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ISSN (Online) : 2455 - 3662  
SJIF Impact Factor :3.395 (Morocco)

EPRA International Journal of  
**Multidisciplinary  
Research**

**Volume: 2 Issue: 11 November 2016**



**Published By :**  
**EPRA Journals**

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## BASIC HOUSEHOLD AMENITIES IN THE INDIAN STATE OF UTTARAKHAND: EVIDENCES FROM NATIONAL FAMILY HEALTH SURVEY

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### ABSTRACT

*Background-* This research study is an attempt to study the availability and accessibility of basic household amenities in the north Indian state of Uttarakhand.

*Methods-*Data from National Family Health Survey-4 along with few other sources like Global Health Observatory of World Health Organization have been used in this research. Secondary data relating to prominent household amenities-electricity, drinking water, clean fuel for cooking and sanitation facilities have been analyzed. A comparison has also been attempted district-wise.

*Findings-* Study has found inter district as well as urban-rural disparities with respect to availability of basic amenities and the need for improving the quantum of all those amenities in general and sanitation and clean cooking fuel in particular in most of the districts of Uttarakhand.

**KEY WORDS-** Basic amenities, Cooking fuel, Electricity, Sanitation, Water, Uttarakhand.

### INTRODUCTION

Access of humans to basic amenities such as safe drinking water, electricity, cooking fuel and sanitation are essential for human development. Improving access to safe drinking water and sanitation facilities by the year 2015 was one of the eight Millennium Development Goals developed by international community. Researchers have revealed the progress of India towards these goals however with regional variations. Some Indian states are not performing well in providing these amenities. Paul,S. & Sridhar,K. (2015) noticed a better quality of life in southern states of India in terms of basic amenities and possession of assets relatively to northern states. They also found that on an average 75% of slum households in south had access to latrine in comparison to only 66% in north and more than 66%

of the slum households in southern states had access to tap water from a treated source whereas this percentage was less than 50% in case of northern Indian states. A report by UNICEF revealed that in the year 2015,1.2 million children in India died due to diseases which were preventable and treatable. Preventable water borne diseases were also one of them. As far as other amenities of electricity and cooking fuel are concerned, World Energy Outlook (2012) reports that more than 66 percent households in India use wood, agriculture waste, coal and dried cattle manure as fuel which has an adverse impact on their health. Access of households to electricity too does not reveal a very appreciable picture of few Indian states. Several research studies uncover rural India as the home of majority of those in the world who do not have access to electricity. Disparities

have also been found in access to electricity. Given this background this research study is an endeavor to study the status of the above mentioned basic amenities in the north Indian state of Uttarakhand.

### **ABOUT UTTARAKHAND**

Uttarakhand was among the three states which were created in the year 2000. It was carved out from the state of Uttar Pradesh after the long demand by the inhabitants of this hilly region for a separate state culminated into the Uttar Pradesh Reorganization Bill-2000 which was passed by the upper house of Indian Parliament on August 10, 2000 and received the sanction of President of India on August 28, 2000. Ignorance by the political leaders sitting in Lucknow (capital city of Uttar Pradesh), geographical uniqueness of the state of Uttarakhand (majority of the region is hilly or forest covered) and rising unemployment were the main reasons behind the demand to separate it from Uttar Pradesh. At the time of separation it was named "Uttaranchal" but later on in 2007 its name was changed to "Uttarakhand" meaning "northern region". Kumaon and Garhwal are the two administrative divisions of Uttarakhand and there are 13 districts which come under these two divisions. Kumaon division includes the districts of

Almora, Bageshwar, Champawat, Pithoragarh, Nainital and Udham Singh Nagar. Remaining districts- Chamoli, Dehradun, Haridwar, Pauri Garhwal, Rudrapur, Tehri Garhwal and Uttarkashi come under Garhwal division. As per the latest data available; Uttarakhand has an area of 53843 square kilometers with a population of 10.117 million and a literacy rate of 79.63%. Dehradun is the temporary capital of Uttarakhand.

### **RESEARCH OBJECTIVES**

This research study aims at studying the status of basic household amenities in the Indian state of Uttarakhand. These amenities are electricity, drinking water, sanitation facilities and clean fuel for cooking.

### **RESEARCH METHODOLOGY**

Area of study- All 13 districts of Uttarakhand.

Data used- Secondary data relating to prominent household amenities of electricity, drinking water, sanitation facilities and clean fuel for cooking have been analyzed.

Sources of data- National Family Health Survey-4 and Global Health Observatory of World Health Organization.

## LOCATION MAP OF STUDY AREA



Figure-I

## DISCUSSION AND RESULTS ELECTRICITY

Some studies reveal that out of 1.3 billion people in the world who have no access to power, a quarter 300 million live in rural India in northern Indian states such as Bihar, Uttar Pradesh and Madhya Pradesh. Indian government aims at providing electricity to all by 2022 but it seems a difficult task due to the states like Bihar and Madhya Pradesh where only 58.6% and 89.9% of households have electricity. In Uttarakhand this percentage is very high at 97.5%. During NFHS-3 there were 80% households with electricity so there is an

improvement of 15.5% during last 10 years. Though this progress is slow it still does not look difficult for Uttarakhand to provide electricity to all its inhabitants by 2022. A low degree of rural-urban disparity has also been found. The percentage of household with electricity is more in urban areas (99.4%) in comparison to rural ones (96.5%). Among all the districts Champawat (91.7%) and Uttarkashi(93.2%) are the districts where the least number of households have electricity whereas Dehradun (99.4%) which is the capital of Uttarakhand has maximum number of households with electricity. Besides Dehradun remaining districts are also close to provide electricity to all.

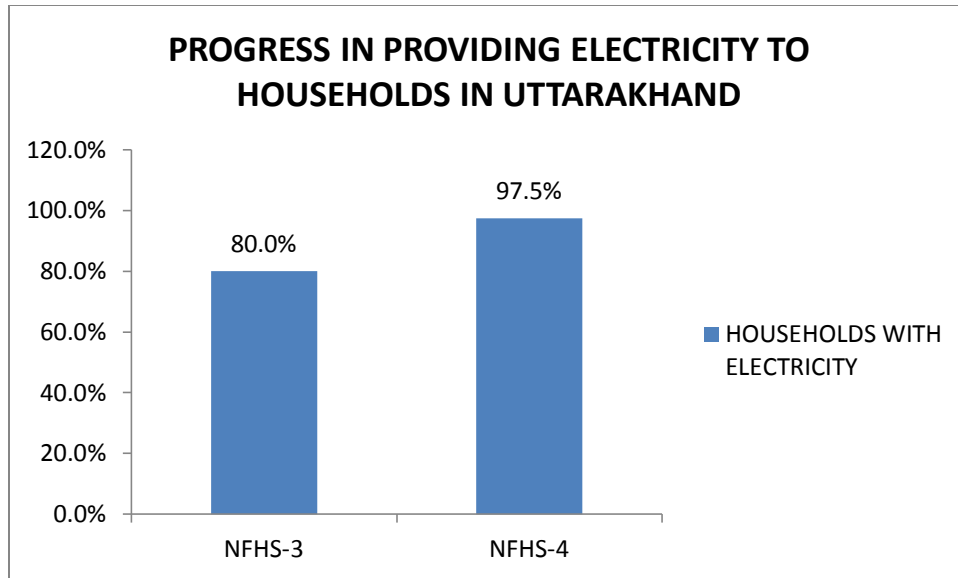


Chart-I

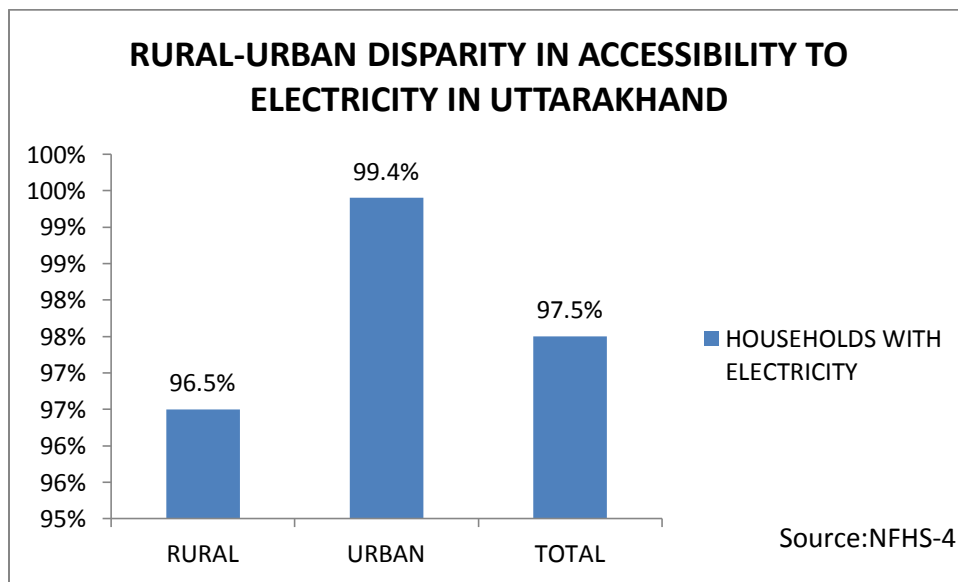


Chart-II

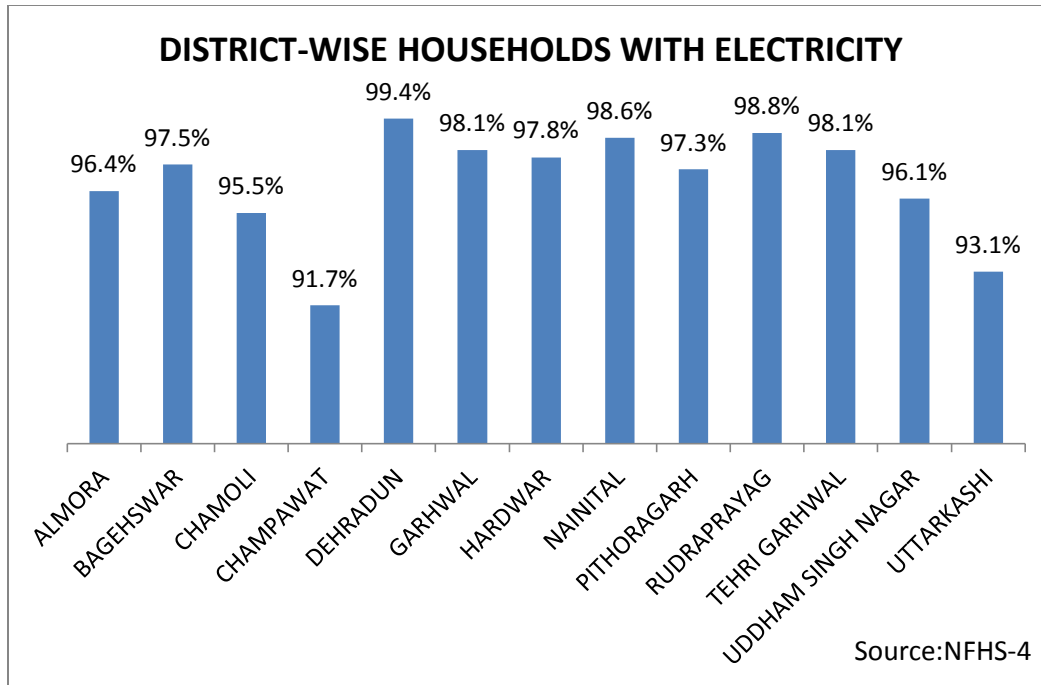


Chart-III

### IMPROVED DRINKING WATER SOURCE

According to World Health Organization safe water supply is one of the fundamental factors to health and combined with other factors safe drinking water and improved water management can prevent 10 percent of the global diseases. According to the Millennium Development Goals Report 2015; 91 per cent of the world population is using an improved drinking water source, compared to 76 per cent in 1990.

Improved drinking water in NFHS survey included- Piped water into dwelling/yard/plot, public tap/stand pipe, tube well or borehole, protected dug well, protected spring, rainwater,community RO plant .The figures on improved drinking water source does not depict a very satisfactory picture of the state of Uttarakhand which boasts of 17 rivers including revered Ganga and Yamuna. As per the NFHS-4 92.9% of households in Uttarakhand have access to improved drinking water source Though the figure

looks good it is lower than the percentage of such households in Bihar(98.2%)which is considered as a least developed state of India. It is also less than the national average of 94.1%(according to WHO) in 2015.Progress in increasing the percentage of households with improved drinking water source is also very slow; there is an increase of 5.5% only in the last 10 years which is far from satisfactory. Rural-urban disparity has also been found in access to improved drinking water source. Percentage of households using improved drinking water source is higher in urban (98.9%) areas in comparison to rural (89.5%) ones. District wise disparities are also there.Dehradun (99.5%),Hardwar (99.1%)and Uddham Singh Nagar (97.6%) are the top three districts where the highest percentage of households with improved drinking water source has been found whereas the hilly districts of Uttarkashi (75.1%),Tehri Garhwal (77.4%) ,Pithoragarh (83.9%) and Almora(83.9%)are the districts at bottom.

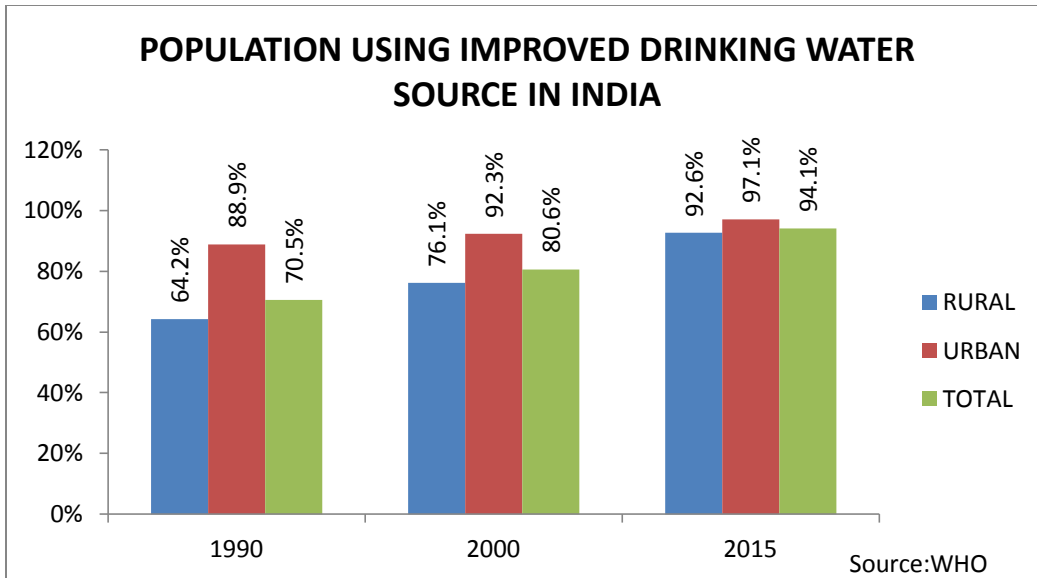


Chart-IV

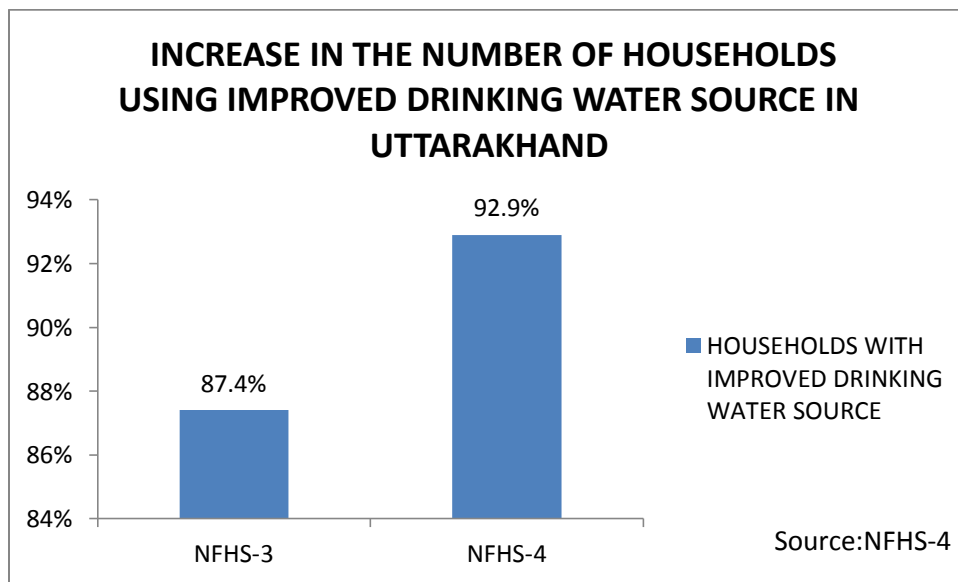


Chart-V

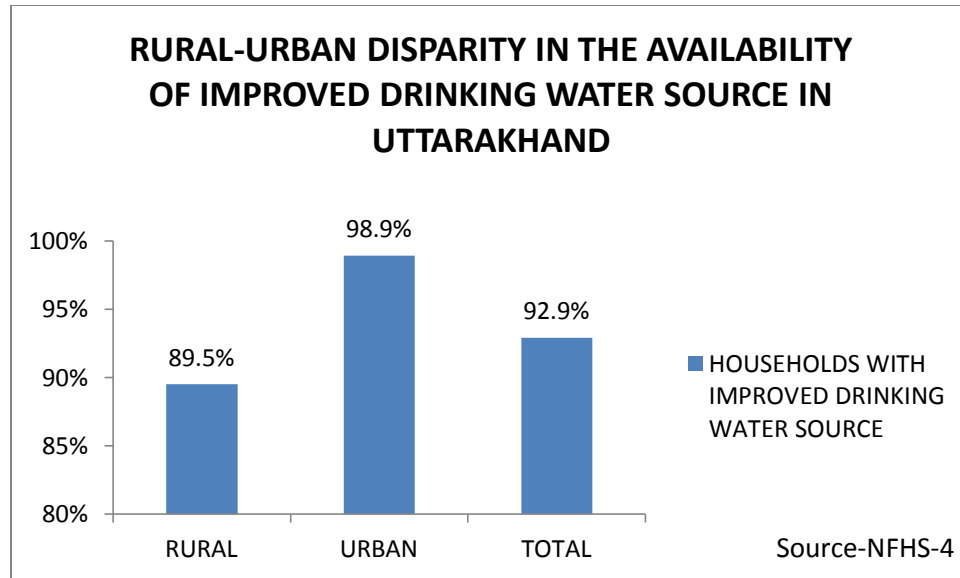


Chart-VI

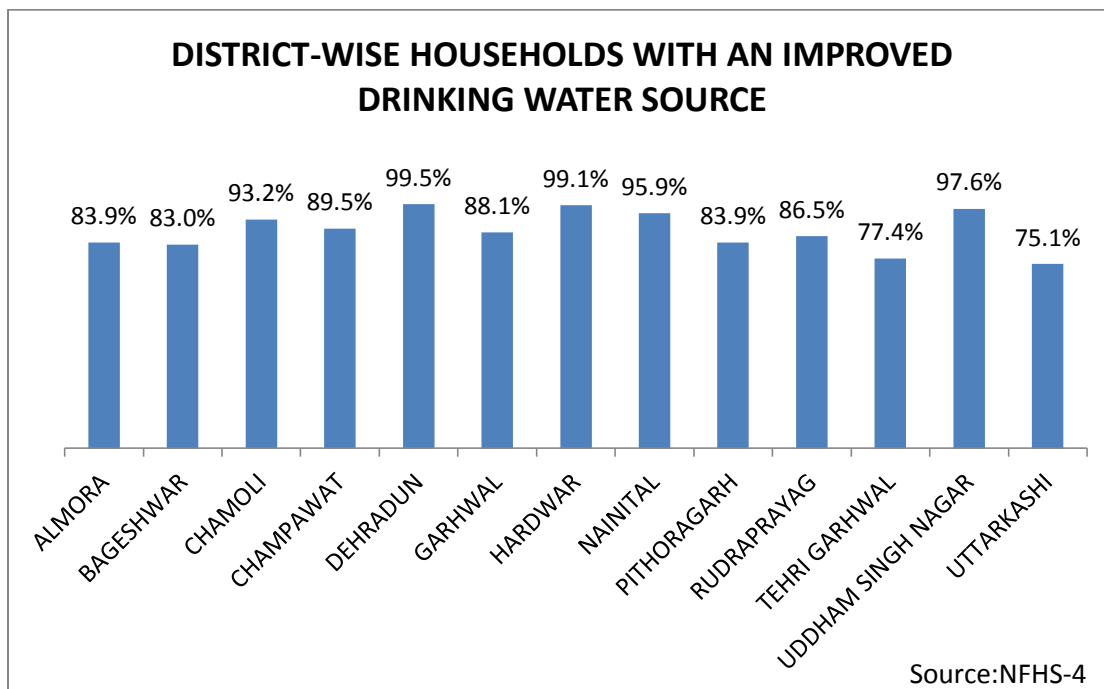


Chart-VII

### IMPROVED SANITATION FACILITY

Sanitation is also one of the factors which are fundamental to health. Flush to piped sewer system, flush to septic tank, flush to pit latrine, ventilated improved pit (VIP)/biogas latrine, pit latrine with slab and twin pit/composting toilet which is not shared with any other household were considered as improved sanitation facility in NFHS-4

According to Global Health Observatory (GHO) of World Health Organization, in 2015, 68% of the world's population had access to improved sanitation facilities. Millennium Development Goals target for sanitation was met by 95 countries. A overwhelming 13% of the world population remain with no access to toilets, latrines or any form of sanitation facility, and therefore practice open



defecation, which results in high levels of environmental contamination and the exposure of openly defecating people to the risks of microbial infections, diarrhoeal diseases (including cholera), trachoma, schistosomiasis and hepatitis. Approximately 90% of such population live in rural areas. Though a significant improvement has been made – more than 2.1 billion people gained access to improved sanitation facilities between 1990 and 2015. However rural-urban disparities continue: 70% of the gains in access were in the urban areas, and 7 out of 10 people that do not have access to an improved sanitation facility, live in rural areas. India is also not an exception and the situation is appalling. According to WHO 60.4% of Indian population does not have access to improved sanitation facilities so the challenge of increasing the number of households with improved sanitation facilities in India is not small. There is a increase of only 22.8% since 1990.62.6% urban and a minuscule 28.5% rural population have access to improved sanitation

facilities in India which clearly shows the massive urban-rural disparities.

In Uttarakhand, during last 10 years there is a increase in 20% households using improved sanitation facility. In the capital town of Dehradun maximum number of households (75.6%) are using improved sanitation facilities whereas in Uttarkashi this percentage is minimum (48.5%). In Nainital which is a hill station and a tourist attraction 73% of households are using improved sanitation facilities. With the exceptions of Dehradun and Nainital all the remaining districts of Uttarakhand have the percentage of households using improved sanitation facilities less than 70%. Champavat (59.5%), Hardwar (56.9%), Udhham Singh Nagar (56.2%) and Uttarkashi (48.5%) have this percentage even lower than 60%. There is a huge difference in the percentage of rural and urban households using improved sanitation facilities. In urban areas 13.7% more households are using improved sanitation facilities relatively to rural areas.

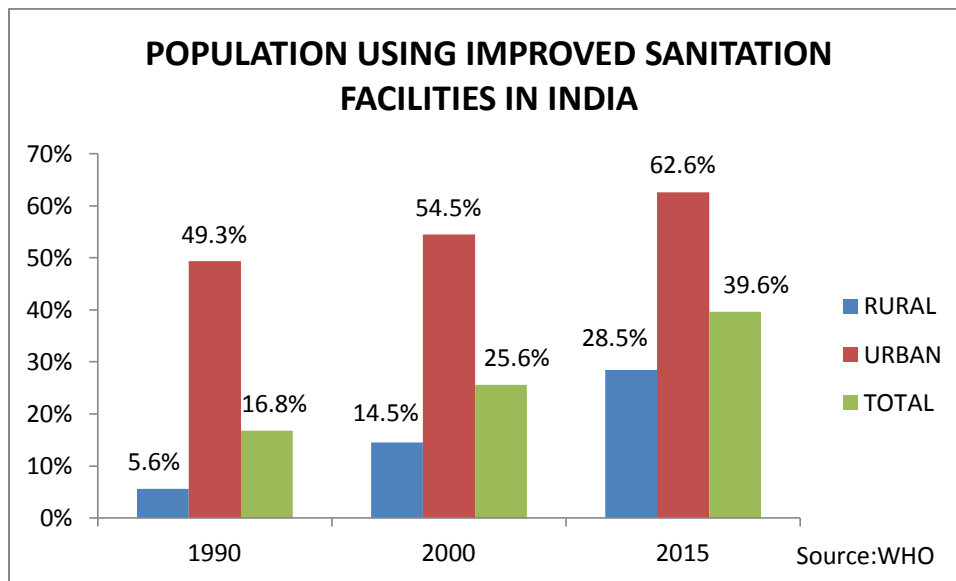
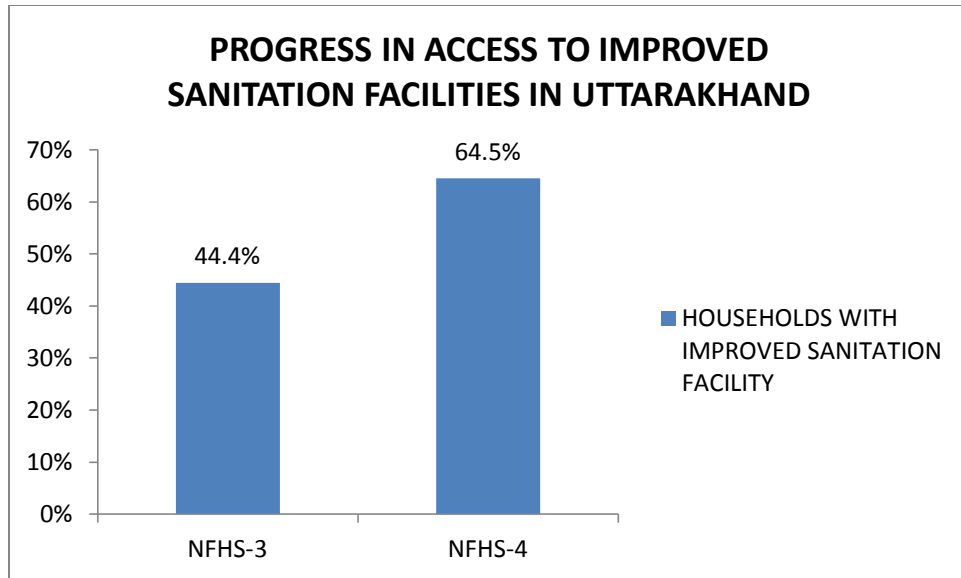
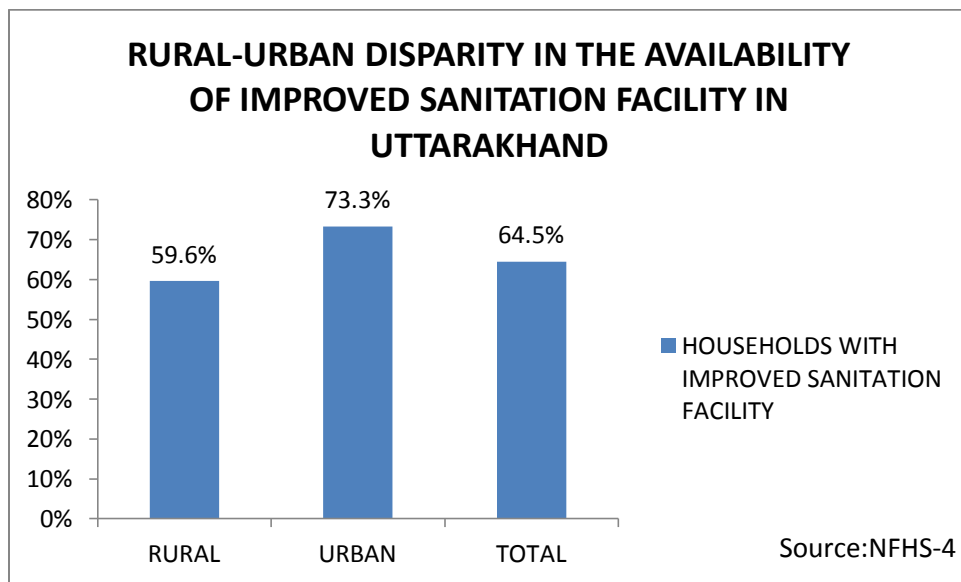


Chart-VIII



**Chart-IX**



**Chart-X**

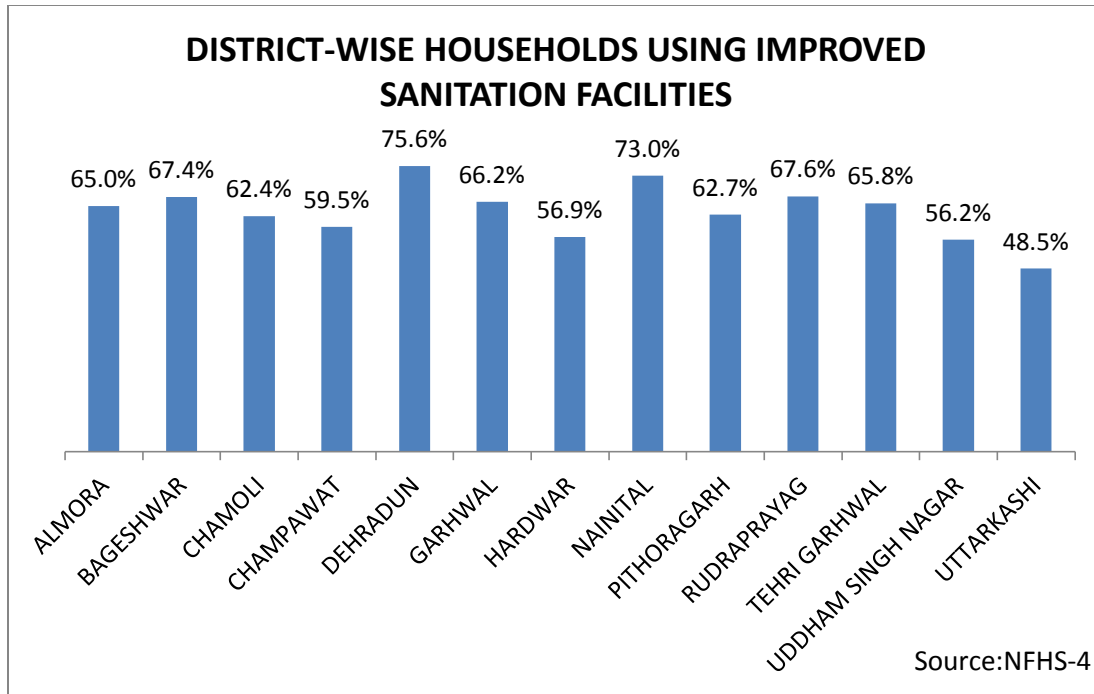


Chart-XI

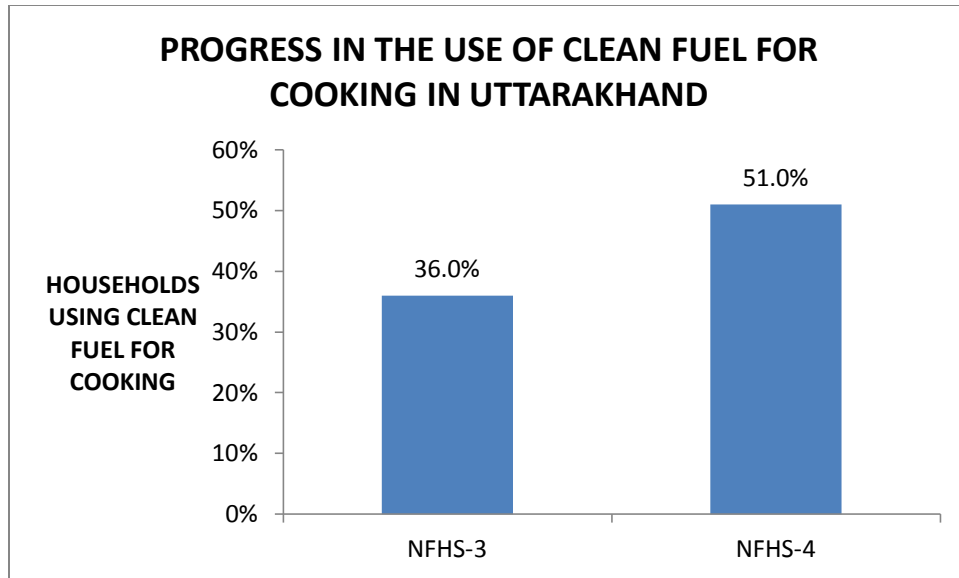
**CLEAN FUEL FOR COOKING**

Electricity, LPG/natural gas and biogas were considered as clean cooking fuel in NFHS-4.

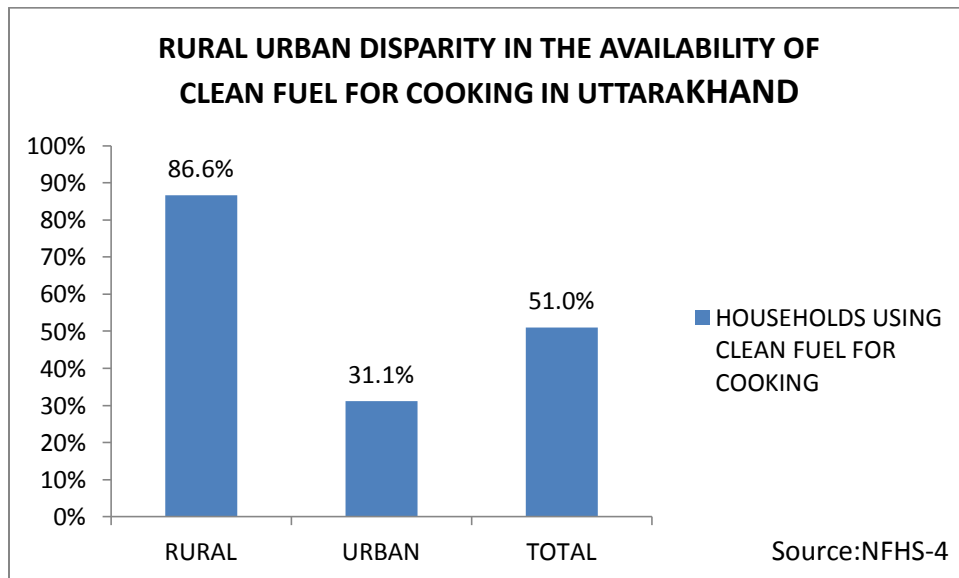
According to the United Nation Industrial Development Organization report titled “Sustainable Energy For All” more than 50% of the global population lacking clean cooking facilities live in India, China and Bangladesh and India is at the top of this list with the largest population lacking access to clean fuel for cooking. More than 66% of India’s population fully or partially relies on traditional biomass for cooking.

NFHS-4 data show that only 51% of the households in Uttarakhand use clean fuel for cooking which is less than the national average of 66%. This is a clear indication of a health hazard particularly to

women and children because in India cooking is the responsibility of women and children spend most of their time at home with their mothers. Disparities between rural and urban regions are very high. Only 31.1% rural households use clean fuel for cooking in comparison to 86.6% households in urban areas. District-wise data also presents extremely gloomy conditions in this regard. Dehradun(84.9%) is at the top with the highest percentage of households using clean fuel for cooking whereas Almora(26.6%) is at the bottom. In all the districts minuscule percentage of households use clean fuel for cooking which puts Uttarakhand among the states where traditional fuels such as firewood, fire chips and agricultural waste etc. are used widely.



**Chart-XI**



**Chart-XIII**

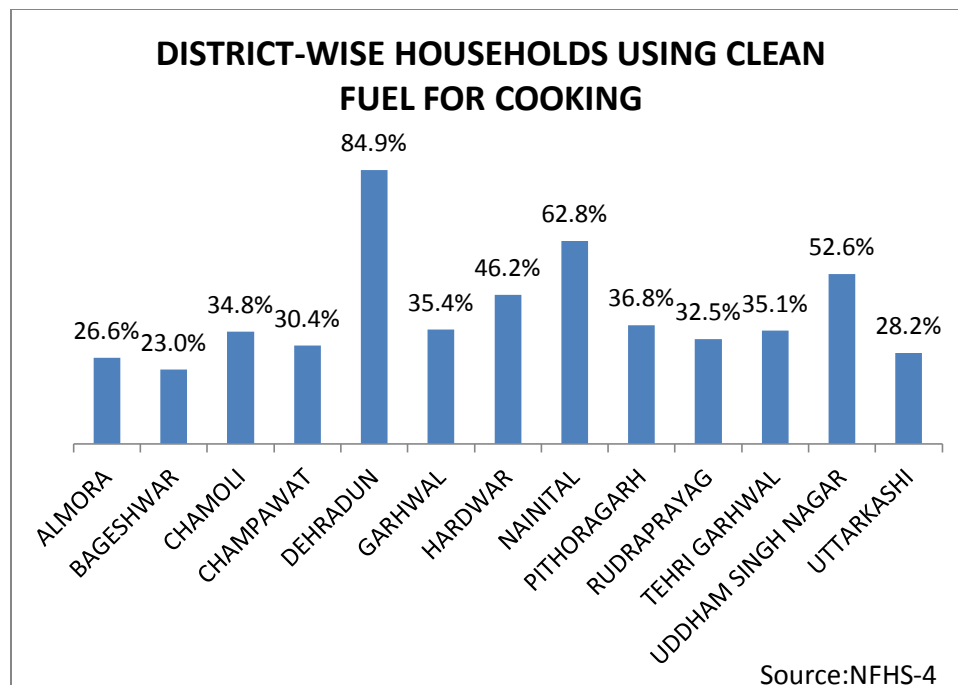


Chart-XIV

## CONCLUSION

This study has presented a detailed analysis of availability of basic household amenities in the Indian state of Uttarakhand. There is a need of improving the quantum of all the amenities with an urgent emphasis on ensuring the availability and accessibility of clean cooking fuel and improved sanitation facilities in rural areas. Besides availability and accessibility, affordability is also an important issue for rural households. Non clean fuel is either very cheap or absolutely free whereas clean cooking fuel comes at a price. Pradhan Mantri Ujjwal Yojana launched in March 2016 aiming to provide fifty million subsidized LPG connections to women of BPL (Below Poverty Line) households in the next three years is a good initiative in this direction. In case of sanitation it is more important to increase awareness among rural people for restraining them to defecate at open places rather than just to provide subsidies for facilities construction. Total Sanitation Campaign initiated in 1999 and renamed as Nirmal Bharat Abhiyan in 2012 and Swachh Bharat Abhiyan in 2014 is an initiative of central government reflecting this approach.

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