International Journal of Science and Research (IJSR)
ISSN (Online): 2319-7064
Index Copernicus Value (2015): 78.96 | Impact Factor (2015): 6.391

Spatial Analysis of Household Amenities in Rajasthan

Virender Chhachhiya

Research Scholar, Deptartment of Geography, Kurukshetra University, Kurukshetra, India

Abstract: ***The present research paper is an attempt to analyze the spatial variations in household amenities and assets in respect of availability of safe drinking water, improved sanitation, clean cooking fuel and drainage facility in all 32 districts of Rajasthan. These amenities improve the quality of life and are the positive signs of social status and instruments for a better life. In the present study GIS techniques has been applied to show the spatial pattern. As per 2011 census, 32% of households having facility of Drinking Water from Treated Source, 23% households using Clean Cooking Fuel, 35% of households having Improved Sanitation Facility and only 42 % households having Improved Drainage Facility . The study shows that the availability of safe drinking water decreases from high in the northern part to low in the Southern and Western part of the state. There is a declining trend in availability of improved sanitation from North to East and West direction. There is a more than 40% clean cooking fuel is highest in Kota and Jaipur District, western, southern and eastern side of the state but lower consumption. The percentage of improved drainage facility is highest in Central and Eastern, moderate in Northern and lowest in Western Rajasthan.***

Keywords: Spatial Distribution, Household Amenities, Rajasthan

1. Introduction

Household Amenities are fundamental requirement of all people, it does not matter which country they belong. Household amenities reflect the quality of life of a person and belong to our daily need. In this study Rajasthan is taken as study area because it lies in the list of BIMARU States, these states are less developed in term of health, education, economy and basic infrastructure. In case of shortage of drinking water, improved sanitation, clean cooking fuel and improved drainage facility produce many diseases, many social and environmental problems. In case of good drinking water, improved sanitation, clean cooking fuel and improved drainage facility reflects improve quality of life and positive sign of social and economic status of individual or state. According to Census of India "household is usually a group of persons who normally live together and take their meals from a common kitchen unless the exigencies of work prevent any of them from doing so. The term „basic amenities", refers to drinking water supply, sanitation, electricity and so on (Shaw 2007). It is assumed that availability of drinking water, sanitation facilities, etc. might contribute to the health improvement of the people and determine the quality of life of the society (Nayar 1997).The lacking of these facilities or their insufficient availability in an area is not only exerting an impact on the health status of the population but also it has been due to the lack of inefficiency of government. The health indicators such as availability of drinking water, sanitary facilities, etc, are much more required for health improvement among the population.

2. Objectives

The objectives of present study household's safe drinking water, improved sanitation, drainage and clean cooking fuel in Rajasthan.

3. Data and Methodology

Data

The study area of present study is Rajasthan because it lies in the list of BIMARU States**.** The district is chosen as the unit of study. The data used in present study is taken from Household Table of Censes of India 2011.

Methodology

Drinking water from treated source -	Tap water from treated source
Improved sanitation-	Availability of toilet facility
Improved drainage facility-	Both open and close drainage facility
Clean cooking fuel-	LPG/PNG

After collecting the data it is arranged, tabulated, calculated and analysed. Sex ratio is computed for every individual district; The results occurred from this calculation is further represented by maps which are prepared by Arc-GIS 9.3.andrange method is used to form four categories of the data (high, moderate high, moderate low and low).

Study Area

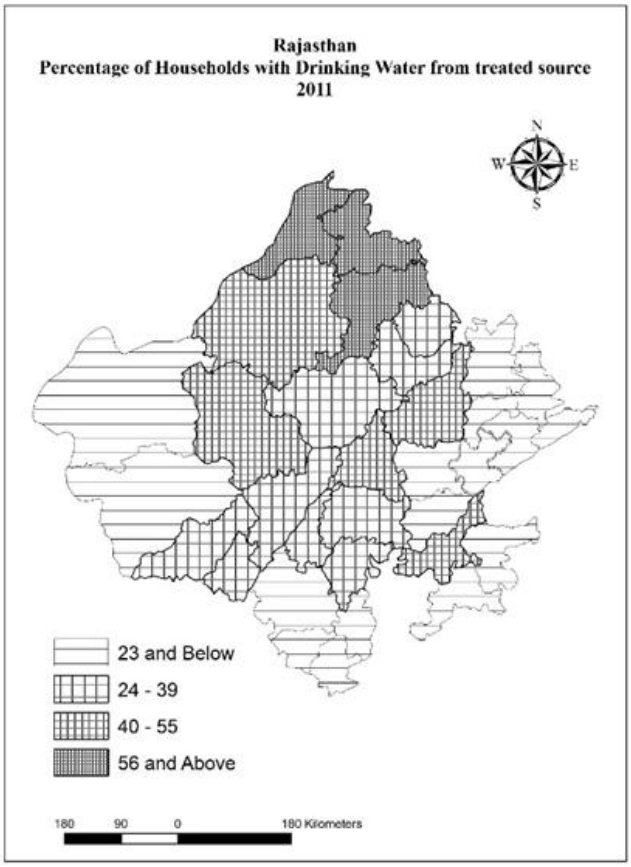
Rajasthan is India's largest state by area (342,239 square kilometres or 10.4% of India's total area). It is located on the western side of the country. The state was formed on 30 March 1949. Its capital and largest city is Jaipur also known as Pink City. Other most important cities are Jodhpur, Udaipur, Bikaner, Kota and Ajmer. The geographic features of Rajasthan are the Thar Desert and the Aravalli Range, which runs through the state from southwest to northeast, almost from one end to the other, for more than 850 kilometres (530 mi). It as a mainly Rajasthani population of approximately 68,621,012. Rajasthan's population is made up mainly of Hindus, who account for 88.45% of the

Licensed Under Creative Commons Attribution CC BY

population. Muslims make up 9.08%, Sikhs 1.27% and Jains 1% of the population. Hindi is the official and the most widely spoken language in the state (91% of the population as per the 2001 census), followed by Bhili(5%), Punjabi (2%), and Urdu (1%).The Census 2011, Rajasthan had a literacy rate of 67.06% (80.51% male and 52.66% female). Although Rajasthan's literacy rate is below the national average of 74.04% and although it's female literacy rate is the lowest in the country (followed by Bihar at 53.33%), the state has been praised for its efforts and achievements in raising male and female literacy rates. In Rajasthan Jodhpur and Kota are two major educational hubs, Where kota known for best medical and Engineering coaching and Jodhpur is home of many higher educational institutions like IIT, AIIMS, National Law University.

4. Result and Discussions

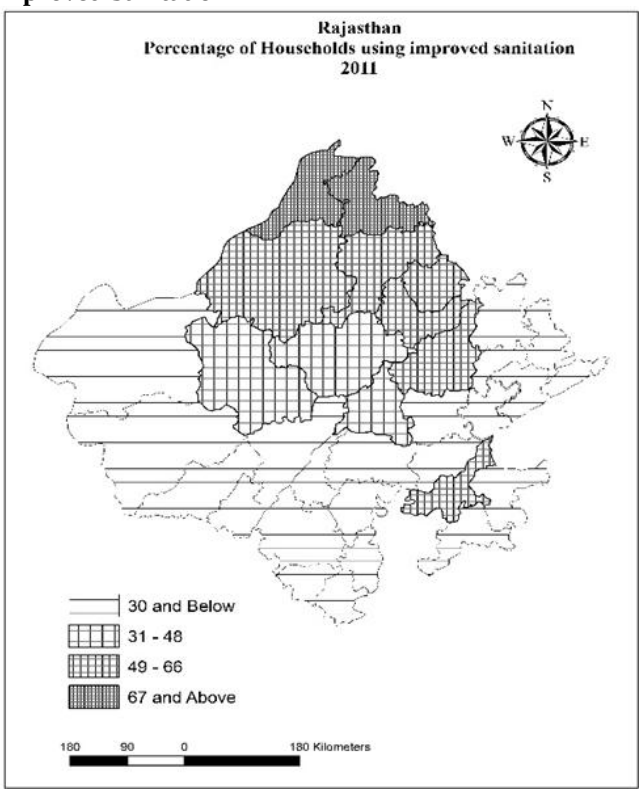
Safe Drinking Water



Tap water from treated source

Rajasthan has 32 % of households have tap drinking water from treated source same as national average 32 %. Hanumangarh (71) at the top followed by Ganganagar (68), Churu, Kota, Jaipur, Bikaner, Ajmer and Jodhpur, on other side Tonk (19), followed by Bharatpur, Sawai Madhopur, Baran, Dhaulpur, Barmer, Jaisalmer, Dausa, Karauli, Dungarpur, Partapgarh and Banswara (9) at the bottom level.

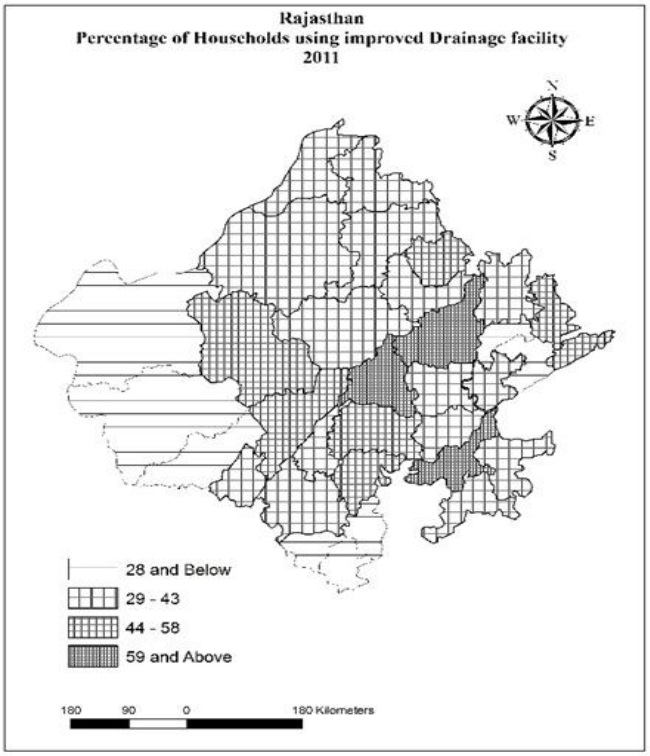
Improved Sanitation



Improved Sanitation

Rajasthan has 35 % of households have improved sanitation whereas national average is 47 %. Ganganagar and Hanumangarh (85) at the top followed by Jaipur, Churu, Jhunjhunun, Bikaner, Kota, Sikkar, Ajmer, Jodhpur, and Nagar, and on the other side Baran (18)followed by Dausa, Jalwar, Dhaulpur, Karauli, Jalor, Barmer, Dungarpur, Banswara and Partapgarh (11) at the bottom.

Drainage Facility

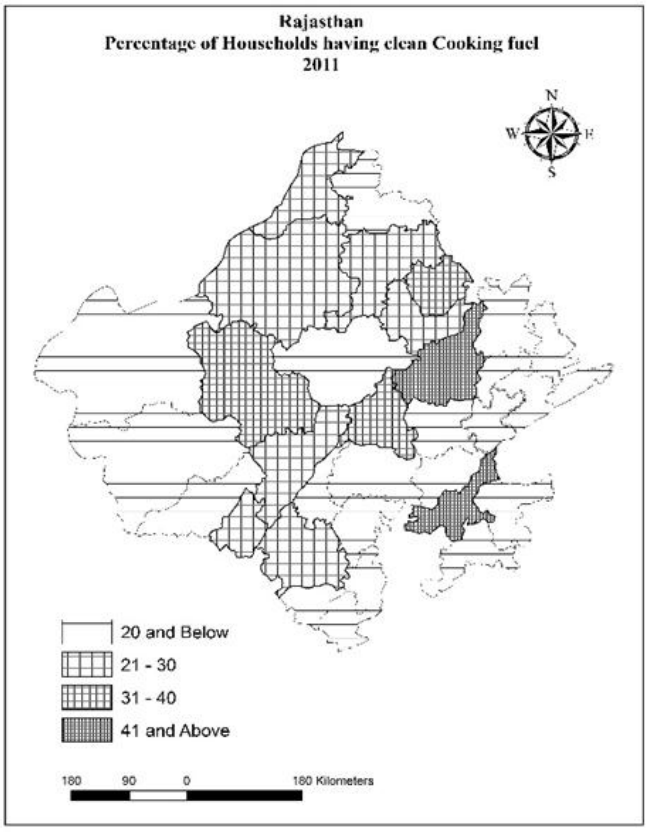


Licensed Under Creative Commons Attribution CC BY

Drainage Facility

Rajasthan has 42 % of households have drainage facility whereas national average is 51 %. Kota (73 %) at the top followed by Jaipur (63), Ajmer (59), Bharatpur, Pali, Bhilwara, Chittaurgarh, Jodhpur,Jhunjhunun, Jhalawar and Sikkar on other side Dausa (25) followed by Jaisalmer, Partapgarh, Karauli, Jalor, Dungarpur, Banswara and Barmer (15) at the bottom.

Clean Cooking Fuel



Clean Cooking fuel

Rajasthan has 23 % of households have drainage facility whereas national average is 29 %.Jaipur (50) at the top following by Kota, Ajmer, Jhunjhunun, Jodhpur, Sikkar, Bikaner, Ganganagar and Sirohi, and another side Bharatpur, Jalwar, Baran (14) followed by Dausa, Dhaulpur, Tonk, Jalor, Jaisalmer, Karauli, Partapgarh, Dungarpur, Barmer and Banswara (9) at the bottom.

Name	% of Drinking Water From Treated Source	% of Improved Sanitation Facility	% of Improved Drainage Facility	% of Clean Cooking Fuel
RAJASTHAN	32	35	42	23
Ganganagar	68	85	34	24
Hanumangarh	71	85	36	17
Bikaner	51	52	40	29
Churu	57	58	35	21
Jhunjhunun	32	54	44	34
Alwar	20	28	42	20
Bharatpur	18	20	53	14
Dhaulpur	16	16	49	12
Karauli	13	16	21	11
Sawai Madhopur	17	21	32	16
Dausa	14	17	25	12
Jaipur	51	61	63	50
Sikkar	30	50	42	30
Nagaur	27	36	39	17
Jodhpur	42	40	49	32
Jaisalmer	15	23	22	11
Barmer	16	15	15	9
Jalor	28	16	21	12
Sirohi	31	27	42	23
Pali	36	29	52	22
Ajmer	47	42	59	36
Tonk	19	19	41	12
Bundi	20	19	35	15
Bhilwara	30	23	51	19
Rajsamand	26	20	40	15
Dungarpur	11	13	16	9
Banswara	9	12	16	9
Chittaurgarh	30	21	50	18
Kota	54	51	73	44
Baran	17	18	41	14
Jhalawar	23	17	43	14
Udaipur	21	24	33	21

5. Conclusion

The percentage of tap drinking water from treated source is highest in Northern, moderate in Central and lowest in Eastern, Southern and Western Rajasthan. The percentage of improved sanitation facility is highest in Northern, moderate in Central and lowest in Southern, Eastern and Western Rajasthan. The percentage of improved drainage facility is highest in Central and Eastern, moderate in Northern and lowest in Western Rajasthan. The percentage of clean cooking fuel is highest in Jaipur and Kota, moderate in Northern and Central part and lowest in Eastern, Southern and Western Rajasthan. The GIS mapping gives us a spatial understanding of states and concluded that the level of household amenities is high in the Eastern and Central Rajasthan, Moderate in Northern Rajasthan, while it is comparatively low in the Western and Southern Rajasthan.

References

[1] Census of India (2011); *"Primary Census Abstract Censes of India 2011".HH- Tables.*

[2] Hassan, Tarique and Khan, Dr. Jabir Hassan "Patterns of Availability of Housing and Household Amenities in Odisha," *Journal of Business Management & Social Sciences Research(JBM&SSR) volume 2, No.4, April 2013.*

[3] Hingorani, Pritika and Tiwari, Dr.Piyush "*Housing and Basic Infrastructure services for all: Aconceptual framework for urban India", 2004.*

[4] Khan, J.S. et al (2013), "A geographical analysis of availability of amenities in scheduled caste households in India", *American International Journals of Research in Humanities, Arts and Social Sciences*, 2013, *Vol.13-329, pp. 56-65.*

[5] Nayar, K. R., "Housing Amenities and Health Improvement: Some Findings", *Economic and Political Weekly, Vol. 32, No. 22 (May 31 - Jun. 6, 1997), pp. 1275-1279. 1997*

Licensed Under Creative Commons Attribution CC BY

[6] Raman, R. et al (2014), "GIS and spatial analysis of housing and household amenities and assets in Haryana", Indian *Cartographer, Vol. XXXIV, 2014.*
[7] Shaw, A., Basic Amenities in Urban India: Analysis at State and Town Level, Indian Institute of Management Calcutta, WPS No. 616.
[8] Smith, D.M. (1973) The Geography of Social Well-Being in the United States, McGraw-Hill, New York, pp. 71-85.

Licensed Under Creative Commons Attribution CC BY