

Spatial Variation in Availability of Household Amenities between Urban and Rural Areas in Haryana

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Abstract

Availability of household amenities is considered important to determine the quality of life. It is an important indicator of lifestyle, social welfare and socio-economic status of people. In modern life, household assets are both the signs of social status and instruments for a better life. But even today, majority of Indians have been deprived of standard housing, without access to basic minimum facilities of drinking water, sanitation and public hygiene etc. The inadequacy of these amenities in an area is not only the outcome of demand supply gap but lack of financial resources; policy intervention and inefficiency of institutions. Present paper has made an attempt to compare the availability of selected household amenities in rural and urban households at district level in Haryana. Five selected basic amenities such as availability of kitchen (inside house), drinking water (within premises), bathroom (within premises), latrine (within premises) and electricity have been taken for analysis. Study is based on secondary source of data at district level obtained from Census of India, 2011. It shows that there is large difference in availability of household amenities between rural and urban areas. In general, the availability of these five selected amenities is lesser in the rural households than their urban counterparts. Variations are also found in availability of these household amenities across various districts in the state of Haryana.

Keywords: *Household Amenities, Rural and Urban Areas*

Introduction

Housing or shelter is one of the essential prerequisites of human development and a significant factor to determine the quality of life. In addition, access to household amenities such as safe drinking water, sanitation facilities and electricity are basic ingredients that are strongly associated with health and working status, as well as income, productivity and quality of life of individuals in particular and the society in general (Sinha). The need for these basic amenities has been universally recognised and has been a major plank in the formulation of several policies and programmes in India. While rural households in India have witnessed a gradual improvement in the access to basic amenities in proportional terms, they continue to face high levels of deprivation (Kumar, 2015).

A household amenity is a very important indicator of socioeconomic indicator of the society or community.

Availability of modern household amenities has a great significance in the human life because it is conventionally believed that housing conditions, availability of drinking water, sanitation facilities, etc. might contribute to the health improvement of the people and determine the quality of life (Nayar, 1997). The absence or inadequate availability of these facilities in an area or section is not only the outcome of demand-supply gap but also it has been due to the lack of financial resources, political interests, inefficiency of institutions etc. It is also being realized that key dependencies exist between water supply and sanitation and improvement in the overall human development (Dreze and Murthi, 2001).

The factors which exert an impact on the health status of the population can possibly be delineated into three sets:

- (i) Health factors which include medical intervention,
- (ii) Health-promoting factors such as housing, water supply, sanitation and hygiene,
- (iii) Non-health factors which include social and economic factors.

The backbone of a successful public health system is considered by source of clean water, toilet facility, kitchen facility and bathroom facility etc. Poor supply of water has obvious health costs for all people. The state government is committed to give an adequate source of electricity for all section of society. Nevertheless, a significant number of rural households lack electricity and the quality of service. Many of the households mainly in the rural areas may have illegal connections which is quite common practice. These households may not report their illegal connection to the Census which is by default an official arm of government but the electrification rate may be under reported in the IHDS. It is the poor who suffer from the lack of access to electricity. Researchers on various health based projects have suggested that both the quality and quantity of water are important determinants of the prevalence of gastrointestinal diseases. This problem is further compounded by lack of access to sanitation. The household wealth is associated with sanitation. Poverty at an individual level as well as state level also reduces the access towards these facilities (Toppo, 2014).

Policies on Basic Amenities

There have been several initiatives, plans and programmes in India to improve access to basic amenities. Two important programmes launched by the Government of India in the year 2005 that have contributed to development in rural and urban areas. These are the Bharat Nirman and the Jawaharlal Nehru National Urban Renewal Mission (JnNURM). There are also various other schemes functioning at the sub-national levels for the provision of various basic amenities (Kumar, 2015).

Under Bharat Nirman, various schemes (for improving the access to basic amenities in rural areas with special provisions for poor, excluded and marginalised groups), such as rural housing (Indira Awaas Yojana), rural drinking water supply (National Rural Drinking Water Programme under Rajiv Gandhi National Drinking Water Mission), Total Sanitation Campaign (which has been renamed Nirmal Bharat Abhiyan in May 2012 by the Ministry of Drinking Water and Sanitation), rural electrification (Rajiv Gandhi Gramteen Vidyutikaran Yojana) among others, are functioning. A landmark initiative was the launch of Provision of Urban Amenities to Rural Areas (PURA) in 2004 (MoUD, 2005).

The JnNURM aims at improving the economic and social infrastructure of 65 select cities as well as providing affordable housing and Basic Services to the Urban Poor (BSUP) through planned development of the identified cities. The JnNURM caters to the non-mission towns and cities under the two components - the Urban Infrastructure Development Scheme for Small and Medium Towns and the Integrated Housing and Slum Development Programme. The schemes of Affordable Housing in Partnership and Interest Subsidy Scheme for Housing Urban Poor dovetailed into Rajiv Awas Yojana, which focuses on slum free India, in the 12th Plan (MoUD, 2005).

All these policies have formed special for the weaker and marginalized sections, but the efforts have lost momentum in some aspects, leading to the current disparities in access to basic services among rural and urban sector and different socio-economic sections of society (Kumar, 2015). The Twelfth Five Year Plan recognized the inclusive growth approach as the means to an end that would demand outcomes which yield benefits for all and particularly for the marginalized sections of society (Thorat and Dubey, 2012).

“Inclusive growth should result in lower incidence of poverty, improvement in health outcomes, universal access to school education, increased access to higher education, including skill and education, better opportunities for both wage employment and livelihoods and improvement in provision of basic amenities like water, electricity, roads, sanitation and housing. Particular attention needs to be paid to the needs of the SC, ST and OBC population, women and children as also minorities and other excluded group” (Planning commission, 2011).

Accordingly, government policies are directed towards economic and social upliftment of these segments to enable everyone to reap the benefits of growth and bring marginalized sections of the society into the mainstream (Ministry of Finance 2012). The health-promoting factors such as housing conditions, availability of drinking water, sanitary facilities, etc, are much more required for health improvement among the population sometimes even more significantly than health services. Therefore, in the present paper, an attempt has been made to analyse the status of the availability of selected household amenities among the households in rural and urban area in the 21 district in Haryana.

Objectives

- To make a comparison of access of selected households amenities between rural and urban areas.
- To find out regional variation in availability of these amenities at district level.

Data Source and Methodology

The present study is based on secondary source of data collected from Census of India publications, 2011. In present study, an attempt has been made to find out the access of rural households to five basic amenities like drinking water (within premises), electricity, latrine (within premises), kitchen (inside house) and bathroom (within premises) in comparison to urban households. This pattern has been examined at district level in state of Haryana. In order to get spatial findings regarding the levels of access to drinking water, electricity, latrine, kitchen and bathroom, simple percentage, standard deviation and Z-score technique have been used.

- Z-score may be expressed as:-
$$Z_{ij} = \frac{X_{ij} - \bar{X}_i}{\sigma}$$

Where, Z_{ij} = Standard value of the variable i in district j .

X_{ij} = Actual value of variable i in district j .

\bar{X}_i = Mean value of variable i in all districts.

σ = Standard deviation of variable i in all districts

This paper attempts to study the availability of household amenities in the 21 districts comprising both of urban and rural areas. This study categorizes all 21 districts as very low, low, medium and high using Z-score. Arc GIS 9.3 has been used to show the spatial patterns of these household facilities for rural and urban areas among the districts through maps.

Study Area

Area of the present study is state of Haryana. The state was established on 1st November 1966 and the capital of the state is Chandigarh. It is bounded by Uttar Pradesh in east, Punjab in the west, Himachal Pradesh in the north and Rajasthan in the south. It is located between the 27° 37' N to 30° 95' N latitude and from 74° 36' E to 77° 36' E longitude. It has an area of 44212 Km². Its population is 2,53,53,081 (Census of India, 2011).

Results and Discussion

Table: 1 District wise distribution of household amenities among rural and urban areas of Haryana using Z-score

	Drinking Water (within premises)		Electricity		Latrine (within premises)		Bathroom (within premises)		Kitchen (inside house)	
Districts	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Panchkula	0.435	-0.114	0.215	0.382	0.500	0.792	-0.628	0.443	0.726	1.968
Ambala	0.302	0.698	1.470	1.266	1.479	1.643	-0.158	0.688	1.243	2.508
Yamunanagar	-0.234	-0.379	1.322	1.513	0.623	1.460	-0.498	1.043	1.111	2.654
Kurukshetra	-0.520	0.718	1.157	1.762	1.013	1.572	1.029	1.114	1.284	2.571
Kaithal	-0.467	-0.839	-0.515	0.352	-0.067	0.393	0.273	-0.228	1.043	1.706
Karnal	-0.433	0.521	1.050	1.526	0.738	1.301	0.996	1.002	0.970	2.432
Panipat	-0.078	-0.189	-0.193	0.179	0.729	1.689	0.874	1.452	1.113	2.368
Sonipat	0.389	0.516	-0.363	0.914	0.574	1.536	0.177	1.078	0.964	2.309
Jind	0.169	0.293	-1.220	0.266	-0.253	0.872	-0.145	0.445	0.672	1.426
Fatehabad	0.205	0.504	0.510	1.159	1.415	1.540	1.280	0.907	0.112	1.832
Sirsa	-0.020	0.533	1.396	1.475	1.854	1.982	2.251	1.586	0.392	2.201
Hisar	0.832	0.235	-0.462	-0.044	0.848	1.276	0.592	0.703	0.018	1.634
Bhiwani	0.851	0.730	-0.734	0.062	0.191	0.894	-0.286	0.341	0.069	0.578
Rohtak	0.613	0.429	-0.458	1.326	0.836	1.422	0.325	1.063	1.089	2.541
Jhajjar	0.651	0.083	-0.158	0.220	0.867	1.440	0.327	1.014	0.744	1.932
Mahendragarh	0.369	0.177	-0.874	-1.372	-1.095	-1.371	-0.964	-0.981	-0.659	1.092
Rewari	0.985	0.560	0.258	0.926	0.245	1.115	-0.250	0.470	0.471	2.267
Gurgaon	0.826	-0.268	0.456	0.796	1.173	1.400	0.801	1.018	0.813	2.335
Mewat	-3.711	-3.938	-2.619	-2.059	-2.255	-1.769	-2.366	-3.004	-3.022	-1.830
Faridabad	-0.209	0.179	0.410	-1.015	0.541	0.815	0.334	0.665	0.604	1.677
Palwal	-0.968	-0.448	-0.647	0.854	-1.544	-0.638	-1.417	-0.209	-1.110	1.035

Source: Table- H series: Haryana, Census of India, 2011

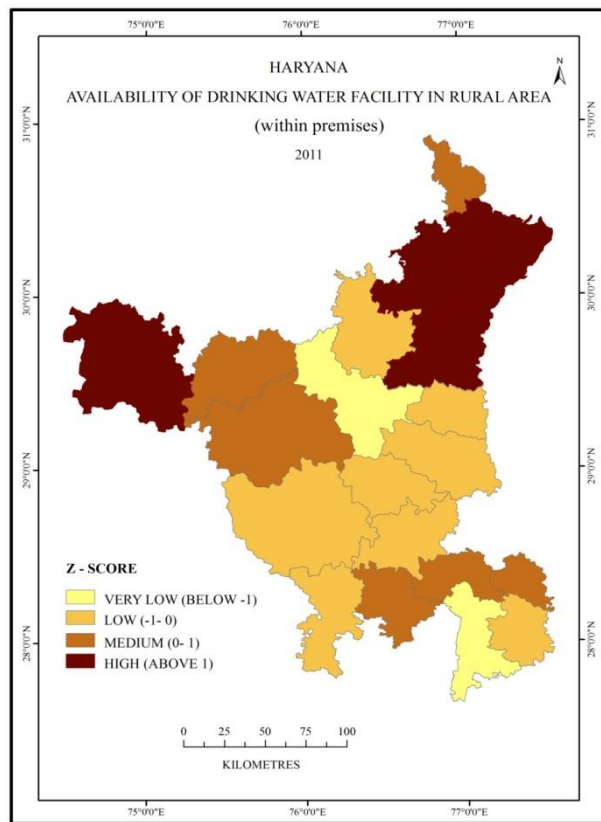
Drinking Water Facility

Table 2: Availability of drinking water (within premises) for rural and urban areas in Haryana

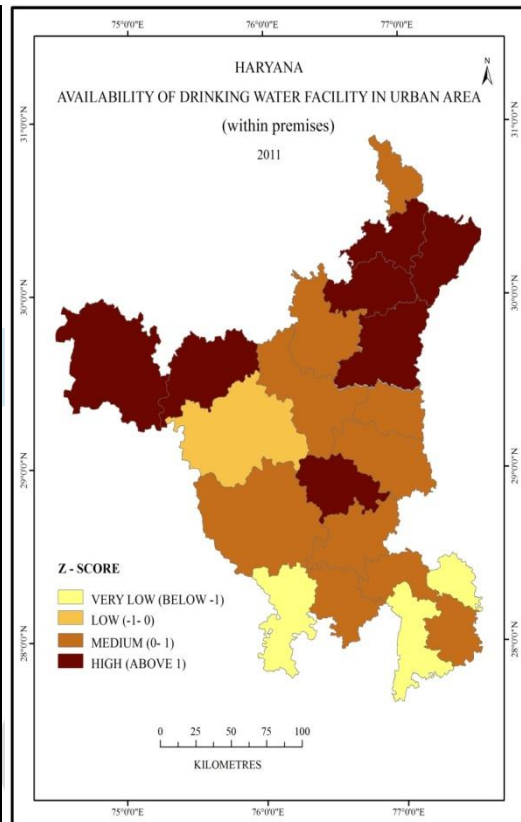
Category	Z-Score	Districts (Rural)	Districts (Urban)
High	Above 1	Ambala, Sirsa, Yamunanagar Kurukshetra, Karnal	Kurukshetra, Karnal, Yamunanagar, Sirsa, Rohtak, Ambala, Fatehabad
Medium	0-1	Fatehabad, Gurgaon, Faridabad, Rewari, Panchkula	Rewari, Sonipat, Palwal, Gurgaon, Panchkula, Kaithal, Jind, Jhajjar, Panipat, Bhiwani
Low	-1-0	Jhajjar, Panipat, Sonipat, Rohtak, Hisar, Kaithal, Palwal, Bhiwani, Mahendragarh	Hisar
Very Low	Below -1	Jind, Mewat	Faridabad, Mahendragarh, Mewat

Source: Table-1

Map 1



Map 2



Source: Table-2

Very high percentage of drinking water has been found in North and North-Western region like Ambala, Sirsa, Yamunanagar, Kurukshetra and Karnal in case of rural households and Kurukshetra, Karnal, Yamunanagar, Sirsa, Rohtak, Ambala and Fatehabad districts in case of urban households. Central Haryana region has low availability of drinking water facility in rural household. On the other hand, this region lies in medium category in urban household amenities except Rohtak due to good water supply. Jind and Mewat districts have low level of drinking water facility for rural while Mahendragarh and Mewat have low level of drinking water facility for urban households.

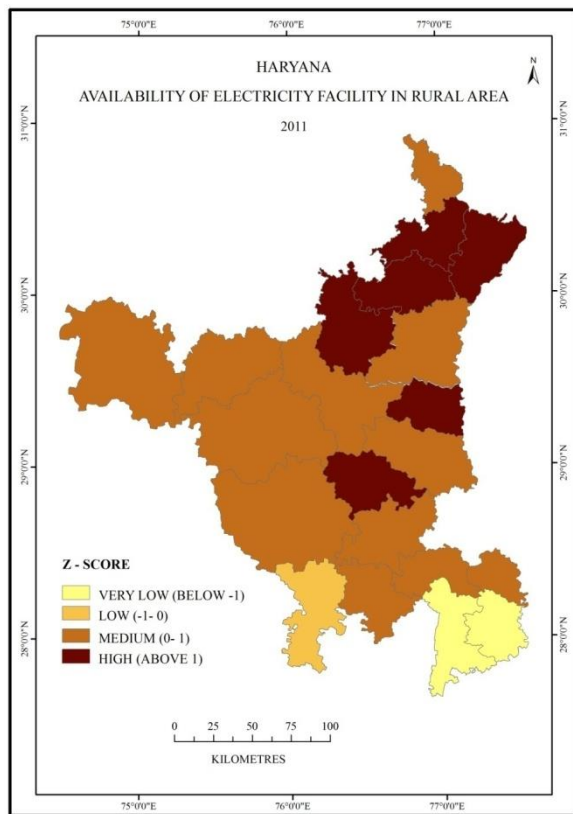
Electricity Facility

Table 3: availability of electricity for rural and urban areas in Haryana

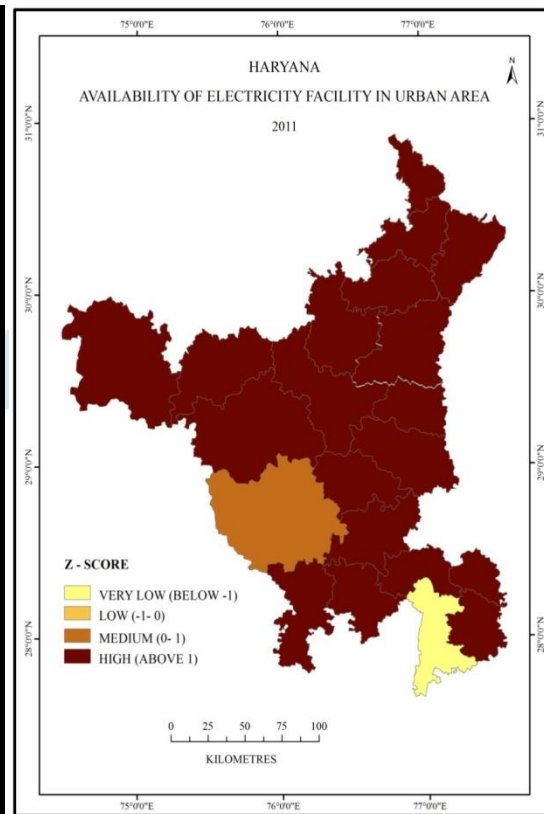
Category	Z-Score	Districts (Rural)	Districts (Urban)
High	Above 1	Kurukshetra, Ambala, Panipat, Yamunanagar, Rohtak, Kaithal	Yamunanagar, Kurukshetra, Rohtak, Ambala, Karnal, Panipat, Gurgaon, Sonapat, Rewari, Sirsa, Punchkula, Jhajjar, Fatehabad, Kaithal, Faridabad, Hisar, Jind, Mahendragarh, Palwal
Medium	0-1	Karnal, Sonipat, Gurgaon, Jhajjar, Punchkula, Jind, Faridabad, Rewari, Sirsa, Fatehabad, Bhiwani, Hisar	Bhiwani,
Low	-1-0	Mahendragarh	
Very Low	Below -1	Palwal, Mewat	Mewat

Source: Table-1

Map 3



Map 4



Source: Table-3

Availability of electricity is found high in almost all urban area household in all districts except Mewat falls in very low category, but in rural area households this facility is found high in North region and medium in other Haryana except Mahendragarh, Palwal and Mewat. Mahendragarh falls in low and Palwal and Mewat fall in very low category. The Indian government is committed to provide an adequate source of electricity for all segments of the society. Government policies have emphasized rural electrification through the Rajiv Gandhi Grameen Vidyutikaran Yojana. As per this Yojana, there is a significant rise in the rural electrification so the electrification rates have been increasing. Many of the households may have illegal connections which is quite a very common practice which is found mainly in the rural areas due to poverty. These households may not report their illegal connection to the Census.

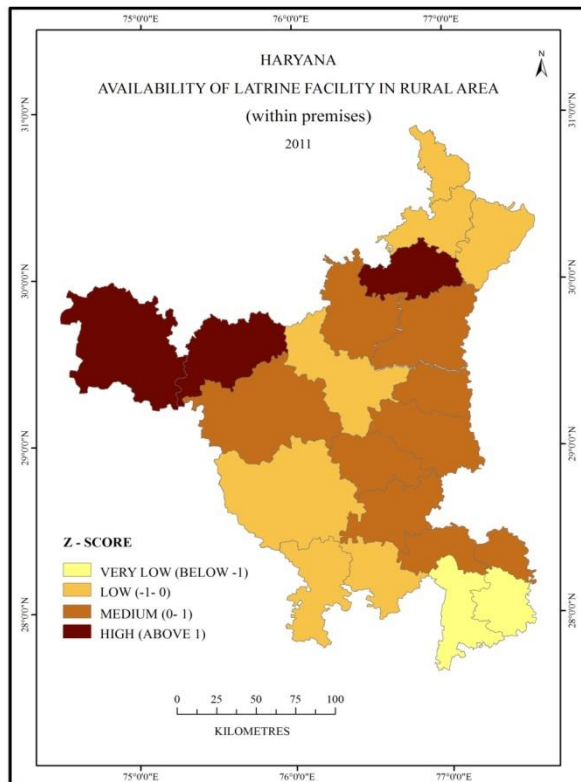
Latrine Facility

Table 4: District wise availability of latrine facility (within premises) in Haryana (2011)

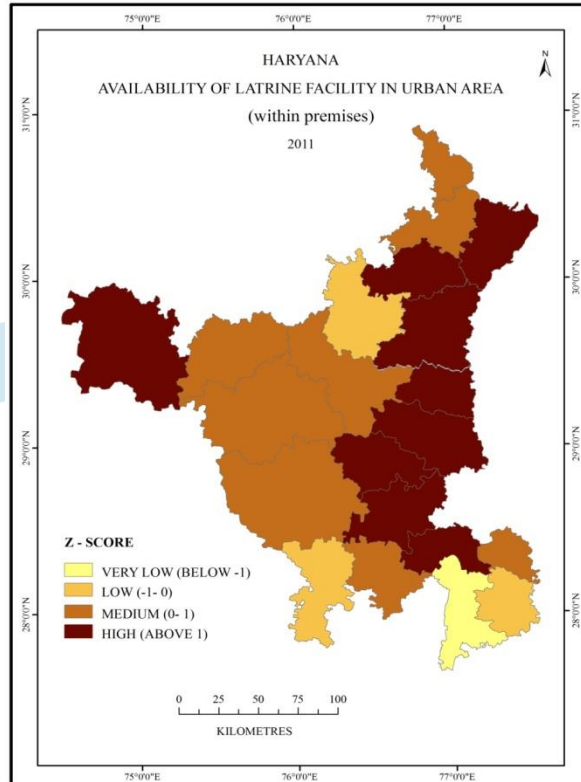
Category	Z-Score	Districts (Rural)	Districts (Urban)
High	Above 1	Sirsa, Fatehabad, , Kurukshetra, ,	Sirsa, Panipat, Karnal, Sonipat, Rohtak, Yamunanagar, Gurgaon Kurukshetra, Jhajjar, Karnal,
Medium	0-1	Karnal, Panipat, Gurgaon, Hisar, Faridabad, Jhajjar, Rohtak, Kaithal, Sonipat	Fatehabad, Hisar, Ambala, Faridabad, Rewari, Jind, Punchkula, Bhiwani
Low	-1-0	Jind, Ambala, Rewari, Bhiwani, Yamunanagar, Punchkula, Mahendragarh	Palwal, Kaithal, Mahendragarh
Very Low	Below -1	Palwal, Mewat	Mewat

Source: Table-1

Map 5



Map-6



Source: Table-4

The highest availability of latrine facility is found in Sirsa, Kurukshetra, Fatehabad and medium availability in middle western region in rural area. Palwal and Mewat in rural area and only Mewat in urban area have very low position. This difference in availability of latrine facility between rural and urban area found because of awareness and poverty.

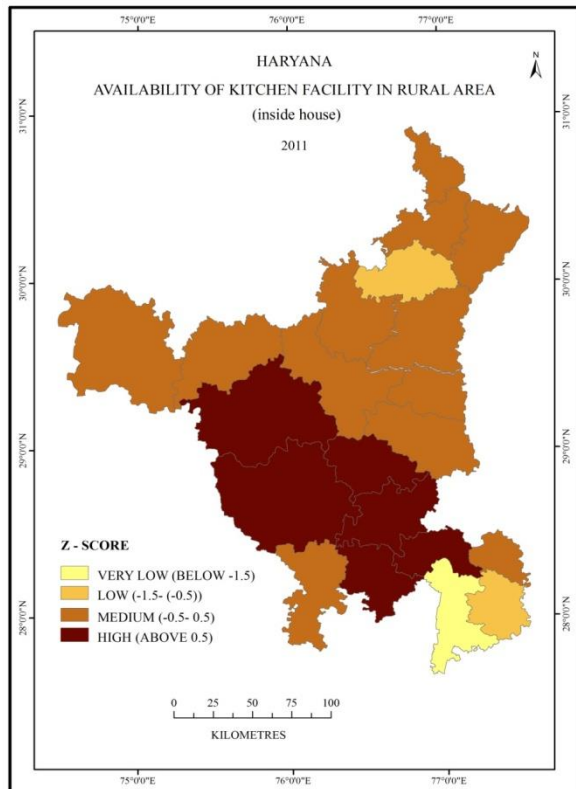
Kitchen Facility

Table 5: District wise availability of kitchen (inside house) in Haryana (2011)

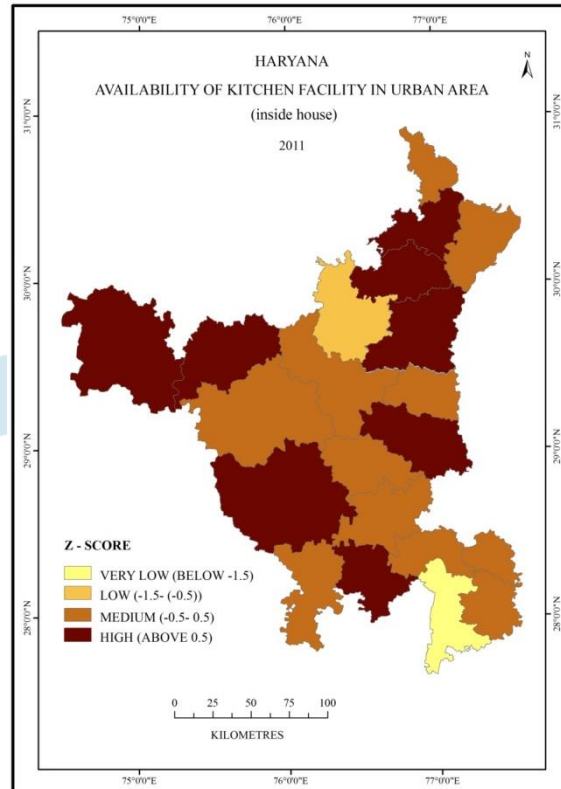
Category	Z-Score	Districts (Rural)	Districts (Urban)
High	Above 0.5	Rewari, Bhiwani, Hisar, Gurgaon, Jhajjar, Rohtak,	Bhiwani, Kurukshetra, Ambala, Rewari, Sirsa, Karnal, Sonipat, Fatehabad
Medium	(-0.5)- 0.5	Panipat, Sonipat, Mahendragarh, Ambala, Fatehabad, Jind, Sirsa, Punchkula, Faridabad, Yamunanagar, Karnal, Kaithal	Rohtak, Jind, Hisar, Faridabad, Mahendragarh, Jhajjar, Punchkula, Panipat, Gurgaon, Yamunanagar, Palwal
Low	(-1.5)- (-0.5)	Kurukshetra, Palwal	Kaithal
Very Low	Below (-1.5)	Mewat	Mewat

Source: Table-1

Map 7



Map 8



Source: Table-5

In the case of availability of kitchen facility in rural area, Rewari, Bhiwani, Hisar, Gurugram, Jhajjar, Rohtak districts of Haryana have the highest position and all other districts fall in medium category except Kurukshetra, Palwal, Mewat. On the other hand in urban area, Bhiwani, Kurukshetra, Ambala, Rewari, Sirsa, Karnal, Sonipat, Fatehabad have high position and all other districts of Haryana fall in medium category except Kaithal, Mewat. Mewat has very low position in both rural and urban areas of Haryana.

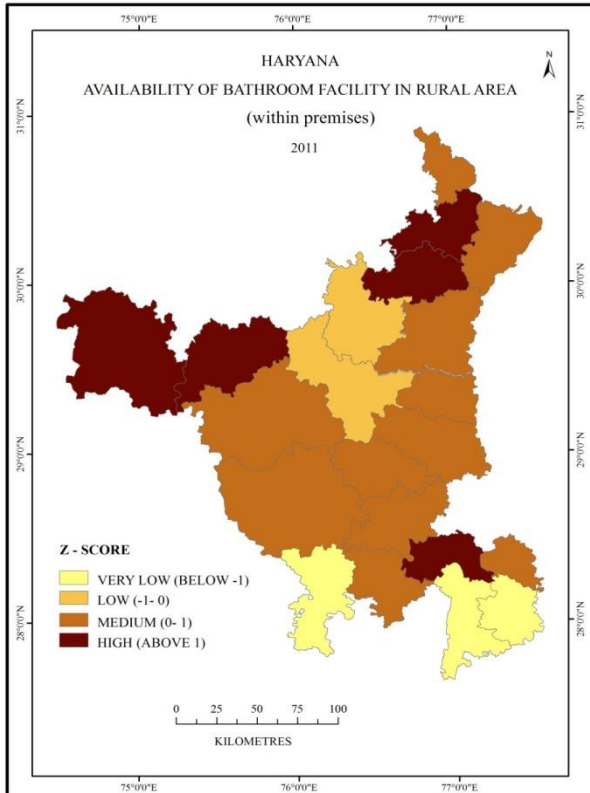
Bathroom Facility

Table 6: District wise availability of bathroom facility (within premises) in Haryana

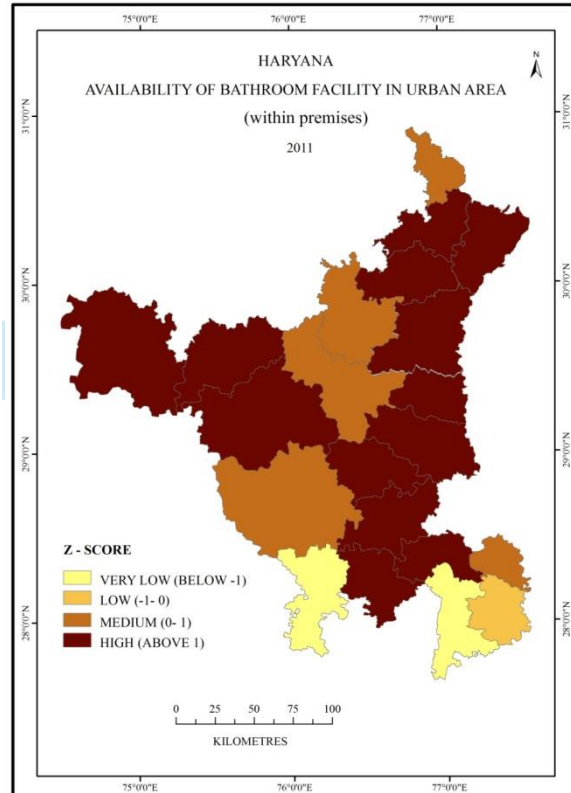
Category	Z-Score	Districts (Rural)	Districts (Urban)
High	Above 1	Sirsa, Ambala, Fatehabad, Gurgaon, Kurukshetra	Sirsa, Panipat, Ambala, Kurukshetra, Fatehabad, Sonipat, Yamunanagar, Rohtak, Gurgaon, Jhajjar, Karnal, Hisar, Rewari
Medium	0-1	Jhajjar, Hisar, Rohtak, Karnal, Panipat, Yamunanagar, Sonipat, Faridabad, Punchkula, Rewari, Bhiwani	Bhiwani, Jind, Faridabad, Punchkula, Kaithal, Kaithal
Low	-1-0	Kaithal, Jind	Palwal,
Very Low	Below -1	Mahendragarh, Palwal, Mewat	Mahendragarh, Mewat

Source: Table-1

Map 9



Map 10



Source: Table-6

In the case of urban area, all the districts of Haryana have the high and medium position in the availability of bathroom facility. Only Palwal, Mahendragarh, Mewat fall in low and very low category. On the other side, in rural area, only Sirsa, Ambala, Fatehabad, Gurugram, Kurukshetra have the high position. Southern part of Haryana except Rewari fall in very low category and other districts lie in medium category in the availability of bathroom facility.

Conclusion

The result shows that there is large difference in the availability of household amenities between rural and urban area. In general, the availability of these five selected amenities is lesser in the rural households than their urban counterparts. Variations are also found in availability of these household amenities across various districts in the state of Haryana. Only Sirsa, Yamunanagar, Ambala, Kurukshetra, Karnal, Rohtak, Fatehabad, Sonapat, Panipat and Gurugram show the better result in comparison to others. Majority of Indians specially rural population have been deprived of standard housing, without access to basic minimum facilities of drinking water, sanitation and public hygiene etc. Today this part of the society is not fully developed. The inadequate availability of these certain household amenities in rural area is not only the outcome of illiteracy, poor economic condition, lack of awareness, demand-supply gap but also it has been due to the lack of financial resources, political interests, inefficiency of institution. So a special attention will be given to this part of society by the government. The government should take better decision and make suitable policies for their development. But it is more necessary to implement these policies. The government should aware these peoples about the policies and plan which are beneficial for them. Rural population should take benefit from the policies, plans and facilities provided by the government.

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