

## STATUS OF BASIC AMENITIES IN KARNATAKA: AN INTER-DISTRICT ANALYSIS

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### ABSTRACT

*This paper attempts to examine availability and accessibility of basic amenities to the households in the State of Karnataka. Data from 2001 and 2011 census along with secondary sources have been used by the researcher. Data relating to prominent household amenities like housing condition, drinking water, separate kitchen, LPG connection and toilet facilities have been analysed to estimate progress during the specified census years. District-wise comparison has also been attempted to analyse the influence of urbanisation, literacy and GDP on the status of basic amenities. The study has found that there is improvement in relation to availability and accessibility of most basic amenities, both quantitatively and qualitatively. However, there is need for improving the quantum of all facilities in most of the districts.*

### Introduction

All societies have been making conscious and planned efforts to provide basic amenities to all the members. These facilities are not only essential but also necessary for human existence and healthy living. The extent of utilisation of amenities is likely to have a direct impact on day-to-day life of people. The health status of an individual or a member of a society mainly depends on the extent of availability and accessibility to basic amenities. The most prominent amenities like good housing, potable water, separate place for cooking, use of LPG, toilet and drainage facilities are needed for quality living. Both the Union and State Governments have been making efforts to provide good quality of amenities to all. However, such efforts have been found to be neither adequate nor effective.

Our Five-Year Plans have been playing a major role in providing basic amenities to people in a phased manner. So far, 11 Plans have been put in operation. The 12<sup>th</sup> Five Year Plan (2012-17) which is currently under implementation aims at faster, sustainable and inclusive growth for the country. It envisaged an improvement in the provision of basic amenities like housing, drinking water, electricity, roads and sanitation. However, these efforts have not been able to overcome inter-State and inter-district variations and in achieving balanced growth of infrastructure across the country. The importance of adequate basic amenities for the maintenance of good health and well-being has been an important issue of scientific analysis and public health policy.

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### Basic Amenities and Their Implication on Health: An Overview

Research studies have been carried out on basic amenities in relation to health. Most scholars have studied these two areas to understand their relationship. Many attempts have been made to examine as to how non-availability or poor quality of basic amenities affect health of an individual or society. One of the areas of concern is the basic amenity of housing. This has been emphasised by Bonnefoy. He states, "housing and health are a complex construct, and require composite approaches. Given the variety of issues that may eventually limit the health condition of the residents, it is necessary to approach housing and health in a cross-sectional and multidisciplinary way. Any research on housing and health, therefore, needs to place itself in the holistic concept of housing and evaluate the impact of individual housing factors such as noise, air quality, or temperature against the reality of housing conditions" (Bonnefoy, 2007: p.424).

The World Health Organisation's estimates indicate that nearly two million people in developing countries die from indoor air pollution caused by the burning of biomass and coal in leaky and inefficient household stoves. It recommends international guidance on "healthy housing" to help and prevent a wide range of diseases and unintentional injuries that can be effectively addressed through better housing. This observation emerged from an international consultation of 40 experts from 18 countries hosted by W.H.O in Geneva during 13-15 October, 2010. The team indicated housing-related health risks like respiratory and cardiovascular diseases from indoor air pollution; illness and deaths from temperature extremes; and spread of communicable diseases due to poor living conditions.

The linkage between housing and health is studied by Krieger and Higgins (2002). They have highlighted that poor housing conditions

are associated with a wide range of health problems, including respiratory infection, asthma, lead poisoning, injuries, and mental health. A study by Vijay *et.al* (2003) has analysed household energy, women's destitution and health impacts in rural Rajasthan. Researchers collected data from 1,989 households sampled from 13 villages. The study found that women had to do a lot of hard work and spend a lot of energy as they use bio-fuel. It concludes that the health impact due to the use of bio-fuel is quite high among adult women in Rajasthan.

The W.H.O (2009) has emphasised the importance of drinking water on individual's health. The availability of quality drinking water is a powerful environmental determinant of health. Safe drinking water is a foundation for the prevention and control of water-borne diseases. Another study by Mara *et.al* (2010) pointed out that adequate sanitation, together with good hygiene and safe drinking water are the basic requirements to good health and socio-economic development. Improvements in one or more of these components can substantially reduce the rates of morbidity and severity of various diseases. Such a situation would invariably lead to improvement in the quality of life of a significant number of people, particularly women and children. Thus, it could be concluded that basic amenities have direct influence on health condition of people.

This paper makes an attempt to analyse the availability of basic amenities along with their accessibility to people. It is true that a lot of efforts have been made by the Government to provide these facilities. However, there is significant variation in the availability and accessibility of basic facilities across districts. Besides, people in many backward regions also have the problem of limited amenities with problems in quality. It is in this context that an understanding of the availability and accessibility of basic amenities becomes crucial and significant.

## Methodology

One of the main objectives of this paper is to analyse the prevalence of basic amenities to the households in Karnataka State. It also proposes to compare the status of basic amenities and their variation across districts.

Data for the paper were collected from Census 2001 and 2011. Since the nature of data is primary, supportive secondary sources have also been used through the review of related literature. Data relating to GDP of the most recent estimate have been collected from documented sources. In spite of variation in the number of districts between 2001 and 2011 Census, the present study used the list of districts given in 2001 Census.

## Basic Amenities in Karnataka State

The presence of many diseases like malaria, dengue, fever and tuberculosis are the indications of poor health. These health hazards emanate from lack of basic amenities such as sanitation, drinking water and housing. Besides, lack of awareness about the need to take precautionary measures against preventable and infectious diseases also affects health of an individual. The quality and extent of availability of basic amenities is examined in the context of good health and hygiene.

**Nature of Dwelling Unit :** The significance of housing is widely recognised today. Housing occupies a place next only to food and clothing as the primary needs of people. It is an indispensable need for healthy living. Inadequate housing causes or contributes to many preventable diseases including respiratory, nervous system disorder and cardiovascular diseases. Use of proper building material and good construction could prevent pollution, and thereby prevent asthma, allergies or respiratory diseases. Further, a strong association between housing conditions and health is emphasised (Bonney, 2007).

As per 2011 Census, more than half of the houses in Karnataka are in good condition while a little more than one-third are in livable, and the rest are in dilapidated condition. Most of the houses are either in good condition or in livable situation. The efforts of an individual, family and the housing programmes implemented by the Government have played a key role in changing the situation of housing condition in the State. However, the situation of housing condition is deteriorating in about four per cent households, while in about 16 per cent of households, there has been improvement in both the categories of 'Good' and 'Livable' housing units.

Data provided in Table 1 indicate district-wise housing condition in Karnataka. The Table indicates that the number of households with good housing facilities in the State has increased from 43.9 per cent in 2001 to 60.1 per cent in 2011. There are five districts having housing condition which is more than the State-average with a decline in the number of houses having 'livable condition'. There is also a decline in the percentage of 'dilapidated' houses. The houses in Bidar district are placed in the least position whereas houses in Bangalore urban district are placed in a better position in terms of quality. There are less than half of the houses falling in 'good condition' in the districts of Chamarajanagar, Uttara Kannada and Hassan while about 50 to 60 per cent of the houses are in good condition in rest of the districts of the State. Similarly, about seven per cent of the houses are in dilapidated condition in Chamarajanagar district indicating backwardness of the households with poor quality, while Bangalore Urban district (1.2 per cent) has least number of 'dilapidated houses' in the State. Overall, about four per cent of the houses in Karnataka are in 'dilapidated condition' category. The population living in the 'dilapidated houses' would directly or indirectly face one or more health problems. However, the overall situation of housing condition in the districts of Karnataka

is marginally better in 2011 compared to previous Census (2001). But, most of the districts in the State have a larger share of 'good housing'

facilities. The most striking feature is associated with Bangalore Urban district with 78.1 per cent households belonging to 'good condition.'

**Table 1: Conditions of Houses in Karnataka**

S. No.	District	Condition of Census Houses					
		Good		Livable		Dilapidated	
		2001	2011	2001	2011	2001	2011
1.	Bagalkot	42.7	55.7	53.4	39.6	3.9	4.7
2.	Bangalore Rural	36.7	57.2	56.7	38.1	6.6	4.7
3.	Bangalore Urban	63.5	78.1	33.7	20.7	2.8	1.2
4.	Belgaum	45.1	61.0	51.0	35.1	3.8	3.9
5.	Bellary	43.2	60.0	52.2	35.5	4.7	4.5
6.	Bidar	34.2	45.3	59.6	50.2	6.0	4.5
7.	Bijapur	37.4	55.8	57.4	38.3	5.1	5.9
8.	Chamarajanagar	29.7	47.6	62.7	45.8	7.5	6.6
9.	Chikamagalur	36.6	52.7	56.3	42.3	7.1	4.9
10.	Chitradurga	37.4	52.6	57.1	42.3	5.5	5.1
11.	Dakshina Kannada	45.6	63.5	48.8	33.8	5.6	2.7
12.	Davanagere	39.6	54.1	54.2	41.0	6.2	4.8
13.	Dharwad	45.9	63.4	50.5	33.8	3.6	2.8
14.	Gadag	41.6	55.9	54.6	39.6	3.8	4.5
15.	Gulbarga	47.8	55.0	48.5	41.4	3.8	3.6
16.	Hassan	35.8	49.9	58.6	44.8	5.7	5.4
17.	Haveri	39.6	53.9	55.2	41.6	5.2	4.5
18.	Kodagu	37.9	56.6	55.2	39.0	6.9	4.4
19.	Kolar	44.4	58.0	51.5	37.1	4.1	4.0
20.	Koppal	42.4	58.0	53.8	37.2	3.8	4.9
21.	Mandya	36.5	53.8	57.9	41.9	5.5	4.3
22.	Mysore	39.8	56.2	55.0	39.9	5.2	4.0
23.	Raichur	45.4	53.9	52.0	39.9	3.7	6.2
24.	Shimoga	40.6	53.3	51.6	40.9	7.8	5.8
25.	Tumkur	37.7	56.9	56.7	38.1	5.5	5.1
26.	Udupi	44.5	64.7	46.5	31.7	9.0	3.6
27.	Uttara Kannada	36.8	49.6	55.1	45.0	8.1	5.4
	Karnataka :Total	43.9	60.1	51.2	36.0	5.0	3.9

Source: Census Reports, 2001 & 2011.

**Place for Cooking :** Industrialisation and modernisation have made some changes in the structure and pattern of houses including the provision of kitchen. Today, majority of people including rural folk would like to have a separate kitchen either inside the house or outside. As a matter of fact, people have also begun to

perceive 'separate kitchen' in their household as a status symbol and modernity. It is an important determinant factor in establishing healthy environment in the households. Data provided in Table 2 reveal that the households in most of the districts have separate kitchen. As many as 16 districts have more than 90 per cent

households with separate kitchen facility. The ratio of these households has doubled between 2001 and 2011. However, the lowest number of households in Bidar and Gulbarga have separate kitchen when compared to households in other districts.

**Table 2: Distribution of Households with Separate Kitchen and LPG Connection**

S. No.	District	Per cent of Households Having			
		Separate Kitchen		LPG	
		2001	2011	2001	2011
1.	Bagalkot	74.1	87.3	09.8	13.9
2.	Bangalore Rural	87.2	90.7	08.1	25.7
3.	Bangalore Urban	92.4	96.3	47.2	75.3
4.	Belgaum	71.9	89.1	16.8	25.0
5.	Bellary	74.1	85.3	12.2	23.7
6.	Bidar	48.5	61.3	05.5	11.1
7.	Bijapur	56.0	75.1	07.8	14.5
8.	Chamarajanagar	75.5	78.5	05.9	16.8
9.	Chikamagalur	94.6	95.2	13.6	27.4
10.	Chitradurga	82.3	86.0	07.3	17.1
11.	Dakshina Kannada	97.4	97.3	25.1	41.2
12.	Davanagere	89.5	92.4	14.9	24.9
13.	Dharwad	89.8	96.1	29.5	37.8
14.	Gadag	79.4	91.6	10.7	14.8
15.	Gulbarga	54.6	69.8	07.9	14.5
16.	Hassan	95.9	96.4	11.5	21.1
17.	Haveri	89.4	94.2	08.0	12.8
18.	Kodagu	94.7	95.2	20.1	29.6
19.	Kolar	84.0	87.2	10.4	20.1
20.	Koppal	61.5	83.5	05.6	12.2
21.	Mandya	89.6	92.6	08.2	18.9
22.	Mysore	89.2	91.9	20.8	39.8
23.	Raichur	65.6	75.5	06.5	14.3
24.	Shimoga	93.3	94.6	20.8	31.9
25.	Tumkur	88.8	90.9	09.6	18.3
26.	Udupi	97.6	97.2	22.8	34.0
27.	Uttar Kannada	91.9	94.2	21.1	27.6
	Karnataka:Total	82.4	89.3	17.9	32.5

Source: Census Reports, 2001 & 2011.

**Use of Liquefied Petroleum Gas (LPG) for Cooking:** Wood, dung cake, coal and other solid fuels have been a major source of energy for cooking and other domestic needs. Most of the households from rural areas mainly rely on these sources for cooking. It is an established fact that

these sources have been frequently associated with chronic respiratory diseases. It is estimated that every year, the killer in the kitchen is responsible for 1.5 million deaths with more than two-thirds of deaths occurring in South-East Asia and sub-Saharan African countries (WHO, 2006).

The modern fuels have begun to replace solid fuels in urban areas while partial switching over tends to occur in rural areas. The prospect for modern fuels to combat indoor air pollution is therefore, significantly better in urban areas than in rural areas. This is primarily due to the reason that majority of the households in rural area continue to depend on wood, dung cake and other solid fuels for cooking even today. This has been found to adversely affect the health condition of members of households in general, women and children in particular.

The use of LPG as a fuel has brought many changes in the lives of people. Most important of all, it enhances hygiene and health. LPG produces far less emissions than most other sources of energy. The extent of LPG usage has increased in urban areas significantly than in rural areas. As per the NFHS-3 (2005-06), about one-fourth of households in India were having LPG connection. In Karnataka, the situation of households owning LPG connection has been changing with nearly one-third of households having LPG connection by 2011, whereas about 18 per cent households had this facility during 2001 Census (Table 2). The most distinct pattern has been found in Bangalore Urban district. All other districts with the exception of Dakshina Kannada, Mysore, Dharwad, Udupi and Shimoga have LPG connection in less than 30 per cent households. More importantly, less percentage of households from Bidar, Koppal and Haveri have access to LPG connection. Thus, most of the households continue to use traditional fuels for cooking. This has been particularly true of households in rural areas. As a result, hygiene and health condition needs improvement in majority of the households.

**Availability of Drinking Water:** Water is the life source for all living creatures and plants. It is a fact that without adequate water, no living creature can survive. Humans also need water for survival. Availability of water is an important lifeline in any community. The demand and supply factors of both surface and groundwater

determine the quantum of water available to people. In recent times, there is decline in groundwater level along with limited availability of surface water, especially during summer. Scarcity of water would invariably compel people to explore and use water from all possible sources. Sometimes, people may be forced to use contaminated water. Use of contaminated water could lead to acute health problems such as nausea, lung irritation, skin rash, vomiting, dizziness, and so on. It is important to note that the effects of contaminated/impure water on children are far more severe than on adults.

People in different parts of the country including Karnataka have been experiencing problems of limited availability or scarcity of drinking water. This has been mainly due to population pressure, shortage in the rainfall, inadequate planning and improper management of water. The problem is multifaceted in nature. It is in this context that the data collected through census about availability of drinking water within the premises of dwelling units have been analysed.

Data given in Table 3 indicate that about less than half of the houses in Karnataka have drinking water facility within the premises (2011) and the remaining households depended on public/private facility. It was about 32 per cent in the previous census. There is about 13 per cent of improvement between 2001 and 2011. In spite of this, availability of drinking water needs further improvement to cater to all segments of people. The district-wise analysis about drinking water facility shows a varied pattern across the State. For example, Bangalore Urban, Dakshina Kannada and Udupi were the only three districts with around 60 per cent households having drinking water facility in 2001. The number of districts with about 60 per cent households having drinking water facility increased to five districts by 2011. At the same time, majority of the houses in Koppal, Raichur, Chitradurga and Bijapur districts were deprived of drinking water facility. Although the number of houses having

water facility has improved by 2011, the State average is 44.5 per cent households. However, the position has improved in seven districts with more than 50 per cent households having

drinking water within their premises. In spite of this, efforts to provide potable water in rural areas continue to remain elusive.

**Table 3: Availability of Drinking Water within the Premises**

S. No.	District	Availability of Drinking Water within Premises	
		2001	2011
1.	Bagalkot	21.0	28.8
2.	Bangalore Rural	18.7	28.1
3.	Bangalore Urban	61.0	76.8
4.	Belgaum	25.9	35.3
5.	Bellary	20.7	34.2
6.	Bidar	25.4	29.4
7.	Bijapur	18.2	25.8
8.	Chamarajanagar	22.4	31.6
9.	Chikamagalur	26.3	39.7
10.	Chitradurga	17.3	24.5
11.	Dakshina Kannada	60.5	79.3
12.	Davanagere	19.9	30.0
13.	Dharwad	40.8	57.3
14.	Gadag	21.2	29.6
15.	Gulbarga	19.6	27.9
16.	Hassan	23.5	34.5
17.	Haveri	18.4	28.2
18.	Kodagu	35.3	55.0
19.	Kolar	21.2	24.7
20.	Koppal	13.6	22.7
21.	Mandya	27.1	37.7
22.	Mysore	42.2	59.5
23.	Raichur	14.9	24.1
24.	Shimoga	34.1	45.0
25.	Tumkur	19.4	25.7
26.	Udupi	59.3	75.3
27.	Uttara Kannada	49.1	58.3
	Karnataka :Total	31.7	44.5

Source: Census Reports, 2001 & 2011.

**Toilet Facility:** The households having its own toilet facility is considered as a symbol of personal achievement and social status. A household having toilet in its premises ensures healthy living with a sense of pride. This is especially true in case of low income families. In India, a majority of rural households do not have toilet facility even now. Absence of toilet facility has

compelled rural masses to resort to open defecation. This has invariably resulted in major public health hazards and problems of sanitation. Many programmes have been implemented through various schemes of the Government to provide toilet facility and to promote healthy environment.

Data provided in Table 4 reveal that a little more than half of the households in Karnataka have toilet facility within their premises by 2011. The situation in 2001 was poor with just a little less than one-fourth of houses having toilet facility. There is improvement in possessing toilet facility by 2011 as the number of households covered increased by 124 per cent. This could be attributed to the efforts made by individuals as well as Government. In spite of this, there has been a greater degree of impediment in improving conditions in rural areas. There are nearly half of the households which are deprived

of toilet facility in their premises. The district-wise analysis indicates that only Bangalore Urban district had the majority of households with toilet facility in 2001. This condition improved by 2011 with most of the households (94.8 per cent) having this facility. There is significant improvement in districts like Dakshina Kannada, Kodagu, Udupi and Shimoga as a majority of the households in these districts have toilet facility within their premises. Although there has been a steady increase in the number of households having toilet facility, still there is need for further improvement.

**Table 4: Availability of Toilet and Drainage Facility**

S. No.	District	Toilet Facility within the premises		Drainage Facility	
		2001	2011	2001	2011
1.	Bagalkot	08.0	18.8	33.8	38.0
2.	Bangalore Rural	13.2	59.5	59.5	71.4
3.	Bangalore Urban	58.9	94.8	88.7	95.3
4.	Belgaum	13.7	32.8	34.8	46.6
5.	Bellary	14.2	32.4	45.3	56.2
6.	Bidar	11.8	23.2	35.6	43.2
7.	Bijapur	08.2	18.1	24.5	32.4
8.	Chamarajanagar	08.9	23.5	53.3	58.0
9.	Chikamagalur	19.2	61.5	44.5	56.0
10.	Chitradurga	09.2	30.3	35.0	47.7
11.	Dakshina Kannada	43.8	92.7	43.3	48.8
12.	Davanagere	14.5	46.4	60.3	72.4
13.	Dharwad	31.8	57.0	57.7	67.9
14.	Gadag	09.4	21.2	43.5	53.4
15.	Gulbarga	11.2	21.2	36.8	40.3
16.	Hassan	14.2	39.9	41.8	49.5
17.	Haveri	11.5	37.3	48.9	67.7
18.	Kodagu	24.3	81.4	54.2	64.1
19.	Kolar	15.5	39.9	55.3	62.5
20.	Koppal	06.7	18.5	36.4	41.3
21.	Mandya	14.5	37.5	58.2	65.1
22.	Mysore	30.8	55.0	65.8	73.1
23.	Raichur	08.0	20.7	30.5	36.3
24.	Shimoga	26.6	71.2	54.2	68.1
25.	Tumkur	12.1	32.5	40.7	46.2
26.	Udupi	40.9	87.2	32.6	27.0
27.	Uttar Kannada	26.6	59.3	44.5	34.8
	Karnataka :Total	22.9	51.2	51.2	60.7

Source: Census Reports, 2001 & 2011.



**Sanitation** : Health status is a key indicator of human well-being. Now-a-days, maintaining good health and wellness is a challenging task for both the individuals and society at large. It is true that environmental pollution affects health in many ways and contributes to a wide variety of diseases. The condition of health does not depend only on the number of doctors and hospitals available but also on clean and healthy environment in the vicinity. It is in this context that improved sanitation has significance.

Data in Table 4 indicate the presence of drainage facility in different districts of Karnataka. It is evident that about 60 per cent houses in Karnataka have drainage facility in 2011. There is an improvement in drainage facility for houses between 2001 and 2011 Census with an increment of 10 per cent. The district-level data reveal that Bangalore Urban (95.3 per cent) district occupies the top position followed by Mysore, Davanagere and Bangalore Rural districts. However, the coastal district of Udupi (27 per cent) is placed at the bottom of the list. There is a similar trend prevailing in other coastal districts like Dakshina Kannada and Uttara Kannada. Of course, in these areas, there is a natural system of drainage. Moreover, maintenance of the drainage facilities is a difficult task in undulated landscape. This situation in the coastal districts need not be viewed negatively as most of these districts have other health indicators with progressive attainment for healthy living. As many as 10 districts have been able to provide drainage facility for majority of the households by 2011. This also however, needs further improvement.

#### **Status of Amenities: District-wise Analysis**

It is evident from the above analysis that the status of basic amenities varies from one district to another. One of the main reasons for such variations is local conditions or socio-economic growth. In order to explore the possible correlation between availability of basic amenities and socio-economic development,

the present paper proposes to use three variables, namely, literacy, urbanisation and GDP.

**Literacy** : This is one of the indicators of social development. It directly influences all aspects of life. It is a fact that rate of literacy is directly correlated with the life styles of people. It influences the extent of availability and accessibility of all amenities. Tiwary and Nayak (2013) investigated availability of drinking water and sanitation facility in the State of Uttar Pradesh. They highlighted a wide range of inter-regional disparities in access to drinking water and sanitation facilities in the State. The study suggests female literacy as a tool to have access to these facilities. The study also stated that disparities in availing of basic amenities prevail across districts and States. The present study however, found that the districts with higher literacy rate (Dakshina Kannada, Udupi and Bangalore Urban) have a higher percentage of households with good/livable condition. They also have higher percentage of households with separate kitchen, LPG connection and drinking water facility within their premises (Table 5.1). These districts have been found to possess higher percentage of houses with toilet and drainage facilities. It is also observed that the districts with relatively lower rate of literacy have lower ratio of households with all the basic amenities. It could be stated that higher rate of literacy will enable people to understand the need and importance of basic amenities. They will invariably make efforts to improve and avail of all basic amenities which enhance quality of their life. Similar trend is observed with regard to toilet and drainage facilities. It is found that the percentage of households with toilet and drainage facilities is higher in case of districts with higher percentage of literacy with Udupi being an exception. This imbalance could be due to the re-organisation of the district from Dakshina Kannada. Simultaneously, the districts with lower levels of literacy have been found to possess relatively lower percentage of households with the above mentioned

amenities (Tables 5.1 & 5.2). All this implies that the extent of availability and accessibility of basic amenities is directly correlated with the literacy level.

**Table 5.1: Distribution of Literates and Availability of Select Amenities**

S. No.	District	Level of Literacy	Housing Condition		Percentage of Households with		
			Good	Livable	Separate Kitchen	LPG	Drinking Water
1.	Bagalkot	68.8	55.7	39.6	87.3	13.9	28.8
2.	Bangalore Rural	77.9	57.2	38.1	90.7	25.7	28.1
3.	Bangalore Urban	87.7	78.1	20.7	96.3	75.3	76.8
4.	Belgaum	73.5	61.0	35.1	89.1	25.0	35.3
5.	Bellary	67.4	60.0	35.5	85.3	23.7	34.2
6.	Bidar	70.5	45.3	50.2	61.3	11.1	29.4
7.	Bijapur	67.1	55.8	38.3	75.1	14.5	25.8
8.	Chamarajnagar	61.4	47.6	45.8	78.5	16.8	31.6
9.	Chikamagalur	79.2	52.7	42.3	95.2	27.4	39.7
10.	Chitradurga	73.7	52.6	42.3	86.0	17.1	24.5
11.	Dakshina Kannada	88.6	63.5	33.8	97.3	41.2	79.3
12.	Davanagere	75.7	54.1	41.0	92.4	24.9	30.0
13.	Dharwad	80.0	63.4	33.8	96.1	37.8	57.3
14.	Gadag	75.1	55.9	39.6	91.6	14.8	29.6
15.	Gulbarga	64.9	55.0	41.4	69.8	14.5	27.9
16.	Hassan	76.1	49.9	44.8	96.4	21.1	34.5
17.	Haveri	77.4	53.9	41.6	94.2	12.8	28.2
18.	Kodagu	82.6	56.6	39.0	95.2	29.6	55.0
19.	Kolar	74.4	58.0	37.1	87.2	20.1	24.7
20.	Koppal	68.1	58.0	37.2	83.5	12.2	22.7
21.	Mandya	70.4	53.8	41.9	92.6	18.9	37.7
22.	Mysore	72.8	56.2	39.9	91.9	39.8	59.5
23.	Raichur	59.6	53.9	39.9	75.5	14.3	24.1
24.	Shimoga	80.4	53.3	40.9	94.6	31.9	45.0
25.	Tumkur	75.1	56.9	38.1	90.9	18.3	25.7
26.	Udupi	86.2	64.7	31.7	97.2	34.0	75.3
27.	Uttara Kannada	84.1	49.6	45.0	94.2	27.6	58.3
	Karnataka :Total	75.4	60.1	36.0	89.3	32.5	44.5

Source: Census Reports, 2011.

**Table 5.2: Distribution of Literates and Availability of Select Amenities**

S. No.	District	Literacy Level %	Percentage of Households with Toilet	Access to Drainage
1.	Bagalkote	68.8	18.8	38.0
2.	Bangalore Rural	77.9	59.5	71.4
3.	Bangalore Urban	87.7	94.8	95.3
4.	Belgaum	73.5	32.8	46.6
5.	Bellary	67.4	32.4	56.2
6.	Bidar	70.5	23.2	43.2
7.	Bijapur	67.1	18.1	32.4
8.	Chamarajnagar	61.4	23.5	58.0
9.	Chikamagalur	79.2	61.5	56.0
10.	Chitradurga	73.7	30.3	47.7
11.	Dakshina Kannada	88.6	92.7	48.8
12.	Davanagere	75.7	46.4	72.4
13.	Dharwad	80.0	57.0	67.9
14.	Gadag	75.1	21.2	53.4
15.	Gulbarga	64.9	21.2	40.3
16.	Hassan	76.1	39.9	49.5
17.	Haveri	77.4	37.3	67.7
18.	Kodagu	82.6	81.4	64.1
19.	Kolar	74.4	39.9	62.5
20.	Koppal	68.1	18.5	41.3
21.	Mandya	70.4	37.5	65.1
22.	Mysore	72.8	55.0	73.1
23.	Raichur	59.6	20.7	36.3
24.	Shimoga	80.4	71.2	68.1
25.	Tumkur	75.1	32.5	46.2
26.	Udupi	86.2	87.2	27.0
27.	Uttara Kannada	84.1	59.3	34.8
	Karnataka :Total	75.4	51.2	60.7

Source: Census Reports, 2011.

**Rural-Urban Variations :** The rural-urban population ratio is not only a demographic composition but also indicates the levels of socio-economic development. The ratio of population in urban areas is likely to contribute towards better conditions in the availability of basic amenities. This is evident from the fact that most of the urban residents have either 'good' or 'livable' conditions of housing (Table 1). Simultaneously, it is observed that lower levels of urbanisation are invariably associated with less number of households with good housing condition. Thus, it could be concluded that a higher ratio of urbanisation is invariably associated with better conditions of housing (Table 6.1). The districts of Bangalore Urban, Dharwad and Dakshina Kannada with higher levels of urbanisation have a large share of 'good' condition of houses.

Similar trend prevails with regard to the ratio of households having separate kitchen and LPG facilities. While most of the districts with higher ratio of urban households have separate kitchen and higher percentage of LPG connection, there is a slight variation with regard to Udupi district. This could be due to the fact that the district is a newly re-organised. It is also true that Udupi has certain progressive attainments like higher literacy rate. This implies that the rate of urbanisation is positively associated with the availability of basic amenities to a higher ratio of people in a given district. There are other amenities like drinking water, drainage and sanitation available to a majority of the households in Dharwad, Dakshina Kannada, Mysore and Kodagu with higher ratio of urban households. Correspondingly, lower levels of urbanisation or districts with higher ratio of rural households invariably manifest a contrary situation where only a limited number of households have access to most of the basic amenities. This trend could be seen in Chitradurga, Koppal and Manday districts.

Urbanisation has also been found to have limited influence on basic amenities in certain

districts. The districts of Hassan and Udupi have higher percentage of households with separate kitchen and LPG connection. This cannot be attributed to urbanisation as both districts have a higher ratio of rural population. Although this contradicts the general trend, improved level of amenities could be attributed to factors like literacy and economic condition of households. Similar trend could be seen with regard to drainage facility in Davanagere district (Table 6.2). This could be attributed to awareness at the household level and impact of developmental activities carried out in the districts. However, it could be concluded that rural-urban composition of population will invariably influence availability and accessibility of amenities due to economies of scale.

**Gross Domestic Product (GDP) and Basic Amenities :**

The GDP is a broad measure of economic activity. It is based on the market value of all officially recognised final goods and services produced within a State or country during a specified period of time. Its components are consumption, net exports, government expenditure and investment. The 'gross domestic product (GDP) at current prices' is GDP at prices of the current reporting period. It reflects the economic status of the people of the country. It indicates status of the economic attainment on the part of households. The GDP of districts indicates the level of economic development and correspondingly it contributes towards economic empowerment of individuals or households. It is in this context that an attempt has been made to analyse the relationship between GDP and basic amenities.

It is observed that higher levels of GDP of different districts have empowered people to possess or avail of good and livable houses. The districts with higher GDP (Bangalore Urban, Belgaum and Dakshina Kannada) have higher percentage of houses with either 'good' or 'livable' condition. There are also certain districts like Udupi having a higher percentage of good condition of housing in spite of having a

**Table 6.1: Distribution of Urban Population and Availability of Select Amenities**

S. No.	District	Population (%)		Housing Condition		Percentage of Households with		
		Rural	Urban	Good	Livable	Separate Kitchen	LPG	Drinking Water
1.	Bagalkot	68.4	31.6	55.7	39.6	87.3	13.9	28.8
2.	Bangalore Rural	72.9	27.1	57.2	38.1	90.7	25.7	28.1
3.	Bangalore Urban	09.1	90.9	78.1	20.7	96.3	75.3	76.8
4.	Belgaum	74.7	25.3	61.0	35.1	89.1	25.0	35.3
5.	Bellary	62.5	37.5	60.0	35.5	85.3	23.7	34.2
6.	Bidar	75.0	25.0	45.3	50.2	61.3	11.1	29.4
7.	Bijapur	76.9	23.1	55.8	38.3	75.1	14.5	25.8
8.	Chamarajanagar	82.9	17.1	47.6	45.8	78.5	16.8	31.6
9.	Chikamagalur	79.0	21.0	52.7	42.3	95.2	27.4	39.7
10.	Chitradurga	80.1	19.9	52.6	42.3	86.0	17.1	24.5
11.	Dakshina Kannada	52.3	47.7	63.5	33.8	97.3	41.2	79.3
12.	Davanagere	67.7	32.3	54.1	41.0	92.4	24.9	30.0
13.	Dharwad	43.2	56.8	63.4	33.8	96.1	37.8	57.3
14.	Gadag	64.4	35.6	55.9	39.6	91.6	14.8	29.6
15.	Gulbarga	67.4	32.6	55.0	41.4	69.8	14.5	27.9
16.	Hassan	78.8	21.2	49.9	44.8	96.4	21.1	34.5
17.	Haveri	77.7	22.3	53.9	41.6	94.2	12.8	28.2
18.	Kodagu	85.4	14.6	56.6	39.0	95.2	29.6	55.0
19.	Kolar	68.8	31.2	58.0	37.1	87.2	20.1	24.7
20.	Koppal	83.2	16.8	58.0	37.2	83.5	12.2	22.7
21.	Mandya	82.9	17.1	53.8	41.9	92.6	18.9	37.7
22.	Mysore	58.5	41.5	56.2	39.9	91.9	39.8	59.5
23.	Raichur	74.6	25.4	53.9	39.9	75.5	14.3	24.1
24.	Shimoga	64.4	35.6	53.3	40.9	94.6	31.9	45.0
25.	Tumkur	77.6	22.4	56.9	38.1	90.9	18.3	25.7
26.	Udupi	71.6	28.4	64.7	31.7	97.2	34.0	75.3
27.	Uttara Kannada	70.8	29.2	49.6	45.0	94.2	27.6	58.3
	Karnataka :Total	61.3	38.7	60.1	36.0	89.3	32.5	44.5

Source: Census Reports, 2011.

**Table 6.2: Distribution of Urban Population and Availability of Select Amenities**

S. No.	District	Population %		Toilet	Drainage
		Rural	Urban		
1.	Bagalkot	68.4	31.6	18.8	38.0
2.	Bangalore Rural	72.9	27.1	59.5	71.4
3.	Bangalore Urban	09.1	90.9	94.8	95.3
4.	Belgaum	74.7	25.3	32.8	46.6
5.	Bellary	62.5	37.5	32.4	56.2
6.	Bidar	75.0	25.0	23.2	43.2
7.	Bijapur	76.9	23.1	18.1	32.4
8.	Chamarajanagar	82.9	17.1	23.5	58.0
9.	Chikamagalur	79.0	21.0	61.5	56.0
10.	Chitradurga	80.1	19.9	30.3	47.7
11.	Dakshina Kannada	52.3	47.7	92.7	48.8
12.	Davanagere	67.7	32.3	46.4	72.4
13.	Dharwad	43.2	56.8	57.0	67.9
14.	Gadag	64.4	35.6	21.2	53.4
15.	Gulbarga	67.4	32.6	21.2	40.3
16.	Hassan	78.8	21.2	39.9	49.5
17.	Haveri	77.7	22.3	37.3	67.7
18.	Kodagu	85.4	14.6	81.4	64.1
19.	Kolar	68.8	31.2	39.9	62.5
20.	Koppal	83.2	16.8	18.5	41.3
21.	Mandya	82.9	17.1	37.5	65.1
22.	Mysore	58.5	41.5	55.0	73.1
23.	Raichur	74.6	25.4	20.7	36.3
24.	Shimoga	64.4	35.6	71.2	68.1
25.	Tumkur	77.6	22.4	32.5	46.2
26.	Udupi	71.6	28.4	87.2	27.0
27.	Uttara Kannada	70.8	29.2	59.3	34.8
	Karnataka :Total	61.3	38.7	51.2	60.7

Source: Census Reports, 2011.

relatively low GDP. Data in Table 7.1 indicate that higher levels of GDP are invariably associated with 'good and livable' condition of house. This trend is also true in case of facilities of separate kitchen and LPG connection in the districts of Bangalore Urban and Dakshina Kannada. There are also a few districts like

Dharwad, Udupi and Hassan having relatively higher percentage of households with separate kitchen and LPG connection for other reasons like better awareness level.

Simultaneously, it is observed that the districts with higher GDP (Bangalore Urban and Dakshina Kannada) have a higher percentage

of households with drinking water, toilet and drainage facilities (Table 7.2). There are a few districts like Udupi, Belgaum and Mysore having specific facilities in higher proportion rather than having higher percentage of households with all amenities. This kind of situation could be explained in terms of improper planning and execution of schemes in providing amenities to the households in different districts. In some

districts, the priorities of people to avail of amenities might have influenced the status of amenities.

However, the analysis confirms the fact that higher GDP would invariably contribute to availability of amenities along with their accessibility to higher percentage of households.

**Table 7.1: District-wise GDP and Availability of Select Amenities**

S. No.	District	(GDP) ₹ in lakh	Per cent of GDP to State	Housing Condition		Per cent of Households with Separate	
				Good	Livable	Kitchen	LPG
1.	Bagalkot	659183	2.0	55.7	39.6	87.3	13.9
2.	Bangalore Rural	903462	2.8	57.2	38.1	90.7	25.7
3.	Bangalore Urban	11368043	34.9	78.1	20.7	96.3	75.3
4.	Belgaum	1867466	5.7	61.0	35.1	89.1	25.0
5.	Bellary	1352540	4.2	60.0	35.5	85.3	23.7
6.	Bidar	456152	1.4	45.3	50.2	61.3	11.1
7.	Bijapur	647041	2.0	55.8	38.3	75.1	14.5
8.	Chamarajnagar	316562	1.0	47.6	45.8	78.5	16.8
9.	Chikamagalur	592486	1.8	52.7	42.3	95.2	27.4
10.	Chitradurga	641439	2.0	52.6	42.3	86.0	17.1
11.	Dakshina Kannada	1713437	5.3	63.5	33.8	97.3	41.2
12.	Davanagere	817362	2.5	54.1	41.0	92.4	24.9
13.	Dharwad	1159069	3.6	63.4	33.8	96.1	37.8
14.	Gadag	386748	1.2	55.9	39.6	91.6	14.8
15.	Gulbarga	761251	2.3	55.0	41.4	69.8	14.5
16.	Hassan	783730	2.4	49.9	44.8	96.4	21.1
17.	Haveri	489766	1.5	53.9	41.6	94.2	12.8
18.	Kodagu	483831	1.5	56.6	39.0	95.2	29.6
19.	Kolar	741369	2.3	58.0	37.1	87.2	20.1
20.	Koppal	455208	1.4	58.0	37.2	83.5	12.2
21.	Mandya	572759	1.8	53.8	41.9	92.6	18.9
22.	Mysore	1502137	4.6	56.2	39.9	91.9	39.8
23.	Raichur	588391	1.8	53.9	39.9	75.5	14.3
24.	Shimoga	846798	2.6	53.3	40.9	94.6	31.9
25.	Tumkur	1069963	3.3	56.9	38.1	90.9	18.3
26.	Udupi	754789	2.3	64.7	31.7	97.2	34.0
27.	Uttara Kannada	597833	1.8	49.6	45.0	94.2	27.6
	Karnataka :Total	33751571	100.0	60.1	36.0	89.3	32.5

Source: Directorate of Economics and Statistics-Bangalore, Karnataka at a Glance, 2010-11 and Census Reports, 2011.

**Table 7.2: District-wise GDP and Availability of Select Amenities**

S. No.	District	(GDP) ₹ in lakh	Per cent of GDP to State	Drinking Water	Percentage of households with	
					Toilet	Drainage
1.	Bagalkot	659183	2.0	28.8	18.8	38.0
2.	Bangalore Rural	903462	2.7	28.1	59.5	71.4
3.	Bangalore Urban	11368043	33.7	76.8	94.8	95.3
4.	Belgaum	1867466	5.5	35.3	32.8	46.6
5.	Bellary	1352540	4.0	34.2	32.4	56.2
6.	Bidar	456152	1.4	29.4	23.2	43.2
7.	Bijapur	647041	1.9	25.8	18.1	32.4
8.	Chamarajanagar	316562	0.9	31.6	23.5	58.0
9.	Chikamagalur	592486	1.8	39.7	61.5	56.0
10.	Chitradurga	641439	1.9	24.5	30.3	47.7
11.	Dakshina Kannada	1713437	5.1	79.3	92.7	48.8
12.	Davanagere	817362	2.4	30.0	46.4	72.4
13.	Dharwad	1159069	3.4	57.3	57.0	67.9
14.	Gadag	386748	1.1	29.6	21.2	53.4
15.	Gulbarga	761251	2.3	27.9	21.2	40.3
16.	Hassan	783730	2.3	34.5	39.9	49.5
17.	Haveri	489766	1.5	28.2	37.3	67.7
18.	Kodagu	483831	1.4	55.0	81.4	64.1
19.	Kolar	741369	2.2	24.7	39.9	62.5
20.	Koppal	455208	1.3	22.7	18.5	41.3
21.	Mandya	572759	1.7	37.7	37.5	65.1
22.	Mysore	1502137	4.5	59.5	55.0	73.1
23.	Raichur	588391	1.7	24.1	20.7	36.3
24.	Shimoga	846798	2.5	45.0	71.2	68.1
25.	Tumkur	1069963	3.2	25.7	32.5	46.2
26.	Udupi	754789	2.2	75.3	87.2	27.0
27.	Uttara Kannada	597833	1.8	58.3	59.3	34.8
	Karnataka :Total	33751571	100.0	44.5	51.2	60.7

Source: Directorate of Economics and Statistics-Bangalore, Karnataka at a Glance, 2010-11 and Census Reports, 2011.

### Conclusion

The situation of housing condition in Karnataka has improved both quantitatively and qualitatively during 2001-2011. The number of households with amenities like separate kitchen, L.P.G connection, drinking water, toilet and

drainage facilities increased. The most striking aspect is the decline in the number of dilapidated housing units. Some of these developments have been the outcome of special housing schemes initiated and implemented by the governments in the State and at the Centre. The



district-wise progress in the provision of basic facilities to the people has been encouraging. However, there are inter-district variations in the availability of basic amenities for people belonging to different districts. The most striking observation is that socio-economic variables like literacy, urbanisation and GDP contributed towards improvement in the availability and accessibility of basic amenities.

The task of providing basic amenities to people has been the focus of development in post-Independent India. There has been improvement in most of the States with

significant progress at the all-India level. The situation in different districts of Karnataka indicates that efforts are not very appreciable in reaching the desired number of beneficiaries. There is need for proper planning, effective implementation and monitoring, relating to basic / core services of the programmes. Besides involvement of non-governmental agencies, there is also a need for an active participation of local people to ensure the desired levels of providing 'quality amenities' to all the households.

### References

1. Bonnefoy, X. (2007), "Inadequate Housing and Health: An Overview", *International Journal on Environment and Pollution*, Vol. 30, Nos. 3/4, pp.411-429.
2. Krieger, James and Donna L. Higgins, L. Donna, (2002), "Housing and Health: Time Again for Public Health Action", *American Journal of Public Health*, Volume 92, No. 5, 758-765.
3. Laxmi, Vijay, Parikh, Jyoti, Karmakar, Shyam and Dabrase, Pramod (2003), "Household Energy, Women's Hardship and Health Impacts in Rural Rajasthan, India: Need for Sustainable Energy Solutions", *Energy for Sustainable Development*, 7 (1): 58-68.
4. Mara D, Lane J, Scott B, Trouba D, (2010), Sanitation and Health, *PLoS Med* 7(11): e1000363. doi:10.1371/journal.pmed.1000363.
5. Nayar, K.R, (1997), "Housing Amenities and Health Improvement: Some Findings", *Economic and Political Weekly*, 32 (22): 1275-79.
6. Tiwari, R and Nayak, S, (2013), "Drinking Water and Sanitation in Uttar Pradesh: A Regional Analysis", *Journal of Rural Development*, 32(1):61-74.
7. WHO, (2006), *Fuel for Health: Household Energy and Health*.
8. WHO, (2009), *Water Safety Plan Manual: Step-by-Step Risk Management for Drinking-water Suppliers*.