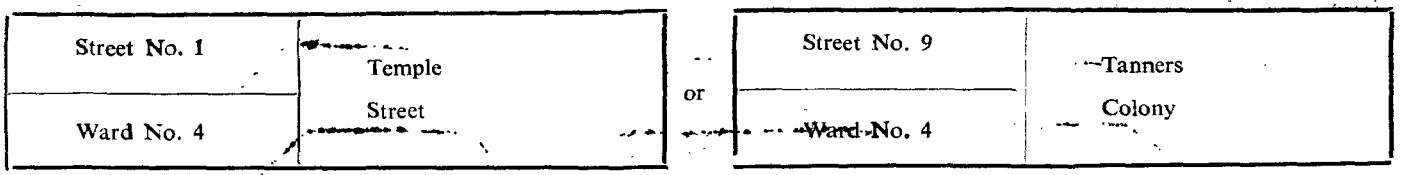


Figure- 4


N
W
E
S
RAILWAY STATION ROAD (STREET No. 5)
CARPENTERS LANE (St. No. 8)
RAMALINGAM LANE (St. No. 7)
ROBERTSON LANE (St. No. 6)
TRUNK ROAD (STREET No. 9)
PADI ROAD (STREET No. 10)
FLOWER BAZAR LANE (St. No. 11)

unambiguous identification not to utilise the same name for more than one street or locality. At the beginning and end of each street, metal, wooden or cement boards may be affixed to the wall of the last building indicating the number and name of the street and the ward number. In the case of a slum or similar colony a board may be put at the entry to be shown at prominent place. These boards may be in the following form :



Streets crossing each other : names of streets to be indicated for each bit

If two streets cross each other within the same ward or locality and the house number along the entire length of the street had been done by a single series; it is very important to indicate the number and name of the street at the beginning and end of each bit of the street as given. (Figure 2).

The number and name of the Temple Street and ward or locality number may be put on cement or wooden tablets at the points marked X1, X2, X3 & X4 and A1, A2, A3, & A4. Similarly the number and the name of the Market Street and ward or locality number may be marked Y1, Y2, Y3 & Y4 and B1, B2, B3 & B4. This is essential for it may be noted that portions of the streets as also either side of the streets fall in different wards though the house numbers along the entire road may have one common series.

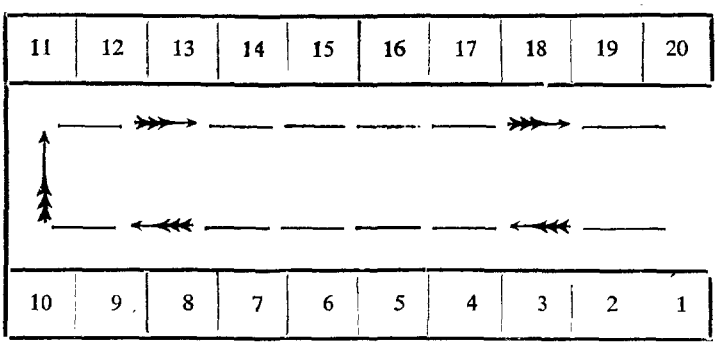
Numbering of small lanes leading off from main streets

If there are small lanes branching off from the main roads or streets, it is desirable to relate each lane to one particular main street and each lane allotted a sub-number to the main street as indicated. (Figure 3). The houses along each lane will be numbered by an independent series.

If it not possible to relate lanes to particular streets, it is best that all the streets and lanes are numbered off in one continuous series for the entire ward or locality and lanes numbered by independent series. (Figure 4)

Numbering of houses along streets and lanes

The numbering of houses along each street or lane should run in one continuous series on one side of the road and then cross over and then the series continued on the other side of the road till it ends up opposite to where it was started as below :



This system is preferable to the one where even numbers are given on one side and odd numbers on the other side of the road. But where the houses are fairly regularly constructed in well planned cities, as for example, New Delhi, where the odd numbers are given on one side and even numbers on the other, it is ideal and should be adhered to.

Change of locality or blocks

If some portion has been added to the existing Panchayat or Municipality, the following procedure may be adopted. The portion added may be treated as a new locality or block and the houses and streets may be numbered accordingly. The rough plans and the key list of the Panchayat or Municipality may be amended correspondingly. It is necessary that the painting of numbers on the doors of the buildings are checked by a supervisor of the status of a Revenue Inspector. The remaining houses in the block or blocks affected in the village should be renumbered. The specific order of the Government may be taken in all such cases.

Change of house numbers

In a newly constituted Panchayat, if different house numbering systems have been adopted in the main village and in the component villages, the numbering may be changed with the approval of Government. When the numbering is altered it is necessary that the painting of the revised numbers on the doors of buildings are checked by supervisor of the status of a Revenue Inspector. When the numbering of houses is changed, it is necessary to correct suitably or prepare afresh the rough plans and key to the plan also. The corrections made on the fresh maps drawn should be checked by an authority of the status of a Revenue Inspector. The alphabetical numbers may be given to the new houses coming up in between two numbered houses. If the house has been demolished, the number may be retained and given to the construction that may be built on it later. Such demolitions usually come to the notice of the Municipality when tax demand is made.

CHAPTER VI

MAINTENANCE OF HOUSE NUMBERS

It is important that house numbers should be well maintained on a permanent basis both in rural and urban areas. The responsibility for maintenance rests with the Panchayat in the rural and executive authorities in the urban areas. It is the responsibility of these authorities to see that every building or hut has been numbered in accordance with the instructions whether situated in a Municipality, Township, Panchayat, Estate or settlement in the forest. New constructions should be assigned house number immediately after they have come into being. The numbers to be allotted should fit into the general system of house numbering. Whenever new constructions come up in between two houses already bearing house numbers, the new houses should be allotted sub-numbers by adding an alphabet to the lower of the two existing house numbers between which the new constructions have come up. Supposing two new houses are constructed between two buildings bearing any house numbers 4 and 5, the new constructions will be numbered as 4-A and 4-B. If another new house comes up between house No. 4-A and 4-B, it can be numbered 4-A-1. If a new house should come up between house No. 4 and 4-A it can be numbered as 4-1. If on the other hand the new constructions come up at the very end of a street where the last number of the existing series of house numbers terminate, then the new houses will be allotted numbers in continuation of the series. Thus, the house numbering can be brought up-to-date periodically. If a large number of constructions come up anew as when a new colony springs up then it will be desirable to treat it as a separate street, block or locality and the houses, in that new colony given a separate series of numbers. The new locality, block or street numbers, as the case may be, can be allotted an alphabetical appendage to the adjoining locality, block or street. After a few years if the entire face of an area is changed by a series of new constructions demanding a complete revision of the old house numbering system, then it will be advantageous to completely revise and introduce a fresh system of house numbering obliterating all old numbers.

Whenever new constructions come up and fresh house numbers are allotted care should be taken to ensure that the house numbering sketch and the houselist are also brought up-to-date.

ANNUAL VERIFICATION OF HOUSE NUMBERS

CERTIFICATE

The house numbering shall be verified annually. It will be brought up-to-date and a certificate will be furnished in the prescribed proforma given below :

House numbers.....Maintenance.....Annual Verification.....

Certificate for the year ending 31st March,..... . ...

District..... Village..... .. ..

Taluk..... .... Town.....

Name of locality or block in the serial order of the locality or block number	Total number of buildings at the beginning of the financial year		Total number of buildings added during the year		Total number of buildings at the end of the financial year		Remarks
	Residential	Non-residential	Residential	Non-residential	Residential	Non-residential	
1	2(*a*)	2(*b*)	3(*a*)	3(*b*)	4(*a*)	4(*b*)	5

Note—In column (5) specify the new house numbers added (separately under Residential and Non-residential) and the number of houses demolished during the year, as follows and also any other explanatory remarks considered necessary.

Vacant numbers.....

New numbers.....

Residential.....

Non-residential.....

Certified that the house numbers have been marked and maintained correctly in all cases and that the plans and keys to the plans have been duly maintained in accordance with the instructions issued by Government.

Signature.....

Designation.....

Karnam/Executive Officer/Municipal Commissioner/
Commissioner

The dates on which these certificates should be furnished and the authorities who should furnish them are indicated below:

Verification of house numbers for each financial year to be completed by the end of June each year

After the close of the financial year, *i.e.*, 31st March, the village Karnams or Patwaris or Secretaries of Panchayats and Executive authorities in charge of Town Panchayats, Townships and Municipalities, etc., should after verification certify in the prescribed form explained above that the house numbers have been maintained. The certificate is also required to show the following particulars:

1. Number of buildings at the beginning of the financial year.
2. Number of buildings added during the year.
3. Total number of buildings at the end of the financial year.

The verification of house numbering should be completed before the end of June every year and should cover all the buildings both residential and non-residential.

Correctness of certificate to be verified

The certificate should be prepared in duplicate and one copy will be retained with the Village Karnam, Patwari or in the office of local authority as the case may be and the other sent to the Taluk Office. In respect of Municipalities, while one copy of the verification certificate will be filed in the office, another copy should be sent to the Assistant Collectors or Subdivisional Revenue Officers. The correctness of the certificate may be checked by the Revenue Inspectors or Deputy Tahsildars or Tahsildars in respect of villages and minor panchayats and the Revenue Subdivisional Officers during the course of their tours. The Tahsildars and the Revenue Subdivisional Officers should report to the Collectors that the annual verification certificates have been obtained from all rural and urban units in their jurisdictions. In the case of Municipal Corporations the Commissioner will be responsible to get the house numbering verified and certified by the Ward Officers. A consolidated certificate for the whole office may however be furnished to the District Collector of the District within whose jurisdiction the Corporation area falls.

The annual verification certificates should be attached to the copies of the house numbering plans and houselists available with the Taluks, Subdivisional Offices, etc., and these should all be brought up-to-date.

Collectors to obtain certificates of verification and report to Government

The District Collectors should be requested to check up whether all the completed reports have been received and submit a consolidated statement to the Government by the 15th of August. The District Collectors may be requested to personally check house numbering during their tours. In the case of Municipal Corporations, the Commissioners concerned should send the verification certificate to the District Collector.

The co-operation of the public and the local bodies will be essential for the successful maintenance of a permanent house numbering system. A public awareness of the importance of house numbering should be created by propaganda through Block agency, through posters, etc.

COST OF HOUSE NUMBERING

The maintenance of house numbering is primarily the responsibility of local bodies. The legislation pertaining to Municipal and Panchayat administration almost invariably require the authorities to maintain house numbering in their jurisdictions. The expenditure incurred on house numbering and their maintenance will be met by the respective Municipalities or Panchayats, etc. The local bodies with suitable modification of their bye-laws may perhaps like to make it obligatory on the part of the house-owners to share the cost of metal plates either in full or in part. The question of providing some financial assistance to the Panchayats and Municipalities from the funds of the Government of India through the Census Organisation or some other department will also be explored. To start with there is hardly any cost involved as mainly the success of a sound house numbering depends on the preparation of good house numbering sketches and houselists and the marking of house numbers with cheap material in rural areas. It is only when gradually permanent house numbering plates are introduced that some sizable cost is likely to be incurred.

INDEPENDENT CHECKS

Apart from the annual verification of house numbers by the agency charged with the maintenance of the house numbers and the district authorities, a systematic sample check by entirely independent organisations may help to bring to light any deficiencies in house numbering which will guide and help the local authorities to maintain the house numbers better by focussing attention on deficiencies in existing system, if any and suggesting ways of avoiding defects, if any. The possibility of the sample checks of house numbers by organisations such as the Census, Posts & Telegraphs and National Sample Survey, will be examined and suitable instructions issued in due course. These independent sample checks do not in any way reduce the responsibilities of the authorities responsible for the normal maintenance and verification.

APPENDIX I

HOUSE NUMBERING PLAN

(For Rural Area)

Name and Number of the District ..... NORTH ARCOT 3

Name and Number of the Taluk ..... WALAJAPET 2

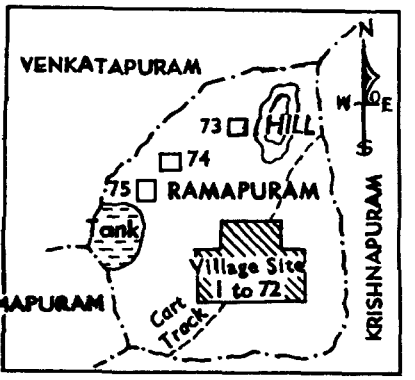
Name and Number of the Village ..... RAMAPURAM 22

(NOTE :- The Names and Numbers given are Notional)

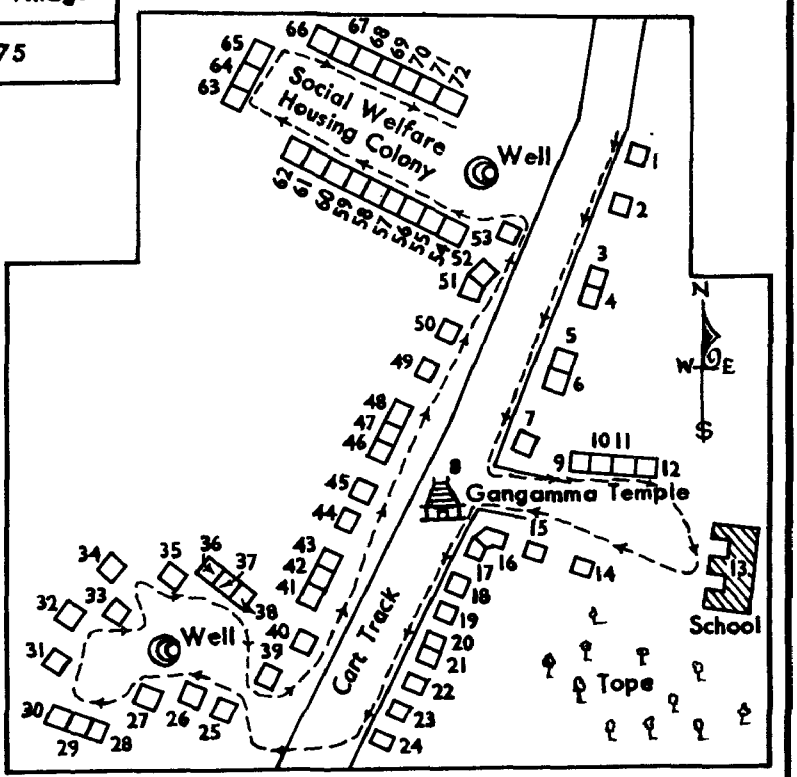
KEY TO THE PLAN

Serial Nos. of the Houses in the Village		Total No. of Houses in the Village
Residential	Non-Residential	
1 to 7, 9 to 12, 14 to 75	8 and 13	75

VILLAGE PLAN



VILLAGE SITE



APPENDIX II

HOUSE NUMBERING PLAN

(For Rural Area)

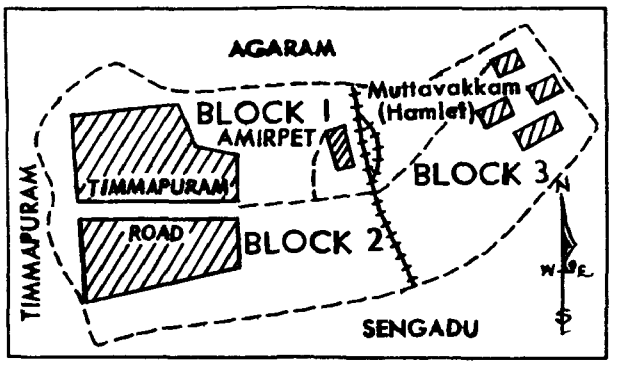
Name and Number of the District..... SOUTH ARCOT 4

Name and Number of the Taluk ..... CHIDAMBARAM 8

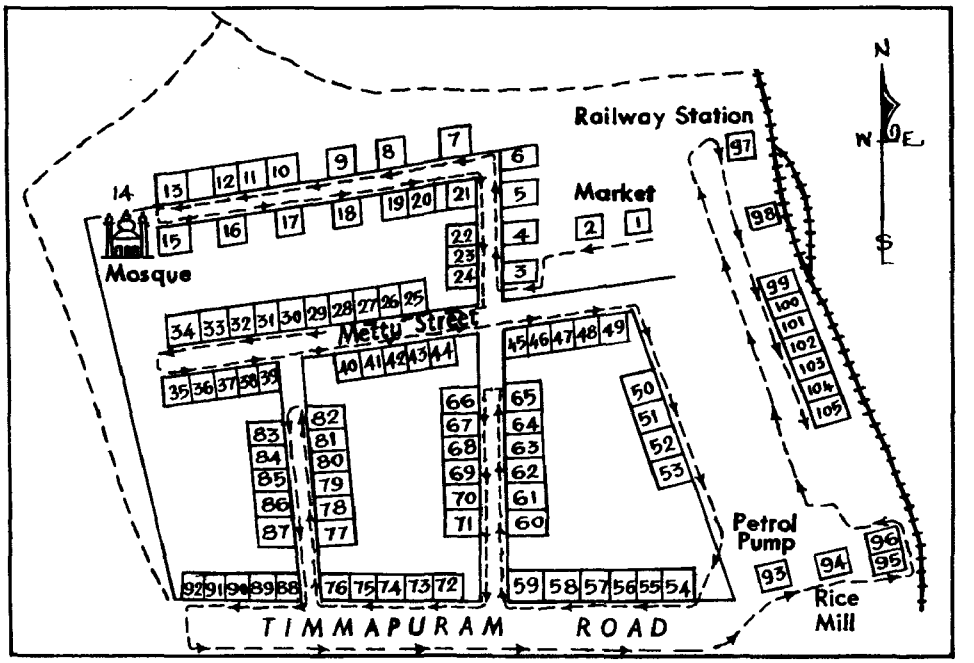
Name and Number of the Village ..... AMIRPET 14

(Note:- The Names and Numbers given are Notional)

VILLAGE PLAN



BLOCK-I



APPENDIX III

HOUSE NUMBERING PLAN

(For Urban Area)

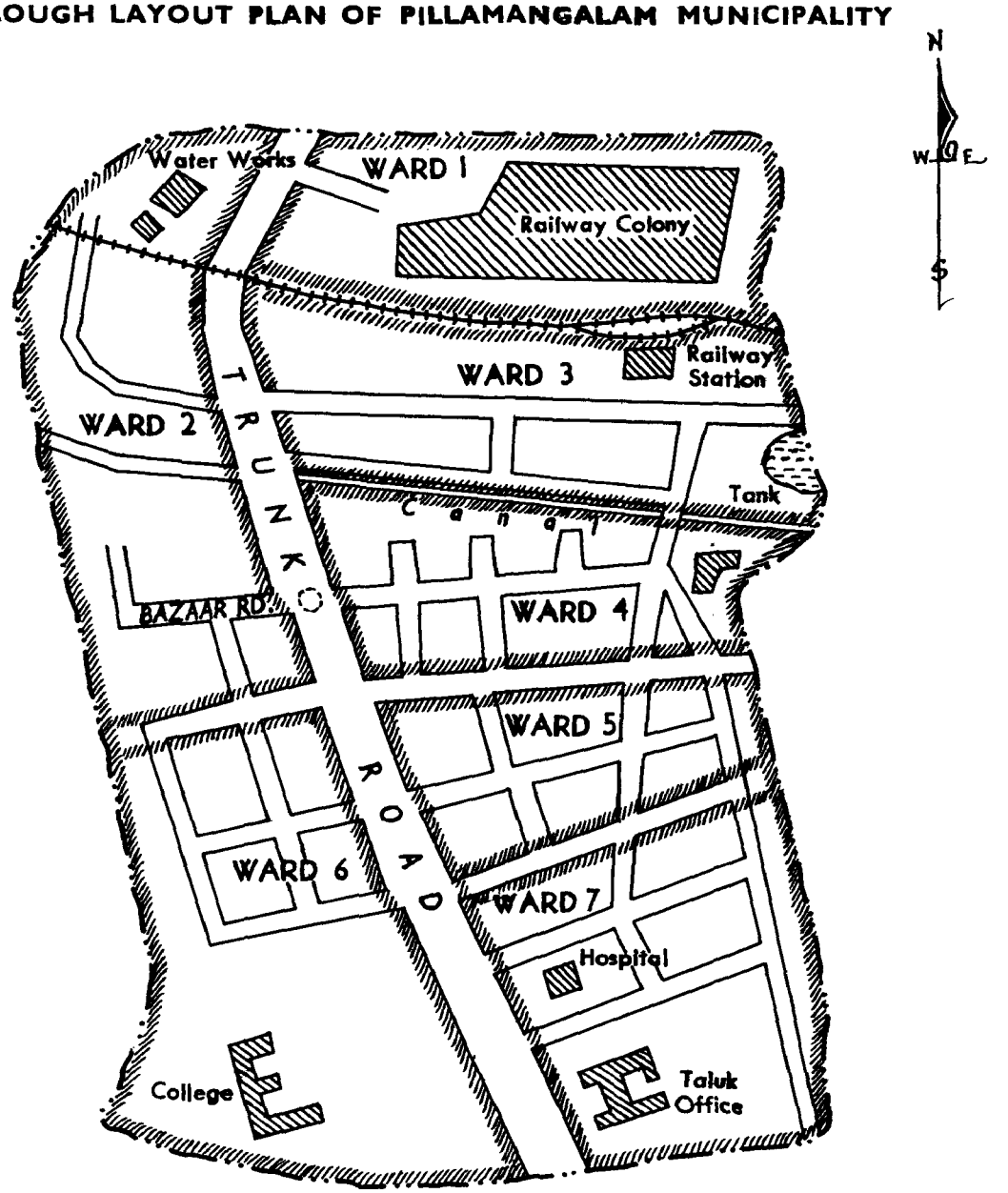
(Note:- The Names and Numbers given are Notional)

Name and Number of the District .....TIRUNELVELI 13

Name and Number of the Taluk..... AMBASAMUDRAM 9

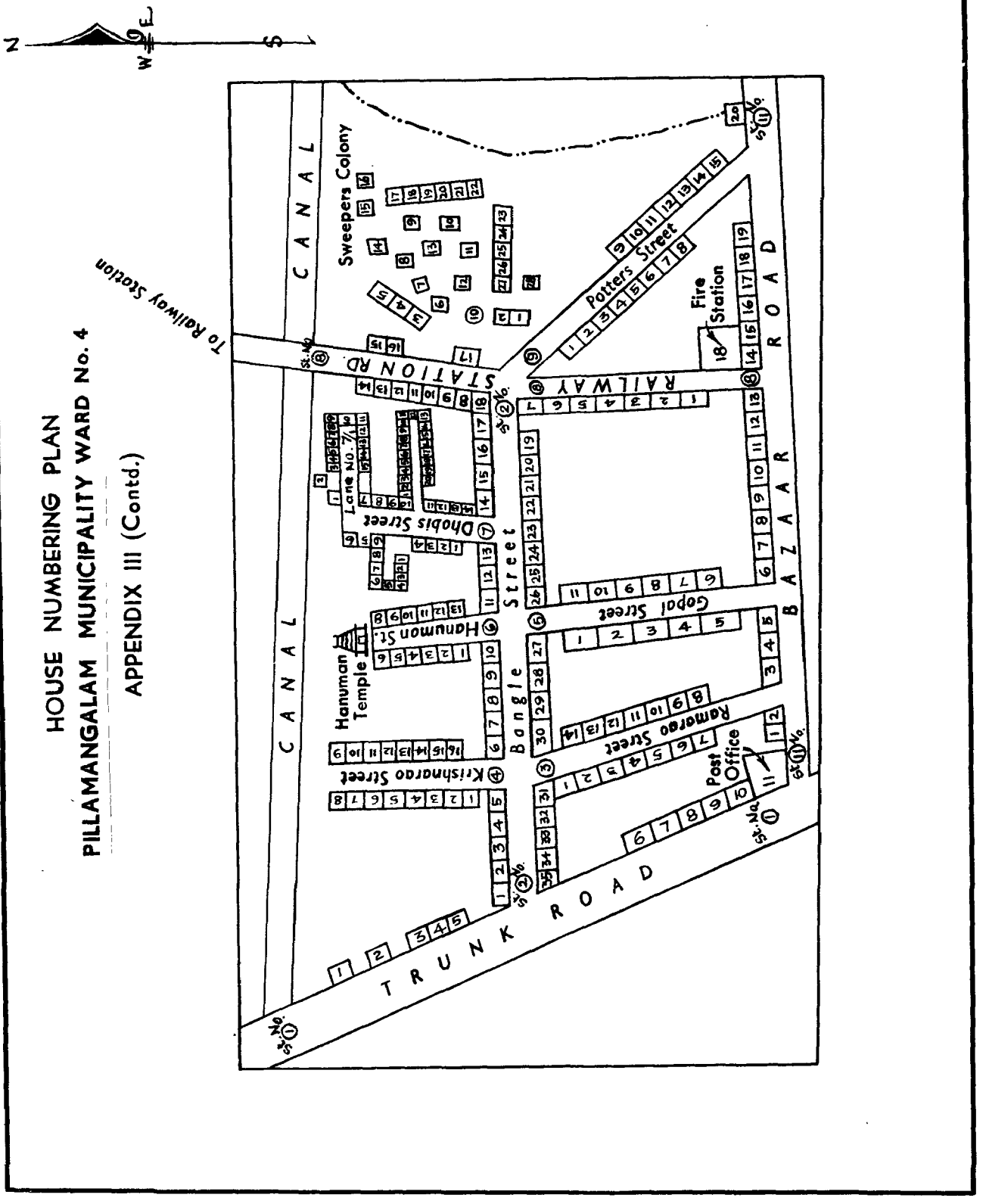
Name and Number of the Town.. ..... PILLAMANGALAM 11

ROUGH LAYOUT PLAN OF PILLAMANGALAM MUNICIPALITY

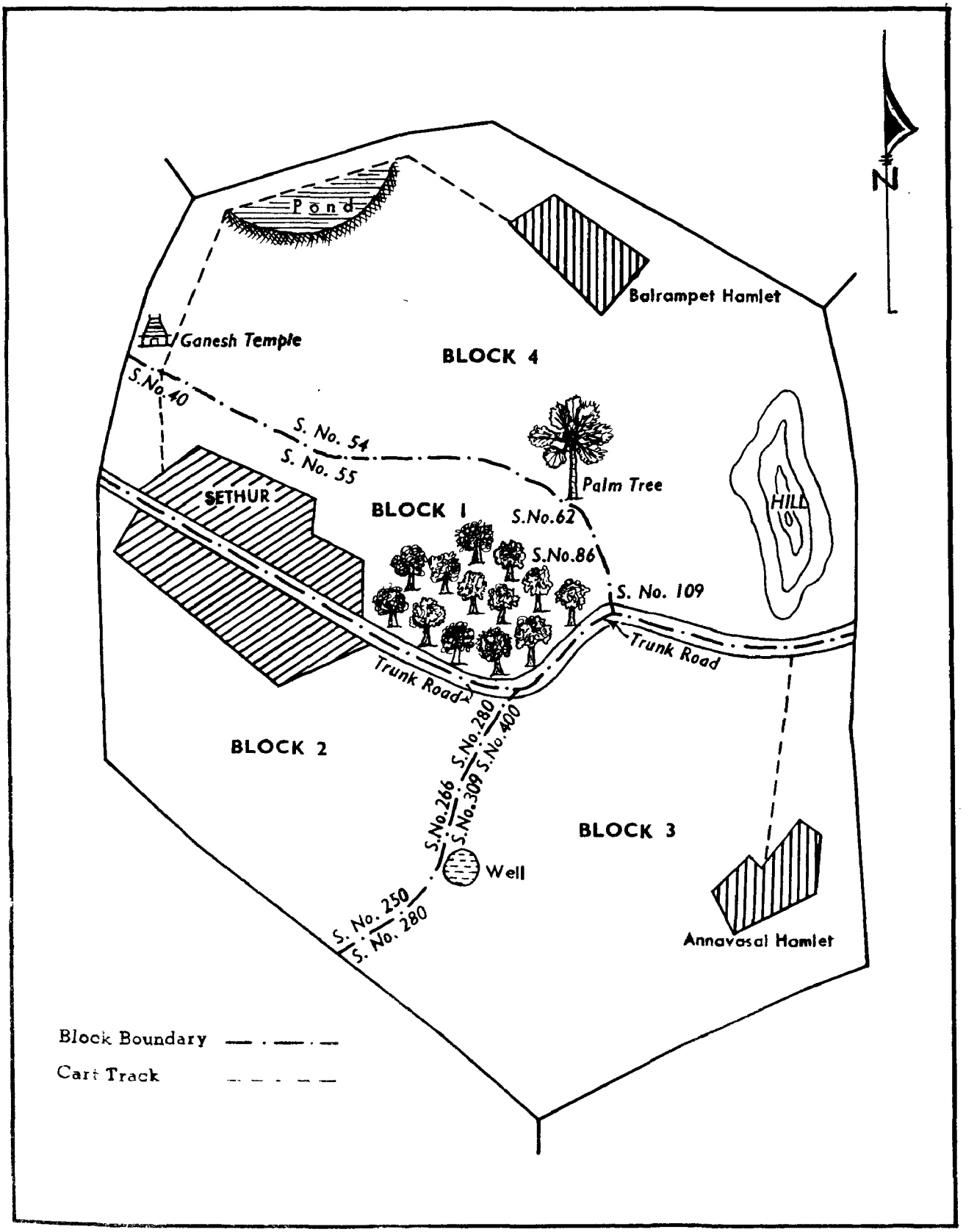


HOUSE NUMBERING PLAN
PILLAMANGALAM MUNICIPALITY WARD No. 4

APPENDIX III (Contd.)



VILLAGE NOTIONAL MAP



CHAPTER VII

CONCLUSION

A good system of permanent house numbering is a direly felt need both from the point of view of the citizen as well as that of administration. Spasmodic efforts had been made in the past in some areas which have yielded various measures of success. The country has entered a phase of planned and scientific development. In all plans, in all surveys, in election and in all schemes of social and economic uplift it is necessary to locate the household and the individual for whose welfare alone the country is striving. One feels frustrated by the lack of system which makes it difficult even to identify a house correctly. Often times the authorities in charge of each survey or scheme keep on affixing their own identification numbers on the doors thus completely disfiguring the walls or doors of houses apart from the utter confusion this leads to. Hence the need for a good, sound and permanent scheme of house numbering. In the ultimate analysis the introduction and maintenance of house numbering may not involve much cost. What is needed is a little effort, the determination and willingness to work out a good scheme of house numbering. Can anybody deny that a good large plan of a village or town in the office of the Panchayat or Municipality is an absolute necessity for good administration as it will help to present an overall picture of the entire unit in all its aspects? It is hoped this Manual will give some guide-lines to all those charged with the responsibitity to work out and introduce immediately a satisfactory system of house numbering.

The instructions in this Manual are by no means comprehensive and cannot possibly be expected to meet the varying situations in different parts of the country. It is hoped that the State Government with the help of the advisory committee will be able to resolve several local difficulties in consonance with the general scheme of things spelt out in this Manual. If any matters of major policy are involved they may kindly be referred to the Registrar General's Office which will try to render whatever service that it can.

ANNEXURE VII

HOUSELIST POPULATION

	District/State	Houselist Population 1960	Houselist Population, 1970			Percentage increase in Population 1960—1970
			Persons	Males	Females	
	1	2	3	4	5	6
1	Madras	1,619,266	2,281,616	1,173,387	1,108,229	40.90
2	Chingleput	2,124,977	2,723,365	1,392,251	1,331,114	28.16
3	North Arcot	3,053,461	3,617,435	1,835,352	1,782,083	18.47
4	South Arcot	2,992,281	3,443,515	1,757,190	1,686,325	15.08
5	Dharmapuri	1,307,538	1,607,456	818,209	789,247	22.94
6	Salem	2,440,642	2,913,367	1,481,919	1,431,448	19.37
7	Coimbatore	3,414,032	4,190,872	2,134,492	2,056,380	22.75
8	Nilgiris	386,283	491,429	250,440	240,989	27.22
9	Madurai	3,108,640	3,827,981	1,926,765	1,901,216	23.14
10	Tiruchirappalli	3,122,172	3,719,414	1,876,039	1,843,375	19.13
11	Thanjavur	3,146,607	3,623,408	1,825,377	1,798,031	15.15
12	Ramanathapuram	2,428,069	2,916,470	1,446,037	1,470,433	20.11
13	Tirunelveli	2,714,817	3,202,807	1,584,060	1,618,747	17.98
14	Kanyakumari	980,389	1,233,153	629,351	603,802	25.78
	TAMIL NADU	**32,839,174**	**39,792,288**	**20,130,869**	**19,661,419**	**21.17**

APPENDIX VIII

PROCEDURE FOR SELECTION OF SAMPLE OF HOUSES FROM THE HOUSELIST

Part A—Instructions to the Sampler for selecting a 20% sample of houses from the Houselist.

1. Preliminary Steps

1. You are required to tick off in red pencil the sample houses from the Houselists of an operational unit. Generally, for purposes of sample selection, operational units are :

(i) Tehsil/Anchal/Police Station for rural areas ;

(ii) City ; and

(iii) Non-city urban area of a district.

To avoid disparity in the workload as well as to maintain stability in the sampling fraction, large operational units may be divided into parts of convenient size each of which will then constitute an operational unit. Similarly, geographically contiguous tehsils of small size may be combined within a district to form operational units of adequate size.

2. When the Houselists come to you for sample selection, the census houses would have been numbered serially within each block, along the line dividing columns 2 and 3 of the houselist. Before starting out on sample selection, check whether,

(i) the Houselist Abstract (form II received from the charge officers) has been provided to you along with the Houselists ;

(ii) a check list containing charge numbers and block numbers in the operational units has been provided to you ;

(iii) the bundle contains the houselists for all the blocks in the operational unit by making suitable tally marks in the check list referred to in (ii) above; (in case the Houselists are received after editing in lots of 10 blocks each for the sake of operational convenience, ensure as you go along that the Houselists for all the blocks of one operational unit are fully received and disposed of. *In no case should Houselists of one operational unit be mixed with those of another*);

(iv) the blocks are serially arranged according to ascending order of location code ;

(v) the houselists for each block are paged and stitched together ;

(vi) the serial number of the last house of any block agrees with the number recorded in column 7 of the Houselist Abstract against the block. If there are any discrepancies, bring them to the notice of the supervising officials and correct them before proceeding further.

3. Sample will be selected independently from each operational unit. You will be given a random start for selection of sample in the operational unit assigned to you. The selection of the sample of houses is one continuous process for the entire operational unit. Sample selection will be facilitated by the use of the Control Charts (*see Appendix I*) adequate number of copies of which would have already been provided to you.

2. Procedure for sample selection

Step 1. Take a sheet of the Control Chart (*See Appendix I*) and note the following in the space provided on top :

(i) Identification particulars of the operational unit with name and location code of the district ;

(ii) Random start for this operational unit ;

(iii) The page number as you go from one sheet to another.

Step 2. You are required to select a 20% systematic sample of houses. Take the houselist for the first block and record its location code (in the case of non-city urban, location code of the charge also) and the total number of houses in columns 1 and 2 respectively from the Houselist Abstract. Quickly glance through the serial numbers before you start sampling the houses, to correct any mistakes in serial numbering. The first sample house in this block will bear the same serial number as the randam start of the operational unit. Starting from this first sample house, tick off every fifth house till you reach a stage when it is not possible to select another house from this block (*i.e.*, when number of houses left out is less than 5). Enter the serial number of the last selected house in column (4). Check whether the unit digit (*i.e.*, the right extreme digit in a number *e.g* , in 9<u>8</u>, 9<u>9</u>, 10<u>1</u>, 10<u>2</u>, 10<u>3</u>, the unit digit is underlined), of the serial number of the last selected house is either the same as the random start (*i.e.* the serial number of the first selected house of the block) or the random start plus 5. For example, if the random start is 3, the number in the unit digit of the serial number of the last selected house will be either 3 or 3+5=8, *i.e.* the serial number may be 123 or 128. If this is not so, the discrepancy has arisen because you have at some stage marked the wrong house as falling in the sample. Since the criterion mentioned above will be equally applicable to the serial number of each selected house, it will be more convenient if you start checking from the last selected house backwards to locate the mistake and correct it for the block.

Even though the serial number of the last house tallies with the number of houses recorded in column 7 of the Houselist Abstract, there is a possibility that the serial numbering of the

house is affected by two types of errors: (i) a house has not been assigned a serial number; and (ii) a house has been serialised more than once. It is clear that proper marking of the sample houses from the houses already serialised above will not obviate these errors, if any. As you go along marking the sample houses, you should, therefore, watch carefully for the presence of such errors. If you identify any such error, go to step 3 before proceeding further with the sampe selection. Otherwise complete the sample selection process for this block and go to step **4.**

Step 3. If a house is missed, record in column 8 the serial number of the line at which this missed house lies and proceed with the sample selection without making any corrections in the serial numbering of the houses. On the other hand when a house is numbered more than once, stop marking the sample houses at that stage. Correct the serial numbers of the houses from that house onwards and continue with the sample selection. Correct also the corresponding entry in column 2 of the Control Chart accordingly and insert in Col. 8, the remark 'House at line No. X duplicated.' Any such corrections made by you should invariably be done in consultation with the Supervising official.

Step 4. Find out the number of houses left over from the first block and insert this number in Col. (5) of the Control Chart. Fill in the difference between 5 and the entry in col. (5) in col. (6) against the first block and in column (3) against the second block (*i.e.*, second line of Control Chart). The entry in Column 3 of the second line indicates the start for the second block which should be distinguished from the random start of the operational unit. Suppose the first block had 129 houses and the random start for the operational unit was 3. Then the serial number of the last selected house will be 128 by selecting every 5th house (20%) starting from serial No. 3. One house will be left as balance from the first block. Since we have to continue to select every fifth house for the entire operational unit, while marking other sample in the second block the balance left in the first block has to be carried forward. Therefore, taking one house from the first block, the serial number of the first sample house in the second block will be 4 (*i.e.*, 5 minus the balance left over from the previous block). So the start for the second block is 4 and thereafter every fifth house will be systematically marked. Count the number of houses falling in the sample in the first block and enter in column (7).

Step 5. Repeat steps 2 to 4 with all the blocks in the operational unit. Note that, from the second block onwards the entry in column (6) against the preceding block and that in column (3) against the block under consideration indicate the serial number of the first selected house in the block on hand. Ensure that all the blocks in the operational unit are exhausted in a continuous process.

Step 6. After the selection of sample from the entire operational unit is over, hand over the bundle of houselists along with the filled in Control Chart to the Supervising official for further action.

N.B. 1. Before breaking off for the day, make sure that the work of marking the sample houses for the block on hand is completed and the entries in the various columns of the Control Chart against that block duly made. The Control Chart will indicate the block from which you are to start again the next day.

N.B. 2. A list indicating the serial numbers which the houses falling in the 20% sample (i.e., taking every fifth house from the random start) would bear with various random starts, is given below for your guidance. It has been assumed that there are 200 houses in a block. If the number of houses is less than 200, the serial numbers which are not relevant should be dropped from the set. If the number is more, the list may be extended suitably.

Random start	List of serial numbers
1	1, 6; 11, 16; 21, 26; 31 36; 41, 46; 51, 56; 61, 66; 71, 76; 81, 86; 91, 96; 101, 106; 111, 116; 121, 126; 131, 136; 141, 146; 151, 156; 161, 166; 171, 176; 181, 186; 191, 196;
2	2, 7; 12, 17; 22, 27; 32, 37; 42, 47; 52, 57; 62, 67; 72, 77; 82, 87; 92, 97; 102, 107; 112, 117; 122, 127; 132, 137; 142, 147; 152, 157; 162, 167; 172, 177; 182, 187; 192, 197;
3	3, 8; 13, 18; 23, 28; 33, 38; 43, 48; 53, 58; 63, 68; 73, 78; 83, 88; 93, 98; 103, 108; 113, 118; 123, 128; 133, 138; 143, 148; 153, 158; 163, 168; 173, 178; 183, 188; 193, 198;
4	4, 9; 14, 19; 24, 29; 34, 39; 44, 49; 54, 59; 64, 69; 74, 79; 84, 89; 94, 99; 104, 109; 114, 119; 124, 129; 134, 139; 144, 149; 154, 159; 164, 169; 174, 179; 184, 189; 194, 199;
5	5, 10; 15, 20; 25, 30; 35, 40; 45, 50; 55, 60; 65, 70; 75, 80; 85, 90; 95, 100; 105, 110; 115, 120; 125, 130; 135, 140; 145, 150; 155, 160; 165, 170; 175, 180; 185, 190; 195, 200;

N. B. 3: As soon as the sampled houses in a block have been marked, tick off the corresponding number in the checklist. After you have completed sample selection for the entire operational unit, glance through the checklist to detect whether any block has been missed.

N. B. 4: In certain areas, it is found that a block contains less than 5 houses. In such cases whenever the random start for that block is greater than the number of houses, it is obvious that no house can be selected from that block. Since the sample

selection is a continuous process you consider this block of houses as a continuation of the previous block, add on the number of houses in this block to the number of houses left over in the previous block, strike off the entry in col. (3), put a dash in col. (4) and enter this total left over in col. (5) against this block. The rest of the procedure is as usual. The following illustration will make it clear.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
35	123	2	122	1	4	25
36	3	...	...	3+1 =4	1	...
37	147	1	146	2	3	30

3. **Summary of the selection procedure for ready reference explained in section 2:**

1. Record identification and other particulars on top of the Control Chart (Step 1).

2. Take the first block and note the location code and total number of houses in columns 1 & 2 respectively of the Control Chart (Step 2).

3. Record in column 3 against the first block, the random start of the operational unit. The first selected house for the operational unit will have the same serial number as this random start number (Step 2).

4. Starting from this first sample house, tick off every fifth house till you reach a stage when number of houses left out is less than 5 (Step 2).

5. See whether the unit digit of the serial number of the last selected house is either the same as the random start or the random start plus 5 (Step 2).

6. In the process you might have come across due to (i) missed houses and (ii) duplicated houses. Remove such errors before completing sample selection in the block. Indicate in col. (8) the type of corrections you have made in this regard (Step 3).

7. Complete the entries in columns (4), (5), (6) and (7) of Control Chart (Steps 2 and 4).

8. Transfer the entry in col. (6) in the first line to col. (3) of the second line. This indicates the serial number of the first selected house in the second block (Step 4).

9. Repeat the above with the houselists of the second block onwards till you exhaust all the blocks of the operational unit (Step 5).

10. Hand over the Houselists and related Houselist Abstracts to the Supervisor as soon as you complete the sample selection in the operational unit (Step 6).

APPENDIX I

Page No.....

CONTROL CHART FOR SAMPLING OF HOUSES FROM HOUSELIST

District Name: Location Code :

Tehsil/Anchal/Police Station/City/Non-city/Urban : Urban.....

Sample size : 20% Random Start:.....

Location code of block	Total No. of Census Houses	Sl. No. of first selected house	Sl. No. of last selected house	No. of houses left over Col. (2)-Col. (4)	5–Col. 5 Transfer to Col. 3 of next line	No. of houses in the sample	Remarks
1	2	3	4	5	6	7	8

Signature of Supervisor

Signature of Sampler

Part B—Instr uctions to Supervising officials.

1. *General*:

The accuracy of the sample will depend on the care with which the selection procedure has been followed. Though there are a number of built-in controls in the procedure evolved, it is essential for you to exercise close supervision. At the beginning you should watch the work of the Sampler very closely till you are satisfied that he has understood the procedure correctly and is following the various steps accurately. Only after that periodic supervision should be resorted to so as to ensure that the procedure is followed meticulousry right to the end.

Your work involves two types of functions.

(i) Supervision during the sample selection and

(ii) Overall checking after selection of the Sample for the operational unit when the Houselist for the operational unit with the sample houses marked and the related Houselist Abstract and Control Charts are handed over to you by the Sampler.

2. *Supervision during the Sample Selection*:

While supervising the work of the Sampler, you should see whether the columns in the Control Chart are consistent. This would help in correcting mistakes, if any, easily and in time. As you are aware, the Sampler has been instructed to bring to your notice any discrepancy that he comes across during sample selection and to correct them in consultation with you. It is, therefore, necessary that you have understood thoroughly the instructions given to the Sampler so that you could resolve his difficulties on the spot. Otherwise correction of errors if detected after the Sampler has completed his work for the entire operational unit will result in considerable increase in your workload.

The consistency of the various columns of the Control Chart can be checked as follows:

Step 1. See whether the unit digit of the serial number of the last selected house entered in col. (4) of any line is either the same as the number in col. (3) of that line or that number plus 5. The following table brings out the relationship at a glance.

Random start	No. in the unit digit of the Sl. No. of the last selected house
1	1 or 6
2	2 or 7
3	3 or 8
4	4 or 9
5	5 or 0

Step 2. If there is no discrepancy in col. (4), ee also that the number in col. (5) is less than 5. If the number is more than 5, then obviously there is scope for selecting at least one more house from that block in the sample. Then check whether the entry in col. (6) is number 5 minus the figure in col. (5) and whether the number in col. (6) of the line you are checking has been duly recorded in col. (3) of the next line. If this sequence is maintained, the Sampler is doing his job well and you can go to step 4 which gives the final check for consistency for any line. Otherwise go to step 3.

Step 3. In case the serial number of the last selected house is not consistent with the random start recorded in column 3 for any block, ask theeSamplert to take houselist for thatblock, to locate the entry at which the sequence has gone wrong and to mark the appropriate sample houses from then on by making the necessary changes. If the sample selection has been made conscientiously by the Sorter, it is expected that such mistakes will be very infrequent. If the mistake is detected in the block that the Sampler has just finished, there will be no difficulty in making the necessary corrections before the sampler proceeds with his work. In case the mistake has arisen in a block that the Sorter has already finished with, and if correcting this mistake would involve 2 or 3 subsequent blocks only take steps to remove the mistake from all the blocks from the discrepant block onwards. On the other hand, if correcting the mistake would involve a number of blocks, you need correct only the concerned block without disturbing the sample selection in the subsequent blocks. In case you find that such mistakes have been committed frequently (say in more than a block or two), it is necessary to start the sample selection process over again for the entire operational unit from the first block where the mistake has been identified. In any case whenever such discrepancies come to your notice, you should report them to the Dy. Director i/c, Coding and Punching Cell before deciding on the procedure for correcting them.

Step 4. If entries in columns 2–6 are consistent, the total number of sample houses in any block recorded in col. 7 of the Control Chart will be equal to the expected number (E), given by

$$E = \frac{\text{Number in col. (4)} - \text{number in col. (3)}}{5} + 1$$

(This formula will not apply to a block from which no house has been selected). Even though the columns 2-6 are consistent, if you find that the number in column 7 does not tally with the expected number 'E' obtained as above, the discrepancy could arise only due to wrong counting of the number of sample houses by the Sampler. In such a case count the number of sample houses in that block and correct the entry in col. 7.

These checks are simple and can be implemented very quickly once you become familiar with the various steps. *In fact, it will make your job a lot easier if you could arrange to carry out these checks at the end of each day.*

3. Overall checking after the completion of selection of the sample for the entire operational unit:

Since this is a large scale operation, it is likely that in spite of the built-in-checks and the effort put into to resolve the discrepancies, if any, on the spot, some mistakes might persist even after sample selection is completed. It is, therefore, necessary for you to watch for mistakes, if any, when the Houselist and the related records are handed over to you by the Sampler for scrutiny. The following steps will help you in organising the overall check quickly.

Step 1. Check whether the Houselists for all the blocks within the operational unit and the related Houselist Abstract and Control Charts have been handed over to you by the Sampler. If for the sake of operational convenience the Sampler handles the Houselists in sets of 10 blocks each, you should see whether all the blocks in an operational unit are exhausted and that the Houselists for different operational units are not mixed. If you find that a block of the operational unit on hand has been left out of account, take it at the end of the operational unit and mark the sample according to the steps explained in Sampler's instructions.

Step 2. Though in your day to day supervision of the Sampler's work you would have seen to the consistency of the various columns of the Control Chart you may not have been able to scrutinise each and every line of the Control Chart. Now that the Houselists and the Control Charts are handed over to you for the entire operational unit, you should carry out quickly the consistency checks explained in section 2 above on each line of the Control Chart and make relevant corrections, if at all necessary.

Step 3. The corrections for missed houses and dup'icated houses made by the Sampler would be indicated in column 8 of the Control Chart. Based on these entries in column 8 make appropriate changes in columns 2-12 of the Houselist Abstract (Form II) against the respective blocks. In case of such changes the totals in the respective columns of the Abstract should also be corrected accordingly. For this purpose you may have to go through the relevant columns of all the lines of the affected blocks. Then, prepare a list of these blocks on a slip of paper and tag it on to the related Houselist Abstract for the operational unit for scrutiny by your superiors who will finalise the control figures on the basis of your corrections.

Step 4. You should now consider the houses that have been recorded as missed in col. (8) of the Control Chart and see whether one or more of them could be included in the sample. For this purpose, serialise the missed houses in the order in which they appear in column 8 itself and consider them as forming a separate block, after the last block of the operational unit. Since the sample selection is a continuous process for the entire operational unit, take into account the houses left over in the last block of the operational unit after sample selection to determine the random start for this new block. Take care to make the relevant entries in the Control Chart in respect of this new block also. For this block write "missed" in column 1. If one or more houses of this new block come in the sample, locate these houses in the appropriate block of the houselist, tick them off and assign serial numbers to them as explained in the following example :

If the serial number of the last house (not the last selected house) in the block from which one of the missed houses recorded at line No. 76 say, has been included in the sample is 151, assign serial No. 152 to the selected house. At the end of the block insert a remark that the serial No. 152 has been assigned to the house at the line No. 76.

Step 5. The operation explained in this step will provide a final check to see whether the adequate sample size has been achieved for the entire operational unit. Add the number of sample houses recorded in column 7 of the Control Chart over all the blocks of the operational unit and verify whether sample size has turned out to be as expected. For example, if the total number of houses in the operational unit is 5,213 and the random start is 4, assuming that all these houses have been serially numbered regardless of blocks, the last selected house will bear the serial number 5,209. Hence the total number of sample houses will be $\frac{5209-4}{5}+1=1042$. The illustration given below has been built up on the above principle for any random start and operational units of sizes 5210—5219. This will help you to determine quickly the expected (20%) sample size for an operational unit of any size.

Random Start	Expected sample size* for an operational unit of size									
	5210	5211	5212	5213	5214	5215	5216	5217	5218	5219
1	1042	1043	1043	1043	1043	1043	1044	1044	1044	1044
2	1042	1042	1043	1043	1043	1043	1043	1044	1044	1044
3	1042	1042	1042	1043	1043	1043	1043	1043	1044	1044
4	1042	1042	1042	1042	1043	1043	1043	1043	1043	1044
5	1042	1042	1042	1042	1042	1043	1043	1043	1043	1043

$$\text{*Expected sample size} = \frac{\text{Serial No. of the last selected house} - \text{Sl. No. of first selected house}}{5} + 1$$

INSTRUCTIONS TO SAMPLING STAFF

1. YOU WILL be given the houselists of the enumerator blocks in an operational unit and control chart forms.

2. CHECK whether the enumerator blocks are arranged in ascending order of Location Code.

3. RECORD identification and other particulars on top of the Control Chart.

4. TAKE the first block and note the Location Code and total No. of houses in cols. 1 & 2 respectively of the Control Chart.

5. RECORD in col. 3 against the first block, the random start of the operational unit. The first selected house for the operational unit will have the same serial No. as this random start number.

6. TICK OFF in red pencil every fifth house, starting from the first sample house. Do this till you reach a stage when the number of houses left is less than 5.

7. SEE WHETHER the unit digit of the serial number of the last selected house is either the same as the random start or the random start plus 5.

8. REMOVE errors due to misssed houses and duplicated houses before completing sample selection in the block. Indicate in Col. (8) of the Control Chart the type of corrections you have made in this connection.

9. COMPLETE the entries in columns (4), (5), (6) and (7) of Control Chart.

10. TRANSFER the entry in col. (6) in the first line to col. (3) of the second line. This indicates the serial number of the first selected house in the second block.

11. REPEAT the above operation for the houselists of the subsequent blocks till you exhaust all the blocks of the operational unit.

12. HAND OVER the Houselists and the concerned Houselist Abstracts to the Tabulation Officer/ Statistical Assistant after the completion of the sample selection in the operational unit.

INSTRUCTIONS TO TABULATION OFFICERS, STATISTICAL ASSISTANTS WHO HAVE TO SUPERVISE SAMPLING WORK

During Sampling.

1. SCRUTINISE carefully the sampler's work during sampling

2. SEE WHETHER the unit digit of the serial number of the last selected house in col. (4) of a line is either the same as the number in col. (3) of that line or that number plus 5. Otherwise correct as per detailed instructions.

3. SEE THAT the number in col. (5) is less than 5.

4. CHECK whether the entry in col. (6) is number 5 minus the figure in col. (5).

5. CHECK whether the number in col. (6) of the line you are checking has been posted in col. (3) of the next line.

6. FIND OUT whether the total number of sample houses in any block $= \frac{\text{col. (4)} - \text{col. (3)}}{5} + 1$

Overall checking after the completion of an operational unit.

7. SEE THAT you have all the blocks of the operational unit in tact.

8. RAPIDLY SCRUTINISE the Control Chart and check whether the entries are consistent with each other in every line as explained above.

9. REFER TO Col. (8) and if any correction has been made by the sampler for missed or duplicated houses, make appropriate changes in Houselist Abstract as per detailed instructions.

10. SEE WHETHER missed houses, if any, noted in col. (8) of the Control Chart could be included in the sample.

11. CHECK whether adequate sample size has been achieved for the entire operational unit. Apply the test illustrated in the following example. Let the total number of houses in the operational unit be 28,520 and the random start 3. Assuming that all these houses have been serially numbered, the Serial No. of the last sampled house will be 28,518. The sample size $= \frac{28{,}518 - 3 \text{ (i.e., random start)}}{5} + 1 = 5{,}704$

INSTRUCTIONS FOR POST SAMPLING SCRUTINY OF HOUSELISTS

1. YOU WILL HAVE before you the houselists of the enumerator blocks in an operational unit in which the sampling has been completed.
2. TAKE the houselists of the first enumerator block and do the following scrutiny only for the sampled Census houses and all the households in the sampled Census houses.
3. CHECK UP cols. 4 and 5. They should contain specific material of wall and roof. Imputation may be made wherever necessary as per detailed instructions.
4. SEE THAT there is no entry of S. C. or S. T. for Institutional households. Strike off if there is one.
5. CHECK UP col. 11. If there is no entry, impute the number of rooms at the rate of three persons (vide col. 15) per room.
6. CHECK UP col. 12. For institutional household the entry should be 'R' only. For non-institutional households there should be 'R' for urban areas and 'O' for rural areas. Impute these entries, if there is omission.
7. SCRUTINISE cols. 13, 14 and 15. See that col. 15 is equal to cols. 13 + 14. If col. 13 or 14 is blank, arrive at the figure by deducting col. 13 or 14 from col. 15.
8. IF THERE IS no entry in col. 13 or 14 but there is entry in col. 15 distribute the figures equally to cols. 13 and 14. This should be done only in the case of *non-institutional households*. Don't impute for *institutional households* only but write 'unspecified'.
9. LOOK into col. 11 (number of rooms) if cols. 13 to 15 are blank. Derive the figures for col. 15 by multiplying the number of rooms by three. Distribute this figure equally to cols. 13 and 14.
10. SEE THAT there is 'Yes' or 'No' for each household in col. 16 according as it does cultivation or not. If there is blank, impute 'Yes' in respect of rural areas and 'No' for urban areas.
11. REPEAT the above scrutiny for all the enumerator blocks in the operational unit.
12. PASS ON the houselists for coding.

CODE STRUCTURE - HOUSELIST

Description	Col. No. in Schedule	Code No. allotted	Where to code
1	2	3	4
Item		Assign code as Appendix 'A'	
State/District	1st top line left	Recode districts 1 to 9 as 01 to 09; rest i.e., 10 onward will remain as it is.	
Tehsil/Town	2nd top line left for tehsil and 1st top right for town	In case of towns, renumber the Roman numbers from 60 onwards (60–89 Town and 90–99 City) after arranging them in ascending order. Tehsil Codes 01–59 Town Codes 60–89 City Codes 90–99 For tehsils 1 to 9 recode as 01 to 09	
Village/Ward	1st top line right for Village and 1st No. on 2nd top line right for ward	Recode village 1 to 9 as 001 to 009 and No. 10 to 99 as 010 to 099	
Block No.	2nd top line right in case of village and 2nd No. in 2nd top line right in case of ward	Recode Block No. 1 to 9 as 001 to 009 and No. 10 to 99 as 010 to 099	
Rural/Urban Non-City/ Urban City	Col. 1	Rural 1 Urban Non-City 2 Urban City 3	Code to be given at top left inside a triangle.
House No.	Col. 3	Recode House No. 1 to 9 as 001 to 009 and 10 to 99 as 010 to 099	
		Code	
Material of wall	Col. 4	Grass, leaves, reeds or bamboo ... 0	Col. 4
		Mud ... 1	
		Unburnt Bricks ... 2	
		Timber ... 3	
		Burnt Bricks ... 4	
		G. I. Sheets or other metal sheets ... 5	
		Stone ... 6	
		Cement Concrete ... 7	
		Other materials ... 8	
		Unspecified ... 9	

Description	Col. No. in Schedule	Code No. allotted		Where to code
1	2	3		4
Material of Roof	Col. 5	Grass, leaves, reeds, thatch, bamboo, mud, unburnt bricks, wood ...	0	Col. 5
		Concrete, i.e., R.B.C./R.C.C. ...	2	
		Tiles, Slate, Shingle ...	3	
		Burnt Bricks & Lime ...	4	
		G.I., Zinc or other metal sheets ...	5	
		Stone ...	6	
		Cement Sheets (Asbestos) ...	7	
		Other materials ...	8	
		Unspecified (Illustrative list at appendix 'B') ...	9	
Purpose of Census House	Col. 6	*Vacant-Dilapidated ...	01	Col. 6 *(Code with reference to entry in Col. 17)
		Vacant-Repair ...	02	
		Vacant-Incomplete construction ...	03	
		Vacant-Want of tenant/occupant ...	04	
		Vacant - Other ...	05	
		Vacant - Unspecified ...	09	
		Residence only ...	11	
		Residence-*cum*-shop ...	12	
		Residence-*cum*-workshop ...	13	
		Residence-*cum* other use (Other than shop/ workshop) ...	14	
		Hotel, Sarai, Dharamshala, Tourist home, Inspection house ...	21	
		Business houses & Offices ...	22	
		Shops excluding eating houses ...	23	
		Factories, Workshops, Worksheds ...	24	
		Restaurants, Sweetmeat shops, Eating places ...	25	
		Places of entertainment & community gathering	26	
		Places of worship ...	27	
		Other non-residential census houses not elsewhere specified e.g., school and other educational institutions, public health institutions etc.	28	
		Unspecified (Illustrative list at appendix 'C') ...	29	
S.C./S.T./Others	Col. 10	S. C. ...	1	Col. 10
		S. T. ...	2	
		Others ...	3	

Description	Col. No. in Schedule	Code No. allotted		Where to code
1	2	3		4
No. of living rooms	Col. 11	No regular room	00	
		No. of rooms	No. coding	
		Unspecified	Blank	
Tenure Status	Col. 12	Owned	1	
		Rented	2	
		In case of institutions make cross in cols. 10-16 of schedule		
Population	Col. 13-15	No coding. In case the household is on pilgrimage and the columns for P/M/F are blank, code 00 for males & females both.		
Household cultivating land either owned or rented	Col. 16	Yes	1	Col. 16
		No	2	

Note:—The first entry relating to Columns 4, 5 and 6 pertaining to a Census house having more than one household need only be coded.

APPENDIX B

MATERIAL OF WALL AND ROOF

(This list is purely illustrative)

Code No.	Material of wall
0	Thatch, grass, *khar* (grass) leaves, casing of leaves, *gadjan* leaves, coconut leaves, *tasee* leaves, Palmyra leaves, reeds, ballies of *jawar*, straw, wattle covered with earth, *ekra* reeds, *sarkanda*, mallet and cotton stalk, cane, *karvi* stick, twigs, bamboo, *jhatimati* (twigs with earthen plaster), straw, bamboo matting, jute stalks, *tarja* (bamboo matting)
1	Mud, clay, mortar, earth, thick mud, mud puddles
2	Unburnt bricks
3	Timber, wood, boards of wood, wooden planks (crude), hewn planks
4	Burnt bricks, fire-bricks, baked bricks, *kakaiya* bricks
5	G.I. sheets and other metal sheets, tin
6	Stone, stone slabs, small stones, laterite stone, red sand stone, coral lime stone
7	Cement concrete, perforated cement slabs, cement hollow blocks.

Code No.	Material of roof
0	Grass, jungle-grass, sun-grass, *khadar* thatching grass, chain grass, (*sine*) or *khanda* or *dat* or *dedo*, leaves of *khar*, twigs, leaves, stalks of *bajra*, thatch, paddy hay, coconut or palmyra leaves, straw, palm leaves, *gadjan* leaves, screwpine leaves of sago palm, dry stalks of *cumbu* or *cholam*, *chapper*, *bholpatras*, pine needles, *jawar* straw, dry leaves of arec nut, weeds and reeds, *tandul* patter; mud, clay, thick-mud; unburnt bricks; wooden planks, jungle wood, fibre of *kailor*, *deodar*, thin shafts, rafters, bamboo
2	Concrete i.e., (i) Reinforced Cement Concrete (RCC), (ii) Reinforced Brick Concrete (RBC)
3	Tiles, shingle, Mangalore and country tiles, *kalus*, flat tiles, *khapda*, *khaprale*, slate
4	Baked bricks, burnt bricks, lime
5	G.I. sheets, kerosene-oil-tin sheets or other metal sheets
6	Flat sheet stone, stones, *patti*
7	Cement sheets (Asbestos)

APPENDIX C

"USE OF CENSUS HOUSE"

(An attempt is made in this appendix to list out various entries which are purely illustrative - but by no means exhaustive - which might appear under various "uses of Census houses". The code to be assigned to a particular "use" is noted in the margin in brackets).

Residence (Code – 11)	Code 11 will be assigned when the entry indicates the use of the Census house for 'Residence' only – (and not in combination with one or more other 'uses'). *Illustrations*: 'Residence', *dongas*, out-houses, tents, gangmen's hut, houseboats, bungalow, kothi, etc.
Shop-cum-Residence (Code – 12)	Code 12 will be assigned when the entry indicates the use of the census house as 'residence' in combination with running of a shop and the census house has only one access although it is put to twin uses viz., (i) residence and (ii) running of a shop. *Illustrations*: Residence-*cum*-grocery shop, residence-*cum*-cloth shop, residence-*cum*-fruit shop, residence-*cum*-vegetable shop, residence-*cum-pan biri* shop and so on.
Workshop-cum-Residence (Code – 13)	Code 13 will be assigned when the entry indicates the use of the census house as residence in combination with the running of a workshop (i.e., a place where some kind of manufacture, production, processing, repairing or servicing takes place) and the census house has only one access although it is put to twin uses viz., (i) Residence and (ii) running of a workshop. *Illustrations*: Toy-making at home, pottery-making at home, tailoring at home, gold and silver-smithy workshop at home.
Residence-cum-other uses (Code – 14)	Code numbers 12 and 13 are meant for specific 'uses' in combination with 'residence'. This is a residuary category of the use of the census house in combination with any use other than running a shop or a workshop at home. *Illustrations*: Residence-cum-temple, residence-cum-dispensary, residence-cum-school, residence-cum-Bal Mandir, etc.
Hotels, Sarais, Dharamshalas, Tourist Houses, Inspection Houses, etc. (Code – 21)	This code (21) will be assigned to the Census houses which are used for temporary stay or stay in transit such as Hotels (with lodging facilities), Travellers' bungalows, Inspection bungalows, Circuit Houses, State Guest Houses, Ashrams, Sarais, Dharamshalas, Musafirkhanas, Vishramgrah, Chhatrawas, Boarding Houses, etc.
Business Houses and Offices (Code – 22)	This code will be assigned to the census houses which are used for locating banks, offices or firms, commercial and business houses, Government offices as well as Offices of local bodies and private offices, Chambers of Commerce, Offices of Insurance Companies, Co-operative Societies, advocates/lawyers etc., stock exchange, Transport Company, railway station, police station, courts etc.
Shops excluding eating houses (Code – 23)	Census house used only as shop (but excluding eating house for which there is a separate code) will be assigned this code. *Illustrations*: Cloth shop, general provision store, chemist shop, etc.
Factories, Workshops and Worksheds (Code – 24)	Census houses used for locating workshops or factory or worksheds will be given this code. These are places where manufacture, production, processing, repairing or servicing takes place. *Illustrations*: Spinnings mills, cotton mills, fertilizer factory, hosiery manufacturing workshop, watch repairing, flour mill, tailoring shop, automobile repair and servicing station, etc.
Restaurants, Sweetmeat shops and eating houses (Code – 25)	This code will be assigned to census houses which are used for locating eating places. *Illustrations*: Restaurants (without lodging facilities), tea stalls, sweetmeat shops, eating places, coffee houses, *bhojanalaya*, canteen, Dhabas, Halwa shops etc.
Places of entertainment and community gathering excluding places of worship (Code – 26)	Census houses used as cinemas, clubs, theatres, Kalamandir, Vyayamshala, Stadium, Panchayat Ghar, and Museum will be assigned this code.

Places of worship (*Code* – 27)

Census houses used as temple, church, mosque, gurudwara, prayer hall, etc., fall in this category and will be given code number 27.

Schools and other educational institutions including training classes, public health and medical institutions, hospitals, health centres, doctor's clinics, dispensaries and 'Other uses' (*Code* - 28)

This code (28) covers some specific uses of census houses, such as educational and medical institutions as well as a residuary category of uses (not covered by codes 11 to 14 and 21 to 27).
Illustrations: Schools, colleges, other teaching institutions, carpentry, music, dancing schools, agriculture training centre, adult literacy centre, shorthand and typing institute, hospitals, doctors' clinics, nursing homes, maternity homes, veterinary hospitals, mental hospital, leper asylum, etc.

(Code – 29)

Illustrations (*residuary category*): cattle shed, goshala, pinjrapole, bull breeding centre, garage (for keeping the automobile), laundry, passenger's shelter or waiti ng halls, poultry breeding centre, power sub-station, pump house, etc.

EDIT INSTRUCTIONS FOR THE SCRUTINY OF THE HOUSELISTS AND ESTABLISHMENT SCHEDULES

1.1 The tabulation of Housing data (containd in the Houselist) will be limited to 20% of the census houses; it is, therefore, unnecessary to scrutinise all the lines in the Houselists for all the columns. So, the editing work will be divided into two parts viz., (i) pre-sampling and (ii) post-sampling. Entries relating to location code and entries in columns 1, 2, 3, 6, 7, 8 and 9 will be scrutinised in all lines contained in the Houselist before the sample is drawn and scrutiny of entries in columns 4, 5, 10, 11, 12, 13, 14, 15 and 16 will be done only in respect of the sampled census houses and all the households that may be located in such houses. It has been decided that since the census house is the unit for sampling, the information relating to all households (which may be one or more) located in a sampled census house will be coded and punched on cards.

1.2 The tabulation of Establishment Schedules is on full count and so all entries in the Establishment Schedules have to be scrutinised and edited.

1.3 Columns 6 and 7 of the Houselist are inter-connected with the entries in the Establishment Schedule and therefore, when the Houselist of a certain Block is taken up for pre-sampling scrutiny, the Establishment Schedules of that Block should also be handy with the official doing the Houselist scrutiny. How the entries in columns 6 and 7 of the Houselist will be scrutinised with the help of the entries in the Establishment Schedules will be dilated upon at the appropriate place in this note.

1.4 Since the data on Housing and Establishments will be processed on Electronic Data Processing system (E.D.P.), maximum care has to be exercised to ensure that the primary documents (Houselist and Establishment Schedules) are free from mistakes or omission or equivocal entries. The following paragraphs deal with the instructions for editing these two primary documents.

2. Pre-sampling scrutiny of the Houselist:

2.1 Take one bunch of the Houselists of a Block, check up that every page of the Houselist has a serial number and that they are arranged in that order; if not arrange them accordingly. If there is no page number give page numbers. If the pages are loose, they should be secured together by a twine or strong thread passed through all the sheets on top left hand corner.

2.2 *Location Code*: Invariably, the enumerator should have written the elements of the location code at the top of the Houselist. See that all elements are correctly filled in. In the case of a rural Block, the location code will contain number of District, Taluk/Tehsil/Anchal/Police Station and Enumerator's Block. In an urban block the location code elements are numbers representing District, Town, Ward/Mohalla and Enumerator's Block. If entries are found to be missing, supply them from the charge register. The name of the enumerator will be found at the bottom of the Houselist; the Block should be located in the charge register with reference to the name of the enumerator.

2.3 *Column* 1: Line numbers should be continuous for the Block as a whole. Look for entries struck off and see that no line number is assigned to scored or cancelled line. If necessary, correct subsequent numbers.

2.4 *Columns* 2, 3 and 8: These three columns should be scrutinised together. Check if the building entered in column 2 has more than one census house and/or more than one household. If so, column 2 will be filled for the first entry and for the successive census house(s)/household(s), in that building, there will be no entry in column 2.

Check if in column 3 building number has been repeated. If the building has more than one census house, a sub-number like (1), (2), (3) etc., will be given after the building number depending on whether there are 2, 3, 4 etc., census houses in the building. If the building has only one census house in it, then the number appearing in column 2 will be repeated in column 3.

If any of such census houses has more than one household living in it, then entry in column 3 will appear in relation to the first household but there will be no entry in this column in relation to successive households in the same census house; e.g., census house number 2 (2) has two households 2 (2) (a) and 2 (2) (b), there will be entry in column 3 as 2 (2) against the first household 2 (2) (a). Column 3 should be blank for the next line which will have entries in cols. 8 onwards for the next household in the same census house.

Check if column 8 bears the building and census house number i.e., entry in column 3 is repeated. If a building or a census house has more than one household then the households will have sub-numbers like (a), (b), (c), etc., depending on whether the building or house has two or more households.

If the entries in the Houselist are not in accordance with the above instructions, they should be corrected in the process of editing.

Wrong entry

Line No.	Building No.	Census House No.	Census Household No.
1	2	3	8
15	25	25 (1)	25 (a)
17	26	26	26 (a)
18	27	27 (.)	27 (1) (a)
19	27	27 (1)	27 (1) (b)
20	27	27 (2)	27 (2)
21	28	28	28
22	28	28 (1)	28 (1)
23	28	28 (2)	28 (2)

Correct entry

Line No.	Building No.	Census House No.	Census Household No.
1	2	3	8
15	25	25	25
16	26	26	26
17	27	27 (1)	27 (1) (a)
18			27 (1) (b)
19		27 (2)	27 (2)
20	28	28 (1)	28 (1)
21		28 (2)	28 (2)

If the building or census house has no 'household' in it, and consequently cols. 8-17 are blank, please check that in column 6 'Residence' or 'Residence in combination with other purposes' is not noted. If on the other hand the enumerator had given particulars in columns 8-17 of a household and in col. 6 he had not noted the Census House to be residential, the entry in col. 6 should be suitably corrected to show that it is wholly or partly residential.

In some towns the house numbering done by the Municipality has been adopted for census purposes, where they might have numbered the 'vacant' plots of land, which in spite of instructions, might have been erroneously listed and entered in the houselist. Such entry should be scored out in the Houselist and subsequent line numbers corrected for the entire Block.

The enumerator might have recorded in column 17 as 'vacant plot' or the same entry (vacant plot) may be found in column 6 or there would be no entry in columns 4 and 5. This will help you in determining that it is a 'vacant plot' and not a 'census house'.

It is also likely that a particular building has its front on one road and its rear on another road and it gets a number on both the roads i.e., it gets a duplicate number, and two entries might appear for the same building. The enumerator would have noted this in the remarks column. In that case one of the entries should be scored and subsequent line numbers corrected.

2.5 *Columns 6 and 7*: These two columns have to be checked with reference to the entries in the Establishment Schedules of the Block concerned. If the entry in column 6 of the Houselist is 'Residence' alone, there will be 'No' in column 7 and consequently there will be no entry in the Establishment Schedule and columns 8-16 of the Houselist should have entries in them except when the Household is away either on pilgrimage or journey and the enumerator could not ascertain the details from the neighbours in the absence of the household (as noted in column 17 of the Houselist). Only when column 6 of the Houselist denotes that the census house is not used as residence, partly or wholly, columns 8-16 (of the Houselist) will be blank.

Whenever there is 'Yes' in column 7 check up if there is a corresponding entry in the Establishment Schedule. Also check entry in column 6 (of Houselist) when there is 'Yes' in column 7 (of Houselist) from the details of the Establishment Schedule. For example, entry in column 6 (Houselist) is 'shop' and in column 7, it is 'Yes'; but corresponding details in the Establishment Schedule indicate that it is a 'workshop'; in such a case the entry in column 6 of the Houselist should be corrected as 'workshop'.

There could be another case of a lapse of on the part of the enumerator. There is 'Yes' in column 7 of Houselist but the corresponding entry is missed in the Establishment Schedule, the imputation will have to be made in the Establishment schedule on the basis of entry in column 6 of the Houselist. If the entry in column 6 is 'Govt. office', 'school', 'railway station', 'cinema', etc., (which would legitimately fall in column 11 of the Establishment Schedule) the imputation in the Establishment Schedule will be as follows:

Column 1	Give the serial number next to the existing serial.
Column 2	Give the census house number appearing in column 3 of the Houselist.
Column 3	Leave this blank
Column 4	Write 'private'

Column 5	Write 'unspecified'
Column 11	Reproduce the entry in column 6 of the Houselist.

In case the entry in column 6 of Houselist is 'shop' or trading establishment like 'Bank' or 'Pawn Shop' etc., which would legitimately fall in columns 9-10 of Establishment Schedule, the imputation will be as follows:

Columns 1 to 5	As above, except in the case of Bank etc., where entry in column 6 will suggest Private, Quasi-govt. or Co-operative, write accordingly.
Column 9	Write 'unspecified' except in cases like Bank etc., where 'banking services' etc., should be recorded.
Column 10	Write 'retail' except in the case of Bank etc., where no entry is needed in this column.

There will be greater difficulty in imputation if entry in column 6 of Houselist indicates 'Factory', 'Workshop' or 'Household Industry' and it is missed in the Establishment Schedule (Columns 6-8). However, the imputation may be made as follows:

Columns 1 to 5	Same as in the case of imputation made for an establishment falling in column 11 of Establishment Schedule as described above.
Column 6	Write 'Household Industry,' 'Registered Factory' or 'Unregistered Workshop as reflected in the entry in column 6 of Houselist. If it is not possible to make out from the Houselist as to, which category the Manufacturing establishment belongs to, treat it as "Unregistered Workshop".
Columns 7-8-9	Write 'unspecified'.

The converse of the above situation (i.e., 'No' in column 7 of Houselist but an entry made in Establishment Schedule) is difficult to conceive. But in case there be one, column 7 of the Houselist should be corrected as 'Yes'.

It may be imagined that there is an entry in the Establishment Schedule but no corresponding entry at all in the Houselist. It is difficult to come across such a situation but supposing there is one, what treatment could be meted out to such an entry in the houselist? The following imputation is suggested in the house list.

This entry should be made at the end of the Block.

Column 1	Give the next number of the line.
Columns 2-3	Write the number as in column 2 of the Establishment Schedule.
Columns 4-5	Repeat the entries occurring in the Houselist for the preceding house number to the one recorded in column 2 of the Establishment Schedule.
Column 6	As per column 6 or 9 or 11 of the Establishment Schedule as the case may be.
Column 7	Yes
Columns 8-17	Nil

2-6. After inter-connected scrutiny of columns 6-7 of House list and Establishment Schedule, the bunch of the Establishment Schedule of that Block (duly stitched on the right hand top corner) should be released for editing of the Establishment Schedules to the official entrusted to do that work with a label pinned on the first page of the Establishment Schedule with the following written on the label:

"Location Code No.———————
Scrutinised with reference to entries in
columns 6 and 7 of the concerned Houselist".

2-7 *Column* 9: Check up that total of Institutional households tallies with column 9 of the Houselist Abstract.

2-8. After all the lines of the Houselist have been edited for the entire Block according to the above instructions, ***number the census houses serially, the sequence running through the entire Block. Such serial numbers should be recorded in red pencil between columns 2 and 3 along the line.*** Check whether the serial number of the last Census house in the Block tallies with the total number of houses recorded in column 7 of the Houselist Abstract of that Block. In case of any discrepancy you should areconcile it and incorporate the necessary corrections in either the Houselist or the Abstract as appropriate. On the basis of this serial numbering, sampling of houses will be done after random start, every fifth, 'census house' will be ticked hence this is very important and the serial numbering of the census houses has to be done with great care).

2-9. This completes pre-sampling scrutiny. The Houselist of the 'Block' should now be passed on to the Sampler for drawing the 'sample' of census houses.

3. Post-sampling scrutiny of the Houselist :

3-1. The following scrutiny should be made in respect of the sample census houses and the households living in such census houses.

Columns 4–5: Do not accept entries like 'Kachha' or 'Pucca' in these columns. Specific material of wall and roof ought to be there. If there is an entry as 'Kachha' please impute specific material which would be commonly found in the relevant block like grass, mud, unburnt bricks, etc. Similar imputation should be made for 'Pucca' entry like stone, bricks, G.I. sheets, R.B.C. etc., i.e., material commonly used for 'Pucca' houses in that block. If there is no entry at all in these two columns, imputation may be made on the basis of the entries of the preceding census house when there is only one census house in the building or when these details are not recorded for the other houses also in the building. If the building has more than one census house and these details are not recorded for the succeeding census houses, the entries made for one house should be repeated for the remaining census houses in the same building.

If there are more than one household in a census house, entries in columns 4 and 5 should appear only against the first household i.e., household whose number in column 8 is indicated by sub-number (a); for subsequent households in that census house, columns 4 and 5 as well as columns 2 and 3 will remain blank.

For Institutional Household there should be no entry of S.C. or S.T. If there be one, strike it off.

Column 11: If there is an omission of entry in this column the number of rooms may be imputed from the number of persons recorded in column 15 on the basis of three persons per room (which is the 'person room' ratio of the 1961 Census).

Column 12: For Institutional Household, the entry in this column has to be 'R'. If there is no entry or there is 'O' entry, put 'R'.

In the case of Non-institutional Households, if the entry is omitted impute 'R' for Urban areas and 'O' for Rural areas.

Columns 13, 14 *and* 15: Check that the figure in column 15 is equal to total of figures in columns 13 and 14. In case of blank, in either column 13 or 14, derive the figure by deducting column 13 or 14, as the case may be, from column 15.

Column 16: This column is expected to have a definite answer 'yes' or 'no' for each household according as it cultivates or not. If the enumerator had left the column blank, impute 'yes' if the houselist relates to rural areas and 'no' if it relates to urban areas.

If there be no entry in columns 13 and 14 but only in column 15, distribute the figure in the ratio of 50 : 50 only in the case of non-institutional households. Do not make any imputation for institutional households but write 'unspecified'. If all the three columns are inadvertently left bank by the enumerator and there is entry in column 11 (No. of rooms) derive figures for column 15 on the basis of 'person-room' ratio indicated above in the instruction for column 11, distribute this figure in the ratio of 50 : 50 for columns 13 and 14. In the event of an odd number in column 15 the same may be divided by two and remainder added to Males and entered in column 13.

4. Edit Instructions for Establishment Schedule:

Location Code: Same as for Houselist instructions above.

Column 1. Refer to column 7 of the Houselist and make sure that for all 'yes', there is a corresponding entry in this schedule and the serial number tallies.

Column 2. Check with reference to column 3 of the Houselist. These should tally.

Column 4. In case of blank, look up the entry in Column 3. This may help in making a suitable imputation; otherwise, enter 'private'. Wherever other entries clearly indicate that this Establishment belongs to public sector like Railway, etc., then Govt./Public Sector should be imputed in column 4.

Column 5. If there is an omission to make an entry, write 'unspecified'.

Columns 6, 7 *and* 8. The columns will be filled in if only columns 9, 10 and 11 have 'X'. If in any establishment besides manufacturing/processing, sales also take place, and by mistake the enumerator has entered details in colums 6 to 8 and also in columns 9 and 10, score entries in columns 9 and 10. Manufacturing will get precedence over 'selling' which is a secondary function.

If the entry in column 6 is registered factory and in column 8 type of power is other than 'Electricity' and if the number is less than '20' in column 5, then change the entry 'Registered factory' in column 6 to 'Unregistered workshop'.

Column 7. If an entry is omitted by the enumerator, make an entry from information in column 3, if it affords any clue.

Column 8. If an entry is omitted by the enumerator, enter 'manual' having regard to entries in columns 3 and 7.

Columns 9 *and* 10. There should be entries in these columns if 6, 7, 8 and 11 have 'X'. If entry is not made by the enumerator in column 9, impute it with reference to entry in column 3. If column 10 is blank and column 9 is filled in, write 'retail' except in the case of commercial services like Bank, Insurance, Pawn shop, etc.

Column 11. There will be an entry in this column only when there is 'X' in columns 6 to 10. If the enumerator has failed to make an entry although the establishment should have been entered in this column, try to impute with the help of entry in column 3.

ANNEXURE IX

SAMPLE DESIGN AND PRECISION OF ESTIMATES *

1. Sample Design

Sample Size: A 20% systematic sample of census houses was selected from the houselist with a random start. This sample size was adopted on considerations of required precision, available resources and operational convenience.

Selection Procedure: Though the lowest levels (Tabulation areas) for which estimates are presented in these tables are rural district, urban district (including cities, if any) and city, the sample was actually drawn, from what are called, 'Operational Units'. These Operational Units comprised (a) Tehsil of a district in the rural area, (b) Non-City urban part of a district, and (c) City. If any of these Operational Units was unduly large, it was divided into sub operational units of at least 20,000 houses. Similarly small sized Operational Units were either combined together or tagged on to a contiguous larger unit so as to form an effective Operational Unit of the minimum size mentioned above. Adoption of these Operational Units ensured accuracy in sample selection maintaining at the same time stability in the sampling fraction within the tabulation areas. For houselisting purposes the Tehsils (Rural), Towns and Cities had been divided into compact smaller area units called 'houselisting blocks'. Within each Operational Unit, the houselisting blocks had been so arranged that it was possible to select the sample from the entire Operational Unit in a continuous fashion. The procedure adopted had ensured effective control over sample selection within each block as also in the entire Operational Unit.

2. Estimation Procedure

Estimates of the characteristics: Unbiassed estimates have been worked out by inflating the sample frequencies in each cell uniformly by 5.

Reliability of estimates: The percentage relative standard error on the basis of a Simple Random Sample is estimated as

$$100 \times \sqrt{\frac{0{\cdot}8\ (1-P)}{nP}} = \sqrt{\frac{4\ (1-P)}{NP}} \times 100$$

where 'P' is the estimated proportion in any cell, 'N' total the of the table, n, $\left(=\frac{N}{5}\right)$ the sample size and 0.8, the finite population correction. Analysis of Tabie E-1 of 1961 Census for all districts of India revealed that 82% of the estimated proportions of the various cells had a relative standard error of less than or equal to 20% with a sampling intensity of 20%. Considering detailed nature of the census tables, a minimum acceptable level of precision lower than 20% may be too difficult to attain for every cell at the district level.

If the relative standard error in a cell is more than 20% it may, therefore, be necessary to combine such cells suitably with others so as to achieve this minimum precision. Further if the size of a district is so small that the relative standard error is greater than 20% for most of the characteristics, the estimates for that district may have to be combined with those of an adjoining district in order to achieve the required precision in most of the cells. The size of the universe (i.e., District/State) for the various values of the proportion from 0.001 to 0.9 by percentage relative standard error shown in the statement given below will help in deriving quickly the level of precision of any cell. Procedure for using the Statement is indicated as a foot-note to it in the form of an example. A compact statement indicating the size of cell estimate with 20% relative standard error for various District/State size is given in the Introductory Note to the Housing Tables for ready reference.

Efficiency of the estimates: Since houses with similar characteristics tend to cluster in space, some stratification with regard to almost all the housing characteristics is built into the Census Houselist. This suggests intuitively that the systematic sample should have achieved a more balanced representation of the universe than a Simple Random Sample. Consequently, the standard error of any estimate of moderate size from the systematic sample of census houses will, in all probability, be less than the one provided by the formula given in second para above.

Further, since the sample of households, on which Tables H-III and H-IV are based, consists of all the households residing in the sample of census houses (equivalent to cluster sample) and since the characteristics of households residing in a census house are likely to be similar, the sampling error should normally be expected to be greater than that of a systematic sample of households. In practice, however, there is nearly one to one correspondence between a household and a house in most of the areas, particularly in Rural, so that the selected systematic sample is almost equivalent to a systematic sample of household. The formula of second para therefore, applies to the Household Tables also along with Housing Tables.

---

* This is only a brief description of the sampling design adopted in preparing the Housing Tables. For a detailed discussion on the sampling procedures adopted in the Census, reference may be made to the special paper on the subject published by the Registrar General, India.

Proportion, Percentage Relative Standard Error and the expected size of Universe for a 20% Simple Random Sample

Proportion	Percentage Relative Standard Error						
	1·0	2·5	5·0	10·0	20·0	30·0	50·0
1	2	3	4	5	6	7	8
·0001	399960000	63993600	15998400	3999600	999900	444400	159984
·0002	199960000	31993600	7998400	1999600	499900	222178	79984
·0003	133293333	21326933	5331733	1332933	333233	148104	53317
·0004	99960000	15993600	3998400	999600	249900	111067	39984
·0005	79960000	12793600	3198400	799600	199900	88844	31984
·0006	66626666	10660266	2665066	666266	166566	74029	26651
·0007	57102857	9136957	2284114	571028	142757	63448	22841
·0008	49960000	7993600	1998400	499600	124900	55511	19984
·0009	44404444	7104711	1776178	444044	111011	49338	17761
·001	39960000	6393600	1598400	399600	99900	44400	15984
·002	19960000	3193600	798400	199600	49900	22178	7984
·003	13293333	2126938	531733	132933	33233	14770	5317
·004	9960000	1593600	398400	99600	24900	11067	3984
·005	7960000	1273600	318400	79600	19900	8844	3184
·006	6626666	1060266	265067	66267	16567	7363	2651
·007	5674285	907886	226971	56743	14186	6305	2270
·008	4960000	793600	198400	49600	12400	5511	1984
·009	4404444	704711	176178	44045	11011	4894	1762
·01	3960000	633600	158400	39600	9900	4400	1584
·02	1960000	313600	78400	19600	4900	2178	784
·03	1293333	206933	51733	12933	3233	1437	517

Proportion, Percentage Relative Standard Error and the expected size of Universe for a 20% Simple Random Sample—(Contd.)

Proportion	Percentage Relative Standard Error						
	1·0	2·5	5·0	10·0	20·0	30·0	50·0
1	2	3	4	5	6	7	8
·04	960000	153900	38400	9600	2400	1067	384
·05	760000	121600	30400	7600	1900	844	304
.06	626667	100267	25067	6267	1567	696	251
.07	531429	85029	21257	5314	1327	591	213
·08	460000	73600	18400	1600	1150	511	184
·09	404444	64711	16178	4044	1010	449	162
·1	360000	57600	14400	3600	900	400	144
.2	160000	25600	6400	1600	400	188	64
·3	93333	14933	3733	933	238	104	37
·4	60000	9600	2400	600	150	67	24
·5	40000	6400	1600	400	100	45	15
·6	26667	4267	1067	267	67	30	11
.7	17143	2743	686	171	43	19	7
·8	10000	1600	400	100	25	11	4
·9	4444	711	178	44	11	5	2

Note: Given district size 'N' (i.e., total of table) and the percentage relative standard error (p. r. s. e.) to determine the size of a cell 'NP' where 'P' is the associated proportion.

(i). p. r. s. e. $= 20\%$

(ii) $N > 16567$, $NP = 100$

(iii) $4900 < N \leq 16567$, $NP = 99$

(iv) $900 \leq N \leq 4900$, NP corresponds to that of the nearest tabulated district size e.g., If $N = 2897$, $NP = 2400 \times .04 = 96$

(v) For $N < 900$, let $N_1 P_1$ and $N_2 P_2$ be the cell size for the immediately larger (N_1) and immediately smaller (N_2) tabulated district sizes. Then

$$NP = \frac{N_1 P_1 (N - N_2) + N_2 P_2 (N_1 - N)}{(N_1 - N_2)}$$

e.g., let $N = 527$, then $N_1 = 900$, $N_2 = 400$, $N_1 P_1 = 90$ and $N_2 P_2 = 80$. By substitution $NP = 82.54$ i.e., 83 approximately.

(vi) Similar rules may be formulated for any other p. r. s. e. desired.

CHAPTER II

USES TO WHICH CENSUS HOUSES ARE PUT

SECTION I

GENERAL REMARKS

1. In this Chapter, analysis is made on the data available in Table H–I – Census Houses and the uses to which they are put, and the two subsidiary Tables – H–I.1 and H-I.2 – prepared from these figures.

Reference to Tables

2. The number of Census houses listed during February, 1970 are classified under 11 categories according to their usage. The number of vacant houses at the time of houselisting is also shown. The figures are presented for the State as well as for Districts and Cities with rural/urban break-up. The term "City" refers to all towns where the population is 100,000 and above. The 11 categories adopted for classification are detailed below :

(i) Residence

(ii) Shop-*cum*-residence

(iii) Workshop-*cum*-residence including household industry

(iv) Hotels, sarais, dharamshalas, tourist homes and inspection houses

(v) Shops excluding eating houses

(vi) Business houses and offices

(vii) Factories, workshops and worksheds

(viii) Restaurants, sweetmeat shops and eating places

(ix) Places of entertainment and community gathering (Panchayat ghar) excluding places of worship

(x) Places of worship (e.g.) temple, church, mosque, gurudwara etc.

(xi) Others

3. Residence is a place used for living (dwelling) as distinguished from place of work. Shop-*cum*-residence is a place used for dwelling as well as for carrying on business of purchase or sale. Workshop-*cum*-residence is a place where members of family live as also carry on manufacturing, processing, servicing or repair of goods and articles like bidi rolling, handloom weaving, jewel and ornaments making, appalam (papad) making etc. Usually the manufacturing, processing etc., are carried on mostly by the members of the family themselves on a small scale. Hotels, sarais, dharamshalas, tourist homes and inspection houses are places where people live or stay temporarily either on visits or pilgrimage or for supervision of work on tour. Hotels are eating houses with facilities for boarding and lodging. Shop is a place where articles or goods are bought or sold on cash or for credit. Business houses are places where transactions in money or other articles take place. Offices are places where public needs are attended to. Invariably they refer to the places where different departments of Government and Local Bodies function. Factories and workshops are places where manufacturing, processing, servicing or repairing of goods and articles are done. Factories refer to places engaged in any of these items of work employing 10 or more persons when power is used or employing 20 or more if no power is used. Factories will not include a mine coming under the purview of Indian Mines Act. Workshop is a place where manufacturing, processing etc. is done and workshed relates to places carrying on the above jobs as a small unit on the lines of a household industry. The difference is that the participants in these items of work are not living in the premises itself. Restaurants, sweetmeat shops and eating places indicate places where eating or drinking takes place without facilities for lodging. Tea stalls, coffee bars, ice cream parlours come under this group. Cinema theatres, music sabhas or halls, municipal or local bodies, public halls come under the grouping, places of entertainment and community gathering. The term places of worship is self-explanatory. All places used for purposes other than these like schools, hospitals, dispensaries etc. come under the residuary category "others".

4. The number of Census houses listed in Tamil Nadu during February 1970 was 9,563,530. Rural areas of the State account for 6,849,670 houses. 2,713,860 houses were found in urban areas of the State, i.e., rural sector

Distribution of houses in rural and urban areas

has 71·62 per cent of all Census houses and urban sector, 28·38 per cent. Distribution of houses in rural and urban areas has a direct relationship with the population inhabiting these sectors as may be seen from the figures shown under:

State	Sector	Percentage of Census houses to total houses in all areas	Percentage of residential Census houses (wholly & partly) to total residential Census houses (partly & wholly) in all areas	Percentage of population to total population in all areas
(1)	(2)	(3)	(4)	(5)
Tamil Nadu	Rural	71·62	72·58	69·74
	Urban	28·38	27·41	30.26

SECTION II

PROPORTION OF VACANT HOUSES

Vacant houses in Districts

5. Out of 9,563,530 Census houses, 671,610 houses are vacant. Rural areas account for 496,565 vacant houses and urban areas for 175,045 vacant houses. Vacant houses form 7 per cent of all houses. In the rural areas 7·25 per cent of all houses are vacant while 6.45 per cent of all houses are categorised as vacant in urban areas.

6. While the State average of vacant houses is 70 per 1,000 houses, in the districts, the range varies from 153 in Nilgiris to 37 in Madras. An inset table showing the range of vacant houses in the districts is presented below:

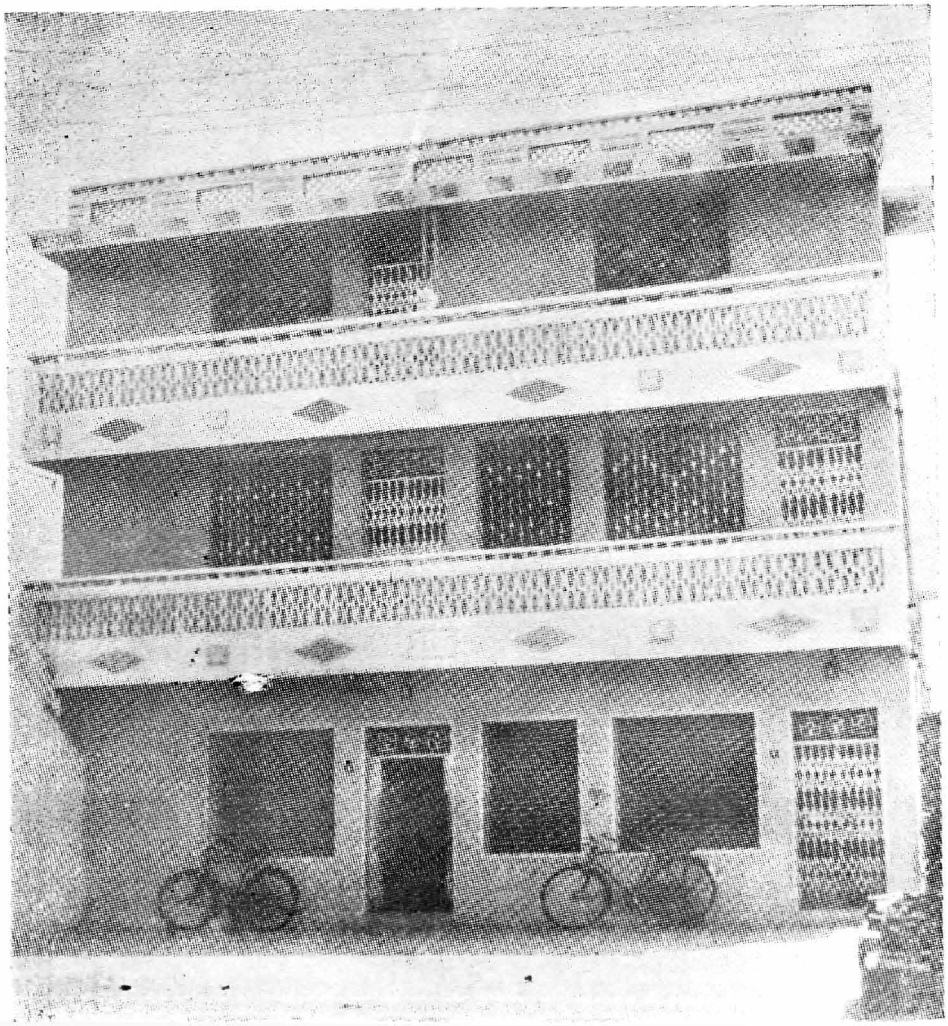
STATEMENT II-1

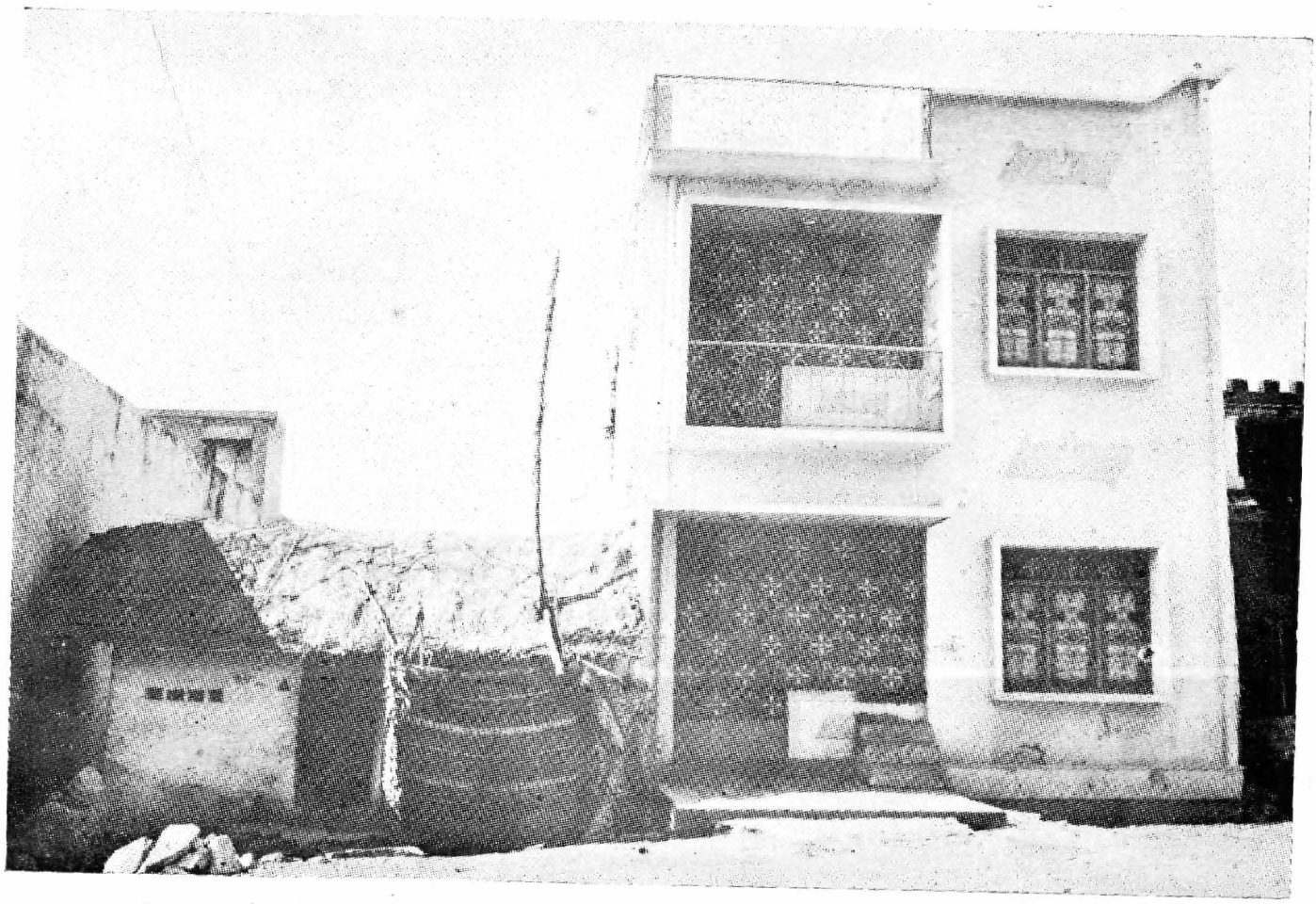
Number of vacant houses in 1,000 Census houses by ranges

Proportion of vacant houses									
30—39	40—49	50—59	60—69	70—79	80—89	90—99	100—119	120—139	140—159
1	2	3	4	5	6	7	8	9	10
Madras	Thanjavur	Chingleput	Dharma-puri	Madurai	Coimba-tore	Ramanatha-puram	...	...	Nilgiris
(37)	(49)	(52)	(65)	(71)	(80)	(90)			(153)
		North Arcot	Kanya-kumari		Salem	Tirunelveli			
		(52)	(66)		(83)	(94)			
		South Arcot			Tiruchi-rapalli				
		(52)			(83				

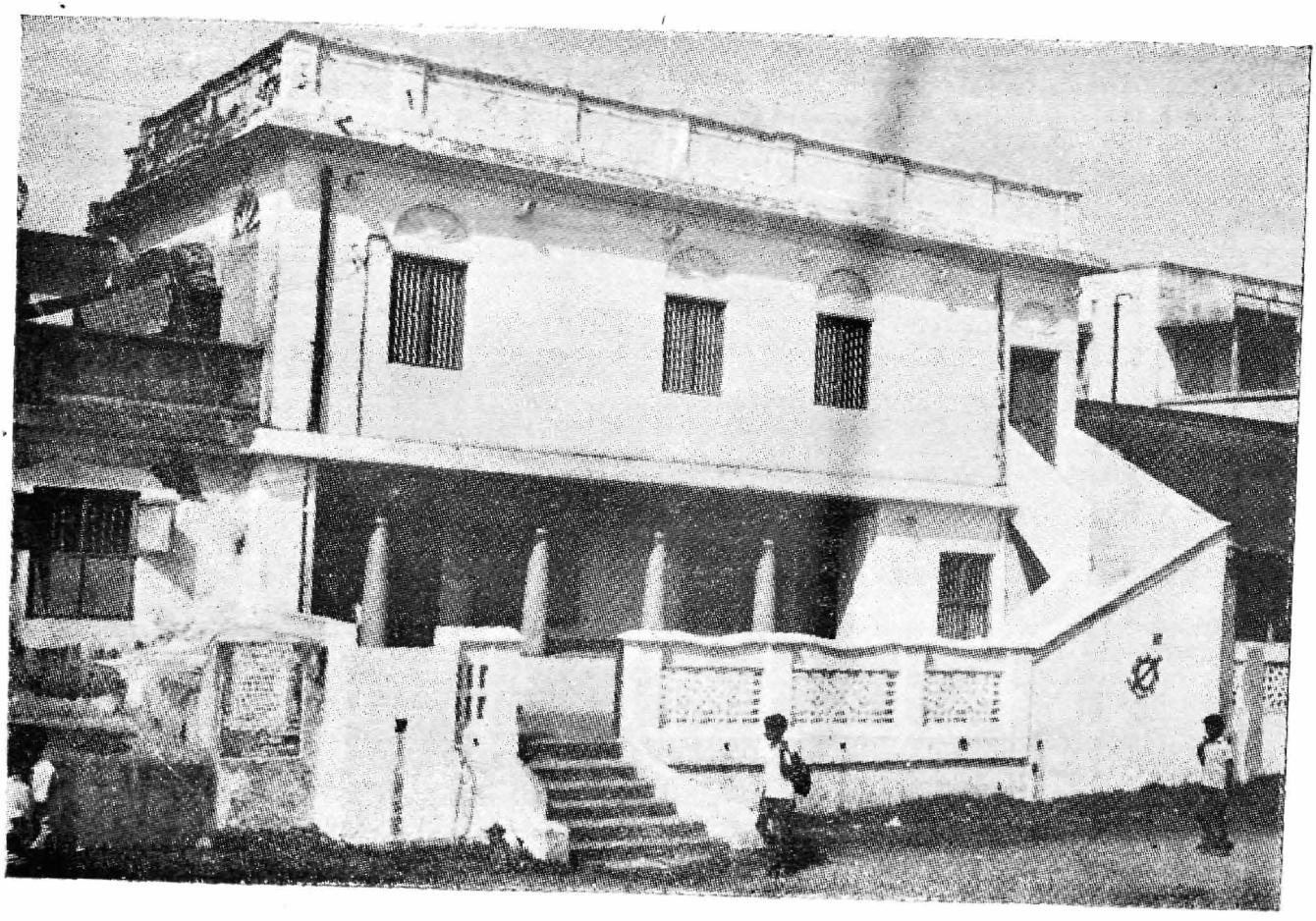


An old type structure with a lengthy pial in front of the house





A pucca modern house and an old katcha hut, side by side in a semi-urban tract



A front view of an old pucca residential street house in a city

7. Seven districts - Madras, Thanjavur, Chingleput, North Arcot, South Arcot, Dharmapuri and Kanyakumari show proportion of vacant houses less than the State average of 70 per 1,000. The remaining seven districts show proportion of vacant houses higher than the State average.

8. Madras district which is conterminous with Madras City shows the lowest vacancy proportion. Being the State head-quarters and having a large number of persons engaged in trade and commerce, transport, storage and communication, manufacturing, servicing, repairing establishments and other services, with a population of over 2·4 million, the low proportion of vacant houses in Madras is a correct representation of the housing conditions obtaining in the metropolitan city.

9. Thanjavur has also recorded a low proportion of vacant houses. This district is principally an agricultural area with a high density of population.

10. Chingleput, North Arcot and South Arcot districts have shown 52 vacant houses per 1,000 houses, much less than the State average of 70 per 1.000. The position of Chingleput district surrounding the metropolitan city of Madras is rather unique. The area of this district surrounding the city boundaries has got a number of industrial establishments supporting a sizable population. Places in Saidapet taluk circling the City of Madras have got good communication facilities with the core City. Workers employed in establishments in Madras City find it convenient to live in places like St. Thomas Mount, Pallavapuram, Alandur, Tambaram, Chromepet, Tiruvattiyur, Chingleput, Vandalur etc., and commute to the city daily. There is more accommodation in these areas and the rents appear to be comparatively less than what it would be in the metropolitan city. These factors have contributed to a lower proportion of vacant houses. Though the districts of North Arcot and South Arcot supporting sizable population have their main occupation in agriculture, they have shown lower proportions of vacant houses. Though the reasons for such a low vacancy are not apparent, improvements in agricultural operations as well as setting up of a few large scale manufacturing units (e.g.) Asbestos cement unit, Continuous Steel Casting Plant etc., in North Arcot district as well as the Thermal Plant, Fertiliser Unit, Ceramic Industrial Unit as ancillary units of Neyveli Lignite Project in South Arcot district might have perhaps influenced the lower vacancy rate in these areas.

11. Dharmapuri's low proportion of vacant houses can be explained as due to the formation of new district with headquarters at Dharmpuri and attendant paucity of accommodation to house Government Offices and for the employees of these institutions. Kanyakumari district having a density of 726 persons per sq. km. has the maximum density of population in the State if we exclude Madras City. Naturally this results in lesser vacancy proportion.

12. Nilgiris district shows the highest proportion of vacant houses, 153 per 1,000 houses. Nilgiris has a very low density of 194 persons per sq. km. Much of the area is under plantations and forests with a lower density of population. Further the district has a number of summer resorts like Ootacamund, Coonoor and Kotagiri which have a number of houses remaining vacant in seasons other than summer (May to July). Houselisting was done in February, 1970 which is the off-season for tourists. Tirunelveli district shows 94 vacant houses per 1,000. Main economy of the district is based on agriculture. Failure of monsoon and near drought conditions in parts of the district have pushed population to urban areas of the district as well as to other more prosperous areas outside the district. Consequently a higher proportion of vacant houses is noticed. Certain areas of Ramanathapuram district called "Chettinad" inhabited mainly by the once prosperous business community of "Nattukottai Nagarathars" have huge palatial houses belonging to these persons. Most of these buildings remain vacant as the owners reside in bigger cities in connection with their business. These factors contribute to the higher proportion of vacant houses than the State average. Salem and Tiruchirapalli are basically agricultural districts even though they are getting industrialised. Perhaps the higher than average vacancy is due to the migration from villages consequent on the growing industrialisation. Madurai's proportion is just the State average and needs no further comments.

Vacancy proportion in Cities

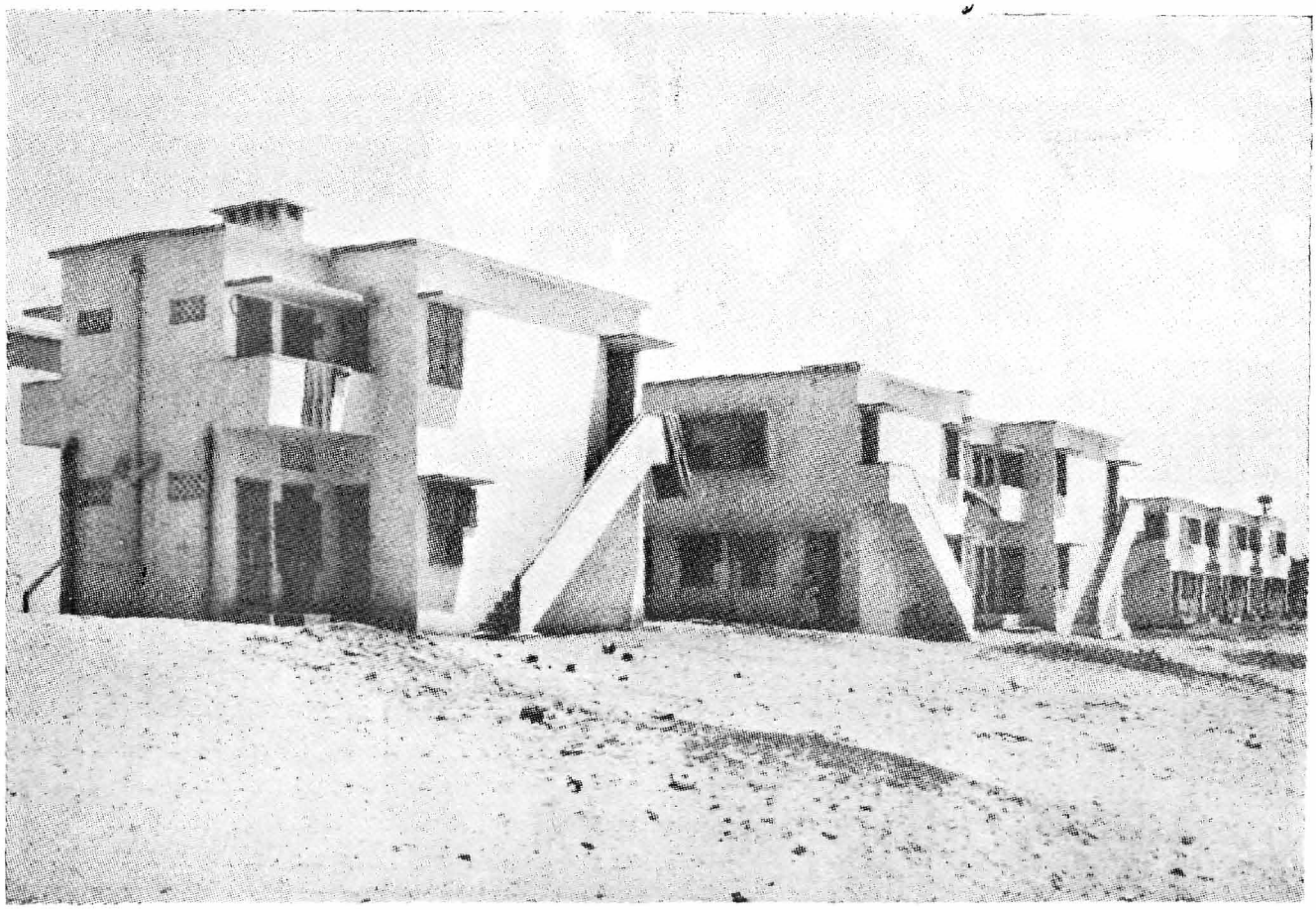
13. Looking into the figures of cities (towns with a population of 100,000 and over), it is seen that the proportion of vacant houses per 1,000 of all Census houses varies from 34 in Vellore to

89 in Singanallur. Madras and Madurai cities show low proportions of 37 each. Tirunelveli and Tiruppur cities show 40 and 49 vacant houses respectively per 1,000 of all Census houses. Madurai and Madras cities account for large manufacturing, commercial establishments with municipal corporations for local administration. Universities and colleges with institutions for high school education are located in good numbers. Madurai is also the district headquarters for two districts; consequently a large number of administrative offices and persons employed in them are to be accommodated. Both are growing cities and naturally there is a low proportion of vacant houses in these cities. Tiruppur which has become a city during this Census, houses a number of hosiery and knitting units and a centre for cotton trade. These factors have perhaps contributed to the lower vacancy proportion. Tirunelveli city is the headquarters of the district with a good number of educational institutions, wholesale and retail trading houses in food articles. A number of small units for manufacture of handloom textiles, bidi, agricultural implements, pins etc. are located in and around the city. A co-operative textile Mill is also located on the outskirts. These influence the lower proportion of vacant houses in this city compared to other cities. Tiruchirapalli, Coimbatore, Kanchipuram and Kumbakonam show 42, 43, 44 and 45 vacant houses respectively per 1,000 houses. Tiruchirapalli, the district headquarters is an old town in this State. It was the former headquarters of the S.I. Rly. having a big railway workshop in Golden Rock which is very near the main city. B.H.E. Ltd., have located a boiler plant nearby. The Small Arms Factory is also located closeby with more employment opportunities which pull population within its limits. Movement of population inside the city limits with better amenities possibly account for the smaller proportion of vacant houses. Coimbatore City, in industrial development, is next only to Madras City. Naturally, in this district vacancy is less than the State average. Kumbakonam, an old town situated in the deltaic area of Cauvery with a number of handloom establishments and metal vessel units also shows smaller percentage of vacant houses. Kanchipuram, famous for silk sarees, houses a number of silk handloom units. Besides it has now become the district headquarters of Chingleput district which has naturally brought officers and staff from outside the city limits within and vacant houses show a lower proportion. Nagercoil with 49 vacant houses per 1,000 is the district headquarters and principal market centre of Kanyakumari district. Hence the lower proportion of vacant houses. Thanjavur, Dindigul and Tuticorin, all old towns show higher proportions of 59, 63 and 68 vacant houses per 1,000 Census houses. These towns except Thanjavur are not headquarter towns of the districts. Thanjavur, the district headquarter town has not much of industrial activity. Vacancies therefore remain high. Salem and Singanallur show proportions of 65 and 89 per 1,000. Salem, the headquarter town of Salem district is not an industrial or commercial centre. Most of the manufacturing processes relate to handloom textiles. The division of this erstwhile district into Dharmapuri and Salem moved workers in offices to the new district headquarters of Dharmapuri and perhaps this has resulted in higher proportion of vacant houses. Singanallur, a recently constituted municipality, surrounding Coimbatore city has a number of textile mills. Situated amidst rural areas, the workers are coming from adjacent villages and this naturally results in higher proportion of vacant houses within the town limits.

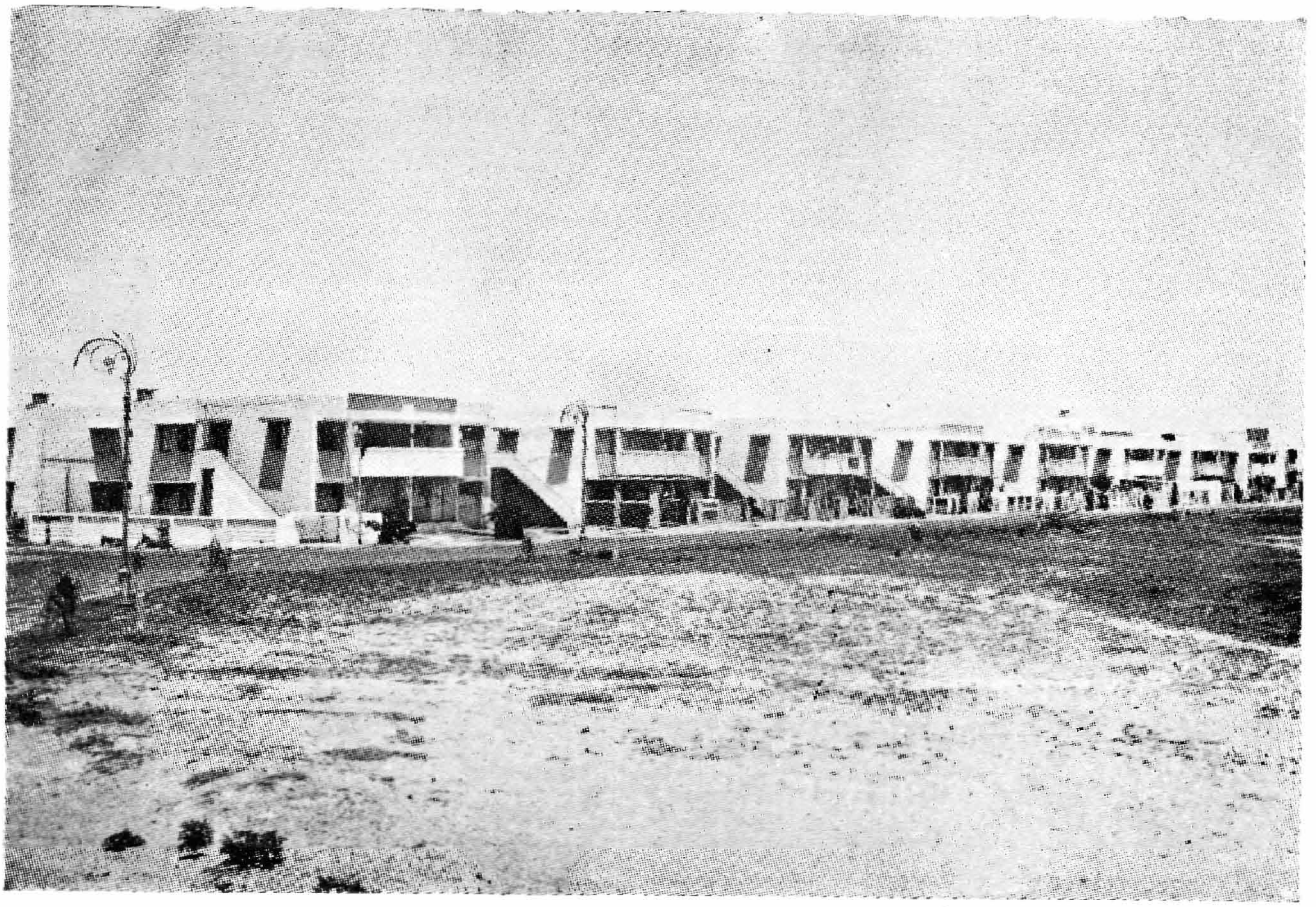
14. The table below presents the proportion of vacant houses per 1,000 of all Census houses obtained at the 1960 and 1970 houselisting operations for certain cities.



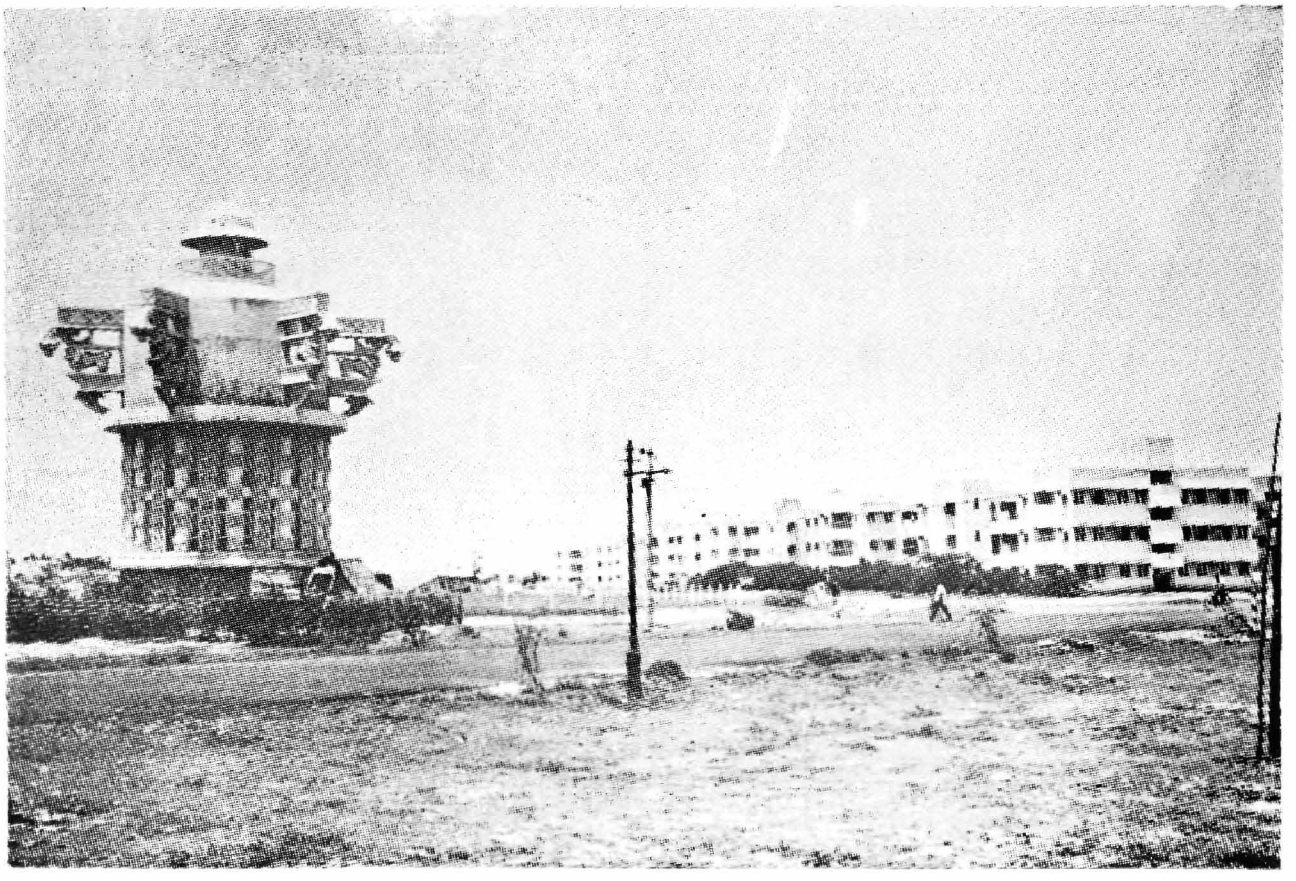
Newly built fire proof cottages for the poor



A view of the houses constructed for the low-income group in Madras City



A new housing colony for low-income group in Madras City



A view of the newly sprung-up Besant Nagar Housing Colony near Adyar, Madras

STATEMENT II-2

Proportion of vacant houses per 1,000 of all Census houses in 1960 and 1970 for selected Cities

	City	Number of vacant houses per 1,000 houses	
		1960	1970
	1	2	3
1	Madras	31	37
2	Kanchipuram	29	44
3	Vellore	36	34
4	Salem	48	65
5	Tiruppur	41	40
6	Coimbatore	43	43
7	Singanallur	N.A.	89
8	Dindigul	53	63
9	Madurai	35	37
10	Tiruchirapalli	41	42
11	Kumbakonam	27	45
12	Thanjavur	60	59
13	Tirunelveli	42	40
14	Tuticorin	47	68
15	Nagercoil	46	49

N. A: Not available.

15. Looking into the proportion of vacant houses in cities with a population of 100,000 and over, Vellore shows the lowest proportion of 34 and Singanallur 89. Madras and Madurai cities show 37 each. Tiruchirapalli, Coimbatore, Kanchipuram and Kumbakonam show a proportion of 42, 43, 44 and 45 vacant houses respectively per 1,000 Census houses in each city. Tirunelveli and Tiruppur show a vacancy of 40 each and Nagercoil town shows 49 vacant houses per 1,000 Census houses. Dindigul, Salem and Tuticorin cities show proportions of 63, 65 and 68 respectively.

16. Comparing the proportion of vacant houses revealed in 1960 and 1970 houselisting operations in these towns, one will find increase in their proportions in all the cities except Vellore, Tiruppur, Coimbatore and Thanjavur. Coimbatore has the same proportion in 1970 as was in 1960. The decrease in the proportion in Vellore, Tiruppur and Thanjavur is very little. The increase in proportions in Madras, Kanchipuram, Salem, Dindigul, Kumbakonam, Tirunelveli and Tuticorin are over 5 points. Tuticorin has recorded an increase of 21 in the vacancy proportion. While examining the proportion of households living in rented houses in 1960 and 1970, one will see that as against 687 households living in rented houses in 1960, 678 households now live in rented houses. Perhaps, people who move to houses of their own not only construct flats for their own use but also rent a portion to others. Kumbakonam City has shown a variation of 18 between 1960 and 1970 proportions. Similarly, Dindigul has shown a variation of 10. In these two cities, the proportion of households living in rented houses in 1970 also shows a higher proportion than that obtained in 1960. With the increase in the number of houses, the vacancy proportion also has increased. Salem's higher proportion in 1970 over that of 1960 might be to some extent due to the separation of Dharmapuri district and movement of Government officials to the new district headquarters. Kanchipuram has shown an increase of 15 over the proportion in 1960. The proportion of households living in rented houses in 1970 has declined by 34 from the proportion of 1960. In this city, the households which were hitherto living in rented houses have moved to their own homes thus releasing their former homes for letting out. Madras city's increase in the proportion of vacant houses in 1970 over that of 1960 is perhaps due to households having moved into houses of their own. This trend is reflected in lesser proportion of households living in rented houses now than it was in 1960.

SECTION III

HOUSES BY TYPES OF USE

Proportion of dwellings in Districts

17. As already indicated, certain broad classification has been adopted for categorising houses according to usage. For the whole State, out of 930 occupied Census houses, 834 are used as mixed dwellings. By the term 'mixed dwelling', we mean houses used as pure dwelling, shop-*cum*-residence and workshop-*cum*-residence. 809 houses per 1,000 are used only for dwelling purposes. 8 houses come under shop-*cum*-residence and 17 under workshop-*cum*-residence. In the 1960 houselisting operations, 862 houses were used

as mixed dwellings with break-up of 841 for pure dwellings, 7 for shop-*cum*-residence and 14 under workshop-*cum*-residence. There is a decrease in the number of pure dwellings by 32 and increase of 3 under workshop-*cum*-residence. The proportion for shop-*cum*-residence shows an increase of one in 1970. The decrease in pure dwellings is compensated by the increase in the groups "places of worship" and "others". The proportions of houses used as shops excluding catering places, factories and workshops, restaurants and places of entertainment etc., are 21, 12, 5 and 1 respectively per 1,000 Census houses. Business houses and offices show a proportion of 4. Comparing the 1960 proportions, an increase of one each is seen under shops excluding catering houses and restaurants etc. Factories and workshops show an increase of 2 though the proportion of business houses and offices has remained the same. The category, hotels, dharamshalas, tourist homes and inspection houses show a decrease of one. This change does not appear to be significant.

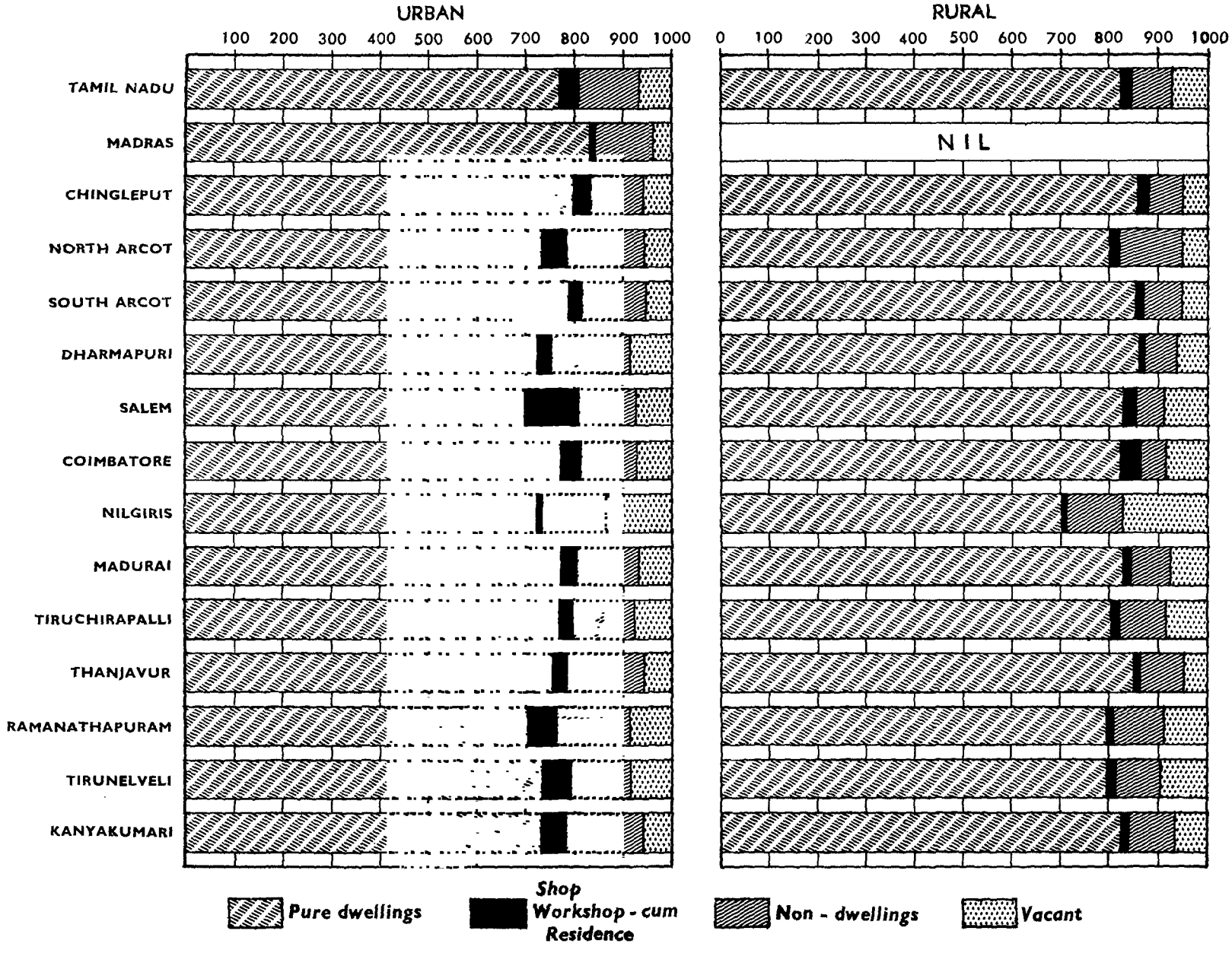
18. The statement below gives the proportion of dwelling, shop-*cum*-residence and workshop-*cum*-residence in the State and Districts with comparative figures for 1960.

STATEMENT II–3

Proportion of houses used as mixed dwellings in the State and Districts, 1970 & 1960

State/District	1970				1960			
	Total	Dwelling	Shop-*cum*-residence	Workshop-*cum*-residence	Total	Dwelling	Shop-*cum*-residence	Workshop-*cum*-residence
1	2	3	4	5	6	7	8	9
TAMIL NADU	**834**	**809**	**8**	**17**	**862**	**841**	**7**	**14**
1 Madras	844	835	5	4	803	792	6	5
2 Chingleput	868	841	9	18	897	875	7	15
3 North Arcot	814	787	9	18	880	852	10	18
4 South Arcot	864	847	10	7	891	877	8	6
5 Dharmapuri	862	850	7	5	877	866	7	4
6 Salem	845	799	8	38	854	808	7	39
7 Coimbatore	849	807	13	29	874	843	10	21
8 Nilgiris	722	714	6	2	814	804	8	2
9 Madurai	832	812	8	12	869	853	7	9
10 Tiruchirapalli	817	798	6	13	853	839	5	9
11 Thanjavur	850	834	7	9	859	843	7	9
12 Ramanathapuram	797	773	5	19	850	836	5	9
13 Tirunelveli	807	776	6	25	838	812	5	21
14 Kanyakumari	830	809	5	16	829	817	4	8

Distribution of 1000 Census Houses by Pure dwellings, Shop/Workshop - cum - Residence, Non - dwellings and Vacant



19. From the above figures, one can see that mixed dwellings have the higher proportion among occupied Census houses. The State average of residential houses is 834 now compared to the proportion of 862 per 1,000 Census houses in 1960. The range for the districts is from 722 in Nilgiris to 868 in Chingleput district. Besides Nilgiris, the districts of Ramanathapuram, Tirunelveli, North Arcot, Tiruchirapalli, Kanyakumari and Madurai show proportions lesser than the State average for mixed dwellings. Except Madras and Kanyakumari, all the other districts show lower proportions under this head than the proportion shown in 1960. Madras has shown higher proportion and this is reflected mainly in the proportion of purely residential houses.

20. Proportions for purely residential houses vary from 714 in Nilgiris to 850 in Dharmapuri district, the State average being 809. The proportions in 1960 varied from 877 in South Arcot to 792 in Madras and the State average was 841. In all the districts except Madras where the proportion of purely residential houses has increased over that of 1960, the decrease in the proportion of residential houses indicates that more houses are put to other non-residential uses as well like residence-*cum*-shops and residence-*cum*-workshops. In Madras City, the increase is perhaps due to construction activities being mainly focussed on residential buildings than for other uses. Due to paucity of large vacant areas within the City of Madras for location of factories, workshops etc., with adequate land and facilities for future expansion, communication, water supply etc., the suburban areas around this city has been developed into semi-industrial towns. St. Thomas Mount-*cum*-Pallavaram, Alandur, Pallavapuram, Tambaram, Tiruvattiyur, Ambattur and Avadi surrounding the city are now developed due to the location of many large scale units engaged in processing, manufacturing etc., during the last decade which would otherwise be located within Madras City. Under the master plan for development of Madras metropolitan area, there appears to be some restriction for location of big industrial units within the city limits or for expansion of the existing units. Further, liberal Government loans and credit from Co-operative Societies as well as higher rents have been contributory factors for residents of Madras City to go in for houses for their own living. The decrease in the proportion in other districts over the proportion in 1960 indicates the progress in the economic level in their areas than what was obtaining a decade ago. This will be evident if we look into the proportions of houses used as workshop-*cum*-residence now and those in 1960 in the districts of Chingleput, Coimbatore, Madurai, Tiruchirapalli, Ramanathapuram, Tirunelveli and Kanyakumari. Proportion of shop-*cum*-residence in the districts of Chingleput, South Arcot, Coimbatore, Madurai, Tiruchirapalli, Tirunelveli, Ramanathapuram and Kanyakumari is higher than that of 1960. Thanjavur district exhibits the same proportions for both the groups as was shown a decade ago indicating that the pattern of activities in the district remains unchanged.

Dwellings in Cities

21. We may now turn our attention to the proportion of dwellings used wholly or partly in cities as it is the urban areas which need more residential accommodation because of higher density of population compared to rural sector. The statement below gives a comparative picture of the proportions of houses used purely as residence, shop-*cum*-residence and workshop-*cum*-residence as in 1970. Comparative figures as was obtained from the houselisting operations of 1960 are also indicated alongside.

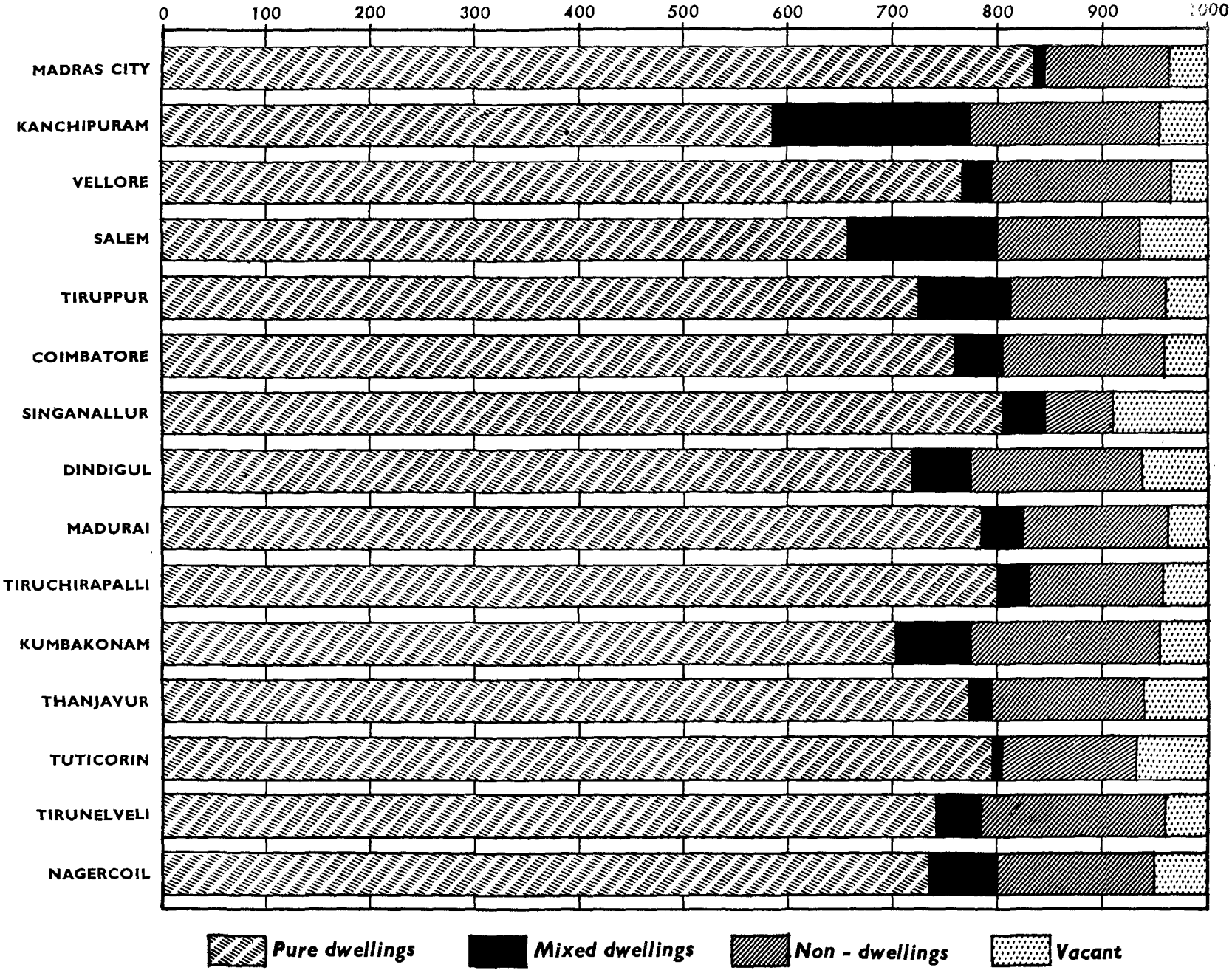
STATEMENT II–4

Proportion of houses used as residence, shop–cum–residence and workshop–cum–residence in Cities, 1970 & 1960

	City	1970				1960			
		Total	Residence	Shop-*cum*-residence	Workshop-*cum*-residence	Total	Residence	Shop-*cum*-residence	Workshop-*cum*-residence
	1	2	3	4	5	6	7	8	9
1	Madras	844	835	5	4	803	792	6	5
2	Kanchipuram	774	584	18	172	813	779	15	19
3	Vellore	796	768	10	18	744	716	11	17
4	Salem	801	657	17	127	810	650	23	137
5	Coimbatore	803	759	13	31	834	799	12	23
6	Singanallur	845	804	15	26	Not Available			
7	Tiruppur	813	726	19	68	817	760	17	40
8	Dindigul	774	717	12	45	794	777	7	10
9	Madurai	826	785	8	33	835	792	5	38
10	Tiruchirapalli	829	800	6	23	803	788	6	9
11	Kumbakonam	774	703	22	49	778	721	13	44
12	Thanjavur	795	772	9	14	783	754	6	23
13	Tuticorin	804	795	4	5	824	819	4	1
14	Tirunelveli	785	743	6	36	783	755	4	24
15	Nagercoil	801	735	11	55	797	755	4	38

22. The City of Madras has shown the highest proportion of houses used purely as residences and Kanchipuram the lowest. In Madras City, the proportion of houses used as shop-*cum*-residence and workshop-*cum*-residence is only 9 per 1,000 while in the case of Kanchipuram, the proportion is 190. This would show that in the metropolitan city, places of work and residences are kept distinct possibly on account of town planning restrictions while in smaller cities, houses are used in greater number for combining

Distribution of 1000 Census Houses by pure dwellings, mixed dwellings, non-dwellings and Vacant (Cities)



business and residence. This would be so evident in cities where households engage in household industries or where repairing and servicing units are run by households. Salem and Tiruppur also come under this group. In Kanchipuram, proportion of houses used as workshop-*cum*-residences is 172; in Salem it is 127 and in Tiruppur it is 68. Kanchipuram is famous for silk weaving which is practised by a large number of families working in handlooms located in their own houses. So also, Salem is famous for handloom textiles and such looms are located in the houses where the family members live and work. Tiruppur has also got a number of small manufacturing establishments run on household scale like manufacture of handloom textiles. Nagercoil, Dindigul and Kumbakonam cities also show higher proportions of houses used as workshop-*cum*-residences. A part of Nagercoil city known as Vadasserry is famous for handloom textiles run as household industry. Dindigul is famous for manufacture of cigars and cheroots, locks and tanning of hides and skins by small units. Kumbakonam is also famous for silk weaving in handlooms conducted on household scale.

23. Tuticorin City does not present a different picture in that the proportion of houses used for shop-*cum*-residence and workshop-*cum*-residence is 4 and 5 respectively per 1,000 Census houses. The City can be classed neither as a commercial or manufacturing centre by the proportions referred to above. Kumbakonam has 22 houses used as shop-*cum*-residence per 1,000 houses indicating that it is important as a trading and commercial town.

24. Compared to the proportion of houses used as pure dwellings in 1960, the proportion in 1970 shows increases in Madras, Vellore, Salem, Tiruchirapalli and Thanjavur cities while there is decrease in other cities except Singanallur for which comparative figures are not available. In the cities of Salem and Thanjavur, more houses are put to residential purposes as compared to mixed uses like shop-*cum*-residence and workshop-*cum*-residence now than what it was a decade ago. Vellore and Tiruchirapalli cities on the other hand have shown increased proportions in mixed dwellings as well as pure dwellings which may indicate a better position in that all the three categories have received the increase in the number of houses during the decade 1960-70. In other cities, marked increases in the proportion of houses used for workshop-*cum*-residence during the period 1960-70 is seen. Shop-*cum*-residences also show increases in their proportion now as compared to 1960 though not so much as the other category.

Houses used for non-residential purposes

25. Out of 1,000 houses, 70 are unoccupied and 834 are used for dwellings, shop-*cum*-residence and workshop-*cum*-residence, leaving a balance of 96 houses put to other uses. The distribution of these 96 houses in the State are as under:

Census Houses used as	Proportion of houses per 1,000 in	
	1970	1960
(a) Hotels, sarais, dharamshalas, tourist homes and inspection houses ...	1	2
(b) Shops excluding eating houses ...	21	20
(c) Business houses and offices	4	4
(d) Factories, workshops and worksheds ...	12	10
(e) Restaurants, sweet-meat shops and eating places ...	5	4
(f) Places of entertainment and community gathering...	1	1
(g) Places of worship (temple, church, mosque, gurudwara etc.)	10	29
(h) Others	42	

26. In the Census Houselisting Operations conducted in 1960, classification was made separately for schools and other educational institutions including training classes, coaching and shop classes and for public health and medical institutions, hospitals, health centres, doctor's clinics, and dispensaries.

27. In 1960 houselisting, buildings used as cattle shed, water pumping shed, etc., were not taken into account.

28. Places of worship (e.g.,) temple, mosque, church, gurudwara etc., were included in the category 'others" in 1960 while this group has been separately tabulated in 1970 houselisting data. Under the category "others" are included cattle shed, godown, garage, laundry, petrol bunk, passenger shelter, etc.

29. It will be seen from the above figures that during the decade under review, increased number of houses have been put to uses other than dwellings (wholly or partly). This would indicate to a certain extent the development in the economy of the State.

30. As has been stated earlier, the increase and decrease in the proportion under "Restaurants, sweetmeat shops and eating places" and "Hotels, sarais, dharamshalas, tourist homes and inspection houses" in 1970 over that of 1960 have to be seen in the light of the remarks that a clear distinction between the two types is not possible in this country. Shops excluding eating houses have shown an increase of one in 1,000 while factories, workshops and worksheds show an increase of 2 in 1,000 probably indicating that preference is shown for utilisation of houses for manufacturing, processing or servicing etc., units than for merchandise. The large increase of 23 in the proportion under "others" (including places of worship, schools and educational institutions, public health institutions like hospitals, clinics, dispensaries etc.) is perhaps indicative of the steps taken by Government towards provision of increased educational medical and health facilities during the decade so as to cover a larger population than what was a decade ago, as a first step in reaching its goal set for social welfare schemes. Eradication of illiteracy and adequate provision for medical and health care of the population by opening hospitals, dispensaries and clinics is the first priority in social welfare schemes and this aspect has been bestowed full attention. If we look into the comparative picture of the percentage of literate and educated persons to total population according to 1961 and 1971 Censuses, the literacy rate has increased from 31·41 per cent in 1961 to 39·46 per cent in 1971.

31. I now discuss below the proportion of the houses used for purposes other than dwelling, shop-*cum*-residence and workshop-*cum*-residence. There are 7 such categories.

Shops excluding eating houses

32. The State average proportion is 21 per 1,000 Census houses. Eight districts show proportions less than the State average. The proportion ranges from 18 in Chingleput, North Arcot, Coimbatore and Nilgiris to 11 in Dharmapuri. Six districts show proportions which are higher than the State average of 21. The districts are Madras, Kanyakumari, Thanjavur, Tirunelveli, Madurai and Ramanathapuram. The range is from 23 in Ramanathapuram to 48 in Madras. Madras being an important commercial town in this State, has naturally shown the highest proportion of 48. Kanyakumari though small in area has also shown a high proportion of 33. Thanjavur also shows a higher proportion of 26.

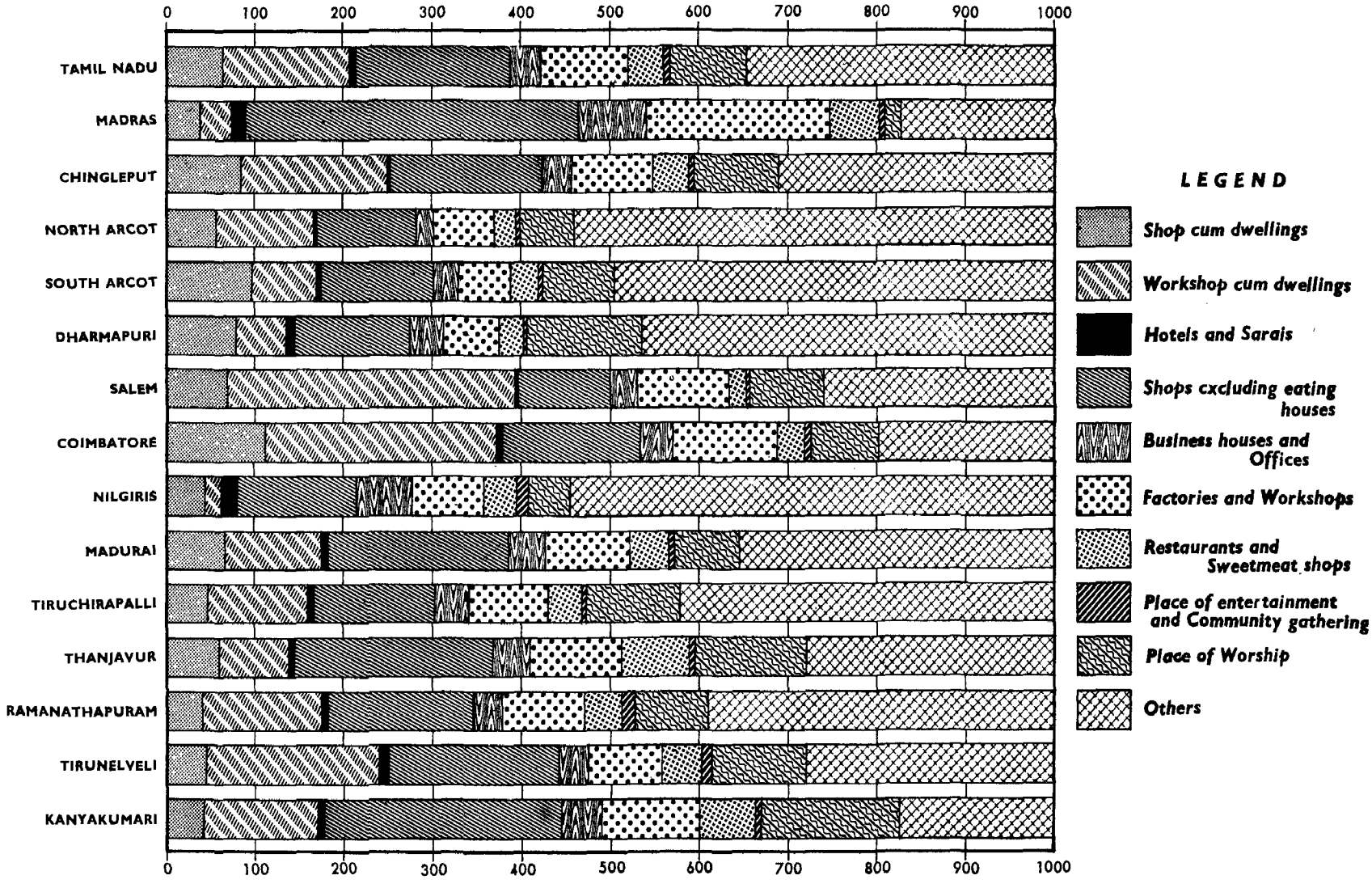
Business houses and offices

33. The State average is 4 per 1,000. Five districts show the average of the State. They are: Salem, Coimbatore, Tiruchirapalli, Ramanathapuram and Tirunelveli. Four districts show average of less than the State. Chingleput, North Arcot, South Arcot and Dharmapuri fall in this group. All these districts show a proportion of 3 per 1,000 Census houses. Five districts - Madras, Nilgiris, Kanyakumari, Madurai and Thanjavur show proportions higher than the State average. Madras with a proportion of 10 and Nilgiris with a proportion of 8 are to be noted. Madras being a metropolitan city in the State has naturally a large proportion of business houses and offices. It is not apparent how Nilgiris shows a higher proportion than other districts of the State. Possibly it is on account of the smaller size of the population of the district which in any case must have the full complement of the offices of a district.

Factories, workshops and worksheds

34. This group shows a proportion of 12 houses for every 1,000 Census houses. Two districts. i.e., Salem and Thanjavur show same proportion as exhibited by the State as a whole. Eight districts show proportions below the State average. They are: North Arcot, Nilgiris, Madurai, Tiruchirapalli, Tirunelveli, Chingleput, South Arcot and Dharmapuri. South Arcot and Dharmapuri show the lowest proportion of 6 and 5 respectively indicating the relative backwardness of these districts in industrial establishments. The variations in the proportions in respect of the other districts are not very significant. Four districts show averages higher than that of the State. Madras with

Distribution of 1000 Census Houses used as Mixed dwelling and non-dwelling (Total)



a proportion of 27 is at the top in the list; Coimbatore and Ramanathapuram are at the bottom of this group with a proportion of 13. Kanyakumari has shown a proportion of 14. Except for Madras, the other figures do not warrant any detailed comments. Madras is having a large number of manufacturing units - small, large and medium units and has correctly exhibited a true picture of the position of this State in the industrial activities.

Restaurants, sweet-meat shops and eating places

35. A proportion of 5 per 1,000 Census houses has been shown for the State. Nilgiris and Madurai show the same proportion as of the State. Seven districts show lower proportions than the State average. Dharmapuri and Salem show the lowest proportion of 2 each while Chingleput, North Arcot and Tiruchirapalli show a proportion of 4 each. South Arcot and Coimbatore show a proportion of 3 each. Five districts show proportions higher than the State average - Thanjavur, a proportion of 9, Kanyakumari, a proportion of 8 and Madras, a proportion of 7. Ramanathapuram and Tirunelveli with a proportion of 6 each are just above State average.

Places of entertainment and community gathering excluding places of worship

36. The State average is one which is also the average in 11 districts. The proportion in South Arcot and Dharmapuri is negligible while Ramanathapuram shows a proportion of 2. While examining the proportions of the houses used as places of entertainment and community gathering, one would see that the proportion is low.

Places of worship

37. A proportion of 10 is shown by the State. Three districts - Chingleput, North Arcot and Salem exhibit the same proportion as for the State. Five districts have shown lower proportions than the State average. The range is from 9 in Coimbatore to 2 in Madras. Madras being a Class I town with a large population of about 2·4 millions has smaller number of places of worship. Six districts show proportions higher than the State average. Kanyakumari with a proportion of 19 is the first. Thanjavur and Tirunelveli have each 14 per 1,000, Tiruchirapalli a proportion of 13 and Dharmapuri and Ramanathapuram, each a proportion of 11. Kanyakumari, Thanjavur, Tirunelveli and Tiruchirapalli have a number of houses used as places of worship. The proportion also indicates that the southern districts of Tiruchirapalli, Thanjavur, Ramanathapuram, Tirunelveli and Kanyakumari have larger number of temples, mosques and churches and other places of worship.

38. The last category, i.e., 'others' is a miscellaneous group. In this category are included houses used as cattle shed, petrol bunk, water pumping shed or other houses used as a residence in combination with these items. Schools and other educational institutions as well as public health institutions like hospitals, dispensaries, clinics etc., also come under this category. The State average is 42 per 1,000 Census houses. Five districts show proportions higher than the State average. The range is from 50 in Tiruchirapalli to 86 in North Arcot. Nilgiris shows a higher proportion of 73 per 1,000 Census houses. Ramanathapuram and South Arcot show a proportion of 53 and 51 respectively. Nine districts including Madras show proportions lower than the State average. Madras, Coimbatore and Kanyakumari which are at the bottom of this group exhibit a proportion of 22 each. Madurai and Dharmapuri show proportions of 41 and 40 respectively which are not very much lower than the State average proportion of 42.

39. In this country, the population in the rural sector is mainly dependent on agriculture based economy. About 80 per cent of the population live in the rural areas. Tamil Nadu also has got 69·74 per cent of its population living in villages. About a third of its population live in cities and towns. Compared to the whole country, Tamil Nadu has higher percentage of urban population. The housing statistics naturally will depict a different picture for rural and urban sectors. Rural sector with its main activities connected with agriculture and its allied activities and with limited other economic activities will show a larger proportion of Census houses being used for mixed dwelling. In the urban sector, with increased activities under industrial production, processing, servicing and trade and commerce, there is likely to be a higher proportion of houses being put to uses other than dwellings (pure or mixed). Larger facilities available in educational and medical and public health fields in the urban areas would also indicate a higher proportion of Census houses being put to other uses compared to the rural areas.

Non-dwellings in rural and urban areas

40. The following statement presents the proportions for the different categories of uses to which Census houses are put in the rural and urban areas of the State and Districts.

STATEMENT II-5

Distribution of 1,000 Census houses by vacant and types of uses in the rural and urban areas

State/District		Census houses vacant at the time of house-listing	Total occupied Census houses	Residence, shop-*cum*-residence, workshop-*cum*-residence including household industry				Hotels, sarais, tourist homes & inspection houses	Shops excluding eating houses	Business houses and offices	Factories, workshops and worksheds	Restaurants, sweet-meat shops & eating places	Places of entertainment & community gathering	Places of worship	Others
				Total	Residence	Shop-*cum*-residence	Workshop-*cum*-residence								
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15
TAMIL NADU	R	**72**	**928**	**845**	**825**	**8**	**12**	N	**11**	**3**	**6**	**4**	**1**	**12**	**46**
	U	**65**	**935**	**805**	**767**	**8**	**30**	**2**	**46**	**9**	**26**	**8**	**1**	**6**	**32**
1. Madras	U	37	963	844	835	5	4	2	48	10	27	7	1	2	22
2. Chingleput	R	49	951	882	860	9	13	N	9	2	4	3	1	12	38
	U	57	943	837	801	8	28	1	39	6	21	7	2	6	24
3. North Arcot	R	52	948	820	798	9	13	N	8	2	5	3	1	11	98
	U	54	946	784	736	8	40	1	63	9	35	11	1	8	34
4. South Arcot	R	52	948	871	855	10	6	N	8	2	4	2	N	9	52
	U	52	948	814	789	11	14	1	47	10	22	9	1	6	38
5. Dharmapuri	R	62	938	873	863	6	4	1	6	2	3	2	N	11	40
	U	86	914	753	726	12	15	3	61	15	23	9	1	10	39
6. Salem	R	87	913	857	831	6	20	N	5	2	6	1	N	11	31
	U	72	928	809	699	16	94	1	36	8	32	5	1	6	30
7. Coimbatore	R	85	915	868	826	12	30	N	6	2	6	2	1	11	19
	U	69	931	814	772	14	28	1	39	8	26	6	2	6	29
8. Nilgiris	R	171	829	711	704	5	2	1	11	4	8	4	1	7	82
	U	133	867	734	724	8	2	3	26	12	14	6	2	7	63

STATEMENT II-5—(*Contd.*)

Distribution of 1,000 Census houses by vacant and types of uses in the rural and urban areas—(Contd.)

State/District		Census houses vacant at the time of house-listing	Total occupied Census houses	Residence, shop-*cum*-residence, workshop-*cum*-residence including household industry				Hotels, sarais, tourist homes and inspection houses	Shops excluding eating houses	Business houses and offices	Factories, workshops and worksheds	Restaurants, sweetmeat shops & eating places	Places of entertainment & community gathering	Places of worship	Others
				Total	Residence	Shop-*cum*-residence	Workshop-*cum*-residence								
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15
9. Madurai	R	74	926	845	830	8	7	1	12	3	5	3	1	10	46
	U	65	935	805	773	8	24	2	49	9	24	8	1	5	32
10. Tiruchirapalli	R	86	914	823	806	5	12	1	9	3	6	3	N	14	55
	U	74	926	796	770	7	19	2	43	8	27	10	1	6	33
11. Thanjavur	R	47	953	866	853	6	7	1	18	3	8	9	1	15	32
	U	55	945	786	757	10	19	3	57	10	29	10	2	10	38
12. Ramanathapuram	R	91	909	809	797	6	6	1	13	3	6	5	2	12	58
	U	86	914	762	703	4	55	2	49	8	32	9	2	9	41
13. Tirunelveli	R	98	902	815	794	7	14	1	17	3	6	5	1	16	38
	U	83	917	789	735	4	50	2	44	7	22	8	2	10	33
14. Kanyakumari	R	68	932	840	824	5	11	1	28	4	10	8	1	20	20
	U	57	943	782	733	9	40	3	60	12	31	8	2	15	30

N: Negligible

41. That there is greater demand for houses for dwelling or for other uses in urban areas as compared to rural areas is evident from the proportion of vacant houses in the two sectors. Rural sector shows a proportion of 72 while in the urban areas the proportion is 65. Among districts, the proportion varies considerably in this regard between rural and urban areas. Dharmapuri, Salem, Coimbatore and Nilgiris show such sharp variations indicating the demarcation between rural and urban sectors. North Arcot, South Arcot and Ramanathapuram do not show sizable variations between the rural and urban sectors which would indicate that not much difference is there between villages and towns. Rural areas of Chingleput and Thanjavur show smaller proportion of vacant houses than that in urban sector. In Chingleput district, a number of places around the fringes of Madras City boundaries are satisfying the urban concepts and have been treated as towns for 1971 Census.

Shops excluding eating houses

42. The urban areas of the State show a proportion of 46 per 1,000 Census houses as compared to 11 in rural areas. The proportions will indicate the predominance of this type of use in urban areas. Eight districts – North Arcot, Dharmapuri, Kanyakumari, Thanjavur, Madurai, Ramanathapuram, Madras and South Arcot show higher proportions than the State average in the urban sector. In the rural sector, Nilgiris shows the same proportion as for the State. Five districts – Kanyakumari, Thanjavur, Tirunelveli, Ramanathapuram and Madurai show higher average than the State proportion in the rural sector.

Business houses and offices

43. The proportion for the rural areas of the State is 3 while that for urban is 9. Here again, the urban areas show predominance in the use of Census houses of this type. Six districts – Dharmapuri, Nilgiris, Kanyakumari, Madras, South Arcot and Thanjavur show higher proportions for urban areas than the State average. Madurai, Tiruchirapalli, Thanjavur, Ramanathapuram and Tirunelveli districts exhibit proportions as for the State in the rural sector. Two districts–Nilgiris and Kanyakumari show higher proportions. The variations are not significant as between the districts and the State in this respect.

Factories, workshops and worksheds

44. Considerable variation in the proportions of houses used as factories, workshops and worksheds will be seen as between rural and urban sectors. A proportion of 26 per 1,000 houses is shown in the urban sector as compared to a low proportion of 6 in the rural sector. The proportions indicate the preference for the establishment of units engaged in manufacturing, processing or servicing in cities and towns than in villages.

45. Even among urban areas, there is a varied pattern among the districts depending upon the level of industrial development in them. Three districts – Kanyakumari, Nilgiris and Thanjavur show proportions higher than the State average in the rural sector. Five districts – North Arcot, Madurai, Chingleput, South Arcot and Dharmapuri exhibit lower proportions in the rural sector than the State average.

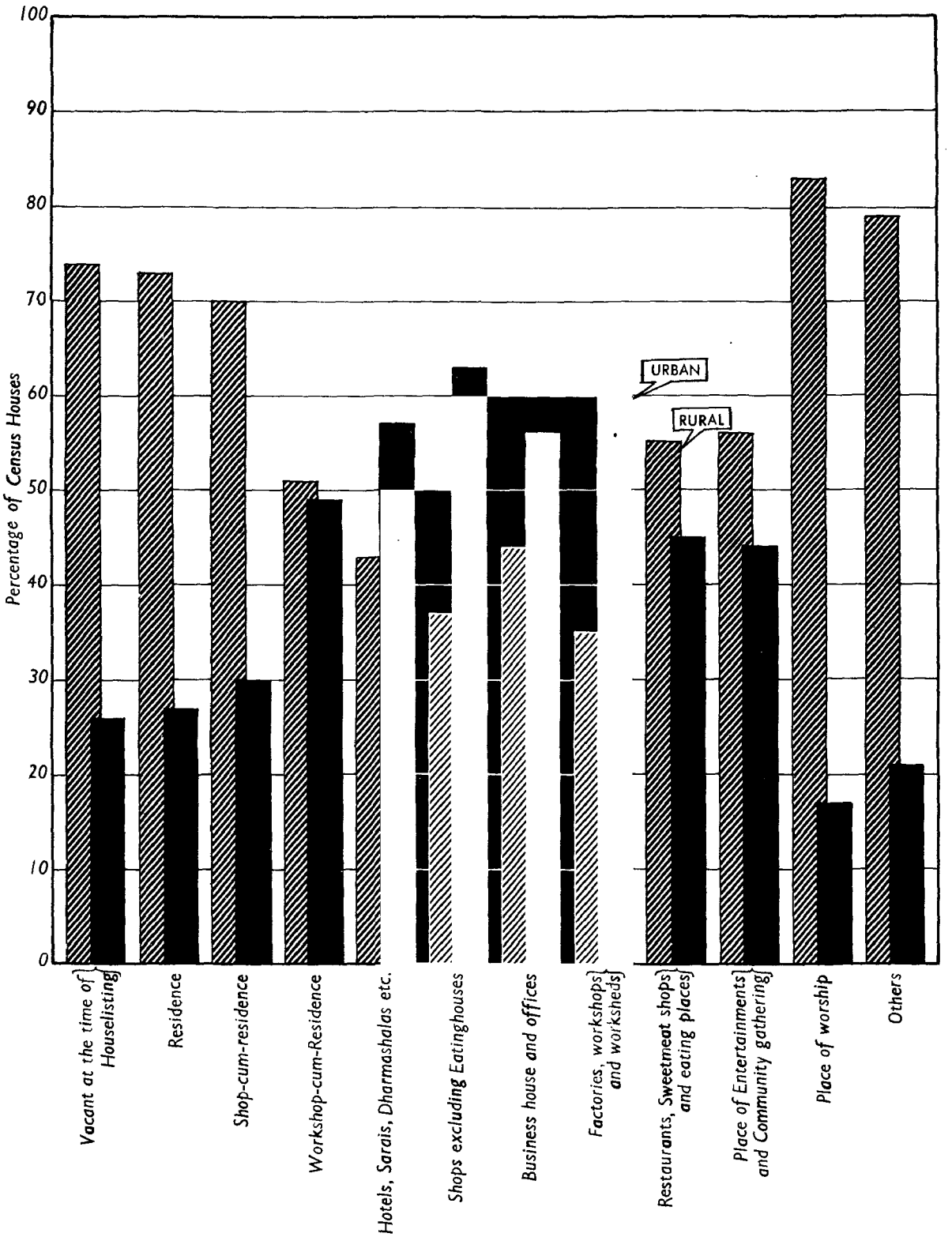
Restaurants, sweetmeat shops and eating places

46. The proportion for rural areas is 4 while the urban areas show a proportion of 8. It is two times greater than the rural average. Six districts – North Arcot, Tiruchirapalli, Thanjavur, South Arcot, Dharmapuri and Ramanathapuram show proportions which are higher than the State average in the urban sector. In the rural areas, Tirunelveli, Thanjavur, Ramanathapuram and Kanyakumari show higher proportions than the State. In Thanjavur and Kanyakumari districts, no appreciable distinction can be seen between the rural and urban areas in so far as this type of house is concerned. Four districts – Salem, Coimbatore, Dharmapuri and South Arcot – show lower proportions. The variation in the proportions as between the rural and urban sectors is high in the districts of Salem, Coimbatore, Dharmapuri and South Arcot.

Places of entertainment etc.

47. Both rural and urban sectors exhibit the same proportion. Seven districts — Chingleput, Coimbatore, Nilgiris, Thanjavur, Ramanathapuram, Tirunelveli and Kanyakumari exhibit higher proportions in the urban sector. Ramanathapuram district alone shows a higher proportion in the rural sector. In the rural areas of the districts of South Arcot, Dharmapuri, Salem and Tiruchirapalli the proportion of Census houses used for entertainment etc., is negligible.

PROPORTION OF CENSUS HOUSES IN DIFFERENT USES AMONG RURAL AND URBAN AREAS



Note : 100 Census Houses under each use like vacant, Residence etc., have been distributed between rural and urban areas.

48. Predominance of houses used for worship is to be seen in the rural sector. The proportion of 12 in the rural sector is two times higher than the proportion of 6 shown by the urban sector. This is explained by the fact that each residential locality be it a village or a hamlet has to have places of worship for each group following a different faith. The larger proportion under this type in the districts of Kanyakumari, Tirunelveli, Thanjavur and Tiruchirapalli would also indicate the activities of the Chera, Chola and Pandya Kings connected with the construction of temples to perpetuate their memory through the ages.

Places of worship

49. In this category are included houses which are used for accommodating schools and other educational institutions, public health institutions like hospitals, doctor's clinics etc., as well as houses used as dwellings in combination with any of these or houses which could not be classified under any of the other types referred to. Laundry, petrol filling station, cattle shed, water pumping sheds etc., would be found categorised under 'others'. A proportion of 32 per 1,000 houses is shown in the urban sector of the State while a proportion of 46 is shown in the rural sector. Eight districts – Nilgiris, Dharmapuri, Ramanathapuram, South Arcot, Thanjavur, North Arcot, Tiruchirapalli and Tirunelveli show proportions higher than the State urban average. In the rural areas, five districts – North Arcot, Nilgiris, Ramanathapuram, Tiruchirapalli and South Arcot exhibit higher proportions.

Others

50. The discussion in regard to Census houses used as dwellings, pure or mixed in Class I towns has been made earlier in this Chapter. We may see how these cities compare with each other in regard to the Census houses used for purposes other than dwellings. The following statement presents the proportions of Census houses used for different types of uses in cities.

Houses used for purposes other than dwellings in cities

STATEMENT II-6

Proportion of houses per 1,000 Census houses used for purposes other than dwellings in cities

City	Hotels, sarais, tourist homes and inspection houses	Shops excluding eating houses	Business houses & offices	Factories, workshops & worksheds	Restaurants, sweetmeat shops and eating places	Places of entertainment and community gathering	Places of worship etc.	Others
1	2	3	4	5	6	7	8	9
Madras	2	48	10	27	7	1	2	22
Kanchipuram	2	77	7	36	12	2	12	34
Vellore	3	72	11	41	13	1	4	25
Salem	1	45	9	36	6	1	5	31
Tiruppur	1	46	7	52	8	2	3	28
Coimbatore	2	62	14	33	9	1	4	29
Singanallur	1	13	2	18	4	4	4	20
Dindigul	2	66	9	34	11	3	4	34
Madurai	1	55	10	32	9	N	4	26
Tiruchirapalli	2	49	8	31	8	1	3	27
Kumbakonam	6	64	7	38	8	1	10	47
Thanjavur	1	47	11	30	7	2	12	36
Tuticorin	3	45	11	25	7	2	3	32
Tirunelveli	5	75	7	31	7	2	11	37
Nagercoil	3	56	10	34	6	1	12	28

N denotes negligible figures

51. All the cities except Singanallur show more than 10% of houses put to other uses. The range is from 6.6% in Singanallur to 18.2% in Kanchipuram. Kumbakonam, Tirunelveli, Vellore, Coimbatore, Dindigul and Nagercoil cities show 15 per cent and above of houses under this usage. Singanallur exhibits much lower proportions in all categories except "Places of entertainment etc.", in which eategory it exceeds the other cities. Kumbakonam and Tirunelveli show higher proportions under "Hotels, sarais etc.", compared to other Class I towns. Kanchipuram, Tirunelveli, Vellore, Dindigul and Kumbakonom show that they are also commercial centres of importance. Coimbatore tops the list in the category, "Business houses and offices" with a proportion of 14 followed by Vellore, Thanjavur, Tuticorin, Madras, Madurai and Nagercoil with a proportion of 10 and above but below 14. All these cities except Tuticorin are district headquarter towns which naturally houses many Government offices and business houses. Tiruppur with a proportion of 52 comes first in the type – "Factories, workshops and worksheds". Vellore with 41, Kumbakonam with 38, Kanchipuram and Salem with 36 follow. Tiruppur's prominence is with reference to hosiery units and ginning factories. Vellore is famous for bidi making and tanning units. Kumbakonam, Kanchipuram and Salem are weaving centres. Kumbakonam in addition has metal vessel making establishments. Dindigul and Nagercoil with a proportion of 34 each and Coimbatore and Madurai with 33 and 32 respectively are also having units engaged in industrial products. Vellore, Kanchipuram and Dindigul show higher proportions under "Restaurants etc.". Singanallur ranks first under "Places of entertainment etc.", with a proportion of 4 followed by Dindigul with a proportion of 3. Madurai with negligible proportion presents a dismal picture in regard to entertainment. Even Madras City cannot be said to have adequate places of entertainment for the population of the city. Kanchipuram, Kumbakonam, Thanjavur, Nagercoil and Tirunelveli with a proportion of 10 and above under "Places of worship" can be considered as temple towns. Kumbakonam abounds in houses used for miscellaneous purposes (others). Tirunelveli and Thanjavur cities are also conspicuous in this category.

Functional characteristics of cities

52. The population has been broadly classified into workers and non-workers. Workers have been classified further into 9 categories depending on their principal activity with reference to the goods produced or serviced, business, trade, profession or service. The industrial categories are detailed below:

I. Cultivators

II. Agricultural labourers

III. Livestock, Forestry, Fishing, Hunting and Plantations, Orchards and allied activities

IV. Mining and Quarrying

V. Manufacturing, Processing, Servicing and Repairs—

(a) Household industry

(b) Other than household industry

VI. Construction

VII. Trade and Commerce

VIII. Transport, Storage and Communications

IX. Other Services

53. We may classify the cities on functional basis with reference to the concentration of workers in these industrial activities. By functional characteristics is meant the classification of the cities under 'Industrial' or 'Trade and Commerce' or 'Other Services' etc., with reference to the percentage of working population in these industrial categories to total working population of the Class I towns. If 40 per cent and more workers fall under any of these categories, the functional classification will be the one that shows the highest percentage. If, on the other hand, none of these categories show the required percentage of 40 and above individually, then the functional classification of the city will be denoted by a combination of the first two predominant industrial categories which account for 60% and above of workers in that city. It may also happen that in a city the functional characteristics will be a combination

of more than two industrial categories. A statement showing the functional characteristics of the cities together with the proportion of Census houses used for these functions is presented below.

STATEMENT II-7

Functional characteristics of Cities and proportion of houses used for purposes other than pure dwellings

City	Functional characteristics	Proportion of Census houses used as			
		Total No. of houses used for purposes other than dwellings	Shop-*cum*-residence, shops excluding eating houses, business houses & offices	Workshop *cum*-residence & factories, workshops and worksheds	All other types of uses excluding pure dwellings
1	2	3	4	5	6
1. Madras	Industry--*cum*-Trade & Commerce-*cum*-Services	128	63	31	34
2. Kanchipuram	Industry	372	102	208	62
3. Vellore	Industry-*cum*-Trade and Commerce	198	93	59	46
4. Salem	Industry	278	71	163	44
5. Tiruppur	Industry	234	72	120	42
6. Coimbatore	Industry-*cum*-Trade and Commerce	198	89	64	45
7. Singanallur	Industry	107	30	44	33
8. Dindigul	Trade and Commerce-*cum*-Industry	220	87	79	54
9. Madurai	Industry-*cum*-Trade and Commerce	178	73	65	40
10. Tiruchirapalli	Industry-*cum*-Trade and Commerce	158	63	54	41
11. Kumbakonam	Industry-*cum*-Trade and Commerce	252	93	87	72
12. Thanjavur	Services-*cum*-Trade and Commerce-*cum*-Industry	169	67	44	58
13. Tuticorin	Industry-*cum*-Trade and Commerce-*cum*-Services	137	60	30	47
14. Tirunelveli	Trade and Commerce-*cum*-Industry-*cum*-Services	217	88	67	62
15. Nagercoil	Industry-*cum*-Service	216	77	89	50

54. The functional classification in the case of the cities of Kanchipuram, Salem, Singanallur, Tiruppur, Dindigul and Tirunelveli is well borne out by the proportion of houses used for locating the units of establishments for the dominant functions. Thus 6 cities out of 15 are covered by this.

55. In the case of certain other cities, from the proportion of houses used for different functions other than pure dwellings shown above, it would appear that a reclassification may be needed. Vellore, Coimbatore, Madurai, Tiruchirapalli, Thanjavur, Tuticorin and Nagercoil cities come under this group. In Madras city, the prominence is for trade and commerce followed by services and then by industry. Kumbakonam city would be prominent in the following order —trade and commerce, then industry and then by services. In the case of the seven cities listed above, the shift is from industry to trade and commerce followed by industry. Perhaps the classification now adopted is based on the percentage of workers engaged in these industrial services even though the number of houses accommodating the units engaged in these activities are less compared to other activity as no correlation between houses and workers is possible. Further large establishments employing thousands of workers and small establishments engaging less than 20 workers would also be treated on a par for purposes of number of houses used for this purpose without distinction between small and large units.

Houses in Rural and Urban areas

56. Subsidiary Table H–I.2 gives the distribution of 1,000 Census houses between rural and urban areas in each selected type of use and for vacant category.

Vacant houses

57. For the State as a whole, 73.9 per cent of vacant houses are to be found in rural areas and 26.1 per cent of vacant houses occur in urban areas. Leaving Madras which is wholly urban, rural areas show proportions ranging from 583 in Nilgiris to 874 in Dharmapuri per 1,000 Census houses. South Arcot, Kanyakumari, North Arcot and Tiruchirapalli districts show more than 80 per cent of vacant houses in rural areas and less than 20 per cent in urban areas. Coimbatore, Madurai, Tirunelveli, Ramanathapuram, Thanjavur and Salem districts exhibit proportions of vacant houses in the rural sector varying from 70.1 per cent to 79.0 per cent. Chingleput district rural areas account for 64.9 per cent of vacant houses. In Nilgiris district, the proportion of vacant houses in both the rural and urban areas are not very much different and may indicate that the demand for houses is the same in both the sectors. Dharmapuri's rural–urban distribution indicates the paucity of accommodation in urban areas compared to rural areas, perhaps due to the setting up of new district headquarters and opening of new offices in the towns and creation of additional demand for housing accommodation. In South Arcot, Kanyakumari, Tiruchirapalli and North Arcot districts, proportion of vacant houses in urban areas would also indicate the comparatively greater demand for more accommodation in towns. These four districts show less than 20 per cent of vacant houses in urban areas. Salem, Thanjavur, Ramanathapuram, Tirunelveli, Madurai and Coimbatore show vacant houses above 20 per cent but below 30 per cent. Chingleput also shows 35.1 per cent of vacant houses in urban areas. The higher proportion of vacant houses in these districts does not necessarily indicate that there are more houses available for the inhabitants. These districts have got a large number of new towns encircling the core town or on its fringes which were till recently rural areas. As such, they have not yet reached that stage of over-crowding of population and acute shortage of houses as the established principal towns.

58. Further, vacant houses do not necessarily mean that all are fit for use. Some may be old and not good for use. Some may be kept vacant for repairs or alterations Some could be used for purposes other than human living like cattle shed, godowns etc. The proportion of vacant houses should, therefore, be considered in the light of these observations.

59. 731 wholly residential houses are to be found in rural areas and 269 in urban areas for the State as a whole. Among the districts, the proportion is also as high as 919 in Dharmapuri and as low as 514 in Nilgiris for the rural areas. In the urban areas, the range is from 486 in Nilgiris to 81 in Dharmapuri. Nilgiris and Dharmapuri districts present a striking contrast. Rural sector contains 69.74% of the total population of Tamil Nadu and towns have 30.26% of the State's population. This distribution is mainly due to the economy dependent on agricultural and

allied activities and towns being much less than villages. The statement below gives a comparative picture of the distribution of population and residential houses between rural and urban sectors of the districts.

STATEMENT II-8

Distribution of population and residential houses among rural and urban areas

State/District	Percentage of population		Percentage of residential houses	
	Rural	Urban	Rural	Urban
1	2	3	4	5
TAMIL NADU	**69·74**	**30·26**	**73·1**	**26.9**
1 Madras	...	100·00	...	100.0
2 Chingleput	65·24	34·76	69·8	30·2
3 North Arcot	79·15	20·85	82·9	17·1
4 South Arcot	85·82	14·18	88·1	11·9
5 Dharmapuri	91·42	8·58	91·9	8·1
6 Salem	73·42	26·58	78·8	21·2
7 Coimbatore	64·41	35·59	67·0	33·0
8 Nilgiris	50·76	49·24	51·4	48·6
9 Madurai	66·38	33·62	69·6	30·4
10 Tiruchirapalli	77·73	22·27	79·6	20·4
11 Thanjavur	79·48	20·52	82·4	17·6
12 Ramanathapuram	73·89	26·11	76·7	23·3
13 Tirunelveli	67·83	32·17	70·3	29·7
14 Kanyakumari	83·28	16·72	84·3	15·7

60. It may be seen that the distribution of residential houses in rural and urban areas bears a close resemblance to the distribution of population in the rural and urban sectors of the districts.

61. The Table presented below shows the distribution of shop-*cum*-residences in rural and urban areas of the State and Districts.

STATEMENT II-9

Distribution of houses used as Shop-cum-residences and Workers in Trade and Commerce among rural and urban areas

State/District	Percentage of houses used as shop-*cum*-residence		Proportion of workers in Trade and Commerce	
	Rural	Urban	Rural	Urban
1	2	3	4	5
TAMIL NADU	**69·6**	**30·4**	**31·9**	**68·1**
1 Madras	...	100·0	...	100·0
2 Chingleput	72·5	27·5	32·2	67·8
3 North Arcot	83·3	16·7	35·7	64·3
4 South Arcot	85·8	14·2	47·7	52·3
5 Dharmapuri	83·3	16·7	54·4	45·6
6 Salem	53·4	46·6	32·9	67·1
7 Coimbatore	61·7	38·3	32·9	67.1
8 Nilgiris	41·0	59·0	23·1	76·9
9 Madurai	69·7	30·3	28·0	72·0
10 Tiruchirapalli	74·3	25·7	36·1	63·9
11 Thanjavur	71·8	28·2	47·9	52·1
12 Ramanathapuram	78·9	21.1	35·1	64·9
13 Tirunelveli	77·2	22·8	41·4	58·6
14 Kanyakumari	70·1	29·9	60·7	39·3

62. The State average is 69.6 per cent of houses in rural sector and 30.4 per cent in urban sector in respect of shop-*cum*-residences. Leaving Madras district which is entirely urban, the range in the rural sector varies from 41.0% in Nilgiris to 85.8% in South Arcot. In the urban areas, South Arcot shows a proportion of 14.2% and Nilgiris 59.0%. The distribution is well marked in Salem, Coimbatore, Madurai and Kanyakumari. These districts show that in urban areas more shop-*cum*-residences are found here as compared to other areas. Thanjavur, Chingleput and Tiruchirapalli districts also to some extent come under the above group.

63. The other mixed type of dwelling is work-shop-*cum*-residence including household industry. The distribution of this type of houses in rural and urban areas of the State and Districts is given below:

STATEMENT II-10

Distribution of houses used as Workshop-cum-residence and Workers at Household Industry among rural and urban areas

State/District		Percentage of houses used as workshop-*cum*-residence		Percentage of workers in household industry	
		Rural	Urban	Rural	Urban
1		2	3	4	5
	TAMIL NADU	**50.5**	**49·5**	**59·9**	**40·1**
1	Madras	...	100·0	...	100·0
2	Chingleput	50·3	49·7	59·3	40·7
3	North Arcot	59·6	40·4	63·0	37·0
4	South Arcot	76·5	23·5	79·2	20·8
5	Dharmapuri	69·2	30·8	79·0	21·0
6	Salem	40·1	59·9	46·0	54·0
7	Coimbatore	67·4	32·6	75·4	24·6
8	Nilgiris	41·8	58·2	59·7	40·3
9	Madurai	36·9	63·1	52·3	47·7
10	Tiruchirapalli	69·9	30·1	75·4	24·6
11	Thanjavur	58·9	41·1	67·6	32·4
12	Ramanathapuram	25·1	74·9	41·0	59·0
13	Tirunelveli	38·8	61·2	58·5	41·5
14	Kanyakumari	56·7	43·3	51·6	18·4

64. The distribution of workshop-*cum*-residential houses between rural and urban areas in the State as a whole shows that though urban areas constitute a small proportion of the total area, they still have very nearly equal distribution in them indicating that this type of use is prevalent in greater degree in urban areas than in the rural areas. Chingleput district also follows this pattern. Higher percentage of workshop-*cum*-residences are to be seen in the urban areas of the districts of Ramanathapuram, Madurai, Tirunelveli, Salem and Nilgiris. The location of manufacturing, servicing and repairing units including household industrial establishments in greater numbers in the towns of these districts and the relative backwardness of villages can also be seen from these figures. Figures in Kanyakumari, Thanjavur and North Arcot districts indicate that the dominance of urban sector, in having more number of workshops-*cum*-residences compared to villages will be achieved in a quicker period of time from now on. Relative backward nature of the urban areas of South Arcot district in manufacturing and repairing units can also be noticed from these figures. Urban areas of Dharmapuri and Tiruchirapalli districts also fall in this category. Coimbatore district figures would indicate that the rural areas still have a lead in having houses used as workshop-*cum*-residences since there is a dispersal of these types in both rural and urban areas of this district and that the rural areas do not depend on agricultural activities alone.

65. Two subsidiary tables H-I.1 and H-I.2 on the basis of which discussions have been made in this Chapter are presented in the following pages.

SUBSIDIARY

DISTRIBUTION OF 1,000 CENSUS HOUSES BY VACANT

State/District/City	Census Houses Vacant at the time of Houselisting	Total occupied Census Houses	OCCUPIED			
			Residence, Shop-*cum* residence, Workshop-*cum*-residence including Household Industry			
			Total (wholly or partly residential houses)	Residence	Shop-*cum*-residence	Workshop-*cum* residence (including Household Industry)
1	2	3	4	5	6	7
TAMIL NADU	**70**	**930**	**834**	**809**	**8**	**17**
1. Madras District	37	963	844	835	5	4
Madras City	37	963	844	835	5	4
2. Chingleput District	52	948	868	841	9	18
Kanchipuram City	44	956	774	584	18	172
3. North Arcot District	52	948	814	787	9	18
Vellore City	34	966	796	768	10	18
4. South Arcot District	52	948	864	847	10	7
5. Dharmapuri District	65	935	862	850	7	5
6. Salem District	83	917	845	799	8	38
Salem City	65	935	801	657	17	127
7. Coimbatore District	80	920	849	807	13	29
Tiruppur City	40	960	813	726	19	68
Coimbatore City	43	957	803	759	13	31
Singanallur City	89	911	845	804	15	26
8. Nilgiris District	153	847	722	714	6	2

TABLE H—I. 1

AND DIFFERENT TYPES OF OCCUPIED CENSUS HOUSES

CENSUS HOUSES							
Hotels, sarais, dharamshalas, tourist homes & inspection houses	Shops excluding eating houses	Business houses and offices	Factories, workshops & worksheds	Restaurants, sweetmeat shops & eating places	Places of entertainment & community gathering (Panchayatghar etc.) excluding places of worship	Places of worship (e.g.) (temple, church, mosque, gurudwara, etc.)	Others
8	9	10	11	12	13	14	15
1	21	4	12	5	1	10	42
2	48	10	27	7	1	2	22
2	48	10	27	7	1	2	22
1	18	3	10	4	1	10	33
2	77	7	36	12	2	12	34
1	18	3	11	4	1	10	86
3	72	11	41	13	1	4	25
N	13	3	6	3	N	8	51
1	11	3	5	2	N	11	40
N	12	4	12	2	1	10	31
1	45	9	36	6	1	5	31
1	18	4	13	3	1	9	22
1	46	7	52	8	2	3	28
2	62	14	33	9	1	4	29
1	13	2	18	4	4	4	20
2	18	8	11	5	1	7	73

SUBSIDIARY

DISTRIBUTION OF 1,000 CENSUS HOUSES BY VACANT

State/District/City	Census Houses Vacant at the time of Houselisting	Total occupied Census Houses	OCCUPIED			
			Residence, Shop-*cum*-residence, Workshop-*cum*-residence including Household Industry			
			Total (wholly or partly residential houses)	Residence	Shop-*cum*-residence	Workshop-*cum* residence (including Household Industry)
1	2	3	4	5	6	7
9. Madurai District	71	929	832	812	8	12
Dindigul City	63	937	774	717	12	45
Madurai City	37	963	826	785	8	33
10. Tiruchirapalli District	83	917	817	798	6	13
Tiruchirapalli City	42	958	829	800	6	23
11. Thanjavur District	49	951	850	834	7	9
Kumbakonam City	45	955	774	703	22	49
Thanjavur City	59	941	795	772	9	14
12. Ramanathapuram District	90	910	797	773	5	19
13. Tirunelveli District	94	906	807	776	6	25
Tuticorin City	68	932	804	795	4	5
Tirunelveli City	40	960	785	743	6	36
14. Kanyakumari District	66	934	830	809	5	16
Nagercoil City	49	951	801	735	11	55

N : denotes negligible figures.

TABLE H—I. 1—(Contd.)

AND DIFFERENT TYPES OF OCCUPIED CENSUS HOUSES—(Contd.)

CENSUS HOUSES							
Hotels, sarais, dharamshalas, tourist homes & inspection houses	Shops excluding eating houses	Business houses and offices	Factories, workshops & worksheds	Restaurants, sweetmeat shops & eating places	Places of entertainment & community gathering (Panchayatghar etc.) excluding places of worship	Places of worship (e.g.) (temple, church, mosque, gurudwara, etc.)	Others
8	9	10	11	12	13	14	15
1	24	5	11	5	1	9	41
2	66	9	34	11	3	4	34
1	55	10	32	9	N	4	26
1	16	4	11	4	1	13	50
2	49	8	31	8	1	3	27
1	26	5	12	9	1	14	33
6	64	7	38	8	1	10	47
1	47	11	30	7	2	12	36
1	23	4	13	6	2	11	53
1	25	4	11	6	1	14	37
3	45	11	25	7	2	3	32
5	75		31	7	2	11	37
1	33	6	14	8	1	19	22
3	56	10	34	6	1	12	28

SUBSIDIARY TABLE H-I. 2

DISTRIBUTION OF 1,000 CENSUS HOUSES FOR SELECTED TYPES OF USE AMONG RURAL AND URBAN AREAS

State/District	Vacant at the time of Houselisting		Census Houses used as					
			Wholly residential		Shop-*cum*-residence		Workshop-*cum*-residence including Household Industry	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9
TAMIL NADU	**739**	**261**	**731**	**269**	**696**	**304**	**505**	**495**
1. Madras	...	1,000	...	1,000	...	1,000	...	1,000
2. Chingleput	649	351	698	302	725	275	503	497
3. North Arcot	813	187	829	171	833	167	596	404
4. South Arcot	872	128	881	119	858	142	765	235
5. Dharmapuri	874	126	919	81	833	167	692	308
6. Salem	790	210	788	212	534	466	401	599
7. Coimbatore	701	299	670	330	617	383	674	326
8. Nilgiris	583	417	514	486	410	590	418	582
9. Madurai	710	290	696	304	697	303	369	631
10. Tiruchirapalli	811	189	796	204	743	257	699	301
11. Thanjavur	782	218	824	176	718	282	589	411
12. Ramanathapuram	755	245	767	233	789	211	251	749
13. Tirunelveli	722	278	703	297	772	228	388	612
14. Kanyakumari	851	149	843	157	701	299	567	433

CHAPTER III

MATERIAL OF WALL AND ROOF OF HOUSES

SECTION I

PRELIMINARY REMARKS

In this Chapter, analysis is made on the construction material used for wall and roof of Census houses found in the State. Table H–II gives the details of Census houses under different types of wall and roof material. The classification of materials used for construction of wall and roof are given below :

Wall material

1. Grass, leaves, reeds or bamboo
2. Mud
3. Unburnt bricks
4. Wood
5. Burnt bricks
6. G.I. sheets or other metal sheets
7. Stone
8. Cement concrete
9. All other materials and materials not stated

Roof material

1. Grass, leaves, reeds, thatch, wood, mud, unburnt bricks or bamboo
2. Tiles, slate, shingle
3. Corrugated iron, zinc or other metal sheets
4. Asbestos cement sheets
5. Brick and lime
6. Stone
7. Concrete, RBC/RCC
8. All other materials and materials not stated

2. The statistics presented in Table H–II is based on the predominant material used in the construction of the major portion of the walls of the houses listed. In case where separate structures are made of different types of materials, the material out of which the walls of the main portion of the house mostly used for living or sleeping are constructed were treated as predominant material for walls. In the case of roof, the material out of which most of the outer roof exposed to weather was made was taken as the predominant material of roof. For multi-storeyed buildings, the intermediate floor or floors was taken as roof of the lower portion. If the roof is mainly made of bricks, stone etc., with a mud plaster, cement plaster or lime plaster, exposed to the sky, the material of roof in such cases will be bricks, stone etc., which constitute the fabric of the roof and not mud, cement or lime respectively.

3. An appendix to this Table has also been prepared giving the distribution of Census houses used as residences by material of wall cross classified by material of roof.

4. Subsidiary Table H–II.1 gives the distribution of 1,000 Census houses by material of wall in rural and urban areas separately for State, Districts and Cities. Similarly, Subsidiary Table H–II. 1 (A) gives the distribution for residential Census houses. In Subsidiary Table H–II. 2, distribution of 1,000 Census houses in rural and urban areas separately for State, Districts and for Class I towns (cities) by predominant material of roof is given. Subsidiary Table H–II. 2 (A) similarly presents the distribution of 1,000 residential Census houses by roof material.

SECTION II

DISTRIBUTION OF CENSUS HOUSES BY PREDOMINANT MATERIAL OF WALL AND ROOF

5. A distribution statement showing 1,000 Census houses by predominant materials used in the construction of walls is given below separately for rural and urban areas of Tamil Nadu.

STATEMENT III-1

Distribution of 1,000 Census houses by predominant material of wall in rural and urban areas separately for Tamil Nadu

	Material of wall	Proportion of Census houses	
		Rural	Urban
1.	Grass, leaves, reeds or bamboo	11	18
2.	Mud	677	315
3.	Unburnt bricks	27	24
4.	Wood	3	5
5.	Burnt bricks	192	552
6.	G.I. sheets or other metal sheets	N	2
7.	Stone	89	74
8.	Cement concrete	1	10
9.	All other materials and materials not stated	N	N

N: denotes negligible figures

6. One would see the contrast in the materials used for constructing walls of houses in the rural and urban areas. While grass, leaves, reeds or bamboo and wood show less than 2 per cent of houses in both the sectors, mud accounts for 67.7 per cent in the rural sector and a percentage of 31.5 in urban areas. 55.2 per cent of urban houses have walls made of burnt bricks while rural areas show 19.2 per cent under this material. Stone walls are more prominent in rural areas with 8.9% of houses while this material shows 7.4% in the urban areas. Use of cement concrete to a large extent in urban areas (1.0%) as compared to the negligible proportion of 0.1% in rural sector can also be noticed. The utilisation of unburnt bricks in the rural and urban areas is almost equal with a slightly higher proportion in rural areas.

7. Another statement on similar lines has been shown below in respect of Census houses for the materials used in the construction of roof.

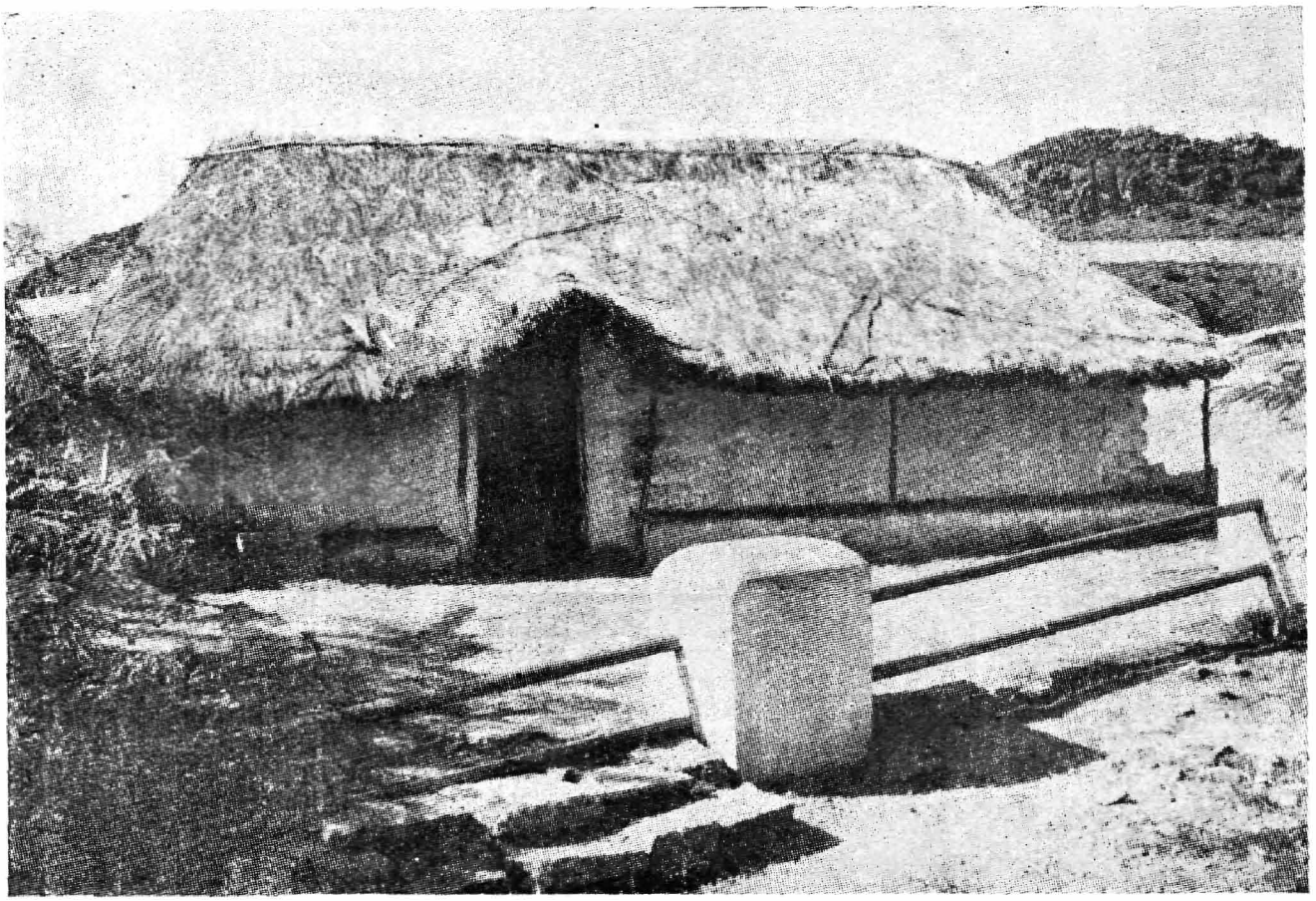
STATEMENT III-2

Distribution of 1,000 Census houses by predominant material of roof in rural and urban areas separately for Tamil Nadu

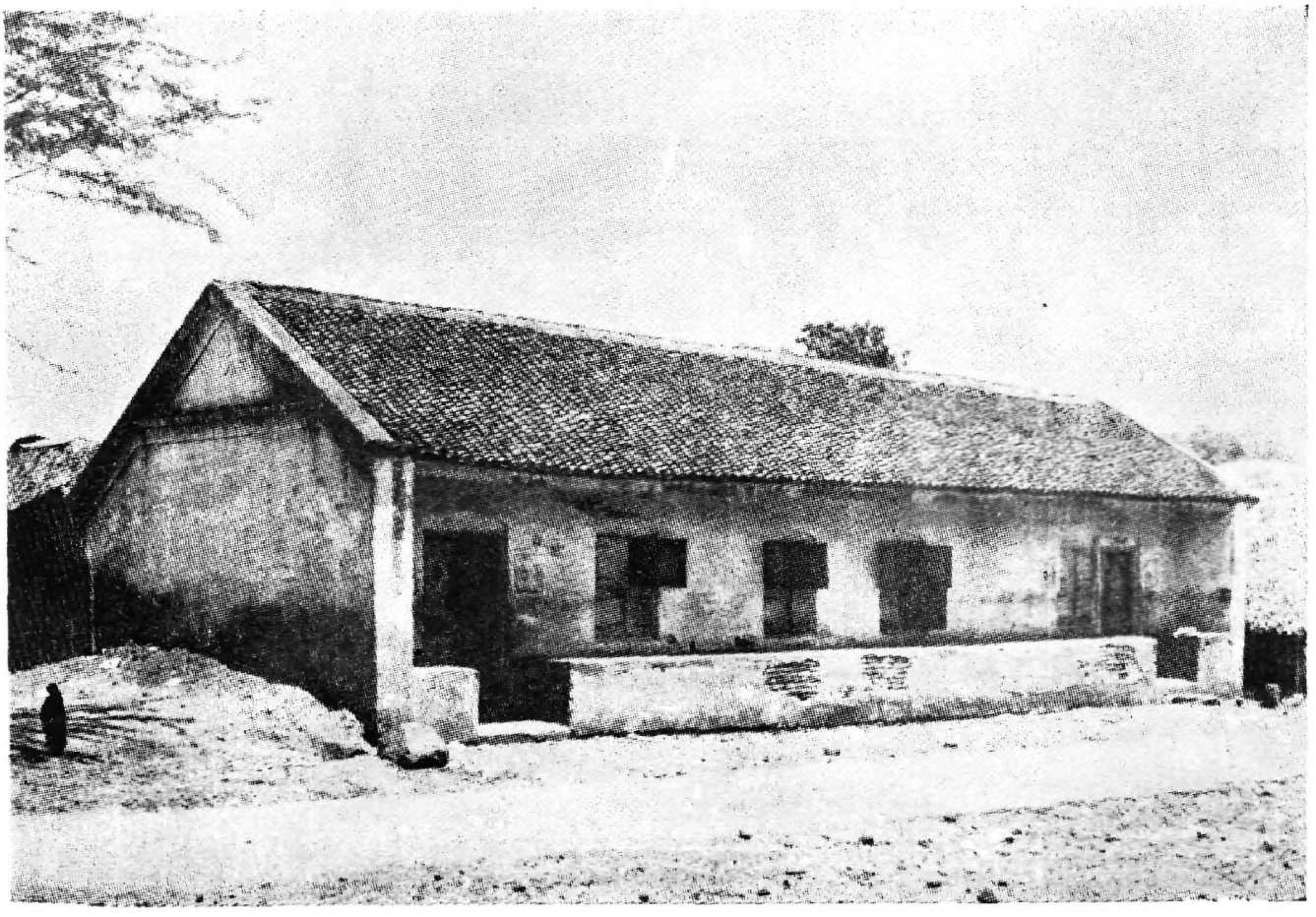
	Material of roof	Proportion of Census houses	
		Rural	Urban
1.	Grass, leaves, reeds, thatch, wood, mud, unburnt bricks or bamboo	597	277
2.	Tiles, slate, shingle	314	457
3.	Corrugated iron, zinc or other metal sheets	12	29
4.	Asbestos cement sheets	3	10
5.	Brick and lime	42	101
6.	Stone	2	2
7.	Concrete, RBC/RCC	30	124
8.	All other materials and materials not stated	N	N

N: denotes negligible figures

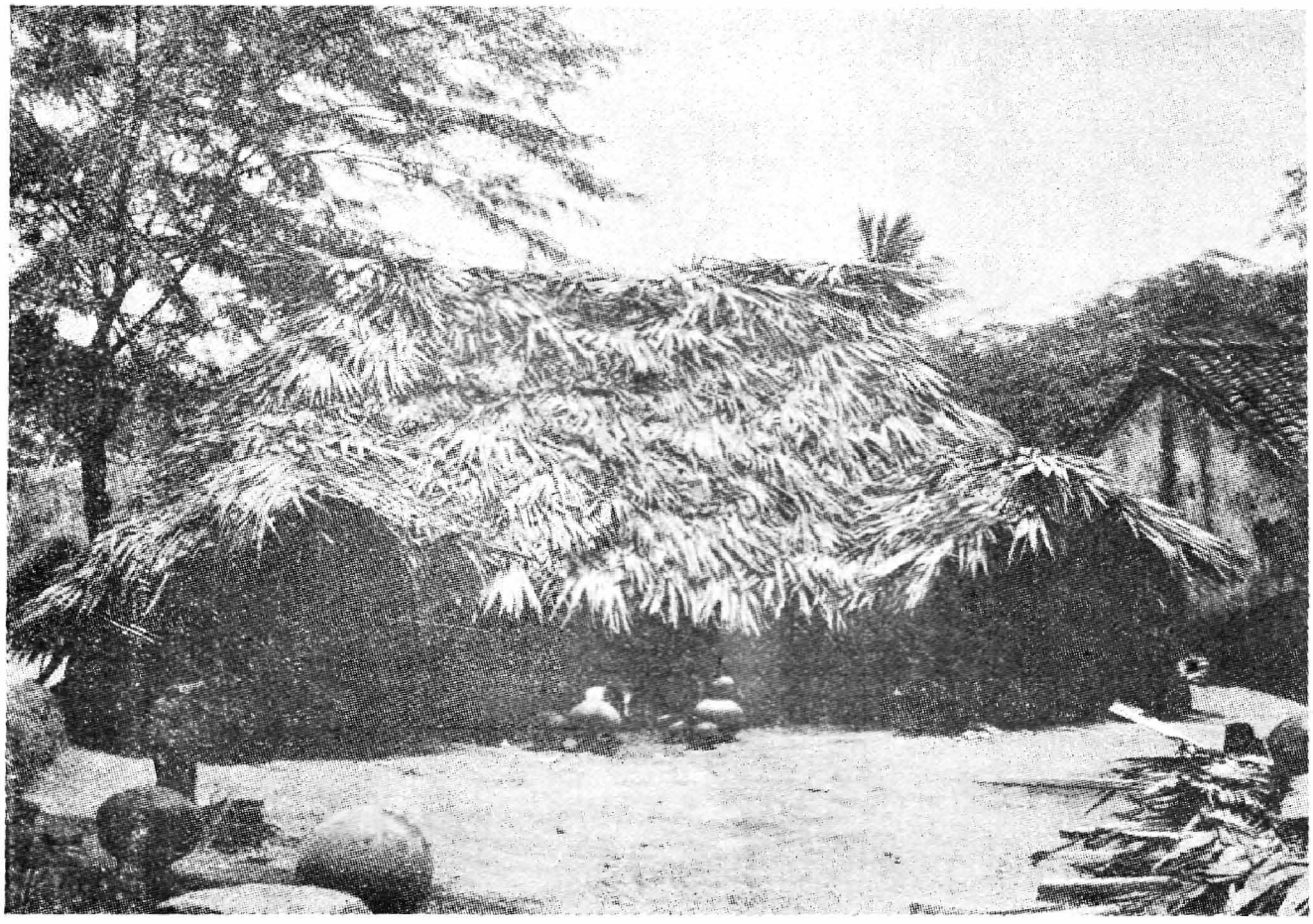
8. As in the case of wall materials in use, sharp variations in the usage of different roof materials in rural and urban areas are seen. Katcha materials of grass, leaves, reeds, thatch, wood, mud, unburnt bricks and bamboo predominate with 59.7% of houses in rural areas followed by tiles, slate or shingle with 31.4 per cent. In contrast, in urban areas, tiles, slate or shingle dominate with 45.7% of houses with these roof materials. Grass, leaves, reeds, thatch etc., take the second place with 27.7% of houses in the urban areas. There is a reversal of the order in the use of these two raw materials in the rural and urban areas. Concrete, RBC/RCC roof account for 3.0% of houses in rural sector as compared to 12.4% of houses in the cities and towns. Similarly while the roof material—brick and lime shows 10.1% of houses in the urban areas, only 4.2% of houses in rural areas come under this category. Preference for corrugated iron or zinc or other metal sheets and asbestos cement sheets in



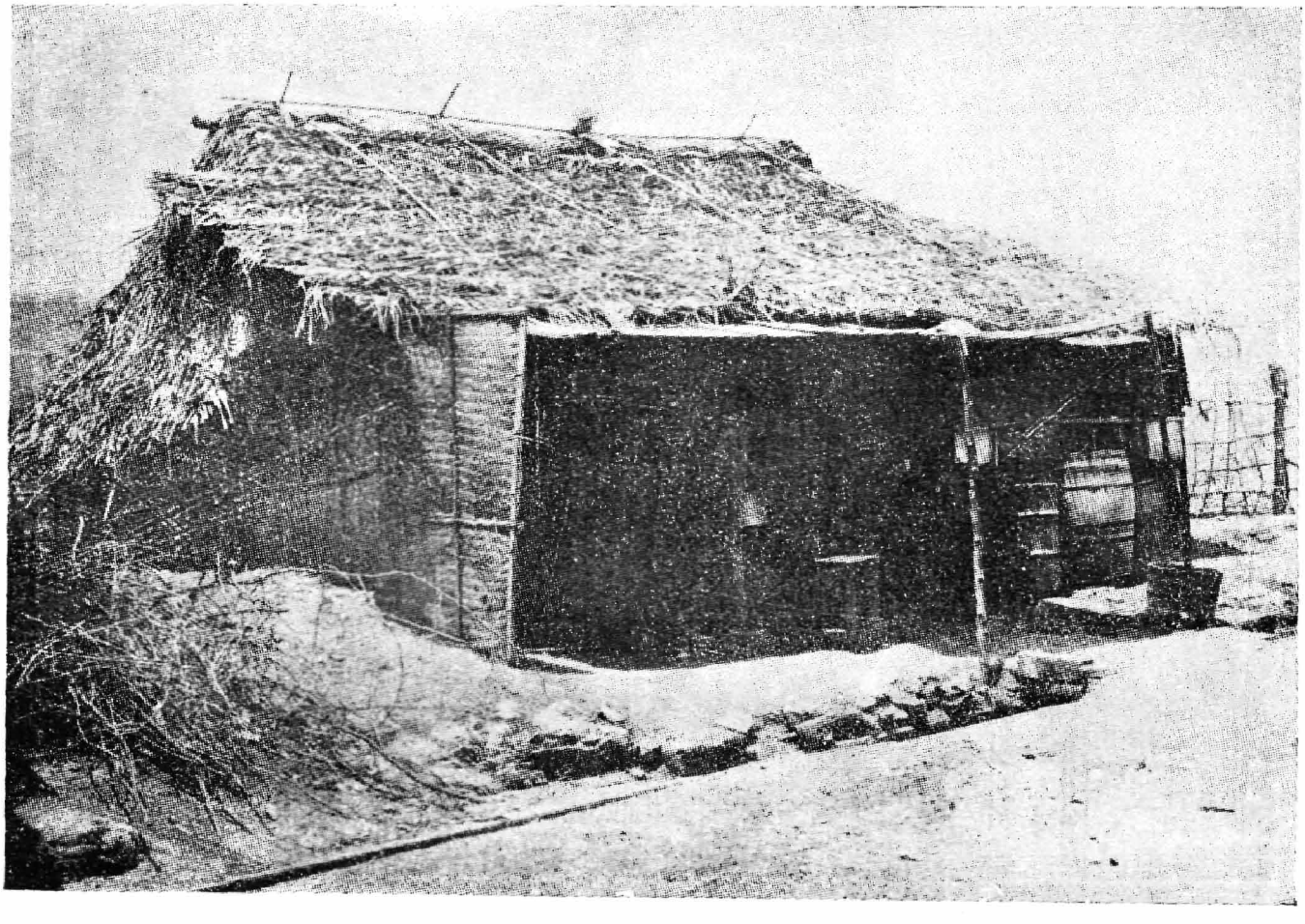
A medium sized hut built with mud wall and grass roof



An old structure with brick wall and country tiled roof



A hut in a slum area with palm leaves as roof and mud walls



A poorman's eating place housed in a katcha structure

urban areas than in rural areas will also be seen. Use of stone as roof material in both the sectors remains the same indicating that stone is not a useful raw material for construction of roof.

9. From the above two statements, one can see the comparative affluence of the population inhabiting the urban areas which influences the choice of material used for constructing dwellings for their use rather than the availability of that raw material in and around the area of habitation. Transport cost is also not an influencing factor. Further, aesthetic sense in beautiful shapes and material of lasting nature influence the urban population in the selection of materials for construction of houses. In the rural areas, the population being economically not well up as compared to urban folk, their choice is restricted to those raw materials which are available locally in the area of habitation at no financial cost or comparatively cheaper financial strain rather than on beauty or permanent nature. Climatic conditions like rainfall, and temperature also influence the choice of materials used for construction of houses.

10. While we discuss the figures for districts, we will have occasion to notice the influence of the soil, rainfall and climate etc., in the matter of usage of different materials for construction of wall and roof of Census houses.

11. We will now make a study of the proportion of houses with different materials used for construction of walls in the districts for rural and urban areas separately.

Houses with mud walls in Rural areas

12. An inset table showing the proportion of houses predominantly with mud walls in the districts is presented below. The districts are arranged in descending order of the proportions exhibited by them.

STATEMENT III-3

Proportion of houses whose walls are predominantly built with mud in rural and urban areas of districts

RURAL		URBAN	
District	Proportion per 1,000 houses	District	Proportion per 1,000 houses
1	2	3	4
Dharmapuri	810	Dharmapuri	491
South Arcot	790	Chingleput	427
Tiruchirapalli	760	South Arcot	416
Chingleput	747	Salem	399
Madurai	721	Thanjavur	385
Thanjavur	708	North Arcot	377
Ramanathapuram	708	Tirunelveli	376
Salem	696	Madurai	354
North Arcot	685	Tiruchirapalli	354
TAMIL NADU	677	Ramanathapuram	354
Coimbatore	547	TAMIL NADU	315
Tirunelveli	540	Coimbatore	286
Kanyakumari	269	Madras	192
Nilgiris	92	Kanyakumari	120
		Nilgiris	107

13. The proportion of Census houses with mud walls among 1,000 Census houses in rural areas range from 810 in Dharmapuri district to 92 in Nilgiris. In the urban areas of districts, the proportion varies from 491 in Dharmapuri to 107 in Nilgiris. In both the sectors, the first rank and the last rank are held by Dharmapuri and Nilgiris respectively.

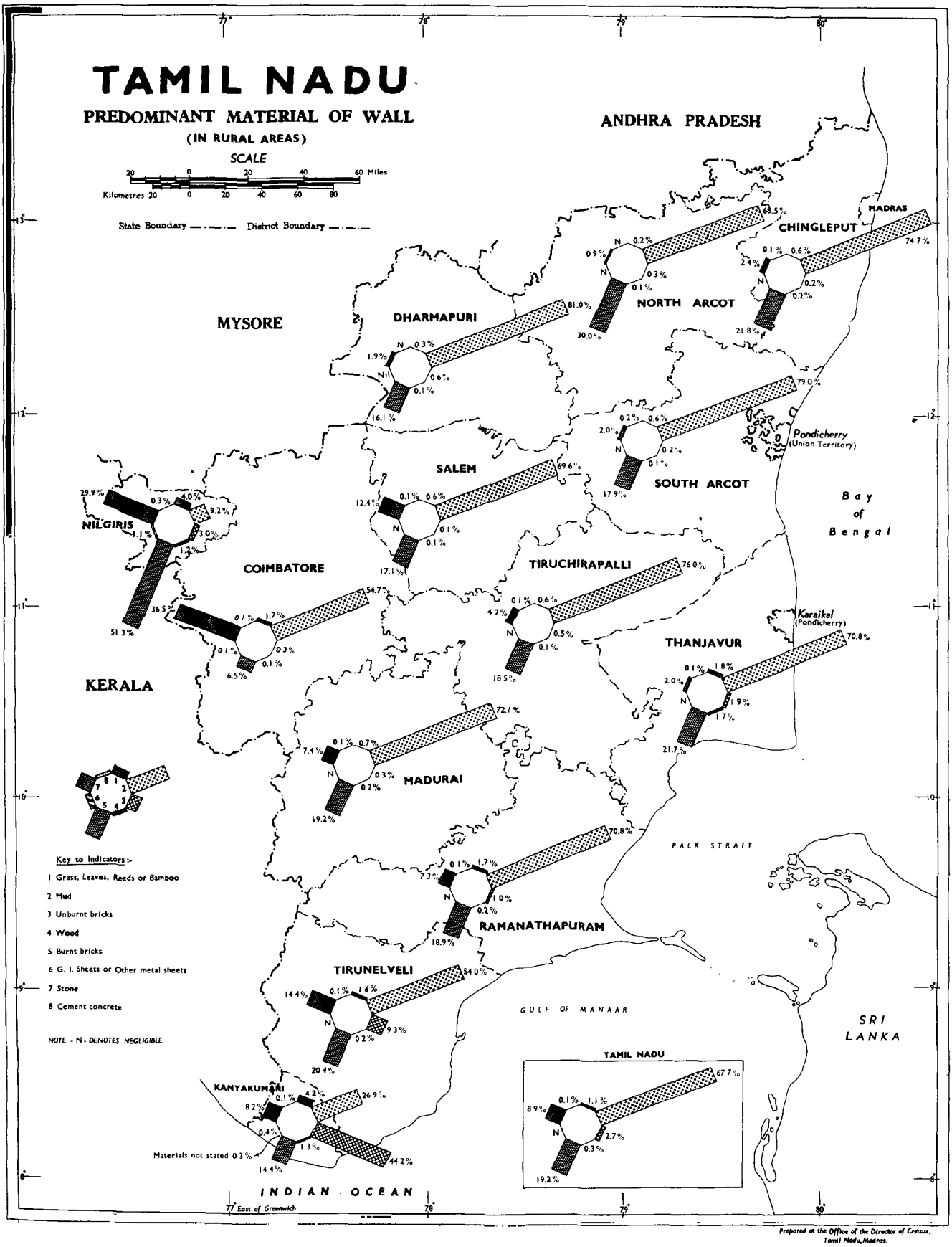
14. In rural areas, South Arcot and Tiruchirapalli districts show over 75 per cent of houses with mud walls. Rural areas of Chingleput, Madurai, Thanjavur and Ramanathapuram districts show proportions varying from 70 to 75% of houses with mud walls. Salem and North Arcot districts exhibit proportions of a little less than 70% of houses with mud walls in the rural sector. All these districts show proportion of houses with mud walls higher than the State rural average of 677 per 1,000 houses which would indicate comparative backwardness of rural sector. The rural areas of Coimbatore and Tirunelveli districts show proportions of 547 and 540 respectively and Kanyakumari, a much lower proportion of 269. All these districts along with Nilgiris show much lower proportions than the State rural average. All these districts have less than 55% of houses with mud walls indicating a better picture of rural houses as compared to other districts. Villages in Coimbatore, Tirunelveli and Kanyakumari districts are better off with affluent rural population. Coimbatore with greater agricultural operations and Tirunelveli with a fertile soil of Tambaraparani delta show lesser katcha houses with mud walls. Kanyakumari district which was formerly part of Travancore State stands distinct in that even in rural areas, lesser proportion of katcha houses with mud walls are found. Kanyakumari district popularly known as "NANJIL NADU" was part of erstwhile princely State of Travancore and was the granary of that State. With mountain ranges of the Western Ghats, stone is available in large quantities which is used in constructing walls. Nilgiris district with large mountainous tracts also presents a lower proportion of houses with mud walls which is in tune with the geology of that district.

Urban areas

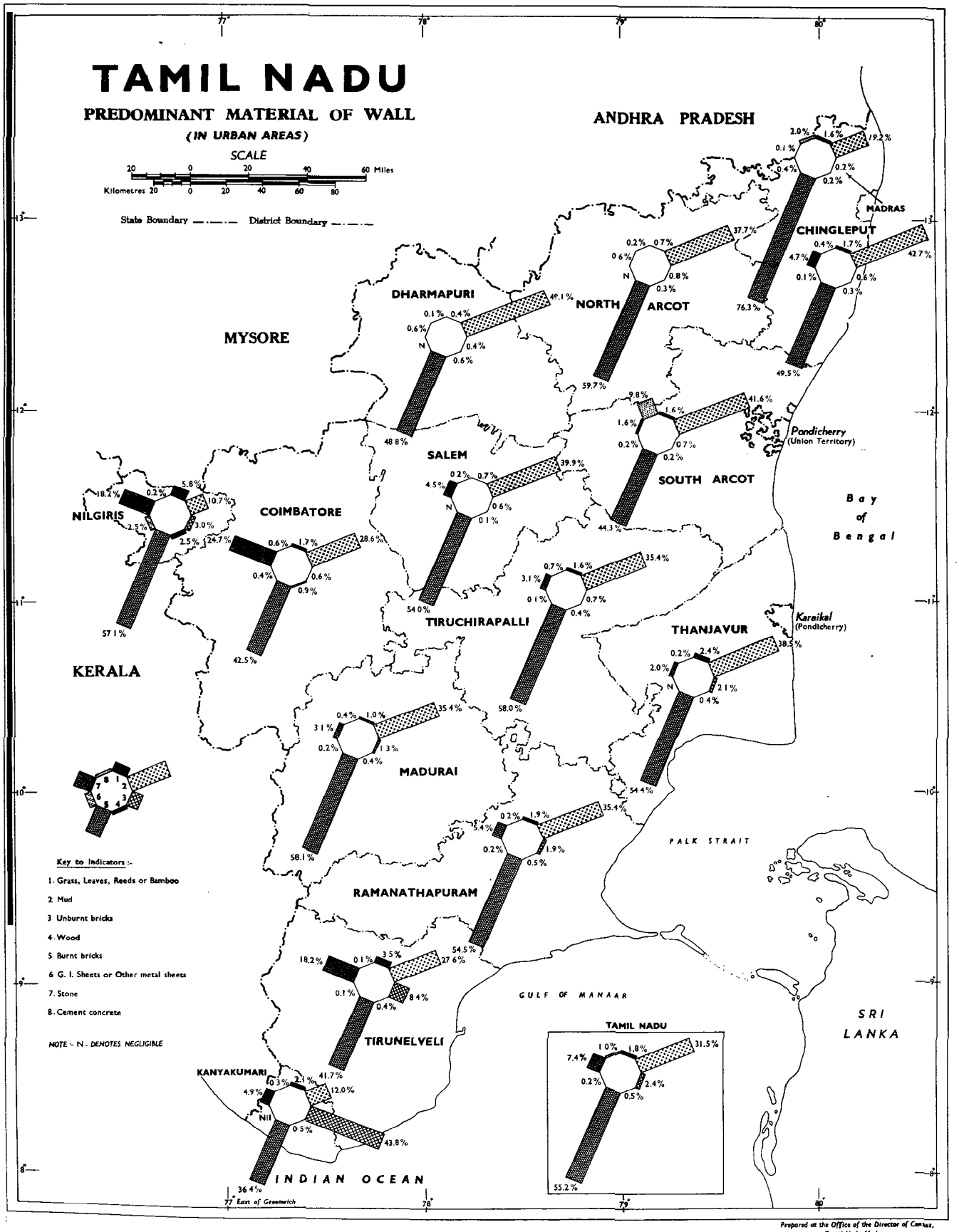
In the urban sector, 10 districts—Dharmapuri, Chingleput, South Arcot, Salem, Thanjavur, North Arcot, Tirunelveli, Madurai, Tiruchirapalli and Ramanathapuram show proportions higher than the State's urban average of 315 for houses with mud walls. These figures also indicate that urban areas in these districts are not so advanced economically and still have the rural atmosphere in them. Urban areas of Coimbatore, Kanyakumari and the City of Madras on the other hand present a different picture. Kanyakumari and Madras (City) show less than 20% of houses with mud walls. Madras City's low figure indicates the prosperity of the urban folk and the houses with mud walls are to be associated with the presence of a good number of slum houses which have mainly katcha walls. Kanyakumari district's urban centres which are mostly mofussil towns present much better picture with less houses having mud walls and is in line with its rural counterpart. In Nilgiris, a hilly area, the towns as well as villages present a rosy picture not because of affluence or economic well-being but due to natural factors like absence of clayey soil and presence of hill ranges providing stone as a building material.

Houses with walls of unburnt bricks

15. In the Table below, the proportion of houses having walls constructed from unburnt bricks are presented for the State and Districts separately for rural and urban areas.



Prepared at the Office of the Director of Census, Tamil Nadu, Madras.


TAMIL NADU
PREDOMINANT MATERIAL OF WALL
(IN URBAN AREAS)
SCALE
20 0 20 40 60 Miles
Kilometres 20 0 20 40 60 80
State Boundary
District Boundary
ANDHRA PRADESH
MADRAS
CHINGLEPUT
NORTH ARCOT
DHARMAPURI
MYSORE
SALEM
SOUTH ARCOT
Pondicherry (Union Territory)
Bay of Bengal
NILGIRIS
COIMBATORE
TIRUCHIRAPALLI
THANJAVUR
Karaikal (Pondicherry)
KERALA
MADURAI
RAMANATHAPURAM
PALK STRAIT
GULF OF MANAAR
TIRUNELVELI
KANYAKUMARI
SRI LANKA
INDIAN OCEAN
TAMIL NADU
Key to Indicators :-
1. Grass, Leaves, Reeds or Bamboo
2. Mud
3. Unburnt bricks
4. Wood
5. Burnt bricks
6. G. I. Sheets or Other metal sheets
7. Stone
8. Cement concrete
NOTE :- N. DENOTES NEGLIGIBLE
77° East of Greenwich
Prepared at the Office of the Director of Census, Tamil Nadu, Madras.

STATEMENT III-4

Proportion of houses with unburnt brick walls per 1,000 of all houses separately for rural and urban areas of State and Districts

RURAL		URBAN	
District	Proportion of houses with walls of unburnt bricks	District	Proportion of houses with walls of unburnt bricks
1	2	3	4
Kanyakumari	442	Kanyakumari	438
Tirunelveli	93	Tirunelveli	84
Nilgiris	30	Nilgiris	30
TAMIL NADU	**27**	**TAMIL NADU**	**24**
Thanjavur	19	Thanjavur	21
Ramanathapuram	10	Ramanathapuram	19
Dharmapuri	6	Madurai	13
Tiruchirapalli	5	North Arcot	8
Madurai	3	Tiruchirapalli	7
Coimbatore	3	South Arcot	7
North Arcot	3	Salem	6
South Arcot	2	Chingleput	6
Chingleput	2	Coimbatore	6
Salem	1	Dharmapuri	4
		Madras	2

Rural areas

16. Kanyakumari district tops the list with a proportion of 442 houses with walls constructed from unburnt bricks while the State rural average is only 27. Tirunelveli with a proportion of 93 houses comes second and Nilgiris with 30 stands third. Thanjavur and Ramanathapuram show proportions of 19 and 10 for houses with unburnt brick walls. Ten districts including Thanjavur and Ramanathapuram show proportions very much lower than the State rural average, the proportions ranging from 1 in Salem to 19 in Thanjavur. The proportions in Madurai, Coimbatore, North Arcot, South Arcot, Chingleput, and Salem are less than 4 per 1,000 houses.

Urban areas

17. The State urban average proportion for houses with unburnt brick walls is 24. As in the rural sector, Kanyakumari, Tirunelveli and Nilgiris with proportions of 438, 84 and 30 stand first, second and third respectitvely among the districts. Thanjavur and Ramanathapuram with 21 and 19 come next. Including these two districts, eleven districts show proportions lower than the State urban average. Among these districts, the proportions range from 2 in Madras to 21 in Thanjavur. In eight districts this is less than 1%.

18. In the first three districts shown in Statement III-4 it may be seen that there is no appreciable

variation in proportions of houses with walls constructed from unburnt bricks as between rural and urban areas. In the case of other districts also the proportions are not very much different. In fact, the proportion of houses with unburnt brick walls are higher in the urban areas of some districts as compared to their rural counterpart.

Houses with walls made of wood in Rural areas

19. The proportion of houses with walls constructed out of wood is 3 per 1,000 houses in rural areas. Thanjavur with a proportion of 17 houses tops the list of houses whose walls are made of wood. Kanyakumari with a proportion of 13 takes the second place and is closely followed by Nilgiris district with a proportion of 12. Only these three districts show proportions higher than the State average for rural areas in this category. All other districts show proportions lower than the State rural average. It is strange to see that the district of Thanjavur shows the highest proportion in this category as there is no forest area within the district which supplies wood for construction purposes. Perhaps the trunk of palmyrah palms or coconut trees are used for construction of cattle sheds or huts for labour class dwelling etc., which account for this large proportion. Kanyakumari and Nilgiris which have sizable forest areas within their jurisdiction provide cheaper wood for construction purposes. Further Kanyakumari follows the pattern of Kerala in using wood (timber) for construction of walls in contrast to lesser use of this material in other parts of Tamil Nadu.

20. In the inset table given below, the proportion of houses with wooden walls are presented with break-up for rural and urban areas of the State and districts.

STATEMENT III-5

Proportion of houses with wooden walls separately for rural and urban areas in the State and Districts

RURAL		URBAN	
District	Proportion	District	Proportion
1	2	3	4
Thanjavur	17	Nilgiris	25
Kanyakumari	13	Coimbatore	9
Nilgiris	12	Dharmapuri	6
TAMIL NADU	3	**TAMIL NADU**	5
Chingleput	2	Ramanathapuram	5
Madurai	2	Kanyakumari	5
Ramanathapuram	2	Madurai	4
Tirunelveli	2	Tiruchirapalli	4
North Arcot	1	Thanjavur	4
South Arcot	1	Tirunelveli	4
Dharmapuri	1	Chingleput	3
Salem	1	North Arcot	3
Coimbatore	1	Madras	2
Tiruchirapalli	1	South Arcot	2
		Salem	1

21. The inset table shown below gives the proportion of Census houses whose walls are constructed from burnt bricks. Figures are presented separately for rural and urban areas of the State and Districts. The district proportions are arranged in descending order.

Houses with burnt brick walls

STATEMENT III-6

Proportion of Census houses whose walls are constructed from burnt bricks for rural and urban areas separately.

RURAL		URBAN	
District	Number of houses (per 1,000)	District	Number of houses (per 1,000)
1	2	3	4
Nilgiris	513	Madras	763
North Arcot	300	North Arcot	597
Chingleput	218	Madurai	581
Thanjavur	217	Tiruchirapalli	580
Tirunelveli	204	Nilgiris	571
TAMIL NADU	**192**	**TAMIL NADU**	**552**
Madurai	192	Ramanathapuram	545
Ramanathapuram	189	Thanjavur	544
Tiruchirapalli	185	Salem	540
South Arcot	179	Chingleput	495
Salem	171	Dharmapuri	488
Dharmapuri	161	South Arcot	443
Kanyakumari	144	Coimbatore	425
Coimbatore	65	Tirunelveli	417
		Kanyakumari	364

22. 51.3% of houses in the rural areas of Nilgiris district are having burnt brick walls. North Arcot district rural areas come next with a proportion of 30.0%. Chingleput, Thanjavur and Tirunelveli districts show proportions of 218, 217 and 204 respectively per 1,000 Census houses. These five districts show higher proportion of houses with burnt brick walls than the State rural average of 192. Madurai district's proportion equals the State proportion. Ramanathapuram and Tiruchirapalli districts show proportions of 189 and 185 respectively and are very nearly equal to the State average proportion. The proportions in the districts of South Arcot, Salem, Dharmapuri and Kanyakumari range between 179 and 144. Lowest proportion of 65 per 1,000 houses is seen in Coimbatore district rural areas.

23. In the urban sector, for the State as a whole, the proportion of houses with walls constructed from burnt bricks is 552 which is about two and a half times higher than the proportion in the rural areas. This may point to the increased use of this material in the urban areas compared to the villages. Perhaps the high costs of burnt bricks tend to minimise the use of this material in rural areas.

24. Looking into the proportions exhibited by the urban areas of the districts, it may be seen that the highest proportion is seen in Madras. Being a metropolitan city, where an affluent population live and being the head-quarters of the State with a large number of Government buildings and private commercial establishments, the proportion of 763 houses per 1,000 houses in this category is reasonable. North Arcot, Madurai, Tiruchirapalli and Nilgiris show proportions of 597, 581, 580 and 571 respectively. All these districts show proportions higher than the State urban average of 552 under this category. The proportions in the urban areas of Ramanathapuram, Thanjavur and Salem are slightly lower than the State urban average, the proportions being 545, 544 and 540 respectively. Chingleput and Dharmapuri districts, urban sector show proportions of 495 and 488 respectively and are slightly lower than those of previous group. South Arcot, Coimbatore and Tirunelveli show less than 45% of houses with walls made of burnt bricks. Kanyakumari's proportion of 364 is the lowest in the urban sector.

25. From the proportions of houses with burnt brick walls in the rural and urban sectors of the districts of Tamil Nadu, it is seen that this building material is of greater use in urban areas than in the rural sector. High cost of burnt bricks prohibits their greater use in rural areas. Greater attention paid to strength as well as beautification of houses in urban areas and affluence of the urban population result in increased use of this building material in towns and cities as compared to rural areas.

Houses whose walls are made of galvanised iron sheets etc.

26. The proportion of houses with walls made from galvanised iron sheets is negligible in the rural areas of Tamil Nadu as a whole. In urban areas, a proportion of 2 per 1,000 houses is exhibited.

27. In the rural areas of districts, the proportion is significant in Nilgiris and Kanyakumari where the proportions are 11 and 4 respectively. Coimbatore district exhibits a proportion of 1. Dharmapuri district does not show figures for this type. All other districts show negligible proportions.

28. In the urban sector, the districts of North Arcot, Dharmapuri, Salem and Thanjavur show negligible proportions against this category. Kanyakumari district does not exhibit any figure. As in the case of rural sector, Nilgiris with a proportion of 25 per 1,000 houses stands first. Madras and Coimbatore show a proportion of 4 each while South Arcot, Madurai and Ramanathapuram districts exhibit a proportion of 2 each. The proportion is 1 each in Chingleput, Tiruchirapalli and Tirunelveli.

29. Taking the proportion for the State as a whole, it may be seen that this type of material does not find much favour as wall material.

Houses whose walls are constructed from stones

30. The inset table below presents the proportion of houses whose walls are constructed from stones in the rural and urban areas separately for the State and Districts of Tamil Nadu.

STATEMENT III–7

Proportion of houses with walls constructed from stone per 1,000 of all houses in rural and urban areas of the State and Districts

RURAL		URBAN	
District	Number of houses (per 1,000)	District	Number of houses (per 1,000)
1	2	3	4
Coimbatore	365	Coimbatore	247
Nilgiris	299	Nilgiris	182

—(Contd.)

STATEMENT III-7—(*Contd.*)

Proportion of houses with walls constructed from stone per 1,000 *of all houses in rural and urban areas of the State and Districts*—(Contd.)

RURAL		URBAN	
District	Number of houses (per 1,000)	District	Number of houses (per 1 000)
1	2	3	4
Tirunelveli	144	Tirunelveli	182
Salem	124	**TAMIL NADU**	**74**
TAMIL NADU	**89**	Ramanathapuram	54
Kanyakumari	82	Kanyakumari	49
Madurai	74	Chingleput	47
Ramanathapuram	73	Salem	45
Tiruchirapalli	42	Madurai	31
Chingleput	24	Tiruchirapalli	31
Thanjavur	20	Thanjavur	20
South Arcot	20	South Arcot	16
Dharmapuri	19	Dharmapuri	6
North Arcot	9	North Arcot	6
		Madras	1

31. In the rural areas for the State as a whole. a proportion of 89 per 1,000 houses is found with walls constructed from stones. Coimbatore district with over one third of houses with stone wall predominates. Nilgiris with 299 houses per 1,000 comes next. Tirunelveli and Salem districts show proportions less than 150 but above 120. The proportion of houses with stone walls in the districts of North Arcot Dharmapuri, South Arcot, Thanjavur, Chingleput and Tiruchirapalli is less than 5%. In the districts of Kanyakumari, Madurai and Ramanathapuram, the proportion ranges from 73 to 82 per 1,000 houses.

32. In the urban sector, similar to the rural sector, the first three places for houses with stone walls are being held by Coimbatore, Nilgiris and Tirunelveli respectively, the range being 247 to 182. The urban areas of the State as a whole show a proportion of 74 per 1,000 houses. The range for the districts of Ramanathapuram, Kanyakumari, Chingleput, Salem, Madurai and Tiruchirapalli is from 54 to 31. Thanjavur and South Arcot show a proportion of 20 and 16 respectively. The districts of Dharmapuri and North Arcot show a proportion of 6 each. The proportion of one in Madras district (city) is insignificant.

33. From these figures one would see that the use of stones as wall material is prominent in rural areas than in urban areas.

Houses with cement concrete walls

34. Rural areas for the State as a whole show a proportion of one for houses with cement concrete walls. Nilgiris district and South Arcot district show proportions of 3 and 2 respectively. Dharmapuri district shows negligible proportion. In all other districts, the proportion is the same as the State rural average of 1.

35. The urban areas for the State as a whole shows a proportion of 10 per 1,000 houses in this type. South Arcot with a proportion of 98 ranks first. Though Madras district ranks second for houses with cement concrete walls, the proportion is only 20. All other districts show proportions much less than the State urban average of 10. Among these districts, Tiruchirapalli and Coimbatore with proportions of 7 and 6 respectively are better.

36. The proportion of houses with cement concrete walls separately for rural and urban areas of the Districts and State is given below :

STATEMENT III-8

Proportion of houses with cement concrete walls separately for rural and urban areas of the State and Districts

RURAL		URBAN	
District	Number of Houses (per 1,000)	District	Number of houses (per 1,000)
1	2	3	4
Nilgiris	3	South Arcot	98
South Arcot	2	Madras	20
TAMIL NADU	**1**	**TAMIL NADU**	**10**
Tiruchirapalli	1	Tiruchirapalli	7
Coimbatore	1	Coimbatore	6
Chingleput	1	Chingleput	4
Madurai	1	Madurai	4
Kanyakumari	1	Kanyakumari	3
Salem	1	Salem	2
Thanjavur	1	Nilgiris	2
Ramanathapuram	1	Thanjavur	2
Tirunelveli	1	Ramanathapuram	2
North Arcot	N	North Arcot	2
Dharmapuri	N	Tirunelveli	1
		Dharmapuri	1

N denotes negligible proportion

37. This material is more prominent in urban areas of the districts as compared to rural areas.

SECTION III

WALL MATERIALS IN CITIES

38. The statement presented below gives the proportion of Census houses under each type of wall material used in the cities of Tamil Nadu.

STATEMENT III-9

Proportion of Census houses under each wall material for the Cities of Tamil Nadu

City	Number of Census houses with wall material per 1,000								
	Grass, leaves, reeds or bamboo	Mud	Unburnt bricks	Wood	Burnt bricks	G. I. sheets or other metal sheets	Stone	Cement concrete	All other materials
1	2	3	4	5	6	7	8	9	10
1. Madras	16	192	2	2	763	4	1	20	N
2. Kanchipuram	5	412	1	3	565	1	13	0	N
3. Vellore	9	248	5	4	724	1	8	1	N
4. Salem	8	278	10	1	698	N	3	2	N
5. Tiruppur	13	293	1	9	113	1	567	3	N
6. Coimbatore	10	201	11	10	739	2	18	9	N
7. Singanallur	9	310	4	4	390	N	277	6	N
8. Dindigul	20	405	2	10	550	2	8	3	N
9. Madurai	14	194	21	2	751	2	5	8	3
10. Tiruchirapalli	9	271	2	3	701	1	4	9	N
11. Kumbakonam	7	220	15	3	714	0	38	3	N
12. Thanjavur	9	462	13	3	505	N	6	2	0
13. Tuticorin	81	263	2	8	184	3	457	2	0
14. Tirunelveli	3	201	26	2	755	1	11	1	0
15. Nagercoil	6	105	454	38	37	0	40	4	1

N denotes negligible proportions.

39. Out of 15 cities with a population of 1 lakh and over, in 7 cities over 70% of Census houses have walls constructed from burnt bricks. These cities are Madras, Vellore, Coimbatore, Madurai, Tiruchirapalli, Kumbakonam and Tirunelveli. In these cities, houses with mud walls have a proportion varying from 19·2% in Madras to 27·1% in Tiruchirapalli. Salem has 69·8% of houses with burnt brick walls and 27·8% of houses with walls constructed from mud. Kanchipuram, Dindigul and Thanjavur cities have more than 50% of houses with burnt brick walls but less than 57%. In these three cities, houses with mud walls are also significant in that the proportion of such houses vary from 40·5% in Dindigul to 46·2% in Thanjavur. In Singanallur, most of the houses have walls built out of burnt bricks, mud and stone; these three materials show proportions ranging from 27·7% for stone to 39·0% for burnt bricks. In Nagercoil city, houses with unburnt brick walls dominate with 45·4% of houses. Houses with burnt brick walls form 38·7% of all houses in that city and mud walled houses are comparatively fewer with 10·5%. Tuticorin city has 45·7% of houses with stone walls, 26·3% of houses with mud walls and only 18·4% of houses having burnt brick walls. Stone walled houses predominate in Tiruppur with 56·7% of all houses and houses with mud walls show a figure of 29·3%. Only 11·3% of houses have burnt brick walls. Except in Madras City which has 2% of houses with cement concrete walls, in all other cities, this material is not significant. Tuticorin has 8·1% of houses having walls made out of grass, leaves, reeds or bamboo. This material has 2% of houses in Dindigul, Madras, Madurai, Tiruppur and Coimbatore have grass, leaves, reeds or bamboo walled houses ranging from 1% in Coimbatore to 1·6% in Madras. Madurai and Tirunelveli cities show 2·1% and 2·6% of houses having walls constructed from unburnt bricks. In the cities of Salem, Coimbatore, Kumbakonam and Thanjavur, houses having unburnt brick walls range from 1·0% in Salem to 1·5% in Kumbakonam. Coimbatore and Dindigul cities have 1% of houses having walls made out of wood. Houses having walls made from galvanised iron sheets or other metal sheets are not significant. In no city this material has more than 0·5% of houses using it.

SECTION IV

HOUSES WITH DIFFERENT ROOF MATERIALS IN RURAL AND URBAN AREAS OF DISTRICTS

Roof materials

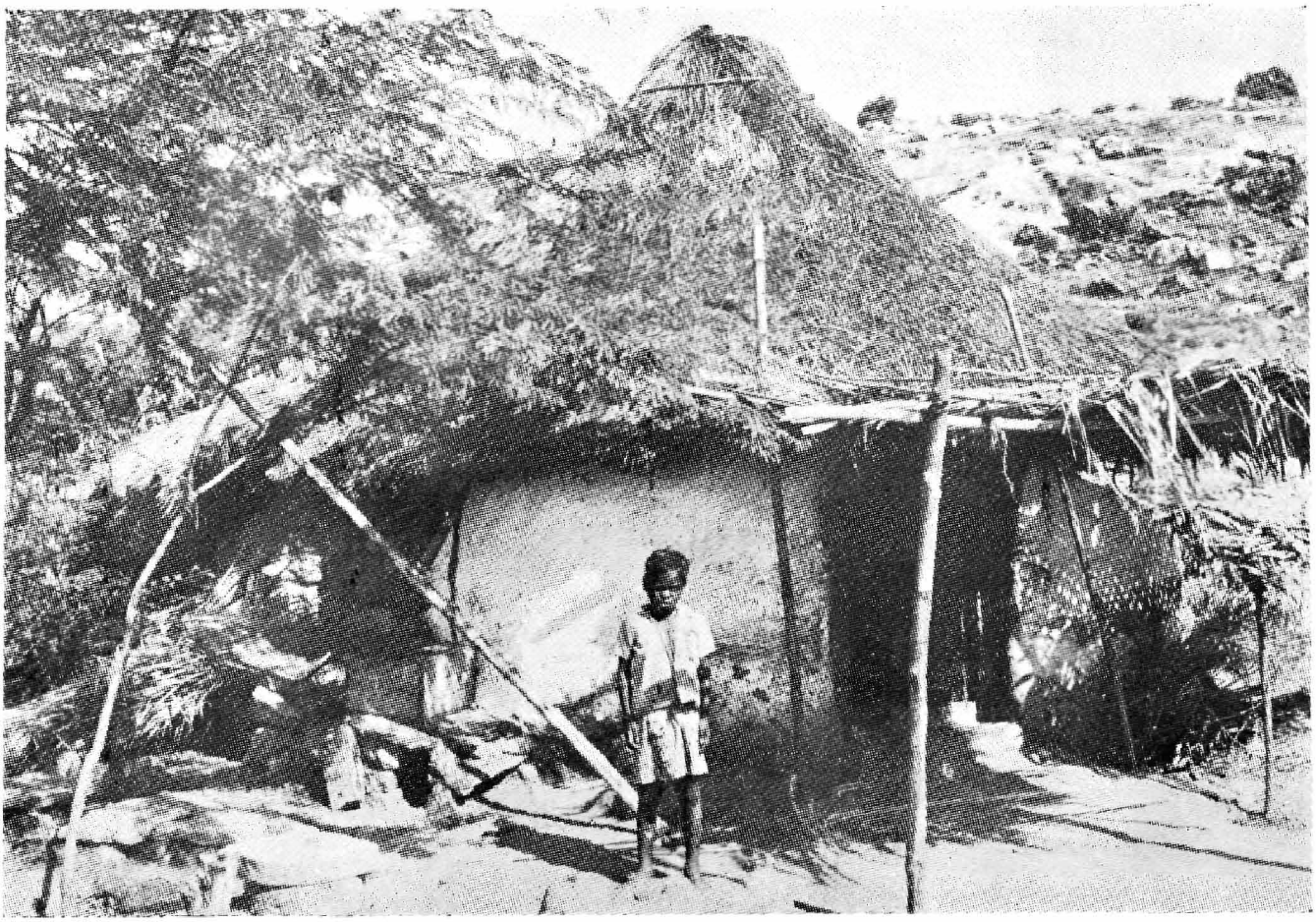
40. The statement below shows the proportion of houses having roofs made out of grass, leaves, reeds, thatch etc., in the rural and urban areas of districts.

STATEMENT III–10

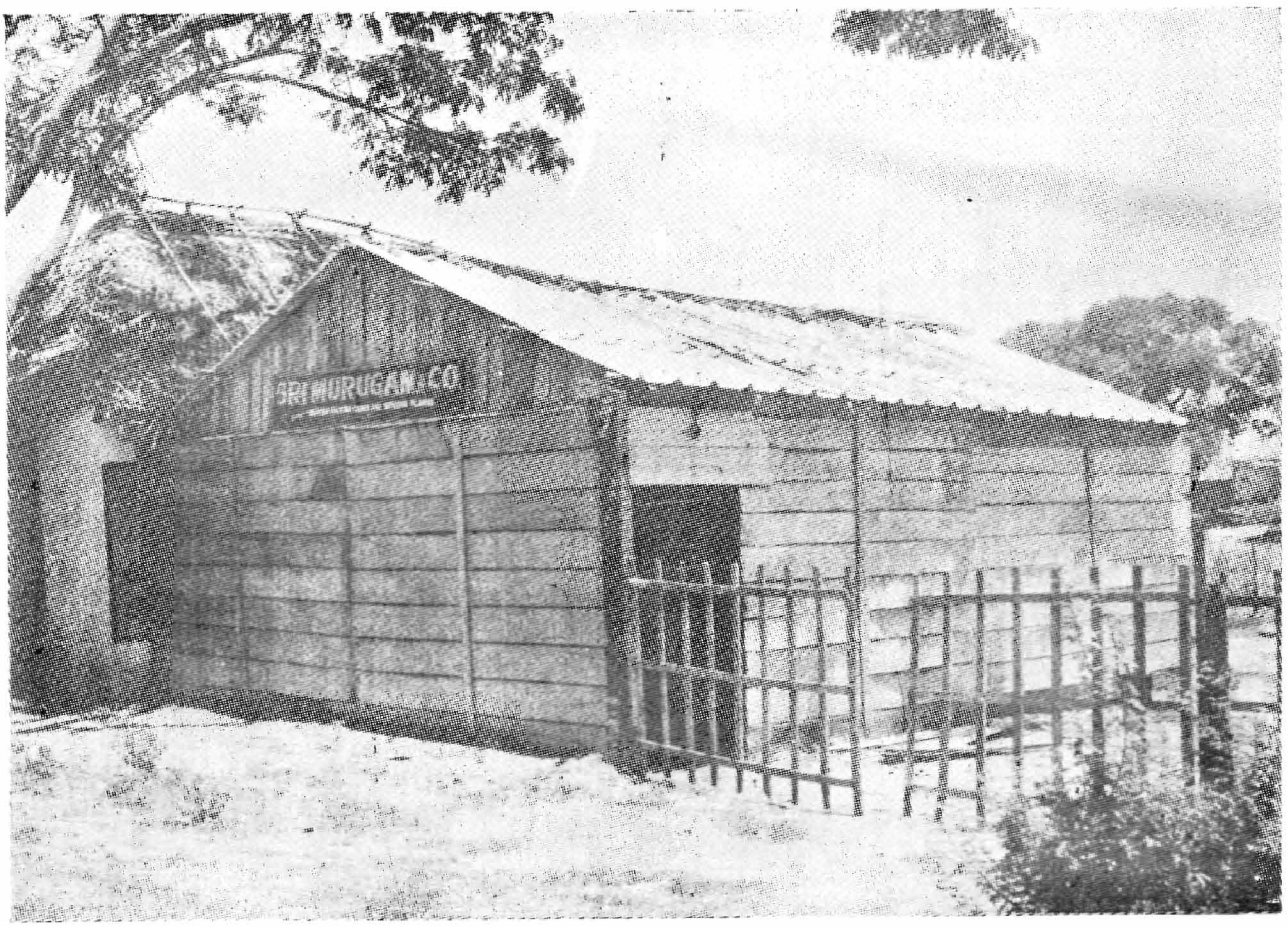
Proportion of houses with roofs made out of grass, leaves, reeds, thatch, wood, mud, unburnt bricks or bamboo in rural and urban areas separately

RURAL		URBAN	
District	Number of houses (per 1,000)	District	Number of houses (per 1,000)
1	2	3	4
South Arcot	809	South Arcot	479
Chingleput	755	Thanjavur	461
Thanjavur	745	Chingleput	459
Tiruchirapalli	685	Tiruchirapalli	370

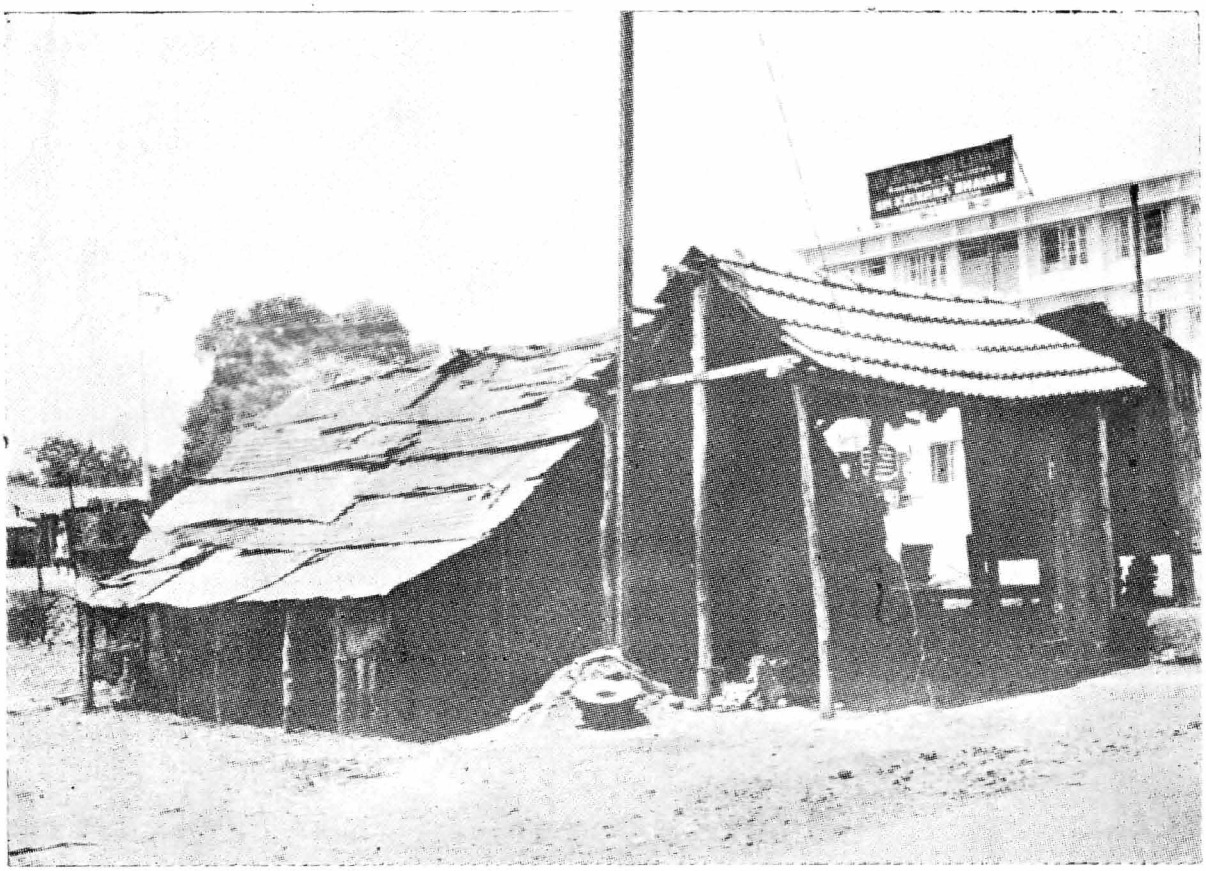
(Contd.)



A conical shaped hut with grass as roof material



The view of a timber depot with wood as wall and asbestos sheets as roof



A typical poor man's house with tile and tin as roof and wall materials



A view of the Fire proof low cost cottages for the poor in Madras

STATEMENT III-10—(*Contd.*)

Proportion of houses with roofs made out of grass, leaves, reeds, thatch, wood, mud, unburnt bricks or bamboo in rural and urban areas separately—(Contd.)

RURAL		URBAN	
District	Number of houses (per 1,000)	District	Number of houses (per 1,000)
1	2	3	4
Salem	671	North Arcot	360
North Arcot	668	Salem	285
TAMIL NADU	597	TAMIL NADU	277
Dharmapuri	559	Madras	258
Madurai	547	Ramanathapuram	251
Ramanathapuram	519	Madurai	247
Kanyakumari	475	Kanyakumari	236
Tirunelveli	404	Tirunelveli	216
Coimbatore	282	Dharmapuri	195
Nilgiris	141	Nilgiris	115
		Coimbatore	92

41. Rural areas of the State as a whole show 59.7% of houses having roofs made from grass, leaves, reeds, thatch, wood, mud, unburnt bricks or bamboo. In other words more than half the houses have katcha roofing. In the districts of North Arcot, Salem and Tiruchirapalli, this category of roof has houses ranging from 66.8% to 68.5%. South Arcot is most prominent in that its rural areas have 80.9% of houses with katcha roofing materials like grass, leaves, reeds, thatch etc. Thanjavur and Chingleput districts show a proportion of about three-fourths of houses with these roof materials. Dharmapuri, Madurai and Ramanathapuram districts have shown more than 50% but below 56% of houses under this type. In Kanyakumari and Tirunelveli rural areas, the proportion of houses with roofs made of grass, leaves thatch etc., are above 40% but below 48%. Coimbatore district rural areas show 28.2% of all houses and Nilgiris 14.1% of all houses under this type. Lesser use of katcha roof material is to be found in Nilgiris, Coimbatore, Tirunelveli and Kanyakumari. The use of katcha roof material predominates in the districts of South Arcot, Chingleput, Thanjavur, Tiruchirapalli, Salem and North Arcot where more than two-thirds of houses have these roof materials used.

42. As in the case of rural sector, the districts of South Arcot, Thanjavur, Chingleput, Tiruchirapalli, North Arcot and Salem show greater use of grass, leaves, reeds, thatch etc., as roof material compared to other districts. The proportions range from 28.5% in Salem to 47.9% in South Arcot while the State urban average is 27.7%. While South Arcot stands first in urban sector, the districts of Chingleput, Thanjavur, North Arcot and Salem have changed positions. However, urban areas of the districts of

Tiruchirapalli retains the same rank as in the rural sector. These roof materials are used in about one-fourth of houses in the districts of Madras, Ramanathapuram and Madurai. About one-fifth of houses in the urban areas of Kanyakumari, Tirunelveli and Dharmapuri are found to use grass, leaves, reeds, thatch etc., as roof materials. About one-tenth of houses in the districts of Nilgiris and Coimbatore use these katcha materials for roofs.

43. Comparing the proportions of houses using grass, leaves, reeds, thatch etc., as roof materials in rural and urban sectors of the districts, it is seen that these katcha materials are used to a lesser extent in the districts of Tirunelveli, Coimbatore and Nilgiris. Further, the use of these materials for urban houses is very much less as compared to the rural houses in the districts.

Tiles, slate, shingle

44. In the rural sector of the State as a whole, 31.4% of houses (roughly one-third) have roofs made from tiles, slate or shingle. About 70% of houses in the rural areas of the districts of Nilgiris and Coimbatore have tiles, slate or shingle as roof materials. In the rural sector of the districts of Kanyakumari, Tirunelveli and Dharmapuri, houses above 40% but below 50% have roofs of tile, slate or shingle. About one-third of the houses in Ramanathapuram district rural areas have tile, slate or shingle roofs. In the rural areas of the districts of Salem, Madurai, Tiruchirapalli, North Arcot and Thanjavur, more than one-fifth but less than one-third of houses have roofs made of tile, slate or shingle. Chingleput and South Arcot districts show proportions of 188 and 130 houses with this roof material per 1,000 houses.

45. Looking into the proportion of houses with tile, slate or shingle as roof material in urban areas, Coimbatore followed by Kanyakumari occupies the first and second places in this roof material with over 70% of houses. Over 60% but below two-third of houses in the urban areas of Dharmapuri, Nilgiris and Salem have tile, slate or shingle as roof material. About half of the houses in the district of Tirunelveli have this roof material. For the State as a whole, the average for this roof material is 457 per 1,000 houses. North Arcot and Ramanathapuram urban areas have about 42% but below 45% of houses with roofs made of tile, slate or shingle. About one-third of houses in the urban areas of the districts of Madurai, Tiruchirapalli and Chingleput are covered with tile, slate or shingle. About 40% of houses in the urban sector of Thanjavur district are having these roof materials. A little less than one-third of houses in Madras District (City) and about one-fourth of houses in South Arcot have tile, slate or shingle as roof materials in the urban areas.

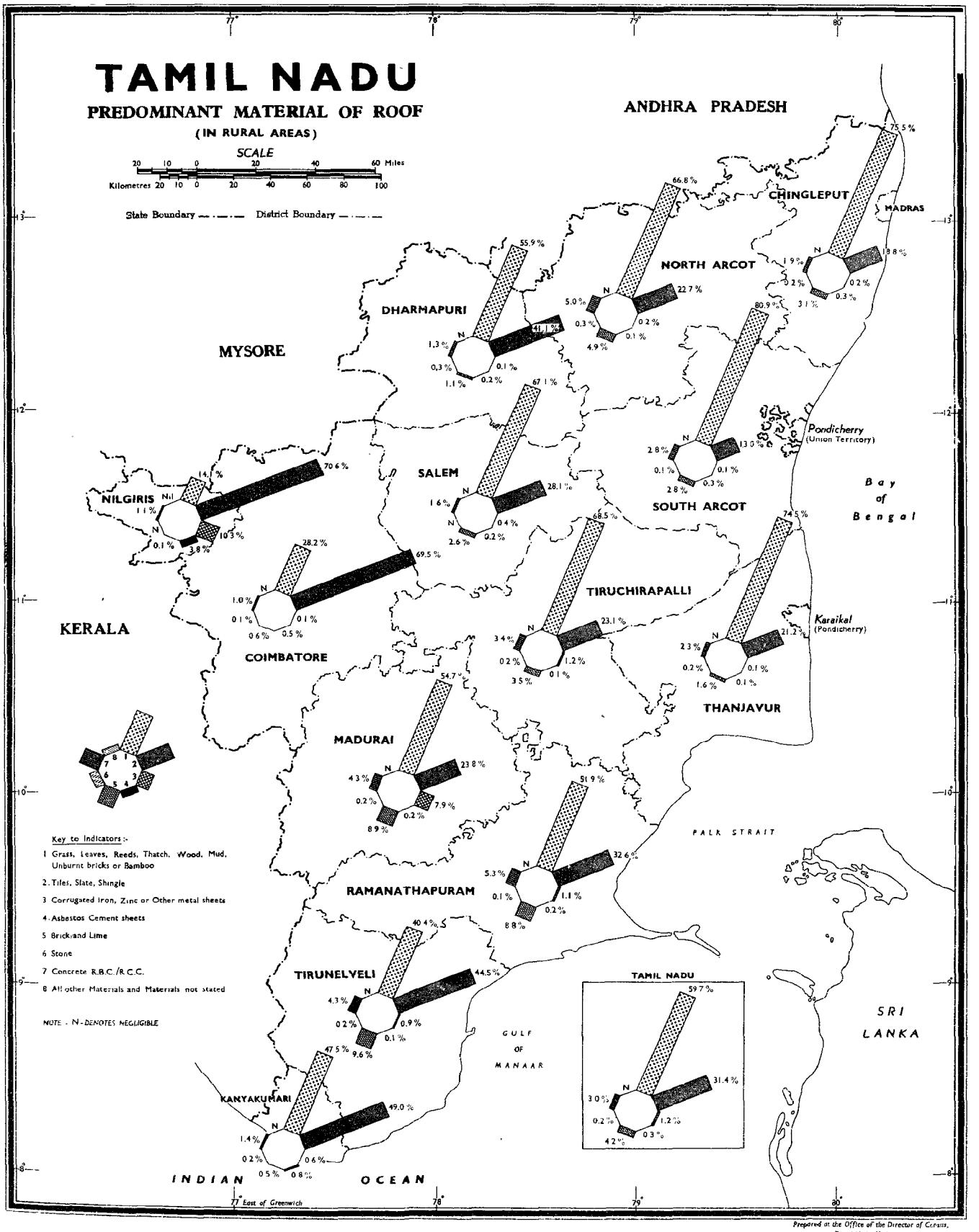
46. The following inset table shows the proportion of houses with roofs made of tile, slate or shingle in the rural and urban areas of Districts.

STATEMENT III 11

Proportion of houses with tile, slate or shingle as roof material

RURAL		URBAN	
District	Number of houses (per 1,000)	District	Number of houses (per 1,000)
1	2	3	4
Nilgiris	706	Coimbatore	757
Coimbatore	695	Kanyakumari	704

(Contd.)



Prepared at the Office of the Director of Census, Tamil Nadu, Madras.

TAMIL NADU

PREDOMINANT MATERIAL OF ROOF

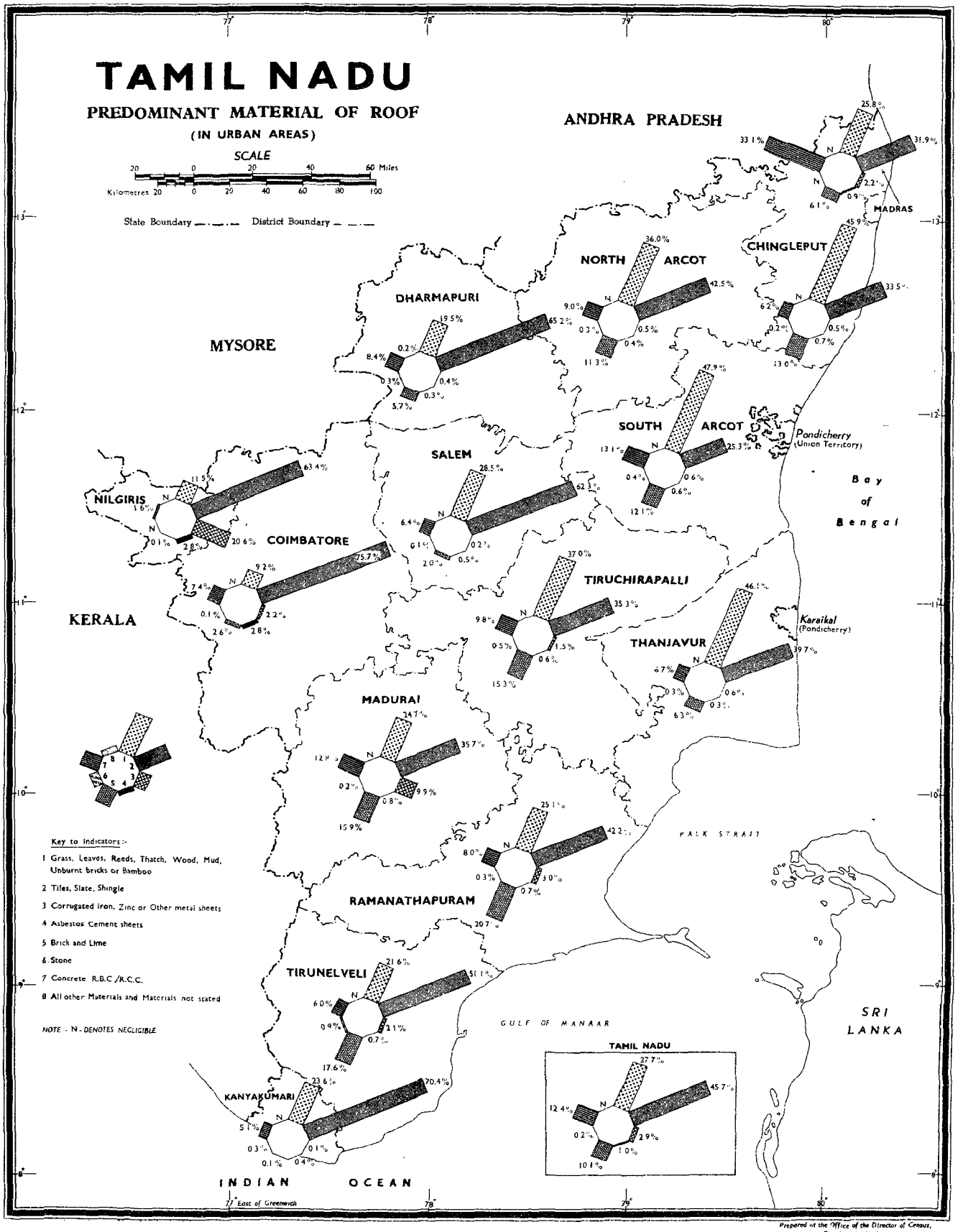
(IN URBAN AREAS)

SCALE

20 0 20 40 60 Miles

Kilometres 20 0 20 40 60 80 100

State Boundary —·—·— District Boundary — — —



Key to Indicators:-

1 Grass, Leaves, Reeds, Thatch, Wood, Mud, Unburnt bricks or Bamboo

2 Tiles, Slate, Shingle

3 Corrugated Iron, Zinc or Other metal sheets

4 Asbestos Cement sheets

5 Brick and Lime

6 Stone

7 Concrete R.B.C./R.C.C.

8 All other Materials and Materials not stated

NOTE - N - DENOTES NEGLIGIBLE

Prepared at the Office of the Director of Census, Tamil Nadu Madras.

STATEMENT III-11—(*Contd.*)

Proportion of houses with tile, slate or shingle as roof material—(Contd.)

RURAL		URBAN	
District	Number of houses (per 1,000)	District	Number of houses (per 1,000)
1	2	3	4
Kanyakumari	490	Dharmapuri	652
Tirunelveli	445	Nilgiris	634
Dharmapuri	411	Salem	623
Ramanathapuram	326	Tirunelveli	511
TAMIL NADU	**314**	**TAMIL NADU**	**457**
Salem	281	North Arcot	425
Madurai	238	Ramanathapuram	422
Tiruchirapalli	231	Thanjavur	397
North Arcot	227	Madurai	357
Thanjavur	212	Tiruchirapalli	353
Chingleput	188	Chingleput	335
South Arcot	130	Madras	319
		South Arcot	253

47. In urban areas of districts, generally, proportions of houses with roofs of tile, slate or shingle are higher compared to rural sector. The difference between rural and urban proportions in the districts of Madurai, Tiruchirapalli, Chingleput and South Arcot are not very much. In the districts of Coimbatore and Nilgiris which have higher proportions of houses with tile, slate or shingle roof, both in the rural and urban sectors, the difference between rural and urban is also not very much. Greater rural and urban variation in proportions is seen in the districts of Dharmapuri, Salem and Kanyakumari.

48. The inset table presented below gives the proportion of houses per 1,000 houses with roofs of corrugated iron (C.I.) or zinc sheets etc., in the rural and urban areas separately for the Districts.

Houses with roofs of C.I. or zinc sheets

STATEMENT III–12

Proportion of houses with roof material of corrugated iron or zinc sheets etc.

RURAL		URBAN	
District	Number of houses (per 1,000)	District	Number of houses (per 1,000)
1	2	3	4
Nilgiris	103	Nilgiris	206
Madurai	79	Madurai	99
TAMIL NADU	**12**	Ramanathapuram	30
Tiruchirapalli	12	**TAMIL NADU**	29
Ramanathapuram	11	Madras	22
Tirunelveli	9	Coimbatore	22
Kanyakumari	6	Tirunelveli	21
Salem	4	Tiruchirapalli	15
Chingleput	2	Thanjavur	6
North Arcot	2	South Arcot	6
South Arcot	1	Chingleput	5
Dharmapuri	1	North Arcot	5
Coimbatore	1	Dharmapuri	4
Thanjavur	1	Salem	2
		Kanyakumari	1

49. For the rural areas of the State as a whole, the proportion of houses with corrugated iron sheets etc., as roof material is 12. In the rural areas of the districts of Nilgiris and Madurai, corrugated iron or zinc sheets are prominent as roof material. To a certain extent in the districts of Tiruchirapalli, Ramanathapuram and Tirunelveli, houses whose proportions are about 1% have this material used for roofs. In the rural sector of other districts these materials are not favoured.

50. In the urban sector, the proportion of houses with these roof materials for the State as a whole is 29. About one-fifth of houses in the urban areas of Nilgiris and about one-tenth of houses in the urban sector of Madurai use these roof materials. These two districts are more prominent for these materials. Ramanathapuram district, urban sector with 3% of houses having corrugated iron sheets etc., as roof materials is just above the State urban average. Madras City and the urban areas of the districts of Coimbatore and Tirunelveli have registered over 2% of houses with these roof materials. In the urban sector of Tiruchirapalli, 1.5% of houses have corrugated iron or zinc or other metal sheets as roof materials. In the other districts, the proportions are not significant. In Salem and Kanyakumari districts, proportion of houses using this material for roofs of houses is higher in the rural areas as compared to urban areas. In all other districts, urban areas exhibit higher proportions.

Houses with asbestos cement sheets as roof material

51. About 0.3% of houses in the rural areas of the State as a whole have roofs made from asbestos cement sheets. Nilgiris district's rural areas have large proportion, viz., 3.8% of houses with asbestos cement roofs. Kanyakumari rural areas have 0.8% of houses with asbestos cement roofs while 0.5% of houses in the rural areas of Coimbatore district have used this roof material. Rural areas of Chingleput and South Arcot districts exhibit the same proportion of houses as for the State in this category. Figures in other districts are not worth mentioning.

52. For the urban areas of the State as a whole, 1% of houses have asbestos cement roofing. Coimbatore and Nilgiris districts with a proportion of 2.8% of houses stand first in urban areas using asbestos cement sheets as roof material. Madras City with 0.9% of houses comes second. Urban areas of North Arcot, Ramanathapuram and Tirunelveli with 0.7% of houses each comes third. In the urban areas of other districts, the proportions are not much.

53. Except in the districts of Nilgiris and Kanyakumari where there is higher proportion of rural houses using asbestos cements for roofs in all other districts the use of this roof material is greater in urban areas compared to rural sector.

Houses with roofs constructed from brick and lime

54. The statement below shows the proportion of houses per 1,000 houses with roofs of brick and lime in the rural and urban areas of Districts.

STATEMENT III–13

Proportion of houses with roofs of brick and lime in the rural and urban areas separately

RURAL		URBAN	
District	Number of houses (per 1,000)	District	Number of houses (per 1,000)
1	2	3	4
Tirunelveli	96	Ramanathapuram	207
Madurai	89	Tirunelveli	176

(Contd.)

STATEMENT III-13—(*Contd.*)

Proportion of houses with roofs of brick and lime in the rural and urban areas separately—(Contd.)

RURAL		URBAN	
District	Number of houses (per, 1,000)	District	Number of houses (per 1,000)
1	2	3	4
Ramanathapuram	88	Madurai	159
North Arcot	49	Tiruchirapalli	153
TAMIL NADU	**42**	Chingleput	**130**
Tiruchirapalli	35	South Arcot	**121**
Chingleput	31	North Arcot	**113**
South Arcot	28	**TAMIL NADU**	**101**
Salem	26	Thanjavur	63
Thanjavur	16	Madras	61
Dharmapuri	11	Dharmapuri	57
Coimbatore	6	Coimbatore	26
Kanyakumari	5	Salem	**20**
Nilgiris	1	Kanyakumari	1
		Nilgiris	1

55. In the rural areas of the State as a whole, 4.2% of houses have roofs made of brick and lime. This proportion increases to 9.6% in Tirunelveli, 8.9% in Madurai and 8.8% in Ramanathapuram. About 5% of rural houses of North Arcot district are having roofs made of brick and lime. In Tiruchirapalli and Chingleput districts, 3.5% and 3.1% of houses in rural areas have used brick and lime for roof construction. A little less than 3% of houses in the districts of South Arcot and Salem have roofs of brick and lime. In Coimbatore, Kanyakumari and Nilgiris rural areas use of this roof material is insignificant.

56. About one-tenth of houses in the urban areas of the State as a whole have used brick and lime in the construction of roof. Ramanathapuram district, urban sector has over one-fifth of houses having roofs made of brick and lime and in the urban areas of Tirunelveli district 17.6% of houses have used this roof material in construction. About one-sixth of houses in the

urban areas of Madurai and Tiruchirapalli districts come under this category. Chingleput, South Arcot and North Arcot urban areas have used brick and lime as roof material for over ten per cent of houses but below fifteen per cent. In urban areas of Thanjavur, Madras and Dharmapuri about 6% of houses have brick and lime roofs and in the districts of Coimbatore and Salem the proportions range from 2 to 3%. The use of this roof material in the urban sector of Kanyakumari and Nilgiris districts is negligible.

57. Generally one would see the greater use of brick and lime as roof material in the construction of houses in the urban areas compared to rural areas in the districts. In Kanyakumari and Salem, higher proportions of houses in rural areas have used brick and lime as roof material compared to urban areas.

Houses with stone roofs

58. Stone roof for houses is not prominent in the State of Tamil Nadu in both the rural and urban areas. Generally, stone is used as roof material in temples where broad and lengthy verandahs (prakarams) are built.

59. Rural areas of the State as a whole have a proportion of 2 per 1,000 houses having stone roofs. Rural areas of North Arcot and Dharmapuri districts exhibit a proportion of 3 per 1,000 houses and is slightly higher than the State rural average of 2. Rural areas of Chingleput, Madurai, Tiruchirapalli, Thanjavur, Tirunelveli and Kanyakumari exhibit the same proportion as for the State average. In the rural areas of other districts except Salem and Nilgiris the proportion is 1. Salem and Nilgiris districts show negligible proportion of houses having roofs of stone.

60. In the urban areas of the State as a whole, a proportion of 2 per 1,000 houses are having roofs made of stone. This proportion rises to 9 in the urban areas of Tirunelveli, to 5 in the urban sector of Tiruchirapalli and to 4 in the urban areas or South Arcot district. A proportion of 3 each is to be seen in the urban sector of North Arcot, Dharmapuri, Thanjavur, Ramanathapuram and Kanyakumari. Madurai and Chingleput districts exhibit a proportion of 2 with roofs made of stone. In the urban areas of Salem and Coimbatore, the proportion of houses with stone roof is 1 per 1,000 houses. Nilgiris district's urban sector and Madras City show negligible proportions in this type.

61. The statement given below shows the proportions of houses with roofs made of stone in the rural and urban areas of districts discussed above.

STATEMENT III-14

Proportion of houses having roofs made of stone in the rural and urban areas separately for districts

RURAL		URBAN	
District	Number of houses (per 1,000)	District	Number of houses (per 1,000)
1	2	3	4
North Arcot	3	Tirunelveli	9
Dharmapuri	3	Tiruchirapalli	5
TAMIL NADU	2	South Arcot	4
Chingleput	2	North Arcot	3

—(Contd.)

STATEMENT III-14—(*Contd.*)

Proportion of houses having roofs made of stone in the rural and urban areas separately for districts—(Contd.)

RURAL		URBAN	
District	Number of houses (per 1,000)	District	Number of houses (per 1,000)
1	2	3	4
Madurai	2	Dharmapuri	3
Tiruchirapalli	2	Thanjavur	3
Thanjavur	2	Ramanathapuram	3
Tirunelveli	2	Kanyakumari	3
Kanyakumari	2	**TAMIL NADU**	2
South Arcot	1	Chingleput	2
Coimbatore	1	Madurai	2
Ramanathapuram	1	Salem	1
Salem	N	Coimbatore	1
Nilgiris	N	Madras	N
		Nilgiris	N

N denotes negligible proportions

HOUSES HAVING CONCRETE OR R.B.C./R.C.C. ROOFING

62. The statement below gives the proportion of houses with concrete or R.B.C./R.C.C. roofs in the rural and urban areas of districts.

STATEMENT III–15

Proportion of houses with concrete or R.B.C./R.C.C. roofs in the rural and urban areas of districts

RURAL		URBAN	
District	Number of houses (per 1,000)	District	Number of houses (per 1,000)
1	2	3	4
Ramanathapuram	53	Madras	331
North Arcot	50	South Arcot	131
Madurai	43	Madurai	128
Tirunelveli	43	**TAMIL NADU**	**124**
Tiruchirapalli	34	Tiruchirapalli	98
TAMIL NADU	**30**	North Arcot	90
South Arcot	28	Dharmapuri	84
Thanjavur	23	Ramanathapuram	80
Chingleput	19	Coimbatore	74
Salem	16	Thanjavur	67
Kanyakumari	14	Salem	64
Dharmapuri	13	Chingleput	62
Nilgiris	11	Tirunelveli	60
Coimbatore	10	Kanyakumari	51
		Nilgiris	16

63. Houses having roofs constructed from concrete or R.B.C./R.C.C. in the rural areas of the State as a whole is 3%. About 5% of houses in the rural areas of Ramanathapuram and North Arcot districts and 4.3% each in the districts of Madurai and Tirunelveli have used this roof material. Tiruchirapalli rural sector has got 3.4% of houses with these roof materials. The proportions of rural houses in the districts of South Arcot and Thanjavur having concrete or R.B.C./R.C.C. as roof materials are above 2% but below 3%. In the rural areas of other districts, the proportions vary from 1% in Coimbatore to 1.9% in Chingleput.

64. State urban areas as a whole show that 12.4% of houses have concrete or R.B.C./R.C.C. roofs. Madras City tops the list where nearly one-third of the houses having these roof materials used indicates its

preference to these materials in construction of houses. Urban sector of South Arcot and Madurai districts show about 13% of houses with these roof materials. About one-tenth of houses in Tiruchirapalli district's urban areas and about one-eleventh in the urban areas of North Arcot district have used these materials for roof construction. In the urban areas of Dharmapuri, Ramanathapuram Coimbatore, Thanjavur, Salem, Chingleput and Tirunelveli, the proportion of houses using concrete or R.B.C./R.C.C. as roof materials vary from 6% in Tirunelveli to 8.4% in Dharmapuri. About 5% of urban houses in Kanyakumari district use these roof materials. Only Nilgiris urban sector has less than 2% of houses using these materials in construction of roof of houses.

65. Except in the districts of Nilgiris, Ramanathapuram and Tirunelveli (barring Madras which is wholly urban) in all other districts the proportions of houses with these roof materials are significant in urban areas as compared to rural areas. Generally, urban areas in all the districts show greater use of these roof materials.

Roofs with all other materials

66. The proportion of houses with all other materials not detailed in the preceding paragraphs and materials not stated are not significant and no discussion is, therefore, made on this matter.

SECTION V

ROOF MATERIALS USED IN CITIES

67. The inset table given below shows the distribution of 1,000 houses in each city by different roof materials used in the construction of houses in these towns.

STATEMENT III-16

Distribution of 1,000 Census houses by roof material in cities

City	Number of houses with roof material per 1,000							
	Grass, leaves, reeds, thatch, wood, mud, unburnt, bricks or bamboo	Tiles, slate, shingle	C.I. sheets, zinc or other metal sheets	Asbestos cement sheets	Brick and lime	Stone	Concrete, RBC/ RCC	All other materials & materials not stated
1	2	3	4	5	6	7	8	9
1. Madras	258	319	22	9	61	N	331	N
2. Kanchipuram	209	574	10	4	177	8	17	1
3. Vellore	252	509	7	2	56	6	167	1
4. Salem	195	702	2	5	6	N	90	N

—(Contd.)

STATEMENT III-16—(*Contd.*)

Distribution of 1,000 Census houses by roof material in cities—(Contd.)

City	Number of houses with roof material per 1,000							
	Grass, leaves, reeds, thatch, wood, mud, unburnt, bricks or bamboo	Tiles, slate, shingle	C.I. sheets, zinc or other metal sheets	Asbestos cement sheets	Brick and lime	Stone	Concrete, RBC/ RCC	All other materials & materials not stated
1	2	3	4	5	6	7	8	9
5. Tiruppur	37	872	7	7	14	N	63	N
6. Coimbatore	69	736	10	10	12	N	163	N
7. Singanallur	53	867	3	10	5	2	60	N
8. Dindigul	319	490	19	9	130	0	33	N
9. Madurai	158	437	30	7	164	5	199	N
10. Tiruchirapalli	291	353	13	4	182	12	145	N
11. Kumbakonam	371	428	10	6	99	13	73	N
12. Thanjavur	423	364	11	6	121	1	74	N
13. Tuticorin	244	457	9	7	173	30	80	0
14. Tirunelveli	152	399	57	5	300	7	80	0
15. Nagercoil	166	768	1	4	1	3	56	1

N denotes negligible figures

68. There were 15 cities in Tamil Nadu at the time of houselisting. In two cities – Tiruppur and Singanallur, over 85% of houses have roofs of tile, slate or shingle. In three other cities - Nagercoil, Coimbatore and Salem, over 70% but below 80% of houses have tile, slate or shingle as roof materials. In Kanchipuram and Vellore cities, over 50% but below 60% of houses have roofs of tile, slate or shingle. In Singanallur and Tiruppur cities, concrete, R.B.C./R.C.C roofing is shown by about 6% of houses and grass, leaves, reeds etc., by 5% and 3·7% of houses respectively. In Nagercoil city, next to tile, slate or shingle, roofs of grass, leaves, reeds etc., are predominant with 16·6% of houses. Concrete, RBC/ RCC roof is shown by 5·6% of houses. Salem city also follows the pattern of Nagercoil city with houses having grass, leaves etc., as roofs coming next to houses with roofs of tile, slate or shingle and concrete, RBC/ RCC coming third. While in Kanchipuram city, 20·9% of houses have roofs of grass, leaves, reeds etc., the same material shows a proportion of 25·2% of houses in Vellore city. In the former city, brick and

lime as roof material is shown by 17·7% houses and in Vellore city, RBC/RCC roof material by 16·7% of houses. Preference to brick and lime roof which is otherwise known as "Madras terrace" is seen in Kanchipuram. Four cities—Dindigul, Tuticorin Madurai and Kumbakonam - have over 40% of houses but below 50% with roof of tile, slate or shingle. Houses with roofs of grass, leaves, reeds etc., come next in the above cities except Madurai where only 15·8% of houses are found to have grass, leaves etc., as roof materials. In Madurai city, about 20% of houses have concrete or RBC/RCC roofing. Brick and lime as roof material is found in these cities ranging from 9·9% of houses in Kumbakonam to 17·3% in Tuticorin. Houses with concrete or RBC/RCC roofing is to be seen in 7·3% of houses in Kumbakonam and in 8·0% of houses in Tuticorin city. About 3% of houses in Dindigul city comes under this type. Four cities–Tirunelveli, Tiruchirapalli, Thanjavur and Madras - are in the third group in so far as the use of roof materials are concerned. All these four cities have less than 40% of houses but above 30% with tile, slate or shingle roof materials. While brick and lime as roof material for houses takes the second place in Tirunelveli city with 30%, in Madras city concrete with about one-third of houses takes the first position relegating tile, slate or shingle to second place. In Thanjavur city, the predominance of houses with roofs of grass, leaves, reeds etc., with 42·3% can be observed. In Tiruchirapalli city, 29·1% of houses do have grass, leaves, reeds etc., as roof materials and this proportion is 25·8% in Madras City. Concrete or RBC/RCC as roof material of houses is seen in 14·5% of houses in Tiruchirapalli city. These roof materials are used in about 7 to 8% of houses in the cities of Tirunelveli and Thanjavur. Famous Madras terrace using brick and lime is seen in about 6% of houses in Madras city itself. Perhaps this roof material has yielded place to concrete or RBC/RCC. In the other cities, this roof material is of significance, varying from 18·2% in Tiruchirapalli to 12·1% in Thanjavur.

69. Houses with roofs of corrugated iron, zinc or other metal sheets are significant in the cities of Tirunelveli, Madurai, Madras and Dindigul. About 1% of houses in Madras, Coimbatore, Singanallur and Dindigul have asbestos cement sheet roofs. Stone as roof material is not significant except in Tuticorin where 3% of houses have this roof material. Tiruchirapalli and Kumbakonam also show about 1% of houses with this roof material.

SECTION VI

RESIDENTIAL CENSUS HOUSES BY WALL AND ROOF MATERIALS

Wall material

70. Subsidiary table H-II.1 (A) gives the distribution of 1,000 residential Census houses by material of wall separately for rural and urban areas of the State and Districts. Distribution of residential Census houses of cities by wall material is also given. The grouping of wall materials in Subsidiary Table H-II.1 and this table is different in that a concise classification has been adopted.

71. The inset statement presented below gives the distribution of 1,000 residential houses by wall material separately for rural and urban areas of the State and Districts.

STATEMENT III–17

Distribution of 1,000 residential Census houses by material of wall separately for rural and urban areas

State/District	RURAL			URBAN		
	Grass, leaves, reeds or bamboo, mud, unburnt bricks, wood	Burnt bricks, G.I. sheets or other metal sheets, stone, cement	All other materials and materials not stated	Grass, leaves, reeds or bamboo, mud, unburnt bricks, wood	Burnt bricks, G.I. sheets or other metal sheets, stone, cement	All other materials and materials not stated
1	2	3	4	5	6	7
TAMIL NADU	**751**	**249**	**N**	**392**	**608**	**N**
1. Madras	...	...	...	235	765	N
2. Chingleput	789	211	N	489	511	N
3. North Arcot	759	241	N	450	550	N
4. South Arcot	832	168	N	483	517	N
5. Dharmapuri	840	160	N	563	437	N
6. Salem	721	279	N	447	553	N
7. Coimbatore	576	424	N	338	662	N
8. Nilgiris	187	813	0	233	767	N
9. Madurai	763	237	N	414	586	N
10. Tiruchirapalli	804	196	N	404	596	N
11. Thanjavur	798	202	N	490	510	N
12. Ramanathapuram	775	225	N	434	566	0
13. Tirunelveli	679	321	N	431	569	N
14. Kanyakumari	793	203	4	629	370	1

N denotes negligible figures

72. It is seen that in the rural areas of the State and all districts except Coimbatore, Nilgiris and Tirunelveli, katcha materials of grass, leaves, reeds or bamboo, mud, unburnt bricks and wood form the predominant wall material of residential houses with more than 70% coming under them. In the excepted districts of Coimbatore and Tirunelveli, though katcha wall materials are used in a majority of residential houses,

these materials do not cover more than 68% of houses. In the rural areas of Nilgiris, pucca wall materials of burnt bricks, G. I. sheets or other metal sheets, stone and cement are prominent with more than 80% of residential houses coming under them. The rural areas of these three districts seem to have more pucca walled houses compared to other districts. The urban sector presents a different state of affairs with lesser proportion of houses having katcha wall materials.

73. In the urban areas of the State as a whole as well as in all the districts except Dharmapuri and Kanyakumari, pucca wall materials of burnt bricks, G.I. sheets or other metal sheets, stone and cement cover more than half the residential houses. Katcha wall materials of grass, leaves, reeds, bamboo, mud, unburnt bricks and wood have more than two-fifths but less than half of the residential houses under its fold in the districts of Chingleput, North Arcot, South Arcot, Salem, Madurai, Tiruchirapalli, Thanjavur, Ramanathapuram and Tirunelveli. In the urban sector of Dharmapuri and Kanyakumari districts, about 56% and 63% respectively of residential houses have katcha wall materials in their construction. Nilgiris district and Madras city have lower proportions of katcha wall materials in the construction of residential houses. The urban areas of Nilgiris and Madras city as well as the urban sector of Coimbatore may be considered to have more pucca walled residential houses compared to other districts.

Roof material

74. A similar statement is presented for roof materials in the rural and urban areas of districts from Subsidiary Table-H-II. 2A

STATEMENT III-18

Distribution of 1,000 residential Census houses by material of roof

State/District	RURAL			URBAN		
	Grass, leaves, reeds, bamboo, thatch, mud, unburnt bricks or wood	Tiles, slate, shingle, C.I., zinc or other metal sheets, asbestos cement sheets, bricks, lime, stone and RBC/RCC	All other materials and materials not stated	Grass, leaves, reeds, bamboo, thatch, mud, unburnt bricks or wood	Tiles, slate, shingle, C.I., zinc or other metal sheets, asbestos cement sheets, bricks, lime, stone and RBC/RCC	All other materials and materials not stated
1	2	3	4	5	6	7
TAMIL NADU	**625**	**375**	**N**	**302**	**698**	**N**
1. Madras	...	...	...	288	712	N
2. Chingleput	785	215	N	492	508	N
3. North Arcot	733	267	N	406	594	N
4. South Arcot	840	160	N	521	479	N
5. Dharmapuri	581	419	N	221	779	N
6. Salem	687	313	N	307	693	N
7. Coimbatore	288	712	N	98	902	N
8. Nilgiris	158	842	O	123	877	N
9. Madurai	565	435	N	268	732	N
10. Tiruchirapalli	714	286	N	392	608	N
11. Thanjavur	775	225	N	514	486	N
12. Ramanathapuram	542	458	N	270	730	N
13. Tirunelveli	420	580	N	232	768	N
14. Kanyakumari	496	504	N	262	737	1

N denotes negligible figures

75. About two-thirds of residential Census houses in rural areas of the State as a whole have katcha roofs in that grass, leaves, reeds, bamboo, thatch, mud, unburnt bricks or wood. The rest of the residential houses have roof materials of tile, slate, shingle, corrugated iron, zinc or other metal sheets, asbestos cement sheets, brick and lime, stone, RBC/RCC. Nilgiris and Coimbatore district rural areas have much lower proportion of katcha roof material used for residential houses. The proportions in these districts are 15.8% in Nilgiris and 28.8% in Coimbatore. Rural areas of Tirunelveli and Kanyakumari also have lesser proportion of residential houses with katcha roof materials. (42% in Tirunelveli and nearly half in Kanyakumari.) Above 54% but below 60% of residential houses in the rural areas of Ramanathapuram, Madurai and Dharmapuri have katcha roof materials of grass, leaves, reeds etc. Salem rural sector has katcha roofs for about 69% of residential houses. Over 70% but below 80% of residential Census houses in the rural areas of the districts of Tiruchirapalli, Thanjavur, North Arcot and Chingleput are found to have used katcha material for roofing. More than 8 out of 10 residential houses in the rural sector of South Arcot district have katcha roofing.

76. In contrast to the rural sector, the urban areas in the State as a whole have less than one-third of the residential houses with katcha roof materials of grass, leaves, reeds, bamboo etc , and about two-thirds of residential houses are covered with pucca roof materials of tiles, slate, shingle, C.I., zinc or other metal sheets etc. As in the case of rural sector in the urban sector also, the districts of Coimbatore and Nilgiris show lower proportions–less than one-eighth of all residential houses having katcha roofing. The urban areas of the districts of Dharmapuri, Tirunelveli, Kanyakumari, Madurai, Ramanathapuram and Madras also have lower percentage of residential houses with katcha roof materials, the proportion varying from 22.1% to 28.8%. Salem urban areas have also less than one-third of residential houses having katcha roofs. More than one-third but less than half of residential houses in the urban areas of Tiruchirapalli, Chingleput and North Arcot have katcha roof materials used in construction. More than half and less than 55% of Urban residential houses in the districts of Thanjavur and South Arcot have katcha roofs.

77. Comparing the picture of roof materials used by residential houses in rural and urban sectors, it is seen that katcha materials predominate in the rural areas of most of the districts while pucca roof materials dominate in a large number of districts in the urban sector. Looking into the proportions of both rural and urban residential houses, the districts of Nilgiris and Coimbatore stand district with higher proportions of houses using pucca roof materials in their construction. To some extent, the districts of Tirunelveli and Kanyakumari are better placed in the use of pucca roof materials when compared to other districts of Tamil Nadu. South Arcot may be seen to have the lowest proportion of pucca-roofed houses in both the rural and urban areas.

SECTION VII

WALL AND ROOF MATERIALS OF RESIDENTAL HOUSES IN CITIES

78. Having seen the use of different wall and roof materials in the rural and urban areas of the State and districts, a study of the use of different wall and roof materials in the cities of Tamil Nadu would be interesting.

79. A statement giving the distribution of 1,000 residential Census houses by different wall and roof materials is given below for cities.

STATEMENT III-19

Distribution of 1,000 residential houses in Cities by material of wall and roof separately

City	WALL MATERIAL			ROOF MATERIAL		
	Grass, leaves, reeds, or bamboo, mud, unburnt bricks, wood	Burnt bricks G.I. sheets or other metal sheets, stone, cement	All other materials and materials not stated	Grass, leaves, reeds, or bamboo, thatch, mud, unburnt bricks, wood	Tiles, slate, shingle, C.I., zinc or other metal sheets, asbestos cement sheets brick & lime, stone, RBC/RCC	All other materials and materials not stated
1	2	3	4	5	6	7
1. Madras	235	765	N	288	712	N
2. Kanchipuram	479	521	N	232	768	N
3. Vellore	304	696	0	281	719	N
4. Salem	324	676	N	211	789	0
5. Tiruppur	342	658	N	35	965	N
6. Coimbatore	257	743	0	78	922	0
7. Singanallur	334	666	N	53	947	N
8. Dindigul	483	517	0	352	648	N
9. Madurai	254	746	0	174	826	N
10. Tiruchirapalli	310	690	N	316	684	N
11. Kumbakonam	285	715	N	420	580	N
12. Thanjavur	532	468	0	459	541	0
13. Tuticorin	385	615	0	267	733	0
14. Tirunelveli	266	734	0	173	827	0
15. Nagercoil	605	394	1	185	814	1

N denotes negligible figures

80. The use of katcha wall and roof materials like grass, leaves, reeds, bamboo, mud, unburnt bricks or wood etc. are less in usage in the construction of residential Census houses in most of the cities. Greater use of pucca wall and roof materials are found in 13 out of 15 cities of Tamil Nadu. In Thanjavur and Nagercoil cities, higher proportion of residential houses have used katcha materials for walls. However, one will see that the use of katcha and pucca wall and roof materials in the cities are not uniform and variations are seen as between one city and another. It can also be noticed that not all residential Census houses which have katcha walls have also katcha roofs as the proportions under each are not the same. From the proportions one can see that in some cities residential houses which have katcha walls also have pucca roofs. To cite an example, Kanchipuram city with a proportion of 479 residential Census houses having katcha wall materials used in construction has a proportion of only 232 houses having katcha roof materials. Tiruppur, Coimbatore, Singanallur and Nagercoil cities also exhibit a similar tendency as Kanchipuram city. The reverse is also there. Madras city which has a proportion of 235 residential houses having katcha walls has a proportion of 288 residential houses having katcha roof materials indicating that houses with pucca walls can also have katcha roofs. Kumbakonam city is also one another example of this type. If we consider that cities which have less than 30% of residential houses under katcha wall and roof materials are better placed, then the cities of Madras, Tirunelveli, Madurai and Coimbatore come under this category.

SECTION VIII

DISTRIBUTION OF RESIDENTIAL HOUSES CROSS CLASSIFIED BY MATERIAL OF WALL AND ROOF

81. In the previous sections we have examined the distribution of Census houses by wall material and roof material separately No discussion on the houses with a predominant wall material cross classified by predominant roof material was done. As both wall and roof of the house determine the type of the house whether it is pucca or katcha, correlation of wall and roof material used in the construction of houses will be relevant to assess the level of housing facilities available in any region. An appendix to main Table H–II has been compiled wherein the distribution of residential Census houses having a particular wall material cross tabulated by the different kinds of roof materials used is given. From the figures shown in the appendix, to Table H-II, proportions have been worked out leading to the following analysis.

82. In Tamil Nadu as a whole, about half of the residential houses are having walls and roofs made of katcha materials. By katcha wall and roof materials, we mean that the houses have used materials like grass, leaves, reeds, bamboo, thatch, mud, unburnt bricks or wood for construction of wall and roof. In the rural areas, about 61% of residential houses come under this type whereas in about one-fourth of urban residential houses (26.7%), katcha materials for walls as well as for roofs have been used. In seven districts out of 14, more than half the number of residential houses are built with katcha materials. South Arcot and Thanjavur are very prominent in this respect—South Arcot with 77.9% and Thanjavur with 69.8%. In the districts of Chingleput and North Arcot, nearly two-thirds of residential houses are built with katcha materials. Slightly lower proportion of residential houses in Tiruchirapalli come under this category. Nilgiris and Coimbatore districts and Madras City present a better picture. About one-eighth of residential houses are katcha in Nilgiris district and about one-fifth in Coimbatore district. Madras City has a slightly higher proportion of katcha houses than Coimbatore. Tirunelveli, Kanyakumari, Madurai and Ramanathapuram districts also exhibit lesser proportion of katcha houses in that order compared to other districts.

83. Except Madras district which is wholly urban, in rural areas of all other districts, katcha walled and katcha roofed houses are prominent. In six districts out of thirteen, more than 60% of residential houses are constructed out of katcha materials. The districts are South Arcot, Chingleput, Thanjavur, North Arcot, Tiruchirapalli and Salem. These districts are depending mainly on

primary activities of agriculture with low industrial development. Nilgiris and Coimbatore show a bright picture with lesser proportion of katcha houses. Probably because Nilgiris is a hill district endowed with granite stones but not with palmyrah or coconut leaves that are used for katcha roofs, people have to use pucca building materials for walls and roofs. So also in Coimbatore, stones are available in abundance and it is cheap to use them for walls.

84. Urban areas for the State as a whole show a better picture in that only a little more than one-fourth of all residential houses are constructed from katcha materials as against about three-fifths in rural areas. Coimbatore, Nilgiris, Madras, Dharmapuri, Tirunelveli, Madurai, Kanyakumari and Ramanathapuram districts have smaller proportion of houses with katcha wall and katcha roof in their urban areas.

85. One category of semi-pucca residential houses, i.e., houses having katcha walls and pucca roof of tile, slate, shingle etc., account for about 14% for the State as a whole. This type of houses are very much less in Madras, South Arcot, Chingleput, North Arcot and Thanjavur where it is less than one-twentieth. Nilgiris, Tiruchirapalli and Salem districts also do not show a preference to this semi-pucca type in that they range between 8 to 11% of residential houses. In rural sector, about one-seventh of all residential houses belong to this category. Kanyakumari, Coimbatore, Dharmapuri, Ramanathapuram, Tirunelveli and Madurai have more than one-fifth but below one-third of residential houses in this type. Exactly one-eighth of urban residential houses are semi-pucca. The same districts which are prominent in the rural sector for this type are conspicuous in the urban sector also. Small and medium sized towns in these districts perhaps contribute to this state of affairs.

86. Pucca walled and pucca roofed residential houses exhibt a proportion of less than one-third of all residential houses in the State as a whole. The districts of Nilgiris and Madras have a high proportion of pucca residential houses with over two-thirds of all houses in their areas. Coimbatore district which had shown a brighter picture with lesser number of katcha houses does not show a very high proportion of pucca houses. Only a little less than half of the residential housesare pucca in this district. Tirunelveli and Madurai districts also show somewhat better picture from other districts with more than 30% of all residential houses as pucca houses., Kanyakumari district which has comparatively lesser number of katcha houses does not show a higher proportion of pucca houses since semi-pucca houses form a sizable proportion (33·4%) under it.

87. Rural sector for the State as a whole has less than one-fourth as pucca residential houses. The rural areas of South Arcot, Dharmapuri, North Arcot, Tiruchirapalli, Thanjavur and Kanyakumari districts are to be considered as the really poor areas in the matter of houses in that not even one-fifth of residential houses are pucca walled and pucca roofed. Nilgiris rural sector stands distinct among the districts with nearly four-fifths of all houses as pucca houses. In Coimbatore and Tirunelveli districts rural areas are also comparatively better off though not to the extent of the rural areas of Nilgiris. The rural areas of Nilgiris is even much better than its urban areas.

88. About three-fifths of residential houses in the urban areas of the State as a whole are pucca. Only three districts – Nilgiris, Madras and Coimbatore-lead the other districts with more than 65% but below 76% of residential houses as pucca houses. Less than half the residential houses in the urban areas of Chingleput, South Arcot, Dharmapuri Thanjavur and Kanyakumari are having pucca walls and pucca roofs.

89. The other semi-pucca type of houses, viz., houses with pucca walls of burnt bricks, G.I. sheets, stone, cement etc., and with katcha roof of grass, leaves, reeds etc., are not common in Tamil Nadu. Less than 3% of houses come under this head. Madras and Salem are prominent under this head among the districts. Even in these two districts, the proportion of houses is less than one-twelfth of all residential houses.

90. *Wall and roof materials other than those* detailed above are not significant and no discussion appears necessary.

91. The following inset tables present the proportion of residential Census houses having katcha and pucca walls cross-classified by katcha and pucca roof.

STATEMENT III-20

Proportion of Census houses per 1,000 with predominant wall materials (i) *Grass, leaves, reeds or bamboo, mud, unburnt bricks and wood* (ii) *Burnt bricks, G.I. sheets or other metal sheets, stone, cement and* (iii) *All other materials and materials not stated cross classified by roof materials* (i) *Grass, leaves, reeds or bamboo, thatch, mud, unburnt bricks or wood* (ii) *Tiles, slate, shingle, C.I. or other metal sheets, asbestos etc., and* (iii) *All other materials and materials not stated.*

(i) WALL MATERIAL GRASS LEAVES, REEDS ETC., WITH ROOF MATERIAL

State/District	Grass, leaves, reeds or bamboo, thatch, mud, unburnt bricks or wood			Tiles, slate, shingle, C.I. or other metal sheets, asbestos etc.			All other materials and materials not stated		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7	8	9	10
TAMIL NADU	**514**	**607**	**267**	**139**	**144**	**125**	N	N	N
1. Madras	217	...	217	18	...	18	N	...	N
2. Chingleput	667	768	439	30	21	50	N	N	N
3. North Arcot	663	724	375	42	35	75	N	N	O
4. South Arcot	779	820	471	11	11	12	N	N	O
5. Dharmapuri	546	576	213	271	264	350	N	N	O
6. Salem	552	633	286	105	88	161	N	N	N
7. Coimbatore	208	265	93	289	311	246	N	N	N
8. Nilgiris	129	143	113	81	44	120	N	O	N
9. Madurai	458	550	250	197	213	163	N	N	N
10. Tiruchirapalli	629	702	347	93	102	57	N	N	O
11. Thanjavur	698	754	441	45	45	49	N	N	O
11. Ramanathapuram	464	533	251	228	242	183	N	N	N
12. Tirunelveli	349	408	217	254	271	215	N	N	N
13. Kanyakumari	433	468	250	334	325	380	N	N	O

N denotes negligible figures

(ii) WALL MATERIAL BURNT BRICKS, G.I. SHEETS OR OTHER METAL SHEETS, STONE, CEMENT WITH ROOF MATERIAL

State/District	Grass, leaves, reeds or bamboo, thatch, mud, unburnt bricks or wood			Tiles, slate, shingle, C. I or other metal sheets, asbestos etc.			All other materials and materials not stated		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7	8	9	10
TAMIL NADU	**23**	**19**	**35**	**324**	**230**	**573**	N	N	N
1. Madras	71	...	71	694	...	694	N	...	N
2. Chingleput	28	17	53	275	194	458	N	0	N
3. North Arcot	13	9	30	282	232	520	N	N	N
4. South Arcot	23	20	50	187	149	467	N	N	0
5. Dharmapuri	5	5	8	178	155	429	0	0	0
6. Salem	46	54	21	297	225	532	N	N	0
7. Coimbatore	18	23	5	485	401	656	N	N	0
8. Nilgiris	12	15	10	778	798	757	0	0	0
9. Madurai	16	15	17	329	222	570	N	N	N
10. Tiruchirapalli	19	12	46	259	184	550	N	0	N
11. Thanjavur	30	21	72	227	180	438	N	N	0
12. Ramanathapuram	11	9	19	297	216	547	N	N	0
13. Tirunelveli	13	12	15	384	309	553	N	N	N
14. Kanyakumari	25	28	13	205	175	357	0	0	0

N denotes negligible figures

Distribution of residential houses in cities by wall materials cross classified by roof materials

92. Earlier a discussion of the residential houses by wall materials cross tabulated by roof materials was made for the rural and urban areas of the State and districts. In this part a discussion on the figures of cities has been made.

93. The statement below gives the proportions of residential houses by different wall materials cross classified by different roof materials in cities of this State.

STATEMENT III-21

Proportion of Census houses per 1,000 with predominant wall materials (i) Grass, leaves, reeds or bamboo, mud, unburnt bricks and wood (ii) Burnt bricks, G. I. sheets or other metal sheets, stone, cement and (iii) All other materials and materials not stated cross classified by roof materials (i) Grass, leaves, reeds or bamboo, thatch, mud, unburnt bricks or wood (ii) Tiles, slate, shingle, C. I. or other metal sheets, asbestos etc., and (iii) All other materials and materials not stated.

(i) WALL MATERIAL GRASS, LEAVES, REEDS OR BAMBOO, MUD, UNBURNT BRICKS, AND WOOD WITH ROOF MATERIAL

City	Grass, leaves, bamboo, thatch, mud, unburnt bricks or wood	Tiles, slate, shingle, C.I. or other metal sheets, asbestos etc.	All other materials and materials not stated
1	2	3	4
1. Madras	217	18	N
2. Kanchipuram	226	253	O
3. Vellore	259	45	O
4. Salem	200	124	O
5. Tiruppur	34	308	O
6. Coimbatore	75	182	O
7. Singanallur	52	282	O
8. Dindigul	335	148	N
9. Madurai	156	98	N
10. Tiruchirapalli	269	41	O
11. Kumbakonam	278	7	O
12. Thanjavur	426	106	O
13. Tuticorin	261	124	O
14. Tirunelveli	139	127	O
15. Nagercoil	173	432	O

(ii) WALL MATERIAL BURNT BRICKS, G.I. SHEETS OR OTHER METAL SHEETS, STONE, CEMENT WITH ROOF MATERIAL

City	Grass, leaves reeds or bamboo. thatch, mud, unburnt bricks or wood	Tiles, slate, shingle, G.I. or other metal sheets, asbestos etc.	All other materials and materials not stated
1	2	3	4
1. Madras	71	694	N
2. Kanchipuram	6	515	O
3. Vellore	22	674	N
4. Salem	11	665	O
5. Tiruppur	N	658	O
6. Coimbatore	3	740	O
7. Singanallur	N	666	O
8. Dindigul	17	500	O
9. Madurai	18	728	N
10. Tiruchirapalli	47	643	N
11. Kumbakonam	142	573	O
12. Thanjavur	33	435	O
13. Tuticorin	6	609	O
14. Tirunelveli	34	700	O
15. Nagercoil	12	382	O

94. The three cities of Coimbatore district - Tiruppur. Coimbatore and Singanallur show very much lower proportion of residential houses with katcha walls and katcha roofs. Less than one-twelfth of residential houses in these cities are katcha. Thanjavur and Dindigul cities have about two-fifths and one-third of all residential houses as katcha walled and katcha roofed type. The cities of Tirunelveli and Madurai show better image in that the katcha residential houses are below one-sixth of all houses. In all other cities, katcha houses form 20% and above but below 30% of all residential houses. Semi pucca house-katcha walls with pucca roofs are insignificant in Kumbakonam and Madras. This type is prominent in the cities of Nagercoil, Tiruppur, Singanallur, Kanchipuram and to some lower extent in Coimbatore City.

95. Pucca houses (i.e.,) those having pucca wall and pucca roof preponderate in the cities of Coimbatore, Madurai, Tirunelveli, Madras, Vellore, Singanallur and Salem, the proportions varying from about two-third to three-fourth of residential houses in these cities. Tiruppur and Tiruchirapalli cities have a little less than two-thirds as pucca houses. Nagercoil and Thanjavur cities are the two cities where the proportion of pucca residential houses is less than half.

96. Semi pucca houses of the other type, i.e., with pucca wall and katcha roof are prominent in Kumbakonam and then in Madras City. It is almost negligible in the cities of Tiruppur, Singanallur and Coimbatore.

97. If we consider the cities which have more than three-fifth of all houses as pucca and having better housing condition, then ten out of fifteen cities of Tamil Nadu satisfy this criterion.

SECTION IX

CHANGE IN THE DISTRIBUTION OF CENSUS HOUSES BY WALL AND ROOF MATERIALS BETWEEN 1960 AND 1970

98. In the earlier sections, the distribution of Census houses by types of wall and roof materials as were found at the time of houselisting in 1970 was analysed. In this section, comparison of the materials used for Census houses as were found in 1960 and 1970 houselisting operations is made. Cross tabulation of wall and roof materials was not made at the 1960 houselisting tabulation and as such, the comparison would be made by wall and roof materials separately. Though the types of wall and roof materials are more in number, three broad categories have only been taken into consideration.

Wall materials

99. The table below shows the proportion of houses by broad groups of wall materials in the State and Districts for 1960 and 1970.

STATEMENT III-22

Distribution of 1,000 Census houses by predominant material of wall, 1960 and 1970

State/District	Grass, leaves, reeds or bamboo, mud, unburnt bricks or wood		Burnt bricks G.I. sheets or other metal sheets, stone, cement		All other materials and materials not stated	
	1960	1970	1960	1970	1960	1970
1	2	3	4	5	6	7
TAMIL NADU	**688**	**652**	**306**	**348**	**6**	**N**
1. Madras	294	235	700	765	6	N
2. Chingleput	734	697	261	303	5	N
3. North Arcot	721	705	277	295	2	N

(Contd.)

STATEMENT III-22—(*Contd.*)

Distribution of 1,000 Census houses by predominant material of wall, 1960 *and* 1970—(Contd.)

State/District	Grass, leaves, reeds or bamboo, mud unburnt bricks or wood		Burnt bricks, G.I. sheets or other metal sheets, stone, cement		All other materials and materials not stated	
	1960	1970	1960	1970	1960	1970
1	2	3	4	5	6	7
4. South Arcot	810	790	187	210	3	N
5. Dharmapuri	851	817	148	183	1	N
6. Salem	709	657	289	343	2	N
7. Coimbatore	584	497	413	503	3	N
8. Nilgiris	179	209	817	791	4	N
9. Madurai	703	655	291	345	6	N
10. Tiruchirapalli	760	721	238	279	2	N
11. Thanjavur	762	743	221	257	17	N
12. Ramanathapuram	725	691	262	309	13	N
13. Tirunelveli	624	603	362	397	14	N
14. Kanyakumari	583	767	414	230	3	3

N denotes negligible figures

100. From the above table, it will be seen that for the State as a whole, proportion of houses with katcha wall materials of grass, leaves, reeds or bamboo, mud, unburnt bricks and wood which stood at 68·8% in 1960 has come down to 65.2% in 1970. The katcha walled houses have shown a reduction of about 4% in a decade. On the other hand, an increase of 4·6% of houses under pucca wall materials of burnt bricks, G. I. sheets or other metal sheets, burnt bricks, cement and stone is noticed in 1970 over the 1960 proportions.

101. All the districts except Nilgiris and Kanyakumari show reduced proportions in houses with katcha wall materials described above. Salem, Coimbatore, Madurai and Madras districts show decreases in the proportion of katcha houses in 1970 over those of 1960 by about 5 to 8%. North Arcot and Thanjavur show decreases during 1970 which are less than 2%. Perhaps in these two districts building activity is not very much. Nilgiris which had more pucca walled houses however show decrease in the proportion of this type in 1970 over that of

1960 which may be due to spurt in population growth, especially in plantation labour etc., and the need for shelter of any kind without regard for permanency. Kanyakumari district shows a lower proportion of pucca walled houses in 1970 than that of 1960, the difference being 18.4.

102. The last group-all other materials and materials not stated has lost its importance in 1970. All the districts show only negligible proportions in 1970. Perhaps the 1970 enumerators who did houselisting operations were careful to record the predominant wall material precisely.

103. In the table presented below, the distribution of Census houses in the rural and urban areas of the State and Districts by wall material is shown for 1960 and 1970.

STATEMENT III-23

Distribution of 1,000 Census houses by wall material in rural and urban areas for 1960 and 1970

State/District	RURAL						URBAN					
	Grass, leaves, etc.		Burnt bricks, G.I. or other metal sheets etc.		All other materials & materials not stated		Grass, leaves etc.		Burnt bricks, G.I. or other metal sheets etc.		All other materials & materials not stated	
	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970
1	2	3	4	5	6	7	8	9	10	11	12	13
TAMIL NADU	**775**	**751**	**219**	**249**	**6**	**N**	**429**	**392**	**565**	**608**	**6**	**N**
1. Madras	...	...	...	...	...	...	294	235	700	765	6	N
2. Chingleput	796	789	200	211	4	N	483	489	509	511	8	N
3. North Arcot	776	759	222	241	2	N	472	450	526	550	2	N
4. South Arcot	838	832	159	168	3	N	593	483	406	517	1	N
5. Dharmapuri	865	840	134	160	1	N	662	563	338	437	N	N
6. Salem	759	721	239	279	2	N	492	447	506	553	2	N
7. Coimbatore	657	576	339	424	4	N	393	338	605	662	2	N
8. Nilgiris	181	187	811	813	8	O	178	233	822	767	N	N
9. Madurai	800	763	193	237	7	N	478	414	519	586	3	N
10. Tiruchirapalli	838	804	160	196	2	N	440	404	559	596	1	N
11. Thanjavur	815	798	165	202	20	N	528	490	465	510	7	N
12. Ramanathapuram	814	775	173	225	13	N	444	434	542	566	14	O
13. Tirunelveli	706	679	281	321	13	N	435	431	550	569	15	N
14. Kanyakumari	605	793	392	203	3	4	451	629	548	370	1	1

N denotes negligible figures

104, Rural areas of the State of Tamil Nadu had shown a smaller proportion of houses with katcha wall materials in 1970 than it was in 1960. In 1960, the proportion of such houses was 77.5% and in 1970 it is 75.1% indicating a reduction of 2.4% in the katcha walled houses.

105. Rural areas of Chingleput and South Arcot districts have shown very negligible reduction in the proportion of katcha walled houses, i.e., less than 1%. North Arcot and Thanjavur rural sectors have also shown reduction of less than 2% in this type. Coimbatore district rural areas have shown appreciable reduction in the proportion of katcha walled houses during the decade 1960–1970 by 8.1%. In the rural areas of other districts excepting Nilgiris and Kanyakumari, the proportion of katcha walled houses have shown a reduction varying from 2.5% in Dharmapuri to 3.9% in Ramanathapuram. As was seen earlier in the discussion of all areas, the rural areas of Nilgiris and Kanyakumari have shown higher proportions in this type now over the proportions a decade ago. However, it is seen that the increase in the proportion in 1970 over that of 1960 in Nilgiris rural sector is less than 1%.

106. Urban areas of the State as a whole shows smaller proportion of houses with katcha wall materials than was the position in 1960. The decrease in the proportion is 3.7% and is considerably higher than the decrease of 2.4% noticed in the rural sector.

107. Chingleput, Nilgiris and Kanyakumari districts have shown higher proportion of katcha walled houses in 1970 than it was in 1960. The cases of Nilgiris and Kanyakumari have been detailed earlier. In Chingleput district, perhaps places which have become new Census towns in 1970 because of their industrial characteristics have to provide additional houses for labour force and their families and this additional demand was partly met by katcha houses. Appreciable reduction of katcha walled houses is seen in the urban areas of South Arcot and Dharmapuri, the decrease being about 10% during the decade. Madurai, Coimbatore and Madras have also registered decrease in the proportion of houses with katcha walls ranging from 5 to 6%. In the urban areas of the districts of North Arcot, Salem, Tiruchirapalli and Thanjavur, the decrease is between 2.2% in North Arcot to 4.5% in Salem. Ramanathapuram district has registered a marginal decrease of 1% while it is less than half a per cent in Tirunelveli.

108. On the whole, both the rural and urban areas have shown lower proportion of houses with katcha walls in most of the districts in 1970 than it was a decade ago with this trend being more marked in the urban areas. Among the districts, the decrease in the proportion varies dependent on the economy of the district. Districts like North Arcot, South Arcot, Thanjavur and Tirunelveli which are predominantly agricultural in character have shown lower variations in proportions as compared to the developing industrial based districts of Coimbatore, Madras and Madurai.

Roof materials

109. The inset statement given below exhibits the distribution of 1,000 Census houses by predominant materials of roof for the State and Districts in 1960 and 1970.

STATEMENT III-24

Distribution of 1,000 Census houses by predominant materials of roof in the State and Districts, 1960 and 1970

State/District	Grass, leaves, reeds or bamboo, thatch, mud, unburnt bricks or wood		Tiles, slate, shingle, C.I., zinc or other metal sheets, asbestos cement sheets, brick and lime, stone, RBC/RCC		All other materials and materials not stated	
	1960	1970	1960	1970	1960	1970
1	2	3	4	5	6	7
TAMIL NADU	**579**	**537**	**414**	**463**	**7**	N
1. Madras	310	288	685	712	5	N
2. Chingleput	707	695	288	305	5	N
3. North Arcot	673	676	321	324	6	N
4. South Arcot	814	802	183	198	3	N
5. Dharmapuri	591	551	407	449	2	N
6. Salem	679	598	318	402	3	N
7. Coimbatore	269	225	724	775	7	N
8. Nilgiris	119	141	870	859	11	N
9. Madurai	493	473	491	527	16	N
10. Tiruchirapalli	703	648	291	352	6	N
11. Thanjavur	725	728	273	272	2	N
12. Ramanathapuram	538	475	445	525	17	N
13. Tirunelveli	465	363	530	637	5	N
14. Kanyakumari	531	458	468	542	1	N

N denotes negligible figures

110. As in the case of wall materials, the State as a whole shows reduced proportions under houses with katcha roof materials of grass, leaves, reeds or bamboo, thatch, mud, unburnt bricks or wood in 1970 over that of 1960, the decrease being 3.8%. Among the districts, Nilgiris, North Arcot and Thanjavur have exhibited increased proportion of houses with katcha roof over the decade. In Nilgiris, the increase is 2.2% while in the other two districts of North Arcot and Thanjavur it is very nominal (0.3%). In the rest of the districts, the proportions in 1970 are lower than it were a decade ago. In the districts of Tirunelveli, the decrease in the proportion during 1960–1970 is a little over 10% and in the districts of Salem, Kanyakumari, Ramanathapuram and Tiruchirapalli it ranges between 5% and 8%. Coimbatore and Dharmapuri districts show decreases in proportions by about 4% and in the districts of Madurai and Madras, they are about 2%. Chingleput and South Arcot districts show decrease by about 1% only. Southern and Western regions of the State seem to have an edge over the other districts in the matter of housing conditions.

111. As had been seen earlier, in the case of wall materials, we may see how the rural and urban areas of the districts have changed during the decade 1960–70. The statement that follows indicates the proportions of houses with certain broad roof materials in the rural and urban areas of the State and Districts in 1960–70.

STATEMENT III-25

Distribution of 1,000 Census houses by roof material in rural and urban areas, 1960 and 1970

State/District	RURAL						URBAN					
	Grass, leaves, reeds or bamboo, thatch, mud, unburnt bricks or wood		Tiles, slate, shingle, C. I., zinc or other metal sheets, asbestos cement sheets, brick & lime, stone, RBC/RCC		All other materials & materials not stated		Grass, leaves, reeds or bamboo, thatch, mud, unburnt bricks or wood		Tiles, Slate, shingle, C. I., zinc or other metal sheets, asbestos cement sheets brick & lime, stone, RBC/RCC		All other materials & materials not stated	
	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970
1	2	3	4	5	6	7	8	9	10	11	12	13
TAMIL NADU	**664**	**625**	**329**	**375**	**7**	**N**	**325**	**302**	**668**	**698**	**7**	**N**
1. Madras	...	.	...	...	...	...	310	288	685	712	5	N
2. Chingleput	785	785	211	215	4	N	395	492	596	508	9	N
3. North Arcot	738	733	258	267	4	N	378	406	608	594	14	N
4. South Arcot	848	840	149	160	3	N	565	521	433	479	2	N
5. Dharmapuri	617	581	381	419	2	N	224	221	776	779	N	N
6. Salem	756	687	240	313	4	N	346	307	653	693	1	N
7. Coimbatore	318	288	677	712	5	N	142	98	849	902	9	N
8. Nilgiris	127	158	855	842	18	O	107	123	893	877	0	N
9. Madurai	571	565	407	435	22	N	311	268	686	732	3	N
10. Tiruchirapalli	771	714	227	286	2	N	425	392	553	608	22	N
11. Thanjavur	780	775	218	225	2	N	483	514	515	486	2	N
12. Ramanathapuram	612	542	367	458	21	N	304	270	693	730	3	N
13. Tirunelveli	543	420	453	580	4	N	285	232	709	768	6	N
14. Kanyakumari	576	496	423	504	1	N	269	262	730	737	1	1

N denotes negligible figures

112. Rural areas of the State as a whole has shown lower proportion of houses with katcha roof in 1970 as compared to the proportion in 1960. The decrease in the proportion works out to 3.9%. Among the districts, North Arcot, South Arcot Madurai and Thanjavur have shown a marginal decrease in the proportion of katcha roofed houses during 1970 with the variation of less than 1%. Dharmapuri and Coimbatore districts have shown lower proportions of houses of this type and the decrease in the proportion from 1960 to 1970 is about 3% to 4%. Tiruchirapalli, Salem, Ramanathapuram and Kanyakumari districts show decrease in the proportion of katcha roofed houses ranging from 5.7% in Tiruchirapalli to 8% in Kanyakumari. About 12% decrease in the proportion of katcha roof is seen in Tirunelveli district. Kanyakumari district has shown a reversal in the proportion of katcha roofed houses when compared to the propotion of katcha walled houses. While in the case of the latter there has been increase in the proportion in 1970 over that of 1960 in the case of former, there is decrease in the proportion in 1970 over that of 1960. In Nilgiris district as in the case of wall materials, katcha roofed houses have increased in their proportion in 1970 over that of 1960 by about 3%.

113. The urban areas of the State as a whole show decrease in the proportion of katcha roofed houses in 1970 than it was a decade ago. The decrease is 2 to 3% which is less than the decrease seen in the rural sector.

114. The urban areas of the districts of Chingleput, North Arcot, Nilgiris and Thanjavur have shown higher proportion of katcha roofed houses in 1970 than it was in 1960. While in Nilgiris district the increase noticed is 1.6%, it ranges between 2.8% to 3.1% in the districts of North Arcot and Thanjavur; Chingleput has, however, shown an increase of about 10% in the proportion of katcha roofed houses during the period 1960–70. Perhaps the same reasons as under wall materials apply here also. In the urban areas of the districts of Tiruchirapalli, Ramanathapuram, Salem, Madurai, Coimbatore South Arcot and Tirunelveli, the decrease in the proportion for the decade ranges from 3.3% in Tiruchirapalli to 5.3% in Tirunelveli. Madras city has reduced the proportion of katcha roofed houses by 2.2% and the districts of Dharmapuri and Kanyakumari by less than 1%.

115. In the matter of roof materials, more improvement is seen in the rural sector as compared to urban areas. Southern and Western regions show more improvement during the decade compared to the position in 1960.

116. Out of the 14 cities for which comparative figures of 1960 and 1970 are presented separately most of the cities have shown lower proportion of houses with katcha wall and katcha roof materials in 1970 than it were a decade ago.

117. Madras, Kanchipuram, Salem, Tiruppur, Coimbatore and Dindigul cities have shown appreciable reduction in the proportion of katcha walled houses, the decrease for the period 1960–70 being in the order of 5 to 10%. In the cities of Madurai, Tiruchirapalli, Tuticorin and Tirunelveli, the decrease varies from 1.3% in Tuticorin to 4.3% in Madurai. Nagercoil, Kumbakonam, Thanjavur and Vellore cities have however shown a higher proportion of houses with katcha wall material in 1970 over that of 1960. The increase in Nagercoil being 18.2% while in Kumbakonam it is 4.9%. In the other two cities, the increase is not significant.

118. Under roof materials, houses with katcha roof material have increased their proportion in 1970 in the cities of Kanchipuram, Vellore, Kumbakonam, Thanjavur and Nagercoil. The increase is from 0.8% in Nagercoil to 10.4% in Kanchipuram. Coimbatore, Salem and Tuticorin have shown decrease in katcha roofed houses by 5 to 8% in 1970. The decrease in the proportion of katcha roofed houses in the cities of Madras, Dindigul, Madurai, Tiruppur, Tiruchirapalli and Tirunelveli is in the range of 2 to 4%.

STATEMENT III–26

Distribution of 1,000 Census houses in cities by predominant materials of wall and roof, 1960 and 1970

City	Wall material						Roof material					
	Grass, leaves, reeds or bamboo, mud, unburnt bricks or wood		Burnt bricks, G.I. sheets or other metal sheets, stone, cement		All other materials and materials not stated		Grass, leaves, bamboo, thatch mud, unburnt bricks or wood		Tiles, slate, shingle C.I. zinc or other metal sheets, asbestos cement sheets, stone, RBC/RCC		All other materials and materials not stated	
	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Madras	294	235	700	765	6	N	310	288	685	712	5	N
2. Kanchipuram	530	479	468	521	2	N	128	232	869	768	3	N
3. Vellore	299	304	699	696	2	O	253	281	743	719	4	N
4. Salem	419	324	579	676	2	N	296	211	703	789	1	O
5. Tiruppur	436	342	564	658	N	N	51	35	945	965	4	N
6. Coimbatore	350	257	647	743	3	O	140	78	856	922	4	O
7. Singanallur	...	334	...	666	...	N	...	53	...	947	...	N
8. Dindigul	557	483	442	517	1	O	388	352	611	648	1	N
9. Madurai	297	254	701	746	2	O	210	174	787	826	3	N
10. Tiruchirapalli	331	310	668	690	1	N	342	316	623	684	35	N
11. Kumbakonam	236	285	762	715	2	N	368	420	629	580	3	N
12. Thanjavur	524	532	472	468	4	O	439	459	558	541	3	O
13. Tuticorin	398	385	597	615	5	O	317	267	681	733	2	O
14. Tirunelveli	283	266	703	734	14	O	197	173	801	827	2	O
15. Nagercoil	423	605	576	394	1	1	177	185	822	814	1	1

N denotes negligible figures

SECTION X

INFLUENCE OF CLIMATE, RAINFALL AND SOILS ON THE USE OF DIFFERENT WALL AND ROOF MATERIALS

119. Local availability of materials play an important role in the materials used for the construction of wall and roof of houses in any region. Materials used for wall and roof varies so as to afford relief to the inhabitants from the vagaries of climate. The climatology, rainfall and soil types found in Tamil Nadu which are described below will help in proper appreciation of the natural factors influencing the materials used in the construction of houses especially in rural parts.

120. Before we go into the details, it will be necessary to see the geographical position of the State of Tamil Nadu. Tamil Nadu is the southernmost part of India with an area of 130,069 sq. kms. lying between northern latitudes 8° 5′ and 13° 35′ and eastern longitudes 76° 15′ and 80° 20′. Bay of Bengal is its eastern boundary. On the north, the States of Mysore and Andhra Pradesh are situated. On the west, Western Ghats separates Tamil Nadu from Kerala except for a portion of Kanyakumari district lying on the western side of Western Ghats. Kanyakumari district has the features of southern Travancore region of Kerala, though it is contiguous to Tirunelveli district.

121. Parallel to the coast running to a distance of 620 miles from Pulicat lake in the north to Cape Comorin in the south is a broad strip of plain country gradually rising away from it. Tamil Nadu's coastal plain can be divided into three sub-regions — Northern Plain, Cauvery Delta and Southern Plain. The Northern Plain comprises of the district of Chingleput, major part of South Arcot district, eastern part of North Arcot district and northern part of Tiruchirapalli district. The width of the region is between 80 to 96 kms. The plain adjoining the Eastern Ghats is slightly higher, 75 to 150 metres. It is considered to be a marine erosion surface. The rest of the plain has a thick cover of alluvium.

122. The Cauvery Delta consists of Thanjavur district and part of Tiruchirapalli district. Delta head at Tiruchirapalli is on 75 metres contour and is away by 128 kms. from the sea.

123. Southern coastal plain consists of Ramanathapuram, Tirunelveli and Kanyakumar districts. The southern coastal plain is covered with alluvium, marine and aeolian deposits. The whole coast shows both prograding and uplift. Extensive outcrops of marine sandstone are to be found and in places limestone outcrops gently dip seaward. These outcrops in the south of Tambaraparani are concealed by aeolian deposits. Area between Varshalai and Vaipar rivers is flat.

Coastline

124. The State has an uninterrupted coastline of 620 miles and includes those of Pondicherry and Karaikal. Coastline which is the eastern boundary is generally emergent in character with a straight and unindented trend. Though lengthy, there is not a single natural harbour capable of accommodating ocean going vessels.

125. The formation of hilly ranges has determined the climate, rainfall, rivers and irrigation. Along the whole length of the western part at a distance from the sea varying from 80 to 160 kms. runs the range of Western Ghats, a steep and rugged mass averaging 4000′ to 8000′. The Palghat Gap is the only break in this mountain wall. The Ghats on either side of this gap attain maximum height in the hill groups of the Nilgiris and Anamalais, the lofty Palnis being an offshoot of the latter. Another less important offshoot of the Ghats is found in Varushanad and Andipatti ranges in the South. Anamalais lie in Coimbatore district and Palnis in Madurai district.

Western Ghats

126. Western Ghats are about 1,000 miles in length and run southward at a distance of 80 to 100 km. from Arabian sea until it terminates at Cape Comorin. The Western Ghat is joined by the Eastern Ghat in the high plateau of Nilgiris. Near Coimbatore district, the hill range is interrupted by the Palghat Gap with an approximate width of 15 miles and hardly 1,000 feet above sea level. To the south is the Anamalai range. On the east is the Palni hill. To the south of Palghat Gap. the eastern and western slopes are steep and rugged with 3000′ to 8000′ in

height. The rivers—Cauvery, Vaigai and Tambaraparani have their sources here. Nilgiris plateau with about 1,000 sq. miles and a maximum height of 8000′ rises with abruptness on all sides. Southern-most flanks of Palni overlooking Vaigai are abrupt as are the Cardamom and Varushanad hills. The Cardamom hills lie between 10°N and the Shencottah Gap, with an elevation of above 6000′.

Anamalai

127. Situated in the southern part of Coimbatore district, it forms part of Western Ghats. Higher ranges consist of a series of plateaux 7000′ above sea level, running upto peaks of over 8000′. Lower range on the west has an average height of 3000′ to 4500′.

128. Palni hills is in Madurai district and linked with Western Ghats. It lies in a north-easterly direction and occupies about 800 sq. miles. It can be divided into two - eastern part called lower Palnis with an average height of 3000′ to 4000′ and the western part of 7000′. The ranges end in steep, sheer precipices in the south and slope gradually down the plains in the north.

129. The other prominent hill groups are the Javadis, Shevaroys, Kalrayans, Pachamalais and Kollimalais. These ranges continue south in broken formations and meet the Cardamom hills in Madurai district. This line of discontinuous hills is known as Eastern Ghats. The Eastern Ghats run through all the districts lying between Ganjam in Orissa and Nilgiris Plateau. Elevation is 2000′ on the average and highest peaks are less than 6000′. In the districts of North Arcot, Salem and Coimbatore, the range is very much broken and reaches the Biligiri-Rangam hills in Coimbatore district.

130. A plateau with an average elevation of 1000′ rising westward is found between the Eastern Ghats and the Western Ghats. Cauvery river divides the valley into two—one comprising most of Salem district and part of North Arcot district and the other of Coimbatore district. The mountain strip of the western boundary has an average height of 4000′ and in Ootacamund area of Nilgiris district, the highest peak of Doddabetta (8649′) is located. The hill groups north of Cauvery appear to be one continuous block which are separated into three main groups by the rivers Ponniyar and Vellar. Vaigai valley separates the Madurai hill groups from the Varushanad and Andipatti ranges but the latter range appears to be a continuation of the former. North of Palar, smaller and broken hills link up with the Nagari hills of Cuddapah district of Andhra Pradesh. One characteristic feature of the hills of Tamil Nadu is that they are flattish in the heights.

131. Shevaroy hill range is in Salem. Vanniar stream divides it and the western portion consists of three plateaux of which Pachamalai is the largest. On the eastern portion of southern extremity is Yercaud at 4500′ in height.

Climate

132. Tamil Nadu has a tropical climate. It is, however, more equable than the climate of North India. Maximum temperature hardly exceeds 110°F (43°C) and the minimum seldom goes below 65°F (18°C). The climate of Tamil Nadu is determined by its configuration and situation as well as relief and proximity to the sea.

133. The State comes under one of the hot regions of the world lying between 8° to 13°N and the sun passes vertically overhead at all places twice in a year. There is no appreciable difference in day's length. Cloudless skies in January-June results in high temperature being felt. From January the temperature rises through February and March to a maximum in April, May and June and falls gradually till September. With the setting in of the North-east monsoon in October, the temperature begins to fall rapidly and continues so till December. Lowest temperatures are recorded in December-January. The mean maximum and mean minimum temperatures recorded in the year 1970 for some stations in the State are given below.

STATEMENT III-27

Mean Maximum and Mean Minimum Temperatures of select Stations, 1970 (In Centigrade)

Station	January	February	March	April	May	June	July	August	September	October	November	December
1	2	3	4	5	6	7	8	9	10	11	12	13
MADRAS—NUNGAMBAKKAM												
Mean Maximum	28·4	29·8	32·4	33·5	37·0	35·7	34·0	32·6	33·3	31·2	29.1	27·0
Mean Minimum	20·5	21·3	23·3	26·5	28·0	27·2	25·4	24·6	25·1	24·1	23·3	19·9
TIRUCHIRAPALLI												
Mean Maximum	29·7	32·5	35·8	36·1	37·2	36·8	36·0	35·4	34·9	31·5	29·9	28·7
Mean Minimum	20·8	21·3	23·4	25·8	26·3	26·5	25·8	25·4	24.7	23·7	22·7	19·4
VELLORE												
Mean Maximum	29·5	32·1	35·3	37·0	38·2	35·8	34·8	33·1	33·9	32·0	29·9	28·1
Mean Minimum	19·5	20·2	22·2	25·4	26·0	25·5	24·8	23·8	23·8	22·7	20·9	16·2
PALAYAMKOTTAI												
Mean Maximum	31·0	32·9	35·6	35·5	37·2	36·5	35·5	35·2	36·1	34·0	31·8	30·4
Mean Minimum	22·8	23·4	25·0	26·2	27·2	27·7	26·7	26·5	26·1	25·0	23·9	21·8
MADRAS—MEENAMBAKKAM												
Mean Maximum	28·7	30·4	33·7	35·1	38·1	36·3	34·7	32·9	33·5	31·5	28·9	27·3
Mean Minimum	21·0	22·0	24·1	26·6	27·9	27·2	25·6	24·7	25·1	24·1	23·0	19·2

(Contd.)

STATEMENT III-27—(*Contd.*)

Mean Maximum and Mean Minimum Temperatures of select Stations, 1970 (In Centigrade)—(Contd.)

Station	January	February	March	April	May	June	July	August	September	October	November	December
1	2	3	4	5	6	7	8	9	10	11	12	13
PAMBAN												
Mean Maximum	28·3	29·8	32·3	32·9	33·0	32·7	31·9	32·2	31·8	31·4	29·0	26·5
Mean Minimum	23·2	24·9	25·3	26·8	27·8	27·4	27·0	26·4	26·0	26·2	24·5	23·5
SALEM												
Mean Maximum	30·9	33·0	35·9	36·7	35·5	34·4	33·6	31·9	33·2	31·5	30·4	30·3
Mean Minimum	20·2	20·7	23·0	25·8	25·1	24·9	24·0	23·5	23·7	22·3	21·9	18·0
NAGAPATTINAM												
Mean Maximum	28·0	29·3	31.2	32·7	35·6	35·9	35·4	34·3	33·4	31·8	28·9	27·3
Mean Minimum	23·1	24·4	25·8	27·3	27·2	26·7	26·3	25·7	25·7	25·2	24·0	21·4
CUDDALORE												
Mean Maximum	28·2	29·5	31·8	33·4	36·7	36·1	35·7	34·3	33·9	32·1	32·5	26·9
Mean Minimum	21·2	21·6	23·3	26·1	27·3	26·5	25·8	25·2	25·0	23·8	23·0	19·4
MADURAI												
Mean Maximum	30·2	32·7	35·8	36·1	37·2	37·0	35·4	34·6	34·6	32·7	29·8	29·3
Mean Minimum	20·1	2·09	23·1	25·0	26·0	26·3	25·1	24·6	24·0	23·1	22·3	18·8

134. Rainfall in the region is determined by the South-West monsoon (June to September) and the North-East monsoon (October to December).

Rainfall

135. Chingleput, South Arcot, Thanjavur, Madurai, Ramanathapuram and Tirunelveli districts are mainly dependent on the North-East monsoon. The normal rainfall is 40 to 45 inches in South Arcot and Thanjavur districts and 30 to 35 inches in other districts.

136. The districts of North Arcot, Salem, Dharmapuri, Coimbatore and Tiruchirapalli in the central region depend on both the monsoons. Normal rainfall in North Arcot and Tiruchirapalli districts is between 35 and 40 inches and in other districts between 30 and 35 inches. Nilgiris in the western portion of the State depends on South-West monsoon and has a rainfall of 60 to 70 inches. As the State lies in the lee of the Cardamom hill, during the India's normal rainy season of May to September, no part of Tamil Nadu receives more than 20 inches of rain. During the change of monsoons in October, storms occur and this month is a wet month over most of the region. In November and December, similar storms bring rain and the coastal area is wetter than the hilly areas of the West.

137. The average rainfall in the State varies in different areas over a wide range of 25 to 75 inches per year. Nilgiris and other mountainous areas account for the maximum rain, and most of it due to the South-West monsoon. Kanyakumari district gets relatively high rainfall on account of precipitation during the two monsoon seasons as well as in summer. Coromandal coast has the highest precipitation, 40 to 50 inches. Rainfall decreases towards west in the plateau and south along the coastal plain, Coimbatore and southern districts of Ramanathapuram and Tirunelveli having the lowest rainfall. In most parts of the State, the rainfall is low. Normal precipitations range between 20 to 40 inches per year in about three-fourths of the State, thus resulting in semi-arid conditions. Total rainfall in the districts of North Arcot, South Arcot, Chingleput and Thanjavur is higher than the remaining districts except Nilgiris and Kanyakumari. These two excepted districts have a much higher rainfall and better distribution. The monsoon periods in a year are grouped as under :—

1. Hot weather season—Mid February to mid June
2. South-West monsoon season—Mid June to mid October
3. Retreating monsoon season—Mid October to mid December
4. Cold weather season—Mid December to mid February

138. High rainfall regions are Nilgiris, Kanyakumari, coastal regions of South Arcot and Thanjavur districts, Palni hills of Madurai district, sub-coastal and coastal regions of Chingleput, South Arcot and Thanjavur districts. Medium rainfall regions are the western part of Chingleput and South Arcot districts, North Arcot district and eastern part of Salem district, western part of Thanjavur district, eastern and northern portion of Tiruchirapalli district, eastern part of Madurai district, northern part of Ramanathapuram and northern part of Coimbatore and Salem districts. Low rainfall region consists of central and southern part of Ramanathapuram district, Tirunelveli district and parts of Coimbatore, Madurai and Tiruchirapalli districts. The average annual rainfall in the various districts of Tamil Nadu for 1970 is given below.

STATEMENT III-28

District	Average annual rainfall in m.m.
1. Madras	1,212·7
2. Chingleput	1,215·3
3. North Arcot	969·2
4. South Arcot	1,305·2
5. Thanjavur	1,336·5
6. Tiruchirapalli	867·6
7. Madurai	904·9
8. Ramanathapuram	922·9
9. Tirunelveli	685·7
10. Salem	965·0
11. Coimbatore	612·2
12. Nilgiris	1,301·0
13. Kanyakumari	1,469·7

Soils

139. Red, black and alluvial are the three types of soils found in this State. The predominant of the three types mentioned above is red soil. Some patches of arenaceous soils are found along the coastline. The alluvial soil is mostly found in the delta of Cauvery in Thanjavur district and in a belt along the Cauvery bank in Tiruchirapalli district. Black soils cover less than a quarter of the area and is to be found in most districts of the State. The black soil, however, is chiefly found in Ramanathapuram, South Arcot, Tirunelveli and Thanjavur. Red soils are to be found in every district of the State. Though the largest concentration is in Madurai and North Arcot districts, more than 60% of the cultivated area in Chingleput, South Arcot, Salem, Coimbatore, Tirunelveli and Tiruchirapalli have red soils. Thanjavur and Ramanathapuram are the only districts where red soil is not predominant.

140. In Chingleput district, all the predominant soils of red, black and arenaceous variety are found. The black and red earth which form the predominant soil types are used as wall material which explains the predominance of houses with mud walls. Red clayey soil is used for the manufacture of burnt bricks as well as tiles which is a thriving industry in this district. This factor also accounts for the prominance of burnt brick walled houses and tile roofed houses next to katcha materials. Presence of sedimentary rock types in some parts of the district has also resulted in the use of stones as wall material. Rainfall being not very high, mud walls are prominent.

141. Red soil—loamy as well as sandy-and black soil are prominent in North Arcot district which characterises the presence of mud and burnt brick walled houses and houses with tiled roof. Rainfall being not very much (about 950 m.m.), mud walled houses predominate. Presence of clayey soil has influenced the use of tiles even in rural parts.

142. In South Arcot, red, black and arenaceous soils are found. The hills found in this district are the Kalrayans and Gingee hills. Cuddalore sand stones are famous. Clayey soil helps in the manufacture of tiles, slates or shingle which are used as roof material.

143. In Dharmapuri district, the predominant soil type is red loamy and sandy. This soil type has resulted in the large proportion of houses using mud and burnt bricks for construction of wall as well as greater use of tiles for roof.

144. In Salem, the climate is dry and rainfall is low. Red and black soil which are loamy and sandy result in the prominence of mud and burnt brick as wall materials for houses. Availability of stones from hill ranges in the district influences the use of stone walled houses. In some parts of the district, the climate being cool for most part of the year, stone walls protect the inhabitants from cold and rain.

145. The predominant soil types of Coimbatore district are red-sandy, gravel with portions having red and black loamy soil and black. The hill ranges provide stones as raw material for construction of walls for a sizable number of houses. Grass, leaves and bamboo found in the forest areas of hilly region are used for roofing of houses.

146. Nilgiris district is a plateau area abounding in peaks where the Western Ghats tower. Large variation in rainfall is to be seen due to the presence of hill ranges. Mean annual rainfall is over 40 inches. Western portion receives maximum rainfall. The soil types found in this district are—black, brown, yellow and red ; the major type is laterite variety. Variations in climate do not indicate a preference for mud walls for houses. To protect the inhabitants from the vagaries of climate, stones, burnt bricks, bamboos and G.I. sheets or other metal sheets are greatly used for wall and roof construction. Luxuriant growth of grass and wood is also made use of as wall and roof materials.

147. In Madurai district, the main types of soils are—red ferruginous, loamy or sandy. Broken isolated hills are present in the western part of the district and in the eastern part of the district, granite with gravel laterites is the major feature. Rainfall is about 900 m.m. Red soil of the district is well suited for manufacture of bricks and tiles. The soil being mainly red, mud walls are commonly found. Availability of stone in some parts of the district is made use of for construction of walls of houses.

148. Tiruchirapalli district is mostly flat undulating gently from north-west to south-east except for uplands near the Pachamalai Hills in Musiri and Perambalur taluks. Few isolated rocks are seen in some other areas also. Predominant soils are red, black and alluvium. 60% of the area is covered by red soil and because of this, mud walls are common and this is followed by burnt brick walls.

149. Thanjavur district has practically no hill and has rainfall of about 1,000 mm. The prominent soils are—alluvium, black, red and arenaceous. Alluvium and black soils cover a major area of the district. The nature of terrain, soil and climatic conditions have made the houses with mud walls prevalent in all rural areas with slight local variation. Red loamy and black soil are best suited for mud walls and also for making burnt bricks. With a number of tanks and soil allowing growth of reeds and bamboo, these materials are also utilised in the construction of houses as wall and roof materials. Large tracts of coconut farms in this district provide coconut leaves for thatching the roofs of houses.

150. Ramanathapuram district forms part of a vast plain stretching from the the Western Ghats to the Bay of Bengal on its east. A few scattered hills are to be seen in Srivilliputhur taluk. Predominant soil is black or regar and the next important soil is red and arenaceous soil which is found in the coastal belt. The rainfall in a year is about 850 mm. In Sattur taluk, laterite sand rocks are to be found. Mud walls are predominant. Palmyrah and coconut palms in coastal belt provides katcha roof materials.

151. Tirunelveli district is boxed on the west by the Western Ghats and on the east by the Bay of Bengal. Isolated hills dotting the landscape are to be found. Abundance of forests provides a pleasing sight and the climate varies from the rest of the districts. The district has an equable climate and the rainfall is of average intensity. The western part receives maximum rainfall. Along the foot of the Western Ghats, a belt of 16 to 32 kms. in width has light loamy and sandy soil. The coastal belt has arenaceous soil. In between, black loam covers a large part of Kovilpatty, Sankaranayanarkoil and Srivaikuntam taluks. The rest of the area is covered with red loam. Red loamy and sandy soils are used in the construction of mud and burnt brick walls. Stone walls are also prominent because of the presence of hills and sand stone. By the presence of forests, reeds and bamboo grow in abundance and in the coastal areas, palmyrah and coconut trees provide palm leaves and these are used as katcha roof materials.

152. Kanyakumari district has three natural divisions and the soil types vary. Highland area contains clayey loam on a bed of rocks and is black in colour. In the midlands, soil is clayey loam and the laterite region has a mixture of gravel and sand. Coastal strip is sandy. Bamboo and grass, reeds, timber, etc., which are available in plenty are used as wall and roof material. Specially, timber is cheaper and it is the custom in Travancore (of which the present Kanyakumari district was part till recently) to use wood. The district gets the maximum rainfall as it is benefited by both the monsoons and hence tile roof is preferred here.

SECTION XI

WALL AND ROOF MATERIALS OF RESIDENTIAL HOUSES IN TAMIL NADU AND OTHER STATES

153. As discussed in Section VIII, an attempt has been made to bring out a comparative picture of the distribution of residential houses cross-classified by wall and roof materials in the major States of the Indian Union. The statement below presents the distribution of 1,000 residential houses in the different States.

STATEMENT III-29

Proportion of Census houses with predominant wall materials (1) Grass, leaves, reeds or bamboo, mud, unburnt bricks or wood (2) Burnt bricks, G.I. sheets or other metal sheets, stone, cement, and (3) all other materials and materials not stated, cross-classified by roof materials (1) Grass, leaves, reeds or bamboo, thatch, mud, unburnt bricks or wood (2) Tiles, slate, shingle, G.I. or other metal sheets, asbestos etc., and (3) All other materials and materials not stated

(i) WALL MATERIAL—GRASS, LEAVES, REEDS ETC., WITH ROOF MATERIAL

Name of State	Grass, leaves, reeds or bamboo, thatch, mud, unburnt bricks or wood			Tiles, slate, shingle, C.I. or other metal sheets, asbestos etc.			All other materials and materials not stated		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7	8	9	10
1. Andhra Pradesh	515	559	306	125	129	101	N	N	10
2. Assam	802	841	406	100	83	280	N	N	N
3. Bihar	381	416	101	420	443	229	N	N	1
4. Gujarat	54	68	20	434	549	148	1	1	2
5. Haryana	354	42.	86	11	11	13	N	N	N
6. Himachal Pradesh	144	154	34	311	328	135	N	N	2
7. Jammu and Kashmir	446	497	173	28	20	72	N	N	N
8. Kerala	509	536	351	92	96	71	N	N	N
9. Madhya Pradesh	83	95	18	673	738	327	1	1	1
10. Maharashtra	147	193	45	293	333	204	1	N	3
11. Manipur	869	907	590	109	82	305	1	1	3
12. Meghalaya	664	761	85	255	168	775	N	N	N
13. Mysore	253	294	122	247	256	219	N	N	N
14. Nagaland	785	844	244	142	125	297	N	N	0
15. Orissa	706	743	332	165	167	147	N	N	N
16. Punjab	394	495	88	17	21	7	N	N	N
17. Rajasthan	249	287	76	263	305	78	N	N	N
18. Tamil Nadu	514	607	267	139	144	125	N	N	N
19. Tripura	913	935	592	61	49	233	N	N	N
20. Uttar Pradesh	729	483	89	270	296	101	N	N	N
21. West Bengal	475	616	63	251	272	190	1	1	N

N denotes negligible figures

STATEMENT III-29—(*Contd.*)

(ii) WALL MATERIAL—BURNT BRICKS, G.I. SHEETS OR OTHER METAL SHEETS, STONE, CEMENT WITH ROOF MATERIAL

Name of State	Grass, leaves, reeds or bamboo, thatch, mud, unburnt bricks or wood			Tiles slate, shingle, C.I. or other metal sheets, asbestos etc.			All other materials and materials not stated		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7	8	9	10
1. Andhra Pradesh	157	169	103	203	143	489	N	N	1
2. Assam	9	9	10	89	67	304	N	N	N
3. Bihar	5	5	7	194	136	662	N	N	0
4. Gujarat	14	5	37	495	376	789	N	N	1
5. Haryana	343	340	355	291	227	546	1	1	N
6. Himachal Pradesh	144	147	111	401	371	716	N	N	1
7. Jammu & Kashmir	397	423	258	125	56	494	1	N	1
8. Kerala	111	116	83	287	251	494	N	N	N
9. Madhya Pradesh	6	5	11	237	161	640	N	N	2
10. Maharashtra	134	163	72	422	310	671	1	1	2
11. Manipur	2	2	2	19	8	98	N	N	N
12. Meghalaya	6	6	7	71	61	133	0	0	0
13. Mysore	254	288	146	245	161	510	1	1	2
14. Nagaland	2	2	5	71	29	454	0	0	0
15. Orissa	36	33	59	92	56	460	N	N	N
16. Punjab	211	202	237	377	282	666	N	N	N
17. Rajasthan	46	47	43	441	360	802	1	1	1
18. Tamil Nadu	23	19	35	324	230	573	N	N	N
19. Tripura	2	1	7	24	15	166	N	N	0
20. Uttar Pradesh	71	58	157	230	163	652	N	N	1
21. West Bengal	4	4	6	269	107	740	N	N	N

N denotes negligible figures

154. Andhra Pradesh, Assam, Kerala, Manipur, Meghalaya, Nagaland, Orissa, Tamil Nadu, Tripura and Uttar Pradesh States have more than 50% of residential houses built with entirely katcha wall and katcha roof materials; the proportion ranges from 50·9% in Kerala to 91·3% in Tripura. Among the Southern States, Mysore alone has a low proportion (25.3%) of residential houses built of wholly katcha materials. Gujarat and Madhya Pradesh show less than one-tenth of residential houses with katcha materials.

155. Semi-pucca type with katcha walls and pucca-roofs constitute more than 60% in the State of Madhya Pradesh. The proportion is above 40% but below 50% in the States of Gujarat and Bihar. In the Southern States of Andhra Pradesh, Kerala, Mysore and Tamil Nadu, the proportion of semi-pucca type of houses ranges from 9·2% in Kerala to 24·7% in Mysore.

156. In no State, entirely pucca houses with pucca wall material and pucca roof material are found to exceed one half of all residential houses. In the States of Gujarat, Maharashtra, Himachal Pradesh and Rajasthan, the percentage of pucca houses is between 40·1 in Himachal Pradesh to 49·5 in Gujarat. In the Southern States of Andhra Pradesh, Kerala, Mysore and Tamil Nadu, pucca houses vary from 20·3% in Andhra Pradesh to 32·4% in Tamil Nadu.

157. Semi-pucca houses of another type with pucca wall material and katcha roof material are having a proportion between 20 and 40% in the States of Haryana, Mysore, Punjab and Jammu and Kashmir. Among the Southern States, Tamil Nadu shows the lowest proportion of 2·3% of residential houses in this type and Mysore the highest with 25·4%.

SUBSIDIARY TABLE H-II. 1

DISTRIBUTION OF 1,000 CENSUS HOUSES BY PREDOMINANT MATERIAL OF WALL IN RURAL AND URBAN AREAS SEPARATELY

State/District/City	Rural/ Urban	PREDOMINANT MATERIAL OF WALL								
		Grass, leaves, reeds or bamboo	Mud	Unburnt bricks	Wood	Burnt bricks	G.I. sheets or other metal sheets	Stone	Cement concrete	All other materials and materials not stated
1	2	3	4	5	6	7	8	9	10	11
TAMIL NADU	**Rural**	**11**	**677**	**27**	**3**	**192**	**N**	**89**	**1**	**N**
	Urban	**18**	**315**	**24**	**5**	**552**	**2**	**74**	**10**	**N**
1. Madras District	Urban	16	192	2	2	763	4	1	20	N
Madras City	Urban	16	192	2	2	763	4	1	20	N
2. Chingleput District	Rural	6	747	2	2	218	N	24	1	N
	Urban	17	427	6	3	495	1	47	4	N
Kanchipuram City	Urban	5	412	1	3	565	1	13	0	N
3. North Arcot District	Rural	2	685	3	1	300	N	9	N	N
	Urban	7	377	8	3	597	N	6	2	N
Vellore City	Urban	9	248	5	4	724	1	8	1	N
4. South Arcot District	Rural	6	790	2	1	179	N	20	2	N
	Urban	16	416	7	2	443	2	16	98	N
5. Dharmapuri District	Rural	3	810	6	1	161	0	19	N	N
	Urban	4	491	4	6	488	N	6	1	N
6. Salem District	Rural	6	696	1	1	171	N	124	1	N
	Urban	7	399	6	1	540	N	45	2	N
Salem City	Urban	8	278	10	1	698	N	3	2	N

(Contd.)

SUBSIDIARY TABLE H-II. 1—(*Contd.*)

DISTRIBUTION OF 1,000 CENSUS HOUSES BY PREDOMINANT MATERIAL OF WALL IN RURAL AND URBAN AREAS SEPARATELY—(*Contd.*)

State/District/City	Rural/ Urban	PREDOMINANT MATERIAL OF WALL								
		Grass, leaves, reeds or bamboo	Mud	Unburnt bricks	Wood	Burnt bricks	G.I. sheets or other metal sheets	Stone	Cement concrete	All other materials and materials not stated
1	2	3	4	5	6	7	8	9	10	11
7. Coimbatore District	Rural	17	547	3	1	65	1	365	1	N
	Urban	17	286	6	9	425	4	247	6	N
Tiruppur City	Urban	13	293	1	9	113	1	567	3	N
Coimbatore City	Urban	10	201	11	10	739	2	18	9	N
Singanallur City	Urban	9	310	4	4	390	N	277	6	N
8. Nilgiris District	Rural	40	92	30	12	513	11	299	3	N
	Urban	58	107	30	25	571	25	182	2	N
9. Madurai District	Rural	7	721	3	2	192	N	74	1	N
	Urban	10	354	13	4	581	2	31	4	1
Dindigul City	Urban	20	405	2	10	550	2	8	3	N
Madurai City	Urban	14	194	21	2	751	2	5	8	3
10. Tiruchirapalli District	Rural	6	760	5	1	185	N	42	1	N
	Urban	16	354	7	4	580	1	31	7	N
Tiruchirapalli City	Urban	9	271	2	3	701	1	4	9	N
11. Thanjavur District	Rural	18	708	19	17	217	N	20	1	N
	Urban	24	385	21	4	544	N	20	2	N
Kumbakonam City	Urban	7	220	15	3	714	0	38	3	N
Thanjavur City	Urban	9	462	13	3	505	N	6	2	0

Contd.)

SUBSIDIARY TABLE H-II. 1—(*Contd.*)

DISTRIBUTION OF 1,000 CENSUS HOUSES BY PREDOMINANT MATERIAL OF WALL IN RURAL AND URBAN AREAS SEPARATELY—(*Contd.*)

State/District/City	Rural/ Urban	PREDOMINANT MATERIAL OF WALL								
		Grass, leaves, reeds or bamboo	Mud	Unburnt bricks	Wood	Burnt bricks	G.I. sheets or other metal sheets	Stone	Cement concrete	All other materials and materials not stated
1	2	3	4	5	6	7	8	9	10	11
12. Ramanathapuram District	Rural	17	708	10	2	189	N	73	1	N
	Urban	19	354	19	5	545	2	54	2	N
13. Tirunelveli District	Rural	16	540	93	2	204	N	144	1	N
	Urban	35	276	84	4	417	1	182	1	N
Tuticorin City	Urban	81	263	2	8	184	3	457	2	0
Tirunelveli City	Urban	3	201	26	2	755	1	11	1	0
14. Kanyakumari District	Rural	42	269	442	13	144	4	82	1	3
	Urban	21	120	438	5	364	0	49	3	N
Nagercoil City	Urban	6	105	454	3	387	0	40	4	1

N denotes negligible figures

SUBSIDIARY TABLE H-II. 1 (A)

DISTRIBUTION OF 1,000 RESIDENTIAL CENSUS HOUSES BY PREDOMINANT MATERIAL OF WALL IN RURAL AND URBAN AREAS SEPARATELY

State/District/City	Rural/ Urban	Prdominant material of wall		
		Grass, leaves, reeds or bamboo, mud, unburnt bricks or wood	Burnt bricks, G.I. sheets, or other metal sheets, stone, cement	All other materials and materials not stated
1	2	3	4	5
TAMIL NADU	**Rural**	**751**	**249**	**N**
	Urban	**392**	**608**	**N**
1. Madras District	Rural	...	...	...
	Urban	235	765	N
Madras City	Urban	235	765	N
2. Chingleput District	Rural	789	211	N
	Urban	489	511	N
Kanchipuram City	Urban	479	521	N
3. North Arcot District	Rural	759	241	N
	Urban	450	550	N
Vellore City	Urban	304	696	0
4. South Arcot District	Rural	832	168	N
	Urban	483	517	N
5. Dharmapuri District	Rural	840	160	N
	Urban	563	437	N
6. Salem District	Rural	721	279	N
	Urban	447	553	N
Salem City	Urban	324	676	N
7. Coimbatore District	Rural	576	424	N
	Urban	338	662	N
Tiruppur City	Urban	342	658	N
Coimbatore City	Urban	257	743	0
Singanallur City	Urban	334	666	N
8. Nilgiris District	Rural	187	813	0
	Urban	233	767	N

(Contd.)

SUBSIDIARY TABLE H-II. 1 (A)—(*Contd.*)

DISTRIBUTION OF 1,000 RESIDENTIAL CENSUS HOUSES BY PREDOMINANT MATERIAL OF WALL IN RURAL AND URBAN AREAS SEPARATELY—(*Contd.*)

State/District/City	Rural/ Urban	Predominant material of wall		
		Grass, leaves, reeds or bamboo, mud, unburnt bricks or wood	Burnt bricks, G.I. sheets, or other metal sheets, stone, cement	All other materials and materials not stated
1	2	3	4	5
9. Madurai District	Rural	763	237	N
	Urban	414	586	N
Dindigul City	Urban	483	517	0
Madurai City	Urban	254	746	0
10 Tiruchirapalli District	Rural	804	196	N
	Urban	404	596	N
Tiruchirapalli City	Urban	310	690	N
11. Thanjavur District	Rural	798	202	N
	Urban	490	510	N
Kumbakonam City	Urban	285	715	N
Thanjavur City	Urban	532	468	0
12. Ramanathapuram District	Rural	775	225	N
	Urban	434	566	0
13. Tirunelveli District	Rural	679	321	N
	Urban	431	569	N
Tuticorin City	Urban	385	615	0
Tirunelveli City	Urban	266	734	0
14. Kanyakumari District	Rural	793	203	4
	Urban	629	370	1
Nagercoil City	Urban	605	394	1

N denotes negligible figures

SUBSIDIARY TABLE H-II. 2

DISTRIBUTION OF 1,000 CENSUS HOUSES BY PREDOMINANT MATERIAL OF ROOF IN RURAL AND URBAN AREAS SEPARATELY

State/District/City	Rural/ Urban	PREDOMINANT MATERIAL OF ROOF							
		Grass, leaves, reeds, thatch, wood, mud, unburnt, bricks or bamboo	Tiles, slate, shingle	Corrugated iron, zinc or other metal sheets	Asbestos cement sheets	Brick and lime	Stone	Concrete, R.B.C / R.C.C.	All other materials and materials not stated
1	2	3	4	5	6	7	8	9	10
TAMIL NADU	**Rural**	**597**	**314**	**12**	**3**	**42**	**2**	**30**	**N**
	Urban	**277**	**457**	**29**	**10**	**101**	**2**	**124**	**N**
1. Madras District	Rural	...	...	...	...	...	...	...	...
	Urban	258	319	22	9	61	N	331	N
Madras City	Urban	258	319	22	9	61	N	331	N
2. Chingleput District	Rural	755	188	2	3	31	2	19	N
	Urban	459	335	5	7	130	2	62	N
Kanchipuram City	Urban	209	574	10	4	177	8	17	1
3. North Arcot District	Rural	668	227	2	1	49	3	50	N
	Urban	360	425	5	4	113	3	90	N
Vellore City	Urban	252	509	7	2	56	6	167	1
4. South Arcot District	Rural	809	130	1	3	28	1	28	N
	Urban	479	253	6	6	121	4	131	N
5. Dharmapuri District	Rural	559	411	1	2	11	3	13	N
	Urban	195	652	4	3	57	3	84	2
6. Salem District	Rural	671	281	4	2	26	N	16	N
	Urban	285	623	2	5	20	1	64	N
Salem City	Urban	195	702	2	5	6	N	90	N

(Contd.)

SUBSIDIARY TABLE H-II. 2—*(Contd.)*

DISTRIBUTION OF 1,000 CENSUS HOUSES BY PREDOMINANT MATERIAL OF ROOF IN RURAL AND URBAN AREAS SEPARATELY—(Contd.)

State/District/City	Rural/ Urban	PREDOMINANT MATERIAL OF ROOF							
		Grass, leaves, reeds, thatch, wood, mud, unburnt, bricks or bamboo	Tiles, slate, shingle	Corrugated iron, zinc or other metal sheets	Asbestos cement sheets	Brick and lime	Stone	Concrete, R.B.C./ R.C.C.	All other materials and materials not stated
1	2	3	4	5	6	7	8	9	10
7. Coimbatore District	Rural	282	695	1	5	6	1	10	N
	Urban	92	757	22	28	26	1	74	N
Tiruppur City	Urban	37	872	7	7	14	N	63	N
Coimbatore City	Urban	69	736	10	10	12	N	163	N
Singanallur City	Urban	53	867	3	10	5	2	60	N
8. Nilgiris District	Rural	141	706	103	38	1	N	11	0
	Urban	115	634	206	28	1	N	16	N
9. Madurai District	Rural	547	238	79	2	89	2	43	N
	Urban	247	357	99	8	159	2	128	N
Dindigul City	Urban	319	490	19	9	130	0	33	N
Madurai City	Urban	158	437	30	7	164	5	199	N
10. Tiruchirapalli District	Rural	685	231	12	1	35	2	34	N
	Urban	370	353	15	6	153	5	98	N
Tiruchirapalli City	Urban	291	353	13	4	182	12	145	N
11. Thanjavur District	Rural	745	212	1	1	16	2	23	N
	Urban	461	397	6	3	63	3	67	N
Kumbakonam City	Urban	371	428	10	6	99	13	73	N
Thanjavur City	Urban	423	364	11	6	121	1	74	N

(Contd.)

SUBSIDIARY TABLE H-II. 2—*(Contd.)*

DISTRIBUTION OF 1,000 CENSUS HOUSES BY PREDOMINANT MATERIAL OF ROOF IN RURAL AND URBAN AREAS SEPARATELY—(Contd.)

State/District/City	Rural/ Urban	PREDOMINANT MATERIAL OF ROOF							
		Grass, leaves, reeds, thatch, wood, mud, unburnt, bricks or bamboo	Tiles, slate, shingle	Corrugated iron, zinc or other metal sheets	Asbestos cement sheets	Brick and lime	Stone	Concrete, R.B.C./ R.C.C.	All other materials and materials not stated
1	2	3	4	5	6	7	8	9	10
12. Ramanathapuram District	Rural	519	326	11	2	88	1	53	N
	Urban	251	422	30	7	207	3	80	N
13. Tirunelveli District	Rural	404	445	9	1	96	2	43	N
	Urban	216	511	21	7	176	9	60	N
Tuticorin City	Urban	244	457	9	7	173	30	80	0
Tirunelveli City	Urban	152	399	57	5	300	7	80	0
14. Kanyakumari District	Rural	475	490	6	8	5	2	14	N
	Urban	236	704	1	4	1	3	51	N
Nagercoil City	Urban	166	768	1	4	1	3	56	1

N denotes negligible figures

SUBSIDIARY TABLE H-II. 2(A)

DISTRIBUTION OF 1,000 RESIDENTIAL CENSUS HOUSES BY PREDOMINANT MATERIAL OF ROOF IN RURAL AND URBAN AREAS SEPARATELY

State/District/City	Rural/ Urban	PREDOMINANT MATERIAL OF ROOF		
		Grass, leaves, reeds or bamboo, thatch, mud, unburnt bricks or wood	Tiles, slate, shingle, corrugated iron, zinc or other metal sheets, asbestos cement sheets, brick & lime, stone & R.B.C/R.C.C	All other materials and materials not stated
1	2	3	4	5
TAMIL NADU	**Rural**	**625**	**375**	**N**
	Urban	**302**	**698**	**N**
1. Madras District	Rural	...	...	...
	Urban	288	712	N
Madras City	Urban	288	712	N
2. Chingleput District	Rural	785	215	N
	Urban	492	508	N
Kanchipuram City	Urban	232	768	N
3. North Arcot District	Rural	733	267	N
	Urban	406	594	N
Vellore City	Urban	281	719	N
4. South Arcot District	Rural	840	160	N
	Urban	521	479	N
5. Dharmapuri District	Rural	581	419	N
	Urban	221	779	N
6. Salem District	Rural	687	313	N
	Urban	307	693	N
Salem City	Urban	211	789	0
7. Coimbatore District	Rural	288	712	N
	Urban	98	902	N
Tiruppur City	Urban	35	965	N
Coimbatore City	Urban	78	922	0
Singanallur City	Urban	53	947	N
8. Nilgiris District	Rural	158	842	0
	Urban	123	877	N

(Contd.)

SUBSIDIARY TABLE H-II. 2(A)—(*Contd.*)

DISTRIBUTION OF 1,000 RESIDENTIAL CENSUS HOUSES BY PREDOMINANT MATERIAL OF ROOF IN RURAL AND URBAN AREAS SEPARATELY—(*Contd.*)

State/District/City	Rural/ Urban	PREDOMINANT MATERIAL OF ROOF		
		Grass, leaves, reeds or bamboo, thatch, mud, unburnt bricks or wood	Tiles, slate, shingle, corrugated iron, zinc or other metal sheets, asbestos cement sheets, brick & lime, stone & R.B.C./R.C.C.	All other materials and materials not stated
1	2	3	4	5
9. Madurai District	Rural	565	435	N
	Urban	268	732	N
Dindigul City	Urban	352	648	N
Madurai City	Urban	174	826	N
10. Tiruchirapalli District	Rural	714	286	N
	Urban	392	608	N
Tiruchirapalli City	Urban	316	684	N
11. Thanjavur District	Rural	775	225	N
	Urban	514	486	N
Kumbakonam City	Urban	420	580	N
Thanjavur City	Urban	459	541	0
12. Ramanathapuram District	Rural	542	458	N
	Urban	270	730	N
13. Tirunelveli District	Rural	420	580	N
	Urban	232	768	N
Tuticorin City	Urban	267	733	0
Tirunelveli City	Urban	173	827	0
14. Kanyakumari District	Rural	496	504	N
	Urban	262	737	1
Nagercoil City	Urban	185	814	1

N denotes negligible figures

CHAPTER IV

HOUSEHOLDS AND NUMBER OF ROOMS OCCUPIED

SECTION I

PRELIMINARY REMARKS

General

1. In the earlier Chapters, the data on the usage of Census houses as well as the wall and roof materials used in the construction of houses were discussed. In the present chapter, analysis of the data on the number of rooms occupied by households living in residential Census houses as also the size of the households is made.

2. Information on the number of rooms occupied by each household and also the number of members by sex constituting the household were collected during the houselisting operations. These details are presented in Table H-III—Households classified by number of members and by number of rooms occupied. In this table, the households have been classified under 7 groups with reference to the number of rooms occupied as shown below :—

1. Households with one room
2. Households with two rooms
3. Households with three rooms
4. Households with four rooms
5. Households with five rooms and above
6. Households with unspecified number of rooms and
7. Households with details unspecified

Two subsidiary tables have been prepared from Table H-III. They are :

1. Distribution of 1,000 Census households by number of rooms occupied

2. Number of persons, males and females per room and persons per household

3. In working out the subsidiary table H-III. 2, households with unspecified number of rooms and households with details unspecified have been excluded.

4. It is hoped that the data presented in these tables will enable the reader to get an idea of the size of the household and the number of rooms occupied by each and also the extent of congestion or otherwise.

Concepts of room and household

5. Two terms, "Room" and "Household" have been referred to above. It will be necessary to understand clearly the meaning of these terms as frequent references will be made of these terms in the coming paragraphs.

6. According to Census definition, a room should have four walls with a doorway, with a roof overhead and should be wide and long enough for a person to sleep in (i.e.) it should have a length of not less than 2 metres and breadth of at least $1\frac{1}{2}$ metres and 2 metres in height. An enclosed room which is used in common for sleeping, sitting, dining, storing and cooking etc., was regarded as a room. An unenclosed verandah, kitchen, store, garage, cattle-shed and latrine and rooms in which a household industry such as handloom weaving is located and which is not normally used for living or sleeping etc. was not included as a room.

7. It is likely that a conical shaped hut or tent which is used for human living may not have four walls to a room and therefore the above definition would not strictly apply to such improvised accommodation. In such cases, the conical hut or tent in itself has been construed as a room.

8. A household refers to a group of persons who commonly live together and take their meals from a common kitchen unless the exigencies of work prevented any of them from doing so. The household may be composed of related or unrelated persons. A cook or a servant living in the house of his employer and taking his food there is part of that household. A hostel where a number of unrelated persons live together is an institutional household. So is a jail.

Limitation of the definition of "Room"

9. It may be seen from the definition of room given above that the data collected in the Census houselist are not correlated to the living space available in terms of square or cubic feet. By the very nature of Census enquiry of 1971, particulars about space, amenities or convenience of a Census house cannot be collected accurately through part-time enumerators employed in thousands who did the Census operations on honorary basis. The collection of such sophisticated statistics requires the utilisation of specialised agency which can devote greater time and energy. The houses in both villages and towns are irregular in construction and collection of accurate measurements of floor or living area by normal Census agency is not feasible.

SECTION II

HOUSEHOLDS BY NUMBER OF ROOMS OCCUPIED

10. The statement below gives the distribution of 1,000 households according to the number of rooms occupied :

STATEMENT IV-1

Distribution of 1,000 households according to number of rooms occupied in Tamil Nadu

Number of rooms occupied	Proportion of households
1. One room	624
2. Two rooms	243
3. Three rooms	77
4. Four rooms	31
5. Five rooms and obove	23
6. Unspecified number of rooms	N
7. Households with details unspecified	2

N denotes negligible figures

11. It may be seen that a majority of households in Tamil Nadu are occupying one room. The percentage of such households is 62·4% which is very nearly two-thirds of all households. Households occupying two rooms account for 24.3%. In other words a large majority of households are occupying one room only. About one-twelfth of all households are occupying 3 rooms while about one-thirtieth possess four rooms. The percentage of households occupying five rooms and more is only 2.3%.

12. In the statement shown below, the number of persons per room and persons per household are given separately for households occupying different number of rooms for Tamil Nadu as a whole.

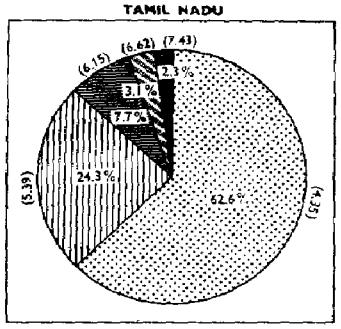
TAMIL NADU

HOUSEHOLDS BY NUMBER OF ROOMS

SCALE

20 10 0 20 40 60 Miles

Kilometres 20 10 0 20 40 60 80



ANDHRA PRADESH

MADRAS

CHINGLEPUT

NORTH ARCOT

DHARMAPURI

MYSORE

SOUTH ARCOT

Pondicherry (Union Territory)

COIMBATORE

NILGIRIS

SALEM

TIRUCHIRAPALLI

THANJAVUR

Karaikal (Pondicherry)

Bay of Bengal

KERALA

MADURAI

RAMANATHAPURAM

PALK STRAIT

GULF OF MANAAR

KANYAKUMARI

TIRUNELVELI

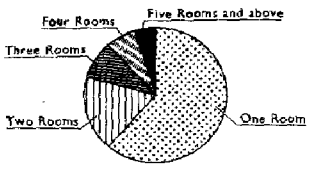
INDIAN OCEAN

SRI LANKA

REFERENCE

State Boundary

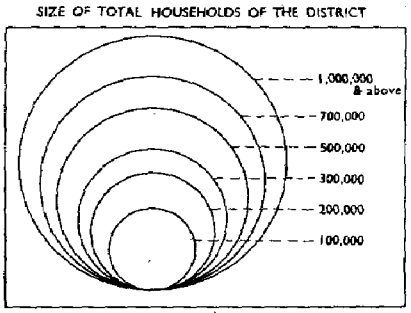
District Boundary



Note : Percentage shown inside the Circle represents the Households by Number of Rooms.

Percentage shown outside the Circle represents the Number of persons per Household in each Category.

SIZE OF TOTAL HOUSEHOLDS OF THE DISTRICT



77° East of Greenwich

77° 78° 79° 80°

13° 12° 11° 10° 9° 8°

Prepared at the Office of the Director of Census, Tamil Nadu, Madras.

STATEMENT IV-2

Average number of persons per room and average number of persons per household in Tamil Nadu

State	Total		One room		Two rooms		Three rooms		Four rooms		Five rooms and above	
	No. of persons per room	Average no. of persons per household	No. of persons per room	Average no. of persons per household	No. of persons per room	Average no. of persons per household	No. of persons per room	Average no. of persons per household	No. of persons per room	Average no. of persons per household	No. of persons per room	Average no. of persons per household
1	2	3	4	5	6	7	8	9	10	11	12	13
TAMIL NADU	**3·03**	**4·89**	**4·35**	**4·35**	**2·70**	**5·39**	**2·05**	**6·15**	**1·66**	**6·62**	**1·19**	**7·43**

STATEMENT IV–3

Average number of persons per room and average number of persons per household in the rural and urban areas of Tamil Nadu

State	Rural Urban	Total		One room		Two rooms		Three rooms		Four rooms		Five rooms and above	
		No. of persons per room	Average no. of persons per houshold	No. of persons per room	Average no. of persons per household	No. of persons per room	Average no. of persons per household	No. of persons per room	Average no. of persons per household	No. of persons per room	Average no. of persons per household	No of persons per room	Average no. of persons per household
1	2	3	4	5	6	7	8	9	10	11	12	13	14
TAMIL NADU	R	**3·12**	**4·76**	**4·27**	**4·27**	**2·66**	**5·32**	**2·05**	**6·16**	**1·67**	**6·68**	**1·25**	**7·58**
	U	**2·84**	**5·22**	**4·61**	**4·61**	**2·78**	**5·56**	**2·04**	**6·13**	**1·64**	**6·55**	**1·14**	**7·29**

13. For the State as a whole, the average number of persons per room is 3.03. The average number of persons per household is 4.89 which is little less than 5. The average number of persons per room varies from 4.35 in one room households to 1·19 persons in households occupying five rooms and above. The average number of persons per room in two room, three room and four room households are 2·70, 2·05 and 1·66 respectively. The average number of persons per room gradually decreases with increase in the number of rooms occupied by the households. On the other hand, the average number of persons per household increases from 4·35 persons per household in one-roomed category to 7·43 in the category of five rooms and above. If we consider that the optimum number of persons per room would be 2, then all the households occupying three rooms and less are having more than the optimum number of 2 per room and have to be considered as overcrowded. It will be of interest to note that households occupying three rooms and less from 94.4% of all households.

14. In the inset table (Statment IV-3), the details of average number of persons per room and average number of persons per household for households occupying one room, two rooms etc., are presented for the rural and urban areas of the State as a whole.

15. In the rural areas for the State as a whole the average number of persons per room works out to 3.12 and in the urban areas, it is 2.84 persons. Rural areas are accommodating more number of persons per room than towns. On the average a rural household consists of 4.76 persons which average increases to 5.22 persons in the case of an urban household. While the average number of persons per room is more in rural areas, the average number of persons per household is greater in urban areas. The average number of persons per room in rural areas varies from 4.27 in one-roomed households to 1.25 persons in five-roomed and larger households. In the urban areas, the average number of persons per room decreases from 4.61 persons in households occupying one room to 1.14 persons in households in possession of five and more rooms. In both the rural and urban sectors, the average number of persons per room decreases with increase in the number of rooms occupied by a household. The decrease in the number of persons per room is sudden when the household changes from one to two rooms and thereafter the decrease is gradual with every additional room.

SECTION III

DISTRIBUTION OF HOUSEHOLDS BY NUMBER OF ROOMS OCCUPIED, NUMBER PER ROOM AND PER HOUSEHOLD IN THE DISTRICTS

16. Statement IV-4 shows the distribution of 1,000 households by number of rooms occupied in the districts of Tamil Nadu.

17. Single-roomed households consitute 71.5% of all households in Tiruchirapalli district. In the districts of Thanjavur, Dharmapuri, Salem and South Arcot, this category has two-thirds and above but less than seventy per cent of all households. More than half but below two-thirds of all households are found to be occupying one room in the districts of Chingleput, North Arcot, Coimbatore, Madurai and Ramanathapuram. In Madras City, more than half the total number of households occupy houses with only one room. Tirunelveli, Nilgiris and Kanyakumari show percentages of 48.9, 37.9 and 31.7 respectively for households in possession of one room. Seven districts out of fourteen have shown more households in one room category than the State average. Madras, and the southern districts of Ramanathapuram, Tirunelveli and Kanyakumari and the hill district of Nilgiris appear to be better placed than the northern districts. The districts of Tiruchirapalli, Thanjavur, Dharmapuri, Salem and South Arcot whose main activity is agriculture show higher proportion of single-roomed households.

18. Two-roomed households in the districts of Coimbatore, Nilgiris, Ramanathapuram, Tirunelveli and Kanyakumari show proportions ranging from 25.8% in Coimbatore to 31.2% in Kanyakumari. In the other districts except Tiruchirapalli, the

STATEMENT IV-4

Distribution of 1,000 households by number of rooms occupied in the districts

State/District	Number of households occupying						
	One room	Two rooms	Three rooms	Four rooms	Five rooms & above	Unspecified no. of rooms	Households with details unspcefied
1	2	3	4	5	6	7	8
TAMIL NADU	**624**	**243**	**77**	**31**	**23**	**N**	**2**
1. Madras	536	244	109	52	54	N	5
2. Chingleput	616	246	76	36	24	N	2
3. North Arcot	657	222	63	34	23	N	1
4. South Arcot	679	239	52	18	11	0	1
5. Dharmapuri	683	212	60	26	18	N	1
6. Salem	664	225	67	25	17	N	2
7. Coimbatore	605	258	81	30	25	0	1
8. Nilgiris	379	298	155	86	78	0	4
9. Madurai	649	243	66	24	17	0	1
10. Tiruchirapalli	715	192	56	21	14	N	2
11. Thanjavur	691	220	61	18	9	0	1
12. Ramanathapuram	616	269	74	22	16	N	3
13. Tirunelveli	489	302	125	48	33	N	3
14. Kanyakumari	317	312	185	94	91	0	1

N denotes negligible figures

proportion varies from 21.2% in Dharmapuri to 24.6% in Chingleput. In Tiruchirapalli district, the proportion of households occupying two rooms is only 19.2% of all households. As in the case of households occupying single rooms, the southern districts seem to be comparatively better off. The difference in proportions between one-roomed and two-roomed households is significant in all the districts except Kanyakumari and to a certain extent in Nilgiris.

19. In the category of three-roomed households, the districts of Kanyakumari, Nilgiris, Madras and Tirunelveli show more than 10% but below 20% of all households. In all other districts, the percentages range above 5% but less than 9%, the range being 5.2% in South Arcot to 8.1% in Coimbatore. One feature is striking. While the proportion of households from one-roomed category shows sudden decreases in the two-roomed category, the decrease is not steep in the three-roomed category.

20. In the cases of households with four rooms and five rooms and above, the proportions in the districts are not significant inthat in none of the districts,

STATEMENT IV-5

Average number of persons per room and average number of persons per household in the State and districts

State/District	All households		HOUSEHOLDS HAVING									
			One room		Two rooms		Three rooms		Four rooms		Five rooms and above	
	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household
1	2	3	4	5	6	7	8	9	10	11	12	13
TAMIL NADU	**3.03**	**4.89**	**4.35**	**4.35**	**2.70**	**5.39**	**2.05**	**6.15**	**1.66**	**6.62**	**1.19**	**7.43**
1. Madras	3.01	5.77	5.23	5.23	2.99	5.99	2.16	6.49	1.70	6.81	1.13	7.64
2. Chingleput	3.03	4.95	4.40	4.40	2.71	5.42	2.08	6.24	1.65	6.61	1.25	7.76
3. North Arcot	3.24	5.07	4.50	4.50	2.83	5.65	2.19	6.57	1.81	7.24	1.41	8.50
4. South Arcot	3.34	4.85	4.39	4.39	2.75	5.49	2.17	6.52	1.76	7.06	1.35	8.29
5. Dharmapuri	3.60	5.42	4.83	4.83	3.04	6.07	2.44	7.32	2.04	8.16	1.61	9.97
6. Salem	3.07	4.67	4.21	4.21	2.63	5.26	1.99	5.96	1.61	6.46	1.18	7.19
7. Coimbatore	2.87	4.71	4.26	4.26	2.54	5.08	1.89	5.69	1.54	6.17	1.06	6.80
8. Nilgiris	2.24	5.16	4.43	4.43	2.56	5.13	1.87	5.60	1.53	6.13	1.05	6.85
9. Madurai	3.20	4.92	4.43	4.43	2.72	5.45	2.10	6.29	1.73	6.92	1.28	7.96
10. Tiruchirapalli	3.23	4.67	4.25	4.25	2.68	5.37	2.06	6.17	1.67	6.69	1.16	7.28
11. Thanjavur	3.27	4.71	4.10	4.10	2.82	5.64	2.30	6.91	1.84	7.38	1.44	8.67
12. Ramanathapuram	3.06	4.81	4.29	4.29	2.65	5.30	2.10	6.29	1.68	6.74	1.17	7.54
13. Tirunelveli	2.47	4.60	4.05	4.05	2.43	4.87	1.77	5.31	1.42	5.68	1.00	6.13
14. Kanyakumari	2.30	5.59	4.67	4.67	2.78	5.56	2.04	6.13	1.61	6.46	1.13	6.95

these categories show a proportion of 10% and above. Only two districts—Kanyakumari and Nilgiris show some prominence in these two categories. While there is appreciable decrease in the proportion of households from three rooms to four rooms, the difference between four rooms and five rooms and above is not so appreciable.

21. Proportion of households with unspecified number of rooms and details unspecified is not significant and calls for no comments.

22. In Statement IV–5, the average number of persons per room and average number of persons per household in the households occupying one room, two rooms, three rooms etc., is presented for the State and Districts.

23. The average number of persons per room is 3.03 for the State as a whole. Nilgiris, Kanyakumari, Tirunelveli and Coimbatore districts show less than 3 persons per room, the range being 2.24 persons in Nilgiris to 2.87 persons in Coimbatore. Dharmapuri district has the highest number of persons per room—3.60. South Arcot, Thanjavur, North Arcot, Tiruchirapalli and Madurai have also higher average number of persons per room—3.20 in Madurai to 3.34 in South Arcot. In the other districts, the average number of persons is between 3.01 to 3.07 persons. The agriculture-based districts of Dharmapuri, Thanjavur, South Arcot, North Arcot and Tiruchirapalli have more number of persons per room. Out of 14 districts, only 4 have less than 3 persons per room.

24. It has been stated earlier that the household size increases with the increase in the number of rooms occupied by the household and with the increase in the number of rooms under the occupation of a household, the number of persons per room decreases. This is true and holds good for all the districts. The number of persons per room is 4.35 in households occupying one room, 2.70 in households with two rooms, 2.05 in households with three rooms, 1.66 in households with four rooms and 1.19 in households with five or more rooms.

25. *Considering* two persons per room as a reasonable standard of accommodation, it is seen that in all the districts, in the case of households occupying one or two rooms, there is definitely overcrowding. As seen earlier, 62.5% of all households are in occupation of one room and another 24.3% of all households have two rooms only. Over 85% of all households are occupying two rooms and less which is unsatisfactory. In the case of households occupying only one room, the average member of persons per room varies from 4.05 in Tirunelveli to 5.23 in Madras. The average number of persons per room is above the State average of 4.35 in the districts of Dharmapuri, Kanyakumari, North Arcot, Nilgiris, Madurai, Chingleput and South Arcot. For households occupying two rooms, the average number of persons per room varies from 2.43 in Tirunelveli to 3.04 in Dharmapuri. The State average of 2.70 is exceeded in all the districts except Salem, Coimbatore, Nilgiris, Tiruchirapalli, Ramanathapuram and Tirunelveli. In the case of households occupying three rooms, if we take that 2 persons per room is standard, then the districts of Salem, Coimbatore, Nilgiris and Tirunelveli do not suffer from overcrowding as they have less than 2 persons per room in this category. All other districts are to be considered as crowded. In households occupying four rooms, all districts except Dharmapuri have less than 2 persons per room. In Dharmapuri, it is 2·04 persons per room. In the category of households occupying five rooms and more, no district has more than 2 persons per room.

Households by number of rooms

26. In Statement IV–6, the distribution of 1,000 households by number of rooms occupied in the rural areas of Districts is given.

STATEMENT IV-6

Distribution of 1,000 households by number of rooms occupied in Rural areas

State/District	PROPORTION OF HOUSEHOLDS OCCUPYING						
	One room	Two rooms	Three rooms	Four rooms	Five rooms and above	Unspecified No. of rooms	Households with details unspecified
1	2	3	4	5	6	7	8
TAMIL NADU	**655**	**236**	**66**	**25**	**16**	N	2
1. Madras	...	..	...	...	...	...	...
2. Chingleput	649	240	63	29	18	N	1
3. North Arcot	677	218	58	28	18	N	1
4. South Arcot	691	233	49	16	10	0	1
5. Dharmapuri	700	208	54	22	15	N	1
6. Salem	706	210	52	19	11	N	2
7. Coimbatore	642	248	70	23	16	0	1
8. Nilgiris	337	312	169	95	83	0	4
9. Madurai	667	240	59	20	13	0	1
10. Tiruchirapalli	746	180	47	16	10	0	1
11. Thanjavur	707	215	55	15	7	0	1
12. Ramanathapuram	636	268	66	17	10	N	3
13. Tirunelveli	508	312	114	39	24	N	3
14. Kanyakumari	319	319	186	92	83	0	1

N denotes negligible figures

27. In the rural sector, 65.5% of households live in single rooms; 23.6% in two rooms, 6.6% in three rooms, 2.5% in four rooms and only 1.6% of households occupy five rooms and above. Looking into the proportions, it may be seen that except Kanyakumari and Nilgiris which have less than 35% of households in possession of single room, in all other districts the percentage of single-roomed households vary from 63.6 in Ramanathapuram to 74.6 in Tiruchirapalli. Tirunelveli district alone shows a proportion of 50.8% while all others have crossed above 60%. In two-roomed category, Kanyakumari, Tirunelveli and Nilgiris have more than 30% of all households. In the other districts, the range is from 18.0% in Tiruchira-

palli to 26.8% in Ramanathapuram. Again, for households occupying three rooms, the districts of Kanyakumari, Tirunelveli and Nilgiris have shown higher proportions compared to other districts. In the other districts, the proportion is less than 8%. In the category of four-roomed households, Nilgiris and Kanyakumari stand distinct with 9.5% and 9.2% of all households. Tirunelveli which was competing with the two other districts mentioned above in the earlier groups has lost its ground; only 3.9% of all households are possessing four rooms. In other districts, the proportion ranges from 1.5% in Thanjavur to 2.9% in Chingleput. In the case of households in occupation of five rooms and above, Nilgiris and Kanyakumari are very prominent with 8.3% of households each. Tirunelveli has 2.4%; and in all other districts, it is less than 2% in the rural sector. Nilgiris and Kanyakumari are prominent with a higher proportion of households occupying two rooms and above. These districts are followed by Tirunelveli.

28. Similar to Statement IV-6, the distribution of 1,000 households by number of rooms occupied in urban areas is presented below.

STATEMENT IV-7

Distribution of 1,000 households by number of rooms occupied in Urban areas

State/District	PROPORTION OF HOUSEHOLDS OCCUPYING						
	One room	Two rooms	Three rooms	Four rooms	Five rooms and above	Unspecified No. of rooms	Households with details unspecified
1	2	3	4	5	6	7	8
TAMIL NADU	**544**	**259**	**106**	**47**	**41**	N	3
1. Madras	536	244	109	52	54	N	5
2. Chingleput	547	257	103	53	37	0	3
3. North Arcot	573	240	86	55	44	0	2
4. South Arcot	591	278	74	32	22	0	3
5. Dharmapuri	501	252	125	65	56	N	1
6. Salem	530	273	115	44	36	0	2
7. Coimbatore	531	279	105	42	41	0	2
8. Nilgiris	423	284	141	76	72	0	4
9. Madurai	610	248	83	31	26	0	2
10. Tiruchirapalli	593	238	92	42	31	0	4
11. Thanjavur	620	239	87	31	20	0	3
12. Ramanathapuram	555	274	100	37	32	N	2
13. Tirunelveli	445	279	152	67	54	0	3
14. Kanyakumari	308	274	179	101	136	0	2

N denotes negligible figures

29. In the urban areas of the State as a whole, 54.4% of households occupy single room; 25.9% two rooms; 10.6% three rooms; 4.7% four rooms and another 4.1% five rooms and above. Urban sector presents a better picture in that 45.6% of households occupy two rooms and above as compared to 34.5% of households in rural areas possessing two rooms and more. The difference between rural and urban sectors is more marked in the case of households occupying three rooms, four rooms and five and above rooms.

30. Kanyakumari has 30.8% of households possessing one room: Nilgiris and Tirunelveli 42.3% and 44.5% respectively. In the other districts, single-roomed households range from 50.1% in Dharmapuri to 62.0% in Thanjavur. Two-roomed households show more than 20% but below 30% in all the districts, the range being from 23.8% in Tiruchirapalli to 28.4% in Nilgiris. In the category of three-roomed households, Kanyakumari, Tirunelveli and Nilgiris are prominent. In addition, one-tenth or more but less than one-eighth of all households in the districts of Ramanathapuram, Coimbatore, Salem, Chingleput and Madras have three rooms. Kanyakumari has about one-tenth of households possessing four rooms. In the other districts, this category has more than 3% but less than 8% of all households. In the five and more roomed category, Kanyakumari, Nilgiris, Tirunelveli, Dharmapuri and Madras are prominent with more than 5% but less than 15% of all households.

31. As in the rural sector, the districts of Kanyakumari, Tirunelveli and Nilgiris present a better picture compared to other districts in the urban sector also.

32. Earlier, we have seen the number of persons per room and number of persons per household in households occupying one to five and more rooms in all areas of the State and Districts. Presently, we will see the same picture in the rural and urban areas of districts.

STATEMENT IV-8

Average number of persons per room and average number of persons per household in the Rural areas of State and Districts

State/District	Total		HOUSEHOLDS OCCUPYING									
			One room		Two rooms		Three rooms		Four rooms		Five rooms & above	
	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household
1	2	3	4	5	6	7	8	9	10	11	12	13
TAMIL NADU	**3·12**	**4·76**	**4·27**	**4·27**	**2·66**	**5·32**	**2·05**	**6·16**	**1·67**	**6·68**	**1·25**	**7·58**
1. Madras	...	...	...	...	...	...	...	...	...	...	...	...
2. Chingleput	3·15	4·86	4·34	4·34	2·71	5·42	2.11	6·34	1·70	6·79	1·32	7·93
3. North Arcot	3·31	4·99	4·47	4·47	2·80	5·60	2.19	6·56	1·82	7·27	1·43	8·61
4. South Arcot	3·37	4·81	4·36	4·36	2·74	5·47	2·19	6·56	1·78	7·12	1·37	8·29
5. Dharmapuri	3·71	5·41	4·84	4·84	3·04	6·09	2·49	7·48	2·11	8·45	1·74	10·76
6. Salem	3·16	4·52	4·15	4·15	2·57	5·13	1·94	5·82	1·59	6·37	1·14	6·86
7. Coimbatore	2·96	4·56	4·18	4·18	2·48	4·97	1·87	5·61	1·52	6·09	1·10	6·70
8. Nilgiris	2·17	5·13	4·32	4·32	2·53	5·07	1·85	5·56	1·57	6·28	1·05	6·42
9. Madurai	3·22	4·78	4·31	4·31	2·68	5·35	2·09	6·26	1·75	6·99	1·34	8·33
10. Tiruchirapalli	3·33	4·58	4·22	4·22	2·65	5·31	2·06	6·17	1·67	6·66	1·17	7·26
11. Thanjavur	3·30	4·64	4·05	4·05	2·81	5·62	2·33	7·00	1·88	7·53	1·55	9·32
12. Ramanathapuram	3·14	4·73	4·24	4·24	2·62	5·24	2·09	6·27	1·70	6·79	1·25	7·98
13. Tirunelveli	2·53	4·50	4·01	4·01	2·39	4·79	1·75	5·24	1·39	5·55	1·02	6.06
14. Kanyakumari	2·35	5·61	4·67	4·67	2·78	5·57	2·06	6·18	1·62	6·48	1·18	7·12

N denotes negligible figures

33. Average number of persons per room in the rural areas of the State as a whole is 3.12 and the average size of the household is 4.76 persons. The average number of persons per room varies from 2.17 in Nilgiris district to 3.71 in Dharmapuri district. Tirunelveli, Kanyakumari, Coimbatore and Nilgiris districts have less than 3 persons per room. The average number of persons per household ranges from 4.50 in Tirunelveli to 5.61 in Kanyakumari. In single-roomed households, the average number of persons per room varies from 4.01 in Tirunelveli to 4·84 in Dharmapuri; the State rural average is 4.27. The average number of persons per room in the category of two-roomed households ranges from 2.39 in Tirunelveli to 3.04 in Dharmapuri while the State rural average is 2.66. The average number of persons per household in two-roomed households for the State rural areas is 5.32; the range for the districts is from 4.79 in Tirunelveli to 6.09 in Dharmapuri. Three-roomed households for the rural areas of the State as a whole shows an average of 2.05 persons per room; in the districts, the average ranges from 1.75 in Tirunelveli to 2.49 in Dharmapuri. The average is less than 2 persons per room in the districts of Tirunelveli, Salem, Coimbatore and Nilgiris. The average size of household in three-roomed category varies from 5.24 in Tirunelveli to 7.48 in Dharmapuri. In the case of four-roomed households, except the district of Dharmapuri, all the districts show less than 2 persons per room; the State rural average is 1.67 which is also less than 2 per room. In Dharmapuri, the average number per room is 2.11. All the districts show more than 5 persons per household; the smallest is 5.55 in Tirunelveli and highest is 8.45 in Dharmapuri. In the case of five and more roomed households, none of the districts have more than 2 persons per room. The average size of households in the districts is more than 6 persons.

34. Statement IV–9 similarly shows the data for urban areas of the State and Districts.

STATEMENT IV-9

Average number of persons per room and average number of persons per household in the urban areas of State and Districts

State/District	Total		HOUSEHOLDS HAVING One room		Two rooms		Three rooms		Four rooms		Five rooms and above	
	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per households	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No of persons per room	No. of persons per household
1	2	3	4	5	6	7	8	9	10	11	12	13
TAMIL NADU	**2·84**	**5·22**	**4·61**	**4.61**	**2.78**	**5.56**	**2.04**	**6.13**	**1.64**	**6.55**	**1.14**	**7.29**
1. Madras	3·01	5·77	5·23	5.23	2.99	5.99	2.16	6.49	1.70	6.81	1.18	7.64
2. Chingleput	2·82	5·15	4·54	4.54	2.72	5.44	2.04	6.11	1.60	6.41	1.19	7.57
3. North Arcot	2·99	5·39	4·62	4.62	2.92	5.85	2.20	6.59	1.79	7.16	1.38	8.33
4. South Arcot	3.14	5.15	4.58	4.58	2.80	5.60	2.12	6.35	1.71	6.83	1.31	8.31
5. Dharmapuri	2.77	5.52	4.61	4.61	2.97	5.94	2.19	6.56	1.77	7.08	1.22	7.69
6. Salem	2.83	5.16	4.45	4.45	2.79	5.57	2.06	6.17	1.64	6.58	1.22	7.53
7. Coimbatore	2.71	5.01	4.47	4.47	2.64	5.29	1.93	5.80	1.57	6.26	1.04	6.88
8. Nilgiris	2.32	5.19	4.52	4.52	2.60	5.20	1.88	5.65	1.49	5.94	1.09	7.37
9. Madurai	3.17	5.21	4.70	4.70	2.83	5.65	2.11	6.33	1.70	6.82	1.21	7.56
10. Tiruchirapalli	2.93	5.03	4.41	4.41	2.77	5.53	2.06	6.17	1.68	6.74	1.15	7.30
11. Thanjavur	3.12	5.03	4.35	4.35	2.86	5.72	2.22	6.65	1.76	7.06	1.29	7.76
12. Ramanathapuram	2.88	5.07	4.43	4.43	2.74	5.47	2.11	6.33	1.67	6.67	1.09	7.12
13. Tirunelveli	2.33	4.83	4.17	4.17	2.53	5.06	1.81	5.43	1.46	5.84	0.99	6 19
14. Kanyakumari	2.06	5.54	4.67	4.67	2.77	5.55	1.95	5.86	1.59	6.36	0.99	6.43

35. In the urban areas of the State as a whole, the average number of persons per room is 2.84; the average ranges from 2.06 in Kanyakumari to 3.17 in Madurai. The average size of a household is 5·22 for the State; the average varies from 4.83 in Tirunelveli to 5.77 in Madras. Urban households have more number of persons in all the districts as compared to rural households except in Kanyakumari district. In Kanyakumari, the size of household is slightly bigger in rural sector.

36. Single-roomed households in the urban sector has an average of 4.61 persons per room for the State as a whole; the average moves from 4.17 in Tirunelveli to 5.23 persons in Madras. Two-roomed households of the State urban sector shows 2.78 persons per room. The average ranges from 2.53 in Tirunelveli to 2.99 in Madras. Average number of persons per household in two-roomed households ranges from 5.06 in Tirunelveli to 5.99 in Madras. In three-roomed households, the number of persons per room in the State urban areas as a whole is 2.04; the proportion is less than 2 per room in the districts of Tirunelveli, Kanyakumari, Coimbatore and Nilgiris. North Arcot has the highest – 2.20 persons per room. In this category, the average size of household is 6.13 in the State as a whole. It is less than 6 in the districts of Coimbatore, Nilgiris, Tirunelveli and Kanyakumari. Four-roomed households in the State urban areas as a whole contains on an average 1.64 persons per room. In all the districts, the average number of persons per room is less than 2. The average size of household is also more than 6 persons in all the districts except Nilgiris and Tirunelveli. In five and more-roomed households, average number of persons per room is 1.14 for the State urban sector; the average is less than 1 in the districts of Tirunelveli and Kanyakumari.

SECTION IV

CITIES—DISTRIBUTION OF HOUSEHOLDS BY NUMBER OF ROOMS OCCUPIED AND AVERAGE NUMBER OF PERSONS PER ROOM IN DIFFERENT SIZES OF HOUSEHOLDS

Distribution by number of rooms

37. Statement IV–10 presents the distribution of households by number of rooms occupied for the cities in Tamil Nadu.

STATEMENT IV–10

Distribution of 1,000 households by number of rooms occupied in Cities

City	HOUSEHOLDS OCCUPYING						
	One room	Two rooms	Three rooms	Four rooms	Five rooms and above	Unspecified No. of rooms	Households with details unspecified
1	2	3	4	5	6	7	8
1. Madras	536	244	109	52	54	N	5
2. Kanchipuram	553	237	105	64	40	0	1
3. Vellore	640	214	78	37	30	0	1
4. Salem	491	279	135	50	43	0	2

(Contd.)

STATEMENT IV-10—*(Contd.)*

Distribution of 1,000 households by number of rooms occupied in Cities—(Contd.)

City	HOUSEHOLDS OCCUPYING						
	One room	Two rooms	Three rooms	Four rooms	Five rooms and above	Unspecified No. of rooms	Households with details unspecified
1	2	3	4	5	6	7	8
5. Tiruppur	605	239	84	37	33	0	2
6. Coimbatore	549	229	110	50	59	0	3
7. Singanallur	565	293	85	35	21	0	1
8. Dindigul	685	208	63	25	17	0	2
9. Madurai	607	250	79	33	28	0	3
10. Tiruchirapalli	603	227	88	46	32	0	4
11. Kumbakonam	639	223	86	32	19	0	1
12. Thanjavur	579	235	101	41	41	0	3
13. Tuticorin	505	225	149	61	58	0	2
14. Tirunelveli	482	261	142	60	53	0	2
15. Nagercoil	265	265	190	115	163	0	2

N denotes negligible figures

38. In all the cities except Nagercoil, single-roomed households take the major share. In 12 cities, the percentage of households occupying single rooms is more than 50. In three cities – Nagercoil, Tirunelveli and Salem, the percentages are 26.5, 48.2 and 49.1 respectively. Two-roomed households form more than 20% but less than 30% of all households in all the cities. In Nagercoil, both single-roomed and two-roomed households show the same percentage. Three-roomed households in the cities of Madras, Kanchipuram, Salem, Coimbatore, Thanjavur, Tuticorin, Tirunelveli and Nagercoil show higher proportions. It ranges from 10.1 in Thanjavur to 19.0 in Nagercoil. In other cities, the percentage of three-roomed households is less than 10%. Nagercoil city has 11.5% of all households under four rooms. In the other cities, the percentage of households ranges from 2.5 in Dindigul to 6.4 in Kanchipuram. Five and above roomed households show higher proportions than four-roomed households in the cities of Nagercoil, Coimbatore and Madras; in other cities they are less. Except in Nagercoil, the proportion of households does not exceed 6%. Considering the proportion of households occupying different number of rooms, the cities of Nagercoil, Tirunelveli and Salem are found better positioned than other cities.

39. Statement IV–11 shows the average number of persons per room and number of persons per household.

Persons per room and size of household

40. Only Nagercoil city shows that the average number of persons per room (if all households are taken together) is less than 2. In 7 cities–Kanchipuram, Salem, Tiruppur, Coimbatore, Thanjavur, Tuticorin and Tirunelveli, the average number of persons per room is between 2 and 3. In 7 other cities, the average is more than 3 but less than 4. If we judge by the standard of accommodation of 2 per room, 14 cities suffer from poor housing condition. The average size of households is above 4 but less than 6 in all the cities.

41. Single-roomed households show more than 4 persons but less than 6 in all the cities except Tirunelveli in which city it is slightly less than 4. Two-roomed households also have an average of more than 2 persons but less than 4 in all cities. The average size of households who occupy two rooms ranges between 5 and 6 persons. In the cities of Kanchipuram, Tiruppur, Tuticorin, Tirunelveli and Nagercoil, the average number per room is less than 2 for households occupying three rooms. In the other cities more than 2 but less than 3 persons per room are found. The average size of household also varies from 5.7 to 7.2 persons. In all the cities, the average number of persons per room in four-roomed households in less than 2; the size of household ranges between 6 and 8 persons. As in the case of the earlier group, in five and more-roomed households, the average number of persons per room is less than 2 in all the cities; it is even less than 1 in Nagercoil. The average size of household in this group is between 6 and 8 persons. The cities of Nagercoil and Tirunelveli can be considered to be less crowded as compared to other cities.

STATEMENT IV-11

Average number of persons per room and average number of persons per household in Cities

City	All households		HOUSEHOLDS HAVING One room		Two rooms		Three rooms		Four rooms		Five & more rooms	
	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No. of persons per room	No. of Persons per household	No. of persons per room	No. of persons per household
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Madras	3·01	5·77	5·23	5·23	2·99	5·99	2·16	6·49	1·70	6·81	1·18	7·64
2. Kanchipuram	2·57	4·73	4·00	4·00	2·53	5·06	1·94	5·81	1·59	6·36	1·22	7·25
3. Vellore	3·32	5·42	4·77	4·77	3·09	6·17	2·26	6·77	1·78	7·13	1·40	8·17
4. Salem	2·78	5·36	4·53	4·53	2·87	5·75	2·08	6·24	1.77	7·10	1·21	7·59
5. Tiruppur	2·94	4·97	4·53	4·53	2·63	5·27	1·91	5·74	1·67	6·67	1·13	6·92
6. Coimbatore	2·77	5·41	4·87	4·87	2·87	5·74	2·04	6·11	1·58	6·32	1·02	7·06
7. Singanallur	3·03	5·07	4·60	4·60	2·70	5·40	2·00	5·99	1·60	6·39	1·20	7·27
8. Dindigul	3·53	5·27	4·66	4·66	3·08	6·17	2·39	7·17	1·98	7·92	1·33	8·03
9. Madurai	3·35	5·53	5·05	5·05	2·95	5·91	2·20	6·60	1·72	6·87	1·30	8·00
10. Tiruchirapalli	3·18	5·45	4·78	4·78	3·00	6·01	2·29	6·87	1·83	7·33	1·19	7·57
11. Kumbakonam	3·24	5·13	4·47	4·47	2·97	5·94	2·25	6·75	1·71	6·82	1·30	7·55
12. Thanjavur	2·93	5·21	4·51	4·51	2·87	5·74	2·16	6·49	1·73	6·91	1·15	7·24
13. Tuticorin	2·49	5·05	4·38	4·38	2·63	5·26	1·91	5·74	1·56	6·24	1·10	7·10
14. Tirunelveli	2·40	4·84	3·99	3·99	2·62	5·24	1·89	5·68	1·57	6·30	1·02	6·64
15. Nagercoil	1·88	5·46	4·49	4·49	2·69	5·39	1·91	5·73	1·56	6·24	0·96	6·29

SECTION V

FUNCTIONAL CHARACTERISTICS OF CITIES AND HOUSEHOLDS OCCUPYING DIFFERENT NUMBER OF ROOMS

42. The statement below gives the functional characteristics of the cities (as revealed by the data collected during the 1971 Census enumeration) and the households by number of rooms occupied.

STATEMENT IV-12

Functional characteristics and proportion of households occupying one room, two rooms, three rooms and more than 3 rooms in Cities

City	Functional characteristics	Proportion of households occupying			
		One room	Two rooms	Three rooms	More than 3 rooms
1	2	3	4	5	6
1. Madras	Trade & Commerce-*cum*-Services-*cum*-Industry	536	244	109	106
2. Kanchipuram	Industry	553	237	105	104
3. Vellore	Trade & Commerce-*cum*-Industry	640	214	78	67
4. Salem	Industry	491	279	135	93
5. Tiruppur	Industry	605	239	84	70
6. Coimbatore	Trade & Commerce-*cum*-Industry	549	229	110	109
7. Singanallur	Industry	565	293	85	56
8. Dindigul	Trade & Commerce-*cum*-Industry	685	208	63	42
9. Madurai	Trade & Commerce-*cum*-Industry	607	250	79	61
10. Tiruchirapalli	Trade & Commerce-*cum*-Industry	603	227	88	78
11. Kumbakonam	Trade & Commerce-*cum*-Industry-*cum*-Services	639	223	86	51
12. Thanjavur	Trade & Commerce-*cum*-Services-*cum*-Industry	579	235	101	82
13. Tuticorin	Trade & Commerce-*cum*-Industry-*cum*-Services	505	225	149	119
14. Tirunelveli	Trade & Commerce-*cum*-Industry-*cum*-Services	482	261	142	113
15. Nagercoil	Industry-*cum*-Trade & Commerce-*cum*-Services	265	265	190	278

43. From the above figures, it is not possible to say whether any city of a particular functional category is more congested and has insufficinent accommodation. For example, Salem which is predominantly industrial has lesser proportion of households occupying single rooms (491) as compared to Tiruppur which is another 'industrial' city having 605 households in possession of one room. In the case of the cities, Vellore, Coimbatore, Dindigul, Madurai and Tiruchirapalli belonging to the functional category, "Trade and Commerce-*cum*-Industry", the proportion of single-roomed households are not of a uniform level. It is as low as 549 in Coimbatore which has many large textile mills and other industries and as high as 685 in Dindigul which has not so many large industrial establishments.

44. In the statement below, percentage of migrants (as revealed in 1961 Census) and proportion of households occupying one room are given.

STATEMENT IV–13

City	Total population (1961)	Percentage of migrants to total population (1961)	Percentage of households occupying one room
1	2	3	4
1. Madras	1,729,141	37.18	536
2. Madurai	424,810	33.69	607
3. Coimbatore	286,305	44.29	549
4. Tiruchirapalli	249,862	38.93	603
5. Salem	249,145	27.26	491
6. Tuticorin T. G.	127,356	43·64	505
7. Vellore T. G.	122,761	34·05	640
8. Thanjavur	111,099	41.56	579
9. Nagercoil	106,207	27.78	265

T. G. denotes Town Group

45. The purpose of the figures presented above is to find out whether migratory factor results in large number of households occupying single rooms. The cities of Coimbatore, Thanjavur and Tuticorin Town Group have seen more than 40% of migrants as per 1961 Census in their areas. These three places also have more than 50% but less than 60% of households occupying one room. Salem with about 27% of migrants has a little less than 50% of households in possession of one room while Nagercoil with the same percentage of migrants has about 27% of households occupying single room each. In other cities, the migrants were between 30 and 40% and the proportion of single-roomed households range between 53 and 64% of all households. Without further probe into the details of duration of stay of

migrants in the place of enumeration, it may not be possible to substantiate with the present data that more the migrants to cities the larger is the number of households occupying single room.

46. In the following statement for cities, the number of establishments listed as well as the proportion of households occupying one room, two rooms, three rooms and more than three rooms per 1,000 households are presented.

STATEMENT IV-14

Number of establishments and households by number of rooms in Cities

City	No. of establishments		Proportion of households occupying			
	Manufacturing (including household industry)	Others	One room	Two rooms	Three rooms	More than three rooms
1	2	3	4	5	6	7
1. Madras	14,342	41,308	536	244	109	106
2. Madurai	7,153	12,727	607	250	79	61
3. Salem	10,693	7,338	491	279	135	93
4. Coimbatore	4,706	9,169	549	229	110	109
5. Tiruchirapalli	3,540	6,263	603	227	88	78
6. Kanchipuram	5,489	2,818	553	237	105	104
7. Dindigul	2,387	3,649	685	208	63	42
8. Nagercoil	2,552	3,336	265	265	190	278
9. Tiruppur	2,938	2,820	605	239	84	70
10. Vellore	1,524	3,649	640	214	78	67
11. Kumbakonam	2,133	2,957	639	223	86	51
12. Tirunelveli	1,787	3,291	482	261	142	113
13. Thanjavur	1,269	3,198	579	235	101	82
14. Tuticorin	1,032	3,428	505	225	149	119
15. Singanallur	1,283	1,589	565	293	85	56

47. From the above figures, we are not able to trace any trend of predominant functional characteristics of a city with a direct relationship to households occupying fewer or more number of rooms.

SECTION VI

CHANGES IN THE PROPORTION OF HOUSEHOLDS OCCUPYING DIFFERENT ROOMS, 1960—1970

48. Statement IV-15 gives a comparative picture of the proportion of households possessing different rooms in 1960 and 1970.

49. One may notice the changes in the housing condition in 1970 than it was a decade earlier. Single-roomed households have shrunk to a smaller proportion in 1970 than what it was in 1960, the decrease being about 7%; two-roomed households have increased their proportion by 5.6%; four-roomed households have shown increase in proportion by 0.5% and five and more roomed households by 0.2%. The significant feature is the reduced proportion of single-roomed households in 1970 compared to that of 1960. The decrease in single-roomed households has resulted in almost the same percentage of increase in two-roomed households. The reduction of single-roomed households and an almost corresponding increase in two-roomed households during 1970 tends to show the progress in betterment of housing conditions as the single-roomed category accounted for over 68% of all households in 1960.

50. In the districts of Madras, Thanjavur, Dharmapuri, Ramanathapuram, Salem, Coimbatore and Tirunelveli, the decrease in the proportion of single-roomed households in 1970 than that of 1960 is above the State average of 7%; in Madras, the decrease is 14.2% and in Thanjavur the decrease is 12.7%. In the districts of Chingleput, South Arcot, Nilgiris and Tiruchirapalli, the decrease in the proportion of single-roomed households range between 5% and 7%. In the other districts except North Arcot, the decrease is less than 4% and in North Arcot, the same proportion is being maintained. Nilgiris and Kanyakumari have shown decreases of 3% each and considering the low proportion of single-roomed households to all households the decrease seems to be reasonable.

51. Under two-roomed households while the State average proportion in 1970 has increased by 5.6%, the districts of Madras, South Arcot, Salem, Tiruchirapalli, Thanjavur and Ramanathapuram have shown higher percentage of increases; Thanjavur has shown increase by 10.7% and Madras by 7.3%. In the other districts, the increase in proportion ranges from 0.5% in North Arcot to 5.4% in Chingleput. One can see that the decrease in the proportion of single-roomed households is amply compensated by corresponding increase in the proportion of two-roomed households in all the districts of the State which indicates the concern for better housing facilities and steps taken in this direction.

52. Three-roomed households account for about 6% of all households in the State as a whole. Except in the districts of Nilgiris and Kanyakumari, this category is not significant. This category has also shown increased proportion in 1970 than it was in 1960; the increase in the State average is 1.9%. Madras, Chingleput, Dharmapuri, Salem, Coimbatore, Tiruchirapalli, Thanjavur, Ramanathapuram and Tirunelveli have shown increases above the State average increase; Madras showing the highest increase of 3.7%.

STATEMENT IV-15

Proportion of households occupying different number of rooms, 1960 & 1970 in every 1,000 houses

State/District	NUMBER OF HOUSEHOLDS OCCUPYING									
	1960					1970				
	*One room	Two rooms	Three rooms	Four rooms	Five rooms & above	*One room	Two rooms	Three rooms	Four rooms	Five rooms & above
1	2	3	4	5	6	7	8	9	10	11
TAMIL NADU	**694**	**187**	**58**	**26**	**21**	**624**	**243**	77	**31**	**23**
1. Madras	678	171	72	37	42	536	244	109	52	54
2. Chingleput	687	192	54	29	22	616	246	76	36	24
3. North Arcot	657	217	61	34	26	657	222	63	34	23
4. South Arcot	742	166	38	16	11	679	239	52	18	11
5. Dharmapuri	764	160	39	18	14	683	212	60	26	18
6. Salem	737	161	44	20	14	664	225	67	25	17
7. Coimbatore	678	214	60	24	20	605	258	81	30	25
8. Nilgiris	441	261	138	87	69	379	298	155	86	78
9. Madurai	683	213	57	22	17	649	243	66	24	17
10. Tiruchirapalli	772	134	36	18	14	715	192	56	21	14
11. Thanjavur	818	113	39	15	8	691	220	61	18	9
12. Ramanathapuram	697	188	48	18	14	616	269	74	22	16
13. Tirunelveli	560	255	99	42	35	489	302	125	48	33
14. Kanyakumari	347	300	177	85	85	317	312	185	94	91

* includes no regular room

SUBSIDIARY TABLE H-III. 1

DISTRIBUTION OF 1,000 CENSUS HOUSEHOLDS BY NUMBER OF ROOMS OCCUPIED

State/District/City	One room	Two rooms	Three rooms	Four rooms	Five rooms and above	Unspecified number of rooms	Households with details unspecified
1	2	3	4	5	6	7	8
TAMIL NADU	**624**	**243**	77	31	23	N	2
1. Madras District	536	244	109	52	54	N	5
Madras City	536	244	109	52	54	N	5
2. Chingleput District	616	246	76	36	24	N	2
Kanchipuram City	553	237	105	64	40	0	1
3. North Arcot District	657	222	63	34	23	N	1
Vellore City	640	214	78	37	30	0	1
4. South Arcot District	679	239	52	18	11	0	1
5. Dharmapuri District	683	212	60	26	18	N	1
6. Salem District	664	225	67	25	17	N	2
Salem City	491	279	135	50	43	0	2
7. Coimbatore District	605	258	81	30	25	0	1
Tiruppur City	605	239	84	37	33	0	2
Coimbatore City	549	229	110	50	59	0	3
Singanallur City	565	293	85	35	21	0	1
8. Nilgiris District	379	298	155	86	78	0	4
9. Madurai District	649	243	66	24	17	0	1
Dindigul City	685	208	63	25	17	0	2
Madurai City	607	250	79	33	28	0	3
10. Tiruchirapalli District	715	192	56	21	14	N	2
Tiruchirapalli City	603	227	88	46	32	0	4
11. Thanjavur District	691	220	61	18	9	0	1
Kumbakonam City	639	223	86	32	19	0	1
Thanjavur City	579	235	101	41	41	0	3

(Contd.)

SUBSIDIARY TABLE H-III. 1—(*Contd.*)

DISTRIBUTION OF 1,000 CENSUS HOUSEHOLDS BY NUMBER OF ROOMS OCCUPIED—(*Contd.*)

State/District/City	One room	Two rooms	Three rooms	Four rooms	Five rooms and above	Unspecified number of rooms	Households with details unspecified
1	2	3	4	5	6	7	8
12. Ramanathapuram District	616	269	74	22	16	N	3
13. Tirunelveli District	489	302	125	48	33	N	3
Tuticorin City	505	225	149	61	58	0	2
Tirunelveli City	482	261	142	60	53	0	2
14. Kanyakumari District	317	312	185	94	91	0	1
Nagercoil City	265	265	190	115	163	0	2

N denotes negligible figures

SUBSIDIARY TABLE H-III. 2

NUMBER OF PERSONS, MALES AND FEMALES PER ROOM AND PERSONS PER HOUSEHOLD

State/District/City	Total Rural Urban	*Total		One room				Two rooms				Three rooms			
		Number of persons per room	Number of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
TAMIL NADU	**Total**	**3·03**	**4·89**	**4·35**	**2·19**	**2·16**	**4·35**	**2·70**	**1·37**	**1·33**	**5·39**	**2·05**	**1·04**	**1·01**	**6·15**
	Rural	**3·12**	**4·76**	**4·27**	**2·14**	**2·13**	**4·27**	**2·66**	**1·35**	**1·31**	**5·32**	**2·05**	**1·05**	**1·00**	**6·16**
	Urban	**2·84**	**5·22**	**4·61**	**2·33**	**2·28**	**4·61**	**2·78**	**1·41**	**1·37**	**5·56**	**2·04**	**1·04**	**1·00**	**6·13**
1. Madras District	Total	3·01	5·77	5·23	2·69	2·54	5·23	2·99	1·54	1·45	5·99	2·16	1·11	1·05	6·49
	Urban	3·01	5·77	5·23	2·69	2·54	5·23	2·99	1·54	1·45	5·99	2·16	1·11	1·05	6·49
Madras City	Urban	3·01	5·77	5·23	2·69	2·54	5·23	2·99	1·54	1·45	5·99	2·16	1·11	1·05	6·49
2. Chingleput District	Total	3·03	4·95	4·40	2·24	2·16	4·40	2·71	1·39	1·32	5·42	2·08	1·07	1·01	6·24
	Rural	3·15	4·86	4·34	2·21	2·13	4·34	2·71	1·39	1·32	5·42	2·11	1·09	1·02	6·34
	Urban	2·82	5·15	4·54	2·31	2·23	4·54	2·72	1·40	1·32	5·44	2·04	1·04	1·00	6·11
Kanchipuram City	Urban	2·57	4·73	4·00	2·03	1·97	4·00	2·53	1·28	1·25	5·06	1·94	0·94	1·00	5·81
3. North Arcot District	Total	3·24	5·07	4·50	2·27	2·23	4·50	2·83	1·44	1·39	5·65	2·19	1·12	1·07	6·57
	Rural	3·31	4·99	4·47	2·26	2·21	4·47	2·80	1·43	1·37	5·60	2·19	1·12	1·07	6·56
	Urban	2·99	5·39	4·62	2·32	2·30	4·62	2·92	1·47	1·45	5·85	2·20	1·10	1·10	6·59
Vellore City	Urban	3·32	5·42	4·77	2·41	2·36	4·77	3·09	1·55	1·54	6·17	2·26	1·11	1·15	6·77

* Excludes Households with details unspecified whose number in the State was 16,040 { Total —16,040 / Rural — 9,225 / Urban — 6,815 }

(Contd.)

SUBSIDIARY TABLE H-III. 2—*(Contd.)*

NUMBER OF PERSONS, MALES AND FEMALES PER ROOM AND PERSONS PER HOUSEHOLD—(Contd.)

State/District/City	Total Rural Urban	Four rooms				Five rooms and above				Unspecified No. of rooms
		Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Average No. of persons per household
		17	18	19	20	21	22	23	24	25
TAMIL NADU	**Total**	**1·66**	**0·84**	**0·82**	**6·62**	**1·19**	**0·61**	**0·58**	**7·43**	**5·40**
	Rural	**1·67**	**0·85**	**0·82**	**6·68**	**1·25**	**0·64**	**0·61**	**7·58**	**6·05**
	Urban	**1·64**	**0·83**	**0·81**	**6·55**	**1·14**	**0·58**	**0·56**	**7·29**	**2·00**
1. Madras District	Total	1·70	0·88	0·82	6·81	1·18	0·61	0·57	7·64	1·50
	Urban	1·70	0·88	0·82	6·81	1·18	0·61	0·57	7·64	1·50
Madras City	Urban	1·70	0·88	0·82	6·81	1·18	0·61	0·57	7·64	1·50
2. Chingleput District	Total	1·65	0·85	0·80	6·61	1·25	0·64	0·61	7·76	20·00
	Rural	1·70	0·87	0·83	6·79	1·32	0·66	0·66	7·93	20·00
	Urban	1·60	0·83	0·77	6·41	1·19	0·61	0·58	7·57	0
Kanchipuram City	Urban	1·59	0·85	0·74	6·36	1·22	0·60	0·62	7·25	0
3. North Arcot District	Total	1·81	0·92	0·89	7·24	1·41	0·72	0·69	8·50	4·50
	Rural	1·82	0·93	0·89	7·27	1·43	0·74	0·69	8·61	4·50
	Urban	1·79	0·90	0·89	7·16	1·38	0·69	0·69	8·33	0
Vellore City	Urban	1·78	0·89	0·89	7·13	1·40	0·72	0·68	8·17	0

(Contd.)

SUBSIDIARY TABLE H-III. 2—(*Contd.*)

NUMBER OF PERSONS, MALES AND FEMALES PER ROOM AND PERSONS PER HOUSEHOLD—(Contd.)

State/District/City	Total Rural Urban	Total		One room				Two rooms				Three rooms			
		Number of persons per room	Number of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4. South Arcot District	Total	3·34	4·85	4·39	2·23	2·16	4·39	2·75	1·41	1·34	5·49	2·17	1·11	1·06	6·52
	Rural	3·37	4·81	4·36	2·21	2·15	4·36	2·74	1·40	1·34	5·47	2·19	1·13	1·06	6·56
	Urban	3·14	5·15	4·58	2·32	2·26	4·58	2·80	1·41	1·39	5·60	2·12	1·06	1·06	6·35
5. Dharmapuri District	Total	3·60	5·42	4·83	2·44	2·39	4·83	3·04	1·56	1·48	6·07	2·44	1·25	1·19	7·32
	Rural	3·71	5·41	4·84	2·45	2·39	4·84	3·04	1·56	1·48	6·09	2·49	1·28	1·21	7·48
	Urban	2·77	5·52	4·61	2·30	2·31	4·61	2·97	1·54	1·43	5·94	2·19	1·10	1·09	6·56
6. Salem District	Total	3·07	4·67	4·21	2·13	2·08	4·21	2·63	1·35	1·28	5·26	1·99	1·02	0·97	5·96
	Rural	3·16	4·52	4·15	2·10	2·05	4·15	2·57	1·32	1·25	5·13	1·94	0·99	0·95	5·82
	Urban	2·83	5·16	4·45	2·25	2·20	4·45	2·79	1·42	1·37	5·57	2·06	1·05	1·01	6·17
Salem City	Urban	2·78	5·36	4·53	2·27	2·26	4·53	2·87	1·47	1·40	5·75	2·08	1·05	1·03	6·24
7. Coimbatore District	Total	2·87	4·71	4·26	2·16	2·10	4·26	2·54	1·30	1·24	5·08	1·89	0·97	0·92	5·69
	Rural	2·96	4·56	4·18	2·11	2·07	4·18	2·48	1·27	1·21	4·97	1·87	0·96	0·91	5·61
	Urban	2·71	5·01	4·47	2·29	2·18	4·47	2·64	1·36	1·28	5·29	1·93	0·99	0·94	5·80
Tiruppur City	Urban	2·94	4·97	4·53	2·32	2·21	4·53	2·63	1·35	1·28	5·27	1·91	0·96	0·95	5·74
Coimbatore City	Urban	2·77	5·41	4·87	2·52	2·35	4·87	2·87	1·49	1·38	5·74	2·04	1·04	1·00	6·11
Singanallur City	Urban	3·03	5·07	4·60	2·34	2·26	4·60	2·70	1·38	1·32	5·40	2·00	1·01	0·99	5·99

(Contd.)

SUBSIDIARY TABLE H-III. 2—*(Contd.)*

NUMBER OF PERSONS, MALES AND FEMALES PER ROOM AND PERSONS PER HOUSEHOLD—(Contd.)

State/District/City	Total Rural Urban	Four rooms				Five rooms and above				Unspecified No. of rooms
		Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Average No. of persons per household
		17	18	19	20	21	22	23	24	25
4. South Arcot District	Total	1·76	0·90	0·86	7·06	1·35	0·69	0·66	8·29	0
	Rural	1·78	0·91	0·87	7·12	1·37	0·70	0·67	8·29	0
	Urban	1·71	0·88	0·83	6·83	1·31	0·67	0·64	8·31	0
5. Dharmapuri District	Total	2·04	1·05	0·99	8·16	1·61	0·83	0·78	9·97	17·33
	Rural	2·11	1·09	1·02	8·45	1·74	0·90	0·84	10·76	25·50
	Urban	1·77	0·90	0·87	7·08	1·22	0·62	0·60	7·69	1·00
6. Salem District	Total	1·61	0·83	0·78	6·46	1·18	0·61	0·57	7·19	1·00
	Rural	1·59	0·82	0·77	6·37	1·14	0·59	0·55	6·86	1·00
	Urban	1·64	0·84	0·80	6·58	1·22	0·63	0·59	7·53	0
Salem City	Urban	1·77	0·90	0·87	7·10	1·21	0·63	0·58	7·59	0
7. Coimbatore District	Total	1·54	0·80	0·74	6·17	1·06	0·54	0·52	6·80	0
	Rural	1·52	0·78	0·74	6·09	1·10	0·57	0·53	6·70	0
	Urban	1·57	0·81	0·76	6·26	1·04	0·53	0·51	6·88	0
Tiruppur City	Urban	1·67	0·87	0·80	6·67	1·13	0·58	0·55	6·92	0
Coimbatore City	Urban	1·58	0·82	0·76	6·32	1·02	0·52	0·50	7·06	0
Singanallur City	Urban	1·60	0·82	0·78	6·39	1·20	0·60	0·60	7·27	0

(Contd.)

SUBSIDIARY TABLE H-III. 2—(*Contd.*)

NUMBER OF PERSONS, MALES AND FEMALES PER ROOM AND PERSONS PER HOUSEHOLD—(Contd.)

State/District/City	Total Rural Urban	Total		One room				Two rooms				Three rooms			
		Number of persons per room	Number of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
8. Nilgiris District	Total	2·24	5·16	4·43	2·25	2·18	4·43	2·56	1·30	1·26	5·13	1·87	0·96	0·91	5·60
	Rural	2·17	5·13	4·32	2·20	2·12	4·32	2·53	1·28	1·25	5·07	1·85	0·94	0·91	5·56
	Urban	2·32	5·19	4·52	2·29	2·23	4·52	2·60	1·32	1·28	5·20	1·88	0·97	0·91	5·65
9. Madurai District	Total	3·20	4·92	4·43	2·21	2·22	4·43	2·72	1·38	1·34	5·45	2·10	1·07	1·03	6·29
	Rural	3·22	4·78	4·31	2·15	2·16	4·31	2·68	1·36	1·32	5·35	2·09	1·07	1·02	6·26
	Urban	3·17	5·21	4·70	2·36	2·34	4·70	2·83	1·44	1·39	5·65	2·11	1·08	1·03	6·33
Dindigul City	Urban	3·53	5·27	4·66	2·38	2·28	4·66	3·08	1·57	1·51	6·17	2·39	1·23	1·16	7·17
Madurai City	Urban	3·35	5·53	5·05	2·53	2·52	5·05	2·95	1·50	1·45	5·91	2·20	1·11	1·09	6·60
10. Tiruchirapalli District	Total	3·23	4·67	4·25	2·14	2·11	4·25	2·68	1·36	1·32	5·37	2·06	1·04	1·02	6·17
	Rural	3·33	4·58	4·22	2·12	2·10	4·22	2·65	1·34	1·31	5·31	2·06	1·04	1·02	6·17
	Urban	2 93	5·03	4·41	2·22	2·19	4·41	2·77	1·39	1·38	5·53	2·06	1·04	1·02	6·17
Tiruchirapalli City	Urban	3·18	5·45	4·78	2·42	2·36	4·78	3·00	1·50	1·50	6·01	2·29	1·15	1·14	6·87
11. Thanjavur District	Total	3·27	4·71	4·10	2·05	2·05	4·10	2·82	1·42	1·40	5·64	2·30	1·16	1·14	6·91
	Rural	3·30	4·64	4·05	2·03	2·02	4·05	2·81	1·42	1·39	5·62	2·33	1·18	1·15	7·00
	Urban	3·12	5·03	4·35	2·18	2·17	4·35	2·86	1·43	1·43	5·72	2·22	1·10	1·12	6·65
Kumbakonam City	Urban	3·24	5·13	4·47	2·20	2·27	4·47	2·97	1·48	1·49	5·94	2·25	1·11	1·14	6·75
Thanjavur City	Urban	2·93	5·21	4·51	2·26	2·25	4·51	2·87	1·44	1·43	5·74	2·16	1·10	1·06	6·49

(Contd.)

SUBSIDIARY TABLE H-III. 2—(*Contd.*)

NUMBER OF PERSONS, MALES AND FEMALES PER ROOM AND PERSONS PER HOUSEHOLD—(Contd.)

State/District/City	Total Rural Urban	Four rooms				Five rooms and above				Unspecified No. of rooms
		Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Average No. of persons per household
		17	18	19	20	21	22	23	24	25
8. Nilgiris District	Total	1·53	0·78	0·75	6·13	1·05	0·53	0·52	6·85	0
	Rural	1·57	0·79	0·78	6·28	1·05	0·53	0·52	6·42	0
	Urban	1·49	0·78	0·71	5·94	1·09	0·55	0·54	7·37	0
9. Madurai District	Total	1·73	0·88	0·85	6·92	1·28	0·65	0·63	7·96	0
	Rural	1·75	0·89	0·86	6·99	1·34	0·67	0·67	8·33	0
	Urban	1·70	0·85	0·85	6·82	1·21	0·63	0·58	7·56	0
Dindigul City	Urban	1·98	1·02	0·96	7·92	1·33	0·69	0·64	8·03	0
Madurai City	Urban	1·72	0·85	0·87	6·87	1·30	0·67	0·63	8·00	0
10. Tiruchirapalli District	Total	1·67	0·84	0·83	6·69	1·16	0·58	0·58	7·28	7·50
	Rural	1·67	0·83	0·84	6·66	1·17	0·58	0·59	7·26	7·50
	Urban	1·68	0·85	0·83	6·74	1·15	0·58	0·57	7·30	0
Tiru chirapalli City	Urban	1·83	0·93	0·90	7·33	1·19	0·60	0·59	7·57	0
11. Thanjavur District	Total	1·84	0·93	0·91	7·38	1·44	0·73	0·71	8·67	0
	Rural	1·88	0·95	0·93	7·53	1·55	0·78	0·77	9·32	0
	Urban	1·76	0·88	0·88	7·06	1·29	0·66	0·63	7·76	0
Kumbakonam City	Urban	1·71	0·85	0·86	6·82	1·30	0·66	0·64	7·55	0
Thanjavur City	Urban	1·73	0·87	0·86	6·91	1·15	0·59	0·56	7·24	0

(Contd.)

SUBSIDIARY TABLE H-III. 2—(*Contd.*)

NUMBER OF PERSONS, MALES AND FEMALES PER ROOM AND PERSONS PER HOUSEHOLD—(Contd.)

State/District/City	Total Rural Urban	Total		One room				Two rooms				Three rooms			
		Number of persons per room	Number of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
12. Ramanathapuram District	Total	3·06	4·81	4·29	2 11	2·18	4·29	2·65	1·33	1·32	5·30	2·10	1·05	1·05	6·29
	Rural	3·14	@4·73	4·24	2·08	2·16	4·24	2·62	1·31	1·31	5·24	2·09	1·05	1·04	6·27
	Urban	2·88	5·07	4·43	2·19	2·24	4·43	2·74	1·38	1·36	5·47	2·11	1·06	1·05	6·33
13. T' unelveli District	Total	2·47	4·60	4·05	1·99	2·06	4·05	2·43	1·21	1·22	4·87	1·77	0·88	0·89	5·31
	Rural	2·53	4·50	4·01	1·97	2·04	4·01	2·39	1·18	1·21	4·79	1·75	0·87	0·88	5·24
	Urban	2·33	4·83	4·17	2·05	2·12	4·17	2·53	1·26	1·27	5·06	1·81	0·90	0·91	5·43
Tuticorin City	Urban	2·49	5·05	4·38	2·19	2·19	4·38	2·63	1·34	1·29	5·26	1·91	0·96	0·95	5·74
Tirunelveli City	Urban	2·40	4·84	3·99	1·98	2·01	3·99	2·62	1·30	1·32	5·24	1·89	0·92	0·97	5·68
14. Kanyakumari District	Total	2·30	5·59	4·67	2·37	2·30	4·67	2·78	1·42	1·36	5·56	2·04	1·05	0·99	6·13
	Rural	2·35	5·61	4·67	2·37	2·30	4·67	2·78	1·42	1·36	5·57	2·06	1·06	1·00	6·18
	Urban	2·06	5·54	4·67	2·32	2·35	4·67	2·77	1·41	1·36	5·55	1·95	0·99	0·96	5·86
Nagercoil City	Urban	1·88	5·46	4·49	2·22	2·27	4·49	2·69	1·36	1·33	5·39	1·91	0·97	0·94	5·73

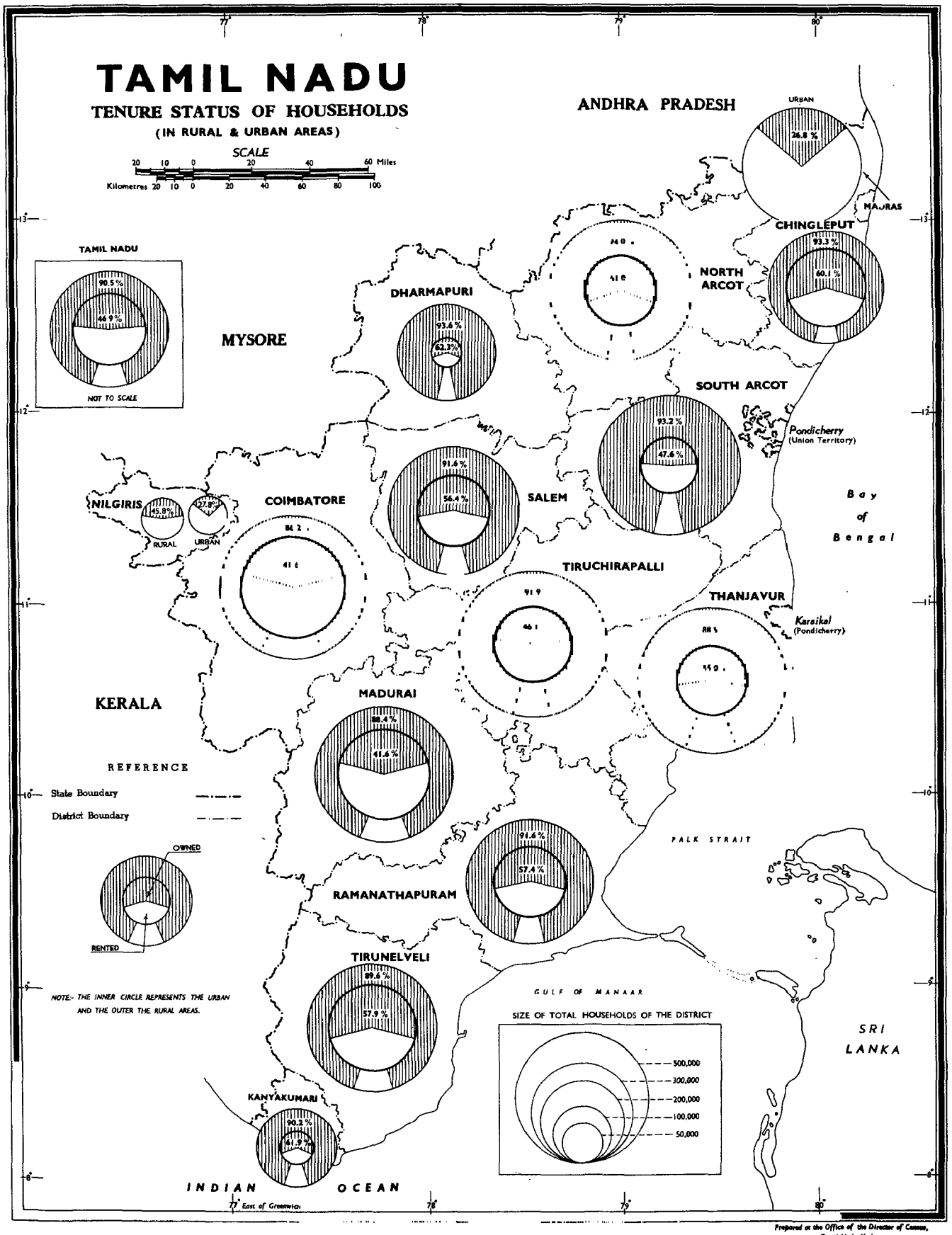
@ Excludes households with unspecified number of rooms having population below their number (25 households having 10 persons)

SUBSIDIARY TABLE H-III. 2—*(Contd.)*

NUMBER OF PERSONS, MALES AND FEMALES PER ROOM AND PERSONS PER HOUSEHOLD—(Contd.)

State/District/City	Total Rural Urban	Four rooms				Five rooms and above				Unspecified No. of rooms
		Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Average No. of persons per household
		17	18	19	20	21	22	23	24	25
12. Ramanathapuram District	Total	1·68	0·84	0·84	6·74	1·17	0·59	0·58	7·54	1·00
	Rural	1·70	0·85	0·85	6·79	1·25	0·63	0·62	7·98	0·40†
	Urban	1·67	0·83	0·84	6·67	1·09	0·54	0·55	7·12	4·00
13. Tirunelveli District	Total	1·42	0·70	0·72	5·68	1·00	0·49	0·51	6·13	1·29
	Rural	1·39	0·69	0·70	5·55	1·02	0·51	0·51	6·06	1·29
	Urban	1·46	0·73	0·73	5·84	0·99	0·49	0·50	6·19	0
Tuticorin City	Urban	1·56	0·79	0·77	6·24	1·10	0·56	0·54	7·10	0
Tirunelveli City	Urban	1·57	0·81	0·76	6·30	1·02	0·52	0·50	6·64	0
14. Kanyakumari District	Total	1·61	0·82	0·79	6·46	1·13	0·58	0·55	6·95	0
	Rural	1·62	0·83	0·79	6·48	1·18	0·62	0·56	712	0
	Urban	1·59	0·81	0·78	6·36	0·99	0·49	0·50	6·43	0
Nagercoil City	Urban	1·56	0·79	0·77	6·24	0·96	0·48	0·48	6·29	0

† There are 25 households having 10 Persons and hence, the average works out to 0·40.



Prepared at the Office of the Director of Census, Tamil Nadu, Madras.

CHAPTER V

TENURE STATUS

SECTION I

PRELIMINARY REMARKS

While collecting data on various aspects of Census houses during the Houselisting operations of 1970, information as to whether the households live in owned or rented houses was also gathered. The information gathered pertains to houses used either as a pure dwelling or as a mixed dwelling (i.e.,) if households live there in addition to carrying on some other business like shop, factory, workshop or workshed etc.

2. The data for the households who live in owned or rented houses have been presented in main table H-IV, Households classified by Size and Tenure Status. In this table, the households living in owned or rented houses have been further classified according to the size of the household (i.e.,) with reference to the number of members of the household. Institutional households are excluded from the purview of this table. Figures have been presented separately for the rural and urban areas of the State and Districts and for each City.

3. Subsidiary Table H-IV. 1 presents the distribution of 1,000 Census households living in Census houses according to size of the household in rural and urban areas.

Concepts of 'owned' and 'rented' house

4. If a household is occupying a Census house owned by itself and is not paying anything to anybody in the form of rent, then the household is to be considered as living in own house. A household living in a flat or a house taken on ownership basis on payment of instalments, was regarded as living in its own house, notwithstanding the fact that all instalments have not been paid.

5. A housing unit is rented, if rent is paid or contracted for by the occupants to pay in cash or in kind. Where an o wner permits a household to live in a house, rent free, even then the household should be treated as living in a rented house, e.g., rent free, accommodation provided to employees by Government Institutions, Companies etc.

6. The concepts of 'owned' and 'rented' used to elicit information from householders did not present any difficulty and the data can be taken as representing a correct picture.

SECTION II

TENURIAL STATUS OF HOUSEHOLDS IN THE STATE AND DISTRICTS

7. Statement V-1 shows the distribution of 1,000 households living in Census houses by tenurial status cross-classified by size of households in the State and Districts.

8. In the State as a whole, only 216 households per 1,000 live in rented houses. Thus, more than three-fourths of households have houses of their own. Except the city district of Madras and the hilly western district of Nilgiris, in all other districts of the State, the proportion of households living in owned houses is more than 70%. Nine districts—Dharmapuri, North Arcot, South Arcot, Kanyakumari, Salem, Ramanathapuram, Chingleput, Tiruchirapalli and Thanjavur have proportions of households living in owned houses ranging from 822 in Thanjavur to 909 in Dharmapuri per 1,000 Census Households. Tirunelveli, Madurai and Coimbatore have proportions of 798, 739 and 714 respectively. The two excepted districts of Madras and Nilgiris show proportions of 268 and 370 households living in owned houses. Madras being a city district with appreciable migrant population shows a low proportion of households living in owned houses. Nilgiris, a hilly district with comparatively smaller population has also shown lesser proportion. Tea estates and their immigrant

labour force as also the fact that Ootacamund, Coonoor and Kotagiri are summer resort towns might have contributed to the larger proportion of households occupying rented houses in this district.

9. When we look into the proportion of households of various sizes who live in owned or rented houses, it may be noticed that at the State level, the proportion of households living in owned houses

STATE

Distribution of 1,000 Census households living in

State/District	HOUSEHOLDS HAVING							
	Total		One Person		Two Persons		Three Persons	
	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
1	2	3	4	5	6	7	8	9
TAMIL NADU	**784**	**216**	**44**	**13**	**86**	**28**	**108**	**34**
1. Madras	268	732	4	16	14	59	22	87
2. Chingleput	827	173	36	10	88	26	115	30
3. North Arcot	877	123	40	9	88	17	117	20
4. South Arcot	875	125	38	9	96	18	128	21
5. Dharmapuri	909	91	48	9	81	15	99	14
6. Salem	833	167	58	12	96	24	114	26
7. Coimbatore	714	286	41	19	75	37	98	46
8. Nilgiris	370	630	11	44	26	81	35	90
9. Madurai	739	261	41	14	80	34	100	41
10. Tiruchirapalli	825	175	60	13	100	26	120	29
11. Thanjavur	822	178	45	12	105	27	125	30
12. Ramanathapuram	831	169	54	13	92	24	116	27
13. Tirunelveli	798	202	55	16	100	31	118	36
14. Kanyakumari	856	144	27	10	63	17	92	21

N denotes

increases with the increase in size of the households. From 44 in the case of households with just one person, the proportion increases to 284 in the case of households with six and more persons. The increase of proportion from single member household to two member household is much higher as also from five member household to households having more than five members. The districts also show a similar trend as for the State as a whole.

MENT V—1

Census houses according to size of the household and tenure status

NUMBER OF PERSONS

Four Persons		Five Persons		Six and more Persons		No. of Persons unspecified	
Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
10	11	12	13	14	15	16	17
131	**37**	**130**	**33**	**284**	**70**	**1**	**1**
33	114	39	119	156	332	N	5
137	30	139	25	311	51	1	1
145	22	148	18	337	37	2	N
154	22	151	19	307	36	1	N
129	15	139	12	412	26	1	N
150	30	143	26	270	48	2	1
132	51	128	46	239	86	1	1
49	105	56	97	191	211	2	2
120	44	122	41	275	86	1	1
139	30	134	25	271	51	1	1
138	31	131	27	277	50	1	1
135	29	135	25	296	50	3	1
131	35	127	30	264	53	3	1
116	24	131	22	426	49	1	1

negligible figures

SECTION III

SIZE OF HOUSEHOLDS AND TENURE STATUS IN RURAL AND URBAN AREAS

Tenurial status in rural households

10. Statement V-2 presents the distribution of 1,000 households in rural areas of the State and Districts by tenure status.

11. Over 90% of rural households in the State as a whole live in their own dwellings and only less than 10% are in rented houses. The size of households has a close relation with tenurial status as will be evident from the low proportion of households under owned houses in single person households to the highest proportion in households with six and more persons. It would appear that bigger the family the greater is the urge for owning the house. Most of the districts show similar trends. Earlier, we have seen that Nilgiris district is somewhat different from the other districts of the State. The reasons adduced for the entire Nilgiris district holds good for the rural areas of this district.

12. In the rural areas of all the districts except Nilgiris, the proportion per 1,000 of households living in owned houses range from 862 in Coimbatore to 940 in North Arcot district. Five districts—Coimbatore, Madurai, Thanjavur, Tirunelveli and Kanyakumari—show proportions lower than the State rural average of 905 under owned houses.

13. Under single member households, the State rural average shows a proportion of 54 for owned status. Salem, Tiruchirapalli, Ramanathapuram and Tirunelveli districts show higher proportion of households in owned houses. Two person households in rural areas of State show an average of 103 under the category 'owned'. Seven districts—Chingleput, South Arcot, Salem, Tiruchirapalli, Thanjavur, Ramanathapuram and Tirunelveli—exhibit proportions higher than the State average under owned category. Under the size, three persons, the proportion of households living in owned houses is 129 for the rural areas of the State as a whole. Chingleput, South Arcot, Tiruchirapalli, Thanjavur, Ramanathapuram and Tirunelveli districts exhibit higher proportions than the State average. A proportion of 155 households under owned houses is seen for the rural areas of the Stat /hole for households of four persons. Six districts–Chingleput, North Arcot, South Arcot, Salem, Coimbatore and Tiruchirapalli, exhibit higher proportion of households than for State in owned houses. In the case of households with five persons, proportion of households under owned tenure is 151 for the rural areas of the State as a whole. Besides Nilgiris, Dharmapuri, Madurai, Thanjavur, Tirunelveli and Kanyakumari districts show lower proportions than the State rural average. A proportion of 311 households is found living in owned houses under the group "six persons and above" for the rural areas of the State. Chingleput, North Arcot, South Arcot, Dharmapuri, Madurai, Ramanathapuram and Kanyakumari districts show higher proportions of households living in owned houses than the State's proportion.

14. Population who live in rural areas mostly depend on agriculture and allied activities. Most of the households will have plots of their own where they build their houses. Those who do not own pieces of land, can however, acquire plots at low prices for building houses. Cost of construction is cheaper in rural areas compared to towns. These factors contribute to higher proportion of households having owned houses in rural areas.

Tenurial status in urban households

15. Similar to Statement V-2, the distribution of households in urban areas by tenure status for the State and Districts is given in Statement V-3.

16. At the State level in the urban areas, preponderence of households living in rented houses is seen as against majority of households living in their own dwellings in rural parts. About 53% of households live in rented houses in urban areas while less than 10% live in rented houses in rural areas. At the State level, the proportion of households living in owned houses increases from one person household to households with six and more persons. Here too, more the number of members of a household greater is the chance of the house being owned.

17. Among the districts, urban areas of the districts of Chingleput, North Arcot, South Arcot,

Dharmapuri, Salem, Thanjavur, Ramanathapuram, Tirunelveli and Kanyakumari show higher proportions of households under 'owned' status than the State average; Dharmapuri and Kanyakumari show a proportion of 623 and 619 respectively per 1,000 households. North Arcot and Chingleput urban areas also show above 60% under owned status. Madras (city) and Nilgiris District's urban areas show much lower proportion of households living in owned houses (between 26 and 28 per cent). The low proportion in Madras city is because of its small area and due to large concentration of population coming from outside the city for various avocations. The reasons for the lower proportion of households in Nilgiris for owned houses have been explained earlier. Generally, urban area is limited in space and accommodates larger section of population with the result that ownership of land and houses is limited. Naturally, larger number of households live in rented quarters. Further, urban land value and cost of constructing houses is much greater compared to rural parts and these factors also contribute to lesser proportion of households living in houses of their own.

18. Single member households for the State urban areas as a whole show a proportion of 18 households per 1,000 under 'owned' tenure. Ramanathapuram, Tirunelveli, Thanjavur, Tiruchirapalli, Dharmapuri and Salem districts show higher proportions than the State average of 18; the range being 22 in Salem to 32 in Ramanathapuram. Madras City has shown the lowest proportion of 4. The proportion of 'owned' in respect of two member households is 42 at the State urban level. Chingleput, North Arcot, South Arcot, Dharmapuri, Salem, Tiruchirapalli, Thanjavur, Ramanathapuram, Tirunelveli and Kanyakumari districts exhibit higher proportions than the State average under 'owned' tenure. The State urban average under 'owned' tenure for households with three persons is 55. The State average is exceeded in the districts of Chingleput, North Arcot, Dharmapuri, Salem, Tiruchirapalli, Thanjavur, Ramanathapuram, Tirunelveli and Kanyakumari. In regard to four member households, the proportion for owned tenure at the State urban level is 69. Only four districts—Madras, Coimbatore, Nilgiris and Madurai exhibit proportions lower than the State average. In the State urban level, 72 out of 1,000 households are five member households owning their house. Nine districts—Chingleput, North Arcot, South Arcot, Dharmapuri, Salem, Thanjavur, Ramanathapuram, Tirunelveli and Kanyakumari have shown higher proportions than the above State average. Households having six or more persons have highest proportion of owned houses both at the State level and for Districts. The State average under owned is 213 per 1,000 households in this group of households.

STATE

Distribution of 1,000 Census households living in Census houses according to

State/District	Total		HOUSEHOLDS HAVING One Person		Two Persons		Three Persons	
	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
1	2	3	4	5	6	7	8	9
TAMIL NADU	**905**	95	**54**	**9**	**103**	**16**	**129**	17
1. Madras	...	...	...	...	...	...	...	...
2. Chingleput	933	67	45	6	104	11	136	12
3. North Arcot	940	60	46	6	97	9	129	11
4. South Arcot	932	68	42	6	104	11	138	13
5. Dharmapuri	936	64	50	8	83	11	102	10
6. Salem	916	84	69	10	111	14	129	15
7. Coimbatore	862	138	54	13	94	22	123	25
8. Nilgiris	458	542	12	37	31	71	43	82
9. Madurai	884	116	53	11	100	19	123	21
10. Tiruchirapalli	919	81	69	10	114	15	136	15
11. Thanjavur	885	115	50	10	116	18	138	21
12. Ramanathapuram	916	84	61	10	104	13	131	15
13. Tirunelveli	896	104	65	12	116	19	136	19
14. Kanyakumari	902	98	29	8	67	14	98	15

N denotes

MENT V—2

tenure status and size of the household in Rural areas

NUMBER OF PERSONS

Four Persons		Five Persons		Six and more Persons		No. of Persons unspecified	
Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
10	11	12	13	14	15	16	17
155	17	151	14	311	22	2	N
...	...	...	...	...	...	...	...
158	12	159	9	329	17	2	N
158	11	161	9	347	14	2	N
166	12	161	10	319	16	2	N
135	10	145	9	420	16	1	0
170	15	158	13	277	17	2	0
155	26	157	21	268	31	1	N
65	95	72	86	232	170	3	1
147	21	147	18	312	26	2	N
157	14	151	11	291	16	1	N
150	20	142	18	288	28	1	N
153	15	151	12	312	19	4	N
150	18	144	15	281	21	4	N
122	18	137	14	448	29	1	N

negligible figures

STATE

Distribution of 1,000 Census households living in Census houses

State/District	Total		HOUSEHOLDS HAVING One Person		Two Persons		Three Persons	
	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
1	2	3	4	5	6	7	8	9
TAMIL NADU	**469**	**531**	**18**	**24**	**42**	**61**	**55**	77
1. Madras	268	732	4	16	14	59	22	87
2. Chingleput	601	399	17	21	54	57	71	68
3. North Arcot	610	390	17	19	48	51	69	57
4. South Arcot	476	524	15	26	43	62	55	79
5. Dharmapuri	623	377	24	24	51	54	60	54
6. Salem	564	436	22	22	49	55	65	63
7. Coimbatore	416	584	17	31	35	68	48	90
8. Nilgiris	278	722	10	52	20	91	26	98
9. Madurai	416	584	15	23	37	65	47	86
10. Tiruchirapalli	461	539	24	27	49	69	58	83
11. Thanjavur	550	450	25	24	56	62	70	70
12. Ramanathapuram	574	426	32	25	57	56	71	65
13. Tirunelveli	579	421	31	26	65	59	80	72
14. Kanyakumari	619	381	17	21	45	34	64	52

N denotes

MENT V—3

according to tenure status and size of the household in Urban areas

NUMBER OF PERSONS							
Four Persons		Five Persons		Six and more Persons		No. of Persons unspecified	
Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
10	11	12	13	14	15	16	17
69	89	72	83	213	194	N	3
33	114	39	119	156	332	N	5
92	68	94	60	272	123	1	2
89	68	95	60	292	133	N	2
69	94	74	84	220	176	0	3
74	65	85	53	329	126	0	1
87	76	93	70	248	148	N	2
65	101	70	95	181	197	N	2
34	116	40	107	148	254	N	4
60	97	66	92	191	219	N	2
69	90	67	80	194	185	N	5
83	77	83	69	233	145	N	3
82	71	85	65	247	142	N	2
88	74	88	65	227	122	N	3
83	60	96	61	314	151	N	2

negligible figures

SECTION IV

TENURIAL STATUS IN CITY HOUSEHOLDS

19. For the fifteen cities in Tamil Nadu, the proportion of households in owned and rented houses is given in Statement V-4.

20. The three cities of Nagercoil, Kanchipuram and Singanallur are having more than 50 per cent of households living in own houses. Madurai, Madras and Coimbatore cities show proportion of households living in own houses between 26 and 27 per cent. In the cities of Tuticorin, Tiruchirapalli and Tiruppur, households living in own houses vary between 32 and 39 per cent of all households; and in all other cities, the proportion ranges from 42 to 45 per cent. On the whole, in the majority of cities, proportion of households living in owned houses is less than 45 per cent.

21. In the case of all cities except Nagercoil, the proportion of households living in owned houses is less than the proportion of households in rented

STATE

Distribution of 1,000 Census households living in Census houses

City	Total		HOUSEHOLDS HAVING One Person		Two Persons		Three Persons	
	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
1	2	3	4	5	6	7	8	9
1. Madras	268	732	4	16	14	59	22	87
2. Kanchipuram	540	460	21	31	63	80	74	89
3. Vellore	449	551	10	19	33	66	49	79
4. Salem	436	564	13	23	31	63	47	82
5. Tiruppur	391	609	10	28	31	73	43	101
6. Coimbatore	268	732	7	25	17	68	30	97
7. Singanallur	521	479	16	25	37	52	56	75
8. Dindigul	445	555	14	23	38	68	54	87
9. Madurai	261	739	5	19	17	69	24	96
10. Tiruchirapalli	342	658	8	21	25	70	32	95
11. Kumbakonam	429	571	18	27	37	77	49	90
12. Thanjavur	452	548	19	29	38	71	47	80
13. Tuticorin	322	678	11	33	27	82	34	109
14. Tirunelveli	436	564	23	30	43	85	59	103
15. Nagercoil	545	455	17	19	43	41	62	61

N denotes

houses for households with one person, two persons, three persons and four persons. In Nagercoil alone the proportion of households living in owned and rented houses are very nearly equal. In the case of five person households, except in Kanchipuram, Singanallur and Nagercoil cities, the proportion of households in rented houses is greater than those in owned houses. In the case of six and more member households, the proportion of households living in own houses is greater in the cities of Kanchipuram, Vellore, Salem, Singanallur, Dindigul, Kumbakonam, Thanjavur, Tirunelveli and Nagercoil. In all other cities, the proportion under rented houses is greater than under owned houses. It may be seen that in the cities of Madras, Coimbatore, Madurai and Tuticorin, more than two-thirds of all households are in rented houses.

MENT V—4

according to tenure status and size of the household in Cities

NUMBER OF PERSONS							
Four Persons		Five Persons		Six and more Persons		No. of Persons unspecified	
Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
10	11	12	13	14	15	16	17
33	114	39	119	156	332	N	5
81	82	76	64	225	113	0	1
60	92	65	87	232	208	0	N
60	91	66	94	219	209	N	2
60	104	70	118	177	184	0	1
34	122	42	114	138	303	N	3
76	88	92	85	244	153	N	1
64	88	66	85	209	202	0	2
32	119	38	116	145	316	N	4
44	110	47	102	186	255	0	5
58	94	62	92	205	190	0	1
63	86	66	85	219	194	0	3
45	114	49	110	156	228	0	2
62	101	60	86	189	157	0	2
72	74	83	75	268	183	0	2

negligible figures

SUBSIDIARY TABLE H-IV. 1

DISTRIBUTION OF 1,000 CENSUS HOUSEHOLDS LIVING IN CENSUS HOUSES ACCORDING TO SIZE OF THE HOUSEHOLD IN RURAL AND URBAN AREAS SEPARATELY

State/District/City	Rural/ Urban	HOUSEHOLDS HAVING NUMBER OF PERSONS															
		Total		One Person		Two Persons		Three Persons		Four Persons		Five Persons		Six and more Persons		No. of Persons unspecified	
		Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
TAMIL NADU	Rural	905	95	54	9	103	16	129	17	155	17	151	14	311	22	2	N
	Urban	469	531	18	24	42	61	55	77	69	89	72	83	213	194	N	3
1. Madras District	Rural	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Urban	268	732	4	16	14	59	22	87	33	114	39	119	156	332	N	5
Madras City	Urban	268	732	4	16	14	59	22	87	33	114	39	119	156	332	N	5
2. Chingleput District	Rural	933	67	45	6	104	11	136	12	158	12	159	9	329	17	2	N
	Urban	601	399	17	21	54	57	71	68	92	68	94	60	272	123	1	2
Kanchipuram City	Urban	540	460	21	31	63	80	74	89	81	82	76	64	225	113	0	1
3. North Arcot District	Rural	940	60	46	6	97	9	129	11	158	11	161	9	347	14	2	N
	Urban	610	390	17	19	48	51	69	57	89	68	95	60	292	133	N	2
Vellore City	Urban	449	551	10	19	33	66	49	79	60	92	65	87	232	208	0	N
4. South Arcot District	Rural	932	68	42	6	104	11	138	13	166	12	161	10	319	16	2	N
	Urban	476	524	15	26	43	62	55	79	69	94	74	84	220	176	0	3
5. Dharmapuri District	Rural	936	64	50	8	83	11	102	10	135	10	145	9	420	16	1	0
	Urban	623	377	24	24	51	54	60	54	74	65	85	53	329	126	0	1

(Contd.)

SUBSIDIARY TABLE H-IV. 1—(*Contd.*)

DISTRIBUTION OF 1,000 CENSUS HOUSEHOLDS LIVING IN CENSUS HOUSES ACCORDING TO SIZE OF THE HOUSEHOLD IN RURAL AND URBAN AREAS SEPARATELY—(Contd.)

State/District/City	Rural/ Urban	HOUSEHOLDS HAVING NUMBER OF PERSONS															
		Total		One Person		Two Persons		Three Persons		Four Persons		Five Persons		Six and more Persons		No. of Persons unspecified	
		Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
6. Salem District	Rural	916	84	69	10	111	14	129	15	170	15	158	13	277	17	2	0
	Urban	564	436	22	22	49	55	65	63	87	76	93	70	248	148	N	2
Salem City	Urban	436	564	13	23	31	63	47	82	60	91	66	94	219	209	N	2
7. Coimbatore District	Rural	862	138	54	13	94	22	123	25	165	26	157	21	268	31	1	N
	Urban	416	584	17	31	35	68	48	90	65	101	70	95	181	197	N	2
Tiruppur City	Urban	391	609	10	28	31	73	43	101	60	104	70	118	177	184	0	1
Coimbatore City	Urban	268	732	7	25	17	68	30	97	34	122	42	114	138	303	N	3
Singanallur City	Urban	521	479	16	25	37	52	56	75	76	88	92	85	244	153	N	1
8. Nilgiris District	Rural	458	542	12	37	31	71	43	82	65	95	72	86	232	170	3	1
	Urban	278	722	10	52	20	91	26	98	34	116	40	107	148	254	N	4
9. Madurai District	Rural	884	116	53	11	100	19	123	21	147	21	147	18	312	26	2	N
	Urban	416	584	15	23	37	65	47	86	60	97	66	92	191	219	N	2
Dindigul City	Urban	445	555	14	23	38	68	54	87	64	88	66	85	209	202	0	2
Madurai City	Urban	261	739	5	19	17	69	24	96	32	119	38	116	145	316	N	4
10. Tiruchirapalli District	Rural	919	81	69	10	114	15	136	15	157	14	151	11	291	16	1	N
	Urban	461	539	24	27	49	69	58	83	69	90	67	80	194	185	N	5
Tiruchirapalli City	Urban	342	658	8	21	25	70	32	95	44	110	47	102	186	255	0	5

(Contd.)

SUBSIDIARY TABLE H-VI. 1—*(Contd.)*

DISTRIBUTION OF 1,000 CENSUS HOUSEHOLDS LIVING IN CENSUS HOUSES ACCORDING TO SIZE OF THE HOUSEHOLD IN RURAL AND URBAN AREAS SEPARATELY—(Contd.)

State/District/City	Rural/ Urban	Total		HOUSEHOLDS HAVING NUMBER OF PERSONS													
				One Person		Two Persons		Three Persons		Four Persons		Five Persons		Six and more Persons		No. of Persons unspecified	
		Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
11. Thanjavur District	Rural	885	115	50	10	116	18	138	21	150	20	142	18	288	28	1	N
	Urban	550	450	25	24	56	62	70	70	83	77	83	69	233	145	N	3
Kumbakonam City	Urban	429	571	18	27	37	77	49	90	58	94	62	92	205	190	0	1
Thanjavur City	Urban	452	548	19	29	38	71	47	80	63	86	66	85	219	194	0	3
12. Ramanatha-puram District	Rural	916	84	61	10	104	13	131	15	153	15	151	12	312	19	4	N
	Urban	574	426	32	25	57	56	71	65	82	71	85	65	247	142	N	2
13. Tirunelveli District	Rural	896	104	65	12	116	19	136	19	150	18	144	15	281	21	4	N
	Urban	579	421	31	26	65	59	80	72	88	74	88	65	227	122	N	3
Tuticorin City	Urban	322	678	11	33	27	82	34	109	45	114	49	110	156	228	0	2
Tirunelveli City	Urban	436	564	23	30	43	85	59	103	62	101	60	86	189	157	0	2
14. Kanyakumari District	Rural	902	98	29	8	67	14	98	15	122	18	137	14	448	29	1	N
	Urban	619	381	17	21	45	34	64	52	83	60	96	61	314	151	N	2
Nagercoil City	Urban	545	455	17	19	43	41	62	61	72	74	83	75	268	183	0	2

N denotes negligible figures

PART IV-B

HOUSING TABLES

INTRODUCTORY NOTE

LEVEL OF PRECISION OF THE ESTIMATES

The figures given in the tables of the 'H' Series are unbiased estimates of the various characteristics based on 20% Sample of Census Houses. These estimates have been obtained by multiplying the sample figures by five.

The following statement indicates the broad level of precision of the estimated frequency of any cell directly from the size of the Universe (i.e., District/State).

STATEMENT

District/State size(N), value of proportion (P) and the related size of cell estimate (NP) at 20% relative standard error(p.r.s.e.)

N	>16567	4900<N	<16567	4900	3233	2400	1900	1567	1327	1150	1010	900
P	<0.006	0.006<P	<0.02	0.02	0.03	0·04	0.05	0.06	0.07	0.08	0.09	0.10
NP	100	99	...	98	97	96	95	94	93	92	91	90

Note:

1. This statement has been derived from the detailed statement given in Part IV-A, setting the acceptable level of precision at 20%. (Vide page 67-68) For any 'N' falling between 900 and 4900, read off the value of 'NP' corresponding to the nearest value of 'N' tabulated above. For example, if N=1352, NP=93 corresponding to N=1327 in the statement. For N<900 and other levels of precision, the detailed statement may be consulted.

2. Whatever the universe size, there is a maximum value of the estimated cell frequency associated with a specific level of precision as shown below :—

p.r.s.e.	1	2.5	5	10	20	30	50
NP	40,000	6,400	1,600	400	100	45	16

These values read along with those in the statement will provide a better appreciation of the level of precision of the estimate in any cell of the table. For example, for a district size N=1352 (vide Note 1 above) cell frequencies between 93 and 400 will have a relative standard error of 10-20%, while those equal to or greater than 400, will have a relative standard error of 10% or less, etc.

TABLE H-I

CENSUS HOUSES AND THE USES TO WHICH THEY ARE PUT

TABLE H-I—FLY LEAF

The figures given in this Table are unbiased estimates of the characteristics based on 20% sample of Census Houses. For a brief note on the precision of the cell-freqencies, reference is invited to the Introductory Note. These estimates have been obtained by multiplying the sample figures by five.

This Table gives an account of the uses to which the Census Houses are put. Census Houses have been classified by 11 broad types of uses.

The " Census House " is a building or a part of a building having a separate main entrance from the road or common courtyard or staircase etc., used or recognised as a separate unit. It may be inhabited or vacant. It may be used for residential or non-residential purpose or both. Each such house is treated as a unit irrespective of its size. If a building has a number of flats or blocks which are independent of one another, having separate entrances of their own from the road or a common staircase or a common courtyard leading to a main gate, each such flat is treated as a separate Census House. Thus, according to the Census definition, the criteria for treating a building or a part of a building as " Census House " is based on the provision for independent accessibility.

In this Table, the data are presented for total, rural and urban areas for the State and for each District and City (i.e., Town having population of 100,000 and above).

This Table corresponds to Table E-I of 1961 Census. But, in 1961 Census the data were presented even for Taluks whereas in this Table, the taluk-wise details are not furnished. In 1961 Census, the number of Census Houses used as Educational Institutions, Public Health and Medical Institutions were shown separately. But in this Census, they are included under the category " Others ".

The total number of residential Census Houses as arrived at by adding Cols. 5, 6 and 7 of this Table and the number shown against Col. 3 of Appendix to Table H-II will vary. This is due to the fact that while the total as arrived at by adding Cols. 5, 6 and 7 of Table H-I will not include the residence-cum-schools, residence-cum-carpentry units, residence-cum-clinics, residence-cum-shorthand typewriting institutes, etc., in the Appendix to Table H-II. these Census Houses are included in the total shown against Col. 3.

Similarly, the number of establishments shown in the Establishment Table will differ from the number shown in this Table. This is due to the fact that there could be more than one establishment in one Census House and also one establishment in more than one Census House.

H–I CENSUS HOUSES AND THE

Serial Number.	State/District/City		Total Rural Urban	Total Number of Census Houses	Census Houses vacant at the time of houselisting	OCCUPIED CENSUS		
						Residence	Shop-cum-residence	Workshop-cum-residence including Household industry
	1		2	3	4	5	6	7
	TAMIL NADU	...	**Total**	**9,563,530**	**671,610**	**7,731,315**	**75,300**	**166,020**
			Rural	**6,849,670**	**496,565**	**5,650,560**	**52,380**	**83,890**
			Urban	**2,713,860**	**175,045**	**2,080,755**	**22,920**	**82,130**
1	**Madras District**	...	T	**463,785**	**17,165**	**387,035**	**2,475**	**2,080**
			R	...	...	...	...	...
			U	463,785	17,165	387,035	2,475	2,080
	Madras (M.C.)		U	463,785	17,165	387,035	2,475	2,080
2	**Chingleput District**	...	T	**608,700**	**31,370**	**512,095**	**5,450**	**10,780**
			R	415,530	20,345	357,310	3,950	5,420
			U	193,170	11,025	154,785	1,500	5,360
	Kanchipuram (M)		U	19,215	845	11,215	340	3,315
3	**North Arcot District**	...	T	**823,470**	**43,215**	**647,975**	**7,520**	**14,695**
			R	673,270	35,130	537,445	6,265	8,765
			U	150,200	8,085	110,530	1,255	5,930
	Vellore (M)		U	28,525	980	21,900	295	500
4	**South Arcot District**	...	T	**800,140**	**41,390**	**677,250**	**7,980**	**5,925**
			R	698,220	36,095	596,820	6,845	4,535
			U	101,920	5,295	80,430	1,135	1,390
5	**Dharmapuri District**	...	T	**341,260**	**22,060**	**290,145**	**2,310**	**1,640**
			R	308,730	19,270	266,525	1,925	1,135
			U	32,530	2,790	23,620	385	505
6	**Salem District**	...	T	**735,280**	**61,195**	**587,260**	**6,190**	**28,065**
			R	556,955	48,355	462,715	3,305	11,265
			U	178,325	12,840	124,545	2,885	16,800
	Salem (M)		U	67,475	4,415	44,300	1,160	8,555
7	**Coimbatore District**	...	T	**1,039,200**	**82,675**	**839,040**	**13,110**	**30,555**
			R	681,065	57,935	562,575	8,090	20,600
			U	358,135	24,740	276,465	5,020	9,955
	Tiruppur (M)		U	25,430	1,010	18,465	475	1,735
	Coimbatore (M)		U	75,990	3,290	57,715	970	2,330
	Singanallur (M)		U	27,875	2,480	22,425	410	730

USES TO WHICH THEY ARE PUT

HOUSES USED AS

Hotels, Sarais, Dharamshalas, Tourist homes and Inspection houses	Shops excluding eating houses	Business houses and Offices	Factories, Workshops and Worksheds	Restaurants, Sweetmeat shops and eating places	Places of entertainments and community gathering (Panchayatghar) excluding places of worship	Places of worship (e.g. Temple, Church, Mosque, Gurudwara etc.,	Others.
8	9	10	11	12	13	14	15
7,915	**199,315**	**42,035**	**111,005**	**46,430**	**8,650**	**100,860**	**403,075**
3,375	**74,240**	**18,620**	**39,360**	**25,400**	**4,815**	**83,430**	**317,035**
4,540	**125,075**	**23,415**	**71,645**	**21,030**	3,835	**17,430**	**86,040**
775	**22,450**	**4,480**	**12,265**	**3,325**	**400**	**1,040**	**10,295**
...	...	...	...	...	...	...	...
775	22,450	4,480	12,265	3,325	400	1,040	10,295
775	22,450	4,480	12,265	3,325	400	1,040	10,295
270	**11,180**	**2,125**	**5,840**	**2,640**	**585**	**6,125**	**20,240**
105	3,695	905	1,845	1,190	225	4,960	15,580
165	7,485	1,220	3,995	1,450	360	1,165	4,660
40	1,470	130	700	240	35	230	655
465	**14,820**	**2,660**	**8,735**	**3,425**	**485**	**8,240**	**71,235**
235	5,345	1,330	3,465	1,745	285	7,090	66,170
230	**9,475**	**1,330**	5,270	1,680	200	1,150	5,065
85	2,050	330	1,160	365	35	110	715
335	**10,340**	**2,260**	**4,715**	**2,645**	**325**	**6,610**	**40,365**
255	5,595	1,235	2,445	1,695	210	6,020	36,470
80	4,745	1,025	2,270	950	115	590	3,895
295	**3,765**	**1,095**	**1,825**	**755**	**115**	**3,715**	**13,540**
195	1,795	615	1,065	475	75	3,380	12,275
100	1,970	480	760	280	40	335	1,265
285	**8,930**	**2,610**	**8,935**	**1,705**	**330**	**7,085**	**22,690**
120	2,465	1,270	3,260	775	115	5,965	17,345
165	6,465	1,340	5,675	930	215	1,120	5,345
65	3,045	585	2,405	415	95	335	2,100
615	**18,310**	**4,375**	**13,710**	**3,475**	**875**	**9,225**	**23,235**
200	4,305	1,550	4,300	1,175	305	7,265	12,765
415	14,005	2,825	9,410	2,300	570	1,960	10,470
25	1,160	185	1,330	200	40	90	715
150	4,690	1,040	2,545	660	75	290	2,235
20	370	45	500	110	125	105	555

H-I CENSUS HOUSES AND THE

Serial Number.	State/District/City		Total Rural Urban	Total Number of Census Houses	Census Houses vacant at the time of houselisting	OCCUPIED CENSUS		
						Residence	Shop-cum-residence	Workshop-cum-residence including Household industry
	1		2	3	4	5	6	7
8	**Nilgiris District**	...	T	**131,210**	**20,025**	**93,665**	**805**	**275**
			R	68,390	11,670	48,175	330	115
			U	62,820	8,355	45,490	475	160
9	**Madurai District**	...	T	**920,915**	**65,675**	**747,505**	**7,380**	**11,430**
			R	626,560	46,655	520,020	5,145	4,215
			U	294,355	19,020	227,485	2,235	7,215
	Dindigul (M)		U	29,895	1,870	21,445	345	1,335
	Madurai (M. C.)		U	114,335	4,200	89,720	900	3,810
10	**Tiruchirapalli District**	...	T	**953,605**	**79,335**	**761,485**	**5,390**	**12,615**
			R	751,530	64,330	605,885	4,005	8,815
			U	202,075	15,005	155,600	1,385	3,800
	Tiruchirapalli (M)		U	63,910	2,670	51,085	395	1,490
11	**Thanjavur District**	...	T	**878,055**	**42,740**	**732,740**	**6,205**	**7,840**
			R	707,970	33,425	603,950	4,455	4,620
			U	170,085	9,315	128,790	1,750	3,220
	Kumbakonam (M)		U	21,640	975	15,215	485	1,050
	Thanjavur (M)		U	29,390	1,745	22,685	260	425
12	**Ramanathapuram District**	...	T	**746,960**	**66,925**	**577,300**	**3,965**	**13,950**
			R	555,475	50,525	442,635	3,130	3,505
			U	191,485	16,400	134,665	835	10,445
13	**Tirunelveli District**	...	T	**864,840**	**80,960**	**670,720**	**5,165**	**22,055**
			R	594,085	58,470	471,820	3,985	8,565
			U	270,755	22,490	198,900	1,180	13,490
	Tuticorin (M)		U	37,745	2,565	29,995	155	190
	Tirunelveli (M)		U	27,075	1,085	20,125	155	975
14	**Kanyakumari District**	...	T	**256,110**	**16,880**	**207,100**	**1,355**	**4,115**
			R	211,890	14,360	174,685	950	2,335
			U	44,220	2,520	32,415	405	1,780
	Nagercoil (M)		U	30,360	1,495	22,315	315	1,675

M. C.—Municipal Corporation ; M.—Municipality

USES TO WHICH THEY ARE PUT

HOUSES USED AS

Hotels, Sarais, Dharamshalas, Tourist homes and Inspection houses	Shops excluding eating houses	Business houses and Offices	Factories, Workshops and Worksheds	Restaurants, Sweetmeat shops and eating places	Places of entertainments and community gathering (Panchayatghar) excluding places of worship	Places of worship (e.g. Temple, Church, Mosque, Gurudwara etc.)	Others.
8	9	10	11	12	13	14	15
290	**2,410**	**1,070**	**1,420**	**670**	**185**	**860**	**9,535**
85	765	310	540	280	65	460	5,595
205	1,645	760	880	390	120	400	3,940
905	**21,950**	**4,545**	**10,190**	**4,400**	**745**	**7,955**	**38,235**
405	7,550	1,980	2,950	2,090	435	6,420	28,695
500	14,400	2,565	7,240	2,310	310	1,535	9,540
65	1,970	280	1,040	325	85	115	1,020
160	6,285	1,145	3,635	990	40	445	3,005
780	**15,320**	**4,105**	**10,310**	**4,210**	**500**	**11,845**	**47,710**
415	6,510	2,445	4,865	2,605	185	10,510	40,960
365	8,810	1,660	5,445	1,605	315	1,335	6,750
150	3,150	510	2,005	505	35	205	1,710
950	**22,645**	**4,255**	**10,580**	**7,790**	**860**	**12,660**	**28,790**
425	12,870	2,540	5,600	6,155	595	10,965	22,370
525	9,775	1,715	4,980	1,635	265	1,695	6,420
120	1,375	160	830	165	30	220	1,015
40	1,390	310	870	200	45	365	1,055
710	**16,810**	**3,210**	**9,600**	**4,330**	**1,675**	**8,560**	**39,925**
375	7,435	1,615	3,520	2,635	1,340	6,825	31,935
335	9,375	1,595	6,080	1,695	335	1,735	7,990
1,000	**21,790**	**3,800**	**9,315**	**5,080**	**1,370**	**11,935**	**31,650**
440	9,960	1,930	3,330	2,940	855	9,220	22,570
560	11,830	1,870	5,985	2,140	515	2,715	9,080
100	1,715	405	960	245	70	125	1,220
135	2,040	185	825	190	45	305	1,010
240	**8,595**	**1,445**	**3,565**	**1,980**	**200**	**5,005**	**5,630**
120	5,950	895	2,175	1,640	125	4,350	4,305
120	2,645	550	1,390	340	75	655	1,325
80	1,715	315	1,030	190	25	365	840

TABLE H–II

DISTRIBUTION OF CENSUS HOUSES BY PREDOMINANT MATERIAL OF WALL AND PREDOMINANT MATERIAL OF ROOF

TABLE H-II—FLY LEAF

The figures given in this Table are unbiased estimates of the characteristics based on 20% sample of Census Houses. For a brief note on the precision of the cell-frequencies, reference is invited to the Introductory Note. These estimates have been obtained by multiplying the sample figures by five.

This Table gives the structural condition of the houses according to the type of material used for major portion of the walls, like bamboo, mud, burnt bricks, unburnt bricks, stone, timber, cement concrete, etc., and the material out of which most of the outer roofs exposed to the weather are made like tiles, thatch, zinc or asbestos cement sheet, concrete etc.

In this Table also the data are presented for total, rural and urban areas of the State and for each District and City.

This Table corresponds to Table E-IV of 1961 Census. While in 1961 Census, the Census Households living in Census Houses were cross-classified by material of wall/roof, in this Table, only the Census Houses have been taken into consideration.

H–II DISTRIBUTION OF CENSUS HOUSES BY PREDOMINANT

Serial Number	State/District/City		Total Rural Urban	Total Number of Census Houses	PREDOMINANT MATERIAL						
					Grass, Leaves, Reeds or Bamboo	Mud	Unburnt Bricks	Wood	Burnt Bricks	G.I. Sheets or other Metal Sheets	Stone
	1		2	3	4	5	6	7	8	9	10
	TAMIL NADU	...	**Total**	**9,563,530**	**124,585**	**5,490,320**	**247,185**	**35,230**	**2,811,365**	**8,850**	**809,670**
			Rural	**6,849,670**	**75,535**	**4,634,655**	**183,385**	**22,990**	**1,312,820**	**2,425**	**608,950**
			Urban	**2,713,860**	**49,050**	**855,665**	**63,800**	**12,240**	**1,498,545**	**6,425**	**200,720**
1	**Madras District**	...	T	**463,785**	**7,490**	**88,895**	**1,035**	705	**353,955**	**1,770**	**645**
			R	...	...	...	...	...	...	...	...
			U	463,785	7,490	88,895	1,035	705	353,955	1,770	645
	Madras (M.C.)		U	463,785	7,490	88,895	1,035	705	353,955	1,770	645
2	**Chingleput District**	...	T	**608,700**	**5,665**	**393,010**	**2,060**	**1,300**	**186,255**	**245**	**18,980**
			R	415,530	2,310	310,495	965	640	90,710	70	9,835
			U	193,170	3,355	82,515	1,095	660	95,545	175	9,145
	Kanchipuram (M)		U	19,215	105	7,910	15	65	10,850	10	250
3	**North Arcot District**	...	T	**823,470**	**2,170**	**517,565**	**2,880**	**880**	**292,080**	**70**	**7,145**
			R	673,270	1,140	460,970	1,745	430	202,345	20	6,205
			U	150,200	1,030	56,595	1,135	450	89,735	50	940
	Vellore (M)		U	28,525	240	7,080	145	120	20,655	35	230
4	**South Arcot District**	...	T	**800,140**	**5,990**	**594,320**	**1,925**	**640**	**170,220**	**240**	**15,320**
			R	698,220	4,330	551,890	1,205	470	125,055	40	13,730
			U	101,920	1,660	42,430	720	170	45,165	200	1,590
5	**Dharmapuri District**	...	T	**341,260**	**950**	**266,020**	**2,040**	**380**	**65,770**	**10**	**5,940**
			R	308,730	815	250,050	1,900	190	49,885	...	5,760
			U	32,530	135	15,970	140	190	15,885	10	180
6	**Salem District**	...	T	**735,280**	**4,755**	**458,495**	**1,870**	**535**	**191,455**	**100**	**77,115**
			R	556,955	3,545	387,400	765	330	95,195	55	69,075
			U	178,325	1,210	71,095	1,105	205	96,260	45	8,040
	Salem (M)		U	67,475	555	18,775	645	65	47,075	10	200
7	**Coimbatore District**	...	T	**1,039,200**	**17,925**	**475,175**	**3,935**	**3,980**	**196,385**	**1,590**	**337,020**
			R	681,065	11,760	372,650	1,780	790	44,275	260	248,725
			U	358,135	6,165	102,525	2,155	3,190	152,110	1,330	88,295
	Tiruppur (M)		U	25,430	340	7,455	30	240	2,860	15	14,420
	Coimbatore (M)		U	75,990	750	15,275	840	775	56,140	170	1,380
	Singanallur (M)		U	27,875	240	8,630	120	120	10,865	10	7,705

MATERIAL OF WALL AND PREDOMINANT MATERIAL OF ROOF

OF WALL		PREDOMINANT MATERIAL OF ROOF							
Cement Concrete	All other Materials and Materials not stated	Grass, Leaves, Reeds, Thatch, Wood, Mud, Unburnt Bricks or Bamboo	Tiles, Slate, Shingle	Corrugated Iron, Zinc or other Metal Sheets	Asbestos Cement Sheets	Brick and Lime	Stone	Concrete, R.B.C./ R.C.C.	All other Materials and Materials not stated
11	12	13	14	15	16	17	18	19	20
34,485	**1,840**	**4,841,055**	**3,388,965**	**163,635**	**45,520**	**560,455**	**18,185**	**543,795**	**1,920**
7,700	**1,210**	**4,089,910**	**2,149,345**	**84,685**	**18,385**	**287,420**	**11,145**	**207,485**	**1,295**
26,785	**630**	**751,145**	**1,239,620**	**78,950**	**27,135**	**273,035**	**7,040**	**336,310**	**625**
9,270	**20**	**119,645**	**147,745**	**10,145**	**4,345**	**28,330**	**105**	**153,330**	**140**
...	...	...	...	...	...	...	...	...	...
9,270	20	119,645	147,745	10,145	4,345	28,330	105	153,330	140
9,270	20	119,645	147,745	10,145	4,345	28,330	105	153,330	140
1,140	**45**	**402,170**	**142,880**	**1,850**	**2,815**	**37,995**	**1,335**	**19,575**	**80**
475	30	313,565	78,110	855	1,440	12,890	930	7,700	40
665	15	88,605	64,770	995	1,375	25,105	405	11,875	40
...	10	4,010	11,025	190	85	3,410	155	330	10
580	**100**	**503,725**	**216,660**	**2,280**	**1,445**	**50,095**	**2,235**	**46,785**	**245**
355	60	449,725	152,875	1,485	805	33,150	1,815	33,240	175
225	40	54,000	63,785	795	640	16,945	420	13,545	70
15	5	7,200	14,520	205	60	1,605	155	4,755	25
11,450	**35**	**613,640**	**116,225**	**1,605**	**2,440**	**31,740**	**1,245**	**33,105**	**140**
1,475	25	564,785	90,455	960	1,865	19,440	850	19,735	130
9,975	10	48,855	25,770	645	575	12,300	395	13,370	10
135	**15**	**178,780**	**148,115**	**340**	**720**	**5,395**	**1,020**	**6,740**	**150**
120	10	172,435	126,900	220	605	3,535	935	4,020	80
15	5	6,345	21,215	120	115	1,860	85	2,720	70
925	**30**	**424,490**	**267,565**	**2,465**	**2,105**	**17,880**	**405**	**20,280**	**90**
580	10	373,715	156,365	2,050	1,205	14,365	285	8,910	60
345	20	50,775	111,200	415	900	3,515	120	11,370	30
130	20	13,170	47,345	145	310	375	25	6,090	15
3,040	**150**	**225,190**	**744,725**	**8,730**	**13,170**	**12,975**	**665**	**33,645**	**100**
725	100	192,255	473,610	720	3,035	3,860	435	7,105	45
2,315	50	32,935	271,115	8,010	10,135	9,115	230	26,540	55
65	5	925	22,160	185	185	355	5	1,610	5
645	15	5,260	55,900	780	750	880	20	12,390	10
175	10	1,485	24,170	80	280	145	45	1,665	5

H–II DISTRIBUTION OF CENSUS HOUSES BY PREDOMINANT

Serial Number	State/District/City	Total Rural Urban	Total Number of Census Houses	PREDOMINANT MATERIAL						
				Grass, Leaves, Reeds or Bamboo	Mud	Unburnt Bricks	Wood	Burnt Bricks	G.I. Sheets or other Metal Sheets	Stone
	1	2	3	4	5	6	7	8	9	10
8	**Nilgiris District** ...	T	**131,210**	**6,405**	**12,975**	**3,900**	**2,430**	**70,925**	**2,315**	**31,865**
		R	68,390	2,760	6,270	2,015	830	35,080	750	20,460
		U	62,820	3,645	6,705	1,885	1,600	35,845	1,565	11,405
9	**Madurai District** ...	T	**920,915**	**7,160**	**556,150**	**5,690**	**2,490**	**291,315**	**615**	**55,525**
		R	626,560	4,040	452,005	1,940	1,320	120,265	135	46,430
		U	294,355	3,120	104,145	3,750	1,170	171,050	480	9,095
	Dindigul (M)	U	29,895	610	12,115	70	285	16,445	50	240
	Madurai (M. C.)	U	114,335	1,625	22,190	2,440	255	85,910	180	505
10	**Tiruchirapalli District** ...	T	**953,605**	**7,705**	**642,445**	**4,890**	**1,535**	**256,715**	**165**	**37,590**
		R	751,530	4,550	570,865	3,505	740	139,410	50	31,300
		U	202,075	3,155	71,580	1,385	795	117,305	115	6,290
	Tiruchirapalli (M)	U	63,910	550	17,345	150	175	44,825	40	230
11	**Thanjavur District** ...	T	**878,055**	**16,425**	**566,610**	**17,155**	**12,850**	**246,145**	**85**	**17,560**
		R	707,970	12,400	501,090	13,585	12,105	153,600	40	14,230
		U	170,085	4,025	65,520	3,570	745	92,545	45	3,330
	Kumbakonam (M)	U	21,640	140	4,770	315	70	15,445	...	830
	Thanjavur (M)	U	29,390	260	13,565	375	90	14,835	10	190
12	**Ramanathapuram District** ...	T	**746,960**	**13,200**	**460,760**	**9,100**	**2,225**	**209,440**	**420**	**50,680**
		R	555,475	9,485	393,055	5,480	1,265	105,155	110	40,230
		U	191,485	3,715	67,705	3,620	960	104,285	310	10,450
13	**Tirunelveli District** ...	T	**864,840**	**18,885**	**395,600**	**77,805**	**2,210**	**234,205**	**385**	**134,685**
		R	594,085	9,480	320,915	54,950	1,030	121,445	55	85,525
		U	270,755	9,405	74,685	22,855	1,180	112,760	330	49,160
	Tuticorin (M)	U	37,745	3,045	9,935	65	320	6,930	120	17,270
	Tirunelveli (M)	U	27,075	70	5,445	715	65	20,435	30	290
14	**Kanyakumari District** ...	T	**256,110**	**9,860**	**62,300**	**112,900**	**3,070**	**46,500**	**840**	**19,600**
		R	211,890	8,920	57,000	93,550	2,850	30,400	840	17,445
		U	44,220	940	5,300	19,350	220	16,100	...	2,155
	Nagercoil (M)	U	30,360	170	3,200	13,795	100	11,740	...	1,220

MATERIAL OF WALL AND PREDOMINANT MATERIAL OF ROOF

OF WALL		PREDOMINANT MATERIAL OF ROOF							
Cement Concrete	All other Materials and Materials not stated	Grass, Leaves, Reeds, Thatch, Wood, Mud, Unburnt Bricks or Bamboo	Tiles, Slate, Shingle	Corrugated Iron, Zinc or other Metal Sheets	Asbestos Cement Sheets	Brick and Lime	Stone	Concrete, R.B.C./ R.C.C.	All other Materials and Materials not stated
11	12	13	14	15	16	17	18	19	20
360	35	**16,885**	**88,125**	**19,955**	**4,365**	**115**	**25**	**1,720**	20
210	15	9,650	48,310	7,025	2,625	35	20	725	...
150	20	7,235	39,815	12,930	1,740	80	5	995	20
1,610	**360**	**415,530**	**254,270**	**78,695**	**3,630**	**102.260**	**1,545**	**64,685**	**300**
355	70	342,815	149,110	49,525	1,390	55,590	895	26,995	240
1,255	290	72,715	105,160	29,170	2,240	46,670	650	37,690	60
75	5	9,535	14,655	555	270	3,875	...	1,000	5
955	275	18,125	49,955	3,420	775	18,760	540	22,735	25
2,440	**120**	**589,450**	**244,865**	**11,610**	**2,205**	**57,400**	**2,420**	**45,465**	**190**
1,035	75	514,730	173,565	8,620	1,100	26,400	1,375	25,595	145
1,405	45	74,720	71,300	2,990	1,105	31,000	1,045	19,870	45
570	25	18,605	22,555	810	280	11,595	760	9,280	25
1,165	**60**	**605,600**	**217,605**	**2,030**	**1,370**	**22,235**	**1,750**	**27,320**	**145**
885	35	527,195	150,100	955	835	11,600	1,170	15,980	135
280	25	78,405	67,505	1,075	535	10,635	580	11,340	10
65	5	8,035	9,265	215	130	2,135	285	1,570	5
65	...	12,435	10,695	325	160	3,555	40	2,175	5
1,070	**65**	**336,395**	**262,250**	**11,720**	**2,520**	**88,315**	**1,200**	**44,395**	**165**
675	20	288,395	181,360	5,910	1,180	48,610	700	29,175	145
395	45	48,000	80,890	5,810	1,340	39,705	500	15,220	20
1,020	**45**	**298,520**	**402,890**	**10,970**	**2,505**	**104,545**	**3,780**	**41,515**	**115**
660	25	240,035	264,650	5,180	575	56,835	1,390	25,345	75
360	20	58,485	138,240	5,790	1,950	47,710	2,390	16,170	40
60	...	9,190	17,265	325	275	6,515	1,150	3,025	...
25	...	4,105	10,815	1,555	125	8,125	190	2,160	...
280	**760**	**111,035**	**135,045**	**1,240**	**1,885**	**1,175**	**485**	**5,235**	**40**
150	735	100,610	103,935	1,180	1,725	1,110	345	2,960	25
130	25	10,425	31,110	60	160	65	110	2,275	15
110	25	5,050	23,325	40	130	20	75	1,705	15

M. C.—Municipal Corporation M.—Municipality.

APPENDIX TO TABLE H-II

DISTRIBUTION OF RESIDENTIAL CENSUS HOUSES BY MATERIAL OF WALL CROSS-CLASSIFIED BY MATERIAL OF ROOF

State	Total Rural Urban	Total Number of Census Houses	Predominant Material of Wall	PREDOMINANT MATERIAL OF ROOF		
				Grass, Leaves, Reeds, Bamboo, Thatch, Mud, Unburnt Bricks or Wood	Tiles, Slate, Shingle, Corrugated Iron, Zinc or other Metal Sheets, Asbestos Cement Sheets, Brick, Lime, Stone and R.B.C./R.C.C.	All other Materials and Materials not stated
1	2	3	4	5	6	7
TAMIL NADU ...	**Total**	**8,025,780**	(i) Grass, Leaves, Reeds or Bamboo, Mud, Unburnt Bricks, Wood	**4,120,695**	**1,114,360**	**685**
			(ii) Burnt Bricks, G.I. Sheets or other Metal Sheets, Stone, Cement	**186,015**	**2,602,735**	**200**
			(iii) All other Materials and Materials not stated	**30**	**775**	**285**
	Rural	**5,824,570**	(i) Grass, Leaves, Reeds or Bamboo, Mud, Unburnt Bricks, Wood	**3,532,985**	**838,735**	**495**
			(ii) Burnt Bricks, G.I. Sheets or other Metal Sheets, Stone, Cement	**109,020**	**1,342,255**	**135**
			(iii) All other Materials and Materials not stated	**15**	**735**	**195**
	Urban	**2,201,210**	(i) Grass, Leaves, Reeds or Bamboo, Mud, Unburnt Bricks, Wood	**587,710**	**275,625**	**190**
			(ii) Burnt Bricks, G.I. Sheets or other Metal Sheets, Stone, Cement	**76,995**	**1,260,480**	**65**
			(iii) All other Materials and Materials not stated	**15**	**40**	**90**

TABLE H-III

HOUSEHOLDS CLASSIFIED BY NUMBER OF MEMBERS AND BY NUMBER OF ROOMS OCCUPIED

TABLE H-III—FLY LEAF

The figures given in this Table are unbiased estimates of the characteristics based on 20% sample of Census Houses. For a brief note on the precision of the cell-frequencies, reference is invited to the Introductory Note. These estimates have been obtained by multiplying the sample figures by five.

This Table gives the number of members in the household with reference to the number of 'living rooms' occupied. Thus it will reveal the extent of congestion and over-crowding in Census Houses and will also give an idea of the size of the household.

Any room wide and long enough for a person to sleep in and having four walls with a door and roof above is treated as a 'living room'. This excludes unenclosed verandah, kitchen, store, garage, cattle shed and latrine. However, if an enclosed room is used in common for sleeping, sitting, dining, storing and cooking, etc., it has been treated as a 'living room'.

The units for which the data are presented are the same as in Table H-I.

This Table corresponds to Table E-V of 1961 Census. The information for all households with unspecified number of rooms and households with details unspecified are also given in this Table and this is an addition in this Census.

The Institutional Households are excluded from this Table.

In certain areas the number of members shown in respect of 'households with unspecified number of rooms' may be less than the number of households and this is because information about the number of members could not be ascertained as the households were away on pilgrimage, tour or some other reason.

H–III HOUSEHOLDS CLASSIFIED BY NUMBER

Serial Number.	State/District/City	Total Rural Urban	Total No. of Census Households	TOTAL NO. OF MEMBERS		Total No. of Rooms
				Males	Females	
	1	2	3	4	5	6
	TAMIL NADU STATE ...	**Total**	**8,180,930**	**20,164,735**	**19,736,300**	**13,163,350**
		Rural	**5,912,900**	**14,184,285**	**13,912,835**	**9,007,685**
		Urban	**2,268,030**	**5,980,450**	**5,823,465**	**4,155,665**
1	**Madras District**	T	**394,625**	**1,164,900**	**1,100,445**	**753,000**
		R	...	...	...	...
		U	394,625	1,164,900	1,100,445	753,000
	Madras (M.C.)	U	394,625	1,164,900	1,100,445	753,000
2	**Chingleput District**	T	**548,600**	**1,385,175**	**1,326,410**	**893,965**
		R	374,035	927,145	889,145	576,805
		U	174,565	458,030	437,265	317,160
	Kancheepuram (M)	U	21,610	51,530	50,520	39,740
3	**North Arcot District**	T	**710,510**	**1,823,125**	**1,771,580**	**1,109,235**
		R	574,285	1,455,330	1,406,585	864,270
		U	136,225	367,795	364,995	244,965
	Vellore (M)	U	24,450	66,630	65,705	39,825
4	**South Arcot District**	T	**715,580**	**1,764,685**	**1,702,185**	**1,039,170**
		R	625,795	1,531,850	1,474,000	892,155
		U	89,785	232,835	228,185	147,015
5	**Dharmapuri District**	T	**297,745**	**820,210**	**793,390**	**447,875**
		R	272,495	749,700	724,650	397,610
		U	25,250	70,510	68,740	50,265
6	**Salem District**	T	**629,250**	**1,489,905**	**1,441,230**	**955,700**
		R	481,815	1,104,385	1,067,375	687,185
		U	147,435	385,520	373,855	268,515
	Salem (M)	U	55,250	149,670	145,820	106,175
7	**Coimbatore District**	T	**899,505**	**2,154,050**	**2,076,825**	**1,476,510**
		R	600,680	1,387,275	1,348,695	924,905
		U	298,825	766,775	728,130	551,605
	Tiruppur (M)	U	21,120	53,590	51,150	35,595
	Coimbatore (M)	U	63,380	176,335	165,465	123,180
	Singanallur (M)	U	23,750	61,200	59,135	39,745

OF MEMBERS AND BY NUMBER OF ROOMS OCCUPIED

HOUSEHOLDS WITH ONE ROOM			HOUSEHOLDS WITH TWO ROOMS		
No. of Households	Number of members		No. of Households	Number of members	
	Males	Females		Males	Females
7	8	9	10	11	12
5,106,525	**11,185,935**	**11,050,545**	**1,983,185**	**5,430,585**	**5,261,205**
3,873,480	**8,314,000**	**8,237,635**	**1,395,730**	**3,772,825**	**3,654,940**
1,233,045	**2,871,935**	**2,812,910**	**587,455**	**1,657,760**	**1,606,265**
211,360	**568,855**	**536,880**	**96,405**	**296,590**	**280,610**
...	...	...	...	...	...
211,360	568,885	536,880	96,405	296,590	280,610
211,360	568,855	536,880	96,405	296,590	280,610
338,145	**755,585**	**731,220**	**134,695**	**375,830**	**354,800**
242,710	535,375	518,355	89,895	250,175	236,630
95,435	220,210	212,865	44,800	125,655	118,170
11,940	24,205	23,580	5,130	13,110	12,855
467,040	**1,060,785**	**1,038,570**	**157,810**	**454,985**	**437,295**
389,065	879,560	859,255	125,105	359,070	342,045
77,975	181,225	179,315	32,705	95,915	95,250
15,640	37,700	36,860	5,235	16,255	16,055
485,575	**1,080,640**	**1,048,810**	**170,860**	**479,595**	**458,540**
432,530	957,800	928,790	145,850	409,110	388,985
53,045	122,840	120,020	25,010	70,485	69,555
203,285	**495,795**	**485,925**	**63,105**	**196,590**	**186,540**
190,625	466,625	456,720	56,755	177,035	168,395
12,660	29,170	29,205	6,350	19,555	18,145
418,105	**888,715**	**869,960**	**141,375**	**381,055**	**362,010**
340,000	713,295	697,695	101,175	267,080	252,050
78,105	175,420	172,265	40,200	113,975	109,960
27,120	61,555	61,275	15,395	45,205	43,275
543,940	**1,173,205**	**1,145,020**	**232,195**	**604,725**	**575,920**
385,345	810,705	799,110	148,820	378,190	361,410
158,595	362,500	345,910	83,375	226,535	214,510
12,785	29,605	28,320	5,055	13,670	12,955
34,810	87,680	81,960	14,545	43,175	40,260
13,420	31,415	30,285	6,955	19,145	18,430

H-III HOUSEHOLDS CLASSIFIED BY NUMBER

Serial Number	State/District/City		Total Rural Urban	HOUSEHOLDS WITH THREE ROOMS			HOUSEHOLDS WITH FOUR ROOMS		
				No. of House-holds	Number of members		No. of House-holds	Number of members	
					Males	Females		Males	Females
				13	14	15	16	17	18
	TAMIL NADU STATE	...	**Total**	**633,060**	**1,980,075**	**1,910,700**	**252,705**	**851,690**	**822,435**
			Rural	**393,335**	**1,234,465**	**1,186,770**	**145,465**	**494,115**	**477,690**
			Urban	**239,725**	**745,610**	**723,930**	**107,240**	**357,575**	**344,745**
1	**Madras District**	...	T	**43,220**	**143,990**	**136,415**	**20,490**	**72,105**	**67,460**
			R	...	...	...	...	...	...
			U	43,220	143,990	136,415	20,490	72,105	67,460
	Madras (M. C.)		U	43,220	143,990	136,415	20,490	72,105	67,460
2	**Chingleput District**	...	T	**41,490**	**133,025**	**125,920**	**20,005**	**68,305**	**64,000**
			R	23,465	76,925	71,905	10,655	37,215	35,175
			U	18,025	56,100	54,015	9,350	31,090	28,825
	Kanchipuram (M)		U	2,270	6,415	6,765	1,380	4,685	4,095
3	**North Arcot District**	...	T	**44,790**	**149,885**	**144,170**	**23,740**	**87,300**	**84,550**
			R	33,045	111,125	105,490	16,270	60,545	57,805
			U	11,745	38,760	38,680	7,470	26,755	26,745
	Vellore (M)		U	1,905	6,325	6,570	910	3,240	3,245
4	**South Arcot District**	...	T	**37,025**	**123,715**	**117,640**	**13,060**	**47,265**	**44,915**
			R	30,420	102,835	96,610	10,155	37,015	35,325
			U	6,605	20,880	21,030	2,905	10,250	9,590
5	**Dharmapuri District**	...	T	**18,035**	**67,800**	**64,210**	**7,655**	**32,170**	**30,275**
			R	14,870	57,400	53,850	6,010	26,275	24,530
			U	3,165	10,400	10,360	1,645	5,895	5,745
6	**Salem District**	...	T	**42,005**	**128,260**	**122,110**	**15,660**	**51,855**	**49,290**
			R	25,075	74,810	71,090	9,110	29,850	28,225
			U	16,930	53,450	51,020	6,550	22,005	21,065
	Salem (M)		U	7,485	23,670	23,045	2,765	10,010	9,615
7	**Coimbatore District**	...	T	**73,285**	**213,850**	**203,225**	**26,615**	**84,885**	**79,420**
			R	42,010	120,510	115,055	14,025	44,115	41,325
			U	31,275	93,340	88,170	12,590	40,770	38,095
	Tiruppur (M)		U	1,780	5,155	5,055	775	2,700	2,470
	Coimbatore (M)		U	6,950	21,735	20,740	3,165	10,355	9,650
	Singanallur (M)		U	2,020	6,110	5,990	845	2,760	2,640

OF MEMBERS AND BY NUMBER OF ROOMS OCCUPIED

HOUSEHOLDS WITH FIVE ROOMS			HOUSEHOLDS WITH UNSPECIFIED NUMBER OF ROOMS			No. of Households with details unspecified
No. of Households	Number of members		No. of Households	Number of members		
	Males	Females		Males	Females	
19	20	21	22	23	24	25
189,290	**716,185**	**691,005**	**125**	**265**	**410**	**16,040**
95,560	**368,635**	**355,410**	**105**	**245**	**390**	**9,225**
93,730	**347,550**	**335,595**	**20**	**20**	**20**	**6,815**
21,270	**83,355**	**79,070**	**10**	**5**	**10**	**1,870**
...	...	...	...	...	...	...
21,270	83,355	79,070	10	5	10	1,870
21,270	83,355	79,070	10	5	10	1,870
13,240	**52,330**	**50,370**	**10**	**100**	**100**	**1,015**
6,855	27,355	26,980	10	100	100	445
6,385	24,975	23,390	...	...	...	570
875	3,115	3,225	...	...	...	15
16,125	**70,140**	**66,980**	**10**	**30**	**15**	**995**
10,105	45,000	41,975	10	30	15	685
6,020	25,140	25,005	...	...	...	310
745	3,110	2,975	...	...	...	15
7,930	**33,470**	**32,280**	...	...	...	**1,130**
5,960	25,090	24,290	...	...	...	880
1,970	8,380	7,990	...	...	...	250
5,420	**27,800**	**26,235**	**15**	**55**	**205**	**230**
4,020	22,315	20,950	10	50	205	205
1,400	5,485	5,285	5	5	...	25
10,830	**40,020**	**37,855**	**5**	...	**5**	**1,270**
5,490	19,350	18,310	5	...	5	960
5,340	20,670	19,545	...	...	...	310
2,350	9,230	8,610	...	...	...	135
22,160	**77,385**	**73,240**	...	...	...	**1,310**
9,790	33,755	31,795	...	...	...	690
12,370	43,630	41,445	...	...	...	620
695	2,460	2,350	...	...	...	30
3,715	13,390	12,855	...	...	...	195
490	1,770	1,790	...	...	...	20

H–III HOUSEHOLDS CLASSIFIED BY NUMBER

Serial Number.	State/District/City		Total Rural Urban	Total No. of Census Households	TOTAL NO. OF MEMBERS		Total No. of Rooms
					Males	Females	
	1		2	3	4	5	6
8	**Nilgiris District**		T	**95,890**	**250,775**	**241,895**	**219,795**
			R	49,195	127,495	123,840	115,910
			U	46,695	123,280	118,055	103,885
9	**Madurai District**		T	**781,315**	**1,928,835**	**1,907,240**	**1,197,295**
			R	538,805	1,292,415	1,282,550	799,560
			U	242,510	636,420	624,690	397,735
	Dindigul (M)		U	23,985	64,435	61,810	35,775
	Madurai (M. C.)		U	95,535	265,015	261,540	157,295
10	**Tiruchirapalli District**	...	T	**800,220**	**1,876,995**	**1,851,545**	**1,153,560**
			R	636,325	1,463,595	1,444,120	873,775
			U	163,895	413,400	407,425	279,785
	Tiruchirapalli (M)		U	53,825	147,240	144,825	91,720
11	**Thanjavur District**	...	T	**775,075**	**1,831,775**	**1,815,330**	**1,116,735**
			R	629,410	1,465,945	1,450,155	882,670
			U	145,665	365,830	365,175	234,065
	Kumbakonam (M)		U	20,050	50,855	51,880	31,675
	Thanjavur (M)		U	24,770	64,775	63,910	43,955
12	**Ramanathapuram District**	...	T	**606,930**	**1,445,570**	**1,467,415**	**950,605**
			R	456,760	1,066,425	1,086,475	686,370
			U	150,170	379,145	380,940	264,235
13	**Tirunelveli District**	...	T	**704,105**	**1,596,520**	**1,635,120**	**1,310,950**
			R	487,890	1,081,080	1,108,750	864,590
			U	216,215	515,440	526,370	446,360
	Tuticorin (M)		U	30,635	77,740	76,675	61,905
	Tirunelveli (M)		U	21,525	51,735	52,220	43,320
14	**Kanyakumari District**	...	T	**221,580**	**632,215**	**605,690**	**538,955**
			R	185,410	531,645	506,495	441,880
			U	36,170	100,570	99,195	97,075
	Nagercoil (M)		U	24,990	68,515	67,635	72,285

OF MEMBERS AND BY NUMBER OF ROOMS OCCUPIED

HOUSEHOLDS WITH ONE ROOM			HOUSEHOLDS WITH TWO ROOMS		
No. of Households	Number of members		No. of Households	Number of members	
	Males	Females		Males	Females
7	8	9	10	11	12
36,325	**81,775**	**79,135**	**28,615**	**74,420**	**72,245**
16,585	36,485	35,160	15,365	39,385	38,440
19,740	45,290	43,975	13,250	35,035	33,805
507,140	**1,121,460**	**1,123,540**	**189,610**	**523,255**	**509,845**
359,270	773,000	776,715	129,385	350,420	342,385
147,870	348,460	346,825	60,225	172,835	167,460
16,435	39,070	37,545	4,995	15,665	15,135
57,970	146,740	146,160	23,920	71,600	69,650
571,860	**1,221,040**	**1,209,255**	**153,415**	**416,310**	**406,870**
474,675	1,005,350	996,120	114,370	307,730	299,385
97,185	215,690	213,135	39,045	108,580	107,485
32,465	78,430	76,750	12,235	36,720	36,805
535,335	**1,099,225**	**1,095,735**	**170,425**	**484,505**	**476,520**
445,035	902,730	899,625	135,670	385,065	377,180
90,300	196,495	196,110	34,755	99,440	99,340
12,820	28,275	29,080	4,465	13,240	13,300
14,345	32,445	32,200	5,810	16,785	16,585
373,860	**787,765**	**814,235**	**163,160**	**433,980**	**430,945**
290,495	605,230	627,790	122,065	320,610	319,365
83,365	182,535	186,445	41,095	113,370	111,580
344,285	**684,955**	**710,395**	**212,485**	**512,665**	**521,135**
248,005	487,575	506,565	152,140	360,740	367,745
96,280	197,380	203,830	60,345	151,925	153,390
15,470	33,820	33,910	6,880	18,420	17,785
10,385	20,590	20,865	5,630	14,700	14,820
70,270	**166,135**	**161,865**	**69,030**	**196,080**	**187,930**
59,140	140,270	135,735	59,135	168,215	160,925
11,130	25,865	26,130	9,895	27,865	27,005
6,615	14,670	15,020	6,625	18,040	17,660

H-III HOUSEHOLDS CLASSIFIED BY NUMBER

Serial Number	State/District/City		Total Rural Urban	HOUSEHOLDS WITH THREE ROOMS			HOUSEHOLDS WITH FOUR ROOMS		
				No. of House-holds	Number of members		No. of House-holds	Number of members	
					Males	Females		Males	Females
				13	14	15	16	17	18
8	**Nilgiris District**	...	T	**14,905**	**42,775**	**40,700**	**8,235**	**25,835**	**24,660**
			R	8,315	23,550	22,720	4,690	14,785	14,645
			U	6,590	19,225	17,980	3,545	11,050	10,015
9	**Madurai District**	...	T	**51,715**	**165,925**	**159,325**	**18,625**	**65,345**	**63,520**
			R	31,705	101,235	97,275	11,040	39,405	37,750
			U	20,010	64,690	62,050	7,585	25,940	25,770
	Dindigul (M)		U	1,520	5,600	5,305	595	2,440	2,275
	Madurai (M. C.)		U	7,505	24,995	24,525	3,180	10,830	11,010
10	**Tiruchirapalli District**	...	T	**44,735**	**139,980**	**136,240**	**17,230**	**57,710**	**57,565**
			R	29,635	92,760	90,225	10,415	34,455	34,905
			U	15,100	47,220	46,015	6,815	23,255	22,660
	Tiruchirapalli (M)		U	4,715	16,330	16,085	2,460	9,200	8,840
11	**Thanjavur District**	...	T	**47,410**	**165,535**	**161,875**	**13,750**	**51,080**	**50,330**
			R	34,710	123,550	119,445	9,210	35,020	34,355
			U	12,700	41,985	42,430	4,540	16,060	15,975
	Kumbakonam (M)		U	1,720	5,710	5,900	645	2,185	2,215
	Thanjavur (M)		U	2,495	8,235	7,970	1,025	3,555	3,530
12	**Ramanathapuram District**	...	T	**45,195**	**142,765**	**141,465**	**13,385**	**45,115**	**45,050**
			R	30,250	95,175	94,430	7,785	26,560	26,275
			U	14,945	47,590	47,035	5,600	18,555	18,775
13	**Tirunelveli District**	...	T	**88,270**	**233,640**	**235,280**	**33,525**	**94,455**	**95,280**
			R	55,340	144,945	145,275	19,020	52,380	53,230
			U	32,930	88,695	90,005	14,505	42,075	42,590
	Tuticorin (M)		U	4,560	13,195	12,965	1,870	5,900	5,775
	Tirunelveli (M)		U	3,055	8,440	8,905	1,285	4,160	3,935
14	**Kanyakumari District**	...	T	**40,980**	**128,930**	**122,125**	**20,730**	**68,265**	**65,580**
			R	34,495	109,645	103,400	17,080	56,495	54,145
			U	6,485	19,285	18,725	3,650	11,770	11,435
	Nagercoil (M)		U	4,755	13,825	13,420	2,870	9,080	8,815

Note :— (i) Columns 22—24 include figures of households which have no regular rooms.
(ii) Column 3 excludes figures for Institutional Households.

OF MEMBERS AND BY NUMBER OF ROOMS OCCUPIED

HOUSEHOLDS WITH FIVE ROOMS			HOUSEHOLDS WITH UNSPECIFIED NUMBER OF ROOMS			No. of Households with details unspecified
No. of Households	Number of members		No. of Households	Number of members		
	Males	Females		Males	Females	
19	20	21	22	23	24	25
7,460	**25,970**	**25,155**	...	...	...	**350**
4,075	13,290	12,875	...	...	...	165
3,385	12,680	12,280	...	...	...	185
13,045	**52,850**	**51,010**	...	...	...	**1,180**
6,820	28,355	28,425	...	...	...	585
6,225	24,495	22,585	...	...	...	595
400	1,660	1,550	...	...	...	40
2,630	10,850	10,195	...	...	...	330
11,470	**41,915**	**41,580**	**10**	**40**	**35**	**1,500**
6,430	23,260	23,450	10	40	35	790
5,040	18,655	18,130	...	...	...	710
1,705	6,560	6,345	...	...	...	245
7,185	**31,430**	**30,870**	...	...	...	**970**
4,200	19,580	19,550	...	...	...	585
2,985	11,850	11,320	...	...	...	385
375	1,445	1,385	...	...	...	25
1,020	3,755	3,625	...	...	...	75
9,495	**35,930**	**35,705**	**30**	**15**	**15**	**1,805**
4,695	18,845	18,610	25	5	5	1,445
4,800	17,085	17,095	5	10	10	360
23,380	**70,785**	**72,465**	**35**	**20**	**25**	**2,125**
11,765	35,420	35,910	35	20	25	1,585
11,615	35,365	36,555	...	...	...	540
1,780	6,405	6,240	...	...	...	75
1,135	3,845	3,695	...	...	...	35
20,280	**72,805**	**68,190**	...	...	...	**290**
15,355	57,020	52,290	...	...	...	205
4,925	15,785	15,900	...	...	...	85
4,075	12,900	12,720	...	...	...	50

M. C.—Municipal Corporation; M.—Municipality

TABLE H-IV

HOUSEHOLDS CLASSIFIED BY SIZE AND TENURE STATUS

TABLE H-IV—FLY LEAF

The figures given in this Table are unbiased estimates of the characteristics based on 20% sample of Census Houses. For a brief note on the precision of the cell-frequencies, reference is invited to the Introductory Note. These estimates have been obtained by multiplying the sample figures by five.

This Table presents both the composition of households living in houses used wholly or partly for residential purposes and also their tenure status as to whether they are living in own or rented houses. Even rent-free accommodation provided to employees by Government, Companies etc., is taken as 'rented' house.

The units for which the data are presented are the same as in Table H-I.

This Table to an extent corresponds to Table E-II of 1961 Census. In 1961 Census, the households living in Census Houses used wholly or partly as dwellings were classified by tenure status, whereas in this Census, households with number of members are cross-classified by tenure status.

H-IV HOUSEHOLDS CLASSIFIED BY SIZE AND TENURE STATUS

Serial Number	State/ District/City	Total Rural Urban	Tenure Status	Total No. of Census House-holds	HOUSEHOLDS HAVING NUMBER OF PERSONS						
					One Person	Two Persons	Three Persons	Four Persons	Five Persons	Six and more Persons	Number of Persons Unspeci-fied
	1	2	3	4	5	6	7	8	9	10	11
	TAMIL NADU	**T**	**Total**	**8,180,930**	**468,685**	**934,765**	**1,159,395**	**1,371,440**	**1,333,695**	**2,893,830**	**19,120**
			Owned	**6,412,670**	**358,395**	**704,455**	**884,130**	**1,070,225**	**1,060,330**	**2,323,545**	**11,590**
			Rented	**1,768,260**	**110,290**	**230,310**	**275,265**	**301,215**	**273,365**	**570,285**	**7,530**
		R	**Total**	**5,912,900**	**373,580**	**702,140**	**861,005**	**1,014,405**	**980,155**	**1,970,035**	**11,580**
			Owned	**5,349,985**	**317,480**	**610,175**	**760,580**	**914,660**	**896,115**	**1,840,015**	**10,960**
			Rented	**562,915**	**56,100**	**91,965**	**100,425**	**99,745**	**84,040**	**130,020**	**620**
		U	**Total**	**2,268,030**	**95,105**	**232,625**	**298,390**	**357,035**	**353,540**	**923,795**	**7,540**
			Owned	**1,062,685**	**40,915**	**94,280**	**123,550**	**155,565**	**164,215**	**483,530**	**630**
			Rented	**1,205,345**	**54,190**	**138,345**	**174,840**	**201,470**	**189,325**	**440,265**	**6,910**
1	**Madras District**	**T**	**Total**	**394,625**	**7,965**	**28,655**	**42,955**	**58,160**	**62,310**	**192,420**	**2,160**
			Owned	105,660	1,610	5,535	8,775	13,025	15,380	61,260	75
			Rented	288,965	6,355	23,120	34,180	45,135	46,930	131,160	2,085
		R	Total	...	...	...	...	...	...	...	...
			Owned	...	...	...	...	...	...	...	...
			Rented	...	...	...	...	...	...	...	...
		U	Total	394,625	7,965	28,655	42,955	58,160	62,310	192,420	2,160
			Owned	105,660	1,610	5,535	8,775	13,025	15,380	61,260	75
			Rented	288,965	6,355	23,120	34,180	45,135	46,930	131,160	2,085
	Madras (M. C.)	U	Total	394,625	7,965	28,655	42,955	58,160	62,310	192,420	2,160
			Owned	105,660	1,610	5,535	8,775	13,025	15,380	61,260	75
			Rented	288,965	6,355	23,120	34,180	45,135	46,930	131,160	2,085
2	**Chingleput District**	**T**	**Total**	**548,600**	**25,765**	**62,445**	**79,460**	**91,420**	**89,980**	**198,245**	**1,285**
			Owned	453,840	19,945	48,355	63,130	75,150	76,065	170,380	815
			Rented	94,760	5,820	14,090	16,330	16,270	13,915	27,865	470
		R	Total	374,035	19,070	43,100	55,130	63,610	63,185	129,310	630
			Owned	348,985	16,950	38,990	50,705	59,165	59,640	122,960	575
			Rented	25,050	2,120	4,110	4,425	4,445	3,545	6,350	55
		U	Total	174,565	6,695	19,345	24,330	27,810	26,795	68,935	655
			Owned	104,855	2,995	9,365	12,425	15,985	16,425	47,420	240
			Rented	69,710	3,700	9,980	11,905	11,825	10,370	21,515	415

H-IV HOUSEHOLDS CLASSIFIED BY SIZE AND TENURE STATUS—(*contd.*)

Serial Number	State/ District/City	Total Rural Urban	Tenure Status	Total No. of Census House-holds	HOUSEHOLDS HAVING NUMBER OF PERSONS						
					One Person	Two Persons	Three Persons	Four Persons	Five Persons	Six and more Persons	Number of Persons Unspeci-fied
	1	2	3	4	5	6	7	8	9	10	11
2	Chingleput District—(contd.)										
	Kanchipuram (M)	U	Total	21,610	1,140	3,090	3,530	3,505	3,040	7,290	15
			Owned	11,680	465	1,360	1,600	1,745	1,655	4,855	...
			Rented	9,930	675	1,730	1,930	1,760	1,385	2,435	15
3	**North Arcot District**	T	**Total**	**710,510**	**34,900**	**74,605**	**97,260**	**118,295**	**118,560**	**265,540**	**1,350**
			Owned	623,235	28,705	62,395	83,315	102,955	105,410	239,435	1,020
			Rented	87,275	6,195	12,210	13,945	15,340	13,150	26,105	330
		R	Total	574,285	29,990	61,130	80,165	96,790	97,560	207,635	1,015
			Owned	540,075	26,375	55,805	73,945	90,775	92,510	199,665	1,000
			Rented	34,210	3,615	5,325	6,220	6,015	5,050	7,970	15
		U	Total	136,225	4,910	13,475	17,095	21,505	21,000	57,905	335
			Owned	83,160	2,330	6,590	9,370	12,180	12,900	39,770	20
			Rented	53,065	2,580	6,885	7,725	9,325	8,100	18,135	315
	Vellore (M)	U	Total	24,450	690	2,435	3,125	3,720	3,715	10,750	15
			Owned	10,975	235	820	1,190	1,475	1,590	5,665	...
			Rented	13,475	455	1,615	1,935	2,245	2,125	5,085	15
4	**South Arcot District**	T	**Total**	**715,580**	**33,920**	**81,265**	**106,300**	**125,980**	**121,630**	**245,085**	**1,400**
			Owned	626,075	27,570	68,715	91,295	110,100	107,765	219,565	1,065
			Rented	89,505	6,350	12,550	15,005	15,880	13,865	25,520	335
		R	Total	625,795	30,215	71,855	94,210	111,375	107,430	209,600	1,110
			Owned	583,365	26,190	64,875	86,330	103,905	101,150	199,850	1,065
			Rented	42,430	4,025	6,980	7,880	7,470	6,280	9,750	45
		U	Total	89,785	3,705	9,410	12,090	14,605	14,200	35,485	290
			Owned	42,710	1,380	3,840	4,965	6,195	6,615	19,715	...
			Rented	47,075	2,325	5,570	7,125	8,410	7,585	15,770	290
5	**Dharmapuri District**	T	**Total**	**297,745**	**16,990**	**28,320**	**33,670**	**42,915**	**45,220**	**130,375**	**255**
			Owned	270,705	14,215	24,020	29,410	38,545	41,520	122,765	230
			Rented	27,040	2,775	4,300	4,260	4,370	3,700	7,610	25

H-IV HOUSEHOLDS CLASSIFIED BY SIZE AND TENURE STATUS—(*contd.*)

Serial Number	State/ District/City	Total Rural Urban	Tenure Status	Total No. of Census House-holds	HOUSEHOLDS HAVING NUMBER OF PERSONS						
					One Person	Two Persons	Three Persons	Four Persons	Five Persons	Six and more Persons	Number of Persons Unspeci-fied
	1	2	3	4	5	6	7	8	9	10	11
5	Dharmapuri District—(contd.)										
		R	Total	272,495	15,760	25,685	30,785	39,400	41,735	118,900	230
			Owned	254,975	13,605	22,745	27,885	36,675	39,370	114,465	230
			Rented	17,520	2,155	2,940	2,900	2,725	2,365	4,435	...
		U	Total	25,250	1,230	2,635	2,885	3,515	3,485	11,475	25
			Owned	15,730	610	1,275	1,525	1,870	2,150	8,300	...
			Rented	9,520	620	1,360	1,360	1,645	1,335	3,175	25
6	**Salem District**	**T**	**Total**	**629,250**	**44,100**	**75,525**	**88,325**	**113,195**	**106,405**	**200,270**	**1,430**
			Owned	524,230	36,250	60,615	71,790	94,560	89,770	170,130	1,115
			Rented	105,020	7,850	14,910	16,535	18,635	16,635	30,140	315
		R	Total	481,815	37,660	60,205	69,430	89,170	82,415	141,845	1,090
			Owned	441,130	33,030	53,350	62,260	81,705	76,105	133,590	1,090
			Rented	40,685	4,630	6,855	7,170	7,465	6,310	8,255	...
		U	Total	147,435	6,440	15,320	18,895	24,025	23,990	58,425	340
			Owned	83,100	3,220	7,265	9,530	12,855	13,665	36,540	25
			Rented	64,335	3,220	8,055	9,365	11,170	10,325	21,885	315
	Salem (M)	U	Total	55,250	1,970	5,150	7,090	8,365	8,865	23,670	140
			Owned	24,100	705	1,695	2,570	3,330	3,675	12,120	5
			Rented	31,150	1,265	3,455	4,520	5,035	5,190	11,550	135
7	**Coimbatore District**	**T**	**Total**	**899,505**	**54,755**	**100,380**	**129,765**	**164,570**	**156,255**	**292,280**	**1,500**
			Owned	642,090	37,380	67,080	88,115	118,805	115,175	214,920	615
			Rented	257,415	17,375	33,300	41,650	45,765	41,080	77,360	885
		R	Total	600,680	40,485	69,660	88,420	114,960	107,145	179,150	860
			Owned	517,885	32,390	56,730	73,665	99,335	94,390	160,795	580
			Rented	82,795	8,095	12,930	14,755	15,625	12,755	18,355	280
		U	Total	298,825	14,270	30,720	41,345	49,610	49,110	113,130	640
			Owned	124,205	4,990	10,350	14,450	19,470	20,785	54,125	35
			Rented	174,620	9,280	20,370	26,895	30,140	28,325	59,005	605

H-IV HOUSEHOLDS CLASSIFIED BY SIZE AND TENURE STATUS—(*contd.*)

Serial Number	State/ District/City	Total Rural Urban	Tenure Status	Total No. of Census House-holds	HOUSEHOLDS HAVING NUMBER OF PERSONS						
					One Person	Two Persons	Three Persons	Four Persons	Five Persons	Six and more Persons	Number of Persons Unspeci-fied
	1	2	3	4	5	6	7	8	9	10	11
7	Coimbatore District—(contd.)										
	Tiruppur (M)	U	Total	21,120	795	2,200	3,030	3,475	3,960	7,630	30
			Owned	8,250	215	655	895	1,270	1,470	3,745	...
			Rented	12,870	580	1,545	2,135	2,205	2,490	3,885	30
	Coimbatore (M)	U	Total	63,380	1,980	5,380	8,075	9,850	9,915	27,970	210
			Owned	17,015	410	1,095	1,915	2,155	2,665	8,760	15
			Rented	46,365	1,570	4,285	6,160	7,695	7,250	19,210	195
	Singanallur (M)	U	Total	23,750	970	2,115	3,120	3,885	4,205	9,435	20
			Owned	12,380	380	875	1,330	1,810	2,180	5,800	5
			Rented	11,370	590	1,240	1,790	2,075	2,025	3,635	15
8	**Nilgiris District**	**T**	**Total**	**95,890**	**5,260**	**10,245**	**11,980**	**14,835**	**14,665**	**38,540**	**365**
			Owned	35,500	1,045	2,460	3,350	4,750	5,415	18,330	150
			Rented	60,390	4,215	7,785	8,630	10,085	9,250	20,210	215
		R	Total	49,195	2,385	5,030	6,170	7,830	7,805	19,795	180
			Owned	22,515	575	1,515	2,115	3,175	3,550	11,440	145
			Rented	26,680	1,810	3,515	4,055	4,655	4,255	8,355	35
		U	Total	46,695	2,875	5,215	5,810	7,005	6,860	18,745	185
			Owned	12,985	470	945	1,235	1,575	1,865	6,890	5
			Rented	33,710	2,405	4,270	4,575	5,430	4,995	11,855	180
9	**Madurai District**	**T**	**Total**	**781,315**	**43,470**	**89,120**	**109,955**	**128,490**	**127,105**	**281,690**	**1,485**
			Owned	577,365	32,080	62,870	77,815	93,850	95,330	214,565	855
			Rented	203,950	11,390	26,250	32,140	34,640	31,775	67,125	630
		R	Total	538,805	34,225	64,395	77,615	90,320	88,955	182,470	825
			Owned	476,490	28,480	54,020	66,305	79,175	79,400	168,335	775
			Rented	62,315	5,745	10,375	11,310	11,145	9,555	14,135	50
		U	Total	242,510	9,245	24,725	32,340	38,170	38,150	99,220	660
			Owned	100,875	3,600	8,850	11,510	14,675	15,930	46,230	80
			Rented	141,635	5,645	15,875	20,830	23,495	22,220	52,990	580

H-IV HOUSEHOLDS CLASSIFIED BY SIZE AND TENURE STATUS—(*contd.*)

Serial Number	State/ District/City	Total Rural Urban	Tenure Status	Total No. of Census House-holds	HOUSEHOLDS HAVING NUMBER OF PERSONS						
					One Person	Two Persons	Three Persons	Four Persons	Five Persons	Six and more Persons	Number of Persons Unspeci-fied
	1	2	3	4	5	6	7	8	9	10	11
9	Madurai District—(contd.)										
	Dindigul (M)	U	Total	23,985	895	2,535	3,380	3,665	3,625	9,845	40
			Owned	10,665	330	900	1,300	1,545	1,585	5,005	...
			Rented	13,320	565	1,635	2,080	2,120	2,040	4,840	40
	Madurai (M. C.)	U	Total	95,535	2,305	8,150	11,500	14,410	14,670	44,120	380
			Owned	24,950	505	1,575	2,325	3,030	3,630	13,880	5
			Rented	70,585	1,800	6,575	9,175	11,380	11,040	30,240	375
10	**Tiruchirapalli District**	**T**	**Total**	**800,220**	**58,415**	**101,235**	**118,770**	**135,310**	**127,415**	**257,290**	**1,785**
			Owned	660,470	47,755	80,325	95,860	111,640	107,170	216,705	1,015
			Rented	139,750	10,660	20,910	22,910	23,670	20,245	40,585	770
		R	Total	636,325	49,980	81,920	95,795	109,150	103,345	195,145	990
			Owned	584,920	43,775	72,305	86,415	100,290	96,185	184,965	985
			Rented	51,405	6,205	9,615	9,380	8,860	7,160	10,180	5
		U	Total	163,895	8,435	19,315	22,975	26,160	24,070	62,145	795
			Owned	75,550	3,980	8,020	9,445	11,350	10,985	31,740	30
			Rented	88,345	4,455	11,295	13,530	14,810	13,085	30,405	765
	Tiruchirapalli (M)	U	Total	53,825	1,535	5,110	6,845	8,280	8,045	23,725	285
			Owned	18,405	430	1,325	1,715	2,390	2,540	10,005	...
			Rented	35,420	1,105	3,785	5,130	5,890	5,505	13,720	285
11	**Thanjavur District**	**T**	**Total**	**775,075**	**44,380**	**102,030**	**120,390**	**130,705**	**122,860**	**253,605**	**1,105**
			Owned	637,335	34,800	81,390	97,135	106,750	101,575	214,980	705
			Rented	137,740	9,580	20,640	23,255	23,955	21,285	38,625	400
		R	Total	629,410	37,310	84,830	99,970	107,395	100,615	198,605	685
			Owned	557,185	31,235	73,215	86,990	94,615	89,445	181,035	650
			Rented	72,225	6,075	11,615	12,980	12,780	11,170	17,570	35
		U	Total	145,665	7,070	17,200	20,420	23,310	22,245	55,000	420
			Owned	80,150	3,565	8,175	10,145	12,135	12,130	33,945	55
			Rented	65,515	3,505	9,025	10,275	11,175	10,115	21,055	365

H-IV HOUSEHOLDS CLASSIFIED BY SIZE AND TENURE STATUS—(*contd.*)

Serial Number	State/ District/City	Total Rural Urban	Tenure Status	Total No. of Census House-holds	HOUSEHOLDS HAVING NUMBER OF PERSONS						
					One Person	Two Persons	Three Persons	Four Persons	Five Persons	Six and more Persons	Number of Persons Unspecified
	1	2	3	4	5	6	7	8	9	10	11
11	Thanjavur District—(contd.)										
	Kumbakonam (M)	U	Total	20,050	915	2,285	2,780	3,050	3,070	7,920	30
			Owned	8,600	370	745	985	1,165	1,235	4,100	...
			Rented	11,450	545	1,540	1,795	1,885	1,835	3,820	30
	Thanjavur (M)	U	Total	24,770	1,175	2,710	3,145	3,695	3,740	10,225	80
			Owned	11,205	470	945	1,170	1,560	1,630	5,430	...
			Rented	13,565	705	1,765	1,975	2,135	2,110	4,795	80
12	**Ramanathapuram District**	T	**Total**	**606,930**	**40,625**	**70,500**	**87,085**	**99,625**	**97,060**	**210,075**	**1,960**
			Owned	504,435	32,575	56,105	70,425	82,270	81,655	179,800	1,605
			Rented	102,495	8,050	14,395	16,660	17,355	15,405	30,275	355
		R	Total	456,760	32,095	53,575	66,775	76,655	74,560	151,520	1,580
			Owned	418,250	27,770	47,605	59,810	69,970	68,885	142,640	1,570
			Rented	38,510	4,325	5,970	6,965	6,685	5,675	8,880	10
		U	Total	150,170	8,530	16,925	20,310	22,970	22,500	58,555	380
			Owned	86,185	4,805	8,500	10,615	12,300	12,770	37,160	35
			Rented	63,985	3,725	8,425	9,695	10,670	9,730	21,395	345
13	**Tirunelveli District**	T	**Total**	**704,105**	**49,975**	**92,570**	**108,370**	**116,900**	**110,410**	**223,135**	**2,745**
			Owned	562,075	38,560	70,535	83,300	92,155	89,145	186,260	2,120
			Rented	142,030	11,415	22,035	25,070	24,745	21,265	36,875	625
		R	Total	487,890	37,620	65,740	75,630	81,870	77,290	147,565	2,175
			Owned	436,945	31,830	56,575	66,070	73,200	70,010	137,165	2,095
			Rented	50,945	5,790	9,165	9,560	8,670	7,280	10,400	80
		U	Total	216,215	12,355	26,830	32,740	35,030	33,120	75,570	570
			Owned	125,130	6,730	13,960	17,230	18,955	19,135	49,095	25
			Rented	91,085	5,625	12,870	15,510	16,075	13,985	26,475	545
	Tuticorin (M)	U	Total	30,635	1,350	3,310	4,370	4,885	4,860	11,785	75
			Owned	9,860	350	810	1,045	1,385	1,485	4,785	...
			Rented	20,775	1,000	2,500	3,325	3,500	3,375	7,000	75

H-IV HOUSEHOLDS CLASSIFIED BY SIZE AND TENURE STATUS—(*concld.*)

Serial Number	State/ District/City	Total Rural Urban	Tenure Status	Total No. of Census House-holds	HOUSEHOLDS HAVING NUMBER OF PERSONS						
					One Person	Two Persons	Three Persons	Four Persons	Five Persons	Six and more Persons	Number of Persons Unspeci-fied
1		2	3	4	5	6	7	8	9	10	11
13	Tirunelveli District—(contd.)										
	Tirunelveli (M)	U	Total	21,525	1,150	2,745	3,480	3,520	3,145	7,450	35
			Owned	9,375	495	915	1,260	1,340	1,290	4,075	...
			Rented	12,150	655	1,830	2,220	2,180	1,855	3,375	35
14	**Kanyakumari District**	**T**	**Total**	**221,580**	**8,165**	**17,870**	**25,110**	**31,040**	**33,820**	**105,280**	**295**
			Owned	189,655	5,905	14,055	20 415	25,670	28,955	94,450	205
			Rented	31,925	2,260	3,815	4,695	5,370	4,865	10,830	90
		R	Total	185,410	6,785	15,015	20,910	25,880	28,115	88,495	210
			Owned	167,265	5,275	12,445	18,085	22,675	25,475	83,110	200
			Rented	18,145	1,510	2,570	2,825	3,205	2,640	5,385	10
		U	Total	36,170	1,380	2,855	4,200	5,160	5,705	16,785	85
			Owned	22,390	630	1,610	2,330	2,995	3,480	11,340	5
			Rented	13,780	750	1,245	1,870	2,165	2,225	5,445	80
	Nagercoil (M)	U	Total	24,990	905	2,110	3,065	3,640	3,945	11,275	50
			Owned	13,620	420	1,080	1,540	1,790	2,085	6,705	...
			Rented	11,370	485	1,030	1,525	1,850	1,860	4,570	50

Note:—Column four excludes figures for Institutional Households.

M. C.—Municipal Corporation M—Municipality.

LIST OF AGENTS FOR THE SALE OF GOVERNMENT OF INDIA PUBLICATIONS

AS ON 31—3—1970

Sl. No.	Name of the Party	Category of Agents
	AGRA	
1.	National Book House, Jeoni Mandi	(Reg.)
2.	Wedhwa & Co., 45, Civil Lines	(Reg.)
3.	Banwari Lal Jain, Publishers, Moti Katra	(Rest.)
4.	Asa Ram Baldev Dass & Sons, Bagh Muzaffarpur	(Rest.)
	AHMEDABAD	
5.	Balgovind Book-sellers, Gandhi Road	(Rest.)
6.	Chandra Kant Chimanlal Vora, Gandhi Road	(Reg.)
7.	New Order Book Co., Gandhi Road, Ellis Bridge	(Reg.)
8.	Sastu Kitab Ghar, Near Relief Talkies, Patthar Kava Relief Road	(Reg.)
9.	Gujarat Law House, Near Municipal Swimming Bath	(Rest.)
10.	Mahajan Bros. Opp. Khadia Police Gate	(Rest.)
11.	Himanshu Book Co., 10, Mission Market, near Gujarat College	(Rest.)
	AHMEDNAGAR	
12.	V. T. Jorkar, Prop. Rama General Stores, Navi Path	(Rest.)
	AJMER	
13.	Book Land, 663, Madar Gate	(Reg.)
14.	Rajputana Book House, Station Road	(Reg.)
	ALIGARH	
15.	Friend's Book House, Muslim University Market	(Reg.)
16.	New Kitab Ghar Mill Market	(Rest.)
	ALLAHABAD	
17.	Kitabistan, 17-A, Kamla Nehru Road	(Reg.)
18.	Law Book Co., Sardar Patel Marg, P. Box-4	(Reg.)
19.	Ram Narain Lal Beni Madho, 2-A, Katra Road	(Reg.)
20.	Universal Book Co., 20, M.G. Road	(Reg.)
21.	University Book Agency (of Lehore) Elgin Road	(Reg.)
22.	Bharat Law House, 15, Mahatma Gandhi Marg	(Rest.)
23.	Chandralok Prakashan, 73, Darbhenga Colony	(Rest.)
24.	Ram Narain Lal Beni Prasad, 2/A, Katra Road	(Rest.)
	AMBALA CANTT.	
25.	English Book Depot, Ambala Cantt.	(Reg.)
	AMBALA CITY	
26.	Sethi Law House, 8719, Railway Road, Ambala City	(Reg.)
	AMRITSAR	
27.	Amar Nath & Sons, Near P.O., Majith Mandi	(Reg.)
28.	Law Book Agency, G.T. Road, Putligarh	(Reg.)
29.	The Book-sellers Retreat, Hall Bazar	(Reg.)
	ANAND	
30.	Vijaya Stores, Station Road	(Rest.)
	BANGALORE	
31.	Bangalore Press, Lake View, Mysore Road, P.O.B.No. 507	(Reg.)
32.	International Book House, Private Ltd., 4F, M.G. Road	(Reg.)
33.	Makkala Pustak Press, Balamandira, Gandhinagar	(Reg.)
34	S. S. Book Emporium, 118, Mount Joy Road Hanumant Nagar	(Reg.)
35.	Standard Book Depot, Avenue Road	(Reg.)
36.	Vichara Sahitya Ltd., Balepet	(Reg.)
37.	Atma Stores, 5th Cross, Malleswaram	(Rest.)
	BAREILLY	
38.	Agarwal Bros., Bara Bazar	(Reg.)
	BARODA	
39.	New Medical Book House, 540, Madenzampa Road	(Rest.)
40.	Sh. Chandrakant Mohan Lal Shah Gaini, Shankar Building, Diwanji's Wada Dandia Bazar	(Rest.)
	BHAGALPUR	
41.	Paper Stationery Stores, D. N. Singh Road	(Reg.)
	BHOPAL	
42.	Lyall Book Depot, Moh. Din Building, Sultania Road	(Reg.)
43.	Bhopal Sahitya Sadan, Publishers. Book-sellers and Stationers, 37, Lalwani Press Road	(Rest.)

Sl. No.	Name of the Party	Category of Agents
	BHUBANESHWAR	
44.	Prabhat K. Mahapatra, Bhubaneshwar Marg.	(Reg.)
	BHAVANAGAR	
45.	Shah Parsotam Dass Gigabhai, M.G. Road	(Rest.)
	BOLAPURA	
46.	Bolpur Pustakalaya, Rabindra Sarai, P.O. Bolpur Birbhum (W.B.)	(Rest)
	BIJAPUR	
47.	Sh. D. V. Deshpane Recognised Law Book-sellers, Prop: Vinod Book Depot, near Shiral-shetti Chowk	(Rest.)
	BELGARIRA	
48.	Granthloka, 5/1, Ambica Mukherji Road, 24, Parganas, W.B.	(Rest.)
	BIKANER	
49.	Bhandari Bros, Goga Gate	(Rest.)
	BOMBAY	
50.	Charles Lambert & Co., 101, M. G. Road	(Reg.)
51.	Co-operators Book Dept., 5/32, Ahmed Sailor Building, Dadar	(Reg.)
52.	Current Book House, Maruti Lane, Raghunath Dadaji Street	(Reg.)
53.	Current Technical Literature Co. P. Ltd., India House, First Floor	(Reg.)
54.	C. Jamnadas & Co., Book-sellers, 146-C, Princess Street	(Reg.)
55.	Indo Nath & Co., Office No. 8, Ist Floor, 257, Frase Road	(Reg.)
56.	International Book House Ltd., 9, Ash Lane, M. G. Road	(Reg.)
57.	Kothari Book Depot, King Edward Road	(Reg.)
58.	Lakhani Book Depot, Girgaum	(Reg.)
59.	Minerva Book Shop, 10, Kailash Darshan, 3rd Floor, Nava Chowk	(Reg.)
60.	N.M. Tripathi P. Ltd., Princess Street	(Reg.)
61.	New Book Co., 188-190, Dr. Dadabhai Naroji Road	(Reg.)
62.	P.P.H. Book Stall, 190/B, Khetwadi Main Road	(Reg.)
63.	World Literature, Pyare Sing Chug House, Agra Road	(Rest.)

Sl. No.	Name of the Party	Category of Agents
	BOMBAY—*(contd.)*	
64.	Swastik Sales Co., Scientific & Technical Book-sellers	(Rest.)
65.	M. & J. Services, 2-A, Bahri Building, P.B. No. 6007	(Rest.)
66.	Popular Book Depot, Lamington Road	(Reg.)
67.	Sunderdas Gain Chand, 601, Girgaum Road, near Princess Street	(Reg.)
68.	Thacker & Co., Rampart Row	(Reg.)
69.	All India Supply Co., 342 Kalbedevi Road	(Rest.)
70.	Amalgamated Press, 41, Hamam Street	(Rest.)
71.	Asian Trading Co., 310, the Miraballie P.B. 1505	(Rest.)
72.	Secretary, Sales Tax Practitioner Association Room No. 8, Palton Road	(Rest.)
73.	Usha Book Depot, 585, Chira Bazar	(Reg.)
	CALCUTTA	
74.	Chatterjee & Co., 3/1, Becharam Chatterjee Lane	(Reg.)
75.	Current Literature Co., 208, M.G. Road	(Rest.)
76.	Dass Gupta & Co., Ltd., 54/3, College Street	(Reg.)
77.	Firma K.L. Mukhopadhya, 6/1A, Banchharam Akrur Lane	(Reg.)
78	Hindu Library, 69-A, Bolaram De Street	(Reg.)
79.	M.C. Sarkar & Sons P. Ltd., 14, Bankim Chatterji Lane	(Reg.)
80.	Oxford Book Stationery Co., 17, Park St.,	(Reg.)
81.	R. Chambrary & Co.. Ltd , Kant House, P. 33, Mission Row Extension	(Reg.)
82.	S.C. Sarkar & Sons P. Ltd., IC College	(Reg.)
83.	S.K. Lahiri & Co., Ltd., College Street	(Reg.)
84.	Thacker Spink & Co., (1933) P. Ltd., 3, Esplanade East	(Reg.)
85.	W. Newman & Co. Ltd., 3, Old Court House St.	(Reg.)
86.	Indian Book Dist. Co., C-52 M.G. Road	(Rest.)
87.	K. K. Roy, 55, Gariahat Road, P. Box No. 10210	(Rest.)
88.	Manimala, 123, Bow Bazar Street	(Reg.)
89.	Modern Book Depot, Chowringhee Centre	(Rest.)
90.	New Script, 172/3, Rash Behari Avenue	(Reg.)
91.	Gyan Bharati, 171-A, M. G. Road	(Reg.)
92.	Mukherjee Library, I, Gopi Mohan Datta Lane	(Rest.)
93.	S. Bhattachar & Co., 49, Dharamtalla Street	(Rest.)

Sl. No.	Name of the Party	Category of Agents
	CALCUTTA—(*contd.*)	
94.	Scientific Book Agency, 103, Netaji Subhas Road	(Rest.)
95.	Smt. P. D. Upadhyay, 16, Munshi Sardaruddin Lane	(Rest.)
96.	Universal Book Dist. 8/2, Hastings Street	(Rest.)
97.	Manisha Granthalaya P. Ltd., 4/3, B. Bankim Chatterji Street	(Rest.)
98.	N. M. Roy Chowdhury Co., P. Ltd., 72, M. G. Road	(Rest.)
	CHANDIGARH	
99.	Jain Law Agency, Shop No. 5, Sector 22 D	(Reg.)
100.	Mehta Bros., 1933, Sector 22 B	(Reg.)
101.	Rama News Agency, Book sellers, Sector No. 22	(Reg.)
102.	Universal Book Store, Booth No. 25, Sector No. 22 D	(Reg.)
103.	English Bookshop 34, Sector 22 D	(Rest.)
	CALICUT	
104.	Touring Book Stall, Court Road	(Rest.)
	CUTTACK	
105.	Cuttack Law Times, Cuttack	(Reg.)
106.	D. P. Soor & Sons. Manglabad	(Rest.)
107.	New Students Store	(Rest.)
	DEHRADUN	
108.	Bishan Singh and Mahendra Pal Singh 318, Chukhuwala	(Reg.)
109.	Jugal Kishore & Co., Rajpur Road	(Reg.)
110.	National News Agency, Paltan Bazar	(Reg.)
111.	Sant Singh & Sons, 28, Rama Market	(Rest.)
112.	Universal Book House, 39 A, Rajpur Road	(Rest.)
113.	Natraj Publishers, 52, Rajpur Road	(Reg.)
	DELHI	
114.	Atma Ram & Sons, Kashmere Gate	(Reg.)
115.	Bahri Bros., 243, Lajpat Rai Market	(Reg.)
116.	Bawa Harkishan Dass Bedi (Vijaya General Agency Delhi Ahata Kodara Chamalian Road)	(Reg.)
117.	Bookwells, 4 Sant Narankari Colony, P.B. 1565, Delhi-9	(Reg.)
118.	Dhanwant Medical & Law Book House, 1522, Lajpat Rai Market	(Reg.)

Sl. No.	Name of the Party	Category of Agents
	DELHI—(*contd.*)	
119.	Federal Law Depot, Kashmeri Gate	(Reg.)
120.	Imperial Publishing Co., 3, Faiz Bazaar, D.Ganj	(Reg.)
121.	Indian Army Book Depot, 3, Ansari Road, D. Ganj	(Reg.)
122.	J. M. Jaina & Bros., Mori Gate	(Reg.)
123.	Kitab Mahal (Wholesale Division) P. Ltd., 28, Faiz Bazar	(Reg.)
124.	K. L. Seth, Suppliers of Law, Commercial and Tech. Books, Shantinagar, Ganeshpura	(Reg.)
125.	Metropolitan Book Co., 1, Faiz Bazar	(Reg.)
126.	Publication Centre, Subzi Mandi, Opp. Birla Mills	(Reg.)
127.	Sat Narian & Sons, 3141, Mohd. Ali Bazar, M. Gate	(Reg.)
128.	Universal Book & Stationery Co., 16, Nethaji Subhas Marg.	(Reg.)
129.	Universal Book Traders, 80, Gokhale Market	(Reg.)
130.	Youngman & Co., Nai Sarak	(Reg.)
131.	Adrash Publicity Service, 5-A/10, Ansari Road Darya Ganj	(Rest.)
132.	Amar Hind Book House, Nai Sarak	(Rest.)
133.	All India Educational Supply Co., Sri Ram Buildings, Jawahar Nagar	(Rest.)
134.	B. Nath & Bros., 3808, Charkawalan (Chowri Bazar)	(Rest.)
135.	General Book Depot, 1691, Nai Sarak	(Rest.)
136.	Hindi Sahitya Sansar, 1547, Nai Sarak	(Rest.)
137.	Law Literature House, 2646, Balimaran	(Rest.)
138.	Munshi Ram Manohar Lal, Oriental Booksellers and Publishers, P.B. No. 1165, Nai Sarak	(Rest.)
139.	Premier Book Co., Printers, Publishers and Booksellers, Nai Sarak	(Reg.)
140.	Oversees Book Agency, 3810, David Street, Darya Ganj-9	(Reg.)
141.	Amir Book Depot, Nai Sarak	(Rest.)
142.	Rajpal & Sons, Kashmeri Gate	(Rest.)
143.	Saini Law Publishing Co., 1899, Chandni Chowk	(Rest.)
144.	Moti Lal Banarsi Dass, Bangalow Road, Jawahar Nagar	(Reg.)
145.	Sangam Book Depot, Main Market, Gupta Colony	(Reg.)
146.	Summer Bros., P.O. Birla Lines	(Res).

Sl. No.	Name of the Party	Category of Agents
	DELHI—(*contd.*)	
147.	University Book House, 15, U.B. Bangalow Road, Jawahar Nagar	(Rest.)
148.	Om Book Stall, Civil Court Compound	(Reg.)
	DHANBAD	
149.	New Sketch Press, Post Box 26	(Rest.)
	DHARWAR	
150.	Bharat Book Depot & Prakashan, Subhas Road	(Rest.)
151.	Akalwadi Book Depot, Vijay Road	(Rest.)
	ERNAKULAM	
152.	South India Traders, C/o. Constitutional Law Journal	(Reg.)
153.	Pai & Co., Broadway	(Rest.)
	FEROZEPUR CANTT.	
154.	English Book Depot, 78, Jhoke Road	(Reg.)
	GAYA	
155.	Sahitya Sadan, Gautam Budha Marg	(Reg.)
	GOA	
156.	Singhal's Book House, P. O. B. No. 70 Near the Church	(Rest.)
	GURGAON	
157.	Prabhu Book Service, Nai Subzi Mandi	(Rest.)
	GUNTUR	
158.	Book Lovers P. Ltd., Arnudelpet, Chowrasta	(Reg.)
	GWALIOR	
159.	Loyal Book Depot, Patankar Bazar, Lashmar	(Rest.)
160.	Tater Bros., Sarafe	(Rest.)
161.	Anand Pustak Bhandar, M. L. B. Marg	(Rest.)
162.	M. C. Daftari, Prop. M. B. Jain & Bros. Booksellers, Sarafa, Lashkar	(Rest.)
163.	Grover Law House, Nr. High Court Gali	(Rest.)
164.	Kitab Ghar, High Court Road	(Reg.)
	GHAZIABAD	
165.	Jayana Book Agency, Outside S. D. Inter College, G. T. Road	(Rest.)
166.	S. Gupta, 342, Ram Nagar	(Reg.)
	HYDERABAD	
167.	The Swaraj Book Depot, Lakdikapul	(Reg.)
168.	Bhasha Prakashan 22-5-69 Gharkaman	(Rest.)
169.	Booklovers, P. Ltd., Kachiguda, Chowrasta	(Rest.)
170.	Book Syndicate, Devka Mahal, Opp. Central Bank	(Reg.)
171.	Labour Law Publications, 873, Sultan Bazar	(Reg.)
172.	Book Links Corporation, Narayanagoda	(Reg.)
	HARDWAR	
173.	Seva Kunj, Kanshal Bhawan Bra Hampuri	(Rest.)
	HUBLI	
174.	Pervaje's Book House, Station Road	(Reg.)
	INDORE	
175.	Wadhwa & Co., 27, Mahatma Gandhi Road	(Reg.)
176.	Madhya Pradesh Book Centre, 41, Ahilyapura	(Rest.)
177.	Modern Book House, Shiv Vilas Palace	(Rest.)
178.	Swarup Bros., Khajuri Bazar	(Reg.)
179.	Vinay Pustak Bhandar	(Rest.)
	JAIPURCITY	
180.	Bharat Law House, Booksellers & Publishers Opp. Prem Prakash Cinema	(Reg.)
181.	Popular Book Depot, Chaura Rasta	(Reg.)
182.	Vani Mandir, Swami Mansing Highway	(Reg.)
183.	Raj Books & Subs. Agency, 16, Nehru Bazar	(Rest.)
	JAMSHEDPUR	
184.	Amar Kitab Ghar, Diagonal Rd. P. B. No. 78	(Reg.)
185.	Gupta Stores, Dhatkidith	(Reg.)
186.	Sanyal Bros., Booksellers & News Agents, 26, Main Road	(Rest.)
	JAMNAGAR	
187.	Swadeshi Vastu Bhandar, Ratnabai Masid Road	(Reg.)

Sl. No.	Name of the Party	Category of Agents
	JODHPUR	
188.	Chopra Bros, Tripolia Bazar	(Reg.)
189.	Dwarka Das Rathi, Wholesale Books and News Agents	(Reg.)
190.	Kitab Ghar, Sojati Gate	(Reg.)
191.	Rajasthan Law House, High Court Road	(Rest.)
	JUBBALPUR	
192.	Modern Book House, 286, Jawaharganj	(Reg.)
193.	Popular Book House, Nr. Omti P. O.	(Rest.)
	JULLUNDER CITY	
194.	Jain General House, Bazar Bansanwala	(Reg.)
195.	Hazoorina Bros., Mai Hiran Gate	(Rest.)
196.	University Publishers, Railway Road	(Rest.)
	JHUNJHUNU (RAJ)	
197.	Shshi Kumar Sarat Chandra	(Rest.)
	KANPUR	
198.	Advani & Co., P. Box 100, The Mall	(Reg.)
199.	Sahitya Niketan, Sharadhanand Park	(Reg.)
200.	Universal Book Stall, The Mall	(Reg.)
	KAPSAN	
201.	Parkashan Parasaran, 1/90, Namdhar Niwas Azad Marg	(Reg.)
	KOLAPUR	
202.	Maharashtra Granth Bhandar, Mahadwar Road	(Rest.)
	KUMTA	
203.	S. V. Kamat, Booksellers & Stationers (S. Kanara)	(Reg.)
	LUCKNOW	
204.	Balkrishna Book Co., Ltd. Hazaratganj	(Reg.)
205.	British Book Depot, 84, Hazratganj	(Reg.)
206.	Eastern Book Co., 34, Lalbagh Road	(Reg.)
207.	Ram Advani Hazratganj, P. B. 154	(Reg.)
208.	Universal Publishers (P) Ltd., Hazratganj	(Reg.)
209.	Acquarium Supply Co., 213, Faizabad Road	(Rest.)
210.	Civil & Military Educational Stores, 106/B, Sadar Bazar	(Rest.)
	LUDHIANA	
211.	Lyall Book Depot, Chaura Bazar	(Reg.)
212.	Mohindra Bros., Katchori Road	(Rest.)
213.	Nanda Stationery Bhandar, Pustak Bazar	(Rest.)
214.	The Pharmacy News, Pindi Street	(Rest.)
	MADURAI	
215.	Oriental Book House, 258, West Masi Street	(Reg.)
216.	Vivekananda Press, 48, West Masi Street	(Reg.)
	MATHURA	
217.	Rath & Co., Tilohi Bldg. Bengali Ghat	(Rest.)
	MADRAS	
218.	Account Test Institute, P. O. 760, Egmore	(Reg.)
219.	C. Subbiah Chetty, 62, Big Street, Triplicane	(Reg.)
220.	K. Krishnamurty, Post Box 384	(Reg.)
221.	P. Vardhachary & Co, 8, Linghi Chetty Street	(Reg.)
222.	C. Sitaraman & Co., 33, Royapettah High Road	(Reg.)
223.	M. Sachechalam & Co., 14, Bankuram Chetty Street	(Rest.)
224.	Madras Book Agency	(Rest.)
225.	The Rex Trading Co., P. B. 5049, 31 & 32, James Street	(Rest.)
226.	Nav Bharat Agencies 18, Andiappa Street, Sadhana Sadan	(Rest.)
227.	Mohan Pathippagam & Book Depot, 3, Pycrofts Road, Triplicane	(Rest.)
228.	Naresh Co., 3, Dr. Rangachari Road., Mylapore	(Rest.)
229.	Reliance Trading Co., 70/10, Shambu Das Street	(Reg.)
	MANGALORE	
230.	U. R. Shaneye Sons, Car Street, P. Box 128	(Reg.)
231.	K. Bhoga Rao & Co., Kodial Bail	(Rest.)
	MEERUT	
232.	Loyal Book Depot, Chhipi Tank	(Reg.)
233.	Prakash Educational Stores, Subhash Bazar	(Reg.)
	MUZAFFARNAGAR	
234.	B. S. Jain & Co., 71, Abupura	(Reg.)
235.	Gargya & Co., 139, G. New Market	(Rest.)

Sl. No.	Name of the Party	Category of Agents
	MUZAFFERPUR	
236.	Scientific & Educational Supply Syndicate	(Rest.)
	MYSORE	
237.	H. Vankataramiah & Sons, Krishnaragendra Circle	(Reg.)
238.	People Book House, Opp. Jagan Mohan Palace	(Reg.)
239.	Geeta Book House, New State Circle	(Reg.)
240.	Indian Mercantile Corpn., Ramvilas	(Rest.)
	MANDSAUR	
241.	Nahta Bros., Booksellers & Stationers	(Rest.)
	MUSSOURI	
242.	Hind Traders, N. A. A. Centre, Dick Road	(Rest.)
	NAGPUR	
243.	Western Book Depot, Residency Road	(Reg.)
244.	The Executive Secretary, Mineral Industry Association Mineral House, Near All India Radio Square	(Rest.)
	NILGIRIS	
245.	Mary Martin Booksellers, Kotagiri, Tamil Nadu	(Rest.)
	NAINITAL	
246.	Consal Book Depot, Bara Bazar	(Reg.)
	NADIAD	
247.	R. S. Desai, Station Road	(Rest.)
	NEW DELHI	
248.	Amrit Book Co., Connaught Circus	(Reg.)
249.	Aapki Dukan, 5/5777, Dev Nagar	(Reg.)
250.	Bhawani & Sons, 8 F, Connaught Place	(Reg.)
251.	Central News Agency, 23/90, Connaught Circus	(Reg.)
252.	English Book Stores, 7-L, Connaught Circus, P.B. No. 328	(Reg.)
253.	Jain Book Agency, C/9, Prem House, Connaught Place	(Reg.)
254.	Jayana Book Depot, P.B. 2505, Karol Bagh	(Reg.)
255.	Luxmi Book Store, 72, Janpath P.O. Box 553	(Reg.)
256.	Mehra Bros., 50-G, Kalkaji, New Delhi-19	(Reg.)
	NEW DELHI—(*contd.*)	
257.	Navyug Traders, Desh Bandhu Gupta Road, Dev Nagar	(Reg.)
258.	New Book Depot, Latest Books, Periodicals Sty. P.B. 96, Connaught Place	(Reg.)
259.	Oxford Book & Stationery Co., Scindia House	(Reg.)
260.	Peoples Publishing House (P) Ltd. Rani Jhansi Road	(Reg.)
261.	Ram Krishna & Sons (of Lahore) 16/B, Connaught Place	(Reg.)
262.	R. K. Publishers, 23, Beadonpura, Karol Bagh	(Reg.)
263.	Sharma Bros., 17, New Market, Moti Nagar	(Reg.)
264.	The Secretary, Indian Met. Society, Lodi Road	(Reg.)
265.	Suneja Book Centre, 24/90, Connaught Circus	(Reg.)
266.	United Book Ageny, 31, Municipal Market, Connaught Circus	(Reg.)
267.	Hindi Book House, 82, Janpath	(Reg.)
268.	Lakshmi Book Depot, 57, Ragarpura Karol Bagh	(Rest.)
269.	N.C. Kaunchal & Co., 40, Model Basti, P. O. Karol Bagh, New Delhi-5.	(Rest.
270.	Ravindra Book Agency, 4D/50, Double Storey, Lajpat Nagar	(Reg.)
271.	Sant Ram Booksellers, 16, New Municipal Market, Lodi Colony	(Rest.)
272.	Subhas Book Depot, Shop No. 111, Central Market, Srinivaspuri	(Rest.)
273.	The Secy. Federation of Association of Small Industry of India, 23-B/2, Rohtak Road	(Rest.)
274.	Glob Publications, C-33, Nizamudin East	(Rest.)
275.	Standard Booksellers & Stationers, Palam Enclave	(Rest.)
276.	Scientific Instruments Stores, A-355, New Rajender Nagar	(Rest.)
277.	Shyam Pustak Bhandar, 3819, Arya Samaj Road	(Rest.)
	PATIALA	
278.	Jain & Co., 17, Shah Nashin Bazar	(Reg.)
	PATNA	
279.	Luxmi Trading Co., Padri Ki Haveli	(Reg.)
280.	J. N. P. Agarwal & Co., Padri Ki Haveli	(Reg.)
281.	Moti Lal Banarsi Dass & Co., Padri Ki Haveli	(Reg.)
282	Today & Tomorrow, Ashok Rajpath	(Rest.)

Sl. No.	Name of the Party	Category of Agents
	POONA	
283.	Deccan Book Stall, Deccan Gymkhana	(Reg.)
284.	Imperial Book Depot, 266, M.G. Road	(Reg.)
285.	Sarswat 67, Patel Flats, 2 Bombay Poona Road	(Rest.)
286.	International Book Service, Deccan Ghymkhana	(Reg.)
287.	Raka Book Agency, Opp. Natu's Chawl, Near Appa Balwant Chowk	(Reg.)
288.	Secy. Bharati Itihasa Samshodhalla Mandir, 1321, Sadashiv Path	(Rest.)
	PONDICHERRY	
289.	Honesty Book House, 9 Rue Duplix	(Rest.)
	PUDUKKOTTAI	
290.	Meenakshi Pathippagam, 4142 East Main St.,	(Rest.)
291.	Sh. P. Swaminathan Shivam & Co., East Main Road	(Rest.)
	RAJKOT	
292.	Mohan Lal Dossbhai Shah, Booksellers & Subs & Advt. Agent	(Reg.)
	RAIPUR	
293.	Pustak Pratisthan, Sati Bazar	(Rest.)
	RANCHI	
294.	Crown Book Depot, Upper Bazar	(Reg.)
	REWARI	
295.	Tika Ram Sing Lal	(Rest.)
	SAUGAR	
296.	Yadav Book Stall, Publishers & Booksellers	(Rest.)
	SECUNDERABAD	
297.	Hindustan Diary Publishers, Market Street	(Rest.)
	SIVAKASI	
298.	Ganesh Stores, South Car Street	(Rest.)
	SIMLA	
299.	Minerva Book Shop, The Mall	(Reg.)
	SURAT	
300.	Shri Gajanan Pustakalaya, Tower Road	(Reg.)
301.	Gujarat Subs. Agency, Jawahar Lal Nehru Marg, Athwa Lines	(Rest.)
	TUTICORIN	
302.	Shri K. Thiagarajan, 51, French Chapai Road	(Rest.)
	TIRUCHIRAPALLI	
303.	S. Krishnaswami & Co., 35, Subhash Chandra Bose Road	(Rest.)
	TRIPURA	
304.	G. R. Dutta & Co., Scientific Equipments Suppliers	(Rest.)
	TRIVANDRUM	
305.	International Book Depot, Main Road	(Reg.)
306.	Reddiar Press & Book Depot, P.B. No. 4	(Rest.)
	TEZPUR	
307.	Jyoti Prakashan Bhawan, Tezpur, Assam	(Rest.)
	UDAIPUR	
308.	Book Centre, Maharana Bhopal College, Consumer Co-operative Society Ltd.	(Rest.)
309.	Ashutosh & Co. Station Road, Opp. University of Udaipur	(Rest.)
	UJJAIN	
310.	Rami Bros., 41, Mallipura	(Rest.)
	VARANASI	
311.	The Manager, Banaras Hindu University Book Depot	(Reg.)
312.	Chowkhamba Sanskrit Saries Office, Gopal Mandir Lane, P.B. No. 8	(Reg.)
313.	Kohinoor Stores, University Road Lanka	(Reg.)
314.	Viswavidyalaya Prakashan, K 40/18, Bhairo Nath Marg.	(Reg.)
315.	Globe Book Centre, P.O. Hindus University	(Rest.)
	VIZAGAPATAM	
316.	Gupta Bros., Vizia Building	(Reg.)
317.	The Secretary, Andhra University General Co., Opp. Stores	(Rest.)
	VELLORE	
318.	A. Venkatasubban, Law Booksellers	(Reg.)
	WARDHA	
319.	Swarajeya Bhandar, Rathi Market.	(Reg.)

FOR LOCAL SALE

1. Govt. of India Kitab Mahal, Janpath,
   Opp. India Coffee House,
   New Delhi. Phone No. 44561
2. Govt. of India Book Depot,
   8, Hastings Street,
   Calcutta, Phone No. 23-3813
3. High Commissioner for India in
   London India House, London W.C. 2

S. & R. AGENTS AS ON 31—3—72

1. The Assistant Director, Extension Centre, Bhuli Road, Dhanbad.
2. The Assistant Director, Extension Centre, Santnagar, Hyderabad-18.
3. The Assistant Director, Govt. of India, S.I.S.I. Ministry of C & I, Extension Centre, Kapileshwar Road, Belgaum
4. The Assistant Director, Extension Centre, Krishna District (A.P.)
5. The Assistant Director, Footwear Extension Centre, Polo Ground No. 1, Jodhpur
6. The Assistant Director, Industrial Extension Centre, Nadiad (Gujarat)
7. The Development Commissioner, Small Scale Industries Udyog Bhawan, New Delhi
8. The Deputy Director in charge, S.I.S.I. c/o. Chief Civil Administrator, Goa, Panjim
9. The Director, Government Press, Hyderabad
10. The Director, Indian Bureau of Mines, Government of India, Ministry of Steel Mines & Fuel, Nagpur.
11. The Director, S.I S.I. Industrial Extension Centre, Udhna, Surat
12. The Employment Officer, Employment Exchange, Dhar, Madhya Pradesh
13. The Employment Officer, Employment Exchange, Gopal Bhavan, Morena
14. The Employment Officer, Employment Exchange, Jhabue
15. The Head Clerk, Govt. Book Depot, Ahmedabad
16. The Head Clerk, Photozincographic Press, 5, Finance Road, Poona
17. The Officer-in-charge Assam, Govt. B.D. Shillong
18. The O.I/C., Extension Centre, Club Road, Muzaffarpur
19. The O.I/C., Extension Centre, Industrial Estate, Kokar, Ranchi
20. The O.I/C., State Information Centre, Hyderabad
21. The O.I/C., S I.S.I. Extension Centre, Malda
22. The O.I/C., S.I.S.I. Habra, Tabaluria, 24, Parganas
23. The O.I/C., University Employment Bureau, Lucknow
24. The O.I/C., S.I.S.I. Chrontanning Extension Centre, Tangra, 33/1, North Topsia Road, Calcutta-46
25. The O.I/C., S.I.S.I., Extension Centre (Footwear), Calcutta-2
26. The O I/C., S I.S.I., Model Carpentry Workshop, Puyali Nagar. P.O. Burnipur, 24 Parganas
27. Publication Division, Sales Depot, North Block, New Delhi
28. The Press Officer, Orissa Secretariat, Cuttack
29. The Registrar of Companies, Andhra Bank Building. 6, Linghi Chetty Street, P.B. 1530, Madras
30. The Registrar of Companies, Assam, Manipur and Tripura, Shillong
31. The Registrar of Companies, Bihar Journal Road, Patna-1
32. The Registrar of Companies, 162, Brigade Road, Bangalore
33. The Registrar of Companies, Everest, 100, Marine Drive Bombay
34. The Registrar of Companies, Gujarat State Samachar Building, Ahmedabad
35. The Registrar of Companies, Gwalior (M.P.)
36. The Registrar of Companies, H.No. 3-5-837, Hyder Guda, Hyderabad
37. The Registrar of Companies, Kerala, 70 Feet Road, Ernakulam
38. The Registrar of Companies, M.G. Road, West Cott. Building, P.B. 334, Kanpur
39. The Registrar of Companies, Narayani Building, Brabourne Road, Calcutta
40. The Registrar of Companies, Orissa, Cuttack Chandi, Cuttack
41. The Registrar of Companies, Pondicherry
42. The Registrar of Companies, Punjab & Himachal Pradesh, Link Road, Jullundur City
43. The Registrar of Companies, Rajasthan & Ajmer, Sh. Kumta Prasad, House, 1st Floor, 'C' Scheme, Ashok Marg, Jaipur
44. The Registrar of Companies, Sunlight Insurance Building, Ajmeri Gate Extension, New Delhi
45. The Registrar of Trade Unions, Kanpur
46. Soochna Sahita Depot, (State Book Depot), Lucknow
47. Supdt. Bhupendra State Press, Patiala
48. Supdt. Govt. Press & Book Depot, Nagpur
49. Supdt. Govt. Press, Mount Road, Madras
50. Supdt. Govt. State, Stores and Publications, P.O. Gulzenbagh, Patna
51. Supdt. Govt. Printing and Stationery Depot, Rajasthan, Jaipur City
52. Supdt. Govt. Printing and Stationery, Rajkot
53. Supdt. Govt. Printing and Stationery, Punjab, Chandigarh
54. Supdt. Govt. State Emporium, V.P. Rewa
55. Dy. Controller, Prlnting & Stationery Office, Himachal Pradesh, Simla
56. Supdt. Printing and Stationery, Allahabad, Uttar Pradesh
57. Supdt. Printing and Stationery, Madhya Pradesh, Gwalior
58. Supdt. Printing and Stationery, Charni Road, Bombay

59. Supdt. State Govt. Press, Bhopal

60. The Assistant Director, Publicity & Information, Vidhan Saudha, Bangalore-1

61. Supdt. Govt. Press, Trivandrum

62. Assistant Information Officer, Press Information Bureau Information Centre, Srinagar

63. Chief Controller of Imports & Exports, Panjim, Goa

64. Employment Officer, Employment Exchange (Near Bus Stop) Sidhi (M.P.)

65. The Director, Regional Meteorological Centre, Alipur, Calcutta

66. The Assistant Director, State Information Centre, Hubli

67. The Director of Supplies and Disposal, Department of Supply, 10, Mount Road, Madras-2

68. The Director General of Supplies and Disposals, N.I.C. Bldg., New Delhi

69. The Controller of Imports & Exports, Rajkot

70. The Inspector, Dock Safety, M/L & E Madras Harbour, Madras-1

71. The Inspecting Assistant Commissioner of Income Tax, Kerala, T. Ernakulam

72. The Under Secretary, Rajya Sabha Secretariat, Parliament House, New Delhi

73. Controller of Imports & Exports, 7, Portland Park, Visakhapatnam

74. The Senior Inspector, Dock Safety, Botwalla Chambers Sir, P.M. Road, Bombay

75. Controller of Imports & Exports, I.B, 14-P, Pondicherry

76. Dy. Director in-charge, S.I.S.I., Sahakar Bhavan, Trikon Bagicha, Rajkot

77. The Publicity and Liaison Officer, Forest Research Institute & Colleges, Near Forest, P.O. Dehradun

78. The Assistant Controller of Imports and Exports, Govt. of India, Ministry of Commerce, New Kandla

79. The Dy. Director General (S.D.) 6, Esplanade East, Calcutta

80. The Director, Govt. of India, S.I.S.I. Ministry of I & S Industrial Areas-B, Ludhiana

81. The Government Epigraphist for India

82. The Assistant Director, in-charge, S.I.S.I. Extension Centre, Varansi

83. The Director of Supplies, Swarup Nagar, Kanpur

84. The Assistant Director, (Administration), Office of the Director of Supplies & Disposal, Bombay

85. The Chief Controller of Imports & Exports, Ministry of International Trade, Madras

86. The Dy. Collector of Customs, Custom House, Visakhapatnam

87. The Principal Officer, Mercantile Marine Department Calcutta

88. The Director, S.I.S.I. Karan Nagar, Srinagar

89. The Director, I/C, S.I.S.I. 107, Industrial Estate, Kanpur

90. The Director of Inspection, New Marine Lines, Bombay-1

91. The Dy. Chief Controller of Imports & Exports, T.D. Road, Ernakulam

92. The Asstt. Director, Govt. Stationery & Book Depot, Aurangabad

93. The Asstt. Director I/C, S.I.S.I. Club Road, Hubli

94. The Employment Officer, Talcher

95. The Director of Inspection, Dte. G & S, Disposal, 1, Ganesh Chandra Avenue, Calcutta.

96. The Collector of Customs, New Custom House, Bombay

97. The Controller of Imports & Exports, Bangalore

98. The Administrative Officer, Tariff Commissioner, 101, Queen's Road, Bombay

99. The Commissioner of Income Tax, Patiala

100. The Director, Ministry of I & Supply, (Dept. of Industry), Cuttack

101. The Dy. Director of Public Relations, State Information Centre, Patna.

102. The Officer-in-charge, State Information Centre, Madras

103. The Asstt., Director, S.I.S.I., M.I. Road, Jaipur

104. The Collector of Customs, Madras

105. National Building Org., Nirman Bhavan, New Delhi

106. The Controller of Communication, Bombay Region, Bombay

107. The Karnatak University, Dharwar

108. The Sardar Patel University, Vallabh Vidyanagar

109. The Principal Publications Officer sending commission for Scientific & Technical, Terminology, UGC, Building, New Delhi

110. The Officer-in-charge, Information Centre, Swai Ram Singh Road, Jaipur

111. The Director General of Civil Aviation, New Delhi

112. Controller of Aerodromes, Delhi

113. Controller of Aerodromes, Calcutta

114. Controller of Aerodromes, Bombay

115. Controller of Aerodromes, Madras

116. The Registrar, Punjab Agrl. University, Ludhiana

117. The Land & Development Officer, M. of Health Family Planning, W.H. & U.D., Nirman Bhawan, New Delhi

118. Acting Secretary, Official Language (Leg.) Commission, Ministry of Law, Bhagwan Dass Road, New Delhi

1. Registrar General, India, 2/A, Mansingh Road, New Delhi-11
2. The Director of Census Operations, Andhra Pradesh, Khusro Manzil, Hyderabad-4
3. The Director of Census Operations, Assam, Bomfyle Road, Shillong-1
4. The Director of Census Operations, Bihar, Boring Canal Road, Patna
5. The Director of Census Operations, Gujarat, Ellis Bridge, Ahmedabad-6
6. The Director of Census Operations, Haryana, Kothi No. 1, Sector 10-A, Chandigarh
7. The Director of Census Operations, Himachal Pradesh, Boswel, Simla-5
8. The Director of Census Operations, Jammu & Kashmir, 19, Karan Nagar, Srinagar
9. The Director of Census Operations, Kerala, Kowdiar Avenue Road, Trivandrum-3
10. The Director of Census Operations, Madhya Pradesh, Civil Lines, Bhopal-2 (M.P.)
11. The Director of Census Operations, Maharashtra, Sprott Road, Bombay-1 (BR)
12. The Director of Census Operations, Manipur, Imphal
13. The Director of Census Operations, Meghalaya, Nangri Hills, Shillong-3
14. The Director of Census Operations, Mysore, Basappa Cross Road, Shanti Nagar, Bangalore-1
15. The Director of Census Operations, Nagaland, Kohima
16. The Director of Census Operations, Orissa, Chandni Chouk, Cuttack-1
17. The Director of Census Operations, Punjab, No. 72, Sector-5, Chandigarh.
18. The Director of Census Operations, Rajasthan, Rambag Palace, Jaipur
19. The Director of Census Operations, Tamil Nadu, 10, Poes Garden, Madras-86
20. The Director of Census Operations, Tripura, Durga Bari West Compound, Agartala
21. The Director of Census Operations, Uttar Pradesh, 6-Park Road, Lucknow
22. The Director of Census Operations, West Bengal, 20, British Indian Street, Calcutta-1
23. The Director of Census Operations, Andaman and Nicobar Islands, Port Blair
24. The Director of Census Operations, Arunachal Pradesh, Laithumkhrah, Shillong
25. The Director of Census Operations, Chandigarh, Kothi No. 1012, Sector, 8-C, Chandigarh
26. The Director of Census Operations, Dadra and Nagar Haveli, Panaji
27. The Director of Census Operations, Delhi, 2, Under Hill Road, Delhi-6
28. The Director of Census Operations, Goa, Daman & Diu, Dr. A. Borkar Road, Panaji
29. The Director of Census Operations, L.M. & A Islands, Kavaratti
30. The Director of Census Operations, Pondicherry, Madras

ERRATA

Page No.	Particulars		For	Read
11	Para 55—Line 3		39,792,388	39,792,288
	Para 55—Line 5		19,661,519	19,661,419
68	Col. 3—Line 1		153,900	153,600
	Subsidiary Table H-I.1			
93	Tirunelveli City	Col. 10	...	7
	Statement III-9			
105	Nagercoil	Col. 5—(line 15)	38	3
	,,	Col. 6—(line 15)	37	387
	Statement III—27			
140	Pamban	Col. 10—(line 2)	26.0	26.2
	,,	Col. 11—(line 2)	26.2	26·0
	Statement III—29			
144	U.P.	Col. 2—(line 20)	729	429
	Haryana	Col. 3—(line 5)	42	421
	Subsidiary Table H-II. (2A)			
156	Tirunelveli City	Col. 3—(line 17)	73	173
	Table H-III			
26 (in Part IV-B)	Tirunelveli Total	Col. 18—(line 21)	95,280	95,820