Chapter 7

STANDARD OF LIVING

7.1 Introduction

The quality of life of people is measured by the basic indicators of clean air and pure drinking water, basic amenities and services. The extent of availability and accessibility to these services is an aspect of Human Development. Some of the indicators are purchasing power determined by employment or earning, health determined by life expectancy and education in terms of improved – literacy levels for both male and female population. In the Indian context all these aspects have to be analysed in detail to assess development. Apart from food and clothing, shelter occupies the third position which perhaps could be considered to determine the quality of living. It also refers to the economic and physical quality of living in urban and rural areas. In the process of understanding these interrelated aspects, the present chapter outlines the status of communities on housing along with related infrastructure.

7.2 Housing Status

The number of dwelling rooms occupied by a family is a function of both the size of the family and economic standing of the family. This analysis becomes more pertinent in view of increasing number of families moving to poorer quality of houses.

7.2.1 Dwelling Rooms

The status of the families on the number of dwelling rooms occupied is as follows:

1. The percentage of rural families occupying houses with 2 to 4 rooms among all the households was 47.32% in 2001 and it is 38.62% in 2011. The percentage of families occupying houses with more than 5 rooms has declined from 3.56% to 1.28 %. On the contrary, there is a marginal increase in the number of households occupying houses without exclusive room (14.94% during 2001 and 21.88% during 2011). There is a marginal increase in the number of households occupying single room as well [34.18% during 2001 and 38.22% during 2011]. Thus, it can be inferred that there is 'crowding' at the household level. The trends are similar in the urban families as well.

It is found that there is a direct correlation between the household size and the number of dwelling rooms occupied. Among families with lone members, during 2011, 24.36% occupied houses with two to four rooms and 41.56 % lived in single room accommodation. About 33.45% had no exclusive room. On the contrary, in respect of very large families (families with more than 9 members), 8.03% of the families occupied houses with more than 5 rooms. It is important to note that families with two to four members were better placed than the other households. Only 20.08% occupied single room houses. Thus, it could be concluded that small and medium sized families were found to be living in dwelling units with better space or accommodation.

Fig.7.1: Households by No. of Dwelling Rooms– 2001 & 2011

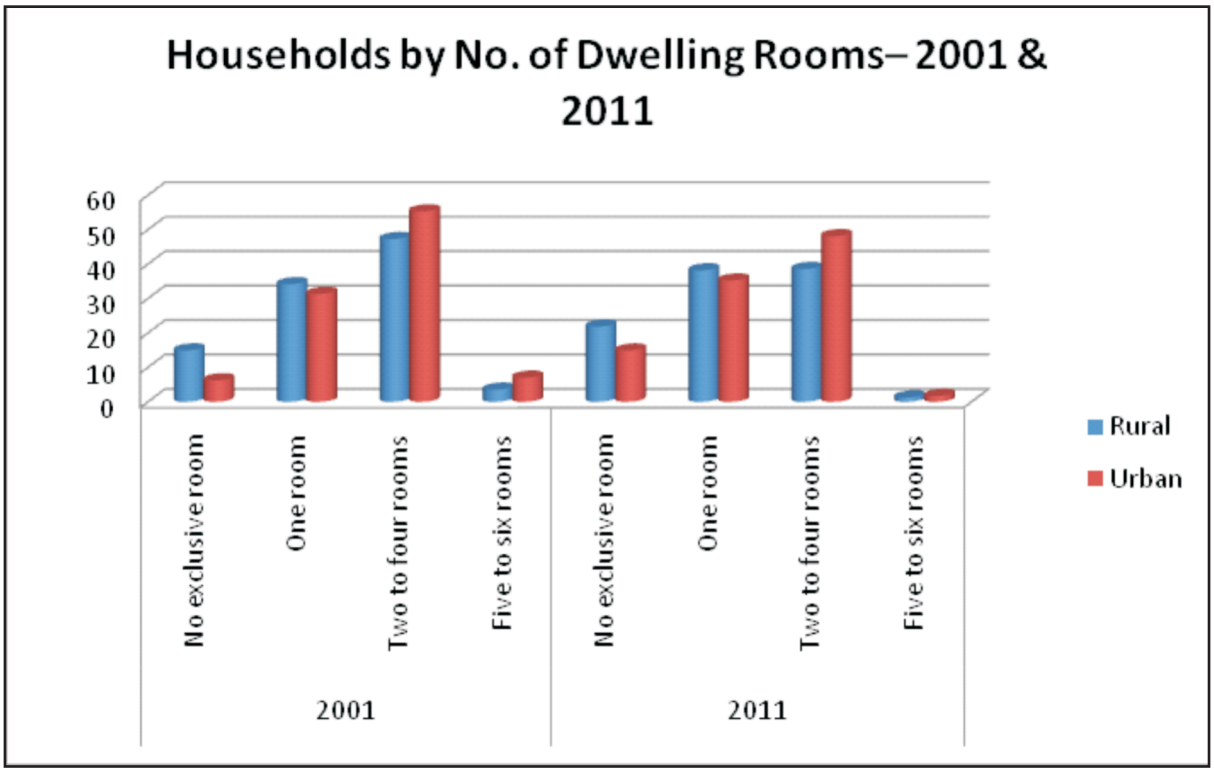




Fig. 7.2: 2013-14 IAY House in Kannimedi

Table No.7.1: Households by No. of Dwelling Rooms– 2001 & 2011 (No. & %)

Ownership status	Household size	2001					2011				
			Households having number of dwelling rooms					Households having number of dwelling rooms			
		Total number of households	No exclusive room	One room	Two to four rooms	Five to six rooms	Total number of households	No exclusive room	One room	Two to four rooms	Five to six rooms
Rural											
Total	All Households	439,243	65,640	150,141	207,836	15,626	43,446	9,506	16,604	16,781	555
			14.94	34.18	47.32	3.56		21.88	38.22	38.62	1.28
Urban											
Total	All Households	106,250	6,637	33,318	58,803	7,492	7,949	1,186	2,803	3,824	136
			6.25	31.36	55.34	7.05		14.92	35.26	48.11	1.71

Source: Census of India, 2001 & 2011

7.2.2 Dwelling Rooms and Married Couples

Table No.7.2: Households by Dwelling Rooms and Married Couples - 2001 & 2011 (No. & %)

			2001					2011				
Total/ Rural/ Urban	Number of married couples in a household		Total no. of households	Number of dwelling rooms				Total number of households	Number of dwelling rooms			
				No exclusive room	1 room	2-4 rooms	5-6 rooms and above		No exclusive room	1 room	2-4 rooms	5-6 rooms and above
Total	Total	No.	545,493	72,277	183,459	266,639	23,118	636,394	123,358	222,893	275,995	14,148
		%		13.25	33.63	48.88	4.24		19.38	35.02	43.37	2.22
	None	No.	59,450	13,261	24,284	20,947	958	92,983	27,452	35,100	29,332	1,099
		%		22.31	40.85	35.23	1.61		29.52	37.75	31.55	1.18
	1	No.	403,996	51,815	141,943	196,291	13,947	441,261	81,603	161,223	190,091	8,344
		%		12.83	35.13	48.59	3.45		18.49	36.54	43.08	1.89
	2 to 4	No.	81,211	7,149	17,137	49,004	7,921	101,743	14,283	26,528	56,321	4,611
		%		8.80	21.10	60.34	9.75		14.04	26.07	55.36	4.53
	5+	No.	836	52	95	397	292	407	20	42	251	94
		%		6.22	11.36	47.49	34.93		4.91	10.32	61.67	23.10
Rural	Total	No.	439,243	65,640	150,141	207,836	15,626	495,885	105,668	178,248	202,638	9,331
		%		14.94	34.18	47.32	3.56		21.31	35.95	40.86	1.88
	None	No.	47,639	11,485	19,166	16,341	647	74,236	23,060	28,281	22,140	755
		%		24.11	40.23	34.30	1.36		31.06	38.10	29.82	1.02
	1	No.	320,283	47,257	115,249	149,034	8,743	335,143	69,379	126,536	134,055	5,173
		%		14.75	35.98	46.53	2.73		20.70	37.76	40.00	1.54
	2 to 4	No.	70,575	6,847	15,635	42,095	5,998	86,166	13,212	23,396	46,223	3,335
		%		9.70	22.15	59.65	8.50		15.33	27.15	53.64	3.87
	5+	No.	746	51	91	366	238	340	17	35	220	68
		%		6.84	12.20	49.06	31.90		5.00	10.29	64.71	20.00
Urban	Total	No.	106,250	6,637	33,318	58,803	7,492	140,509	17,690	44,645	73,357	4,817
		%		6.25	31.36	55.34	7.05		12.59	31.77	52.21	3.43
	None	No.	11,811	1,776	5,118	4,606	311	18,747	4,392	6,819	7,192	344
		%		15.04	43.33	39.00	2.63		23.43	36.37	38.36	1.83
	1	No.	83,713	4,558	26,694	47,257	5,204	106,118	12,224	34,687	56,036	3,171
		%		5.44	31.89	56.45	6.22		11.52	32.69	52.81	2.99
	2 to 4	No.	10,636	302	1,502	6,909	1,923	15,577	1,071	3,132	10,098	1,276
		%		2.84	14.12	64.96	18.08		6.88	20.11	64.83	8.19
	5+	No.	90	1	4	31	54	67	3	7	31	26
		%		1.11	4.44	34.44	60.00		4.48	10.45	46.27	38.81

Source: Census of India, 2001 & 2011

It is interesting to note that there is correspondence between the number of couples living in a house and the number of dwelling rooms available. However, it is found that a third of the families suffer from want of adequate space. This is evident in the households with single married couples. During 2011, there were about 69.33% families belonging to this group and of them more than 50% lived in a house with no exclusive room or with only one exclusive room. The percentage was marginally lower during 2011.

There are marginal variations between the rural and urban areas in Tumakuru district. Of the families with one married couple, during 2011, 20.70% had no exclusive room. The percentage with no exclusive room in the urban areas was 11.52%. Similarly, the percentage of families with single couple occupying three rooms is higher in the urban areas [52.81%] than in the rural areas [40%]. The percentage of households with 2 to 4 married couples and occupying three rooms is also different. Thus, the nuclear families in the urban areas are able to find an accommodation with more number of rooms than those in the rural areas. This is evident from the above table 7.2.

7.3 Site-less Households

Table No.7.3: Site-less Households-2011 (No. & %)

Sl. No.	Taluk	Number	Percentage
1	C.N.Halli	23007	43.73
2	Gubbi	27717	43.52
3	Koratagere	18173	44.74
4	Kunigal	9617	17.31
5	Madhugiri	30159	47.18
6	Pavagada	24565	44.14
7	Sira	29710	41.99
8	Tiptur	14925	27.1
9	Tumakuru	41959	29.95
10	Turuvekere	7452	17.7
	Total	248159	38.77

Source : Zilla Panchayath, 2011

The total number of site less households in the district is 2, 48,159. They account for 38.77% of the total households in the district. The percentage of the site less households is high in taluks such as Madhugiri, Pavgada, CN Halli, etc. The least percentage of the households without sites are reported from Kunigal [17.31%) and Turuvekere (17.7%) taluks.

7.4 Households with Pucca Houses

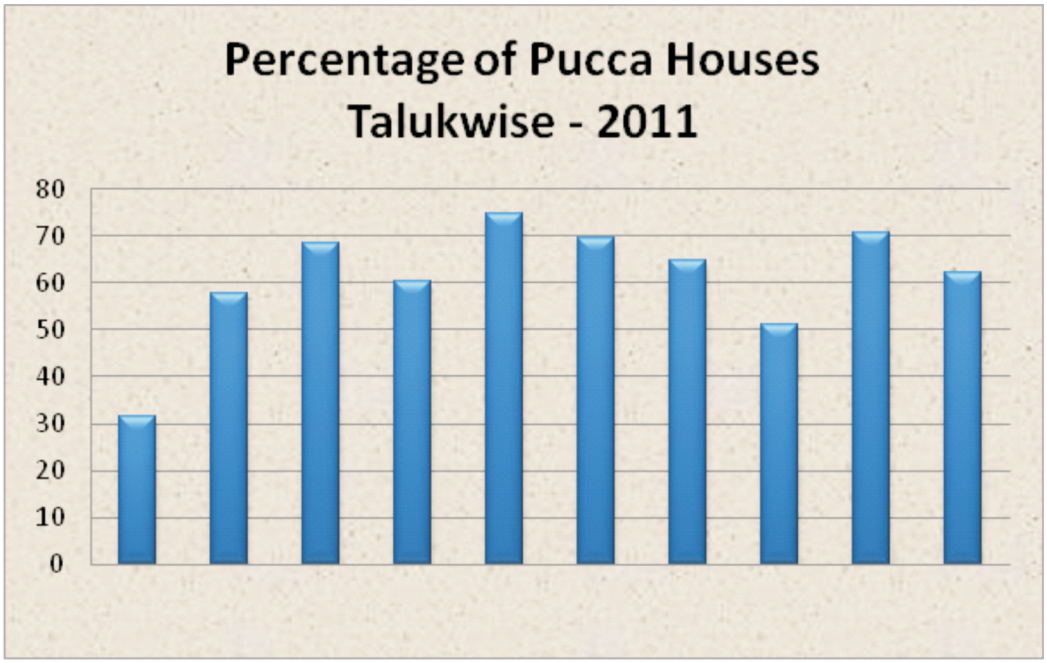
Table No.7.4: Households with Pucca Houses - 2011 (No. & %)

Sl.No.	Taluk	Households with Pucca Houses	
		Number	%
1	C.N. Halli	16607	31.57
2	Gubbi	36820	57.81
3	Koratagere	27853	68.57
4	Kunigal	33586	60.45
5	Madhugiri	47718	74.65
6	Pavagada	38637	69.43
7	Sira	45823	64.76
8	Tiptur	28165	51.14
9	Tumakuru	99144	70.77
10	Turuvekere	26123	62.05
	Total	400476	62.57

Source: Census of India, 2011

Of the total number of houses in the district, only 62.57 % are reported to be having pucca houses in 2011. Across Taluks, C.N. Halli Taluk has the least percentage of pucca houses [31.57%] and the highest is in Madhugiri Taluk [74.65%]. In spite of Tiptur taluk being an economically developed taluk, only half of the households have pucca houses. The variations in the proportion of pucca houses in different taluks could be attributed to the varied socio-economic condition of the households in the taluks.

Fig.7.3: Percentage of Pucca Houses Taluk wise - 2011



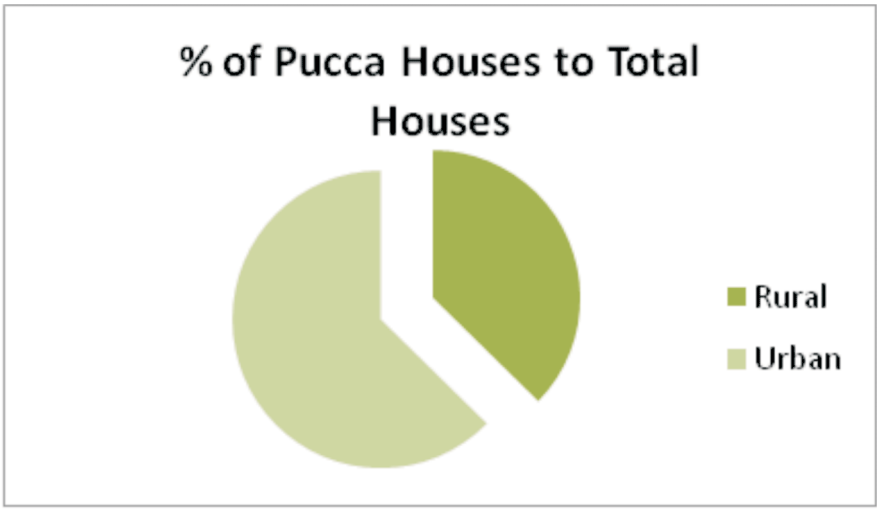
7.4.1 Rural and Urban

Table No. 7.5: Rural and Urban (%)

	% of Pucca Houses to Total Houses
Rural	31.72
Urban	53.24

Source: Census of India, 2001

Fig.7.4: Distribution of Pucca Houses to Total Houses



In terms of the housing infrastructure, the urban houses are found to fare better than the rural houses. This is evident from the fact that 53.24 % of the urban houses are pucca when compared to 31.72 % of the rural houses in rural areas.

Analysis of data during previous decades reveals marginal changes in their percentage. The percentage of pucca houses which stood at 26.70 in 1991 increased to 31.28% in 2001 and thereafter there were marginal changes. This may be due to limited addition of new houses and marginal up gradation of kuchcha houses to pucca houses. On the other hand, the percentage of pucca houses in urban areas was 66.59 in 1991 and 70.85% in 2001. Thus, even after the addition of 20% of houses to the total houses there is no significant rise in the pucca houses. The new houses are thus not necessarily be pucca Houses (about 20%).

7.5. Households without Proper Houses

The census records provide information on the quality of housing infrastructure. The housing units are classified into good, liveable and dilapidated type. It also provides desegregated data for rural and urban areas and for Scheduled Caste and Tribes separately. The data for the district is given in table 7.6.

Table No.7.6: Households by Quality of Housing – 2001 & 2011 (No. & %)

Total/ Rural/ Urban		2001				2011			
		Residence				Residence			
		Total	Good	Liveable	Dilapidated	Total	Good	Liveable	Dilapidated
Total	No.	513,818	196,268	289,024	28,526	612,374	351,717	229,661	30,996
	%		38.20	56.25	5.55		57.43	37.50	5.06
Rural	No.	410,285	138,951	246,639	24,695	474,178	255,144	191,438	27,596
	%		33.87	60.11	6.02		53.81	40.37	5.82
Urban	No.	103,533	57,317	42,385	3,831	138,196	96,573	38,223	3,400
	%		55.36	40.94	3.70		69.88	27.66	2.46

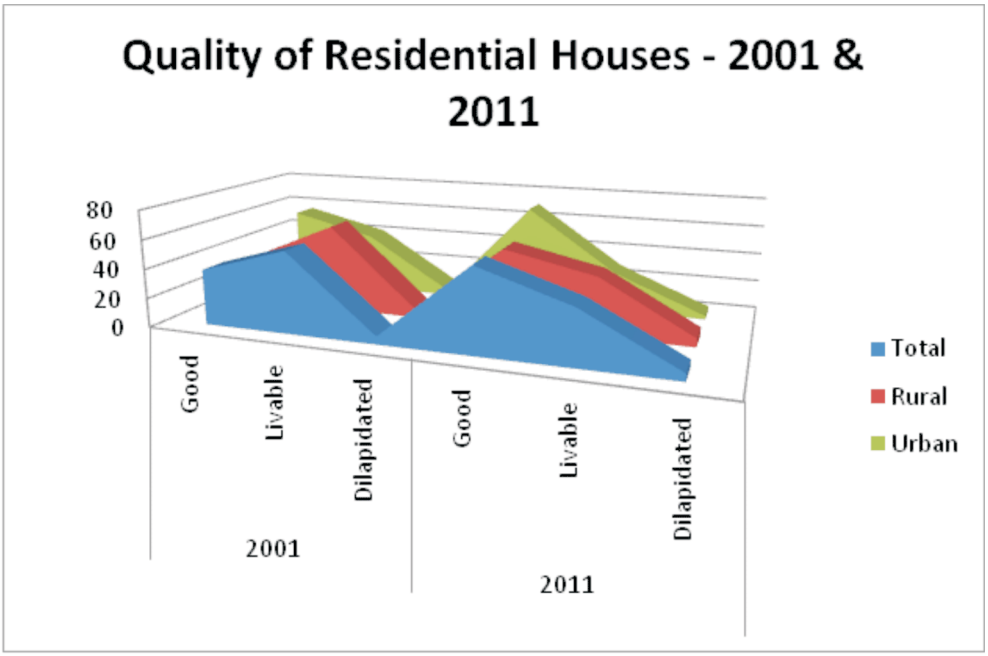
Source: Census of India, 2001 & 2011

Of the total houses which are exclusively used for residence, 38.20 % of them are classified as good, 56.25 %as liveable and 5.55 % as dilapidated in 2001. These percentages were 57.43, 37.50 and 5.06 respectively in 2011. It is interesting to note that the percentage of 'good houses' has increased significantly, whereas the percentage of 'liveable' houses has decreased. There is a marginal decrease in the number of dilapidated housing units. This is definitely an indication of improvement in the quality of houses in the district. The trends are similar in rural and urban areas. The observations on the quality of housing are as follows:

- Only little more than 50% of houses in rural areas are 'good'. The percentage of 'good houses' in the urban areas is nearly 70. Thus, the rural households are relatively disadvantaged when compared to urban households.

The percentage of families occupying in 'liveable' accommodation is more than 40% in the rural and about 30% in the urban areas in 2011. Thus, a marginally higher percentage of rural households are living in accommodation which are crowded, poorly ventilated and perhaps a kuchha type of accommodation.

Fig.7.5: Quality of Residential Houses - 2001 & 2011



7.5.1 Scheduled Caste

Table No.7.7: Quality of Housing among Scheduled Castes – 2001 & 2011 (No. & %)

Total/ Rural/ Urban		Schedule Caste							
		2001				2011			
		Residence				Residence			
		Total	Good	Liveable	Dilapidated	Total	Good	Liveable	Dilapidated
Total	No.	98,323	30,690	60,321	7,312	114,543	56,784	50,013	7,746
	%		31.21	61.35	7.44		49.57	43.66	6.76
Rural	No.	86,025	25,254	54,352	6,419	97,532	46,944	43,883	6,705
	%		29.36	63.18	7.46		48.13	44.99	6.87
Urban	No.	12,298	5,436	5,969	893	17,011	9,840	6,130	1,041
	%		44.20	48.54	7.26		57.84	36.04	6.12

Source: Census of India, 2001 & 2011

The housing condition of scheduled caste families has undergone change from 2001 to 2011. The trend indicates that the number of 'good' houses has increased, while the number of 'liveable' houses has decreased during this period. The most striking feature is that the number of 'dilapidated' houses has also decreased. The trend is the same among the families living in 'rural' and 'urban' areas. All these points indicate that there is an improvement in the quality of housing units occupied by scheduled caste families.

7.5.2 Scheduled Tribe

Table No.7.8: Quality of Housing among Scheduled Tribes– 2001 & 2011 (No. & %)

Total/ Rural/ Urban		Scheduled Tribe							
		2001				2011			
		Residence				Residence			
		Total	Good	Liveable	Dilapidated	Total	Good	Liveable	Dilapidated
Total	No.	42,715	13,885	26,093	2,737	50,159	27,212	19,944	3,003
	%		32.51	61.09	6.41		54.25	39.76	5.99
Rural	No.	36,810	11,058	23,339	2,413	42,300	22,017	17,618	2,665
	%		30.04	63.40	6.56		52.05	41.65	6.30
Urban	No.	5,905	2,827	2,754	324	7,859	5,195	2,326	338
	%		47.87	46.64	5.49		66.10	29.60	4.30

Source: Census of India, 2001 & 2011

Analysis of the housing of scheduled tribe families also reveals the same scenario as that of the scheduled castes. The pattern is similar in rural and urban areas. Thus, it could be concluded that the scheduled tribe families in Tumakuru district are living in a slightly better housing condition than the scheduled caste families.

7.6 Households and Asset Status

Table No.7.9: Households by Nature of Assets Owned – 2001 (No. & %)

Total/ Rural/ Urban		Total number of households	Total number of households availing banking services	2001						
				Availability of assets						
				Radio, Transistor	Television	Telephone	Bicycle	Scooter, Motor Cycle, Moped	Car, Jeep, Van	None of the specified assets
Total	No.	545,493	156,795	243,273	154,653	42,948	208,897	61,626	6,897	201,684
	%			44.60	28.35	7.87	38.30	11.30	1.26	36.97
Rural	No.	439,243	106,095	189,049	89,014	17,078	164,726	33,668	3,194	177,747
	%			43.04	20.27	3.89	37.50	7.67	0.73	40.47
Urban	No.	106,250	50,700	54,224	65,639	25,870	44,171	27,958	3,703	23,937
	%			51.03	61.78	24.35	41.57	26.31	3.49	22.53

Source: Census of India, 2001

One of the prominent aspects of standard of living is the number of assets owned by families. Some of the commonly used and owned assets include Radio, Television, Telephone, Bicycle, Two wheelers, car and so on. The data given in table 6.9 for 2001 indicates that majority of the households [44.60%] own Radio or Transistor. Among the rural and urban households, there is more number of families owning television in urban areas [61.78%] than in rural areas [20.27%]. The ownership of bicycles and two-wheelers is more pronounced in urban areas [67.88%] when compared to rural areas [45.17%]. The increased ownership may be a reflection of the increased intra urban mobility among the members or the families. The most striking observation is that the number of households without assets in the rural areas (40.47%) is almost twice that in the urban areas (22.53%). This is an indication of relatively higher standard of living among the households in urban areas than in rural communities.

On the other hand, there are significant variations in the assets owned in for 2011. Thus, the households owning a radio / transistor for 2011 are only 20.83% and the households owning a television is 50.57 %. Thus, there is the increased ownership of the television sets and reflects the preference for the visual media. The trends are more significant in the urban areas than in the rural areas. There are also significant variations between the rural and the urban areas in terms of ownership of other assets such as the bicycle or two wheelers. About 15 % of the urban households own a computer with or without internet facility.

With a view to help in understanding the status of the households on assets among the taluks better, the same has been attempted for Tiptur taluk. The relatively higher percentage of the urban households than the rural households is reported to be owning assets such as the television (59.18% in rural households and 81.20% in urban households), computer (around 3% in rural and 12% in urban households), two wheeler (22.92%) of rural households and 37.54% in urban households), etc. Thus, it is indicative of the relatively better economic standing among families living in urban areas than those living in rural areas.



Fig. 7.6: Use of Mobile Phones by the Local People in the District

Table No.7.10: Households by Nature of Assets Owned – 2011 (No. & %)

Total/ Rural/ Urban		Total number of households	Total number of households availing banking services	2011												
				Availability of assets												
				Radio/ Transistor	Television	Computer/Laptop		Telephone/Mobile Phone			Bicycle	Scooter/ Motorcycle/Moped	Car/ Jeep/Van	Households with TV, Computer/Laptop, Telephone/mobile phone and Scooter/ Car	None of the assets specified in col. 10 to 19
						With Internet	Without Internet	Landline only	Mobile only	Both					
Total	No	636,394	313,186	132,572	321,848	7,971	33,780	53,802	285,439	33,669	276,586	137,806	14,929	16,675	127,061
	%			20.83	50.57	1.25	5.31	8.45	44.85	5.29	43.46	21.65	2.35	2.62	19.97
Rural	No	495,885	232,783	106,010	214,233	2,086	18,353	44,341	197,347	23,550	221,768	86,088	6,198	3,388	114,302
	%			21.38	43.20	0.42	3.70	8.94	39.80	4.75	44.72	17.36	1.25	0.68	23.05
Urban	No	140,509	80,403	26,562	107,615	5,885	15,427	9,461	88,092	10,119	54,818	51,718	8,731	13,287	12,759
	%			18.90	76.59	4.19	10.98	6.73	62.69	7.20	39.01	36.81	6.21	9.46	9.08

Source: Census of India, 2011

The above analysis suggests that more and more families are in the process of acquiring assets which will enable them to lead a better life. This is perhaps coupled with increasing returns from the employment. The urban families are found to be improving better than the rural families. In view of the fact that a large percentage of the families are living in rural areas, there is need for more efforts to bring about change in villages and smaller settlements.

7.7 Schemes for Housing Facilities

In Karnataka, the shelter programmes targeted for the benefit of poor are:

The Ashraya scheme of the State government implemented, through the Deputy Commissioners in the district, distributes sites free of cost to the economically poorer families.

* The Basava Vasathi programme is the most important housing scheme for the poor in Karnataka. The unit cost is Rs. 1,50,000, out of which Rs. 1,20,000 is contributed by the State. The remaining is loan or will be the beneficiary contribution.

* Dr. Ambedkar Housing Scheme provides houses to members of the Scheduled Castes and Scheduled Tribes. The entire cost of Rs. 50,000 per house is met by the government.

* The Indira Avas Yojana is a centrally sponsored scheme. Of the total cost, 80% is borne by the Government of India and the balance is contributed by the State government.

7.8 Drinking Water



Fig 7.7: Safe Handling of Drinking Water at the Household Level

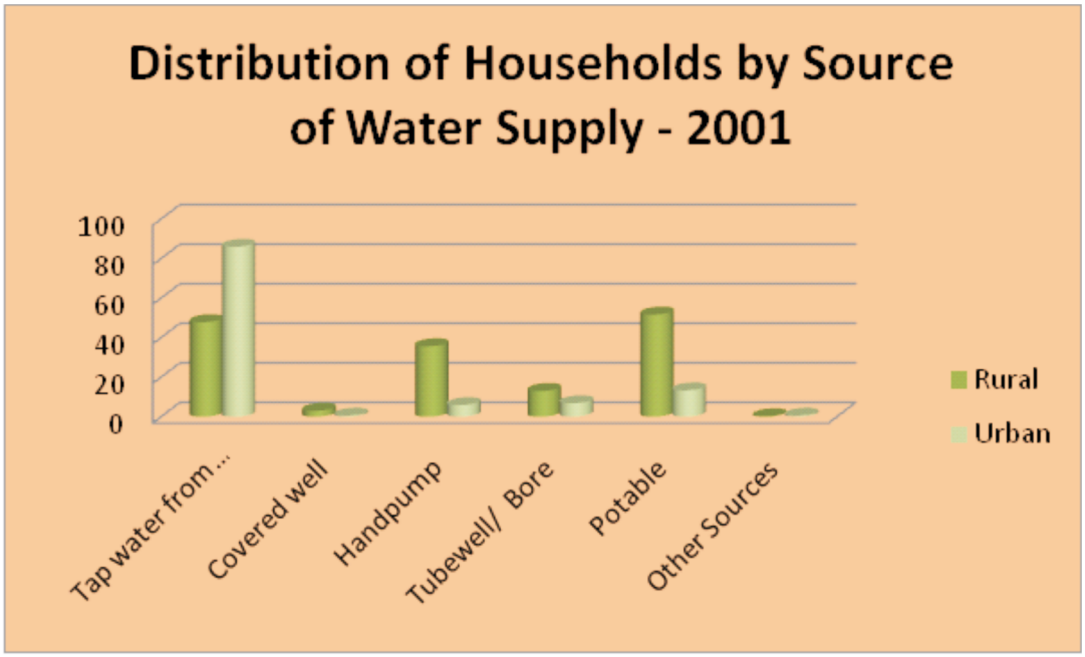
Table 7.11 : Households by Source of Drinking Water Supply-2001 (No. & %)

Total/Rural/Urban	Location		Total number of households	Source of drinking water					
				Tap water from treated source	Covered well	Handpump	Tubewell/ Bore	Potable	Other Sources
Total	Total	No.	545,493	301,410	13,856	162,870	64,523	241,249	1,685
		%		55.25	2.54	29.86	11.83	44.23	0.31
	Within Premises	No.	105,943	81,643	981	8,966	14,280	24,227	57
		%		77.06	0.93	8.46	13.48	22.87	0.05
	Near Premises	No.	323,829	177,758	6,457	104,804	34,114	145,375	322
		%		54.89	1.99	32.36	10.53	44.89	0.10
	Away	No.	115,721	42,009	6,418	49,100	16,129	71,647	1,306
		%		36.30	5.55	42.43	13.94	61.91	1.13
Rural	Total	No.	439,243	210,056	13,228	156,578	57,239	227,045	1,057
		%		47.82	3.01	35.65	13.03	51.69	0.24
	Within Premises	No.	56,418	37,022	886	8,097	10,357	19,340	41
		%		65.62	1.57	14.35	18.36	34.28	0.07
	Near Premises	No.	279,443	138,811	6,271	101,473	32,362	140,106	189
		%		49.67	2.24	36.31	11.58	50.14	0.07
	Away	No.	103,382	34,223	6,071	47,008	14,520	67,599	827
		%		33.10	5.87	45.47	14.04	65.39	0.80
Urban	Total	No.	106,250	91,354	628	6,292	7,284	14,204	628
		%		85.98	0.59	5.92	6.86	13.37	0.59
	Within Premises	No.	49,525	44,621	95	869	3,923	4,887	16
		%		90.10	0.19	1.75	7.92	9.87	0.03
	Near Premises	No.	44,386	38,947	186	3,331	1,752	5,269	133
		%		87.75	0.42	7.50	3.95	11.87	0.30
	Away	No.	12,339	7,786	347	2,092	1,609	4,048	479
		%		63.10	2.81	16.95	13.04	32.81	3.88

Source: Census of India, 2001

Of the total households in the district, during 2001, 55.25% of the households are getting tap water from treated sources. There are 2.54% households getting water from the covered wells and 29.86% from hand pumps. [Thus, a good percentage of households are collecting water from other sources which demand considerable time and effort of the family members].

Fig.7.8: Distribution of Households by Source of Water Supply - 2001



An analysis of the location of source of drinking water has a different scenario.There are 1,15,721 households in the district which are collecting water from a source which is away from the residence, of them 36.30% are collecting water from a tap. Among those households collecting water away from residence, 5.55% is collecting from a covered well. 42.43% is collecting from hand pumps, and 1.13% is collecting from other sources. Of the households reporting to have a source nearby, about 80% is collecting water either from a tap or a covered well.

Table No.7.12 : Source of Water Supply-2001 (No. & %)

Total/ Rural/ Urban		Total Number of Households	2001				
			Main Source of Drinking Water				
			Tap water from treated source	Covered well	Handpump	Tubewell/ Borehole	Other sources
Total	No.	545,493	301,410	13,856	162,870	64,523	2,834
	%		55.25	2.54	29.86	11.83	0.52
Rural	No.	439,243	210,056	13,228	156,578	57,239	2,142
	%		47.82	3.01	35.65	13.03	0.49
Urban	No.	106,250	91,354	628	6,292	7,284	692
	%		85.98	0.59	5.92	6.86	0.65

Source: Census of India, 2001

Table No.7.13 : Source of Water Supply-2011 (No. & %)

Total/ Rural/ Urban		Total Number of Households	2011				
			Main Source of Drinking Water				
			Tapwater from treated source	Covered well	Handpump	Tubewell/ Borehole	Other sources
Total	No.	636,394	159,314	5,136	40,196	152,051	279,697
	%		25.03	0.81	6.32	23.89	43.95
Rural	No.	495,885	68,176	4,474	38,509	140,787	243,939
	%		13.75	0.90	7.77	28.39	49.19
Urban	No.	140,509	91,138	662	1,687	11,264	35,758
	%		64.86	0.47	1.20	8.02	25.45

Source: Census of India, 2011

7.9 Electricity

The Government of India is committed to providing adequate electricity for all segments of society. However, rapid economic growth has increased electricity demand. Government policies have emphasized rural electrification through the Rajiv Gandhi Grameen Vidyutikaran Yojna and these efforts appear to be reflected in the rapidly rising costs of electrification.



Fig.7.9: A Dwelling Unit at Badavanahalli

Table 7.14 : Distribution of Households by Source of Lighting – 2001 & 2011 (No. & %)

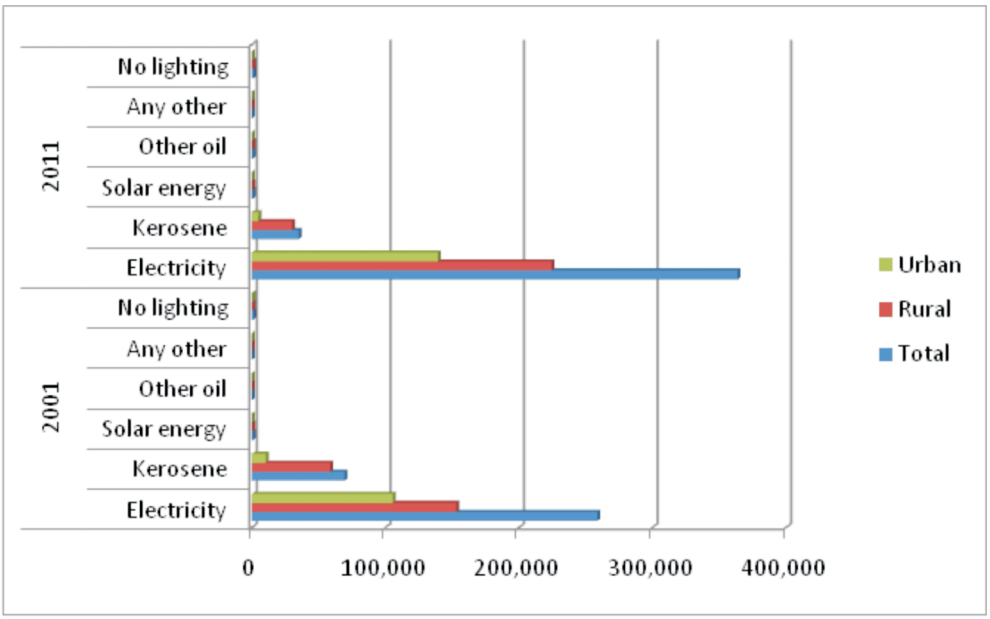
Total/ Rural/ Urban		2001							2011						
		Total number of households	Source of lighting						Total number of households	Source of lighting					
			Electricity	Kerosene	Solar energy	Other oil	Any other	No lighting		Electricity	Kerosene	Solar energy	Other oil	Any other	No lighting
Total	No.	545,493	435,967	106,504	988	356	325	1,353	636,394	562,769	68,728	710	1,080	418	2,689
	%		79.92	19.52	0.18	0.07	0.06	0.25		88.43	10.80	0.11	0.17	0.07	0.42
Rural	No.	439,243	339,511	97,161	778	306	280	1,207	495,885	428,121	63,556	590	992	293	2,333
	%		77.29	22.12	0.18	0.07	0.06	0.27		86.33	12.82	0.12	0.20	0.06	0.47
Urban	No.	106,250	96,456	9,343	210	50	45	146	140,509	134,648	5,172	120	88	125	356
	%		90.78	8.79	0.20	0.05	0.04	0.14		95.83	3.68	0.09	0.06	0.09	0.25

Source: Census of India, 2001 & 2011

As a result of rapid and significant strides made by the district in the electrification of households, the district is close to declaring urban areas as 'totally electrified'. The percentage of households with the provision of electricity for lighting has increased from 79.92% (2001) to 88.43% of the urban households (2011). However, more than 10% of the households are dependent on other sources of conventional fuel and the solar energy as well.

The progress made in the electrification of rural households has been quite substantial. The percentage of households electrified in 2001 and 2011 has increased by 9. The percentage of rural households with electricity stood at 86.33 in 2011. A little more than 10% of households are found to be using kerosene for lighting purpose. This situation must be casting its shadow on the development of these communities.

Fig.7.10: Households by Traditional Fuel and Modern Fuel



An analysis across rural and urban areas in 10 taluks of the district reveals that there is significant progress in the electrification of households. The growth is significant in rural areas than in urban areas. The percentage of change is found to vary across the taluks and across rural and urban areas. The increased coverage must be resulting in enhanced revenues for the electricity department and thus, enabling them to provide better services, i.e. quality services to the households. However, the fact remains that a smaller percentage of rural households continued to be deprived of basic facilities of electricity.

7.10 Traditional Fuel and Modern Fuel

Cooking fuels have aroused increased interest in recent years because of the fact that fuel wood harvesting has caused extensive deforestation. It is also true that cooking with biomass fuels in open causes significant health hazards. An estimated 1.6 million people die prematurely due to indoor air pollution in the world.

In India, the use of biomass energy in traditional hearths is quite common. However, the use of modern fuels such as LPG, electricity, etc. has also increased. It is reported that the Indian households use different fuels for cooking, lighting, and heating.

The following section in this chapter attempts to analyse the types of fuels used by rural and urban households across different taluks of Tumakuru district. With a view to examine the impact of fuels, the type of the fuels used is correlated with the availability of kitchen.

7.10.1 Type of Fuels

Table 7.15: Distribution of Households by Type of Cooking Fuel– 2001 & 2011 (No. & %)

Total/ Rural/ Urban	2001					2011					Decadal Variations			
	Total number of households	Traditional	Modern	Any other	No cooking	Total number of households	Traditional	Modern	Any other	No cooking	Traditional	Modern	Any other	No cooking
Total	545,493	487,657	56,285	121	1,430	636,394	513,680	120,851	267	1,596	5.34	114.71	120.66	11.61
Rural	439,243	425,925	12,576	100	642	495,885	457,387	37,289	210	999	7.39	196.51	110.00	55.61
Urban	106,250	61,732	43,709	21	788	140,509	56,293	83,562	57	597	-8.81	91.18	171.43	-24.24

Source: Census of India, 2001 & 2011

The data on the type fuels used by the households reveals that a large majority of the households are dependent on traditional fuels for cooking and there is a gradual shift to the modern cooking fuel. The percentage of households using traditional and modern fuels during 2001 was 89.39 and 10.31 respectively. However, during 2011, the percentage is 80.71 and 18.98 respectively.

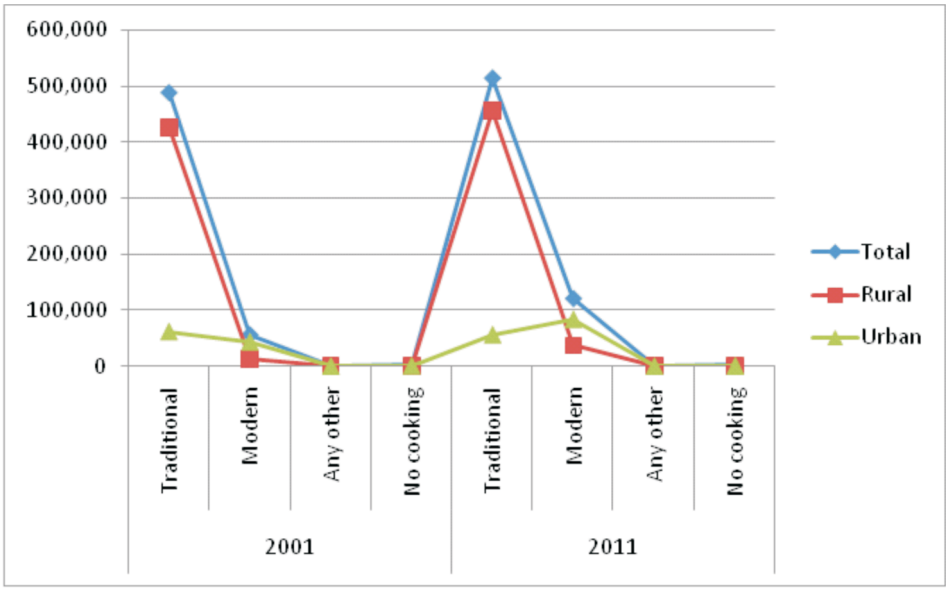
While the number of households using both the type of fuels has increased between 2001 and 2011, the increase in case of modern fuels is almost twice the number of households using it during 2001. This is indicative of the increased preference of the households to opt for modern fuels and their ability to afford the same. It must be noted that one of the preferred medium of cooking both in rural and urban households is the LPG.

Box No. 7.1 : Study on impact of Traditional Fuel

Laxmi et al. (2003) , Parikh and Laxmi (2000) and Parikh (2000) present case studies from the Indian states of R ajasthan, Tamil Nadu and Uttar Pradesh respectively. They focused mainly on respiratory symptoms and on the stress in terms of distance travelled by women to collect fuel wood. There is ample evidence that indoor air pollution due to burning of solid bioma ss fuels causes health hazards for women and children (under 5 years of age) when they happen to be with their mothers during cooking .

An analysis across rural and urban areas of the district reveals that there is an increase in the number of households using traditional fuels in rural areas (7.39%). On the other hand, there is decline in the number of households using traditional fuel in urban areas (-8.81%). Thus, urban areas are found to be shifting to the modern fuels for reasons such as non-availability, lack of space, pollution, etc. There is also an increase of almost 200 % in case of the households using modern fuels in the rural areas. A marginally higher number of urban households are reported to be using modern fuels. This may be due to increased availability of these fuels.

Fig.7.11: Type of Fuel across Rural and Urban in 2001 and 2011



The analysis across the different rural and the urban areas of the taluks reveals that there is a gradual shift of the households both in the rural and the urban areas to the modern cooking mediums. However, the changes are more significant in the urban areas than the rural areas. This may be due to the non-availability of these modern fuels and the affordability in the rural areas.

The analysis on the use of the traditional fuels by the rural and the urban households reveals that the pattern is not the same across the taluks. In Kunigal, Tumakuru and Tiptur taluks, the shift to modern fuels in urban areas is significant. This may be due to the affordability, accessibility and availability in the urban areas.

7.10.2 Place of Cooking

Table 7.16: Distribution of Households by Place of Cooking – 2001 & 2011 (No. & %)

Total/ Rural/ Urban		2001				2011			
		Total number of households	Cooking Inside the House	Cooking Outside the House	No Cooking	Total number of households	Cooking Inside the House	Cooking Outside the House	No Cooking
Total	No.	545,493	535,256	8,807	1,430	636,394	599,045	35,753	1,596
	%		98.12	1.61	0.26		94.13	5.62	0.25
Rural/	No.	439,243	430,200	8,401	642	495,885	460,430	34,456	999
	%		97.94	1.91	0.15		92.85	6.95	0.20
Urban	No.	106,250	105,056	406	788	140,509	138,615	1,297	597
	%		98.88	0.38	0.74		98.65	0.92	0.42

Source: Census of India, 2001 & 2011

In all, the percentage of the households reported to be cooking inside the house [with or without a separate kitchen] has slightly decreased in 2011. The number of households reported to be cooking inside the house during 2001 and 2011 was 98.12% and 94.13% respectively. As a result, there is a small increase in the number of households reported to be cooking outside the house. An analysis across rural and urban areas reveals marginal changes only in rural areas of the district. The percentage of households cooking outside has increased to 6.95% (2011) as against 1.91% in 2001.



Fig. 7.12: 2012-13 IAY House in Gujjanadu

Table 7.17 : Place of Cooking and Type of Fuel– 2001 & 2011 (No. & %)

Total/ Rural/ Urban	Availability of separate kitchen		2001					2011				
			Total number of households	Traditional	Modern	Any other	No cooking	Total number of households	Traditional	Modern	Any other	No cooking
Total	Total	No.	545,493	487,657	56,285	121	1,430	636,394	513,680	120,851	267	1,596
		%		89.40	10.32	0.02	0.26		80.72	18.99	0.04	0.25
	Cooking inside house	No.	535,256	478,868	56,267	121	0	599,045	479,492	119,308	245	0
		%		89.47	10.51	0.02	0.00		80.04	19.92	0.04	0.00
	Cooking outside house	No.	8,807	8,789	18	0	0	35,753	34,188	1,543	22	0
		%		99.80	0.20	0.00	0.00		95.62	4.32	0.06	0.00
	No Cooking	No.	1,430	0	0	0	1,430	1,596	0	0	0	1,596
		%		0.00	0.00	0.00	100.00		0.00	0.00	0.00	100.00
Rural	Total	No.	439,243	425,925	12,576	100	642	495,885	457,387	37,289	210	999
		%		96.97	2.86	0.02	0.15		92.24	7.52	0.04	0.20
	Cooking inside house	No.	430,200	417,535	12,565	100	0	460,430	424,424	35,815	191	0
		%		97.06	2.92	0.02	0.00		92.18	7.78	0.04	0.00
	Cooking outside house	No.	8,401	8,390	11	0	0	34,456	32,963	1,474	19	0
		%		99.87	0.13	0.00	0.00		95.67	4.28	0.06	0.00
	No Cooking	No.	642	0	0	0	642	999	0	0	0	999
		%		0.00	0.00	0.00	100.00		0.00	0.00	0.00	100.00
Urban	Total	No.	106,250	61,732	43,709	21	788	140,509	56,293	83,562	57	597
		%		58.10	41.14	0.02	0.74		40.06	59.47	0.04	0.42
	Cooking inside house	No.	105,056	61,333	43,702	21	0	138,615	55,068	83,493	54	0
		%		58.38	41.60	0.02	0.00		39.73	60.23	0.04	0.00
	Cooking outside house	No.	406	399	7	0	0	1,297	1,225	69	3	0
		%		98.28	1.72	0.00	0.00		94.45	5.32	0.23	0.00
	No Cooking	No.	788	0	0	0	788	597	0	0	0	597
		%		0.00	0.00	0.00	100.00		0.00	0.00	0.00	100.00

Source: Census of India, 2001 & 2011

The availability of kitchen and the type of cooking fuels used reveals that there is a marginal decline in the percentage of households using the traditional cooking fuels. This is evident among all the households irrespective of the place of cooking. The shift to modern fuels is more an urban phenomenon. It is also evident that the households both in rural and urban areas, reported to be cooking outside the house are increasingly shifting over to the modern fuels.

Fig.7.13: Distribution of Households by Residence and Type of Fuel - 2001

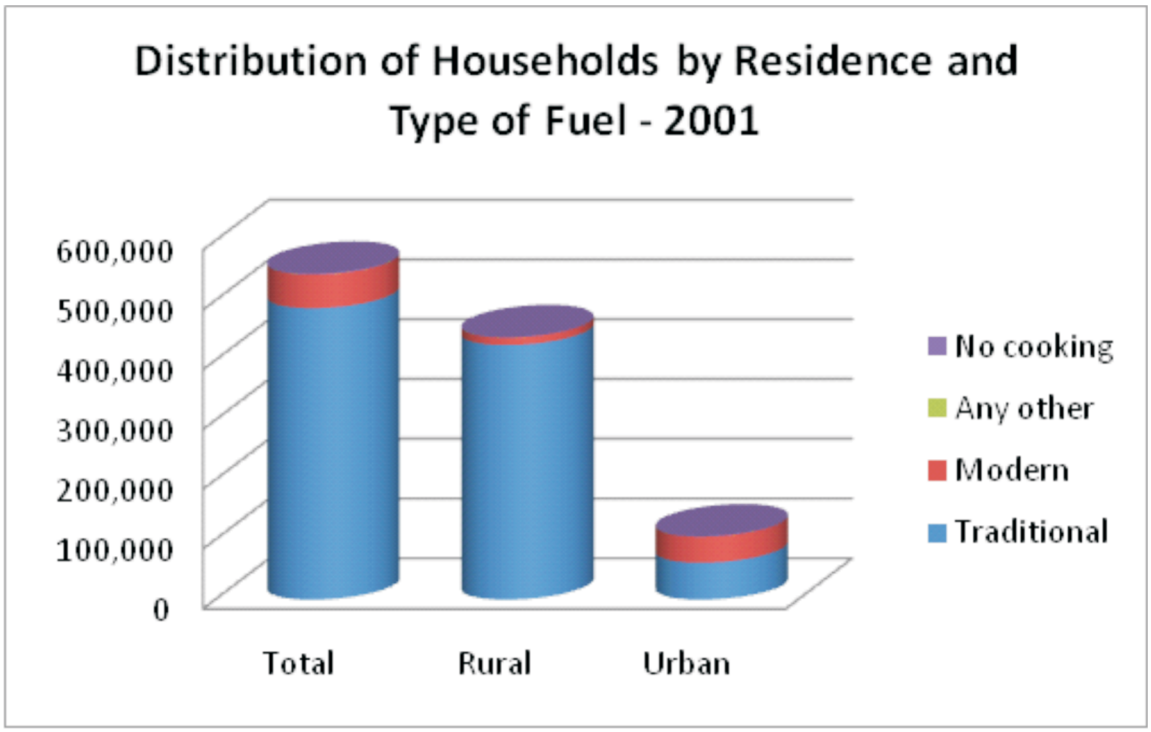


Fig.7.14: Distribution of Households by Residence and Type of Fuel - 2011

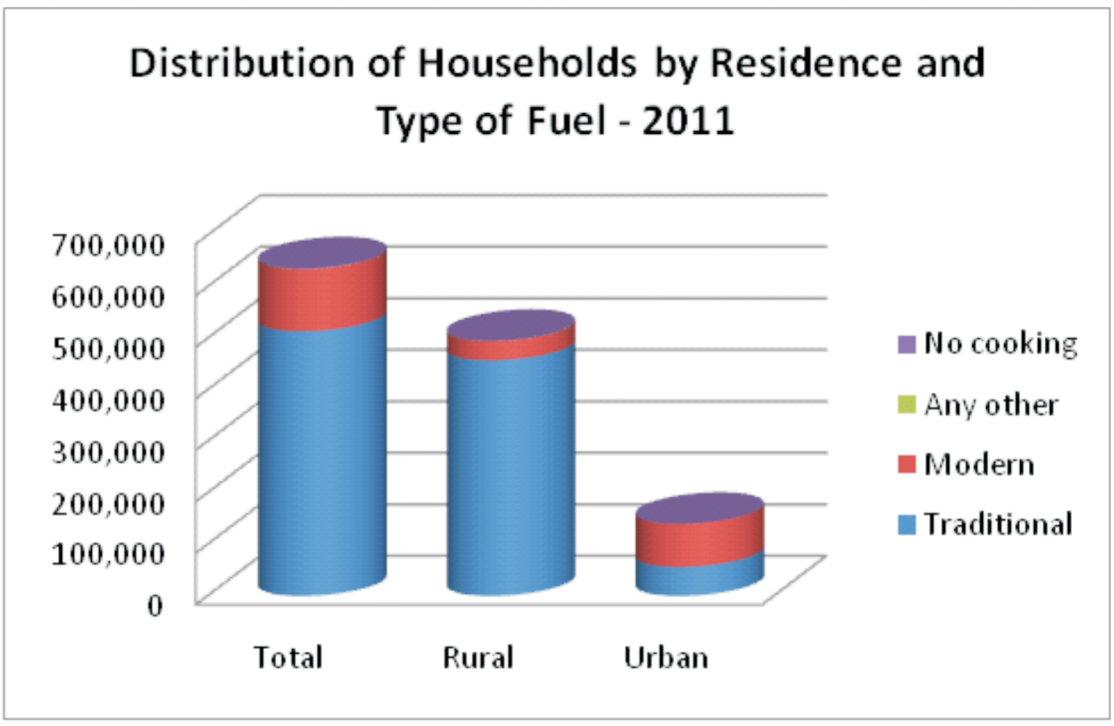




Fig. 7.15: Toilet Facility at the Household Level



Fig.7.16: Training Programme on Health

7.11 Sanitation

There is increased coverage of toilet facility in the district. It has increased from 26 % households in 2001 to 32.50 % in 2011. This is due to the efforts of various agencies in bringing more and more households under the sanitation programme. As on 2011, the coverage of rural and urban households with toilet facility is 18.32 % and 82.52 % respectively. It is important to note that there is a striking variation across rural and urban areas.

THE BURDEN OF SANITATION-RELATED DISEASE IN INDIA

- On an average, 30 million persons in rural areas suffer from sanitation-related disease
- 5 of the 10 top killer diseases of children aged 1-4 in rural areas are related to water and sanitation
- About 0.6-0.7 million children die of diarrhoea annually

Source: Central Bureau of Health Intelligence, Ministry of Health and Family Welfare, 1998-99

Fig.7.17: Impact of Poor Sanitation

7.11.1 Households without Toilet Facility

Nearly 81.68 % of rural households and about 18 % of urban households in 2011 do not have toilet facility. The challenge is to eliminate variations so as to provide toilet facility to all the households in the district. It is learnt that serious efforts are being made in recent times towards the implementation of Nirmal Bharath Abhiyan Programme in the district.

The analysis on the type of toilet facility in the rural and the urban areas for 2011 reveals that, while the pit latrine seems to be the preferred

choice in the rural areas (12.79%), it is the water closet in the urban areas (46.64%). A third of the toilets in the urban areas are pit latrines. It is important to consider these aspects in the programme implementation in the district.

Table No.7.18: Distribution of Households and the Type of Toilet Facility– 2001 & 2011 (No. & %)

Total/ Rura/ Urban		2001					2011				
		Total number of households	Water closet	Pit latrine	Other latrine	No latrine	Total number of households	Water Closet	Pit latrine	Other latrine	No latrine
Total	No.	545,493	63,119	54,426	24,298	403,650	636,394	91,428	109,891	1,697	429,573
	%		11.57	9.98	4.45	74.00		14.37	17.27	0.27	67.50
Rural	No.	439,243	13,428	31,828	15,838	378,149	495,885	25,901	63,409	876	405,017
	%		3.06	7.25	3.61	86.09		5.22	12.79	0.18	81.68
Urban	No.	106,250	49,691	22,598	8,460	25,501	140,509	65,527	46,482	821	24,556
	%		46.77	21.27	7.96	24.00		46.64	33.08	0.58	17.48

Source: Census of India, 2001 & 2011

7.11.2 Bathing Facilities

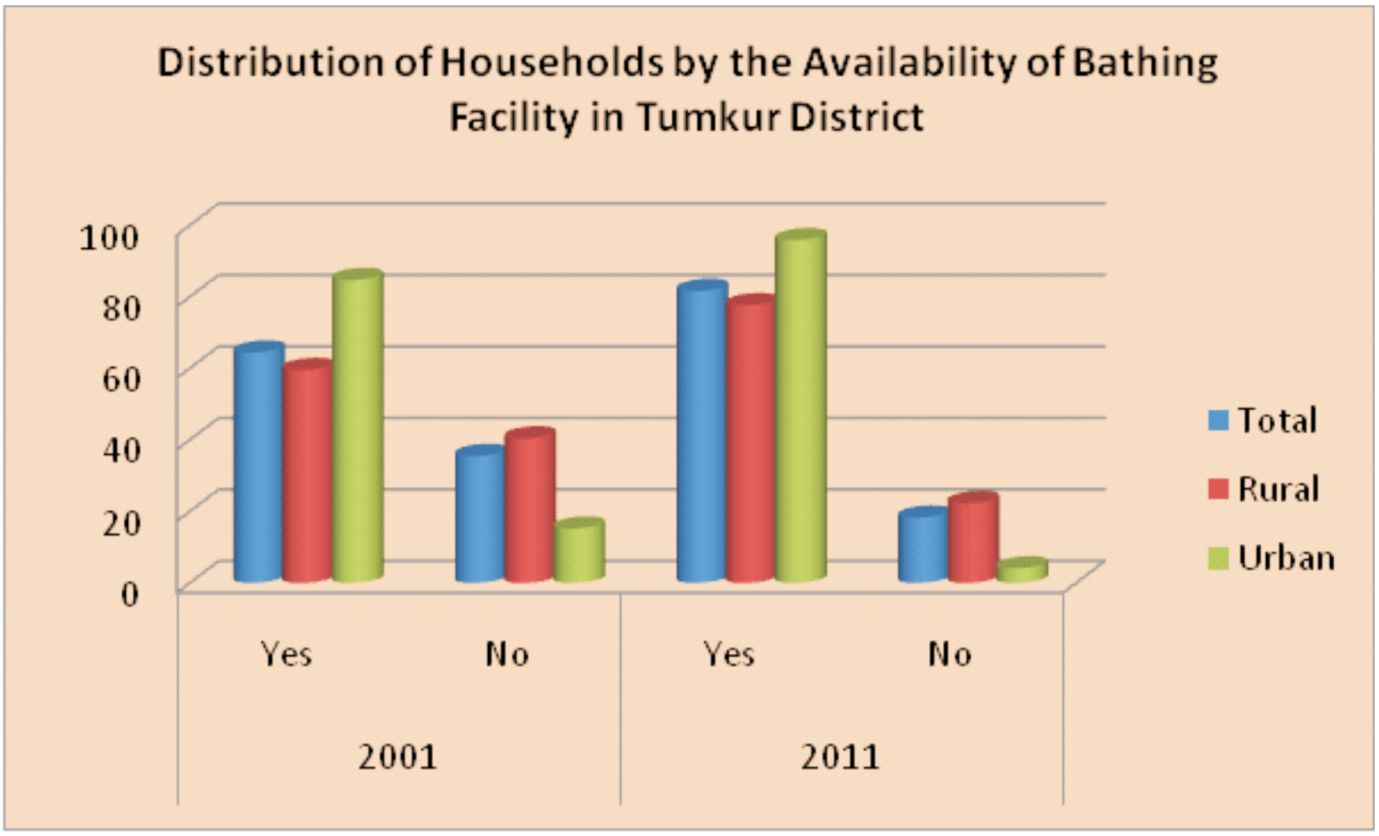
Table 7.19: Distribution of Households and Bathing Facility– 2001 & 2011 (No. & %)

Total/ Rural/ Urban		2001			2011		
		Total number of households	Number of households having bathroom facility within the house		Total number of households	Number of households having bathing facility within the premises	
			Yes	No		Yes	No
Total	No.	545,493	351,675	193,818	636,394	519,944	116,450
	%		64.47	35.53		81.70	18.3
Rural	No.	439,243	261,621	177,622	495,885	385,216	110,669
	%		59.56	40.44		77.68	22.32
Urban	No.	106,250	90,054	16,196	140,509	134,728	5,781
	%		84.76	15.24		95.89	4.11

Source: Census of India, 2001 & 2011

In the district as a whole, 64.47 % of the households had bathing facility within the premises in 2001 and this has increased to 81.70 % in 2011. Thus, there has been a significant improvement in this regard during the last decade. The increased coverage could be attributed to increased awareness among families about the need and importance of these facilities at the household level. It is also important to note that an increased coverage of these facilities is coupled with increased ownership of various assets such as the TV, mobile phones. etc.

Fig.7.18: Distribution of Households by the Availability of Bathing Facility in Tumkur District



However, relatively a higher percentage of the households living in rural areas than those in the urban areas are found to be deprived of the facility at the household level. There are, 95.89% of households in urban and to 77.68% in rural areas are reported to be having bathing facility at the household level. While this cannot be attributed to lack of space, it is definitely a reflection of the awareness level and the family preferences for such facilities at the household level.

7.12 Success Story: Shettykere Grama Panchayath, C.N.Halli Taluk.

The primary responsibility of providing safe and potable water lies with the Grama Panchayaths. The personnel working at the GP level are not only involved in the planning and the execution of the schemes for water supply but also its maintenance. In its efforts towards providing safe and potable water, the Shettikere Grama Panchayath of C.N. Halli Taluk, Tumakuru district, i.e. the Panchayath Officials and the Elected Representatives decided to provide safe and potable water through the establishment of a water treatment plant at the village level. With a view to help them both technically and financially the Grama Panchayath approached the Sri Kshethra Dharmasthala Rural Development Programme (a non-governmental organization). The NGO volunteered to help the GP both financially and technically. While the Panchayath could provide Rs.5.00 lakhs under the 13th Finance commission grant, the NGO provided for Rs.4.00 lakhs as part of their contribution. The result has been the successful launch of the water treatment plant. The plant is in operation for the past 12 months.

The initiative and the interest shown by the PRIs has brought about a significant change in the health of the community and has reduced the drudgery for the women who were either to finding it difficult to source safe and potable water to the household. Now, the households are accessing the water at a very cheap cost i.e. 10 paise per litre (the cost of the bottled water is more than Rs.12). To put it in international monetary terms $0.01 will fetch 5 litres of water. The project has benefitted 450 households and

the total population covered is more than 2000. The panchayath is also actively encouraging the households to use the potable water not only for drinking but also for cooking purposes as well. The health personnel have said that the programme has resulted in decreased incidence of diarrhoea and other water borne diseases (according to an estimate the incidence has come down by about 25%).



Fig.7.19: Water Treatment Plant at the GP Level in C.N.Halli and Pavagada Taluk

7.12.1 Small Area Study

Study on the Sanitation Facilities at the Household Level

Individual Health and hygiene is largely dependent on adequate availability of drinking water and proper sanitation. There is, therefore, the direct relationship between water, sanitation and health. Consumption of unsafe drinking water, improper disposal of human excreta, improper environmental sanitation and lack of personal and food hygiene have been major causes of many diseases in developing countries. India is no exception to this. Government started the Central Rural Sanitation Programme (CRSP) in 1986 primarily with the objective of improving the quality of life of the rural people and also to provide privacy and dignity to women.

The concept of sanitation was expanded to include personal hygiene, home sanitation, safe water, garbage disposal, excreta disposal and waste water disposal. With this broader concept of sanitation, CRSP adopted a "demand driven" approach with the name "Total Sanitation Campaign" (TSC) with effect from 1999. The revised approach emphasized more on Information, Education and Communication (IEC), Human Resource Development, Capacity Development activities, to increase awareness among the rural people and generation of demand for sanitary facilities. This enhanced people's capacity to choose appropriate options through alternate delivery mechanisms as per their economic condition. The Programme was implemented with focus on community-led and people centred initiatives. Financial incentives were provided to Below Poverty Line (BPL) households for construction and usage of individual household latrines (IHHL) in recognition of their achievements. Assistance was also extended for construction of school toilet units, Anganwadi toilets and Community Sanitary Complexes (CSC) apart from undertaking activities under Solid and Liquid Waste Management (SLWM).



Fig.7.20: Status of sanitation in the villages

7.12.2 Nirmal Bharat Abhiyan

Encouraged by the success of NGP, the TSC is being renamed as "Nirmal Bharat Abhiyan" (NBA). The objective is to accelerate the sanitation coverage in the rural areas so as to comprehensively cover the rural community through renewed strategies and saturation approach.

7.12.2.1 Objectives of the Programme

The main objectives of the NBA are as under:

a) Bring about an improvement in the general quality of life in the rural areas.

b) Accelerate sanitation coverage in rural areas to achieve the vision of Nirmal Bharat by 2022 with all gram Panchayats

in the country attaining Nirmalstatus.

c) Motivate communities and Panchayati Raj Institutions promoting sustainable sanitation facilities through awareness creation and health education.

d) To cover the remaining schools not covered under Sarva Shiksha Abhiyan (SSA) and Anganwadi Centres in the rural areas with proper sanitation facilities and undertake proactive promotion of hygiene education and sanitary habits among students.

e) Encourage cost effective and appropriate technologies for ecologically safe and sustainable sanitation.

f) Develop community managed environmental sanitation systems focusing on solid & liquid waste management for overall cleanliness in the rural areas.

7.12.2.2 Components of Nirmal Bharat Abhiyan

The Programme components and activities for NBA implementation are as follows:

a) Start-Up Activities

b) IEC Activities

c) Capacity Building

d) Construction of Individual Household Latrines

e) Rural Sanitary Marts and Production Centres

f) Provision of Revolving Fund in the District

g) Community Sanitary Complex

h) Institutional Toilets

i) Solid and Liquid Waste Management

7.12.2.3 Objectives of the Study

The primary objective of the study was to understand the bottlenecks for the poorer coverage of the sanitation facilities at the household level. Further, the objective was also to analyse the role of the social factors, issues related to supply and so on.

7.12.2.4 Methodology

The method adopted was a structured questionnaire coupled with in depth discussions with the different members in the household. In certain cases the interviewers had more than one round of discussion with the family members with a view to elicit appropriate responses on the subject of the study.

7.12.2.5 Area of Study

The study covered the households in the different villages in Madhugiri taluk of Tumakuru district. In all 56 households were covered under the study.

7.12. 2.6 Sanitation Facilities in the District

As per 2011 census records only 32.50% & of the households in the district had the toilet facility. This varies across the different taluks and it is the least in the taluks of the Madhugiri and Pavgada.

7.12.2.7 Willingness to Construct Toilet Facility

On the issue of their willingness to have the facility at the household level, 68.68 % have answered in the affirmative. A large percentage of the households expressing their desire to have the facility is not only surprising, but also opens up issues relating to the programme implementation at the village level. The ensuing section has attempted at eliciting viewpoints on certain specific issues.

7.12.2.8 Barriers for Constructing Toilet facility at the Household Level

Table No.7.20: Perception on Barriers for Constructing Toilet facility at the Household Level (in percent)

Response	Lack of Property Title with either of the Couples	Lack of Site for Construction	Provision of Site by Government for House	Support by Grama Panchayath	Lack of Awareness about Grants
Yes	64.13	68.68	-	18.68	59.34
No	35.87	31.32	100.00	81.32	40.66

The above table clearly brings out various barriers towards ensuring toilet facility at the household level. The key issues are:

1. Nearly two thirds of the households have reported to be not having clear titles over the lands that they are currently occupying.

2. Lack of site [the required space] for construction. This is reported by about 70% of the households.

3. Alternatively, the Governments have also reported to have not allotted or provided lands for taking up the construction of the house.

4. Only about 18.68 % have said that the requisite co-operation from the Grama Panchayat may be forthcoming in the event of taking up construction.

5. About 59.34 % have said that they have no awareness on the grant provided by the Government.

7.12.2.9 Problems Associated with Open Defecation

It is found that all the households covered under the study are very well aware of all the problems associated with lack of this facility at the household level. Two of the important issues raised by them are: the long distances that have to be traversed (36.36%) and the difficulties faced by the women (35.87%). About 9.09 % have said that it is a very irritable thing. A fifth, 18.68 % of them have said that it has given rise to a no. of problems such as increased health expenditure, low self-esteem, etc. Thus, the households are confronted with a no. of problems and inconveniences.

7.12.2.10 Provision of Sanitation Facilities in the Kin and Non-Kin Households

Table No.7.21: Provision of Sanitation Facilities in the Kin and Non-Kin Households

Response	Among Caste Members	Among Close Relatives	Among Friends
Yes	22.22	26.77	31.31
No	77.78	73.23	68.69

With a view to understand the impact of the availability of these facilities in the kin and non-kin households, respondents were asked to give out the details.

It is interesting to note the varied patterns in the availability of the toilet facilities among the kin and non-kin households. The ownership of the same is almost a third among the friends as compared to only about a fifth among the caste members. Thus, it may be the varied socio-economic status of the households which is influencing the ownership / accessibility to these facilities. It is a matter of great concern that a significant percentage of the households still do not have one.

7.12.2.11 Decision Making on Ownership of Toilet Facility at the Household Level

Demand by Children: A very small percentage of the households (12 households) have said that on few occasions the children in the families have expressed the need for these facilities at the household level. The discussions have revealed that either the idea was not very well received by the head of the household or due to certain constraints their wish could not be fulfilled.

Discussions with the Couples: It is surprising to note that about 38.57% of the couples on many occasions have discussed the idea of constructing a toilet in their family. But their idea was not translated into actions for many reasons. Thus, it reveals that the members in these households have resolved to continue with their present status.

7.12.2.12 Investments by the Households during the Last 5 years

With a view to help in understanding the willingness to invest on the sanitation facilities, the households were asked to list out the investments made by them for the households during the last 5 years. It is found that the households have either invested for the children's marriage or the construction or repair of the house. However, it is important to note that they have failed to provide for all the sanitation facilities in the house. This is despite the fact that they have argued out for these facilities at the level. It is in this context, that, perhaps grama panchayaths could or should work as a regulator towards ensuring its provision in the new houses. Further enquiries for not constructing the toilet facility have revealed that the households continue to cite lack of adequate water (31.31%) and adequate finances (18.18%) as the two factors for not investing on the toilet facility.

7.12.2.13 Perceptions on the Cost of Construction for Toilet Facility

Nearly two-thirds have expressed that the cost involved towards construction is more than Rs. 20,000. About 18.68% have said that the cost of construction is Rs. 12,000. The households estimate is found to be on a much higher side. This again calls for enhancing the awareness on these issues which perhaps is coming in the way of households owning one.

7.12.2.14 Advocacy for Sanitation by Other Departments

Table No.7.22: Details on Advocacy for Sanitation by Other Departments

Response	Doctors in the Primary Health Centre	Anganwadi Worker	School Teachers in the Village
Yes	18.68	4.55	31.31
No	81.32	95.45	68.69

One of the serious limitations of the programme is that there is little participation of the other departments in the programme such as the sanitation programme. In this background, the households were asked to comment on the advocacy initiatives by the other departments towards having the facility at the household level.

The two functionaries, viz. the doctor at the primary health centre and the teacher at the school are reported to have persuaded a few of the families towards constructing the toilet facility at the household level. The anganwadi workers and other health personnel who are supposed to have better rapport with the community, i.e. the women and the adolescent girls have not reported to have persuaded the households to undertake the provision of the facility through the support of the grama panchayaths. This also speaks of the failure on the part of the grama panchayath in involving them in the implementation of the programme.

7.12.2.15 Perceptions on the Appropriate Technology

One of the road blocks for the successful implementation of the programme is their perceptions about technology The critical issues are related to the type of pan used /provided, the no. of pits and their depth, the quality of construction and the type of materials, the plot size required, the quantity of water required etc., The succeeding section attempts at answering the perceptions of the community.

Table No.7.23: Perceptions on the Appropriate Technology

Response	Two Pit Latrine System	Water Scarcity
Yes	86.86	77.78
No	13.14	22.22

The above analysis and the discussions have revealed that the poor acceptance of the sanitation facilities at the household level are the result of the non-affordability, varied perceptions on issues such as the cost of construction, the appropriate technology and even issues such as those relating to the water requirement. The ownership of the same among the kin and the non-kin members is not found to be very strongly influencing their decisions to have one. It is also found that the family including the children has come to accept the non-availability of these facilities and has failed to come together to evolve strategies towards the creation of these facilities.

On the supply side it is found that there are very few attempts at targeting these households into the existing programmes. The programme is being more conceived as a programme of the grama panchayath. The other allied departments such as the health, women and children and education department have not attempted at motivating the households to have this facility. It may be noted that an NGO in the neighbouring district of Davangere has been quite successful in motivating the households to have the facility. It is also reported that the family is not only effectively utilizing these facilities, but are also maintaining it. Thus, the present Nirmal Bharat Abhiyan needs to be implemented in a mission mode with the participation of all the stakeholders towards making the district open defecation free district.

7.12.3 Small Area Study: Study on the Highway Villages



Fig.7.21: Picture of National Highway

Roads in India have existed for the last 5000 years. In early stages of Indian history, Ashoka and Chandragupta made efforts to construct roads. But the real progress was made during the Mughal period. A number of roads were laid during the Sultanate and Mughal periods. Most of the present trunk routes follow the Mughal routes. These routes were essential for strengthening and consolidating the empire. One such road was constructed by Sher Shah Suri which connected Peshawar to Kolkata. It was named as Grand Trunk (G.T.) Road and joined Amritsar with Kolkata after partition of India in 1947. Presently, it is known as 'Sher Shah Suri Marg'.

7.12.3.1 Importance of Roads

1. Roads play a very important role in the transportation of goods and passengers for short and medium distances.

2. **It is comparatively easy and cheap to construct and maintain roads.**

3. Road transport system establishes easy contact to farms, fields, factories and markets and provides door to door service.

4. Roads can negotiate high gradients and sharp turns which railways cannot do. As such, roads can be constructed in hilly areas also.

5. Roads act as great feeders to railways. Without good and sufficient roads, railways cannot collect sufficient produce to make their operation possible.

6. Road transport is more flexible than the railway transport. Buses and trucks may be stopped anywhere and at any time on the road for loading and unloading passengers and goods whereas trains stop only at particular stations.

7. Perishable commodities like vegetables, fruits and milk are transported more easily and quickly by roads than by railways.

Due to above-mentioned advantages, the road transport has become very popular and its share is constantly increasing.

7.12.3.2 Growth and Development

Road transport in modern sense, i.e. vehicles driven by internal combustion engines using petrol or diesel as fuel was practically negligible in India before World War II. But in recent times there has been significant growth and development in the sector.

7.12.3.3 Objectives of the Study

The proposed study was conducted with the following objectives:

1. To understand the positive and negative impacts of the construction of the highways in the district.

2. To document the perception of the stakeholders on the roads and its impacts.

7.12.3.4 Methodology

Under the study the required data was obtained through a structured questionnaire from the officials, the elected members and the households. The investigators also undertook extensive visit to the various parts of the village and held group discussions as well.

In all about 51 respondents have been contacted for the purposes of this study. This includes households, business establishments, travelling public, etc.

7.12.3.5 Perceived Positive Impacts

The analysis of the perceptions have revealed that the households are perceiving varied impacts such as the increase in transport facility, reduction in the travel time to the neighbouring places or the market place, increase in land price, better reach / access to the towns as also the increased safety. There are not many variations in the perceptions across the roads.

Table No.7.24: Perceptions on positive impacts

Sl. No.	Positive Impacts perceived	%
1	Increase in Transport Facility	60.37
2	Reduced travel time	67.85
3	Increase in Business Opportunity	66.50
4	Increase in Land Price	57.80
5	Better Reach / Access to towns	58.59
6	Increased Safety/ Lesser Accidents	63.12
7	Others	3.59

The three important perceived positive benefits of the project are the increase in transport facility (60.37%), reduced travel time (67.85%) and the increase in business opportunity (66.50%). Benefits such as better access to towns and increased safety have also been perceived.

7.12.3.6 Perceived Negative Impacts

The major negative impact perceived by the stakeholders is the loss of land. This is in spite of the fact that all the affected communities have been compensated for the loss of the lands. The second important impact felt by the households is the increased incidence of accidents, robbery, etc. They feel that the highways will create problems for the community members, i.e. the women and the children and the sick in reaching to the different parts of the villages.

However, the perceived negative impacts is said to outweigh the positive impacts. The community members the students and the working population have expressed greater satisfaction on the construction of these highways. This is said to have opened up the nearby markets and enabled greater access to services available in the nearby towns or cities.

7.13 Concluding Remarks

With a view to understand issues concerning human development in the district, it is necessary to summarise from the deprivation perspective. It is surprising to note that nearly 25% of the households are not covered by safe and protected water supply. These households depend on other sources of water. This is said to be not only causing increasing drudgery but also taking away a lot of their time and energy. Another aspect is the impact on health. The effects of this on the nutritional status, the morbidity and mortality patterns cannot be altogether dismissed. To add to this, nearly 33% of the households do not have sanitation facility at the household level. The percentage of rural households without toilet facility is relatively higher than those in urban areas. Thus, a quarter of the district population continues to be deprived of safe drinking water and decent sanitation facility

The scenario is far bleaker as regards housing. Only 33% of the households are said to be occupying pucca houses which provide safety, security and protection. The rest of the households continue to live in unsafe and unprotected houses. More than 80% of households continue to depend on traditional fuel. There are several studies done in the country and outside which have revealed serious health consequences on the health of the mothers and infants. Lack of good housing facility is bound to affect health of women and the growth and development of the children.

Notwithstanding these deprivations, nearly two thirds of the households are said to own assets such as Telephone, Television, Two wheeler and Four Wheelers. This seems to indicate that even those households that do not have access to basic things such as sanitation seem to be enjoying certain modern amenities of living. This raises a lot of issues concerning their present awareness level and the factors hindering them to avail all the facilities which will further human development at the individual or household level. The field visits have revealed the fact that poverty is one of the factors withholding human development in the district. This is not to undermine the role of government and civil society in furthering the cause of development. The attitudes and the status of these households might be coming in the way of effective development.



Fig.7.22: Piped Water Supply at a Household in Turuvekere



Fig.7.23: Household Members Collected Water in an urban slum in Tumakuru City