Own House and Dalit: Selected Villages in Karnataka State

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OWN HOUSE AND DALIT: SELECTED VILLAGES IN KARNATAKA STATE

I Maruthi and Pesala Busenna¹

Abstract

A house is very important for rural and urban people. A house is a needy economic asset for human beings. It gives dignity and privacy to the families. In India 13 per cent of the people do not own a house. In Karnataka 26 per cent of the people do not own a house. The objectives of this study are i) to investigate the factors which determine the construction of a good house ii) to identify the factors which influence the non-preference for construction of a house in the village? and iii) to record the socio-economic conditions of Dalits in Karnataka. The study followed the multi-stage random sampling method. The total sample size was 1,800 SC (Dalit) households in Karnataka.

The main findings of the study are i) two villages have sufficient water resources and that is one of the main reasons for the construction of good houses and the economic status of these villages is also better than other villages ii) among the selected villages, in Srinivasa Saradgi village of Kalaburagi district the condition of Dalits' houses is very pathetic. Due to lack of financial support the Dalits are unable to construct houses and ii) some of the Dalits are unable to sleep during nights in the rainy season because of water seepage.

Key Words: House and Dalits in Karnataka.

Introduction

Without some sort of shelter it is difficult to imagine the survival of human life. A house is very important social and economic asset because it gives security, dignity and economic power to the owner. Iyer (1996) emphasized that the State has a responsibility to provide shelter to weaker sections of the society. In India as per census data, nearly 90 per cent of the residents in villages live in their own houses. Merely having house is not sufficient for a person but the house has to be habitable. Our study data reveals that most of the Dalits have their own houses in their villages. This paper provides details about houses and their importance in rural areas. Most of the Dalits in rural Karnataka engage in menial work in the agricultural sector.

Dhawan (1996) identified that the rapidly growing population in India was facing housing problems. According to his estimation every year about 20 lakh houses are required for the growing Indian population. In Karnataka the total number of houses owned was 80,28,342 in 2001 of which 60,85,360 was in rural areas and 19,42,982 in urban areas. In 2011 the number of houses owned increased to 97,86,047 and the rural and urban share was 70,72,156 and 27,13,891 respectively. The increase is also observed in the case of rented houses. In 2001 the total rented households was 19,08,864 and in 2011 it increased to 30,33,730. The number of rural rented households was 4,15,592 in 2001 and in 2011 it was 5,86,012. The urban rented households also increased during the above period. In the 'Other' category also, it increased from 2,94,927 in 2001 to 3,60,134 in 2011 (Census: India, 2001 and 2011). At the national level, data shows an increase of 28.4 per cent of own houses, 35.3 per cent for rented households and 7.8 per cent for 'other' households, during 2001 to 2011. In

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Karnataka the increase in own households was 21.89 per cent, rented households 58.93 per cent and 'other' households, 22.11 per cent during the same period (Table1). The growth in rented households increased tremendously compared to own and 'other' households.

Ownership Status		Ir	Idia		Karnataka				
	2001		201	1	200	1	2011		
510103	House holds	Percent	House holds	holds holds holds	Percent				
Own	166353066	86.7	213,526,283	86.6	80,28,342	78.5	97,86,047	74.2	
Rented	20230410	10.5	27,368,304	11.1	19,08,864	18.7	30,33,730	23.0	
Others	5380459	2.8	5,798,080	2.4	2,94,927	2.9	3,60,134	2.7	
Total house holds	191963935	100	246692667	100	1,02,32,133	100	1,31,79,911	100	

Table 1: Households by Ownership Status of the Houses - India and Karnataka (in Nos)

Source: Census of India, 2001 and 2011.

Based on this discussion the present study framed certain objectives. They are: investigate the factors that determine the construction of a house. Identify the factors influencing the non-preference for construction of a house in the village. Record socio-economic conditions of Dalits in Karnataka.

Research Methodology and Data Collection of the Study

Karnataka was purposively selected as the study area. The study employed rigorous field work methodology and collected the data for the analysis of gualitative and guantitative information. The study is based on the interdisciplinary approach to understand the persisting socio-economic conditions of the Dalit community. Secondary data was used to obtain background information on the Dalit community in Karnataka. The sample respondents were selected by using the multi-stage random sampling technique and the simplest form of the entire sampling procedure is presented in Table 2. In the first stage, the entire state was divided into three main regions namely, North, Central, and South Karnataka. In the second stage, according to Census 2011, two districts with the highest SC population in each region were selected as the study areas. The selected districts are Belgavi (Belgaum) and Kalaburagi (Gulbarga) in North Karnataka, Chitradurga and Davanagere in Central Karnataka and Mysuru and Tumakuru in South Karnataka. In the third stage, 2 villages with highest SC population were selected in each district. The selected villages are: Harugeri (Population 5,846) and Mugalkhod (5,579) in Belgavi district; Srinivas Saradgi (4,374) and Ravoor(3,794) in Kalaburagi; Naikanahatti (2,759) and Adivala (2,692) in Chitradurga; Towdur (3,387) and Uchangidurga (2,823) in Davanagere; Sosale (5,084) and Muguru (2,995) in Mysuru; Madalur (1,951) and Kodigenahalli (1,764) in Tumakuru (Table 2). Finally, in each village 150 households were selected randomly. The total sample size is 1,800.

Name of the Region	Name of the District	Name of the Village	Village total Population	Total-SC Population	Share of SC population in total village Population	Village share in District Population
	Delecui	Harugeri	28,754	5,846	20.3	1.30
North	Belgavi	Mugalkhod	25,835	5,579	21.6	1.24
Karnataka	Kalahuragi	Srinivas Saradgi	7,523	4,374	58.1	0.89
	Kalaburagi	Ravoor	12,117	3,794	31.3	0.77
	Chitraduraa	Naikanahatti	15,545	2,759	17.7	0.83
Central	Chitradurga	Adivala	7,550	2,692	35.7	0.81
Karnataka	Daviana	Towdur	6,113	3,387	55.4	1.07
	Davanagere	Uchangidurga	9,781	2,823	28.9	0.89
		Sosale	7,260	5,084	70.0	1.34
South	Mysore	Muguru	8,393	2,995	35.7	0.79
Karnataka	Turneloumu	Madalur	6,518	1,951	29.9	0.45
	Tumkuru	Kodigenahalli	7,075	1,764	24.9	0.41

Table 2: Population village wise in Karnataka State

Source: Census 2011.

Religion

Traditionally, religion is part of human life. In the Indian context most of the people are following Hindu culture, traditions, rituals and social practices. Knowingly or unknowingly, most of the Dalits follow Hindu religion in the villages selected for the study. A small per cent of the Dalits are Buddhist and a few are Christians. Most of the Madiga (SC-Sub-caste) caste households believe and are practicing Christianity but they do not have a Christian certificate.

Sub-caste of Dalits

Among the Dalits, there are nearly 101 sub-castes in Karnataka. According to our sample survey among the different sub-castes, Holeya (567) has the highest population, followed by Madiga (506), Adi Karnataka (323), Lambani (276), Bhovi (50), Bangajara (18), Dhora (17), Killi (15), Vaddar (10), Others (8), Madara (7), Samgar (1), Kakanoor (1) and Kudumban (1). In Karnataka the Lambani caste people are ahead in education and government employment compared to other Dalit sub-castes and they are not facing caste discrimination in society.

Own House and Importance

Ownership of a house is very important among the rural people because it is an indicator of social status and economic power. According to Iyer (1996) shelter is an economic asset and the State should provide shelter to the needy. Nearly 90 per cent of the villagers own their houses in India. Our primary survey reveals that nearly 96 per cent of the households have their own house.

The data collected reveals that a large number of Dalits have their own houses in the villages. Dhawan (1996) identified that the rapidly growing population is facing a housing problem in India. According to his estimation of every year 20 lakh houses are required to accommodate the growing population.

In Karnataka, 7 per cent of the people of North Karnataka region do not own a house. They belong to Harugeri (9%), Ravoor (8%), Mugalkhoda (7%) and Srinivas Saradgi (5%) villages (Table 3). At the same time most of the Dalits owned houses in the South Karnataka region. In addition, 99 per cent of Dalits in Mysuru district owned houses mainly because of the River Kaveri, which provides adequate water to the two villages under this study. In addition, these people get full employment in their villages during the Khariff and Rabi seasons.

		Own House		
Village and District	Yes	No	Total	
Harugeri	137 (91.33)	13 (8.67)	150 (100)	
Mugalkhoda	140 (93.33)	10 (6.67)	150 (100)	
Belagavi District (A)	277 (92.33)	23 (7.67)	300 (100)	
Ravoor	138 (92.00)	12 (8.00)	150 (100)	
Srinivasa Saradgi	143 (95.33)	7 (4.67)	150 (100)	
Kalaburagi District (B)	281 (93.67)	19 (6.33)	300 (100)	
Total North Karnataka (A+B)	558 (93.0)	42 (7.0)	600 (100)	
Adivala	144 (96.00)	6 (4.00)	150 (100)	
Nayakanahatti	144 (96.00)	6 (4.00)	150 (100)	
Chitradurga District ©	288 (96.00)	12 (4.00)	300 (100)	
Uchangidurga	139 (92.67)	11 (7.33)	150 (100)	
Towdur	149 (99.33)	1 (0.67)	150 (100)	
Davanagere District (D)	288 (96.00)	12 (4.00)	300 (100)	
Total Central Karnataka (C+D)	576 (96.0)	24 (4.00)	600 (100)	
Muguru	148 (98.67)	2 (1.33)	150 (100)	
Sosale	149 (99.33)	1 (0.67)	150 (100)	
Mysuru District(E)	297 (99.00)	3 (1.00)	300 (100)	
Kodigenahalli	144 (96.00)	6 (4.00)	150 (100)	
Madalur	147 (98.00)	3 (2.00)	150 (100)	
Tumakuru District (F)	291 (97.00)	9 (3.00)	300 (100)	
Total South Karnataka (E+F)	588 (98.0)	12 (2.0)	600 (100)	
Grand Total	1722 (98.0)	78 (4.33)	1800 (100)	

Table 3: Extent of Owning Houses in the Selected Villages (in Nos)

Source: Primary data, 2014.

Note: Figures in brackets are percentage to row totals.

Rented Households

According to our study, some of the respondents are staying in rented houses. Iyengar (1996) expressed that there was a shortage of housing in rural and urban areas in India. Mukherjee (1996) highlighted the importance of rural housing in India. In the absence of houses the poor people are forced to live in the open. Further, he observed that the poor people do not have their own

house/land/homestead and are staying in other's houses/land. Sharma (1996) expressed a shortage of houses for the growing population in India. He also said that the reasons for houselessness and low quality of houses in rural India are poverty/low income, rapid population growth, social value changes and environmental factors. According to Sharma population growth is only one of the factors responsible for the increase in demand for housing. In addition to that there is a corruption in the identification of the beneficiaries at the gross root level and he suggested that there is no political will to support construction of bulk housing in India. The present study reveals that (4.33%) Dalit families do not own houses (Table 3). Suvarna (1996) explained that a large number of people are homeless/shelter less in India. This situation is gradually increasing. According to Suvarna, "Homelessness is a wretched feeling." A homeless person cannot be happy in his life and he feels rootless, address-less and insecure. Our primary data reveals that 8 members have been staying in their relatives' houses and are not paying any rent while 70 families are paying rent. The average rent paid per year is Rs 5,864. The lowest average rent paid (Rs 250) is in Sosale village and the average highest rent paid (Rs14,400) is in Adivala village (Table 4).

Village/District	Number of Households	Total Rent (2013-14)	Average Rent (2013-14)
Harugeri	12	1,24,800	10,400
Mugalkhoda	10	45,000	4,500
Belagavi	22	1,69,800	7,718
Ravoor	12	31,900	2,658
Srinivasa saradgi	8	7,400	925
Kalaburagi	20	39,300	1,965
Adivala	4	57,600	14,400
Nayakanahatti	2	7,200	3,600
Chitradurga	6	64,800	10,800
Uchangidurga	9	37,390	4,154
Towdur	1	6,000	6,000
Davanagere	10	43,390	4,339
Muguru	2	1,000	500
Sosale	2	500	250
Mysuru	4	1,500	375
Kodigenahalli	6	82,100	13,683
Madalur	2	9,600	4,800
Tumakuru	8	91,700	11,462
Total	70	4,10,490	5,864

Table 4: Extent of Rent Paid by Households in the Selected Villages in Karnataka

Source: Primary data, 2014.

Number of Rooms

Construction of house is not sufficient. The number of rooms in the house is most important for the residents' well-being. In India; most of the rural house comprises a single room for the entire family. This is very bad for human well-being. According to Suvarna (1996) several lakhs of houses are one room only residences. The people living in single-room houses do not have privacy. The importance of a house, she stressed, is that it should ensure well-being and social security of the rural families. The author measured the quality of the house based on four parameters and the number of rooms in the house is the main one. Baker (1996) rightly pointed out that rural houses require a kitchen and energyefficient fire place with adequate ventilation. If smoke from the kitchen wood fire fills up the house it will have an adverse effect on the health of the residents, especially women, children and aged people. He also emphasized that in rural India people stay together with their children and their aged parents in single room due to lack of rooms. Mukherjee (1996) emphasized that since the house is small and the family size is big there is chance of high incidence of communicable diseases. According to our observation there are separate rooms for couples, elders and children. So, there is no privacy in life in rural areas. According to our study, 46 per cent of Dalit households have two rooms, 26 per cent live in single room, 19 per cent have three rooms and a small percentage has more than three rooms. Surprisingly, in Ravoor village one joint family lives in a house with 8 rooms (Table 5).

Village/District	One Room H/Hs	Two Rooms H/Hs	3 Rooms H/Hs	4 Rooms H/Hs	5 Rooms H/Hs	6 Rooms H/Hs	8 Rooms H/Hs	Total H/Hs
Harugeri	44 (32.12)	58 (42.34)	28 (20.44)	6 (4.38)	0 (0.0)	1 (0.73)	0 (0)	137
Mugalkhoda	57 (40.71)	53 (37.86)	23 (16.43)	5 (3.57)	1 (0.71)	1 (0.71)	0 (0)	140
Belagavi	101 (36.46)	111 (40.1)	51 (18.41)	11 (3.97)	1 (0.36)	2 (0.72)	0 (0)	277
Ravoor	40 (28.99)	60 (43.48)	22 (15.94)	12 (8.70)	1 (0.72)	1 (0.72)	2 (1.5)	138
Srinivasa saradgi	72 (50.35)	43 (30.07)	22 (15.38)	4 (2.80)	0 (0)	2 (1.40)	0 (0)	143
Kalaburagi	112 (39.86)	103 (36.6)	44 (15.66)	16 (5.69)	1 (0.36)	3 (1.07)	2 (0.7)	281
Adivala	28 (19.44)	85 (36.65)	20 (13.89)	8 (5.56)	3 (2.08)	0 (0.0)	0 (0)	144
Nayakanahatti	29 (20.14)	56 (38.89)	41 (28.89)	16 (11.1)	2 (1.39)	0 (0.0)	0 (0)	144
Chitradurga	57 (19.79)	141 (48.9)	61 (21.18)	24 (8.33)	5 (1.74)	0 (0.0)	0 (0)	288
Uchangidurga	50 (35.79)	57 (41.01)	31 (22.30)	1 (0.72)	0 (0.0)	0 (0.0)	0 (0)	139
Towdur	29 (19.46)	65 (43.62)	43 (28.86)	11 (7.38)	0 (0.0)	1 (0.67)	0 (0)	149
Davanagere	79 (27.43)	122 (42.4)	74 (25.69)	12 (4.17)	0 (0.0)	1 (0.35)	0 (0)	288
Muguru	40 (27.43)	66 (44.59)	27 (18.24)	13 (8.78)	0 (0.0)	2 (1.35)	0 (0)	148
Sosale	30 (20.13)	72 (48.32)	22 (14.77)	15 (10.1)	2 (1.34)	8 (5.37)	0 (0)	149

Table 5: No of Rooms in the House

Mysuru	70 (23.57)	138 (46.5)	49 (16.50)	28 (9.43)	2 (0.67)	10 (3.37)	0 (0)	297
Kodigenahalli	19 (13.19)	86 (59.72)	28 (19.44)	9 (6.25)	2 (1.37)	0 (0.0)	0 (0)	144
Madalur	10 (6.80)	96 (65.31)	25 (17.01)	12 (8.16)	3 (2.04)	1 (0.68)	0 (0)	147
Tumakuru	29 (9.97)	182 (62.5)	53 (18.21)	21 (7.22)	5 (1.72)	1 (0.34)	0 (0)	291
Grand Total	448 (26.1)	797 (46.3)	332 (19.3)	112 (6.6)	14 (0.8)	17 (0.99)	2 (0.1)	1722

Source: Field data, 2014.

Year of Construction of House

Human beings have a long life span. At the same time, a house also has a long life span. An average life span of a house is nearly 40 years. According to our field data, 26 per cent of the houses were constructed during 1991-2000. Between 2011 and 2014 it was only 15 per cent (Table 6).

Village/District	Before 1980	1981-1990	1991-2000	2001-2010	2011-2014	Total
Harugeri	9 (6.57)	22(16.06)	34 (24.82)	49 (35.77)	23 (16.79)	137
Mugalkhoda	19 (13.57)	29 (20.71)	33 (23.57)	38 (27.14)	21 (15)	140
Belagavi	28 (10.11)	51 (18.41)	67(24.19)	87 (31.41)	44 (15.88)	277
Ravoor	25 (18.12)	23 (16.67)	39 (28.26)	29(21.01)	22 (19.94)	138
Srinivasa saradgi	39 (27.27)	26 (18.18)	36 (25.17)	31(21.68)	11(7.69)	143
Kalaburagi	64 (22.78)	49 (17.44)	75 (26.69)	60 (21.35)	33 (11.74)	281
Adivala	24 (16.67)	27 (18.75)	40 (27.78)	33(22.92)	20 (13.89)	144
Nayakanahatti	19(13.19)	15 (10.42)	41(28.47)	42 (29.17)	27 (18.75)	144
Chitradurga	43 (14.93)	42 (14.58)	81 (28.13)	75 (26.04)	47(16.32)	288
Uchangidurga	24 (17.27)	31 (22.30)	28 (20.14)	32 (23.02)	24(17.27)	139
Towdur	28 (18.79)	17 (11.41)	41 (27.52)	29(19.46)	34(22.82)	149
Davanagere	52 (18.06)	48 (16.67)	69 (23.96)	61(21.18)	58 (20.14)	288
Muguru	69 (46.62)	21 (14.19)	27 (18.24)	17(11.4)	14 (9.46)	148
Sosale	38 (25.5)	27 (18.12)	44 (29.53)	27(18.12)	13(8.72)	149
Mysuru	107(36.1)	48(16.16)	71 (23.9)	44 (14.81)	27 (9.09)	297
Kodigenahalli	14(9.72)	24 (16.67)	50 (34.72)	38 (26.39)	18(12.5)	144
Madalur	7 (4.76)	21 (14.29)	43(29.25)	42(28.57)	34(23.13)	147
Tumakuru	21 (7.22)	45 (15.46)	93 (31.9)	80 (27.49)	52(17.87)	291
Total	315 (18.3)	283(16.4)	456 (26.5)	407 (23.6)	261 (15.2)	1722

Table 6: Period of Construction of House

Source: Primary data, 2014.

Source of Finance

Finance is the life-blood of a house. Without finance a suitable house cannot be constructed. The villagers construct houses by mobilising funds from different sources such as own source, government schemes, banks, co-operative societies, relatives, friends and multiple other sources. The Government of India and the Karnataka government sponsored housing schemes for rural families. Many Dalit

families constructed houses through the Indira Awas Yojana (IAY).Our study data reveals that 68 per cent of the houses were constructed with their own financial resources, 23 per cent through government schemes, banks, relatives and friends and 8 per cent with funds from multiple sources (Table 7).

Village/District	Own Source	Govt. Scheme	Banks, Relative and Friends	Multiple Source	Total
Harugeri	114(83.21)	6 (4.38)	5 (3.65)	12 (8.76)	137
Mugalkhoda	79 (56.43)	41(29.29)	1 (0.71)	19 (13.5)	140
Belagavi	193 (69.68)	47 (16.97)	6 (2.17)	31 (11.9)	277
Ravoor	122 (88.41)	6 (4.35)	4 (2.90)	6 (4.35)	138
Srinivasa Saradgi	136 (95.10)	4 (2.80)	3 (2.10)	0 (0)	143
Kalaburagi	258 (91.81)	10 (3.56)	7 (2.49)	6 (2.14)	281
Adivala	91 (63.19)	47 (32.64)	1 (0.69)	5 (3.47)	144
Nayakanahatti	109 (75.69)	29 (20.14)	1 (0.69)	5 (3.47)	144
Chitradurga	200 (69.44)	76 (26.39)	2 (0.60)	10 (3.47)	288
Uchangidurga	94 (67.63)	19 (13.67)	0 (0)	26 (18.71)	139
Towdur	109 (73.15)	29 (19.46)	1 (0.67)	10 (6.71)	149
Davanagere	203 (70.49)	48 (16.67)	1 (0.35)	36 (12.50)	288
Muguru	134 (90.54)	13 (8.78)	1 (0.68)	0 (0)	148
Sosale	125 (83.89)	23 (15.44)	1 (0.67)	0 (0)	149
Mysuru	259 (87.21)	36 (12.12)	2 (0.67)	0 (0)	297
Kodigenahalli	36 (25.0)	91 (63.19)	0 (0)	17 (11.81)	144
Madalur	22 (14.97)	81 (55.10)	1 (0.68)	43 (29.25)	147
Tumakuru	58 (19,93)	172 (59.11)	1 (0.34)	60 (20.62)	291
Total	1171 (68)	389 (22.59)	19 (1.10)	143 (8.30)	1722

Table 7: Source of Finance for Construction of Houses

Source: Primary data, 2014.

Reasons for Non-construction of House

Everybody wants to construct a good house. In the selected villages, 78 Dalit families do not own houses. They said that lack of finance, poverty and lack of land were the major reasons for not having their house. Among the reasons, lack of finance is the main cause for the families for not constructing their own houses.

Electricity Connection to Houses

Electricity connection is very important for a house. Raj (1996) focused on three basic facilities in a house and these are safe drinking water, toilet and electricity. He stressed that electricity is very important for households. According to his observation during 1981 to 1991, nearly 31 per cent of households had electricity connection. Having a house is not sufficient for Dalits. Supply of potable water and electricity and sanitation services are very essential. Now-a-day's electricity is very important for all domestic work like grinding, cooling and sometimes even cooking. Without electricity human

existence is very difficult in rural areas. Our study reveals that 93 per cent of the houses have power connection (Table 8).

Village/District	Yes	No	Total
Harugeri	131 (95.62)	6 (4.38)	137(100)
Mugalkhoda	121 (86.43)	19 (13.57)	140 (100)
Belagavi	252 (90.97)	25 (903)	277 (100)
Ravoor	131(94.93)	7 (5.07)	138 (100)
Srinivasa saradgi	137 (95.80)	6 (4.20)	143 (100)
Kalaburagi	268 (95.37)	13 (4.63)	281 (100)
Adivala	133 (92.36)	11 (7.64)	144 (100)
Nayakanahatti	133 (92.36)	11 (7.64)	144 (100)
Chitradurga	266 (92.36)	22 (7.64)	288 (100)
Uchangidurga	127 (91.37)	12 (8.63)	139 (100)
Towdur	147 (98.66)	2 (1.34)	149 (100)
Davanagere	274 (95.14)	14 (4.86)	288 (100)
Muguru	144 (97.30)	4 (2.70)	148 (100)
Sosale	145 (97.32)	4 (2.68)	149 (100)
Mysuru	289 (97.31)	8 (2.69)	297 (100)
Kodigenahalli	133 (92.36)	11(7.64)	144 (100)
Madalur	127 (86.39)	20 (13.61)	147 (100)
Tumakuru	260 (89.35)	31 (10.65)	291 (100)
Total	1609 (93.44)	113 (6.56)	1722 (100)

Table 8: Whether House is Electrified?

Source: Primary data, 2014.

Type of House

Based on the structure and materials used for construction, the houses are of three types: pucca (building materials are brick and mortar and other permanent materials), semi-pucca (building materials used for part of the construction of either the roof or the walls are mud or thatch) and Kuchha (materials used for construction are mud and thatch) (Tiwari, 2007).Our primary data reveals that 53 per cent of the families are living in semi-pucca houses, 25 per cent in Kuchha houses and 22 per cent in pucca houses. One-fifth (22%) of the families live in pucca houses and their capabilities are more as compared to those living in semi-pucca and Kuchha houses. Among the villages, 35 per cent of Kodigenhalli Dalits are living in pucca houses followed by Harugeri (33%), Ravoor (28%) and Uchangidurga (11%). Those living in pucca houses are protected from heat in the summer, rain and winds in the rainy season and the cold in winter season and enjoy a high level of dignity in the society/village. Our study reveals that majority of the Dalits live in semi-pucca houses followed by Towdur (71%), Adivala (67%) and Srinivasa Saradgi (14%) village. Kuchha houses. In, Srinivasa Saradgi village 64 per cent of Dalits live in Kuchha houses, 54 per cent in Ravoor, 28 per cent in Kodigenahalli and 12

per cent in Towdur (12%) (Table 9). In Srinivasa Saradgi village the Dalit houses are in a pathetic condition and the families suffer cold winds and heat. During rainy season rainwater enter the houses and they are unable to sleep at the night. Dalits are tolerating this problem. Government has to sanction pucca houses for Dalits in all the villages in Karnataka in general and particularly in Srinivasa Saradgi and selected villages of this study.

Ville and (District		Туре о	f House	
Village/District	Pucca	Semi-pucca	Kuchha	Total
Harugeri	45 (32.85)	69 (50.36)	23 (16.79)	137 (100)
Mugalkhoda	34 (24.29)	84 (60.00)	22 (15.71)	140 (100)
Belagavi	79(28.52)	153 (55.23)	45 (16.25)	277 (100)
Ravoor	38 (27.54)	26 (18.84)	74 (53.62)	138 (100)
Srinivasa Saradgi	31 (21.68)	20 (13.99)	92 (64.34)	143 (100)
Kalaburagi	69 (24.56)	46 (16.37)	166 (59.07)	281 (100)
Adivala	19 (13.19)	96 (66.67)	29 (20.14)	144 (100)
Nayakanahatti	22 (15.28)	103 (71.53)	19 (13.19)	144 (100)
Chitradurga	41 (14.24)	199 (69.10)	48(16.67)	288 (100)
Uchangidurga	15 (10.79)	86 (61.87)	38 (27.34)	139 (100)
Towdur	25 (16.78)	106 (71.14)	18 (12.08)	149 (100)
Davanagere	40 (13.89)	192 (66.67)	56 (19.44)	288 (100)
Muguru	35 (23.65)	87 (58.78)	26 (17.57)	148 (100)
Sosale	35 (23.49)	91 (61.07)	23 (15.44)	149(100)
Mysuru	70 (23.57)	178 (59.93)	49 (16.50)	297 (100)
Kodigenahalli	50 (34.72)	54 (37.50)	40 (27.78)	144 (100)
Madalur	24 (16.33)	97 (65.99)	26 (17.69)	147 (100)
Tumakuru	74 (25.43)	151 (51.89)	66 (22.68)	291 (100)
Total	373 (21.66)	919 (53.37)	430 (24.97)	1722 (100)

Table 9: Structure of Houses in the Selected Villages in Karnataka

Source: Primary data, 2014.

Type of Flooring

Different types of materials are used for laying the floor of the house. Those who are economically capable, use tiles, cement, stone and sand for floor of the house. The important materials used for flooring are mud, sand, and cement, cement with additional covering, stones, polished stones ceramic tiles and other suitable materials. Our study data reveals that majority of Dalits used cement (46%), mud (30%), stones (17%), others (4%) and wood (2%) for surface flooring. They did not use good materials like tiles and granite for flooring. About 50 per cent of the Dalits are poor and are unable to use good materials to construct their house. The flooring is made of cement most of the villages, Sosale (66%), Madalur (59%), Uchangidurga (56%) and Ravoor (12%) village (Table 10). Mud is not good for flooring. During rainy season water enters the houses and there is no difference between the inside of the house and outside. Srinivasa Saradgi has the highest per cent of houses with mud flooring (46%) followed by Nayakanahatti (41%), Adivala (38%) and Kodigenahalli village. In Kodigenahalli the Dalits

used cement (44%) and stones for flooring. This village is very near the Andhra Pradesh (AP) border and villagers import stones from that state.

Village/District	Mud	Wood	Cement	Cement with additional covering	Stones	Others	Total
Harugeri	43 (31.39)	4 (2.92)	69 (50.36)	2 (1.46)	17 (12.41)	2 (1.46)	137
Mugalkhoda	52 (37.14)	6 (4.29)	54 (38.57)	4 (2.86)	19 (13.57)	5 (3.57)	140
Belagavi	95 (34.30)	10 (3.6)	123 (44.40)	6 (2.17)	36 (13.00)	7 (2.53)	277
Ravoor	47 (34.06)	2 (1.45)	17 (12.32)	2 (1.45)	65 (47.10)	5 (3.62)	138
Srinivasa saradgi	65 (45.45)	1 (0.70)	32 (22.38)	13 (9.1)	23 (16.08)	9 (3.62)	143
Kalaburagi	112 (39.8)	3 (1.07)	49 (17.44)	15 (5.4)	88 (31.32)	14 (4.9)	281
Adivala	55 (38.19)	5 (3.47)	51 (35.42)	6 (4.17)	26 (18.06)	1 (0.69)	144
Nayakanahatti	59 (40.97)	2 (1.39)	61 (42.36)	3 (2.08)	13 (9.03)	6 (4.17)	144
Chitradurga	114 (39.5)	7 (2.43)	112 (38.89)	9 (3.13)	39 (13.54)	7 (2.43)	288
Uchangidurga	40 (28.78)	2 (1.44)	78 (56.12)	3 (2.16)	11 (7.91)	5 (3.60)	139
Towdur	45 (30.20)	7 (4.70)	71 (47.65)	1 (0.67)	20 (13.42)	5 (3.36)	149
Davanagere	85 (29.51)	9 (3.13)	149 (51.74)	4 (1.39)	31 (10.76)	10 (3.47)	288
Muguru	38 (25.68)	0 (0.0)	105 (70.95)	2 (1.35)	0 (0.0)	3 (2.03)	148
Sosale	41 (27.52)	1 (0.67)	98 (65.77)	2 (1.34)	1 (0.67)	6 (4.03)	149
Mysuru	79 (26.60)	1 (0.34)	203 (68.35)	4 (1.35)	1 (0.34)	9 (3.03)	297
Kodigenahalli	10 (6.94)	3 (2.08)	63 (43.75)	3 (2.08)	60 (41.67)	5 (3.47)	144
Madalur	18 (12.24)	0 (0)	86 (58.50)	2 (1.36)	32 (21.77)	9 (6.12)	147
Tumakuru	28 (9.62)	3 (1.03)	149 (51.20)	5 (1.72)	92 (31.62)	14 (4.81)	291
Total	513 (29.8)	33 (1.9)	785 (45.59)	43 (2.5)	287 (16.6)	61 (3.5)	1722

Table 10: Raw Material used for Flooring of House

Note: Others means: except mentioned material

Source: Primary data, 2014.

Roof of the House

The roof is one of the most important features of a house because it protects the people from the vagaries of nature like heavy rainfall, hot sunny days, strong winds, snow etc. Without the roof a house is not a suitable shelter for human beings. Evangelista's (2010) study observed that the roofless people are not capable and their choice is based on the scarcity of opportunities. Singh (1996) explained the

importance of construction of house and the materials used for the roof. According to his observation 50 per cent of the houses used biomass (chiefly thatch) material for construction of the roof, followed by mud and stone. Stone was used for construction of walls and is the cheapest material. Bhide et al (2009) examined the condition of houses built under the IAY programme. Most of the houses were constructed on small pieces of land (20 sq. ms including the verandah). The beneficiaries used metal sheets for the roof, which is not suitable during summer. The authors observed that low cost materials were used for construction of the roof. The choice of material for the roof will decide the level of protection the dweller will get from the air, sun light and rain. A roof constructed with concrete will have a long life span and protect the residents from harsh sunlight, heavy rains, winds etc. Our study, data reveals that most of the Dalits constructed their house roofs with slate (27%) followed by mud (22%), concrete (21%), stones (17%), multiple combination (1%) and tiles (1%) (Table11). The concrete (mixed with cement, small stones, iron rods and sand) is more suitable for construction of the house. Nearly 21 per cent of the Dalits constructed houses using cement. Among the villages, about 45 per cent of Dalits in Harugeri used thatch followed by Towdur (39%) and Mugalkhoda (31%). Some of the Dalits in Madalur village used timber (44%) and stones (37%) for the roof. Moreover in Srinivasa Saradgi, 40 per cent of the Dalits used mud for roofing followed by Uchangidurga (35%), Towdur (30%) and last place by Madalur village.

Village/ District	Mud	Concrete	Stones	Slates	Tiles	Multiple combination	Timber	Total
Harugeri	31 (22.63)	61 (44.53)	13 (9.49)	30 (21.90)	0 (0.0)	1 (0.73)	1 (0.73)	137
Mugalkhoda	40 (28.57)	43 (30.71)	7 (5.0)	47 (33.57)	1 (0.71)	1 (0.71)	1 (0.71)	140
Belagavi	71 (25.63)	104 (37.6)	20 (7.22)	77 (27.8)	1 (0.36)	2 (0.72)	2 (0.72)	277
Ravoor	36 (26.09)	19 (13.77)	73 (52.90)	3 (2.17)	1 (0.72)	5 (3.62)	1 (0.72)	138
Srinivasa Saradgi	57 (39.86)	19 (13. 29)	57 (39.86)	1 (0.70)	1 (0.70)	3 (2.10)	5 (3.50)	143
Kalaburagi	93 (33.10)	38 (13.52)	130 (46.3)	4 (1.42)	2 (0.71)	8 (2.85)	6 (2.14)	281
Adivala	28 (19.44)	28 (19.44)	0 (0.0)	78 (54.17)	1 (0.69)	0 (0.0)	9 (6.25)	144
Nayakanahatti	34 (23.61)	39 (27.08)	15 (10.42)	46 (31.94)	2 (1.39)	0 (0.0)	8 (5.56)	144
Chitradurga	62 (21.53)	67 (23.26)	15 (5.21)	124 (43.1)	3 (1.04)	0 (0.0)	17 (5.9)	288
Uchangidurga	48 (34.53)	33 (23.74)	3 (2.16)	54 (38.85)	0 (0.0)	1 (0.72)	0 (0.0)	139
Towdur	44 (29.53)	58 (38.93)	10 (6.71)	37 (24.83)	0 (0.0)	0 (0.0)	0 (0.0)	149
Davanagere	92 (31.94)	91 (31.60)	13 (4.51)	91 (31.6)	0 (0.0)	1 (0.35)	0 (0.0)	288
Muguru	27 (18.24)	23 (15.54)	1 (0.68)	57 (38.51)	1 (0.68)	0 (0.0)	39 (26.3)	148
Sosale	29 (19.46)	17 (11.4)	0 (0.0)	61 (40.94)	0 (0.0)	1 (0.67)	41 (27.52)	149
Mysuru	56 (18.86)	40 (13.47)	1 (0.34)	118 (39.7)	1 (0.34)	1 (0.34)	80 (26.9)	297
Kodigenahalli	8 (5.56)	19 (13.19)	59 (40.97)	23 (15.97)	2 (1.39)	1 (0.69)	32 (22.2)	144

Table 11: Raw Materials used for Construction of Roof

Madalur	2 (1.36)	1 (0.68)	55 (37.41)	20 (13.61)	2 (1.36)	2 (1.36)	65 (44.2)	147
Tumakuru	10 (3.44)	20 (6.87)	114 (39.2)	43 (14.78)	4 (1.37)	3 (1.03)	97 (33.3)	291
Total	384 (22.3)	360 (20.9)	293 (17.1)	457 (26.5)	11 (0.64)	15 (0.87)	202 (11.7)	1722

Source: Primary data, 2014.

Wellbeing of Households

In the discussion it is important to find how the quality of life of Dalits has improved in terms of housing and habitation. Generally rural people work in day time and evening come back to their respective houses/shelters. The house has to provide the security to the person when he is resting. If a house does not fulfill the house holders' needs in terms of facilities, there is no wellbeing in their life. In this context, those who used appropriate raw materials for construction of their house, had adequate number of rooms, a strong roof and safe floor with electricity connection enjoyed higher levels of wellbeing. According to our study, irrespective of the type of house built, 90 per cent of the Dalits reported that they are adjusting with whatever the type of house they owned and 10 per cent admitted they are not comfortable in their houses (Table12).

Village/District	Comfortable	Not Comfortable	Total	
Harugeri	118(86.13)	19 (13.87)	137 (100)	
Mugalkhoda	128(91.43)	12(8.57)	140(100)	
Belagavi	246(88.81)	31(11.19)	277 (100)	
Ravoor	122(88.41)	16 (11.59)	138(100)	
Srinivasa Saradgi	135(94.41)	8(5.59)	143(100)	
Kalaburagi	257(91.46)	24(8.54)	281 (100)	
Adivala	132(91.67)	12(8.33)	144(100)	
Nayakanahatti	130(90.28)	14(9.72)	144(100)	
Chitradurga	262(90.97)	26(9.03)	288 (100)	
Uchangidurga	134(96.40)	5(3.60)	139(100)	
Towdur	146(97.99)	3(2.01)	149(100)	
Davanagere	280(97.22)	8(2.78)	288 (100)	
Muguru	126(85.14)	22(14.86)	148(100)	
Sosale	132(88.59)	17(11.41)	149(100)	
Mysuru	258(86.87)	39(13.13)	297 (100)	
Kodigenahalli	118(81.94)	26(18.06)	144(100)	
Madalur	133(90.48)	14(9.52)	147(100)	
Tumakuru	251(86.25)	40(13.75)	291 (100)	
Total	1554(90.24)	168(9.76)	1722 (100)	

Table12: Comfortableness in the House (in terms of space, sleeping etc,)

Source: Primary data, 2014

Reasons for not Comfortable in the House

We asked the respondent if they were satisfied with their houses and they gave various answers ranging from' house is very small, no space ,family size is big, single room, very old, damaged, possibility of collapse of roof/walls etc'. Due to poverty they were unable to construct a better house.

Conclusion and Findings of the Study

Our primary investigation finds that 99 per cent of Dalits in Mysuru district owned a house. In Mysuru district, the River Kaveri provides water to the two villages throughout the year. In addition, the Dalits get employment in their villages in the Khariff and Rabi seasons. However, there are no separate rooms for parents, elders and children. Privacy is lacking in rural households. Nearly 46 per cent of the Dalit households lived in two-room houses, 26 per cent in single room houses and 19 per cent in three-room houses. In Srinivasa Saradgi, the houses of Dalits were vulnerable to cold winds, harsh sun light. Finally, due to lack of financial support, the Dalits constructed roofs with mud.

Lack of finance, poverty and lack of adequate land are the major factors preventing Dalit families from constructing their own houses. The government has to sanction pucca houses for Dalits in all the villages in Karnataka state in general and Srinivasa Saradgi village in particular.

References

Dhawan G (1996). Families: Victims of Poverty and Homelessness. Kurukshtra, XLIV (8 & 9): 25-28.

- Evangelista Fernandez Guillem (2010). Poverty, Homelessness and Freedom: An Approach from the Capability Theory. *European Journal of Homelessness*, 4: 189-202.
- Iyengar R N (1996). Rural Housing: A Discussion. Kurukshtra, XLIV (8 & 9): 10-12
- Iyer Krishna V R (1996). Housing As a Human Right. Kurukshtra, XLIV (8 & 9): 23-24.
- Maruthi I and Busenna Pesala (2014). Small and Marginal Dalit Farmers in Rainfed Agriculture in Karnataka. A paper presented in National seminar on 22nd to 24th of September 2014, held at IDS Jaipur.
- Mukherjee, Neela (1996). Rural Poor and Housing: Issues and Approaches. *Kurukshtra*, XLIV, (8 & 9): 29-34.

Raj K N (1996). Rural Housing in India. Kurukshtra, XLIV (8 & 9): 3-4.

- Rani Suvarna G (1996). Socio-economic Analysis of Housing in India. Kurukshtra, XLIV (8 & 9): 51-54.
- Sharma A K (1996b). Rural Housing: Problems and Perspectives. *Kurukshtra*, XLIV (8): 35-38.
- Sharma S K (1996a). Human Right to Housing Processes. *Kurukshtra*, XLIV (8 & 9): 13-16.

Singh Amita (1996). Designing Clean and Green Villages. Kurukshtra, XLIV (8 & 9): 47-49.

Singh Krishna (1996). A Roof Over Your Head. Kuruksehtra, XLIV (8 & 9): 43-45.

Tiwari Piyus (2008). India Infrastructure Report, 2007. 247-263.

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