

## Sanitation Condition in Deoria District: A Geographical Study.

Lalji Kumar Kushwaha

Research Scholar, Department of Geography, B.H.U., Varanasi-221005

Received: 12 July Revised: 19 July Accepted: 25 July

### Abstract

Sanitation is one of the important Millennium Development Goals which covers the important aspects of management of human excreta, domestic and industrial wastewater and hazardous substances. A recently published world health organisation report places diarrhoeal diseases at sixth place in the list of global killers and third in the list of morbidity (WHO2000). Open defecation poses significant health and environmental risks. Approximately India's 31% of total population (3.7billion) residence in urban area.25% of total urban population lives in urban slums. A study by the World Bank's Water and Sanitation Program (WSP) 3 estimated that India's lack of sanitation coverage cost the country the equivalent of 6.4% of its 2006 gross domestic product. Study area is situated in eastern part of Uttar Pradesh, which is count in backward area in comparison to western Uattar Pradesh.

**Keywords-** Sanitation, Open Defection, Rural Problems, Environmental Degradation.

**“Conservation of national sanitation is Swaraj work and it may not be postponed for a single day on any consideration whatsoever.” (Mahatma Gandhi)**

### Introduction

With the transformation of society from pre-industrial to industrial one, basic necessities of humans like food, cloth and shelter have also increased with addition of education, health and hygiene. Sanitation as one of the basic needs of human beings has a direct relationship with health, nutrition and social wellbeing. Without sanitation or with poor sanitation our life will be clutched with fatal diseases and will create a havoc situation. So „access“ to sanitation is crucial for human survival. The word sanitation is derived from the Latin word *sanitas*“ which means health, hygiene or relating to health (Nagendra, S. and Suresh, M.).Sanitation is associated with proper disposal of liquid and solid waste, clean drinking water and hygienic environment. “On 28th July 2010, through Resolution 64/292, the United Nations General Assembly explicitly recognized the human right to water and sanitation and acknowledge that clean drinking water and sanitation asre essential to the realization of all human rights” (Dasra Report on Sanitation in India, 2012).

Sanitation is very important for healthy living. Sanitation is one of the important Millennium Development Goals which covers the important aspects of management of human excreta, domestic and industrial wastewater and hazardous substances. It also includes reuse of recycled products which is part of this management. The United Nations Millennium Development Goals include a global target of a 75% improvement in sanitation coverage by 2015, but with current progress rates, this target is one of the most inaccessible. Currently, 2.5 billion people do not have access to improved sanitation worldwide, and nearly 1.1 billion resorts to open defecation. (MDG, Report2012). Sanitation and hygiene are critical to health, survival, and development. Many countries are challenged in providing adequate sanitation for their entire populations, leaving people at risk to water, sanitation, and hygiene (WASH) related diseases. A recently published world health organisation report places diarrhoeal diseases at sixth place in the list of

global killers and third in the list of morbidity (WHO2000). Open defecation poses significant health and environmental risks. Even though we are in a golden era of information technology and faster communication, still about two million people especially children and women dying every year due to diarrhoea and cholera because of unhygienic environment. "Proper sanitation along with clean water is among the most powerful medicines for reducing child mortality. They are to diarrhoea what immunization is to measles and polio." (Mukherji,D). Each year 1.5 million children die from diarrheal disease, and in India, diarrhoea kills one child per minute (Dasara 2012). Most diarrheal deaths in the world (88%) are caused by unsafe water, sanitation or hygiene. Open defecation also creates vulnerability, particularly for women and girls who experience a loss of dignity or are exposed to abuse and harassment while defecating in the open. Improper waste management can seriously contaminate important sources of drinking water such as surface and groundwater and discourage tourism and economic development. According to WHO Report (2010) India is a prime example of the global sanitation challenge; nearly 60% of the world's open defecation occurs in India. (Dasara Report on sanitation in India 2012). Approximately India's 31% of total population (3.7billion) residence in urban area. 25% of total urban population lives in urban slums. A study by the World Bank's Water and Sanitation Program (WSP) 3 estimated that India's lack of sanitation coverage cost the country the equivalent of 6.4% of its 2006 gross domestic product.

The authorities at the national level and state level as well as district level face tremendous pressure on basic facility like safe water and sanitary and the issue becoming more critical day by day. Availability of potable and safe drinking water on other hand need for improved sanitation and safe disposal of waste water on the other are equally essential for healthy life.

The most affected are the populations in developing countries living in condition of extreme poverty and income inequality in normally peri- urban dweller or inhabitant have compounded the sanitation problem. Many Indian mega-cities have very large slum populations. In Mumbai, India's largest city, 57% of the city's population lives in slums, approximately 60% of urban slums of Delhi have not sewer system. The same situation found in schools, there is no adequate sanitation facilities its affect girl's attendance. Ministry of Urban Development (MoUD), in notified slums (slums registered by the municipality), 17% of the population is without access to improved sanitation, and in non-notified slums, the average is 51%.<sup>3</sup> Where sanitation access is available, many urban residents use toilets that are not connected to underground sewerage networks. Improved sanitation and hygiene is an essential element of strategies to reduce diarrheal disease. Yet closing the gap to universal sanitation coverage is a major challenge. Geographic and demographic constraints in today's urban settings make using conventional sewerage infrastructure investments technically challenging and financially.

### Study area

This district is located between 26 degree & 28 degree north latitude and 83 degree & 85 degree east longitude. Currently, Deoria district has five tehsils and 16 Development Block. Deoria has population of 3,098,637 in which male and female is 1,539,608 and 1,559,029 respectively. With regards to Sex Ratio in Deoria, it stood at 1017 per 1000 male. The average national sex ratio in India is 940 as per latest reports of Census 2011 Directorate. In 2011 census, child sex ratio is 925 girls per 1000 boys. The child sex ratio (0-6 years) 948 there are total sex ratio of girls per 1,000 boys. Child Sex Ratio as per census 2011 was 925 compared to 948 of census 2001. In 2011, Children under 0-6 formed 14.98 percent of Deoria District. There was net change of -4.03 percent in this compared to previous census of India. Sanitation facility in Deoria district is too bad. Because this district is suffering from poverty as well as low income. i this area one of the big problem is rural migration.

### Objective

- 1- To assess the sanitation situation in the study area.
- 2- To know about present condition of sewage system in study area.

### Methodology

The study relies on secondary data relating to sanitation facilities in Deoria district. Data is collected from both published and unpublished sources. secondary data is taken from the District Census Handbook, Series A, 2001, 2011, House listing and Housing Census Data Highlights, 2011. in this paper I used MS EXCEL and SPSS both, map is prepared from Arch-GIS 10.1.

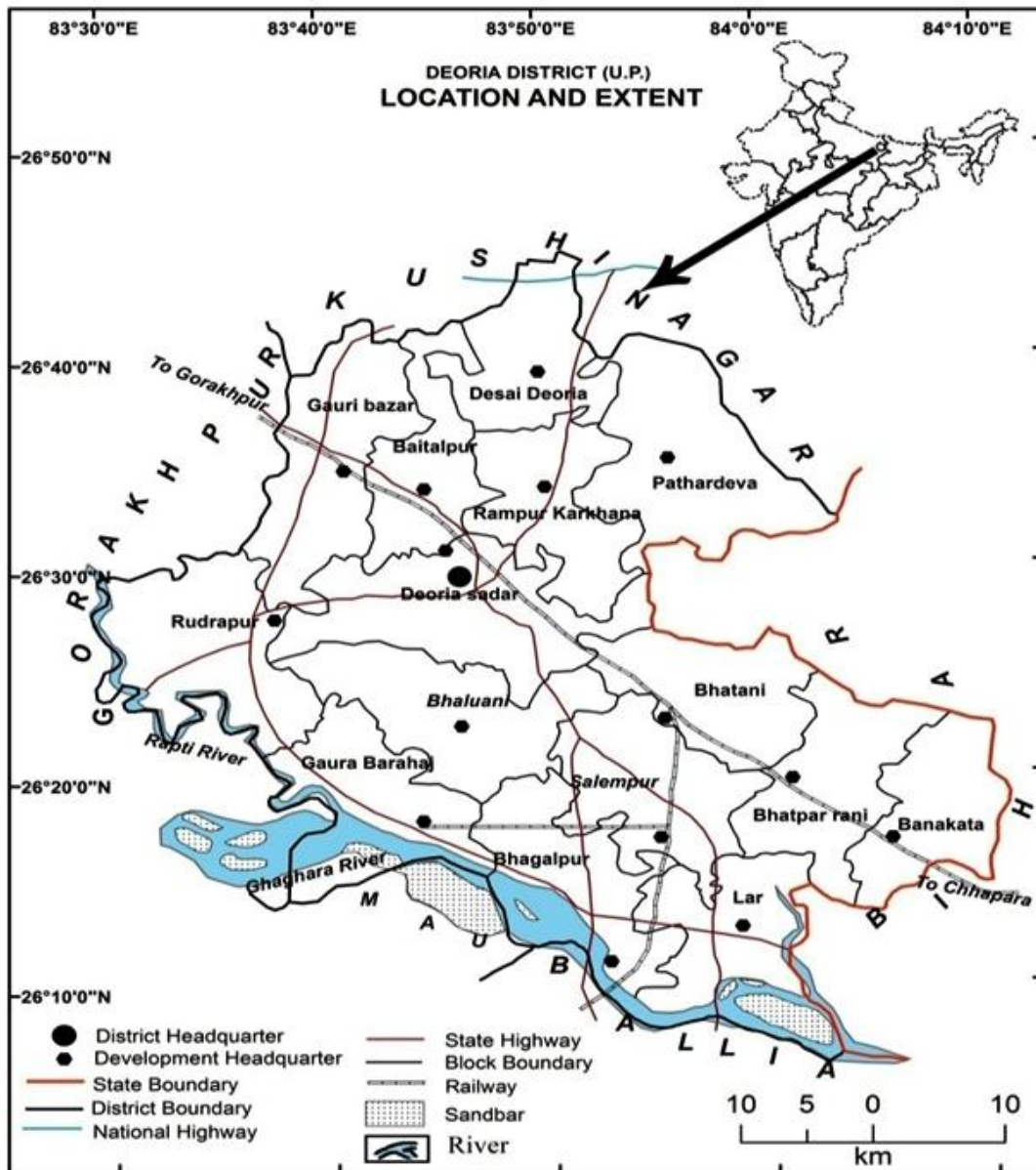


Fig.-1

### Sanitation Facilities

Sanitation is the basic need of every one according to Indian constitution amendment 73 and WHO. Sanitation is key of healthy living. The term sanitation is the composite concept which involves provision for latrine, drainage sewerage, solid waste/garbage disposal etc. It covers the whole field of controlling the environment with a view to prevent diseases and promote good health (WHO, 1993). According to census 2001, Sixty four per cent of total households in India had "no latrine facility within premises" and more than 60 per cent population was practicing open defecation. In 2011 percentage is little less 53.1 (%) now 43 % peoples practicing open

defecation-largest share. Government of India had set a target of universal household sanitation coverage by 2012 when it launched its flagship Total Sanitation Campaign (TSC) in 1991. The scheme is being implemented in 606 districts of 30 States and Union Territories but, evidences from the census of India, 2011 says that 20 states will not be able to meet the 2012 target and MDG 2015 target, as well. In fact, only Eight States– Tripura, Haryana, Himachal Pradesh, Kerala, Goa, Uttarakhand, Sikkim and Mizoram – will be able to meet the 2012 target. According to 2011 census only 46% of house hold has toilets facilities in Uttar Pradesh. According to Census 1991, around 76 per cent of India's population had No Latrine facility in their households and practicing Open defecation. To achieve the MDG (7) in this regard India would have to achieve 63 per cent households with latrine facility to reduce by half the proportion of people without sustainable access to basic sanitation facility at the end of year 2015. According to census of 2001 and 2011 in Uttar Pradesh rural area had 19.2 percent and 21.8 percent latrine in their premises. Only 2.6 percent growth found in one decade. Which are very less in comparison to national level. Same condition found in study area. Here the situation is so for the national level. In 2001 only 19.81 percent and 2011, 20.5 percent house hold have toilet facility in premises.

#### Spatial Distribution of Toilet facilities

The study Deoria has also not presented a good scenario of toilet facilities. There is a serious and pressing need for prevention and solution of sanitation inside the district. Majority of people residing in villages, fringe areas and towns are unaware about basic sanitation, hygiene and cleanliness .This research paper is an effective means to highlight the scenario of sanitation. This paper is an attempt in this regards. These data are not show a good picture. According to table no.1 in 2001 highest toilets found in Deoria sub district (20.3percent ) and lowest in Bhatpar Rani (12.3percent) sub District and also in 2011 highest toilets facility Deoria sub-district (24.3percent)and lowest found in Bhatpar Rani(20percent) and Salempur (20percent) but Bhatpar Rani sub district increase(7.7percent ) this facility among the all sub district.

**Table: 1, Toilet availability in Deoria District 2001 and 2011**

Sub-District/Tahasil	Year wise Toilet Data (%)		
	2001	2011	Change
Deoria	20.3	24.3	4
Rudrapur	12.6	15.6	3.3
Barhaj	17	20.5	3.5
Salempur	18.8	20	1.2
Bhatpar Rani	12.3	20	7.7

**Source,** District Census Handbook, Series A, 2001, 2011

These data are not show a good picture. According to table no.1 in 2001 highest toilets found in deoria sub district (20.3percent ) and lowest in Bhatpar Rani (12.3percent) sub District and also in 2011 highest toilets facility Deoria sub-district (24.3percent)and lowest found in BhatparRani(20percent) and Salempur (20 percent) but Bhatpar Rani sub district increase(7.7percent ) this facility among the all sub district.

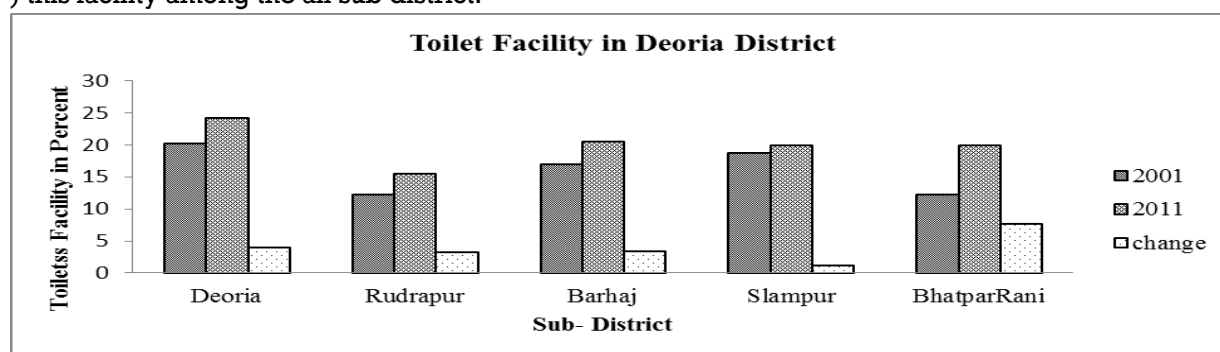


Fig.2

Study area is situated in eastern Uttar Pradesh, which is count in backward area in comparison to western Uttar Pradesh. There people are not aware about the importance of safe sanitation facility also they are not serious about the need of toilets in house hold. This is due to lack of knowledge and tradition thinking in rural area. Impoverishment and low economic condition are major factor affecting it, that's why people are not interesting in making toilets, 4600 rupees expend in a preparing normal toilet (according to ministry of drinking of water supply and sanitation, NBA).

Rural India is lagging behind in latrine facility within premises. Figure and Table 2 depicting a huge urban- rural gap in terms of latrine facility within the premises in district (rural 18.27%-64.96% Urban) highest percentage of toilet facilities found in Barhaj sub distt and lowest toilets facilities found in Bhatpar Rani (0.73%) but their situation is not so good.

**Table: 2, Percentage of Households by type of Latrine facility, 2011**

Sub district	Total number of HH	Piped Sewer System	Septic Tank	Other System	With Slab/ Ventilated improved Pit	Without Slab/ open Pit	Night soil disposed into drain	Night soil removed by Human	Night soil serviced by Animals	Public Latrine	Open
Deoria	21,096	3.02	17.91	1.16	1.28	0.32	0.21	0.02	0.41	1.92	73.74
Rudrapur	65,515	1.74	10.33	1.15	1.24	0.47	0.31	0.00	0.33	1.44	82.98
Barhaj	57,003	1.95	14.5	1.68	1.51	0.22	0.18	0.04	0.43	2.88	76.62
Salempur	93,966	1.80	17.07	2.01	1.16	0.24	0.22	0.02	0.28	1.04	76.15
Bhatpar Rani	67,128	1.41	12.49	0.99	0.77	0.14	0.08	0.00	0.12	0.73	83.20
<b>District Total</b>	<b>4,72,564</b>	<b>2.24</b>	<b>15.51</b>	<b>1.37</b>	<b>1.21</b>	<b>0.29</b>	<b>0.20</b>	<b>0.02</b>	<b>0.33</b>	<b>1.63</b>	<b>77.20</b>

**Source:** House listing and Housing Census Data Highlights, 2011

According to census, 2011, every two out of three households of rural India were practice open defecation whereas only 12.6 per cent households in urban India go for open defecation. In term of study area 77.2 % (figure no.2) of total house hold have not toilet facilities. In rural area of the District, only one out of four households has improved latrine facility within premises whereas in urban area 67.96 per cent households have improved latrine facility within premises. Though government of India have implemented various sanitation programmes and policies and established thousands of Public toilets across India. But only 1.63 per cent households in district (1.53 % rural and 2.57% urban) were using Public toilets according to census 2011.

In terms of unimproved toilet facilities within premises.0.29 percent households in district was using open pit or unimproved latrine within premises (Table2). According to census house hold data amenity data also depict the fluctuation in terms of accessibility and type of toilets facility in district. Among sub – district of Deoria district unimproved/traditional latrine facility within premises is very popular.

**Table: 3, Percentage share of households by availability of Latrine facility**

Sub district	Total number of HH	No Latrine	Water closet	Pit	Others
Deoria	21,096	73.74	22.09	23.37	2.56
Rudrapur	65,515	82.98	13.22	14.46	2.08
Barhaj	57,003	76.62	18.13	19.64	3.53
Salempur	93,966	76.15	20.88	22.04	1.56
Bhatpar Rani	67,128	83.2	14.89	15.66	0.93
District total	4,72,564	77.2	19.12	20.33	2.18

Source: District Census Handbook, Series A, 2011

Here the facility of piped sewer system is very worst most of the house hold have not linked with pipe sewer system. Only 2.25 percent of total households attached with sewer system. 15.15 % of households have septic tanks. In Deoria sub district 13.17% households have own septic tanks for sewage.

**Table: 4, Rural-Urban differential in practice of open defecation in Deoria District, 2011**

Sub-Districts	Open Defecation		
	Rural	Urban	Deference
Deoria	80.85	17.11	63.74
Rudrapur	85.98	54.15	31.83
Barhaj	79.81	45.03	34.78
Salempur	79.81	52.15	27.66
Bhatparrani	84.57	43.73	40.84

Source-District Census Handbook, Series A, 2011

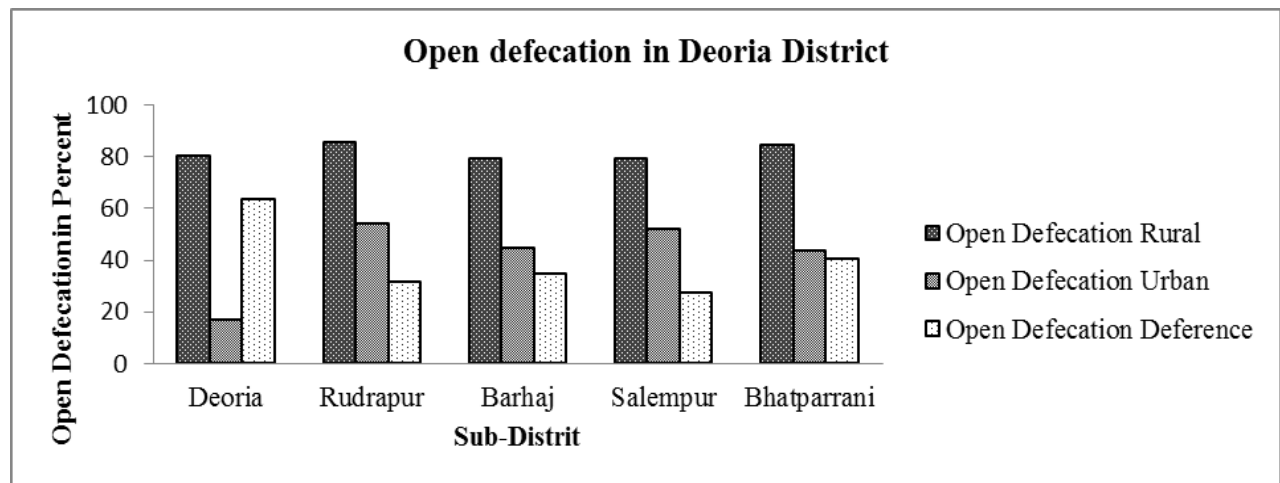


Fig.3

### Drainage Facility

The state of sewage dispose facilities is equally bad in all most all the part of India. In many cities of India, don't have full sewage system and where this is available there has been on care taken to improve modernise , or replace the old sewage system and the treatment and dispose of sewage is carried out by crude and out dated method. According to census of India 2011, only 25.55 percent house hold have drainage connectivity. In the Indian cities water line parallel with sewage line causing contaminated of drinking water which result in spread of disease. Concerned authorities in rural and urban area are taking in financial, technical managerial support to tackle the burning problems (Kullar, 2006).

An overview of households by type of drainage connectivity for waste water outlet in India and Deoria district is presented here. As per Census 2011, at the national level, 18.1 percent households have closed drainage connectivity, 33.0 percent report open drainage while a majority of households, 48.9 percent have no drainage connectivity. Deoria District has reported 11.94 percent households with closed drainage connectivity, 46.07 percent with open drainage while 41.95 percent have no drainage connectivity for waste water outlet.

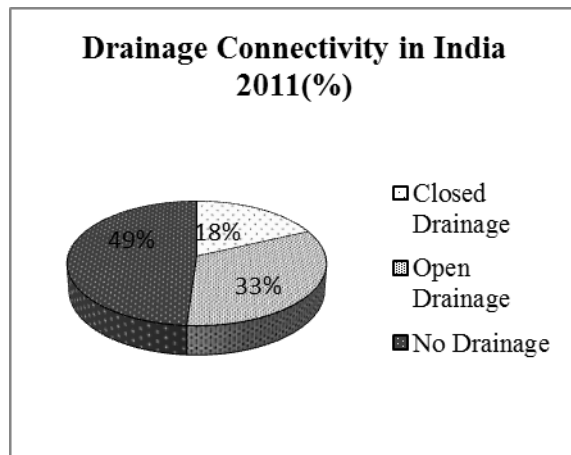


Fig- 4

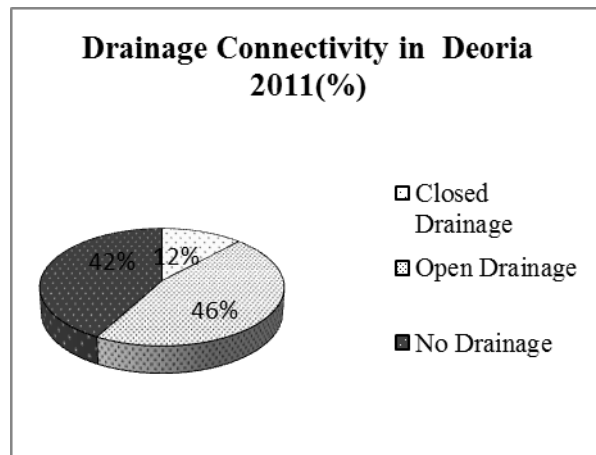


Fig-5

In rural India, 5.7 percent rural households have closed drainage connectivity, 31.0 percent report open drainage while bulks of 63.2 percent households have no drainage connectivity. For rural Deoria district the figures are disappointing with a mere 10.34 percent households having closed drainage connectivity, 44.46 percent with no drainage while the maximum proportion of 45.2 percent households have open drainage connectivity for waste water outlet.

### Conclusion

India is on track to meet the target on reducing the proportion of people without sustainable access to safe drinking water. In the Deoria district one of the big problem, where 20 percent of Household have own toilet facilities (2011). Here the situation is so for the national level. In 2001 only 19.81 percent and 2011, 20.5 percent house hold have toilet facility in premises? As per Census 2011, at the national level, 18.1 percent households have closed drainage connectivity, 33.0 percent report open drainage while a majority of households, 48.9 percent have no drainage connectivity. Deoria District has reported 11.94 percent households with closed drainage connectivity, 46.07 percent with open drainage while 41.95 percent have no drainage connectivity for waste water outlet. Effective implementation and regular monitoring of schemes and programs launched by State Government for improved sanitation facilities in the state. To bring about an improvement in the general quality of life in the rural areas, dwellers of slum, squatter settlements, population of such settlements who are shifted in new colonies or in urban areas, special attention has to be given in spreading awareness and consciousness for cleanliness, health and hygiene under certain drives for ecologically safe and sustainable sanitation.

### References

1. Dasra, (2012). *Squatting rights: access to toilets in urban India*, Mumbai, India. [www.dasra.org](http://www.dasra.org)
2. Dasra Report on Sanitation in India (2012/September). *Squatting Rights, Access to Toilets in Urban India*. Retrieved from [www.dasra.org](http://www.dasra.org)
3. Khullar, D.R.(2006), *India: A Comprehensive Geography*, Kalyani Publication, New Delhi, pp.441.
4. International Dalit Solidarity Network: Search. (2009.). *International Dalit Solidarity Network: Front page*. Retrieved May 12, 2013, from [www.idsn.org](http://www.idsn.org)
5. Joint Monitoring Programme (2013), *Progress on Drinking Water and Sanitation: Update*. WHO/UNICEF.
6. Ministry of Urban Development (MoUD). National urban sanitation policy. New Delhi: MoUD, Government of India; 2008 [cited 2013 Jun 30]. Available from: [www.urbanindia.nic.in](http://www.urbanindia.nic.in)

7. Mukherjee, D. (2014). Is Clean India a Far-Fetched Dream?.*Kurukshetra*, 63(2), 15-21.
8. Nagendra. S. and Suresh. M., (2010), *An Economic Analysis of Urban Water Supply and Sanitary Services*, New Delhi.
9. United Nations (2012), *The Millennium Development Goals Report*. New York.
10. *World Health Organization* (2012). Retrieved [www.who.int](http://www.who.int)