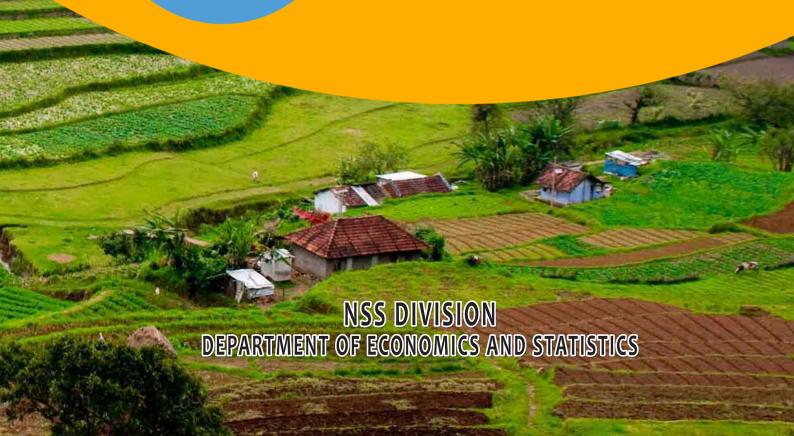


Report on NSS Socio Economic Survey 65<sup>th</sup> Round

# HOUSING CONDITION & AMENITIES IN KERALA

**July 2008 - June 2009** 





Report on NSS Socio Economic Survey 65<sup>th</sup> Round

HOUSING CONDITION and AMENITIES in KERALA
JULY 2008 – JUNE 2009

NSS DIVISION DEPARTMENT OF ECONOMICS & STATISTICS

### Preface

'he National Sample Survey Office under the Ministry of Statistics and Programme Implementation, Government of India has been carrying out nationwide socio-economic surveys covering various subjects on a regular basis. As the National Sample Survey samples were small, the State governments were invited to participate with matching samples so as to enable the preparation of estimates at the sub-state level which was not possible with the 'Central Sample' alone. Thus Kerala started participating in the National Sample Surveys from the very beginning with matching samples by adopting the same methodology of NSSO.

Next to food and clothing, housing is one of the basic needs of human being both from social as well as economic point of view. Hence, the data on housing is considered as one of the key indicators of socio-economic development. Statistics on present housing condition and accesses to amenities are important factors in establishing housing policy and for the formation and evaluation of housing programs. Through NSS 65th (July 2008-June 2009) round survey, DES, Kerala collected a range of information about basic housing amenities available to the households, characteristics and conditions of the dwelling units, micro-environmental elements surrounding the dwelling units, certain aspects of constructions including cost of construction undertaken by the households, etc. Based on the data collected, key indicators of housing condition in Kerala, during 2008-09 were estimated and are presented in this report.

Through this report, we are aiming at providing quantitative and qualitative data on housing condition in Kerala, rather than a detailed analytical study of the situation. This report is divided into five chapters and three appendices. Chapters one to four, discusses the key findings of the survey through charts and tables. Discussions are mainly centered on the Kerala state level estimates and an attempt is made to compare the results with national level by utilizing selected information from NSSO report No. 535 (65/1.2/1). The main results of this survey that can be used as baseline data for analytical studies on this topic are arranged in tables and are presented in Appendix A. Concepts and definitions used in the collection of data are explained in chapter five. The sample design and estimation procedure followed is given in Appendix B. The Housing Condition Schedule, Schedule 1.2 used for collecting information on quantity and value of household consumption is given in Appendix C

The technical assistance provided by NSSO, Government of India and the cooperation extended by the sample households is acknowledged. The work done by the supervisors and field staff who worked tirelessly to make the survey a success, the report writers and all other staff in the Directorate who have contributed in diverse ways to the success of the survey and the subsequent production of the report are duly acknowledged.

I hope that this report will be useful to the planners, policy makers, academicians and researchers. suggestions for improvement of the content of the report will be highly appreciated.

Place: Thiruvananthapuram

Date: 15.12.2012

V. Ramachandran

Kamechandren V

Director

# Highlights

#### 1. Availability of Facilities for Living

- About 67% of rural and 49% of urban households of Kerala had protected well as major source of drinking water.
- The two sources 'tap' and 'well protected' together accounted more than 80% (rural-81%, urban-89%) of households
- The three sources of drinking water, 'tap', 'tube well/hand pump' and 'well' together served nearly 97 per cent of rural households and 95 per cent of urban households.
- Nearly 30% of the rural households and 14% of urban households did not get sufficient drinking water throughout the year from the first major source.
- The shortage of drinking water was at the highest during the months April and May. Around 20% rural and 13% urban households are estimated to have shortage in drinking water during these months.
- Overall 78% rural and 81% urban households in Kerala had access to drinking water within their premises.
- The two sectors of Kerala displayed almost a uniform pattern in the distance travelled by household member to fetch drinking water.
- Both in rural and urban sectors of Kerala majority of households (rural-77%, urban-73%) had 'exclusive use' of drinking water facility.
- About 89% of rural and 95% of urban households had bathroom facility in their premises. Among this 43% of rural

- and 56% of urban households had attached bathroom facility.
- Among the 44% rural households, who had no bathing place within the premises, 34% had to travel a distance less than 0.2 km, 8% a distance between 0.5 to 1.0 kms for bathing purpose
- Around 95% rural and 99% urban households in Kerala had access to any type of toilet facility. Of these, around 90% rural and 87% urban households had this facility for exclusive use
- During 2008-09, more than 90% households in both the sectors of Kerala (rural-94%, urban-98%) had electricity for domestic use
- Among the households having electricity facility, around 70% rural and urban households had the conduit type of electric wiring and another 28% had fixed to the wall type of wiring.
- More than three fourth (rural-75%, urban-79%) households in rural and urban Kerala enjoyed all the three basic facilities (Drinking Water within Premises, Latrine and Electricity).
- More than 85% households in Kerala (rural-95%, urban-76%) had own dwelling units.
- The proportion of households with owned dwelling units was higher in the rural sector.
- 4% of rural households lived in hired dwellings while 22% per cent of urban households lived in hired dwellings.
- Nearly 6% of the urban households had residence in employers' quarter against

slightly less than one per cent of rural households.

### 2. Housing Characteristics and Micro Environment

- About 86% of rural and 93% of urban households in Kerala were lived in pucca structured dwellings.
- About 92% of rural and 95% of urban dwellings were made-up of hard permanent floor materials like, cement, mosaic, tiles, brick, lime or stone
- The most common floor material in Kerala was cement, which constituted around 69% of rural and 62% of urban dwellings, followed by mosaic/tiles at about 23% and 30% of rural and urban dwellings respectively
- The most common materials in the walls were burnt brick, stone or lime stone (76% rural and 82% urban).
- The use of cement, RBC or RCC seems to be uncommon in both the sectors of Kerala, with less than 10% (rural-10%, urban-6%) dwellings made-up of this.

#### Availability of Separate Room to Married Couples and Per Capita Floor Area

- Separate room for the married couples was available to nearly 95 per cent of households both in rural as well as in urban areas.
- Per capita floor area availability was 13.91 sq. mt. in rural areas and 15.37 sq. mt. in urban areas.
- Nearly 31 per cent of the urban households and 25 per cent of the rural households had per capita floor area of 20 sq. mt. and above.

#### 4. Rent of Hired Accommodation

 Average monthly rent of hired dwellings (excluding employers' quarter) per household in urban areas was Rs. 1538, that in rural areas was Rs. 703.

### 5. Micro Environmental Elements Surrounding the House

- The open pucca type drain facility was used among 21% rural and 18% urban households. Around 16% rural and 10% urban households used most unhygienic system for carrying off waste water and liquid waste of house; i.e. 'open katcha' drainage arrangement.
- It is estimated that majority of households (rural-59%, urban-51%) in Kerala does not had any type of arrangements for disposal of garbage.
- As per the survey results, 29% rural and 44% urban households in Kerala had motorable approach road to their dwelling with street lighting.

# 6. Construction for Residential Purpose during Last 365 days

- Nearly 12% households in Kerala undertook either construction or repair during last 365 days.
- Both in rural and urban areas, more than 90% of the renovation or major repair work undertaken by households were completed as on the date of survey.
- In the case of new buildings, around 59% constructions in rural and 56% in urban were completed.
- Construction activities of more than 60% buildings constructing with pucca

- materials were completed on the date of survey.
- The average floor area of completed construction was estimated to be 77.46 sq. m. in rural and 74.32 sq. m. in urban Kerala.
- Nearly 64% of the total cost of completed constructions were financed from own sources.
- Around 25% construction cost in rural and 21% in urban Kerala were financed by commercial banks (including regional rural bank) and/or co-operative societies/banks. Whereas the share of money (including subsidy received in cash or kind) from the central or state governments, to finance the construction was only nominal; nearly 3% in rural and 2% in urban.
- Average cost per completed construction were estimated to be

- Rs.155000 in rural and Rs.193000 in urban.
- On an average, cost per constructed new building was nearly Rs. 615000 in rural areas, and Rs. 911000 in urban areas
- Estimated average cost of construction of pucca (rural-Rs.183000, urban-Rs.219000) type buildings in Kerala was more than two times higher than semi-pucca(rural-Rs.75000, urban-Rs.92000) type buildings.
- Nearly 63 per cent of the total costs of constructions in rural Kerala and 62 per cent of the total cost of constructions in urban Kerala were on pucca material.
- The share of labour cost in Kerala were 30% in rural and 32% in urban, this was found to be marginally higher than that at the national level; were the corresponding shares are 23% in rural and 24% in urban

# Contents

	Preface
	Highlights
Chapter 1	Introduction
Chapter 2	Some Aspects of Facilities for Living
Chapter 3	Housing Characteristics and Micro Environments
Chapter 4	Construction for Residential Purpose
Chapter 5	Concepts and Definitions33
Appendix B	Detailed Tables  Sample Design and Estimation Procedure  Schedule 1.2

Chapter

# INTRODUCTION

# 1 Introduction

#### 1.0 Introduction

The National Sample Survey Office (NSSO) was set up in 1950, with the idea of having a permanent survey organisation to collect data on various facets of the economy. In order to assist in socio-economic planning policy making, NSSO conducts nationwide sample surveys known as National Sample Survey (NSS). The NSS is a continuing survey in the sense that it is carried out in the form of successive "rounds", each round usually of a year's duration covering several topics of current The surveys are conducted interest. through household interviews, using a random sample of households covering practically the entire geographical area of the country.

#### 1.1 Participation of State

As the NSS samples were small, the state governments were invited to participate with matching samples so as to enable the

Comprehensive surveys on housing condition were earlier carried out by NSSO in the 28<sup>th</sup> round (October 1973-June 1974), 44<sup>th</sup> round (July 1988 – June 1989), 49<sup>th</sup> round (January – June 1993, and 58<sup>th</sup> round (July – December 2002). The 65<sup>th</sup> round (July 2008 – June 2009) of NSS was a multi subject survey for Survey on 'Domestic Tourism', 'Housing Condition' and Urban Slums.

preparation of estimates at sub-state level which was not possible with the 'Central Sample' alone. Considering the demands for district level estimates, Kerala has been participating in the National Sample Surveys from the very beginning with matching samples to provide more disaggregated results at regional level. Since 62nd Round (July 2005 – June 2006) onwards Kerala started participating with 50% additional samples.

#### 1.2 65th Round Survey

Next to food and clothing, housing is one of the basic needs of human being both from social as well as economic point of view. Hence, the data on housing is considered as one of the key indicators of socio-economic development. Statistics on present housing condition and accesses to amenities are important factors in establishing housing policy and for the formation and evaluation of housing programs. Through NSS 65<sup>th</sup> (July 2008-June 2009) round survey, DES, Kerala collected a range of information about basic housing amenities available to households, characteristics conditions of the dwelling units, microenvironmental elements surrounding the dwellina units, certain aspects constructions including cost of construction undertaken by the households, etc.

This report is based on the Kerala state sample data of 65<sup>th</sup> round survey on Housing Condition (Schedule 1.2) conducted during July 2008 to June 2009. In this survey, a total of 504 Panchayath wards and 276 urban blocks were surveyed. The survey covered a sample of 9334 households (6048 in rural areas and 3286 in urban areas).

#### 1.3 Contents of the Report

Information on housing condition collected through schedule 1.2 canvassed in the NSS 65th Round is broadly categorised into three groups. Firstly, information on the particulars of various facilities available to the sample households for decent living such as drinking water, latrine, bathroom, electricity etc. which were collected from all the selected households. Secondly, information was collected on some of the characteristics of the houses, particulars of the dwelling unit and the micro environment surrounding the dwelling unit from the households who were living in houses. These broadly relate to different aspects of the structure of the houses, number of rooms, floor area, rent of the hired dwellings, use of the house, age of the structure, condition of the structure, drainage arrangement, garbage collection arrangement, etc. Finally, information regarding number of constructions of undertaken, number constructions completed, type of constructions, cost of constructions, sources of finance, etc. was from the households collected who undertook constructions during the last 365 days.

This report contains five Chapters, including the present introductory chapter, and three appendices. Main findings on housing condition in Kerala are presented in Chapter two to Chapter four. Concepts and definitions used in the collection of data are explained in chapter five. Detailed tables at state level are given in Appendix A. The sample design and estimation procedure followed is given in Appendix B. The Housing Condition Schedule, Schedule 1.2 used for collecting information on quantity and value of household consumption is given in Appendix C

Sampling design adopted by NSSO in this round did not permit to generate district level estimates because the urban sector classified into NSS regions. discussions in this report are mainly centered on the Kerala state level estimates. A comparison is also made in some cases at the all-India level using the figures of NSSO report No. 535 (65/1.2/1). The estimates, in this report, are generally presented as ratios. However, the estimates of aggregates are also given in the margin of the detailed tables in the appendix. As the tables and charts are generally presented as 'per 1000 distribution' or 'proportion per 1000', the figures are rounded off and in the per 1000 distribution, the figures may not add upto 1000 due to rounding off/non-response cases. Thus, while using the ratios from the survey results, it is to be noted that the accuracy of these derived aggregates will be limited to the number of significant digits available in the ratios. The estimated aggregates, wherever possible, can be used to get ratios with more significant digits.

Chapter

Some Aspects of Facilities for Living

# Some Aspects of Facilities for Living

#### 2.0 Introduction

The basic infrastructure facilities available to the households determine the quality of life in the country. This survey collected a range of information about basic housing amenities available to households of Kerala, during 2008-09. This chapter provides baseline data on housing conditions of Kerala, which is essential for formulation of effective housing policies and evaluation of different housing programmes. includes basic infrastructure facilities like drinkina water, bathroom, sanitation, electricity availability to the households, tenure status of dwelling and distance travelled to place of work.

#### 2.1 Drinking Water Facility

Drinking water accessibility is vital for

drinking water, distance travelled to access sources and type of drinking water facility. The main findings of this survey on these aspects are discussed in the following sections.

#### 2.1.1. Different Sources of Drinking Water

In this survey information in respect of the household's major source of drinking water during the last 365 days was

#### Different Sources of drinking water

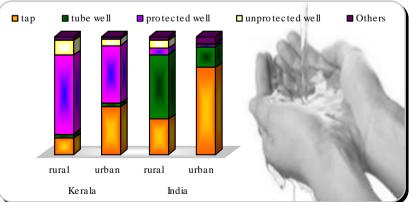
As per NSSO Report No.535 (65/1.2/1), Kerala is the only state in India, where majority of households depends on 'well' (protected / unprotected) as their major source of drinking water.

collected. Since a household may use

> more than one source of drinking water, information on sources  $\circ$ f drinking water was collected for two most often used sources. These are major termed as source and second source. The major source meant that

one which was the most often used source. It is to be noted that discussion made in this report about drinking water

Chart 2.1.1. Per 1000 distribution of households by source of drinking water unprotected well □ tap ■ tube well protected well ■ Others

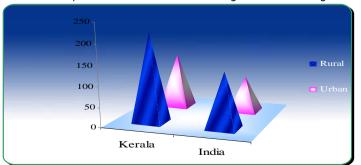


every individual. Accessibility of drinking water is analyzed through different sources of drinking water, sufficiency of facility is with reference to the major source. The list of different sources of drinking water on which information was collected is given in chapter 5.

About 67% of rural and 49% of urban households of Kerala had protected well as major source of drinking water. Whereas at the national level, majority of rural households (55%) depended on tube well/hand pump and 74% urban households depended on tap as major source of drinking water. Compared with rural sector, proportionally more households in urban area are connected to piped water. Coverage of piped water supply was very poor in rural Kerala (14%) compared to the national level (30%). Housing units that obtained drinking water from protected well was below 6% (rural-5.4%, urban-2.1%) at the national level. In Kerala, the two sources 'tap' and 'well protected' together accounted more than 80% (rural-81%, urban-89%) of households. On the other hand at the national level, these two sources together accounted only 36% of rural and 76% of urban households.

Thus Kerala and all-India showed entirely different pattern in the use of different

Chart 2.1.2. Proportion of households who did not get sufficient drinking water



Distribution of households by major source of drinking water in rural and urban sectors of Kerala and all-India is presented in chart 2.1.1

sources of drinking water. The source

#### **Drinking Water Facility**

As per the WHO / UNICEF Joint Monitoring Porgramme for water supply and sanitation, improved water source could be any of the following: 1. piped water into dwelling, plot or yard, ii) Public tap / sandpipe, iii) tube well / borehole, iv) rain water collection. As per the survey results, during 2008-09 about 84% rural and 92% urban households of Kerala were served with improved sources of drinking water

'all-other' given in chart 2.1.1 includes water sources like tank/pond reserved for drinking, other tank/pond, river/canal/lake, spring, harvested rain water, bottled water and any other sources. A detailed picture of per thousand distribution of household by major source of drinking water is available in Table 3 of Appendix A.

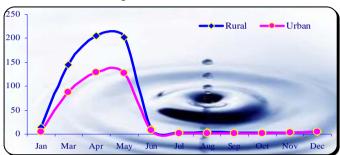
#### 2.1.2 Sufficiency of Drinking Water

In addition to the information on source of drinking water, information regarding

availability of sufficient drinking water was also collected in this survey. In chart 2.1.2 proportion of households who did not get sufficient drinking water from major source of drinking water throughout the year is presented.

It can be seen that, both at Kerala and national level, the proportion of rural households who did not get sufficient drinking water from the major source was higher (Kerala-22%, all-India-14%) than that of urban households (Kerala-14%, all-India-9%). Thus it is clear that

Chart 2.1.3. Proportion of households who did not get sufficient drinking water in different months



access to drinking water is markedly better in urban areas than in rural areas. Another important point to be noted is that, even though Kerala is doing better in socio-economic developments, compared to national level, its position is not good in the case of sufficiency of drinking water.

# 2.1.3 Time of the Year during which Availability of Drinking Water was not Sufficient

For the households which did not get sufficient drinking water throughout the year from the major source, information was collected regarding the calendar months of the year during which availability of drinking water was not sufficient from the major source. Based on this information, proportion of households who did not get sufficient drinking water for different months of the year is estimated and the results are presented in chart 2.1.3

It is clear from the graph that, in Kerala, lack of sufficient drinking water during the year was not uniform throughout all the months of the year. The shortage of drinking water was at the highest during the months April and May. Around 20% rural and 13% urban households are estimated to have shortage in drinking water

during these months. Availability of drinking water was not sufficient for nearly 15% of rural and 9% of urban households in the month of March. After the month of May, the situation of availability of drinking water seems to be improved in both the sectors of Kerala.

# 2.1.4 Distance Travelled to Access Source of Drinking Water

Table 2.1.1 reveals that overall 78% rural

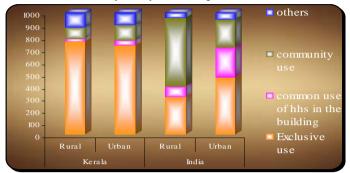
Table 2.1.1 Per thousand distribution of households by distance to the source of drinking water

Sector		but		outside premises at a distance of				
		within dwelling outside dwelling but within premises	less than 0.2 km	0.2 - 0.5 km	0.5 - 1.0 km	1.0 - 1.5 km	1.5 km or more	
Kerala	Rural	40	741	185	28	4	1	1
Nerala	Urban	224	582	167	22	3	1	2
India	Rural	156	249	480	92	15	3	3
India	Urban	462	283	228	20	4	2	1

and 81% urban households in Kerala had access to drinking water within their

travelled by household member to fetch drinking water.

Chart 2.1.4 Per thousand distribution of households by facility of drinking water



premises. Out of this 4% rural and 22% urban households had the drinking water facility within their dwelling unit itself. In this indicator, rural Kerala's position is far better compared to the national level, where only 41% rural households had access to drinking water within their premises.

At the national level, nearly 48% households in rural sector had to travel a distance up to 0.2 km outside the premises to access the source of drinking water. Whereas in Kerala only 19% rural households are estimated to travel a distance up to 0.2 km outside the premises for collecting drinking water. Another important point to be noted is, at the national level, the proportion of households who had to travel long distance for drinking water was considerably higher in rural sector than urban sector. But this rural-urban difference is not much visible in Kerala. Thus the two sectors of Kerala displayed almost a uniform pattern in the distance

# 2.1.5 Type of Drinking Water Facility

information The regarding whether the household's first source of drinking water is for its exclusive use or is shared with other household/ community was collected in this survey. Based on this, per 1000 distribution households bv facility of

drinking water is estimated and is presented in chart 2.1.4.

It is evident from the chart that, Kerala all-India followed and an entirely different pattern in the distribution of households by facility of drinking water. Both in rural and urban sectors of Kerala majority of households (rural-77%, urban-73%) had 'exclusive use' drinking water facility. The share of 'community use' of drinking water (rural-10%, urban-13%) and 'common use' of households in the building (rural-2%, urban-4%) are only nominal in Kerala. On the other hand at the national level, the community use of drinking water facility (57%) was highest in rural and exclusive use (47%) in urban than any other types. In Kerala, the share of community use of drinking water facility was slightly higher in the urban sector (13%) than the rural (10%). However, the situation was reverse at the national level (rural-57%, urban-23%).

#### 2.2 Sanitation Facility

For sanitation facility there are two indicators available in this survey. These

are (1) the availability of bathroom within the dwelling - either attached to the dwelling or detached from the dwelling and the distance to the bathing place (2) the type of latrine. Safe water and adequate sanitation are basic to the health of every person on the planet. This section helps to understand the

availability of different sanitation facilities available to the people of Kerala.

#### 2.2.1 Availability of Bathroom Facility

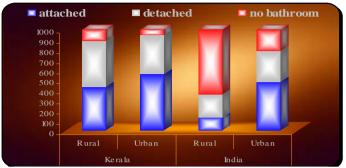
In this survey, the availability of a bathroom in a dwelling is recorded as those with (1) attached bathroom (2) detached bathroom and (3) no bathroom. About 89% of rural and 95% of urban households had bathroom

facility in their premises. Among this 43% of rural and 56% of urban households had attached bathroom facility. Only very few households (rural-11%, urban-5%) are estimated to have no bathroom facility within their premises. Per 1000 distribution of households by different categories of bathroom facility is presented in chart 2.2.1.

This graph shows that considerable divergence existed

between Kerala and all-India in the facility of bathroom availability to the households. At the national level, rural areas lagged far behind urban areas in

Chart 2.2.1 Per thousand distribution of households by different categories of bathroom facility



terms of this facility. But the disparity in access to bathroom facility with respect to the residence area (rural/urban) of household is not that much intense in Kerala. Another observation made from the chart is that, both at Kerala and national level, in rural areas higher proportion of households had detached bathroom (India-23%, Kerala-46%) than attached bathroom (India-13%, Kerala-43%), while the picture was reverse in

#### Sanitation Facility

In World Health Organization and United Nations Children's Fund's Global Water Supply and Sanitation Assessment, 2000 Report, sanitation was defined to include connection to a sewer or septic tank system, pour-flush latrine, simple pit or ventilated improved pit latrine, with allowance for acceptable local technologies. As per the Survey results, during 2008-09, about 98% of both rural and urban households of Kerala had the availability of improved sanitation facility. Where as at the National Level, rural areas (32%) laged far behind the urban areas (85%) in terms of availability of improved sanitation facility

urban, with higher proportion of households (India-48%, Kerala-56%) having attached bathroom than detached (India-31%, Kerala-40%).

#### 2.2.2 Distance to the Bathing Place

For those sample households which does not had bathroom (a constructed area with wall or partitions on all sides with at least one door way and a roof overhead used for bathing purpose), the distance of the bathing place (the place used by majority of household members for bathing purpose) from the dwelling unit was collected in this survey. The per

1000 distribution of households having no 'bathroom' by distance of the dwelling from the bathing place is given in Table 8, Appendix A. Households may use enclosed area without roof within premises for

bathing purpose. In this survey such households are considered to have 'no bathroom' but have bathing place within their premises. Nearly 57% of rural and 72% of urban households having no

#### Electricity Facility

Electricity is considered as an important facility to households and has hearing on the quality of life of the people. During 2008-09, more than 90% households in both the sectors of Kerala (rural 94%, Urban 98%) had electricity facility. While at the national level, nearly 66% rural and 96% urban households had electricity for domestic use.

bathroom facility is of this category. Among the 44% rural households, who had no bathing place within the premises, 34% had to travel a distance less than 0.2 km, 8% a distance between 0.5 to 1.0 kms for bathing purpose. This situation was comparatively better in urban, where only 28% of households having no bathroom had to travel outside premises for bathing purpose.

#### 2.2.3 Type of Use of Latrine

The toilet facility available to a household may be of exclusive use, shared or public/ community use. Based

Table 2.2.1 Per thousand distribution of households by use of latrine

Region		Exclusive use	Shared latrine	Public/ community	No latrine
Kerala	Rural	904	45	2	49
	Urban	872	118	1	9
India	Rural	279	57	12	652
	Urban	581	241	65	113

on the data collected on this, per 1000 distribution of households by use of latrine is estimated and is presented in table 2.2.1. As per table 2.2.1, around 95% rural and 99% urban households in Kerala had access to any type of toilet facility. Of these, around 90% rural and 87% urban households had this facility for exclusive use. While at the national level, toilet facility was not available for around 65% rural and 11% urban households. Also the divergence between rural, urban sectors in the use of latrine facility was considerably higher at the national level

Another observation made from table 2.2.1 is that, the proportion of households with exclusive use of latrine facility was higher in rural areas (90%) than urban (87%). On the other hand, the use of shared latrine (sharing same latrine with one or more households in the building) was higher in urban areas

(12%) than rural (5%). The use of public/community latrine was very low in Kerala. Only 2 out of 1000 households in rural and 1 out of 1000 households in urban are estimated to have depending on this facility.

#### 2.2.4 Type of Latrine Facility

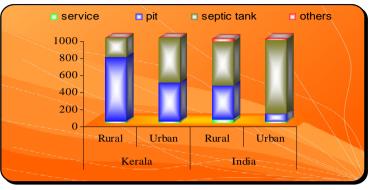
For the households who had access to latrine, the type of latrine used by the household was collected in this survey. Service latrine, pit latrine and septic tank/flush are the different latrine types considered in this survey. These latrine types are explained in chapter 5.

The distribution of household by types of latrine facilities is presented in chart 2.2.2. It may be seen that the two improved

Chart 2.3.1 Proportion of households with electricity for domestic use



Chart 2.2.2 Per thousand distribution of households by type of latrine facility



latrine facilities; septic tank and pit latrines covered nearly 98% of Kerala rural and urban households. Septic tank/flush, the hygienically better type latrine was more common in urban areas than in rural areas: nearly 52% of urban households used septic tank/flush latrine whereas 22% of rural households did so. Pit latrine which may be taken as next better type of latrine facility was used by nearly 72% of the rural households against nearly 47% of the urban households.

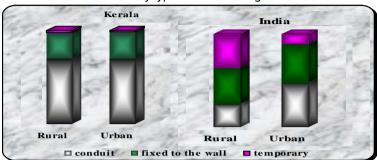
#### 2.3 Electricity Facility

Information on the availability of electricity for domestic use was collected in this survey. Chart 2.3.1 gives the findings on availability of electricity for

domestic 1000 use per households. During 2008-09, more than 90% households in both the sectors of Kerala (rural-94%, urban-98%) had electricity for domestic use. Thus the disparity in access to electricity with respect to the residential area (rural/urban) was very low in Kerala. In contrast, at the national level rural area still lag far behind

urban areas in terms of availability of electricity. Where electricity was available to 96% of urban households, but in rural this was only 66%.

Chart 2.3.2 Per 1000 distribution of households with electricity for domestic use by type of electric wiring



For the households having electricity facility for domestic use, the type of electric wiring available in the dwelling unit was collected in this survey. Three different types of electric wiring considered in this survey are conduit wiring (a pipe or tube used for carrying insulated electric wires), fixed to the wall wiring and temporary wiring. The results of the survey show (chart 2.3.2) that, among the households having electricity facility, around 70% rural and urban households had the conduit type of electric wiring and another 28% had

fixed to the wall type of wiring. Thus both in rural and urban Kerala, relatively safer forms of wiring viz., conduit wiring and fixed to the walls, were in use by more than 98% of

households.

#### 2.4 Households with Three Basic Facilities; drinking water within premises, latrine and electricity

Availability of drinking water within premises and latrine along with electricity determine quality of living facilities of households. The availability of all three facilities to the household and the situation of non-

availability of all these facilities and with none of these facilities is presented in The result of the survey table 2.4.1. shows that more than three fourth (rural-75%, urban-79%) households in rural and urban Kerala enjoyed all the three basic facilities explained above. Whereas at the national level, rural households having all the three facilities(18%) was nearly 50% points lower than the urban households (68%) with all the three facilities.

Another observation made from the chart is that, at the national level 195 rural households out of every 1000 rural households had none of these facilities.

Table 2.4.1 Proportion of households with drinking water within premises, electricity for domestic use and latrine

Region		All the three facilities	None of these
	Rural	750	10
Kerala	Urban	791	3
TII -	Rural	184	195
India	Urban	675	18

The situation was comparatively better in dwelling units was higher in the rural

Region		owned					
		free hold	lease hold	Employer quarter	with written contract	without written contract	Others
Kerala	Rural	950	3	9	15	12	11
Kerala	Urban	751	8	62	79	80	20
India	Rural	946	4	6	2	25	16
IIIQId	Urban	600	15	47	50	254	33

Kerala, where only 10 out of every 1000 rural households lacked all the three facilities. More details on the availability of these facilities are given in Table 12 of Appendix A.

#### 2.5 Tenure Type

Housing tenure refers to the legal status under which household have the right to occupy their accommodation. Three different forms of tenure types considered in this survey are; owned, hired and others. The tenure type 'owned' is further splitted into 'freehold'

and 'leasehold' and other hired dwelling (except the employer quarter) into hired dwelling with written contract and without written contract. Distribution of households by different tenurial status is presented in Table 2.5.1. It is seen that majority of households in Kerala had the most secured tenure status. In other words, more than 85% households in Kerala (rural-95%, urban-76%) had own dwelling units.

Both at national and state levels, the proportion of households with owned

sector. The share of tenure type hired accommodation was nearly 4% in rural and 22% in urban sectors of Kerala. Residence in employer's quarter was more common in urban, with nearly 6% of urban households had residence in employer's quarters against

slightly less than one per cent of rural households. This pattern holds good at the national level as well.

# 2.6 Distance travelled to place of work

In the previous section, availability of different facilities to the households has been discussed. The distance travelled to the place of work is an important aspect of living facilities available to the population. To measure this, maximum distance normally travelled to the place of work by any earner of the household

Chart 2.6.1 Per 1000 distribution of households by distance to the place of work



was collected in this survey. An earner in this survey is the household member who earned either from economic activities and/or from non-economic

For households with more activities than one earner, the distance considered is the maximum distance travelled by any earner of the household. finding of the survey on this aspect is presented in chart 2.6.1. In this, the category 'not required to travel' is the households whose earners remittance recipients, pensioners, remitters or those whose place of work is at home.

Nearly 30% rural and 21% urban households in Kerala come under this category. Among the 70% rural households who had to travel outside for work, 17% had to travel a distance

up to 1 km, 24% a distance between 1 to 5 kms, 15% a distance between 5 to 10kms and 14% a distance more than 10kms. The situation was more or less similar in urban areas also.

#### Tenure Type

As per indicators for monitoring the millenium development goals, secure tenure refers to households that own or are purchasing their homes, are renting privately or are in social housing or subtenancy. Households without secure tenure are defined as squatters (whether or not they pay rent), homeless and households with no formal agreement.

Chapter

# Housing Characteristics and Micro Environment

# 3 Housing Characteristics and Micro Environment

#### 3.0 Introduction

Housing has become an important public issue in almost all societies. Housing condition of a society measures the society's socio-economic development level. In this survey, information was collected on some of the characteristics of the houses,

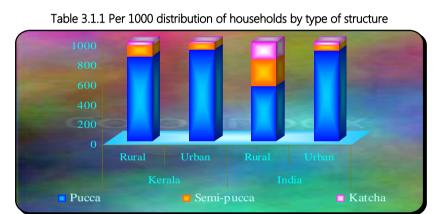
particulars of the dwelling unit and the micro environment surrounding the dwelling unit from the households who were living in houses. These broadly relate to different aspects of

the structure of the houses, number of rooms, floor area, rent of the hired dwellings, use of the house, age of the structure, condition of the structure, drainage arrangement, garbage collection arrangement, etc. This Chapter deals with these housing characteristics and micro environmental elements of Kerala.

# 3.1 Characteristics of the dwelling unit

To assess the living standards of Kerala households, information on certain

characteristics of houses are collected in this survey. These include type of structure, building material, plinth area, floor area, etc., of dwellings. Using these information important indicators of living facilities are developed and is presented in the following sections.



#### 3.1.1 Type of Structure

Shelter is a basic need for human existence and the quality of shelter has direct effects on the socio-economic well being of the residents. In this report, the type of material used in the construction of roof and wall of a dwelling unit is taken as an indicator of quality of shelter. Based on the material used for construction, a structure type of dwellings is classified into pucca, semi-pucca and katcha. The structure type katcha being further split into two categories: serviceable katcha and unserviceable katcha. Pucca and katcha

materials are explained in chapter five. The survey result on distribution of households by type of structure is given in chart 3.1.1.

The chart 3.1.1 indicates that about 86% of rural and 93% of urban households in Kerala were lived in pucca structured dwellings. The corresponding figures at the national level are, 55% and 92% respectively. Thus in both the sectors of

Kerala, the rate of households with pucca dwelling unit were above the national averages. This indicates the better living conditions experienced households of Kerala. Another point to be noted is the ruralurban variation in this respect. Chart 3.1.1 reveals that, at the level, the national urban households performed better, with 92% households lived in

pucca dwellings, as compared with only 55% in rural. But in case of Kerala, the regional disparity in this regard was not so striking compared to the national level.

# 3.1.2 Building materials of floor, wall and roof

The materials used in roofs, walls and floors are important quality characteristics of a dwelling. In Kerala, about 92% of rural and 95% of urban dwellings were made-up of hard permanent floor materials like, cement, mosaic, tiles, brick, lime or stone.

The most common floor material in Kerala was cement, which constituted

around 69% of rural and 62% of urban dwellings, followed by mosaic/tiles at about 23% and 30% of rural and urban dwellings respectively. Table 3.1.1 gives the per 1000 distribution of households with dwelling unit by floor type of the dwelling unit.

At the national level, almost 55% urban dwelling units were built with traditional

Table 3.1.1 Per 1000 distribution of households by floor type

Floor True	Ker	ala	India	
Floor Type	Rural	Urban	Rural	Urban
Mud	59	28	541	80
Bamboo/log	1	1	5	1
Wood/plank	1	2	5	2
Brick/lime/stone	9	28	103	130
Cement	688	623	309	531
Mosaic/tiles	226	298	36	252
Others	15	21	1	4

floor materials like, mud, bamboo or wood and only 45% of all rural dwelling units were made up of hard materials like, brick, cement, mosaic or tiles. On the other hand, relatively high proportion (91%) of urban dwelling units at the national level was made-up of hard floor materials. Thus at the national level, considerable variation is observed between rural and urban sectors on this quality dimension of dwelling units.

Table 3.1.2 gives the per 1000 distribution of households with dwelling unit by wall type of the dwelling unit. In both the sectors of Kerala, slightly more

than 87% of occupied housing units were made-up of pucca wall materials

constructed with these wall materials. As in the case of floor material,

Table 3.1.2 Per 1000 distribution of households by wall type

Mall Type	Ke	rala	India		
Wall Type	Rural	Urban	Rural	Urban	
Grass/straw/bamboo etc.	12	5	82	13	
Mud/unburnt brick	96	90	307	53	
Canvas/cloth	2	2	1	1	
Other katcha material	9	11	10	3	
Timber	7	8	4	5	
Burnt brick/stone/lime	757	819	532	730	
Iron or other metal sheet	0	2	3	7	
Cement/RBC/RCC	99	59	57	185	
Other pucca material	18	3	3	2	

(see Table 30). The most common materials in the walls were burnt brick, stone or lime stone (76% - rural and 82% - urban). As shown in Table 3.1.2, dwellings with katcha wall materials were rare in Kerala. However at the national level, relatively high proportion of rural dwelling units (40%) was built from katcha materials.

In urban areas, seven out of every hundred occupied dwellings at the national level were made-up of katcha wall materials. The use of cement, RBC or RCC seems to be uncommon in both the sectors of Kerala, with less than 10% (rural-10%, urban-6%) dwellings made-up of

this. On the other hand at the national level, around 19% urban dwellings were

considerable variation is observed between rural and urban sectors of Kerala on this quality dimension of dwelling units

Table 3.1.3 presents the per 1000 distribution of the type of materials used in the construction of dwelling units in

Kerala and at the national level. As can be observed, the majority (47% in rural and 58% in urban) of the housing units in Kerala was roofed by cement, RBC or RCC. Tiles and slates are the next most commonly used roofing materials; 37% of rural and 29% of urban households occupied housing units with these materials. Iron or other metal sheet was

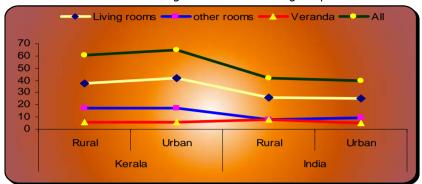
Table 3.1.3 Per 1000 distribution of households by roof type

Roof Type	Ke	rala	India	
	Rural	Urban	Rural	Urban
Grass/straw/bamboo etc.	27	16	166	24
Mud/unburnt brick	2	0	31	4
Canvas/cloth	2	2	2	3
Other katcha material	12	13	16	3
Tiles/slate	372	293	253	104
Burnt brick/stone/lime stone	27	46	130	105
Iron or other metal sheet	83	43	139	149
Cement/RBC/RCC	465	584	247	600
Other pucca material	11	4	15	8

used in the construction of roof in nearly 8% of rural and 4% of urban dwellings. The proportion of households living in

buildings roofed over with katcha 41% in rural and 37% in urban having materials like grass, straw, bamboo, plinth area 50 to 75 sq.m. Only 32% of

Chart 3.1.2 Average floor area of dwelling in sg.m.



mud, cloth etc. seen to be uncommon in both the sectors of Kerala. At the national level, more than one half of the households in the urban sector had cemented roofs (60%). On the other extreme, in the rural sector, a very low percentage of the households (25%) occupied housing units roofed over with cement.

#### 3.1.3 Plinth Area of dwelling Unit

Plinth area is the total constructed area of the surface on the ground over which the structure is created. The distribution

of dwelling units by different size class of plinth area for different structure type is given in Table 13, Appendix A. From the table it is clear that, around 68% dwelling units in rural areas and 64% in urban areas

had plinth area upto 75 sq.m, with nearly

rural and 36% of urban households had plinth area more than 75 sq.m. About 17% of pucca

About 17% of pucca households in both the sectors of Kerala had plinth area 100 to 150 sq.m. On the other hand majority

(62% rural and 73%

urban) of households living in katcha dwellings had plinth area less than 30 sq.m.

#### 3.1.4 Average Floor Area of Dwelling

The inside area of the floor, excluding the area covered by the walls was considered as the floor area (carpet area). If a room was used, without any apportioning, for both business and residential purposes and the residential use was not very nominal, the total area of the room was included here. On the

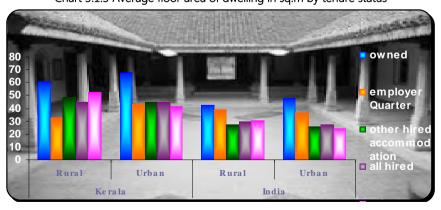


Chart 3.1.3 Average floor area of dwelling in sg.m by tenure status

other hand, if only a portion of a room was used for residential purposes, only

the area of that portion was included. A similar procedure was adopted in case of room, etc., being shared with another household.

Chart 3.1.4 Distribution of households in different per capita floor area classes



The average floor area of dwelling unit was found to be 60.58 sq. m. in rural and 64.73 sq. m. in urban Kerala. The corresponding figures at the national level are, 41.90 sq.m and 39.94 sq.m respectively. Thus in both the sectors of Kerala, the average floor area of dwelling unit were above the national averages. The average floor areas of veranda in rural and urban areas (rural-5.92 sq.m, urban - 5.93 sq.m) were almost equal. On the other hand, at the national level, the average floor area of veranda in rural area (8.12 sq.m) was almost double that in urban area (5.12 sq.m).

# 3.1.5 Average Floor Area by tenure status of Dwelling

Owner-occupied dwellings had more living space than rented dwellings, when measured by average floor area. The average floor area of a householddwelling unit living in an owneroccupied house was 61.27 sq.m in rural and 68 sq.m in urban Kerala, while a unit living in a rented dwelling has average

> floor area 44.91 sq.m and 45.08 sq.m in rural and urban areas respectively. The average floor area at the national level were, owned; rural-42.53 sq.m & urban-48.03, rented; rural-29.45 sq.m urban-27.23 sq.m. One noticeable feature that, both in Kerala and

all-India, households with owned dwelling had marginally higher average floor area than any other tenure type. More details on average floor area of dwellings by different tenure status are available in Table 23, Appendix A.

# 3.1.6 Distribution of households in different per capita floor area classes

The per capita floor area is derived by dividing total floor area of the dwelling unit by household size. This indicator measures the adequacy of living space in dwellings. In Kerala, the average floor

Among the states of India, Kerala had the highest per capita floor area (14.50 sq.m) followed by Goa (12.61 sq.m) and Manipur (12.50 sq.m). The lowest per capita floor area were those of Andra Pradesh (7.21 sq.m) West Bengal (7.27 sq.m), Orissa (7.29 Sq.m) etc.

Ref: NSSO Report No. 535(65/1.2/1)

area occupied by one person is estimated to be 13.91sq.m in rural and 15.37 sq.m in urban areas. At the national level this was 8.39sq.m in rural

and 9.45 sq.m in urban areas. The distribution (per 1000) of rural and urban households in different per capita floor area classes is presented in chart 3.1.4 at the Kerala and national levels.

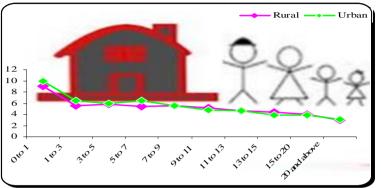
It is seen that in both rural and urban Kerala, the percentage of households

with per capita floor area greater than 20 sq.m. was highest (rural-25, urban-31). While at the national level the share of households in access of 20 sq.m or more per capita floor area was only 6% rural and 13% urban households. Wide divergence is observed in the availability of per capita floor area among rural and urban households at the national level. There was higher concentration of urban households in the higher per capita floor area classes compared to their rural counterparts. In contrast, Kerala showed uniform а pattern in distribution of households by per capita floor area.

# 3.1.7 Per capita floor area and average household Size

The average household size in different per capita floor area class is given in chart 3.1.5, separately for Kerala and all-India. The average size of a household residing in Kerala was 4.4 in rural and in urban areas, was a little lower at 4.2. Average household size of the per capita floor area class 20 sq.m or more is estimated to be 3 in rural and 3.1 in

Chart 3.1.5 Average household size of different per capita floor area classes



urban Kerala. In both the sectors of Kerala, the average per capita floor area class 0 to 1 sq.m had the highest average household size, with 9 in rural and 10 in urban.

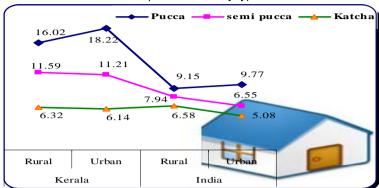
It can be observed from the chart that, availability of living space per person and the average persons per household shows a unique pattern in both the sectors of Kerala.

### 3.1.8 Per capita floor area by type of structure

Per capita floor area for each type of structures is presented in chart 3.1.6. Among the different types of structures, pucca structure seems to be constructed with more living space compared with other type of structures. In Kerala, wide divergence is observed in the availability of per capita floor area among households living in different structure types. In rural areas, per capita floor

area of the households in the pucca i.e., almost double of that available (i.e., structured dwellings was 16.02 sq. m., 8.46sq.m.) to the households in the ST

Chart 3.1.6 Per capita floor area by type of structure



i.e., more than double of that available (i.e., 6.32 sq. mt.) to the households in the katcha structured dwellings, while in urban areas, the divergence further widened with the per capita floor area of households in the pucca structured dwellings (i.e., 18.22 sq. m.) nearly trebled to that available (i.e., 6.14 sq. m.) to the households in the katcha structured dwellings. At the national level, there was less variation in this respect compared to Kerala.

#### 3.1.9 Per capita floor area by Social Group

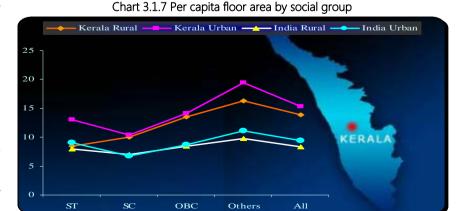
Chart 3.1.7 reveals that, in rural Kerala,

there is a great deal of variation social among groups in this aspect. In rural areas, per capita floor area available to households in the 'others' category was 16.36 sq. m.,

category, while in urban areas, the divergence was not so striking, with the per capita floor area of households in 'others' category 19.42 sq. m. and 'ST' category 13.04 sq.m. At the national level, there was less variation in this respect compared to Kerala.

#### 3.2 Condition of Dwelling Unit

For those households living in houses, information on physical condition of the structure of the house (i.e. good, satisfactory or bad) and age of dwelling (i.e. period since built) were collected for measuring the overall condition of dwellings in Kerala. In addition to this, total number of married couples and number of married couples having separate room was also collected. Following sections discuss some details of these aspects.

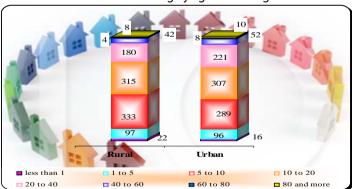


#### 3.2.1 Age of Own Dwelling Unit

Statistics on housing units by age break down provides useful information to assess the existing condition of housing. In this survey, collection of information on age of the dwelling unit was restricted to the dwelling units which were owned by the households, since the households who lived in hired accommodation or in employers quarter or in other type of accommodations might not be in a position to provide reliable information on the age of the structure.

The chart 3.2.1 provides per thousand distribution of households having own dwelling in eight age groups. As per the chart, more than 88% (Rural-88%, urban-89%) of dwellings in Kerala were five or more years old, of which 60% rural and 65% urban dwellings were built

Chart 3.2.1 Per thousand distribution of households with own dwelling by age of dwelling



in the ten years prior to the survey. Only 5% rural and 7% urban residential houses were older than 40 years. Table 17 in Appendix A gives the association of age of dwelling unit with the material used in construction (i.e. type of structure) of dwelling. More than half of

dwellings made with pucca materials (rural-60%, urban-53%) were less than 10 years old. On the other hand, around 77% semi-pucca and 47% katcha households in Kerala were over 10 years old. This indicates that, construction of dwelling with pucca material in Kerala

Amongh the states of India, Kerala was ranked second in the availability of separate rooms for married couples. Lakshadweep stood first in this indicator with around 98% households having a separate room for married couples.

Ref: NSSO Report No. 535(65/1.2/1)

has been growing in the last ten years prior to the survey.

# 3.2.2 Distribution of Households by Condition of Dwelling Structure

Condition of structure meant the physical condition of the structure of the

house. The specific types of conditions in which the house was classified were 'good', 'satisfactory' or 'bad'. If the structure did not immediate require any repairs, major or minor, it was regarded as in 'good' condition. If the structure required immediate minor repairs but not major repairs, regarded was as in

'satisfactory' condition. If the structure of the building required immediate major repairs without which it might be unsafe for habitation or required to be demolished and rebuilt, it was regarded as in 'bad' condition. In table 3.2.1, distribution of households living in a house by condition of

structure is presented for each condition of structure. It is seen from table that, around 72% rural and 81% urban dwellings in good condition were made up of pucca materials. Among the bad conditioned dwelling units, more than 75% were made up of either semi-pucca or katcha materials.

# 3.2.3 Availability of Separate Room to Married Couples

To assess the condition of 'overcrowding' in houses of Kerala, data on the number of

room in the dwelling unit and number of married couples in the households were collected. As per the concepts of this survey, married couples meant the couples either formed through marriage or live-together. When both husband and wife were the household members,

they were considered for counting the number of married couple. In cases where children of age 10 vears or below used the with the same room couples, married such married couples were considered to have separate room.

In Kerala around 85% rural and 84% urban households had at least one married couple (ref: Table 27, Appendix A). For those households

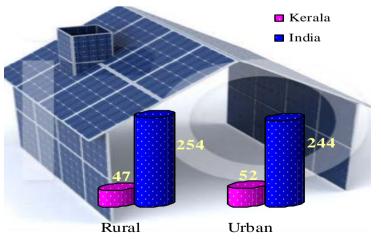
having at least one married couple, the proportion of households wherein

Table 3.2.1 Per 1000 distribution of households by condition of dwelling structure

ار ام	Type of	Condition of structure					
Sector	structure	good	satisfactory	bad	all		
	Pucca	718	342	142	556		
	Semi-pucca	281	641	514	414		
Rural	Serviceable katcha	1	15	223	21		
<u> </u>	Unserviceable katcha	0	2	120	9		
	all katcha	1	17	343	30		
	Pucca	806	373	157	634		
	Semi-pucca	191	607	611	343		
Urban	Serviceable katcha	2	20	201	21		
	Unserviceable katcha	0	0	32	2		
	all katcha	2	20	232	23		

married couples not getting separate room at the state and national level is presented in chart 3.2.2. Findings made from the survey reveals that, compared to the national level, Kerala exhibited better place in this aspect, with nearly 95% of households both in rural as well

Chart 3.2.2 Proportion of households wherein married couples not getting separate room



as urban areas, had availability of separate room for the married couples.

#### 3.3 Rent of Hired Accommodation

For those households who lived in hired accommodation (i.e., employer's quarter, hired accommodation with written

contract or hired accommodation without written contract), the information on rent payable per month was collected in this survey. For the households who lived in employer's quarter, the amount

deducted from salary of the household member to whom the quarter was allotted along with the house rent allowance the person might have received if he/she had not been accommodation provided the was deemed as the rent of such dwelling units. Based on the data collected, estimated value of average rent (i.e. estimated total rent divided by estimated number of households for which rent is greater than zero) is calculated. observed that, the average rent paid varies with respect to certain conditions of dwelling, such as floor area of dwelling, type of structure and the type of hired accommodation. The following sections discuss on the estimated average rent and its parameters.

#### 3.3.1 Average rent by floor area

The average monthly rent paid by the households living in hired accommodation by different floor area

class is given in chart 3.3.1 for rural and urban areas at the state and national level. The average rent paid by a rural and urban household in Kerala was

Chart 3.3.1 Average rent by floor area



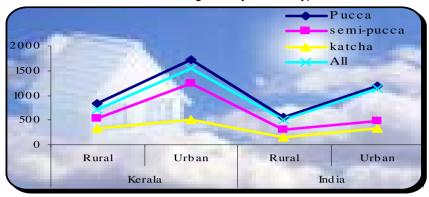
estimated to be Rs.703 and Rs.1538 respectively. At the national level this was Rs. 508 and Rs. 1148 in rural and urban areas respectively. Thus both in Kerala and at the national levels, urban households spent more than double that paid by the average rural household. Chart 3.3.1 reveals that there is great deal of variation in average rent paid among different floor area classes. Average rent paid seems to be steady increasing with respect to floor area. Compared to rural, urban showed more steady increase in this, with a difference of Rs. 3686 in average rent from low (less than 20) to high (100 or more) floor area class. In rural area, it varied from Rs. 221 to Rs. 2324 in Kerala and from Rs. 358 to 1124 in all-India.

#### 3.3.2 Average rent by type of structure

Structure type of dwelling is an important parameter that determines rent. As may be expected, households

hiring 'pucca' structured dwellings paid a households living in hired higher monthly rental than the other two accommodation by different type of hired

Chart 3.3.2 Average rent by structure type



types (i.e. semi-pucca or katcha). It ranged from Rs.341 for katcha dwellings to Rs.827 for pucca in the rural areas. The corresponding variation in urban areas was from Rs.500 to Rs.1729. Chart 3.3.2 presents the line graph of average

rent for different structure types in rural and urban sectors of Kerala and all-India. It is clear from the chart that, average rent of both pucca and semi-pucca dwellings in rural areas was more than double of that in urban areas. While

households residing in katcha dwellings of urban Kerala had to pay Rs.159 more than their counterparts in rural areas.

# 3.3.3 Average rent by type of hired accommodation

In this survey three types of hired accommodation were considered. These were employer quarter, hired dwelling with written contract and hired dwelling without written contract. These three types are defined in chapter six. The average monthly rent paid by

accommodation is given in table 3.3.1. The results of the survey show that, average rent varied greatly by type of hired accommodation. Household lived in dwellings provided

by an employer were paying lower rents than the other types of hired accommodation. It is important to emphasize that, the average rent of employer quarter in both the sectors of Kerala were lower than national

Table 3.3.1 Average rent by type of hired accommodation

10	Table 5.5.1 Average refit by type of filled accommodation							
Sector		Employer quarter	Hired accommodation with written contract	Hired accommodation without written contract	All			
Kerala	Rural	244	826	898	703			
	Urban	888	1921	971	1538			
India	Rural	272	938	527	508			
	Urban	1139	1878	1006	1148			

averages. This was only Rs. 244 (i.e. Rs.28) in rural and Rs.888 in urban Kerala, i.e., Rs.28 in rural and Rs.151in urban lower than national averages.

# 3.4 Micro environmental elements surrounding the house

Now-a-days Kerala is facing difficulty in collection, treatment and disposal of ever-increasing quantity of both solid and liquid wastes. As the condition of environment is directly

linked with health of people, these wastes affect public health. In order to assess the status of waste management in Kerala, some information on microenvironment surrounding the house; such as garbage disposal and drainage arrangements are collected in this survey. Findings of this survey on these aspects are discussed in this section. In addition to this, the availability of direct opening to road from the house, which is also an indicator of better living condition enjoyed by the households living in the house, is also discussed.

#### 3.4.1 Drainage Arrangement

A system for carrying off waste water and liquid waste of house was considered as drainage system. The survey results showing the proportion of households by type of drainage arrangement is shown in chart 3.4.1. As per the survey, both urban and rural households of Kerala were relatively drainage arrangement. For 8% rural and 16% urban households, the drainage

Tripura was the state with most poor garbage arrangement system among Indian states. Only 8% households of Tripura had any type of grabage disposal arrangement. Lakshadweep (11%), Bihar (14%) and Kerala (14%) where the next three states with poor waste management system. At the other extreme, in Chandigrah, Delhi Pondichery more than 85% households had any type of garbage disposal arrangmenet.

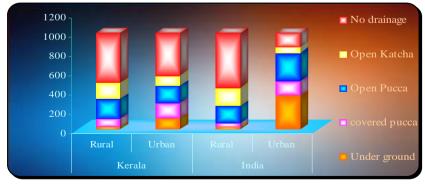
Ref: NSSO Report No.535(65/1.2/1)

facility was covered pucca. The open pucca types drain facility was used among 21% rural and18% households. Around 16% rural and 10% urban households used most unhygienic system for carrying off waste water and liquid waste of house; i.e. 'open katcha' drainage arrangement. It is important to emphasize that, 52% rural and 44%

urban households of Kerala had no drainage connectivity for wastewater outlet, as against the national average of 57% in rural and 15% in urban. Thus urban area of Kerala lags far behind urban

areas at the national level (a difference of around 30% points) in terms of drainage facility.

Chart 3.4.1 Per 1000 distribution of households by type of drainage arrangement



equal in the case of drainage connectivity for waste water (rural-48%, urban-56%). Only 3% rural and 12% urban households had 'underground'

#### 3.4.2 Garbage Disposal System

Garbage disposal arrangement means the arrangement which usually exist to

carry away the refuse and waste of household to final dumping place away from the residential areas. In this survey information regarding the agency that carried away garbage of household а

final dumping place was collected. Based on this, per thousand distribution of households by type of garbage disposal system is estimated and is presented in chart 3.4.2.

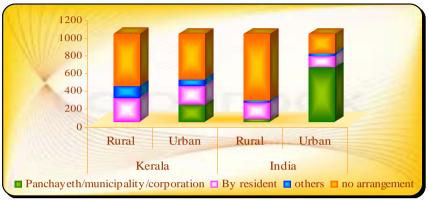
Chart3.4.2 highlights the serious crisis existed in the State waste management system during the survey period. It is estimated that majority of households

Chart 3.4.3 Per 1000 distribution of households by type of road to the house



(rural-59%, urban-51%) in Kerala does not had any type of arrangements for disposal of garbage. The proportion of households reporting removal of household waste by household members was higher in rural (28%) than urban (21%) areas. While 20% of urban

Chart 3.4.2 Per 1000 distribution of households by type garbage disposal system



households in Kerala were reported that arrangement for collection of garbage was provided by government agency. The corresponding proportion in rural area (0.4%) was almost negligible. On the contrary, at the national level, 62% households in urban areas are estimated to have availed arrangements provided by government agency for garbage removal. Only 21% urban households at

the national level were estimated to have no arrangement for the removal of household waste.

### 3.4.3 Availability of Road

The availability of direct opening to road from the house can be

considered as one of the indicator of better living condition enjoyed by the households living in the house. Availability of this facility among the households of Kerala was examined in this survey. As per the survey results, 29% rural and 44% urban households in Kerala had motorable approach road to their dwelling with street lighting and

only 20% rural and 15% urban households without street lighting facility. About 35% rural and 30% urban households had other than motorable road with or without street lighting facility



# Construction for Residential Purpose

# 4 Construction for Residential Purpose

#### 4.0 Introduction

In addition to information on particulars of various facilities available to the sample households and the micro environment surrounding the dwelling unit, information was collected on various facets of construction activities undertaken by the households for residential purpose during last 365 days preceding the date of survey. Based on the data collected, various indicators of this are estimated and are presented in this chapter.

#### 4.1 <u>Residential Constructions</u> Undertaken

Particulars of construction and repair

undertaken by households during last 365 days preceding the of survey, date for residential purpose was collected in this survey. This included the information on constructions which were started earlier. but continued during the last

365 days, as well as those initiated during the last 365 days. Such constructions undertaken during the last 365 days might have been completed or might remain in-progress status. For these constructions, information was

collected on type of constructions, number of constructions undertaken, number of constructions completed, cost of constructions, sources of finance, first-hand purchase of constructed house/flat during the last 365 days preceding the survey. Estimates prepared based on these data are presented in the following sections.

### 4.1.1 Magnitude of residential constructions undertaken

To measure the magnitude of residential constructions undertaken, proportion of households who undertook residential constructions during the last 365 days have been estimated and is presented in

Chart 4.1.1. Proportion of households which had undertaken construction

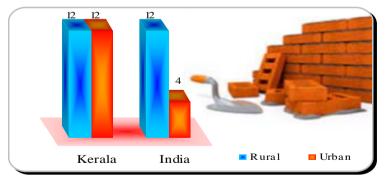


chart4.1.1. The result of the survey shows that, around 12% households in Kerala undertook either construction or repair during last 365 days. At the national level a higher percentage of households in rural areas undertook constructions than households in urban

areas: nearly 12 per cent households in rural areas and 4 per cent households in urban areas undertook constructions during the last 365 days. The rural-urban difference in this aspect is not seen in Kerala. In table 34, **Appendix** of households who had proportions undertaken constructions by place of construction and average number of constructions undertaken per household have been presented.

#### 4.1.2 Types of completed constructions and cost there of

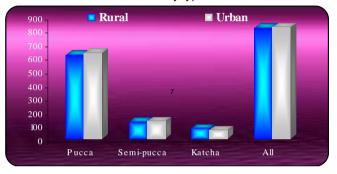
constructions that were The undertaken by the households during last 365 days might be any of the following three types, viz. new building, addition to floor space or alteration /improvement/ major repair. The

number of constructions complete per 1000 constructions undertaken in these three types is presented in chart4.1.2. The chart shows that, both in rural and urban areas, more than 90% of the renovation or major repair work constructions in rural and 56% in urban were completed. Kerala and all India showed almost an equal pattern in this indicator.

#### 4.1.3 Type of structures of completed construction

of structure of completed Type construction is valid information to

Chart 4.1.3 Number of constructions completed per 1000 constructions by type of structure

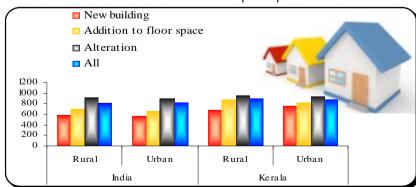


assess the quality of construction activity undertaken. The structure types of the completed constructions might pucca, semi-pucca or katcha. Number of completed constructions per constructions by type of structure is

> presented in chart 4.1.3. As per the survey results, construction activities of more 60% than buildings constructing with materials pucca completed were on the date of survey. **Among**

completed as on the date of survey. In the buildings with semi-pucca materials, only 12% were completed. The rate of



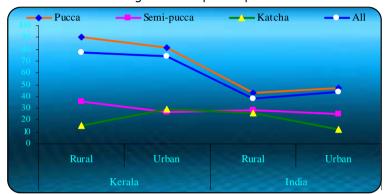


undertaken by households were the case of new buildings, around 59% completion was below 10% among katcha type buildings.

### 4.1.4 Floor area of the completed construction

The average floor area per completed construction for each structure type is presented in chart 4.1.4. The average

Chart 4.1.4 Average floor area per completed construction



floor area of completed construction was estimated to be 77.46 sq. m. in rural and 74.32 sq. m. in urban Kerala. The corresponding figures at the national level are 38.39 sq.m and 44.19 sq.m respectively. Thus in both the sectors of Kerala, the average floor area of new buildings were much above the national averages. Also, in Kerala, new buildings

in rural area are estimated to have higher floor area than in urban areas. This was reverse at the national level.

Both at Kerala and national level, the pucca new buildings had higher floor areas than those of other structure types. In

rural areas of Kerala, average floor area of the completed pucca structures was 90.14 sq. mt. and in urban areas it was nearly 81.31 sq. mt. The corresponding figures at the national level are 42.8 sq.m and 47.27 sq.m respectively. The difference in average floor area of new building between any two structure

types was much higher in Kerala. For example, both in rural and urban areas, the average floor area of pucca structured new building was almost three times higher than semi-pucca structured new buildings. This difference was not this much wide at the

national level.

## 4.1.5 Sources of finance of the completed constructions

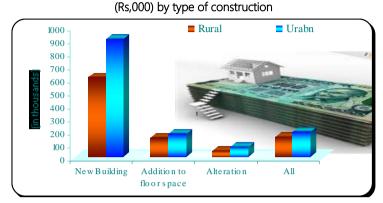
Total cost of construction undertaken may be financed by households own source or from institutional agency or from non-institutional agencies. For

Table 4.1.1 Per 1000 distribution of cost of completed construction by source of finance

Sector	Type of Structure	Own labour and/or material	Finance from own source	Institutional agencies	non- institutional agencies
	Pucca	230	410	306	55
	Semi-pucca	87	583	235	95
Rural	Katcha	139	675	44	142
	All	222	421	300	57
	Pucca	46	587	296	71
Urbon	Semi-pucca	47	708	101	144
Urban	Katcha	195	304	77	424
	All	47	589	288	76

constructions undertaken in sample households, amount financed from each of the sources was collected. The amount financed, for the total cost of

Chart 4.1.5 Average cost per completed construction



construction, includes cash and kind, as well as household labour and/or material, and gifts received in kind.

The share of own sources, institutional agencies and non-institutional agencies total cost of completed constructions is presented in table 4.1.1. The table reveals that in Kerala nearly 64% of the total cost of completed constructions were financed from own sources. Among this, households own labour and/or material accounted about 22% of construction cost in rural and only 5% in urban areas. Financing from any agencies (institutional or noninstitutional) was almost of the same order in both rural and urban areas: in rural areas nearly 30% and 6% total construction cost of completed constructions financed from were institutional and non-institutional agencies respectively, while it was 29% and 8% in urban areas.

In table 36 of Appendix A, the break-up of share of different sources of finance for construction is presented in detail. As per the table, around 25%

construction cost in rural and 21% in urban Kerala were financed by commercial banks (including regional rural bank) and/or co-operative societies/banks. Whereas share of money (includina subsidy received in cash or kind) from the central or state governments, to finance

the construction was only nominal; nearly 3% in rural and 2% in urban.

#### 4.1.6 Cost of constructions during last 365 days

The total cost for the constructions that were completed during the last 365 days, irrespective of the date from which activity construction started, was collected in this survey. For collecting cost of construction three different types of constructions were considered in this survey. They were, 'new building', 'addition floor to space' and 'alteration/improvement/major estimated average cost completed construction for different types of construction is given in chart 4.1.5. Average cost per completed construction were estimated to Rs.155000 in rural and Rs.193000 in At the national level, the urban. corresponding costs were Rs. 27000 and Rs. 58000 in rural and urban areas respectively. Thus the estimated

average cost of completed construction in rural and urban Kerala was on an average six and three times higher than the respective rural and urban cost at the national level. The chart 4.1.5 shows average cost per completed construction of new building was highest the different types constructions in both rural and urban On areas. an average, cost

> Chart 4.1.6 Average cost per completed construction (Rs,000) by structure type



constructed new building was nearly Rs. 615000 in rural areas, and Rs. 911000 in urban areas. More details on this are available in table 35, Appendix A.

Average cost of completed construction varied widely among different structure Estimated average cost of types. construction of pucca (rural-Rs.183000, urban-Rs.219000) type buildings Kerala was more than two times higher than semi-pucca(rural-Rs.75000, urban-Rs.92000) type buildings. For the most unsafe cheapest and types constructions, i.e., katcha structures: cost per completed katcha structure was nearly Rs.16000 in rural areas where as it is Rs. 15,000 in urban areas. The average cost per completed construction by structure type for the sectors of Kerala is

given in chart 4.1.6. An important observation made from the chart is that, there was less rural-urban variation in cost of completed construction in Kerala. estimated average cost completed construction for different types of construction (i.e., new building, addition to floor space and alteration) by structure type is given in table 36 of Appendix A.

share The (per thousand) of different components in cost of construction, i.e., material cost, labour cost and other costs (service charges, etc.) is presented in chart 4.1.7. Household labour was evaluated at the wage rate prevailing at the

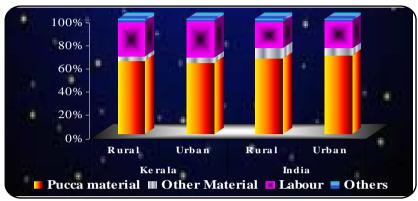
time of construction. Materials supplied from home were evaluated at the exfarm/ex-factory price prevailing at the time of its use. For materials obtained as free collection and used in the construction, only transport charges and

In terms of cost of construction, there exist significant diparities across the states of India. The average cost per completed construction ranged between Rs.4000 (Jharkhand) and Rs. 244000 (Puducherry). Kerala stood second (Rs.136000) among the states with regard to the average cost per completed construction. Bihar (Rs.7000), Assam (Rs.5000), Jharkhand (Rs.4000) spent the minimum for a new building.

Ref: NSSO Report No.535 (65/1.2/1)

the related hired and household labour was evaluated and recorded. Materials received as gifts or in the form of subsidies were evaluated at the local retail price. The value of land on which Nearly 63 per cent of the total costs of constructions in rural Kerala and 62 per cent of the total cost of constructions in urban Kerala were on pucca material. This was around 66% and 68% in rural

Chart 4.1.7 Per 1000 distribution of cost per construction for different items



the construction was made was not included in the cost.

It is seen that in both the sectors of Kerala and all-India, cost of pucca material shared the majority of the cost of constructions during last 365 days, followed by the share of labour cost.

and urban areas at the national level. In rural areas nearly 23 per cent of the total cost of construction was on labour while share of labour charges total cost of construction was nearly 24 per cent in urban areas. The

share of labour cost in Kerala were 30% in rural and 32% in urban, this was found to be marginally higher than that at the national level; were the corresponding shares are 23% in rural and 24% in urban.

Chapter

Concepts and Definitions

# 5 Concepts and Definitions

The concepts and definitions of some important terms used in the survey and relevant to this report are explained in the following paragraphs.

Household: A group of persons who normally lived together and took food from a common kitchen constituted a household. The adverb "normally" meant that the temporary visitors and guests (whose total period of stay in the household was expected to be less than 6 months) were excluded but the temporary stay-aways (whose total period of absence from the household was expected to be less than 6 months) were included. Thus a child residing in a hostel for studies was excluded from the household of his/her parents, but a resident domestic servant or paying guest (but not just a tenant in the included house) was in the employer's/host's household. "Living together" was given more importance than "sharing food from a common kitchen" in drawing the boundaries of a household in case the two criteria were in conflict. However, in the special case of a person taking food with his family but sleeping elsewhere (say, in a shop or a different house) due to shortage of space, the household formed by such a person's family members was taken to include the person also. Each inmate of a hotel, mess, boarding-lodging house, hostel, etc., was considered to be a single-member household except that a family living in a

hotel (say) was considered one household only. The same principle was applicable for the residential staff of such establishments. The size of a household is the total number of persons in the household.

House: Every structure, tent, shelter, etc., was a house irrespective of its use. It might be used for residential or non-residential purpose or both or even might be vacant.

Building: Building was a free-standing structure comprising one or more rooms or other spaces covered by a roof and usually enclosed within external walls or dividing walls which extended from the foundation to the roof. Dividing walls referred to the walls of adjoining buildings, i.e., dividing walls of a row of houses. These houses were practically independent of one another and likely to have been built at different times and owned by different persons. If more than physically separated one structure constituted one living unit, all of them together also formed a building. Usually, building would have four external walls. But in some areas the nature of building construction was such that it had no walls. Instead, it had a slanting roof which almost touched the ground and it was provided with an entrance. Such structures and also structures standing only on pillars were also be treated as buildings for the purpose of the survey.

Dwelling unit: It was the accommodation availed of by a household for its residential purpose. It might be an entire structure or a part thereof or consisting of more than one structure. There might be cases of more than one household occupying a single structure such as those living in independent flats or sharing a single housing unit, in which case, there would be as many dwelling units as the number of households sharing the structure. There might also be cases of one household occupying more than one structure (i.e. detached structures for sitting, sleeping, cooking, bathing, etc) for its housing accommodation. In this case, all the structures together constituted a single dwelling unit. In general, a dwelling unit consisted of living room, kitchen, store, bath, latrine, garage, open and closed veranda etc. A structure or a portion thereof used exclusively for non residential purposes or let out to other households did not form part of the dwelling unit of household under consideration. However, a portion of a structure used for both residential and non-residential purposes was treated as part of the dwelling unit except when the use of such portion for residential purpose was very nominal. The dwelling unit covered all pucca, semi-pucca and katcha structures used by a household. Households living more or less regularly under bridges, in pipes, under staircase, in purely temporary flimsy improvisations built by the road side (which were liable to be removed at any moment) etc., were considered to have no dwelling.

**Pucca structure:** A pucca structure was one whose walls and roofs are made of

pucca materials such as cement, concrete, oven burnt bricks, hollow cement / ash bricks, stone, stone blocks, jack boards (cement plastered reeds), iron, zinc or other metal sheets, timber, tiles, slate, corrugated iron, asbestos cement sheet, veneer, plywood, artificial wood of synthetic material and poly vinyl chloride (PVC) material.

Katcha structure: A structure which had walls and roof made of non-pucca materials was regarded as a katcha structure. Non-pucca materials included unburnt bricks, bamboo, mud, grass, leaves, reeds, thatch, etc. Katcha structures could be of the following two types:

- (a) *Unserviceable katcha structure* included all structures with thatch walls and thatch roof, i.e., walls made of grass, leaves, reeds, etc. and roof of a similar material and
- (b) *Serviceable katcha structure* included all katcha structures other than unserviceable katcha structures.

Semi-pucca structure: A structure which could not be classified as a pucca or a katcha structure as per definition was a semi-pucca structure. Such a structure had either the walls or the roof but not both made of pucca materials.

Independent house: An independent house was one which had a separate structure and entrance with self-contained arrangements. In other words, if the dwelling unit and the entire structure of the house were physically the same, it was considered as an independent house. In some parts, particularly in rural areas, two or more structures together might constitute a single housing unit. While the

main residence might be in one of the structures, the other structures might be used for sleeping, sitting and for store, bath etc. In all such cases, all the structures together formed a single housing unit and were treated as an independent house.

Flat: A flat, generally, was a part of the building and had one or more rooms with selfcontained arrangements and normal housing facilities like water supply, latrine, toilet, etc., which were used exclusively by the household residing therein or jointly with other households. It also included detached room or rooms with or without other housing facilities.

Room: A room was a constructed area with walls or partitions on all side with at least one door way and a roof overhead. Wall / partition meant a continuous solid structure (except for the doors, windows, ventilators, air-holes, etc.) extending from floor to ceiling. A constructed space with grill or net on one or more sides in place of wall or partition was not treated as a room. In case of conical shaped structures in which the roof itself was built to the floor level, the roof was also regarded as wall.

Living room: A room with floor area (carpet area) of at least 4 square metres, a height of at least 2 metres from the floor to the highest point in the ceiling and used for living purposes was considered as a living room. Thus, rooms used as bedroom, sitting room, prayer room, dining room, servant's room - all were considered as living rooms provided they satisfied the size criterion. Kitchen, bathroom, latrine, store, garage etc. were not living rooms. A room which was used

in common for living purpose and as kitchen or store was also considered as living room.

Other room: It was a room which does not satisfy the specification of 4 square metres floor area and 2 metres height from the floor to the highest point of the ceiling or a room which though satisfied the specification was not used for living purposes. A room which satisfied the size criterion when shared by more than one household or when used for both residential and business purposes was treated as other room.

Veranda: It is a roofed space often without a door adjacent to living/other room. It is generally used as an access to the room(s) and is not walled from all sides. In other words, at least one side of such space is either open or walled only to some height or protected by grill, net, etc. A veranda was considered as a 'covered veranda', if it was protected from all sides and an 'uncovered veranda', if was not protected at least from any one of the sides. A covered veranda might have a door also. Corridor or passage within the dwelling unit was treated as portion of a room or a depending on its veranda layout. However, veranda did not cover a common corridor or passage used mainly as an access to the dwelling itself.

Floor area of the dwelling: The inside area of the floor excluding the area covered by the walls was considered as floor area. If a room was used both for business and residential purposes and the residential use was not very nominal, the total area of the room was considered as floor area. On the other hand, if only a portion of a room

was used for residential purposes, only the area of that portion was considered as floor area. The same procedure was adopted in case of room being shared with another household.

Tenurial status of dwelling: Information in respect of the tenurial status of the dwelling unit of the sample household was collected. For the purpose of the survey the following classifications of the tenurial status of the dwelling were used:

#### 1. owned.

- 1.1 freehold
- 1.2 leasehold

#### 2. hired.

- 2.1 employer quarter
- 2.2 hired dwelling units with written contract
- 2.3 hired dwelling units without written contract

#### 3. others

#### 4. no dwelling

Owned: A dwelling unit was considered 'owned' by the sample household if permanent heritable possession with or without the right to transfer the title was vested in a member or members of the household. Dwelling units in owner-like possession under long term lease or assignment was also considered 'owned'. If the sample household had the right of permanent heritable possession of the dwelling unit with or without the right to transfer the title, such dwelling units were considered as 'freehold'. Dwelling units held under special conditions such that the holder did not possess the title of ownership of the dwelling unit but the right for long term possession of the dwelling unit (e.g., dwelling units possessed under perpetual lease,

hereditary tenure and long term lease for 30 years or more) were considered 'leasehold'.

Hired: In this survey three types of hired accommodation were distinguished. These were employer quarter, hired dwelling with written contract and hired dwelling without written contract. If the dwelling unit, in which the sample household lived, was provided by an employer to a member of the sample household, such dwelling units were considered 'employer quarter'. If the dwelling was taken on rent, by the sample household, which as payable at monthly, quarterly or any other periodic intervals or on lease, for a period of less than 30 years, it was treated as a 'hired dwelling'. Hired dwelling unit might be free of rent also. If the sample household had taken the dwelling unit on rent with written contract with its owner, it was considered as 'hired dwelling with written contract'. On the other hand, if the sample household lived in a hired dwelling unit without a written contract, such dwelling unit considered as 'hired dwelling without written contract'.

Others: In all other types of possession of the dwelling unit (e.g., encroached one) for the households, these were classified as 'others'.

No dwelling: Households which lived more or less regularly, under bridges, in pipe, etc., in purely temporary flimsy improvisations built by the roadside (which are liable to be removed any moment), were considered as having 'no dwellings'.

Earner of a household, place of work and maximum distance travelled by the earner:

A household member with earning either from economic activities and/or from non-economic activities was considered as an earner in the household. Place of work meant a place where the activities, considering both the economic and non-economic activities together, were performed by the earners. Distance meant the one way actual distance from residence to the place of work normally travelled by the earner.

Economic activity: Any activity resulting in production of goods and services that added value to national product was considered as an economic activity. Such activities included production of all goods and services for market (i.e. for pay or profit) including those of government services, and, the production of primary commodities for own consumption and own account production of fixed assets. The term 'economic activity' as defined in NSS survey, included: (i) all the market activities performed for pay or profit which result in production of goods and services for exchange. (ii) of the non-market activities, (a) all the activities relating to the primary sector (i.e. industry Divisions 01 to 14 of NIC-2004) which result in production (including free collection of uncultivated crops, forestry, firewood, hunting, fishing, mining, quarrying, etc.) of primary goods for own consumption and (b) activities relating to the own-account production of fixed assets, which include production of fixed assets including construction of own houses, roads, wells, etc., and machinery, tools, etc., for household enterprise and also construction of any private or community facilities free of charge. A person may be engaged in own

account construction in the capacity of either a labourer or a supervisor. Certain activities like prostitution, begging, etc., which though fetched earnings, were not considered as economic activities. Such activities were taken within the ambit of non-economic activities.

Major source of drinking: Information in respect of the household's major source of drinking water during the last 365 days was collected. Since a household might have used more than one source of drinking water, provision was made to record two such sources. First major source was the one that related to that source of drinking water which was used most by the household and the second major source was the one which was the next most used source of drinking water. The classifications of the sources of drinking water of the household were as follows: bottled water tap tube well/hand gmug well. protected unprotected tank/pond (reserved for drinking) other tank/pond river/canal/lake spring harvested rainwater others

Bottled water: Drinking water packaged in bottles, pouches, and similar containers were classified as 'bottled water'. Generally this packaged drinking water conformed to certain safety standards and were considered safe for drinking. However, tap water, well water, etc., kept by households in bottles, for convenience, was not be treated as bottled drinking water.

**Well:** A 'well' was considered as protected, if it had generally the following protective measures to lower the risk of contamination:

- 1) A headwall around the well with a properly fitting cover
- 2) A concrete drainage platform around the well with a drainage channel
- 3) A handpump or bucket with windlass

A 'well' without the protective measures to lower the risk of contamination was considered an 'unprotected well'. Rainwater harvesting was the gathering or accumulating and storing of rainwater. Traditionally, rainwater harvesting is practised in arid and semi-arid areas, and had provided drinking water, domestic water, water for livestock, etc. The other codes are self explanatory.

Sufficiency of drinking water: This information was collected in respect of the most often used source. Thus, information was collected on whether availability of drinking water was sufficient throughout the year from the first source (most often used source). However, for collecting this information, the investigator had to depend on the judgement of the informant. For the households which did sufficient aet drinking water throughout the year from the first source (most often used source), information was collected regarding the calendar months of the year during which availability of drinking water was not sufficient from the first source.

Type of use of drinking water facility: For the households which had more than one sources of drinking water, information for this item related to the first source (most often used source). Information was recorded regarding whether the household's first source of drinking water was for:

- a) household's exclusive use, if the source was for the exclusive use of the household
- b) common use of households in the building; if the source was shared by the householdswith one of more households in the building
- c) *community use;* if for use of households in the locality or

d) others

Facility of bathroom: Information about the bathroom facility available to the members of the household was recorded as follows:

- a) attached bathroom:
- b) detached bathroom and
- c) no bathroom

If the dwelling unit had no bathroom in its premises, it was considered as having *no bathroom*. If the dwelling unit had one or more bathrooms attached to the dwelling unit (i.e., with direct access from its rooms, veranda or corridor) it was treated as with *attached bathroom*. On the other hand, if the dwelling unit had a bathroom in its premises but not attached to dwelling unit it was considered as *detached bathroom*.

Type of use of latrine facility: Information was collected on whether the household's latrine facility was for its exclusive use or shared with one or more households in the building or for use of households in the locality or whether the household had no latrine facility. If the latrine facility was for exclusive use of the household, these were classified as for exclusive use of household. If the latrine facility was shared by the household with one or more households in the building, these were classified as shared latrine with other household(s). If the latrine facility was for

use of the households in the locality, or was for a specific section of people, these were treated as *public/community latrine*. If the household had no access to latrine facility, i.e., if its members used open area as latrine, these were treated as having *no latrine*.

Type of latrine (viz., flush, septic tank, pit latrine and service latrine): A latrine connected to underground sewerage system was called flush system latrine. A latrine connected to underground septic chambers was considered as a septic tank latrine. A latrine connected to a pit dug in earth was called a pit latrine. In a few areas, one might still come across latrines that were serviced by scavengers. These were called service latrines.

Electricity for domestic use: Information was collected on whether the household had electricity facilities for domestic use. The use of the electricity for domestic use might be for lighting or cooking or for both. Moreover, electricity might be used legally or illegally and the electricity might be supplied to the household either through public agencies, corporations or by private suppliers. However, if the household made its own arrangement, either through generator or solar panel, to generate electricity, the household was not considered as having electricity for domestic use.

Type of electric wiring: If the sample household had electricity for domestic use, type of electric wiring available in the dwelling unit was classified in any one of the following:

- a) conduit wiring
- b) fixed to the walls

c) temporary

Use of house: The purpose for which the house was used was recorded in this survey. The specific use of the house, for which information collected, was as follows:

- a) residential only
- b) residential-cum-commercial
- c) residential-cum-others

If the house was used exclusively for residential purpose, its use was treated as residential only. If the house was used for residential purposes as well as for carrying out economic activities, like, production of goods, production of services or trading of goods, etc., such houses were classified as used for residential-cum-commercial purpose. In all other cases, such as when the house was used for residential purpose and for some non-economic activities, the use was treated as residential-cum-others.

Condition of structure: Condition of structure meant the physical condition of the structure of the house. The specific types of conditions in which the house was classified were

- a) good
- b) satisfactory
- c) bad

If the structure did not require any immediate repairs, major or minor, it was regarded as in 'good' condition. If the structure required immediate minor repairs but not major repairs, it was regarded as in 'satisfactory' condition. If the structure of the building required immediate major repairs without which it might be unsafe for habitation or required

to be demolished and rebuilt, it was regarded as in 'bad' condition.

Ventilation of the dwelling unit: Information as to whether, in general, ventilation of the dwelling unit was good, satisfactory or bad was collected. Ventilation meant the extent to which the rooms were open to air and light. Ventilation of all the rooms in the dwelling unit was considered. For assessing the situation the following guidelines were followed: (i) If the majority of the rooms had two or more windows arrangement for cross ventilation, the dwelling unit was considered as having 'good' ventilation. (ii) If the majority of the rooms had two or more windows without any arrangement for having cross ventilation or if majority of the living rooms had only a single window each with proper arrangement for cross ventilation, the dwelling unit was considered to have a 'satisfactory' ventilation arrangement. (iii) If the majority of the rooms had no window or had only one window each without any arrangement for cross ventilation, the dwelling unit was considered to have 'bad' ventilation.. However, in some cases, if the rooms of the dwelling unit had no proper ventilation, as per the criteria mentioned above, but the rooms had proper airconditioning facility, such cases were considered as 'good' ventilation.

Drainage arrangement: Drainage arrangement meant a system for carrying off waste water and liquid waste of the house. It may be noted that if no system existed to carry off the waste water of the house, but water flowed down by its own gravity, in an unregulated manner, it was considered as no drainage.

Garbage collection arrangement: Garbage collection arrangement meant arrangement which usually exist to carry away the refuse and waste of households to some dumping place away from the residential areas. In some places, the public bodies collected the garbage from the premises of the household or from some fixed points in the locality where the residents put their garbage; in others, a body of residents themselves made the arrangement of carrying the garbage to the final dumping place away from residential areas without participation of any public body.

Animal shed: Animal shed for the purpose of this survey, meant a structure where livestock (cattle, buffalo, horse, goat, pig, etc. but not poultry and pets) were sheltered. If there was no animal shed within 100 feet of the house (even on the adjacent plots) it was considered as having no animal shed. If there was an animal shed in the house or attached to the house, it was considered as a house with attached animal shed. If there was an animal shed within 100 feet of the house but not within / attached to, it was identified as a house with detached animal shed. It was not necessary that the animals and / or the shed was owned or possessed by any household in the house.

Experience of flood during last 5 years: If rain water during monsoon and / or water from sea, river, etc., entered into the ground floor of the house, or though water did not enter the house but the house was surrounded by water for some days then the house was considered to have experienced flood.

Plinth area of the house: Plinth area is the total constructed area of the surface on the ground over which the structure is created. In case more than one structure was used by the household, total plinth area of all the structures taken together was recorded. In case of a multi-storeyed building, plinth area referred to the surface on the ground over which the structure was created.

Plinth level: Plinth level meant the constructed ground floor level from the land (at the main entrance of the building) on which the building was constructed. If the ground floor was at the same level as the land on which the house stood, it was considered as no plinth.

Total number of married couples in the household: For the purpose of this survey, 'married couple' meant the couples either formed through marriage or live-together as reported by the informant. When both the husband and the wife (i.e., the male and female partners) were the household members, they were considered for counting the number of married couples. If one of them was a household member and the other was not, it was not counted as a married couple. A man with two wives in a household constituted two married couples. But one woman with two husbands in a household formed a single couple.

Separate room to each married couple: Information on whether each married couple of the household had a separate room for their use or not was collected. If a married couple of the household had a separate room for their use, it was considered as a couple with separate

room and even if children of age 10 years or below were also using the room along with the couple, it was considered as a case of separate room for the couple. A couple living in single roomcum- kitchen was also considered as having a separate room.

Monthly rent (Rs.) (payable approach): The actual amount (in whole number of Rupees) of rent payable per month by the household, living in hired accommodation was be recorded. If the household had paid some amount initially which was adjusted in the monthly rent, the amount adjusted in each month was included in the monthly rent. If the household was residing in employer's quarters, the amount deducted from the salary of the household member to whom the quarter was allotted along with the house rent allowance the person might have received if he/she had not been provided with the accommodation, was the rent of the dwelling unit. Rent did not include any salami/pugree or any kind of cess payable to local bodies or government or monthly maintenance charges payable to the cooperative society, etc.

Constructions undertaken: Construction undertaken, during last 365 days included constructions which those were undertaken by the households for residential purposes and were within the geographical boundary of the Indian Union. If construction was not undertaken solely for residential purpose, construction relating only to the residential part of the construction was considered. However routine repairs and maintenance of the structure such as whitewashing, painting, etc., and constructions undertaken as an entrepreneurial activity were excluded. The activity of constructions undertaken included:

- preparation of site (including demolition of existing structure, sheds, etc., if any; leveling of land, digging of earth, etc.) to start plinth work
- construction of new residential building,
- construction relating to addition of floor space,
- construction relating to alteration, improvement and major repair of the existing residential building.

Total cost of construction: Costs incurred up to the date of survey (amount paid and payable) for each of the constructions undertaken by the sample household was recorded separately. For the constructions that were completed during the last 365 days, the total cost for each such construction was considered. For the constructions that were in-progress, the total cost of the constructions up to the date of survey was recorded. Household labour was evaluated at the wage rate prevailing at the time of construction. Materials supplied from home evaluated at the ex-farm/ex-factory price prevailing at the time of its use. For materials obtained as free collection and used in the construction, only transport charges and the related hired household labour was evaluated recorded. Materials received as gifts or in the form of subsidies was evaluated at the local retail price. The value of land on which the construction was made was not included in the cost.

**Sources of finance:** Total cost of construction might be financed from different sources. For each of the

constructions, amount financed from different sources were recorded. Amount financed, for the total cost of construction, included the cash and kind, as well as household labour and/or material, and gifts received in kind. Eleven different sources were considered. These were as follows: own labour and/or material (incl. gifts received in kind) finance from own source (savings, sale of assets, received as gifts, etc.)

institutional agencies:

government

commercial bank including regional rural bank, co-operative society/bank

insurance

provident fund (advance/loan) financial corporation/institution other institutional agencies non-institutional agencies:

money lender

friends and relatives

other non-institutional agencies

Descriptions of the different sources are given below:

a) Own labour and/or material (incl. gifts received in kind): This included household labour and/or materials supplied from home and materials received as gifts from other households and used in the construction. Though this did not include materials used from free collection, the transport charges and the related hired and household labour associated with such free collection was evaluated and recorded. Besides, materials supplied from home were included here, which were evaluated at the ex-farm/exfactory price. Materials received as gifts from other households were evaluated at the local

retail price for recording entry. Materials might be received, sometimes, from friends and relatives or other non-institutional agencies as gifts. These were also considered against this item. However, if material was received from the institutional agencies in the form of subsidy and used in the construction work, the entries were made against the respective institutional agencies.

b) Finance from own source (savings, sale of assets, received as gifts, etc.): The amount considered here related to the savings of the different members of the household. This included non-refundable amount drawn by some of the household members from provident fund account, i.e., final withdrawal or part withdrawal. Besides, money received as gifts from friends or relatives and amount received from sale of assets and used in the construction work was also included in this item.

#### **Institutional Agencies**

- c) Government: When money (including subsidy received either in cash or kind) was received from the central or state governments, to finance the construction, these were considered here.
- d) Commercial Banks including regional rural bank, cooperative society/bank: Amount spent on construction out of money (including subsidy received either in cash or kind) taken from commercial banks, including nationalised banks, regional rural banks, State Bank of India and its associates like, State Bank of Bikaner and Jaipur, State Bank of

Mysore, etc., and foreign commercial banks operating in India were considered

- here. Similarly, money obtained from agencies such as cooperative society/banks, like district or central cooperative banks or other types of cooperative societies, etc., was also included.
- e) Insurance: All loans taken from Life Insurance Corporation, Postal Life Insurance and other insurance funds were considered as loans from 'insurance'.
- f) Provident Fund: Refundable advance/loans taken from a Provident Fund account, such as a Contributory Provident Fund, a General Provident Fund, a Public Provident Fund or any other provident fund in the public/private sector offices and companies, by the employees of the respective concerns, or account holders in case of a Public Provident Fund, was classified in 'Provident Fund'.
- g) Financial Corporations/ Institutions: Institutions such as Housing Development Finance Corporation Limited (HDFC), Housing and Urban Development Corporation Limited (HUDCO), etc., were considered here.
- h) Other Institutional Agencies: Amount raised by the households from financial institutions other than those listed above were treated as loans from 'Other Institutional Agencies'.

#### Non-institutional Agencies

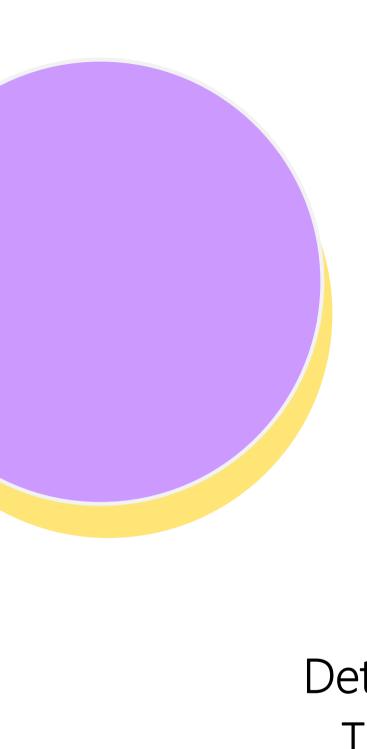
- i) Money lender: Person who lends money on interest was considered as money lender.
- j) Friends and relatives. Friends and relatives in this particular context were those who lend money free of interest. A friend or relative who charged interest for

any loan advanced was regarded as money lender.

k) Others: Any non-institutional credit agency not covered above was considered under this category.

First hand purchase of constructed house/flat: These were generally the housing units (ready built houses/flat) constructed by the enterprises/institutions that were purchased firsthand by the sample household for residential purposes during the last 365 days. Such constructions might have been undertaken at any time in the past provided they were not sold earlier for any purpose (residential and/or non-residential). It may be noted that residential units acquired by the households by ways other than purchase, say, acquired free from non household entities, were also considered.

Total expenditure for first hand purchase: If the sample household did not carry out the construction itself but acquired the residential units during the last 365 days, total expenditure for that residential unit was considered. If cost of the land was paid separately, the amount paid for the land was not considered for recording the total expenditure. But if it could not be separated, the total included the cost of the land. If the sample household acquired residential units by ways other than purchase, say, acquired free from non-household entities, the market value of the residential unit was recorded.



Appendix

Detailed Tables

Table 1: Per 1000 distribution of dwelling units by tenurial status of the household

			Te	enurial Status of	Household					
Contar	Owr	ned					sample no. of dwelling			
Sector	Freehold	Leasehold	Employer Quarter	with written contract	without written contract	Others	n.r	all	units	
Rural	950	3	9	15	12	11	0	1000	6048	
Urban	751	8	62	79	80	20	0	1000	3286	
All	928	4	10	30	18	10	0	1000	9334	
Sample no. of dwelling units (all)	8604	44	104	306	171	105	0	9334	XX	

Table 2 : Per 1000 distribution of the households by maximum distance to the place of work normally traveled by any earner of the household by any earner of the household

		Distance	e to the place of	of work normally	traveled by any	earner of the h	ousehold			No. of sample
Sector	not required to travel	less than 1 k.m.	1 k.m to 5 k.m.	5 k.m. to 10 k.m.	10 k.m to 15 k.m.	15 k.m. to 30 k.m	30 k.m or more	n.r	all	households
Rural	296	174	236	148	58	44	44	0	1000	6048
Urban	214	143	267	183	90	53	50	0	1000	3286
All	278	167	243	156	65	46	45	0	1000	9334
No. of sample households (all)	2209	1572	2576	1524	613	422	418	0	9334	XX

Table 3: Per 1000 distribution of households by major source of drinking water for each household social group

					W	ell	/ed				ater			
Sector	Social Group	Bottled water	Тар	Tube/wel/ hand pump	Protected	Unprotected	tank/pond reserved for drinking	other tank/pond	river/canal/lake	spring	harvested rainwater	others	all	No. of sample households
	ST	0	116	45	487	187	0	24	27	10	0	104	1000	110
	SC	0	253	19	534	143	14	20	0	0	6	10	1000	933
Rural	OBC	1	149	42	665	115	4	12	4	3	0	5	1000	3324
	Others	2	79	25	739	124	4	18	2	3	0	4	1000	1681
	All	1	137	34	672	122	5	15	3	3	1	7	1000	6048
	ST	0	562	20	364	35	0	19	0	0	0	0	1000	15
	SC	12	420	10	384	167	0	3	0	0	0	4	1000	240
Urban	OBC	14	394	35	507	41	1	4	0	0	0	4	1000	2096
	Others	13	423	18	478	63	2	1	0	0	0	2	1000	935
	All	14	406	28	488	57	1	3	0	0	0	3	1000	3286
	ST	0	145	43	479	177	0	23	25	9	0	98	1000	125
Rural and	SC	2	282	18	508	147	12	17	0	0	5	9	1000	1173
Urban	OBC	4	210	40	626	97	3	10	3	2	0	5	1000	5420
Combined	Others	4	156	23	683	110	4	15	1	2	0	3	1000	2616
	All	4	198	33	630	107	4	12	3	2	1	6	1000	9334
No. of samp households		46	2198	267	5454	1107	34	119	17	26	3	63	9334	XX

Table 4 : Proportion of households not getting sufficient drinking water from the major source during the different months of the year for each household social group

	Social	909			Months	of year dı	uring whic	h availa	bility of	drinking	water w	as not :	sufficien	t		sample
Sector	Grtoup		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	all the months	hhs
	ST	243	2	19	62	194	208	109	1	28	1	1	1	1	1	110
	SC	252	8	65	173	245	246	5	2	2	2	2	2	4	0	933
Rural	OBC	217	17	36	129	198	202	12	5	5	5	5	5	6	0	3324
	Others	210	15	45	166	205	187	8	1	1	1	1	1	3	0	1681
	All	219	15	42	145	205	202	11	3	4	3	3	3	5	0	6048
	ST	371	0	151	259	371	371	0	0	0	0	0	0	0	0	15
	SC	175	6	26	77	171	164	14	2	2	2	2	2	2	0	240
Urban	OBC	158	6	39	98	147	145	8	3	3	3	3	4	5	0	2096
	Others	81	3	15	65	79	78	7	0	0	1	1	1	1	0	935
	All	136	5	31	87	129	127	8	2	2	2	2	3	4	0	3286
	ST	252	1	28	<i>7</i> 5	206	218	102	1	27	1	1	1	1	1	125
Rural and	SC	239	7	58	157	233	232	7	2	2	2	2	2	4	0	1173
Urban	OBC	203	14	37	122	186	188	11	4	4	4	4	5	6	0	5420
Combined	Others	181	12	38	143	177	163	8	1	1	1	1	1	3	0	2616
	All	200	13	39	131	188	185	11	3	3	3	3	3	4	0	9334
Sample no. o getting suffici drinking wate	ent	1910	136	364	1216	1776	1753	119	40	41	42	43	44	62	5	

Table 5: Per 1000 distribution of households by facility of drinking water for each household social group

		F	Per 1000 distribution	of households	by facility of d	rinking water		
Sector	Social Grtoup	Exclusive use	Common use of hhs in the building	community use	others	n.r	all	sample hhs
	ST	388	41	374	197	0	1000	110
	SC	497	19	250	234	0	1000	933
Rural	OBC	772	26	79	123	0	1000	3324
	Others	865	16	57	62	0	1000	1681
	All	767	22	95	116	0	1000	6048
	ST	489	210	170	131	0	1000	15
	SC	548	71	228	153	0	1000	240
Urban	OBC	700	40	154	106	0	1000	2096
	Others	834	39	61	66	0	1000	935
	All	730	42	131	97	0	1000	3286
	ST	394	52	361	193	0	1000	125
Rural and	SC	506	28	246	220	0	1000	1173
Urban	OBC	754	29	98	119	0	1000	5420
Combined	Others	858	21	58	63	0	1000	2616
	All	759	27	103	112	0	1001	9334
no. of sar	nple hhs	6347	310	1293	1384	0	9334	

Table 6 : Per 1000 distribution of households by distance to the source of drinking water

			dista	ince to the sou	rce of drinki	ng water				
Sector	within	outside dwelling		outside prem	nises at a dis	tance of			- 11	sample hhs
	dwelling	but within premises	less than 0.2 km	0.2 - 0.5 km	0.5 - 1.0 km	1.0 - 1.5 km	1.5 km or more	n.r.	all	
Rural	40	741	185	28	4	1	1	0	1000	6048
Urban	224	581	167	22	3	1	2	0	1000	3286
All	82	705	181	26	4	1	1	0	1000	9334
Sample hhs	810	5895	2269         292         43         13         12         0         9334							

Table 7 : Per 1000 distribution of households by type of bathroom for each household social group

				Type of bathroom			
Sector	Social Grtoup	Attached	Detached	no bathroom	n.r	all	Sample hhs
	ST	195	393	412	0	1000	110
	SC	142	590	268	0	1000	933
Rural	OBC	417	485	98	0	1000	3324
	Others	562	377	61	0	1000	1681
	All	431	460	109	0	1000	6048
	ST	564	416	20	0	1000	15
	SC	232	580	188	0	1000	240
Urban	OBC	529	420	51	0	1000	2096
	Others	703	283	14	0	1000	935
	All	561	389	50	0	1000	3286
	ST	219	395	386	0	1000	125
Rural and	SC	157	589	254	0	1000	1173
Urban	OBC	444	469	87	0	1000	5420
Combined	Others	594	356	50	0	1000	2616
	All	461	444	95	0	1000	9334
No. of samp	le hhs	3644	4171	1519	0	9334	

Table 8 : Per 1000 distribution of households having no bathroom by distance of the dwelling from the bathing place

				distance from	bathing place				
Sector	within the		outside the	e premises at a	distance of				Sample hhs
	premises	less than 0.2 km	0.2 - 0.5 km	0.5 - 1.0 km	1.0 - 1.5 km	1.5 or more	n.r	all	Sumple IIIIS
Rural	565	343	76	16	0	0	0	1000	1322
Urban	723	202	62	7	7	0	0	1000	197
All	584	326	74	15	1	0	0	1000	1519
Sample hhs	872	496	125	24	1	1	0	1519	

Table 9: Per 1000 distribution of households by use of latrine

			use of	latrine			
Sector	exclusive use	shared latrine	rine public/communit no latrine n.r.		all	sample hhs	
Rural	904	45	2	49	0	1000	6048
Urban	872	118	1	9	0	1000	3286
All	893	71	1	35	0	999	9334
No. of sample hhs	8473	504	10	347	0	9334	

Table 10: Per 1000 distribution of households by type of latrine for each household social group

					type of latrine			
Sector	Social Group	Service	Pit	Septic tank/flush	not known	Others	n.r  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	all
	ST	0	766	233	1	0	0	1000
	SC	27	671	291	6	5	0	1000
Rural	OBC	10	768	217	1	4	0	1000
	Others	12	786	200	2	0	0	1000
	All	12	764	219	1	3	0	999
	ST	0	546	454	0	0	0	1000
	SC	3	531	452	3	11	0	1000
Urban	OBC	18	473	501	4	4	0	1000
	Others	10	414	569	4	3	0	1000
	All	15	459	519	4	4	0	1001
	ST	0	634	365	1	0	0	1000
Rural and	SC	23	680	285	6	6	0	1000
Urban	OBC	12	606	376	1	4	0	999
Combined	Others	12	581	404	2	1	0	1000
	All	13	605	377	2	3	0	1000
no. of sample	hhs	113	6542	2222	37	73	0	8987

Table 11 : Number of households having electricity for domestic use per 1000 distribution by the type of electric wiring for each household social group

Sector	Social Crtoup	no. of hhs having electricity for domestic use per	per 1000	distribution of hhs	s having electricity electric wiring	per 1000 distribution of hhs having electricity for domestic use by type of electric wiring							
Sector	Social Giloup	domestic use per 1000 hhs	conduit	fixed to the walls	temporary	n.r	all	of hhs with electricity					
	ST	570	723	241	36	0	1000	47					
	SC	880	547	403	50	0	1000	639					
Rural	OBC	953	729	253	18	0	1000	2866					
	Others	964	711	282	7	0	1000	1498					
	All	943	704	278	18	0	1000	5050					
	ST	862	310	690	0	0	1000	12					
	SC	912	463	481	56	0	1000	211					
Urban	OBC	980	708	275	17	0	1000	2031					
	Others	993	737	256	5	0	1000	927					
	All	979	700	284	16	0	1000	3181					
	ST	589	683	284	33	0	1000	59					
Rural and	SC	885	533	416	51	0	1000	850					
Urban	OBC	960	724	259	17	0	1000	4897					
Combined	Others	970	717	276	7	0	1000	2425					
	All	952	704	279	17	0	1000	8231					

Table 12 : Per 1000 distribution of households by the facility of drinking water, latrine type and electricity as primary source for each household social group

	Social	Households having the facilities of													
	Grtoup	drinking water within premises					drinking water outside premises								
Sector		exclusive use/shared latrine		public or community latrine		no latrine		exclusive use/shared latrine		public or community latrine		no latrine		all	Sample hhs
		electricity	no electricity	electricity	no electricity	electricity	no electricity	electricity	no electricity	electricity	no electricity	electricity	no electricity		
	ST	452	141	0	32	0	18	116	103	0	0	1	137	1000	110
	SC	491	37	0	0	10	4	352	45	0	2	28	31	1000	933
Rural	OBC	741	19	1	0	8	2	194	18	1	0	9	7	1000	3324
	Others	863	17	0	1	2	1	92	14	1	0	7	2	1000	1681
	All	750	22	0	1	6	2	177	21	1	0	10	10	1000	6048
	ST	479	10	0	0	0	0	383	128	0	0	0	0	1000	15
	SC	625	15	1	0	25	7	220	53	5	3	36	10	1000	240
Urban	OBC	751	7	5	0	3	1	217	7	2	0	3	4	1000	2096
	Others	911	2	2	0	2	0	76	5	0	0	2	0	1000	935
	All	791	6	4	0	4	1	174	10	2	0	5	3	1000	3286
	ST	454	132	0	30	0	17	134	104	0	0	1	128	1000	125
Rural and	SC	513	34	0	0	12	4	330	47	1	2	29	28	1000	1173
Urban	OBC	745	16	2	0	7	2	199	15	1	0	8	6	1000	5420
Combined	Others	873	14	1	1	2	1	88	12	0	0	6	2	1000	2616
	All	758	19	1	1	6	2	176	19	1	0	9	8	1000	9334
no. of samp	no. of sample hhs		319	16	7	61	88	1800	437	27	10	113	242	9334	XX

Table 13: Per 1000 distribution of households living in a house by plinth area of the house for each structure type

_	Structure type	per	per 1000 distribution of households living in a house by plinth area of the house (sq. meter)										average plinth area	sample no. of
Sector		less than 20	20 - 30	30- 40	40-50	50-75	75-100	100- 150	150- 200	200 or more	n.r.	all	(sq.meter 0.00)	hhs living in a house
	Pucca	13	30	47	68	390	263	167	17	5	0	1000	76.62	2265
	Semi-pucca	28	77	127	144	448	141	30	4	1	0	1000	57.83	2745
Rural	Serviceable katcha	298	233	233	106	120	2	3	0	5	0	1000	32.96	731
Kuiai	Unserviceable katcha	533	306	113	39	8	1	0	0	0	0	1000	23.92	306
	all katcha	369	257	196	86	85	2	2	0	3	0	1000	30.19	1037
	all	30	56	85	100	405	204	105	12	3	0	1000	67.45	6047
	Pucca	32	25	33	87	359	241	166	33	24	0	1000	83.64	1959
	Semi-pucca	27	76	106	175	424	148	38	4	2	0	1000	58.79	1229
Urban	Serviceable katcha	369	333	59	138	96	5	0	0	0	0	1000	29.33	80
Cibaii	Unserviceable katcha	245	713	28	0	14	0	0	0	0	0	1000	22.37	18
	all katcha	358	368	56	125	88	5	0	0	0	0	1000	28.69	98
	all	38	50	59	118	374	204	119	22	16	0	1000	73.86	3286
	Pucca	18	29	43	73	382	257	167	21	10	0	1000	78.4	4224
	Semi-pucca	28	77	123	150	442	142	32	4	2	0	1000	58.02	3974
Rural and urban	Serviceable katcha	313	256	193	114	114	3	3	0	4	0	1000	32.13	811
combined	Unserviceable katcha	516	332	107	36	8	1	0	0	0	0	1000	23.82	324
Combined	all katcha	368	276	170	93	86	2	2	0	3	0	1000	29.91	1135
	all	32	55	79	104	398	204	108	14	6	0	1000	68.92	9333
no. of sample hhs		809	840	921	1105	3165	1478	829	123	63	0	9333	XX	XX

Table 14 RURAL : Per 1000 distribution of households living in a house by type of use of the house for each type of structure and kitchen type

Structure type/Kitchen		Per 1000		Type of use of house							
		distribution of hhs living in a house	Residential only	residential- cum- commercial	others	n.r.	all	sample no. of hhs living in a house			
	Pucca	856	988	10	2	0	1000	2265			
õ	Semi-pucca	114	992	7	1	0	1000	2745			
re typ	Serviceable katcha	21	992	8	0	0	1000	731			
Structure type	Unserviceable katcha	9	1000	0	0	0	1000	306			
	all katcha	30	995	5	0	0	1000	1037			
	all	1000	990	9	1	0	1000	6047			
e	With tap	409	987	11	2	0	1000	1659			
ιTyp	without tap	557	992	8	0	0	1000	3685			
Kitchen Type	no separate kitchen	34	992	0	8	0	1000	703			
入	All	1000	990	9	1	0	1000	6047			
no. of sample hhs		х	5992	45	10	0	6047	XX			

Table 14 Urban: Per 1000 distribution of households living in a house by type of use of the house for each type of structure and kitchen type

Structure type/Kitchen		Per 1000		sample no.				
		distribution of hhs living in a house	Residential only	residential- cum- commercial	others	n.r.	all	of hhs living in a house
	Pucca	930	966	23	11	0	1000	1959
မွ	Semi-pucca	60	980	12	8	0	1000	1229
Structure type	Serviceable katcha	8	990	10	0	0	1000	80
tructu	Unserviceable katcha	2	1000	0	0	0	1000	18
Š	all katcha	10	990	10	0	0	1000	98
	All	1000	972	19	9	0	1000	3286
ā	With tap	527	967	26	7	0	1000	1671
Kitchen Type	without tap	424	977	11	12	0	1000	1476
itche	no separate kitchen	49	987	3	9	0	1000	139
	All	1000	972	19	9	0	1000	3286
no. of sample hhs		XX	3205	51	30	0	3286	

Table 14 Rural & Urban: Per 1000 distribution of households living in a house by type of use of the house for each type of structure and kitchen type

		Per 1000		Type of use of house							
	Structure type/Kitchen	distribution of hhs living in a house	Residential only	residential- cum- commercial	others	n.r.	all	sample no. of hhs living in a house			
	Pucca	874	983	13	4	0	1000	4224			
ě	Semi-pucca	97	990	8	2	0	1000	3974			
re typ	Serviceable katcha	21	992	8	0	0	1000	811			
Structure type	Unserviceable katcha	8	1000	0	0	0	1000	324			
S	all katcha	29	994	6	0	0	1000	1135			
	all	1000	986	11	3	0	1000	9333			
ē	With tap	436	981	15	4	0	1000	3330			
Kitchen Type	without tap	527	988	9	3	0	1000	5161			
itche	no separate kitchen	38	991	1	8	0	1000	842			
	All	1000	986	11	3	0	1000	9333			
no.	of sample hhs	х	9197	96	40	0	9333	XX			

Table 15: Per 1000 distribution of households living in a house by type of structure for each condition of structure

	T ( ) .		condition of structure								
Sector	Type of structure	good	satisfactory	bad	n.r.	all	hhs living in a house				
	Pucca	718	342	142	0	556	2265				
	Semi-pucca	281	641	514	0	414	2745				
ral	Serviceable katcha	1	15	223	0	21	731				
Rural	Unserviceable katcha	0	2	120	0	9	306				
	all katcha	1	17	343	0	30	1037				
	all	1000	1000	1000	0	1000	6047				
	Pucca	806	373	157	0	634	1959				
	Semi-pucca	191	607	611	0	343	1229				
Urban	Serviceable katcha	2	20	201	0	21	80				
μΩ	Unserviceable katcha	0	0	32	0	2	18				
	all katcha	2	20	232	0	23	98				
	all	1000	1000	1000	0	1000	3286				
_	Pucca	739	348	146	0	574	4224				
bar	Semi-pucca	260	634	535	0	397	3974				
d un	Serviceable katcha	1	16	218	0	21	811				
tal and urb combined	Unserviceable katcha	0	2	101	0	8	324				
Rural and urban combined	all katcha	1	18	319	0	29	1135				
	all	1000	1000	1000	0	1000	9333				
no. of	sample hhs	4366	3088	1879	0	9333	XX				

Table 16 RURAL : Per 1000 distribution of households with own dwelling by period since built for each type of structure

			type of structure				sample no. of	
Period since built	Pucca	semi-pucca katcha	serviceable katcha	unserviceable katcha	all katcha	all	hhs with own dwelling	
less than 1	26	12	60	92	70	22	180	
1 - 5	138	35	131	309	187	97	741	
5 - 10	434	202	259	339	284	333	1821	
10 - 20	293	351	260	92	207	315	1704	
20 - 40	86	305	189	166	182	180	1008	
40 - 60	20	68	90	2	62	42	261	
60 - 80	1	17	8	0	6	8	51	
80 and more	1	9	3	0	2	4	22	
n.r	0	0	0	0	0	0	0	
all	999	999	1000	1000	1000	1001	5788	
per 1000 distribution of hhs with own dwelling	855	110	21	10	30	1000	XX	
Sample hhs with own dwelling	2160	2624	700	304	1004	5788	XX	

Table 16 Urban : Per 1000 distribution of households with own dwelling by period since built for each type of structure

			type of structure				comple no of bhe
Period since built	Pucca	semi-pucca katcha	serviceable katcha	unserviceable katcha	all katcha	all	sample no. of hhs with own dwelling
less than 1	23	4	10	0	9	16	45
1 - 5	127	32	230	129	217	96	280
5 - 10	378	130	204	475	239	289	806
10 - 20	316	295	259	183	250	307	855
20 - 40	126	396	217	115	204	221	640
40 - 60	26	97	79	99	82	52	176
60 - 80	4	22	0	0	0	10	31
80 and more	0	24	0	0	0	8	26
n.r	0	0	0	0	0	0	0
all	1000	1000	1000	1000	1000	1000	2859
per 1000 distribution of hhs with own dwelling	882	99	17	2	19	1000	XX
Sample hhs with own dwelling	1700	1076	65	18	83	2859	XX

Table 16 Rural & Urban : Per 1000 distribution of households with own dwelling by period since built for each type of structure

			type of s	structure			sample no. of hhs
Period since built	Pucca	semi-pucca katcha	serviceable katcha	unserviceable katcha	all katcha	all	with own dwelling
less than 1	25	11	52	86	61	21	225
1 - 5	135	35	148	297	191	97	1021
5 - 10	421	189	250	347	278	324	2627
10 - 20	299	341	260	98	213	313	2559
20 - 40	95	322	194	162	185	189	1648
40 - 60	22	73	88	9	65	44	437
60 - 80	1	18	7	0	5	8	82
80 and more	1	11	2	0	2	5	48
n.r	0	0	0	0	0	0	0
all	999	1000	1001	999	1000	1001	8647
per 1000 distribution of hhs with own dwelling	871	101	20	8	28	1000	XX
Sample hhs with own dwelling	3860	3700	765	322	1087	8647	XX

Table 17 RURAL : Per 1000 distribution of households with own dwelling by year of completion of the dwelling for each year of start of the dwelling unit which were built during the last 5 years

			Υe	ar of completi	on			Per 1000 distribution	sample hhs
Year of start	2004	2005	2006	2007	2008	2009	all	of hhs with own dwelling units	with own dwelling
Prior to 1995	0	0	0	0	0	0	0	0	0
between 1995 and 1999	0	330	670	0	0	0	1000	3	2
between 2000 and 2004	408	333	234	5	16	4	1000	281	208
2005	0	296	453	114	74	63	1000	183	149
2006	0	0	353	555	92	0	1000	266	240
2007	0	0	0	384	586	30	1000	171	174
2008	0	0	0	0	842	158	1000	92	132
2009	0	0	0	0	0	1000	1000	4	14
All	115	149	245	235	220	36	1000	1000	921
Sample hhs with own dwelling	103	139	228	215	202	32	921	XX	XX

Table 17 Urban : Per 1000 distribution of households with own dwelling by year of completion of the dwelling for each year of start of the dwelling unit which were built during the last 5 years

			Υe	ear of completi	on			Per 1000 distribution of	sample hhs
Year of start	2004	2005	2006	2007	2008	2009	all	hhs with own dwelling units	with own dwelling
Prior to 1995	0	0	0	0	0	0	0	0	0
between 1995 and 1999	536	0	273	191	0	0	1000	6	3
between 2000 and 2004	423	363	160	39	15	0	1000	377	122
2005	0	217	455	244	69	15	1000	165	59
2006	0	0	289	475	224	12	1000	270	80
2007	0	0	0	395	605	0	1000	130	44
2008	0	0	0	0	719	281	1000	52	17
2009	0	0	0	0	0	0	0	0	0
All	163	173	215	236	193	20	1000	1000	325
Sample hhs with own dwelling	45	58	76	73	69	4	325	XX	XX

Table 17 Rural & Urban : Per 1000 distribution of households with own dwelling by year of completion of the dwelling for each year of start of the dwelling unit which were built during the last 5 years

			Yea	r of completion	า			Per 1000 distribution of	sample hhs
Year of start	2004	2005	2006	2007	2008	2009	all	hhs with own dwelling units	with own dwelling
Prior to 1995	0	0	0	0	0	0	0	0	0
between 1995 and 1999	184	217	533	66	0	0	1000	4	5
between 2000 and 2004	412	341	215	14	15	3	1000	300	330
2005	0	282	453	138	73	54	1000	180	208
2006	0	0	340	539	119	2	1000	267	320
2007	0	0	0	386	589	25	1000	162	218
2008	0	0	0	0	826	174	1000	84	149
2009	0	0	0	0	0	1000	1000	3	14
All	124	154	239	236	214	33	1000	1000	1246
Sample hhs with own dwelling	148	197	304	288	271	36	1246	XX	XX

Table 18 RURAL : Per 1000 distribution of households living in a house by type of drainage arrangements for each type of structure and household social group

				drair	nage arranger	ment			sample no. of hhs
Туре	of structure/hhd social group	under ground	covered pucca	open pucca	open katcha	no drainage	n.r.	all	living in a house
	Pucca	50	111	227	143	469	0	1000	2265
ure	Semi-pucca	11	36	204	195	554	0	1000	2745
structi	Serviceable katcha	0	1	25	96	878	0	1000	731
Type of structure	Unserviceable katcha	0	0	14	145	840	0	1000	306
Ty	all katcha	0	0	22	111	867	0	1000	1037
	all	32	77	212	163	516	0	1000	6047
	ST	0	63	40	340	557	0	1000	110
dno	SC	17	22	196	172	592	0	1000	933
Social Group	OBC	35	78	211	140	536	0	1000	3323
Soci	Others	33	93	225	193	455	0	1000	1681
	All	32	77	212	163	516	0	1000	6047
Sampl house	Sample no. of hhs living in a house		350	1075	968	3509	0	6047	XX

Table 18 Urban : Per 1000 distribution of households living in a house by type of drainage arrangements for each type of structure and household social group

_				drair	nage arranger	ment			sample no. of hhs
Туре	of structure/hhd social group	under ground	covered pucca	open pucca	open katcha	no drainage	n.r.	all	living in a house
	Pucca	154	213	194	89	350	0	1000	1959
ure	Semi-pucca	52	71	162	130	585	0	1000	1229
struct	Serviceable katcha	2	0	41	70	887	0	1000	80
Type of structure	Unserviceable katcha	0	0	151	28	821	0	1000	18
Ty	all katcha	1	0	51	66	881	0	1000	98
	all	116	159	180	103	443	0	1000	3286
	ST	274	42	229	186	269	0	1000	15
dno	SC	32	42	90	130	705	0	1000	240
Social Group	OBC	109	140	171	109	471	0	1000	2096
Soci	Others	146	226	218	82	328	0	1000	935
	All	116	159	180	103	443	0	1000	3286
Sampl house	Sample no. of hhs living in a house		523	653	377	1421	0	3286	XX

Table 18 Rural & Urban : Per 1000 distribution of households living in a house by type of drainage arrangements for each type of structure and household social group

_				drair	nage arranger	ment			sample no. of hhs
Туре	of structure/hhd social group	under ground	covered pucca	open pucca	open katcha	no drainage	n.r.	all	living in a house
	Pucca	76	137	219	129	439	0	1000	4224
ure	Semi-pucca	19	43	196	182	560	0	1000	3974
structi	Serviceable katcha	0	0	29	90	880	0	1000	811
Type of structure	Unserviceable katcha	0	0	23	137	839	0	1000	324
Ty	all katcha	0	0	27	103	869	0	1000	1135
	all	51	95	204	149	500	0	1000	9333
	ST	18	62	53	329	538	0	1000	125
dno	SC	20	26	178	165	611	0	1000	1173
Social Group	OBC	53	93	201	132	520	0	1000	5419
Soci	Others	58	123	223	169	427	0	1000	2616
	All	51	95	204	149	500	0	1000	9333
Sampl house	Sample no. of hhs living in a house		873	1728	1345	4930	0	9333	XX

Table 19 RURAL : Per 1000 households living in a house by arranement of garbage collection for each (i) type of structure and (ii) household social group

Tuno	of otructure/labed oppical			arrangement of o	garbage collection			no. of sample
Туре	of structure/hhd social group	Panchayet/ municipality/ corporation	by resident	others	no arrangement	n.r.	all	hhs living in a house
	Pucca	4	297	146	553	0	1000	2265
ure	Semi-pucca	4	253	113	630	0	1000	2745
structure	Serviceable katcha	0	204	94	702	0	1000	731
Type of s	Unserviceable katcha	0	69	119	812	0	1000	306
$T_{YI}$	all katcha	0	162	101	736	0	1000	1037
	all	4	275	131	591	0	1000	6047
	ST	0	303	49	648	0	1000	110
dno.	SC	1	209	75	716	0	1000	933
Social Group	OBC	4	248	124	623	0	1000	3323
Soci	Others	5	341	165	490	0	1000	1681
	All	4	275	131	591	0	1000	6047
Sample a house	e no. of hhs living in	33	1643	665	3706	0	6047	XX

Table 19 Urban : Per 1000 households living in a house by arranement of garbage collection for each (i) type of structure and (ii) household social group

Tuno	of otructure/labed oppical			arrangement of o	garbage collection			no. of sample
Туре	of structure/hhd social group	Panchayet/ municipality/ corporation	by resident	others	no arrangement	n.r.	all	hhs living in a house
	Pucca	246	233	63	458	0	1000	1959
ure	Semi-pucca	128	188	91	594	0	1000	1229
structure	Serviceable katcha	52	11	78	859	0	1000	80
Type of s	Unserviceable katcha	18	25	28	929	0	1000	18
$T_{YI}$	all katcha	48	13	74	865	0	1000	98
	all	201	212	73	514	0	1000	3286
	ST	249	277	186	288	0	1000	15
dno.	SC	112	99	41	747	0	1000	240
Social Group	OBC	175	199	75	551	0	1000	2096
Soci	Others	272	264	74	390	0	1000	935
	All	201	212	73	514	0	1000	3286
Sample no. of hhs living in a house		675	750	248	1613	0	3286	XX

Table 19 Rural & Urban : Per 1000 households living in a house by arranement of garbage collection for each (i) type of structure and (ii) household social group

				arrangement of g	garbage collection			no. of sample
Type of	structure/hhd social group	Panchayet/ municipality/ corporation	by resident	others	no arrangement	n.r.	all	hhs living in a house
	Pucca	65	281	125	529	0	1000	4224
ure	Semi-pucca	28	240	109	623	0	1000	3974
structure	Serviceable katcha	12	160	90	738	0	1000	811
Type of s	Unserviceable katcha	1	66	113	820	0	1000	324
$Ty_1$	all katcha	9	135	96	760	0	1000	1135
	all	49	260	118	573	0	1000	9333
	ST	16	301	58	624	0	1000	125
dno	SC	19	190	69	721	0	1000	1173
Social Group	OBC	46	236	112	606	0	1000	5419
Soci	Others	64	324	144	467	0	1000	2616
	All	49	260	118	573	0	1000	9333
Sample house	e no. of hhs living in a	708	2393	913	5319	0	9333	XX

Table 20 RURAL : Per 1000 distribution of households living in a house by proximity of house to animal shed for each type of structure and social group

				Households with			
Type	of structure/hhd social group		anima	l shed			sample no of hhs living in a
Турс	or structure, minu social group	no animal	attached to building	detached from the building	n.r.	all	house
	Pucca	813	22	165	0	1000	2265
ture	Semi-pucca	756	45	199	0	1000	2745
struci	Serviceable katcha	827	41	132	0	1000	731
Type of structure	Unserviceable katcha	963	5	31	0	1000	306
Typ	all katcha	869	30	101	0	1000	1037
	all	791	32	177	0	1000	6047
	ST	882	34	85	0	1000	110
dno,	SC	796	40	164	0	1000	933
Social Group	OBC	828	29	144	0	1000	3323
Soci	Others	722	35	243	0	1000	1681
	All	791	32	177	0	1000	6047
Sample n	no. of hhs living in a house	4943	166	938	0	6047	XX

Table 20 Urban : Per 1000 distribution of households living in a house by proximity of house to animal shed for each type of structure and social group

				Households with			
Type	of structure/hhd social group		anima	l shed			sample no of hhs living in a
l jpo	or outdotal of find social group	no animal	attached to building	detached from the building	n.r.	all	house
	Pucca	938	8	54	0	1000	1959
ture	Semi-pucca	895	25	80	0	1000	1229
struci	Serviceable katcha	856	0	144	0	1000	80
Type of structure	Unserviceable katcha	1000	0	0	0	1000	18
Typ	all katcha	869	0	131	0	1000	98
	all	921	14	65	0	1000	3286
	ST	949	51	0	0	1000	15
dno	SC	915	12	73	0	1000	240
Social Group	OBC	924	16	60	0	1000	2096
Soci	Others	918	10	72	0	1000	935
	All	921	14	65	0	1000	3286
Sample r	no. of hhs living in a house	3021	44	221	0	3286	XX

Table 20 Rural & Urban : Per 1000 distribution of households living in a house by proximity of house to animal shed for each type of structure and social group

				Households with			
Type	of structure/hhd social group		anima	l shed			sample no of hhs living in a
l jpo	or outdotal of find social group	no animal	attached to building	detached from the building	n.r.	all	house
	Pucca	844	19	137	0	1000	4224
ture	Semi-pucca	783	41	176	0	1000	3974
struci	Serviceable katcha	833	31	135	0	1000	811
Type of structure	Unserviceable katcha	966	5	29	0	1000	324
Typ	all katcha	869	24	107	0	1000	1135
	all	821	28	151	0	1000	9333
	ST	886	35	79	0	1000	125
dno	SC	816	35	149	0	1000	1173
Social Group	OBC	851	25	123	0	1000	5419
Soci	Others	765	30	205	0	1000	2616
	All	821	28	151	0	1000	9333
Sample r	no. of hhs living in a house	7964	210	1159	0	9333	XX

Table 21 : Per 1000 distribution of households living in a house by type of approach road/lane/ constructed path to the house for each structure type

			a	oproach road /	lane / construct	ed path			per 1000	sample no.
sector	Type of structure	moto with street light	rable without street light	oth with street light	ers without street light	no direct opening	n.r.	all	distribution of hhs living in a house	of hhs living in a house
	Pucca	353	228	98	214	107	0	1000	556	2265
	Semi-pucca	206	179	81	317	217	0	1000	414	2745
Rural	Serviceable katcha	140	127	57	272	405	0	1000	21	731
Ru	Unserviceable katcha	40	97	86	174	603	0	1000	9	306
	all katcha	109	118	65	242	466	0	1000	30	1037
	all	285	204	90	258	163	0	1000	1000	6047
	Pucca	496	151	119	167	67	0	1000	634	1959
	Semi-pucca	342	146	87	243	183	0	1000	343	1229
Urban	Serviceable katcha	258	65	122	96	459	0	1000	21	80
Url	Unserviceable katcha	0	0	74	236	690	0	1000	2	18
	all katcha	234	59	117	109	480	0	1000	23	98
	all	438	147	108	192	116	0	1000	1000	3286
	Pucca	389	208	103	202	97	0	1000	574	4224
	Semi-pucca	233	172	82	303	210	0	1000	397	3974
al and urb combined	Serviceable katcha	167	112	72	232	417	0	1000	21	811
l an omb	Unserviceable katcha	38	91	85	178	608	0	1000	8	324
rural and urban combined	all katcha	132	107	75	218	468	0	1000	29	1135
	all	320	191	94	242	153	0	1000	1000	9333
Sample house	no. of hhs living in a	2816	1635	828	2316	1738	0	9333	XX	XX

Table 22 : Per 1000 distribution of households with dwelling units by type of dwelling and tenurial status of dwelling for each structure

								Т	ype of o	dwelling								
			Indep	endent h	nouse				Flat					Others				
		Т	enurials	status of	dwellin	g	T	enurial s	status of	dwellir	ng	T	enurial s	tatus o	f dwellin	ıg		sample
sector	Type of structure		hired					hired					hired				all	no. of hhs with
	Silucture	owned	employer quarter	sueupo	sueupo	all	pəuwo	employer quarter	others	others	all	pəuwo	employer quarter	others	others	all	all	dwelling
	Pucca	951	5	21	7	983	0	0	9	0	9	0	3	2	2	8	1000	2265
Rural	Semi-pucca	954	5	18	8	985	1	6	1	3	10	1	1	3	0	5	1000	2745
Ru	katcha	958	2	19	17	995	0	0	0	0	0	4	0	0	0	5	1000	1037
	all	952	5	19	8	984	0	2	5	1	9	1	2	2	1	6	1000	6047
	Pucca	830	8	66	6	910	21	6	30	1	57	5	0	28	0	33	1000	1959
Urban	Semi-pucca	864	6	68	10	948	3	1	10	1	15	6	2	25	4	37	1000	1229
Urk	katcha	669	0	215	69	953	0	0	0	0	0	47	0	0	0	47	1000	98
	all	838	7	70	8	924	14	4	22	1	41	6	1	26	2	35	1000	3286
- p	Pucca	920	5	32	7	964	6	1	14	0	22	1	2	9	2	14	1000	4224
rural and urban combined	Semi-pucca	936	5	28	9	978	1	5	3	2	11	2	1	7	1	11	1000	3974
ural and urban ombine	katcha	904	1	55	26	988	0	0	0	0	0	12	0	0	0	12	1000	1135
r CC	all	926	5	31	8	970	4	3	9	1	17	2	2	8	1	13	1000	9333
Sample 1 living in	no. of hhs a house	8564	50	314	87	9015	40	31	91	5	167	43	23	72	13	151	9333	XX

Table 23 RURAL: Average household size (0.0), average number (0.0) of living rooms & other rooms and average floor area (sq.meter.in 0.00) of the dwelling for households with dwelling for households with dwelling for each type of structure and tenurial status of the dwelling

Type	of structure/ tenurial status of	Avg. hhd	Average (0.0)			Averaç	ge floor are	a (sq. mete	r 0.00) of the o	dwelling		sample no. of
	dwelling	size (0.0)	living rooms	other rooms	living rooms	other rooms	all room	covered veranda	uncovered veranda	all veranda	all	hhs with dwelling
	Pucca	4.4	3.45	2.11	43.15	19.8	62.94	2.76	4.03	6.79	69.74	2265
ture	Semi-pucca	4.4	3.12	1.7	31.94	13.95	45.9	1.98	3.02	5	50.9	2745
structure	Serviceable katcha	3.9	1.73	0.99	16.24	7.16	23.39	0.56	2.13	2.69	26.08	731
of s	Unserviceable katcha	3.9	1.36	0.79	12.79	6.64	19.43	0.25	1.4	1.65	21.08	306
Type of	all katcha	3.9	1.62	0.92	15.18	7	22.18	0.47	1.9	2.37	24.55	1037
	all	4.4	3.26	1.91	37.67	16.99	54.66	2.37	3.55	5.92	60.58	6047
J	Owned	4.4	3.3	1.92	38.11	17.13	55.24	2.43	3.6	6.02	61.27	5788
Tenurial status of dwelling	Employer Quarter	3.7	1.85	1.96	20.14	12.1	32.24	0.02	0.79	0.81	33.05	54
urial statu dwelling	Other hired accommodation	3.5	2.65	1.6	30.2	14.24	44.44	1.41	3.06	4.48	48.92	144
urial dwe	all hire	3.5	2.45	1.69	27.66	13.7	41.36	1.06	2.49	3.55	44.91	198
[enu	others	3.9	2.72	1.59	32.07	16.31	48.38	1.61	2.7	4.32	52.7	61
Ţ	all	4.4	3.26	1.91	37.67	16.99	54.66	2.37	3.55	5.92	60.58	6047
estimate	estimated (00) no. of rooms		165907	97063	X	X	Х	Χ	X	Χ	Х	X
estimate	estimated floor area(sq.meter 0.00)		X	X	1918	865	2783	121	181	301	3085	X
Sample	no. of rooms	Χ	16969	10059	X	X	Х	Χ	X	Х	Х	Χ

Table 23 URBAN: Average household size (0.0), average number (0.0) of living rooms & other rooms and average floor area (sq.meter.in 0.00) of the dwelling for households with dwelling for households with dwelling for each type of structure and tenurial status of the dwelling

Type	of structure/ tenurial status of	Avg. hhd	Average (0.0)			Averaç	ge floor are	a (sq. mete	r 0.00) of the o	dwelling		sample no. of
	dwelling	size (0.0)	living rooms	other rooms	living rooms	other rooms	all room	covered veranda	uncovered veranda	all veranda	all	hhs with dwelling
	Pucca	4	3.62	2.08	47.18	19.77	66.95	2.59	4.05	6.64	73.59	1959
ture	Semi-pucca	4.6	3.16	1.69	32.73	13.39	46.12	1.52	3.41	4.94	51.06	1229
structure	Serviceable katcha	3.9	1.9	0.96	16.87	6.41	23.28	0.1	1.07	1.17	24.46	80
jo a	Unserviceable katcha	4	1.19	1.05	9.72	8.45	18.16	0.19	0.95	1.14	19.3	18
Type of	all katcha	3.9	1.84	0.97	16.21	6.6	22.81	0.11	1.06	1.17	23.98	98
	all	4.2	3.42	1.92	41.51	17.28	58.79	2.17	3.76	5.93	64.73	3286
J	Owned	4.4	3.58	1.98	43.69	18.07	61.76	2.3	3.96	6.26	68.02	2859
ns of	Employer Quarter	3.1	2.66	1.27	29.98	10.77	40.75	1.04	1.74	2.77	43.52	50
Tenurial status dwelling	Other hired accommodation	3.4	2.47	1.55	28.4	12.71	41.11	1.43	2.69	4.12	45.23	333
ırial dwe	all hire	3.3	2.49	1.52	28.54	12.53	41.07	1.39	2.61	4	45.08	383
[enr	others	3.5	2.37	1.57	25.85	12.18	38.03	0.97	2.32	3.29	41.33	44
	all	4.2	3.42	1.92	41.51	17.28	58.79	2.17	3.76	5.93	64.73	3286
estimate	estimated (00) no. of rooms		51631	28968	Х	X	Х	X	X	Χ	Х	Х
estimate	estimated floor area(sq.meter 0.00)		X	Χ	627	261	887	33	57	90	977	X
Sample	Sample no. of rooms		11077	6285	Х	X	Х	X	Χ	Х	X	X

Table 23 RURAL & URBAN: Average household size (0.0), average number (0.0) of living rooms & other rooms and average floor area (sq.meter.in 0.00) of the dwelling for households with dwelling for each type of structure and tenurial status of the dwelling

Туре	of structure/ tenurial status of	Avg. hhd	Average nu			Averaç	ge floor are	a (sq. mete	r 0.00) of the o	dwelling		sample no. of
	dwelling	size (0.0)	living rooms	other rooms	living rooms	other rooms	all room	covered veranda	uncovered veranda	all veranda	all	hhs with dwelling
	Pucca	4.3	3.49	2.1	44.16	19.79	63.95	2.72	4.04	6.76	70.71	4224
ture	Semi-pucca	4.4	3.13	1.7	32.1	13.84	45.94	1.89	3.09	4.98	50.93	3974
structure	Serviceable katcha	3.9	1.77	0.98	16.38	6.99	23.37	0.46	1.88	2.34	25.71	811
jo	Unserviceable katcha	3.9	1.35	0.8	12.59	6.76	19.35	0.25	1.37	1.62	20.97	324
Type	all katcha	3.9	1.66	0.93	15.37	6.93	22.3	0.4	1.75	2.15	24.44	1135
	all	4.3	3.3	1.91	38.55	17.06	55.61	2.32	3.6	5.92	61.53	9333
J	Owned	4.4	3.35	1.93	39.29	17.33	56.61	2.4	3.67	6.07	62.69	8647
status of lling	Employer Quarter	3.5	2.07	1.77	22.85	11.73	34.59	0.3	1.05	1.35	35.94	104
	Other hired accommodation	3.4	2.55	1.57	29.19	13.38	42.57	1.42	2.85	4.28	46.85	477
Tenurial	all hire	3.4	2.47	1.61	28.11	13.1	41.21	1.23	2.55	3.78	45	581
[enr	others	3.8	2.63	1.58	30.53	15.29	45.82	1.46	2.61	4.06	49.89	105
	all	4.3	3.3	1.91	38.55	17.06	55.61	2.32	3.6	5.92	61.53	9333
	estimated (00) no. of rooms		217537	126032	X	X	X	X	X	Χ	Χ	X
estimat 0.00)	estimated floor area(sq.meter 0.00)		Х	Х	2545	1126	3671	153	237	391	4062	Х
Sample	Sample no. of rooms		28046	16344	X	X	X	X	X	Χ	X	Χ

Table 24 RURAL : Per 1000 distribution of households by the structure type of the dwelling unit and per capita floor area for each household social group

				Structu	re Type		•	
Househ	old Social Group				Katcha			Sample no. of hhs
		Pucca	Semi Pucca	Serviceable Katcha	unserviceable katcha	all Katcha	All	living in a house
ion	ST	495	434	44	27	70	1000	110
ribut	SC	515	406	43	37	80	1000	933
Per 1000 distribution	OBC	845	225	22	8	30	1000	3323
1000	Others	837	151	10	2	12	1000	1681
Per	All	856	114	21	9	30	1000	6047
area in 0	ST	12.46	7.16	4.49	5.39	4.69	8.46	
or are	SC	12.8	8.88	5.28	5.46	5.36	10.06	
capita floor a sq. mt 0.00	OBC	15.45	11.39	6.9	5.53	6.55	13.5	
capita sq.	Others	17.7	14.07	8.97	4.82	8.25	16.36	
Per	All	16.02	11.59	6.7	5.45	6.32	13.91	
Sample in a hous	no. of hhs living se	2265	2745	731	306	1037	6047	

Table 24 Urban : Per 1000 distribution of households by the structure type of the dwelling unit and per capita floor area for each household social group

				Structu	re Type		-	
Househ	old Social Group				Katcha			Sample no. of hhs
		Pucca	Semi Pucca	Serviceable Katcha	unserviceable katcha	all Katcha	All	living in a house
ion	ST	893	88	19	0	19	1000	15
Per 1000 distribution	SC	867	40	92	1	93	1000	240
) dist	OBC	897	81	19	3	22	1000	2096
1000	Others	950	42	8	0	8	1000	935
Per	All	930	60	8	2	10	1000	3286
area in	ST	22.51	8.9	3.1	0	3.1	13.04	
or are	SC	12.69	9.09	5.82	1.92	5.74	10.36	
a floor a mt 0.00	OBC	16.9	10.79	5.84	5.08	5.73	14.19	
capita sq. n	Others	21.42	13.88	10.59	0	10.59	19.42	
Per	All	18.22	11.21	6.27	4.88	6.14	15.37	
Sample r in a hous	no. of hhs living	1959	1229	80	18	98	3286	

Table 25 RURAL: Per 1000 distribution (P) of households with dwelling by type of structure for each per capita floor area class, per capita floor areas (A in sq. mt 0.00) and average (0.0) household size (H) of the households for each type of structure

Per capita floor	Type of		S	Structure typ	е		per 1000	sample hhs
area (sq. mt) class	estimate	Pucca	Semi pucca	Katcha	n.r.	total	distribution of hhs	with dwelling
	P	0	198	802	0	1000	0	2
0 - 1	A	0	0.89	0.42	0	0.47		
	Н	0	5	10	0	9		
	P	86	436	478	0	1000	8	203
1 - 3	A	2.48	2.32	2.24	0	2.31		
	Н	8	5.8	5	0	5.6		
	P	316	464	220	0	1000	34	546
3 - 5	A	4.15	4.24	4.07	0	4.19		
	Н	5.4	6.7	4.4	0	5.8		
	P	248	672	80	0	1000	85	748
5 - 7	Α	6.24	6.15	5.87	0	6.16		
	Н	6	5.3	4.3	0	5.4		
	P	418	548	34	0	1000	102	696
7 - 9	Α	8.14	8	7.91	0	8.06		
	Н	5.8	5.3	3.9	0	5.5		
	P	457	519	24	0	1000	133	801
9 - 11	Α	10.01	9.96	9.91	0	9.98		
	Н	5.4	4.9	3.2	0	5.1		
	P	519	466	15	0	1000	111	607
11 - 13	Α	11.93	11.88	11.71	0	11.91		
	Н	4.9	4.4	3.2	0	4.6		
	P	641	347	13	0	1000	106	514
13 - 15	A	14	13.94	13.77	0	13.98		
	Н	4.7	4.1	1.8	0	4.4		
	P	683	312	5	0	1000	175	832
15 - 20	A	17.3	16.95	16.48	0	17.2		
	Н	4.1	3.8	2.3	0	4		
20 and	P	714	281	5	0	1000	245	1098
above	A	28.53	28.84	25.86	0	28.59		
	Н	3.2	2.3	1.6	0	3		
	P	556	414	30	0	1000	1000	6047
All	Α	16.02	11.59	6.32	0	13.91		
	Н	4.4	4.4	3.9	0	4.4		
sample no. of dwelling	hhs with	2265	2745	1037	0	6047	XX	XX

Table 25 Urban: Per 1000 distribution (P) of households with dwelling by type of structure for each per capita floor area class, per capita floor areas (A in sq. mt 0.00) and average (0.0) household size (H) of the households for each type of structure

Per capita floor	Type of		S	Structure typ	е		per 1000	sample hhs
area (sq. mt) class	estimate	Pucca	Semi pucca	Katcha	n.r.	total	distribution of hhs	with dwelling
	Р	0	0	1000	0	1000	0	1
0 - 1	A	0	0	0.93	0	0.93		
	Н	0	0	10	0	10		
	Р	165	676	159	0	1000	9	41
1 - 3	A	2.41	2.55	2.15	0	2.47		
	Н	6.1	6.7	6.1	0	6.5		
	P	184	600	217	0	1000	39	177
3 - 5	A	4.11	4.18	3.91	0	4.12		
	Н	5.8	6.4	5	0	6		
	P	398	520	82	0	1000	64	273
5 - 7	A	6.13	6.08	5.89	0	6.09		
	Н	6.4	6.7	3.8	0	6.4		
	Р	353	632	15	0	1000	88	329
7 - 9	Α	8.02	7.95	8.39	0	7.98		
	Н	5.9	5.3	3.9	0	5.5		
	P	523	465	12	0	1000	108	369
9 - 11	A	10.04	9.95	10.17	0	10		
	Н	4.8	4.8	2.9	0	4.8		
	P	573	409	19	0	1000	93	284
11 - 13	Α	11.92	11.93	11.85	0	11.93		
	Н	4.7	4.6	2.2	0	4.6		
	Р	746	250	4	0	1000	112	325
13 - 15	A	13.87	13.9	13.81	0	13.88		
	Н	3.9	3.9	3.5	0	3.9		
	P	688	301	11	0	1000	175	538
15 - 20	A	17.16	17.49	16.73	0	17.25		
	Н	4.2	3.5	1.3	0	3.9		
20 1	Р	819	177	4	0	1000	311	949
20 and	A	30.99	26.8	25.63	0	30.35		
above	Н	3.2	2.6	2	0	3.1		
	Р	634	343	23	0	1000	1000	3286
All	A	18.22	11.21	6.14	0	15.37		
	Н	4	4.6	3.9	0	4.2		
sample no. of dwelling	hhs with	1959	1229	98	0	3286	XX	XX

Table 25 Rural & Urban: Per 1000 distribution (P) of households with dwelling by type of structure for each per capita floor area class, per capita floor areas (A in sq. mt 0.00) and average (0.0) household size (H) of the households for each type of structure

Per capita floor	Type of		S	Structure typ	е		per 1000	sample hhs
area (sq. mt) class	estimate	Pucca	Semi pucca	Katcha	n.r.	total	distribution of hhs	with dwelling
	Р	0	145	855	0	1000	0	3
0 - 1	A	0	0.89	0.58	0	0.6		
	Н	0	5	10	0	9.3		
	Р	105	494	402	0	1000	8	244
1 - 3	A	2.46	2.4	2.23	0	2.35		
	Н	7.3	6.1	5.1	0	5.8		
	P	283	499	219	0	1000	36	723
3 - 5	A	4.14	4.22	4.03	0	4.17		
	Н	5.4	6.7	4.5	0	5.8		
	Р	275	644	81	0	1000	80	1021
5 - 7	A	6.21	6.14	5.87	0	6.15		
	Н	6.1	5.5	4.2	0	5.6		
	P	405	565	30	0	1000	99	1025
7 - 9	A	8.12	7.99	7.96	0	8.05		
	Н	5.8	5.3	3.9	0	5.5		
	P	470	509	22	0	1000	128	1170
9 - 11	A	10.02	9.95	9.94	0	9.99		
	Н	5.3	4.9	3.1	0	5.1		
	P	529	455	16	0	1000	107	891
11 - 13	A	11.93	11.89	11.74	0	11.91		
	Н	4.8	4.5	3	0	4.6		
	P	666	323	11	0	1000	107	839
13 - 15	A	13.97	13.94	13.78	0	13.96		
	Н	4.5	4.1	2	0	4.3		
	P	685	309	6	0	1000	175	1370
15 - 20	A	17.27	17.06	16.55	0	17.21		
	Н	4.1	3.7	1.9	0	4		
20 1	Р	742	253	5	0	1000	260	2047
20 and	A	29.26	28.41	25.8	0	29.08		
above	Н	3.2	2.4	1.7	0	3		
	P	574	397	29	0	1000	1000	9333
All	A	16.55	11.51	6.28	0	14.24		
	Н	4.3	4.4	3.9	0	4.3		
sample no. of dwelling	hhs with	4224	3974	1135	0	9333	XX	

Table 26 Rural : Per 1000 distribution of households with dwelling by type of ventilation for each type of structure and tenurial status of dwelling

Type of	structure/ tenurial status of dwelling		Ventilation of	dwelling unit		sample no. of hhs with
Турс от	Structure/ terianal status of aweiling	good	satisfactory	bad	all	dwelling
	Pucca	757	176	67	1000	2265
ure	Semi-pucca	380	477	143	1000	2745
structi	Serviceable katcha	12	199	789	1000	731
Type of structure	Unserviceable katcha	4	38	957	1000	306
TyF	all katcha	10	150	841	1000	1037
	all	578	300	122	1000	6047
હ્ય	Owned	583	298	119	1000	5788
lwellir	Employer Quarter	463	372	165	1000	54
s of ċ	Other hired accommodation	517	316	167	1000	144
statu	all hire	504	330	166	1000	198
Tenurial status of dwelling	others	464	327	209	1000	61
Te	all	578	300	122	1000	6047
sample 1	no. of hhs with dwelling	2435	1941	1671	6047	Х

Table 26 Urban : Per 1000 distribution of households with dwelling by type of ventilation for each type of structure and tenurial status of dwelling

Type of	structure/ tenurial status of dwelling		Ventilation of	dwelling unit		sample no. of hhs with
Турс от	Structure/ terianal status of aweiling	good	satisfactory         bad         all         dwelling           165         43         1000         1959           496         182         1000         1229           199         801         1000         80           41         959         1000         18           184         816         1000         98		dwelling	
	Pucca	792	165	43	1000	1959
ure	Semi-pucca	322	496	182	1000	1229
structi	Serviceable katcha	0	199	801	1000	80
Type of structure	Unserviceable katcha	0	41	959	1000	18
Typ	all katcha	0	184	816	1000	98
	all	613	279	109	1000	3286
ßı	Owned	607	287	106	1000	2859
lwellir	Employer Quarter	820	180	0	1000	50
s of c	Other hired accommodation	661	237	102	1000	333
statu	all hire	676	232	92	1000	383
Tenurial status of dwelling	others	288	231	481	1000	44
Te	all	613	279	109	1000	3286
sample 1	no. of hhs with dwelling	1903	955	428	3286	Х

Table 26 Rural & Urban : Per 1000 distribution of households with dwelling by type of ventilation for each type of structure and tenurial status of dwelling

Type of	structure/ tenurial status of dwelling		Ventilation of	dwelling unit		sample no. of hhs with
Турс ог	structure/ terianal status of aweiling	good	satisfactory	bad	all	dwelling
	Pucca	766	173	61	1000	4224
ıre	Semi-pucca	369	481	151	1000	3974
structı	Serviceable katcha	9	199	792	1000	811
Type of structure	Unserviceable katcha	4	39	958	1000	324
TyF	all katcha	8	156	836	1000	1135
	all	586	295	119	1000	9333
gı	Owned	588	296	116	1000	8647
lwellir	Employer Quarter	562	319	119	1000	104
s of d	Other hired accommodation	598	272	130	1000	477
l statu	all hire	592	280	128	1000	581
Tenurial status of dwelling	others	421	304	276	1000	105
Te	all	586	295	119	1000	9333
sample 1	no. of hhs with dwelling	4338	2896	2099	9333	Х

Table 27: Average number (0.0) of married couples per household, per 1000 distribution of households by number of married couple and average (0.0) number of married couple not getting separate room

		Average no. of			Number of	f married co	uple in the	household			Sample no. of hhs
Type of estimate	Sector	married couple per hhd	Zero	One	Two	Three	Four	Five or more	n.r	all	with dwelling
	Rural	1	148	715	126	10	1	0	0	1000	6047
Per 1000 distribution	Urban	1	166	698	122	13	2	0	0	1000	3286
	Combined	1	152	711	125	11	1	0	0	1000	9333
Average no. of	Rural		0	0	0.1	0.1	0.3	0	0	0	
married couple not getting	Urban		0	0	0.1	0.3	0.5	0	0	0	
separate room	Combined		0	0	0.1	0.1	0.4	0	0	0	
sample no. of hh dwelling	s with		1476	6622	1086	128	19	2	0	9333	

Table 28: Proportion (per 1000) of households wherein married couples are not getting a separate room by the number of married couples not getting separate room per 1000 households with at least one married couple and number of married couples in the households

						numbe	er of ma	rried cou	ıples ir	the hou	isehold						
Contra	1			2			3				4	or mor	e		all(i.e. h atleas married	st one	No. of hhs with atleast one married couple
Sector			Propo	ortion (		0) of hounumber (							separa	te room			o. of hhs with atleas one married couple
	0	1	0	1	2	0	1	2	3	0	1	2	3	4 or more	0	1or more	Z
Rural	959	41	920	70	10	942	47	8	2	745	255	0	0	0	953	47	5120
Urban	958	42	909	81	10	812	<i>7</i> 5	113	0	659	243	98	0	0	948	52	2737
Combined	959	41	918	72	10	906	55	37	2	713	250	36	0	0	952	48	7857
No. of hhs with atleast one married couple	5922	700	971	82	33	102	17	7	2	13	5	3	0	0	7008	849	XX

Table 29: Per 1000 distribution of households with dwelling unit by floor type of the dwelling unit

					Floor Type					No. of hhs
Sector	Mud	Bamboo/ log	Wood/ plank	Brick/ lime/ Stone	Cement	Mosaic/ tiles	Others	n.r	all	with dwelling
Rural	59	1	1	9	688	226	15	0	1000	6047
Urban	28	1	2	28	623	298	21	0	1000	3286
Combined	52	1	1	14	673	242	16	0	1000	9333
No. of hhs with dwelling	1472	27	16	112	5740	1821	145	0	9333	XX

Table 30: Per 1000 distribution of households with dwelling unit by wall type of the dwelling unit

					Wa	ıll Type						
Sector	Grass/ straw/ leaves/ reed/ banboo	Mud (with/ without bamboo)/ unburnt brick	Canvass/ cloth	Other katcha material	Timber	Burnt brick/ stone/ lime stone	Iron or other metal sheet	Cement/ RBC/ RCC	Other pucca material	n.r	All	No. of hhs with dwelling
Rural	12	96	2	9	7	757	0	99	18	0	1000	6047
Urban	5	90	2	11	8	819	2	59	3	0	1000	3286
Combined	11	95	2	10	7	771	1	90	14	0	1000	9333
No. of hhs with dwelling	423	1815	54	340	110	5942	9	546	94	0	9333	

 $Table \ 31: Per \ 1000 \ distribution \ of households \ with \ dwelling \ unit \ by \ roof \ type \ of \ the \ dwelling \ unit$ 

						roof Type						
Sector	Grass/ straw/ leaves/ reed/ banboo	Mud unburnt brick	Canvass/ cloth	Other katcha material	Tiles/ slate	Burnt brick/ stone/ lime stone	Iron/ zinc/ other metal sheet/ asbestos	Cement/ RBC/ RCC	Other pucca material	n.r	All	No. of hhs with dwelling
Rural	27	2	2	12	372	27	83	465	11	0	1000	6047
Urban	16	0	2	13	293	46	43	584	4	0	1000	3286
Combined	24	1	2	12	354	32	73	492	9	0	1000	9333
No. of hhs with dwelling	880	11	59	462	3225	278	728	3598	92	0	9333	XX

Table 32 Rural : Per 1000 distribution of households living in hired accommodation for each type of structure and type of hired accommodation

				Floor a	area (sq.	m) of the	dwellin	ng unit			ibution	of hhs red tion	of hhs nired ation t>0
Type of str	ucture/ type of hired accommodation	less than 20	20 - 30	30 - 40	40 - 50	50 - 75	75 - 100	100 or more	n.r	all	per 1000 distribution	sample no. of hhs living in hired accomodation	sample no. of ht living in hired accomodation with rent>0
	Pucca	126	149	211	87	316	79	32	0	1000	603	89	89
ıre	Semi-pucca	138	257	134	187	183	30	71	0	1000	380	91	90
Type of Structure	Serviceable Katcha	426	369	205	0	0	0	0	0	1000	17	17	17
fStr	Unserviceable Katcha	1000	0	0	0	0	0	0	0	1000	0	1	1
be o	all Katcha	439	360	201	0	0	0	0	0	1000	17	18	18
Ty	n.r	0	0	0	0	0	0	0	0	0	0	0	0
	all	136	194	182	123	260	59	46	0	1000	1000	198	197
	Employer Quarter	226	377	130	87	169	0	10	0	1000	252	54	54
red tion	Other hired accommodation	106	132	199	136	291	79	58	0	1000	748	144	143
Type of hired accommodation	hired accommodation with written contract	111	43	247	131	294	69	105	0	1000	416	76	76
Туре	2. hired accommodation without written contract	99	243	139	141	287	92	0	0	1000	332	68	67
	ALL	136	194	182	123	260	59	46	0	1000	1000	198	197
accomoda		37	46	34	33	36	6	6	0	198	x	х	x
	o. of hhs living in hired ation with rent>0	37	46	34	32	36	6	6	0	197	x	x	x

Table 32 Urban : Per 1000 distribution of households living in hired accommodation for each type of structure and type of hired accommodation

				Floor	area (sq.	m) of the	e dwellir	ıg unit			ibution	of hhs red tion	of hhs red tion >0
Type of str	ucture/ type of hired accommodation	less than 20	20 - 30	30 - 40	40 - 50	50 - 75	75 - 100	100 or more	J.n	all	per 1000 distribution	sample no. of hhs living in hired accomodation	sample no. of hhs living in hired accomodation with rent>0
	Pucca	196	53	153	126	299	129	43	0	1000	667	234	234
ıre	Semi-pucca	163	147	339	168	144	35	5	0	1000	295	138	138
Type of Structure	Serviceable Katcha	558	424	0	6	12	0	0	0	1000	38	11	11
fSt	Unserviceable Katcha	0	0	0	0	0	0	0	0	0	0	0	0
be o	all Katcha	558	424	0	6	12	0	0	0	1000	38	11	11
Ty	n.r	0	0	0	0	0	0	0	0	0	0	0	0
	all	200	95	202	134	242	96	30	0	1000	1000	383	383
	Employer Quarter	207	148	108	271	165	101	0	0	1000	91	50	50
red tion	Other hired accommodation	200	90	211	120	250	96	33	0	1000	909	333	333
Type of hired accommodation	1. hired accommodation with written contract	76	68	239	137	314	129	37	0	1000	604	230	230
Турс	2. hired accommodation without written contract		133	156	87	122	31	25	0	1000	305	103	103
	ALL	200	95	202	134	242	96	30	0	1000	1000	383	383
accomod		62	48	75	61	93	30	14	0	383	х	х	х
	o. of hhs living in hired ation with rent>0	62	48	<i>7</i> 5	61	93	30	14	0	383	x	x	х

Table 32 Rural & Urban : Per 1000 distribution of households living in hired accommodation for each type of structure and type of hired accommodation

				Floor	area (sq.	m) of the	e dwellir	ıg unit			) Ju	of hhs red tion	of hhs red tion o
Type of str	ructure/ type of hired accommodation	less than 20	20 - 30	30 - 40	40 - 50	50 - 75	75 - 100	100 or more	n.r	all	per 1000 distribution	sample no. of hhs living in hired accomodation	sample no. of hhs living in hired accomodation with rent>0
	Pucca	164	98	180	108	307	106	38	0	1000	636	323	323
ıre	Semi-pucca	149	207	226	179	165	32	41	0	1000	336	229	228
Type of Structure	Serviceable Katcha	519	408	60	4	8	0	0	0	1000	28	28	28
fStr	Unserviceable Katcha	1000	0	0	0	0	0	0	0	1000	0	1	1
be o	all Katcha	523	405	60	4	8	0	0	0	1000	28	29	29
Ty	n.r	0	0	0	0	0	0	0	0	0	0	0	0
	all	169	143	192	129	251	78	38	0	1000	1000	581	580
	Employer Quarter	221	314	124	138	168	28	8	0	1000	169	104	104
red tion	Other hired accommodation	159	108	206	127	268	88	44	0	1000	831	477	476
Type of hired accommodation	hired accommodation with written contract	90	58	242	135	306	105	64	0	1000	513	306	306
Type	2. hired accommodation without written contract	270	189	147	114	206	62	12	0	1000	318	171	170
	ALL	169	143	192	129	251	78	38	0	1000	1000	581	580
accomod		99	94	109	94	129	36	20	0	581	x	х	x
	o. of hhs living in hired ation with rent>0	99	94	109	93	129	36	20	0	580	x	x	х

Table 33 Rural: Average rent paid per household( in Rs.) by floor area of the dwelling unit for each type of structure and type of hired accommodation

											_	
Type of structure/ type of hired accommodation		Floor area (sq.m) of the dwelling unit									of hhs red tion	of hhs red tion >0
		less than 20	20 - 30	30 - 40	40 - 50	50 - 75	75 - 100	100 or more	n.r	all	sample no. of hhs living in hired accomodation	sample no. of hh living in hired accomodation with rent>0
Type of Structure	Pucca	82	488	673	682	960	2354	2670	0	827	89	89
	Semi-pucca	414	313	556	549	555	1800	1729	0	522	91	90
	Serviceable Katcha	268	356	458	0	0	0	0	0	340	17	17
	Unserviceable Katcha	400	0	0	0	0	0	0	0	400	1	1
	all Katcha	275	356	458	0	0	0	0	0	341	18	18
	n.r	0	0	0	0	0	0	0	0	0	0	0
	all	221	396	636	605	851	2246	2324	0	703	198	197
Type of hired accommodation	Employer Quarter	37	171	511	605	274	0	500	0	244	54	54
	Other hired accommodation	353	613	664	605	965	2246	2162	0	858	144	143
	hired accommodation with written contract	304	371	621	625	963	1976	2162	0	826	76	76
	2. hired accommodation without written contract	421	667	760	582	968	2500	0	0	898	68	67
	ALL	221	396	636	605	851	2246	2324	0	703	198	197
sample no. of hhs living in hired accomodation		37	46	34	33	36	6	6	0	198	x	x
sample no. of hhs living in hired accomodation with rent>0		37	46	34	32	36	6	6	0	197	x	х

Table 33 Urban: Average rent paid per household( in Rs.) by floor area of the dwelling unit for each type of structure and type of hired accommodation

				Flo	or area (s	q.m) of the	dwelling u	unit			of hhs red tion	of hhs red tion >0
Т	Type of structure/ type of hired accommodation	less than 20	20 - 30	30 - 40	40 - 50	50 - 75	75 - 100	100 or more	n.r	all	sample no. of hhs living in hired accomodation	sample no. of hh living in hired accomodation with rent>0
	Pucca	322	705	1354	1956	2160	2804	3872	0	1729	234	234
ure	Semi-pucca	481	825	1117	1841	1844	1418	8000	0	1239	138	138
Type of Structure	Serviceable Katcha	414	611	0	700	500	0	0	0	500	11	11
f St	Unserviceable Katcha	0	0	0	0	0	0	0	0	0	0	0
) e o	all Katcha	414	611	0	700	500	0	0	0	500	11	11
Tyl	n.r	0	0	0	0	0	0	0	0	0	0	0
	all	370	744	1237	1911	2101	2655	4056	0	1538	383	383
	Employer Quarter	297	513	848	961	1140	2079	0	0	888	50	50
red tion	Other hired accommodation	377	782	1256	2126	2165	2716	4056	0	1603	333	333
Type of hired accommodation	hired accommodation with written contract	590	724	1267	2134	2319	2801	3836	0	1921	230	230
Type	2. hired accommodation without written contract	305	840	1225	2101	1378	2008	4700	0	971	103	103
	ALL	370	744	1237	1911	2101	2655	4056	0	1538	383	383
accomo		62	48	75	61	93	30	14	0	383	х	х
	no. of hhs living in hired odation with rent>0	62	48	<i>7</i> 5	61	93	30	14	0	383	x	x

Table 33 Rural & Urban : Average rent paid per household( in Rs.) by floor area of the dwelling unit for each type of structure and type of hired accommodation

				Flo	or area (s	q.m) of the	dwelling (	unit			of hhs red tion	of hhs red tion >0
Т	Type of structure/ type of hired accommodation	less than 20	20 - 30	30 - 40	40 - 50	50 - 75	75 - 100	100 or more	n.r	all	sample no. of hhs living in hired accomodation	sample no. of hhs living in hired accomodation with rent>0
	Pucca	236	552	985	1484	1589	2649	3016	0	1313	323	323
ıre	Semi-pucca	447	476	934	1097	1059	1613	1096	0	845	229	228
Type of Structure	Serviceable Katcha	379	544	458	700	500	0	0	0	453	28	28
f Stı	Unserviceable Katcha	400	0	0	0	0	0	0	0	400	1	1
be o	all Katcha	379	544	458	700	500	0	0	0	453	29	29
Ty	n.r	0	0	0	0	0	0	0	0	0	0	0
	all	311	515	960	1303	1471	2505	2323	0	1132	581	580
	Employer Quarter	104	215	592	798	508	2079	500	0	421	104	104
red tion	Other hired accommodation	370	692	1005	1415	1594	2532	2387	0	1277	477	476
Type of hired accommodation	hired accommodation with written contract	451	621	1007	1553	1805	2588	2107	0	1489	306	306
Тура	2. hired accommodation without written contract	327	727	1002	1152	1087	2379	4700	0	934	171	170
	ALL	311	515	960	1303	1471	2505	2323	0	1132	581	580
accomo	sample no. of hhs living in hired accomodation		94	109	94	129	36	20	0	581	x	x
	sample no. of hhs living in hired accomodation with rent>0		94	109	93	129	36	20	0	580	x	х

Table 34: Proportion (per 1000) of households which had undertaken construction (P) by place of construction , average number of constructions undertaken (A) per household by place of construction and per 1000 distribution of constructions (PD) for each sector

	Type of		Place of construction		Sample no. of hhs	Sample number of
Sector	Estimate	at the present premises	elesewhere	all	undertaken construction	constructions undretaken
	Р	119	2	121	973	1007
Rural	A	0.12	0	0.12	XX	XX
	PD	981	18	1000	XX	XX
	Р	115	5	120	398	400
Urban	A	0.12	0.01	0.12	XX	XX
	PD	958	42	1000	XX	XX
	Р	118	2	121	1371	1407
Combined	A	0.12	0	0.12	XX	XX
	PD	976	24	1000	XX	XX
Sample no. of undertaken co		1331	40	1371	XX	XX
Sample number constructions		1363	43	1407	XX	XX

Table 35 Rural: Number of constructions completed per 1000 construction undertaken, average floor area per completed construction (sq. m. 0.00), average cost per completed construction (Rs.,000) for each type of constructions completed and type of structure

				Ту	pe of construc	tion complete	ed					
		New building		Add	ition to floor sp	oace	Alteration/ improvement/ major repair		All		(00000) s	structions d
Type of structure	No. of constructions completed per 1000 construction	Average floor area (0.00) per completed construction(sq.m)	Average cost per completed construction (Rs ,000)	No. of constructions completed per 1000 construction	Average floor area (0.00) per completed construction (sq.m)	Average cost per completed construction (Rs	No. of constructions completed per 1000 construction	Average cost per completed construction (Rs ,000)	No. of constructions completed per 1000 construction	Average cost per completed construction (Rs	Estimated cost (Rs ,00000)	sample no. of constructions completed
Pucca	466	90.14	716	594	41.46	162	672	62	615	183	535312	327
Semi-pucca	85	36.11	316	103	34.65	62	141	21	124	75	171225	156
Katcha	39	15.59	66	3	22.53	22	102	4	76	16	81328	272
all	590	77.46	615	700	40.38	147	916	49	815	155	787865	755
estd. no. of completed construction (00)	868	xx	xx	489	xx	xx	3726	xx	5083	xx	xx	xx
estd floor area (sq.m 0.00)	xx	6724396	xx	xx	1975796	xx	xx	xx	xx	xx	xx	xx
Sample no. of completed constrution	126	xx	xx	50	xx	xx	579	xx	755	xx	xx	xx

Table 35 URBAN: Number of constructions completed per 1000 construction undertaken, average floor area per completed construction (sq. m. 0.00), average floor area per completed construction (Rs.,000) for each type of constructions completed and type of structure

				Ту	pe of construc	tion complete	ed					
		New building		Addition to floor space			Alteration/ improvement/ major repair		All		(00000' s	structions d
Type of structure	No. of constructions completed per 1000 construction	Average floor area (0.00) per completed construction(sq.m)	Average cost per completed construction (Rs ,000)	No. of constructions completed per 1000 construction	Average floor area (0.00) per completed construction (sq.m)	Average cost per completed construction (Rs	No. of constructions completed per 1000 construction	Average cost per completed construction (Rs ,000)	No. of constructions completed per 1000 construction	Average cost per completed construction (Rs ,000)	Estimated cost (Rs ,00000)	sample no. of constructions completed
Pucca	488	81.31	980	435	38.81	216	695	96	631	219	324777	242
Semi-pucca	65	26.64	480	178	15.72	125	134	26	126	92	136436	40
Katcha	7	29.53	67	43	13.53	23	78	6	61	15	22245	39
all	560	74.32	911	655	30.9	179	907	78	817	163	483458	321
estd. no. of completed construction (00)	191	XX	xx	117	XX	xx	1176	xx	1483	xx	xx	xx
estd floor area (sq.m 0.00)	xx	1417105	xx	xx	361333	xx	xx	xx	xx	xx	xx	xx
Sample no. of completed constrution	40	xx	xx	23	xx	xx	258	xx	321	xx	xx	xx

Table 36 Rural: Average cost (Rs. ,000) per completed construction, proportion (per 1000) of completed constructions for which amount was financed by different sources (P), and per 1000 distribution of cost of completed constructions (A) by sources of finance for each type of structure

	L								Source o	of finance							L
	oer uctic	ate					insti		agencies	S		non-i	nstitutio	nal age	encies		of uctic
Type of structure	Average cost per completed construction (Rs ,000)	Type of estimate	Own labour and/ or meteri al	finance from own source	Gov.	comm. Bank incl.RRB, co-op. society/ bank	insurance	PF (advance/ loan)	Financial corp. / inst.	Other inst. Agen.	all inst. Agen.	Money lender	Friends and relatives	Other no-inst. Agen.	all non-inst. Agencies	All	Sample no. of completed construction
D.,	183	Р	325	846	60	197	8	11	10	9	265	49	78	24	121	1000	327
Pucca	X	A	230	410	17	258	16	6	5	4	306	11	38	5	55	1000	xx
c :	<i>7</i> 5	Р	449	825	127	50	0	0	0	8	183	120	48	4	159	1000	156
Semi-pucca	X	Α	87	583	167	66	0	0	0	2	235	65	30	1	95	1000	XX
12 . 1	16	Р	667	896	11	2	0	0	0	19	32	171	143	3	254	1000	272
Katcha	X	A	139	675	14	5	0	0	0	24	44	89	48	5	142	1000	XX
11	155	Р	376	847	66	156	6	9	8	10	230	71	79	19	139	1000	755
all	х	Α	222	421	25	246	15	6	4	4	300	14	38	5	57	1000	xx
estd. no. of completed construction (00)	х	1910	4307	333	795	32	43	40	51	1172	360	403	97	707	5083	xx	
Sample no. of completed constrution	х	358	633	47	67	1	5	4	12	120	66	57	10	112	755	xx	

Table 36 Urban: Average cost (Rs. ,000) per completed construction, proportion (per 1000) of completed constructions for which amount was financed by different sources (P), and per 1000 distribution of cost of completed constructions (A) by sources of finance for each type of structure

	U								Source o	of finance							п
	oer Jetlic	ıte				T	insti		agencies	S	•	non-i	nstitutio	nal age	encies		of Joctic
Type of structure	Average cost per completed construction (Rs ,000)	Type of estimate	Own labour and/ or meteri al	finance from own source	Gov.	comm. Bank incl. RRB, co-op. society/ bank	insurance	PF (advance/ loan)	Financial corp. / inst.	Other inst. Agen.	all inst. Agen.	Money lender	Friends and relatives	Other no-inst. Agen.	all non-inst. Agencies	All	Sample no. of completed construction
D	219	Р	362	881	48	144	10	17	3	36	203	16	74	17	97	1000	242
Pucca	x	A	46	587	19	219	5	6	2	44	296	5	59	7	71	1000	xx
C .	92	Р	443	758	1	41	0	0	0	0	42	131	63	0	189	1000	40
Semi-pucca	Χ	A	47	708	3	98	0	0	0	0	101	137	7	0	144	1000	xx
17 - 4 - 1 -	15	Р	864	749	25	69	0	0	0	0	94	401	231	69	533	1000	39
Katcha	X	A	195	304	12	65	0	0	0	0	77	194	192	37	424	1000	xx
11	193	Р	412	852	39	122	7	13	2	28	170	62	84	18	144	1000	321
all	х	A	47	589	19	214	5	6	2	42	288	10	58	7	76	1000	xx
estd. no. of comple construction (00)	eted	611	1264	58	181	11	19	3	42	253	92	125	27	21 3	148 3	xx	
Sample no. of com constrution	pleted	127	270	16	42	4	4	2	6	61	17	33	5	48	321	xx	

Table 37 Rural : Per 1000 distribution of cost of construction by type of cost of construction for each type of construction

Tune of construction	Per 1000 di		ost per constr days for differ		000) during	sample no.of constructions
Type of construction	Mat Pucca	erial Others	Labour	Others	Total	during last 365 days
New building	632	37	302	29	1000	331
Addition to floor space	627	52	289	32	1000	68
alteration/improvement, etc.	642	37	307	13	1000	608
All	634	38	302	26	1000	1007
estd.(00) no. of constructions during last 365 days	5499	2235	6046	1950	6240	xx
sample no of constructions during last 365 days	686	547	980	301	1007	xx

Table 37 Urban: Average cost (Rs in 000) incurred per construction during last 365 days and per 1000 distribution of cost of construction by type of cost of construction for each type of construction

or communication of the or communication										
Type of construction	Per 1000 di	Per 1000 distribution of cost per construction (Rs. In 000) during last 365 days for different items								
Type of construction	Mat Pucca	erial Others	Labour	Others	Total	during last 365 days				
New building	607	38	335	19	1000	77				
Addition to floor space	651	74	260	15	1000	37				
alteration/improvement, etc.	638	47	300	16	1000	286				
All	618	44	320	18	1000	400				
estd.(00) no. of constructions during last 365 days	1601	676	1716	470	1815	xx				
sample no.of constructions during last 365 days	346	158	387	115	400	XX				

Table 37 Rural & Urban: Average cost (Rs in 000) incurred per construction during last 365 days and per 1000 distribution of cost of construction by type of cost of construction for each type of construction

type of cost of constitution for each type of constitution									
	Per 1000 di		ost per constr		000) during	sample no.of			
Type of construction			days for differ	enchems	1	constructions			
Type or construction	Mat	erial	Labour	Others	Total	during last			
	Pucca	Others	Laboui	Others	Total	365 days			
New building	625	37	312	26	1000	408			
Addition to floor space	635	59	280	26	1000	105			
alteration/improvement, etc.	641	40	305	14	1000	894			
All	629	40	307	24	1000	1407			
estd.(00) no. of constructions during last 365 days	7099	2911	7761	2420	8055	xx			
sample no.of constructions during last 365 days	1032	705	1367	416	1407	xx			



Sample Design and Estimation Procedure



# Sample Design

## Outline of sample design:

A stratified multi-stage design was adopted for the 65th round survey. The first stage units (FSUs) were the 2001 Census Panchayat wards in the rural sector and Urban Frame Survey (UFS) blocks in the urban sector. However, for the newly declared towns and outgrowths (OGs) in Census 2001 for which UFS had not yet been done (i.e. non-UFS towns), each individual town/ OG was considered as an FSU. The ultimate stage units were households in both the sectors. It was recognised that in large FSUs, listing of all households to prepare the ultimate stage sampling frame would not be feasible, and the sample design provided for such FSUs to be split by the survey personnel into a number of parts depending on the approximate population found therein, two parts to be randomly selected from these, and the sample of households to be drawn from these two parts only.

## Sampling frame for first stage units

For the rural sector, the sampling frame consisted of the list of 2001 Census Panchayat wards. For the urban sector, it consisted of the list of latest available Urban Frame Survey (UFS) blocks and non-UFS (newly declared) towns/ OGs.

#### Stratification

For rural sector All villages of a district formed a separate stratum. In the urban sector, strata were formed within each NSS region on the basis of size class of towns as per Census 2001 town population. The stratum numbers and their composition (within each NSS region) are given below.

Stratum	Composition (within NSS Region)
1	All towns with population<50,000
2	All towns with population 50,000 to 99,999
3	All towns with population 1,00,000 to 4,99,999
4	All towns with population 5,00,000 to 9,99,999
5, 6,	Each million plus city

### Sub-stratification

There was no sub-stratification in the rural sector. However, to net adequate number of slums, each urban stratum was divided into 2 sub-strata as follows: sub-stratum 1: all UFS blocks having area type 'slum area' and sub-stratum 2: remaining UFS blocks.

## Allocation of FSU's among Strata/sub-strata:

A total number of 780 FSUs (504 panchayath wards and 276 urban blocks) was allocated for survey for the Kerala 'state central sample'. The total number of sample FSUs was allocated between two sectors in proportion to population as per census 2001 with 1.5 weightage to urban sector subject to the restriction that urban sample size did not exceed the rural sample size. Within each sector the sample size was allocated to the different strata in proportion to the stratum population as per census 2001. Allocations at stratum level were adjusted to multiples of 4 with a minimum sample size of 4. Stratum-level sample size in the urban sector pertaining to strata belonging to UFS towns was further allocated to the 2 sub-strata in proportion to the number of UFS blocks in them with double weightage to sub-stratum 1, subject to a minimum allocation of 4 to each of the two sub-strata.

## Selection of first-stage units:

As per census arrangement, the panchayath wards were arranged and FSUs were selected by circular systematic sampling with probability proportional to population for all rural strata. For urban strata x sub-strata (wherever applicable), the towns within the stratum were arranged in ascending order of population; then FSUs were selected by circular systematic sampling with equal probability for UFS towns. Within each stratum/ sub-stratum, multiple of 4 FSUs were selected. Samples were drawn in the form of two independent subsamples and equal number of samples was allocated among the four sub rounds.

## Selection of Ultimate Stage Units (USUs) within an FSU:

Large sample FSUs with approximate present population of 1200 or more were divided into a suitable number (say, D) of 'hamlet-groups' in the rural sector and 'sub-blocks' in the urban sector, by more or less equalizing present population of the FSU, as stated below.

Approximate present popula	ation of the sample FSU	no. of Hgs/Sbs
All district except Idukki	formed	
less than 1200 (no Hg/Sb)	less than 600 (no Hg/Sb)	1
1200 to 1799	600 to 899	3
1800 to 2399	900 to 1199	4
2400 to 2999	1200 to 1499	5
And so on	And so on	

Two hamlet-groups (hg)/ sub-blocks (sb) were selected from a large FSU wherever hamlet groups/sub-blocks were formed in the following manner – one hg/ sb with maximum percentage share of population was always selected and termed as hg/ sb 1; one more hg/ sb was selected from the remaining hg's/ sb's by SRS and termed as hg/ sb 2. Listing and selection of the households was done independently in the two selected hamlet-groups/ sub-blocks. The FSUs without hg/ sb formation were treated as sample hg/ sb number 1

All households listed in an FSU constituted the sampling frame of households. All the households listed in the selected FSU/ hamlet-groups/ sub-blocks were stratified, for Schedule 1.2, into three second stage strata (SSS) as given below:

	Rural	Urban				
SSS	Stratification Criteria	Stratification Criteria				
	All Districts	TVPM to PKD	PKD to KGD			
1	Households with pucca dwelling	MPCE ≥1476	MPCE ≥1004			
2	Households with semi-pucca dwelling	754< MPCE <1476	534< MPCE <1004			
3	Other households	MPCE ≤754	MPCE ≤534			

### Selection of households

For the survey on housing condition (Schedule 1.2), 12 households were selected from each sample FSU. In both rural and urban areas, in case no hamlet-group/sub-block formation was done in the FSU, the number of households selected from the second stage strata SSS1, SSS2 and SSS3 were 4, 4 and 4, respectively. In case hamlet-groups/sub-blocks were formed in the village/block, the number of households selected from the second stage strata SSS1, SSS2 and SSS3 were 2, 2 and 2, respectively, for each of the hamlet-groups/sub-blocks. The sample households from each of the second stage strata were selected by SRSWOR. Number of FSUs allotted for survey in the NSS 65th round along with the number of FSUs actually surveyed for districts of Kerala is given below.

Number of FSUs allotted and Surveyed									
District	allo	tted	Sı	ırveyed					
DISHICL	Rural	Urban	Rural	Urban					
Thiruvananthapuram	48	33	48	33					
Kollam	48	17	48	17					
Pathanamthitta	24	4	24	4					
Alappuzha	28	20	28	20					
Kottyam	36	10	36	10					
Idukki	24	2	24	2					
Eranakulam	36	53	36	53					
Thrissur	48	29	48	29					
Palakkad	48	15	48	15					
Malappuram	60	12	60	12					
Kozhikode	36	37	36	36					
Wayanad	20	1	20	1					
Kannur	24	36	24	36					
Kasaragod	24	7	24	6					
All	504	276	504	274					

## **Estimation Procedure**

### **Notations:**

s = subscript for s-th stratum

t = subscript for t-th sub-stratum (only for UFS towns of urban sector)

m = subscript for sub-sample (m = 1, 2)

i = subscript for i-th FSU [village (panchayat ward)/ block/ non-UFS town]

d = subscript for a hamlet-group/ sub-block (d = 1, 2)

j = subscript for j-th second stage stratum in an FSU/ hg/sb j = 1, 2or 3

subscript for k-th sample household under a particular second stage stratum within

k = an FSU/hg/sb

D = total number of hg's/sb's formed in the sample FSU

= 0 if D = 1

 $D^*$  = (D-1) for FSUs with D > 1

N = total number of FSUs in any urban sub-stratum

Z = total size of a rural stratum (= sum of sizes for all the FSUs of a stratum)

z = size of sample village used for selection.

number of sample FSUs surveyed including zero cases but excluding casualty for a

n = particular sub-sample and stratum/sub-stratum

total number of households listed in a second-stage stratum of an FSU / hamlet-

H = group or sub-block of sample FSU

number of households surveyed in a second-stage stratum of an FSU / hamlet-

h = group or sub-block of sample FSU

x,y = observed value of characteristics x, y under estimation

 $X^{-}$  = estimate of population total X, for the characteristics x

 $Y^{\wedge}$  = estimate of population total Y for the characteristics y

ystmidjk = observed value of the characteristic y for the k-th household in the j-th second stage stratum of the d-th hg/ sb (d = 1, 2) of the i-th FSU belonging to the m-th sub-sample for substratum of s-th stratum.the tth

## Estimation of aggregates for a particular sub-sample and Stratum

For j-th SSS of a stratum in rural

$$\hat{Y}_{j} = \frac{Z}{n_{j}} \sum_{i=1}^{n_{j}} \frac{1}{z_{i}} \left[ \frac{H_{i1j}}{h_{i1j}} \sum_{k=1}^{h_{i1j}} y_{i1jk} + D_{i}^{*} \frac{H_{i12j}}{h_{i12j}} \sum_{k=1}^{h_{i2j}} y_{i2jk} \right]$$

For all SSS combined in rural:  $\hat{Y} = \sum_{i} \hat{Y}_{j}$ 

For j-th SSS of a stratum in Urban

$$\hat{\mathbf{Y}}_{j} = \frac{N}{n_{j}} \sum_{i=1}^{n_{j}} \left[ \frac{H_{i1j}}{h_{i1j}} \sum_{k=1}^{h_{i1j}} y_{i1jk} + D_{i}^{*} \frac{H_{i2j}}{h_{i2j}} \sum_{k=1}^{h_{i2j}} y_{i2jk} \right]$$

For all SSS combined in Urabn  $\hat{Y} = \sum_{i} \hat{Y}_{i}$ 

Estimate for a stratum  $\hat{Y}_s = \sum_t \hat{Y}_{st}$ 

Overall Estimate of Aggregates for a stratum ( $\hat{Y}_s$ ) based on two sub-samples

$$\hat{Y}_{s} = \frac{1}{2} \sum_{m=1}^{2} \hat{Y}_{sm}$$

The overall estimate Y<sup>^</sup> at the State level is obtained by summing the estimates  $(\hat{Y}_s)$  of strata over all strata belonging to the State

### **Estimates of Ratios**

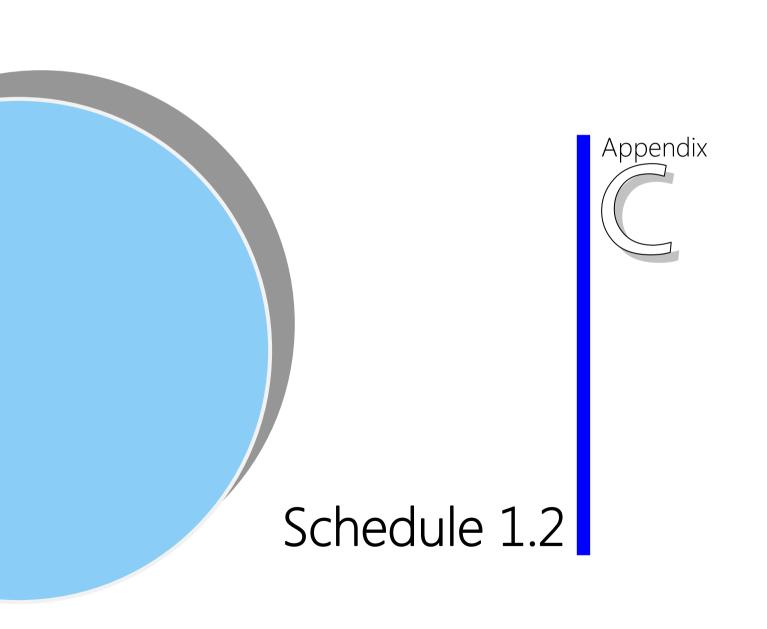
Let Y and  $\hat{X}$  be the overall estimate of the aggregates Y and X for two characteristics y and x respectively at the State level. Then the combined ratio estimate  $\hat{R}$  of the ratio

$$R = \frac{Y}{X}$$
 will be obtained as  $R = \frac{\hat{Y}}{\hat{X}}$ 

### **Estimates of Error**

The estimated variances of the estimates will be as follows:

$$\begin{split} Var(\hat{Y}) &= \sum_{s} Var(\hat{Y}_{s}), \\ Va\hat{r}\Big(\hat{Y}_{s}\Big) &= \frac{1}{4}\Big(\hat{Y}_{s1} - \hat{Y}_{s2}\Big)^{2} \\ MS\hat{E}\Big(\hat{R}\Big) &= \frac{1}{4\hat{X}^{2}} \sum_{s} \Big[\Big(\hat{Y}_{s1} - \hat{Y}_{s2}\Big)^{2} + \hat{R}^{2}\Big(\hat{X}_{s1} - \hat{X}_{s2}\Big)^{2} - 2\hat{R}\Big(\hat{Y}_{s1} - \hat{Y}_{s2}\Big)\Big(\hat{X}_{s1} - \hat{X}_{s2}\Big)\Big], for rural \\ MS\hat{E}\Big(\hat{R}\Big) &= \frac{1}{4\hat{X}^{2}} \sum_{s} \sum_{t} \Big[\Big(\hat{Y}_{st1} - \hat{Y}_{st2}\Big)^{2} + \hat{R}^{2}\Big(\hat{X}_{st1} - \hat{X}_{st2}\Big)^{2} - 2\hat{R}\Big(\hat{Y}_{st1} - \hat{Y}_{st2}\Big)\Big(\hat{X}_{st1} - \hat{X}_{st2}\Big)\Big], for urban \\ RSE(\hat{Y}) &= \frac{\sqrt{Var(\hat{Y})}}{\hat{Y}} - 100 \\ RSE(\hat{R}) &= \frac{\sqrt{MSE(\hat{R})}}{\hat{R}} - 100 \end{split}$$



#### Appendix C

RURAL	*	CENTRAL	
URBAN		STATE	

## GOVERNMENT OF INDIA NATIONAL SAMPLE SURVEY ORGANISATION SOCIO-ECONOMIC SURVEY SIXTY-FIFTH ROUND: JULY 2008 – JUNE 2009 SCHEDULE 1.2: HOUSING CONDITION

[0] descriptive identification of sample household					
1. state/u.t.:	5. hamlet name:				
2. district:	6. ward /inv. unit /block:				
3. tehsil/town:	7. name of head of household:				
4. village name:	8. name of informant:				

[1] ide	ntification of sample household									
item no.	item		cod	e	item no.	item		co	de	
1.	srl. no. of sample village/block				11.	sub-sample				
2.	round number	6		5	12.	FOD sub-region				
3.	schedule number	1	2	0	13.	sample hg/sb number (1/2)				
4.	sample (central-1, state-2)				14.	second-stage stratum				
5.	sector (rural-1, urban-2)				15.	sample household number				
6.	NSS region				16.	informant's relation to head (code)				
7.	district				17.	response code				
8.	stratum				18.	survey code				
9.	sub-stratum (urban only)			10	reason for substitution of					
10.	sub-round				19.	original household (code)				

### Codes for Block 1

item 16: **informant's relation to head:** head of household – 1, other member of household – 2 item 17: **response code**: informant: co-operative and capable -1, co-operative but not capable -2, busy -3, reluctant -4, others -9.

item 18: survey code: household surveyed: original -1, substitute -2, casualty -3.

item 19: **reason for substitution of original household**: informant busy -1, members away from home -2, informant non-cooperative -3, others -9.

\* tick mark  $(\sqrt{\ })$  may be put in the appropriate place.

[3] h	ousehold chara	cteristics				
1.		male	male			
2.	household size	female			11.	tenurial status of dwelling (code)
3.		total (sum of items	1 and 2)			
4.	gender of the he $(male -1, femal)$	ne head of the household			12.	if entry 1 to 5 or 9 in item 11, area type in which the dwelling unit is located (notified slum-1, non-notified slum-2, squatter settlement-3, other areas-9)
5.	principal industry	description:	description:			maximum distance to the place of work normally travelled by any earner of the household (code)
	(NIC-2004)	code (5-digit)			ho	ousehold consumer expenditure (Rs.) during last 30 days out of:
	principal	description:		•	14.	purchase
6.	occupation (NCO-2004)	code (3-digit)			15	home produced stock
7.	household type (code)				16.	receipts in exchange of goods and services
8.	religion (code)			17.	gifts and loans	
9.	. social group (code)				18.	free collection
10.	land possessed	as on date of surv	rey (code)		19.	total (items 14 to 18)

### Codes for Block 3

item 7: household type:

for rural areas: self-employed in non-agriculture -1, rural labour: agricultural labour -2, other labour -3; self-employed in agriculture -4, others -9.

for urban areas: self-employed -1, regular wage/salary earning -2, casual labour -3, others -9.

item 8: **religion:** Hinduism -1, Islam -2, Christianity -3, Sikhism -4, Jainism -5, Buddhism -6, Zoroastrianism -7, others -9. item 9: **social group:** scheduled tribe -1, scheduled caste -2, other backward class -3, others-9.

item 10: land possessed (area in hectare):

area in hectare	code	area in hectare	code
less than 0.005	01	2.01 – 3.01	07
0.005 - 0.02	02	3.01 - 4.01	08
0.02 - 0.21	03	4.01 - 6.01	10
0.21 - 0.41	04	6.01 - 8.01	11
0.41 - 1.01	05	greater than or equal to	
1.01 – 2.01	06	8.01	12

Note: 1 acre = 0.4047 hectare, 1 hectare=10,000 square metre

item 11: tenurial status of dwelling: owned: freehold-1, leasehold-2; hired: employer quarter-3, hired dwelling units with written contract-4, hired dwelling units without written contract-5; others-9, no dwelling -6.

item 13: distance: not required to travel-1; travelled a distance of: less than 1 k.m.-2, 1 k.m. or more but less than 5 k.m.-3, 5 k.m. or more but less than 10 k.m. - 4, 10 k.m. or more but less than 15 k.m. - 5, 15 k.m. or more but less than 30 k.m. - 6, 30 k.m. or more-7.

[4] p	particulars of living facilities						
srl.	item	1					code
(1)	(2)	(2)					(3)
1.	major source of drinking water (record the two most often used sources against cell 1 and cell 2 in descending order of uses)  (bottled water-01, tap-02, tube well/ hand pump-03, well: protected-04, unprotected -05;						
1.	tank/pond (reserved for drinking)-06, other tank/pond harvested rainwater-11, others-19)	cell 2 →					
2.	whether availability of drinking water from the first so throughout the year? $(yes-1, no-2)$	urce (mos	t often used	l source) is	s sufficie	nt	
	if code 2 in item 2, during which calendar months of	Jan	Feb	Mar	Apr	May	Jun
3.	the year availability of drinking water was not sufficient?	l					
3.	(record '1' against the applicable month(s) and rest of the months to be left blank)	Jul	Aug	Sep	Oct	Nov	Dec
4.	facility of drinking water (household's exclusive use – 1, common use of householdthers -9)	olds in the	building –	2, commu	ınity use -	- 3,	
5.	distance to the source of drinking water (within dwelling – 1, outside dwelling but within the pr 3, 0.2 to 0.5 k.m. – 4, 0.5 to 1.0 k.m. – 5, 1.0 k.m. to 1.				less than	0.2 k.m. –	
6.	facility of bathroom (bathroom: attached – 1, detached	l-2; no b	athroom –	3)			
7.	distance from the bathing place (within dwelling – 1, outside dwelling but within the pr 3, 0.2 to 0.5 k.m. – 4, 0.5 to 1.0 k.m. – 5, 1.0 k.m. to 1.				less than	0.2 k.m. –	
8.	use of latrine (exclusive use of household-1, shared with other house no latrine-4)				latrine-3,		
9.	if code 1, 2 or 3 in item 8, type of latrine (service-1, pit-2, septic tank/flush-3, not known-4, other	er latrine-9	9)				
10.	whether the household has electricity for domestic use	? (yes-1, n	o-2)				
11.	<b>if code 1 in item 10</b> , type of electric wiring (conduit wiring – 1, fixed to the walls – 2, temporary –	- 3)					

	housing characteristics and micro environ 4, 5 or 9 in item 11 of block 3)	ment	(for the households living in h	ouses,	i.e., wi	th code	es 1,
srl.	item				code	/ entry	
(1)	(2)				(	3)	
1.	plinth area of the house (in square feet and in	ı who	le numbers)				
2.	plinth level (in feet and in whole numbers) (r	ecord	'0', if there is no plinth)				
3.	use of house (residential only – 1, residential-cum-comme residential-cum-others – 9)	ercial	- 2,				
4.	<b>if codes 1 or 2 in item 11 of block 3</b> ( <i>i.e., fo</i> period since built (less than 1 year – 1, 1 to 5 years – 2, 5 to 10 40 years – 5, 40 to 60 years – 6, 60 to 80 years	) year.	s – 3, 10 to 20 years – 4, 20 to				
	if code 1 or 2 in item 4,	5.	year of start	Y	Y	Y	Y
		6.	year of completion				
7.	condition of structure (good – 1, satisfactory	v – 2, i	bad – 3)				
8.	drainage arrangement (drainage system: underground – 1, covered katcha – 4; no drainage – 5)	рисса	a – 2, open pucca – 3, open				
9.	garbage collection arrangement (collected: by panchayet/municipality/corp others – 9; no arrangement – 3)	oratio	on $-1$ , by resident(s) $-2$ ,				
10.	animal shed (shed: attached to the building–1, detached shed – 3)	from	the building – 2; no animal				
11.	whether experienced any flood during last 5 (yes: from excessive rain – 1, river, sea, etc.	•					
12.	approach road / lane / constructed path (direct opening to: motorable road / lane / comotorable road / lane / constructed path with / constructed path with street light – 3, other without street light – 4; no direct opening to	onstru hout si road .	cted path with street light – 1, treet light – 2, other road / lane / lane / constructed path				

srl		item	code /			
(1)		(2)	entry (3)			
1.	type of the dwelling (independent house $-1$ , flat $-2$ , others $-9$ )					
2.						
۷.		living rooms				
3.	number of rooms in the dwelling	other rooms				
4.		living rooms				
5.		other rooms				
5.	floor area of the dwelling (in square feet and	covered veranda				
7.	in whole numbers)	uncovered veranda				
8.		total (sum of items 4 to 7)				
9.	ventilation of the dwelling unit (good	- 1, satisfactory - 2, bad - 3)				
10.	total number of married couples in th	e household				
11.	whether a separate room is available $(yes - 1, no - 2, not applicable - 9)$	to each married couple?				
12.		ed couples not getting a separate room				
13.	kitchen type (separate kitchen: with water tap – 1,	without water tap – 2; no separate kitchen – 3)				
14.	floor type	/ plank – 3, brick / lime stone / stone – 4, cement – 5,				
15.	wall type (grass/ straw/ leaves/ reeds/ bamboo	, etc. – l, mud (with / without bamboo) / unburnt brick – 4, timber – 5, burnt brick / stone / lime stone – 6, iron or RCC – 8, other pucca – 9)				
16.		o etc. – 1, mud / unburnt brick – 2, canvas / cloth – 3, rnt brick / stone / lime stone – 6, iron / zinc /other metal BC / RCC – 8, other pucca – 9)				
17.	if hired	monthly rent (Rs.)				
	(i.e., if code 3, 4 or 5 in item 11 of	bl. 3) (payable approach)				

	ucuiai s	on construc	tion and repair for residential p	urpose		
rl. no.			ite	(2)	code /	
1)			(2)	(3)	(4)	(5)
l.	365 day	/S	ctions undertaken during the last			
2.	number 365 day		ctions completed during the last			
f entry			of item 1, items 3 to 27 will be fil	led in		
3.		of construct		1	2	3
1.	(at pres		es-1, elsewhere-2)			
5.	floor sp	ace – 2, alt	n (new building – 1, addition to eration / improvement / major			
<b>5</b> .		y? (yes-1, 1	on is complete as on the date <i>no-2</i> )			
7.	if code	type of stru (pucca – 1	ucture , semi-pucca – 2, katcha – 3)			
3.		if code 1	floor area (in sq. ft. and in whole numbers)			
€.	7	item 5,	no. of dwelling units			
10.	total cos	st of constru	action (Rs.)			
mount	(Rs.) fina	anced for o	construction from different source	es		
11.	(incl. gi	our and/or fts received	in kind)			
12.		from own s l as gifts, et	ource (savings, sale of assets, c.)			
i		nal agencie	s			
13.	governn					
14.		cial bank in ative socie	ncluding regional rural bank, ty/bank			
15.	insuranc	ce				
16.	1	,	vance/loan)			
17.	financia	l corporation	on/institution			
n		utional age	encies	T		
19.	money 1	ender				
20.	friends a	and relative	es			
21.	other no	n-institutio	nal agencies			
22.	,	ım of item	<u> </u>			
	onstruct	ion during	the last 365 days (Rs)		<u> </u>	
23.			pucca			
24.	material others					
25.	labour					
26.		service cha				
27.		ım of item				
<b>first-ha</b> i 28.			tructed house / flat at the present ial unit acquired	premises and elsew	here during the last 3	65 days
29.	if entry		total floor area (in square feet and i	n whole numbers.)		
30.	in item 28,		total expenditure incurred for reside	ential unit acquired (	Rs.)	

	rticulars (	of construct	tion and repair for residential p	urpose (continued)		
srl. no.			ite		code /	(0)
(1)			(2	(6)	(7)	(8)
1.	365 day		tions undertaken during the last			
2.	number 365 day		tions completed during the last			
if entry	is positiv	e in col. (3)	of item 1, items 3 to 27 will be fil	led in		
3.		of construct		4	5	6
4.		f construction ent premise.	n s-1, elsewhere-2)			
5.			n (new building – 1, addition to eration / improvement / major			
6.	whether		on is complete as on the date			
7.		type of stru				
8.	1 in	if code 1 or 2 in	floor area (in sq. ft. and in whole numbers)			
9.	ntem o,	item 5.	no. of dwelling units			
10.	total co	st of constru				
amount	t (Rs.) fin	anced for c	onstruction from different source	es	I.	
11.		our and/or r				
12.	finance		ource (savings, sale of assets,			
i		nal agencies			<u>l</u>	
13.	governr					
14.		rcial bank in	cluding regional rural bank, y/bank			
15.	insuran	ce				
16.	provide	nt fund (adv	rance/loan)			
17.	financia	al corporatio	n/institution			
18.	other in	stitutional a	gencies			
ı	non-instit	utional age	ncies			
19.	money	lender				
20.	friends	and relative	S			
21.	other no	on-institutio	nal agencies			
22.		um of items				
	construct	ion during	the last 365 days (Rs)	_	T	
23.			pucca			
24.	materia	1	others			
25.	labour					
26.	others (	service char	ges, etc.)			
27.	total (s	um of items	23 to 26)			

[2] particulars of field operations																			
sl. no.	item	investigator/ senior investigator						superintendent / senior superintendent						of	other supervisory officer				
(1)	(2)	(3)						(4)						(5)					
1.	i) name (block letters)																		
	ii) code																		
2.	date(s) of :	DE		M	M	1	ΥY	Di	$\overline{}$	M	M	1	ΥY	DI		M	NΛ	YY	7
۷.	(i) survey/inspection		_	171	141	1	<u> </u>	וטו		101	IVI	-	Ť	וטו		171	IVI	1.	-
													-						
	(ii) receipt																		
	(iii) scrutiny																		
_	(iv) despatch																		
3.	number of additional sheets (for block 7) attached																		
4.	total time taken to canvass schedule 1.2 (in minutes)																		
5.	whether the schedule contains remarks? (yes -1, no-2)	in block 8						in block 9/10					elsewhere in the schedule						
6.	signature																		
	[9] comments by superintendent / senior superintendent																		
	[10] comments by other supe	rvise	ory	y of	fice	er (	(s)												