

## **Rural Sanitation in India and Telangana State: A Special Reference to Rural Adilabad district**

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**ABSTRACT:** *More than 68% of the household's people living in rural areas and sanitation condition is still very poor. In the present scenario India has performed poorly in terms of the latrine facilities. In the rural area of the country, 30.7% and 21.9% households are having the latrine facilities period from 2001 to 2011. Some of the better facilities observed in the urban areas. According to New Global Index report, India's rank stands at 93th place. Sanitation is the primary need of public health and the situation in Telangana is alarming. Studies show that rural households have very little access to the latrine facilities. Telangana state out of 459 Mandals, 327 have rural population. In Telangana 40% and 28.5% of the rural households are having drinking water and latrine facilities within the household premises. There is huge difference between rural and urban household's facilities. Adilabad district has total 52 mandals and these all mandals having the rural population. North side of the Adilabad district has dense forest and fully occupied with tribal population. The Adilabad district having 72% rural population and having only 61% of the literacy rate. Adilabad district rural households are having very less latrine facilities with 14%. With this back ground, the current paper is based on secondary data focusing mainly on sanitation condition in rural India and Telangana and its districts. Total analysis also examined to the rural Adilabad district including with mandals. GIS Techniques are used to preparing the maps and these maps are used to analyse of the paper.*

**Key words:** *Sanitation, Rural, Households, GIS, Forest.*

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### **I. Introduction**

Sanitation is a broad term which includes safe disposal of human waste, waste water management, solid waste management, water supply, control of vectors of diseases, domestic and personal hygiene, food, housing, etc. Sanitation includes environmental sanitation which is largely viewed as “the control of all those factors in man's physical environment which exercise a deleterious effect on his physical environment, health, alleviating poverty, enhancing quality of life and raising productivity- all of which are essential for sustainable development” (WHO 1992). Sanitation is one of the basic determinants of quality of life and human development index. Good sanitary practices prevent contamination of water and soil thereby prevents diseases. The concept of sanitation was therefore expanded to include personal hygiene, home sanitation, safe water, garbage disposal, excreta disposal and waste water disposal. But globally, Sanitation is primarily used for Safe disposal of human excreta (*used by UNICEF-WHO Joint Monitoring Program*)

In India, Government were launched Central Rural Sanitation Programme (CRSP) in 1986 and the main objective of improving the quality of life of the rural people and also to provide privacy and dignity to women. Later on this CRSP, another programme started the name was Total Sanitation Campaign (TSC)”. The main objective of the TSC is to eradicate open defecation in rural areas and to give subsidy to construct toilet who is under poor category. TSC gives support to schools and Anganwadis also. TSC gives strong emphasis on Information, Education and Communication (IEC). To give a fillip to the TSC, Govt. of India also launched Nirmal Gram Puraskar (NGP) that sought to recognise the achievements and efforts made in ensuring full sanitation coverage. Encouraged by the success of NGP, the government renamed to TSC as ‘Nirmal Bharat Abhiyan’ (NBA). The objective is to accelerate the sanitation coverage in the rural areas. Recently the Prime Minister of India launched the Swachh Bharat Mission on 2nd October, 2014 which aims to achieve Swachh Bharat by 2019, as a fitting tribute to the 150th Birth Anniversary of Mahatma Gandhiji. The main objective of this programme is removing the bottlenecks that were hindering the progress during the previous programs such as Total Sanitation Campaign and Nirmal Bharat Abhiyan and focusing on critical issues affecting outcomes. State and Central Governments are more concentrated on the facilitate latrines to the every households in the country. Recently, Indian prime minister says if one lady went to the open defecation that will shame to the country also.

### Objectives of the study

- To study the Sanitation facility in rural India and Telangana state.
- To study district wise rural Sanitation facility in new formation state.
- To analyse the study area situation and to find out causes of the poor facilities.

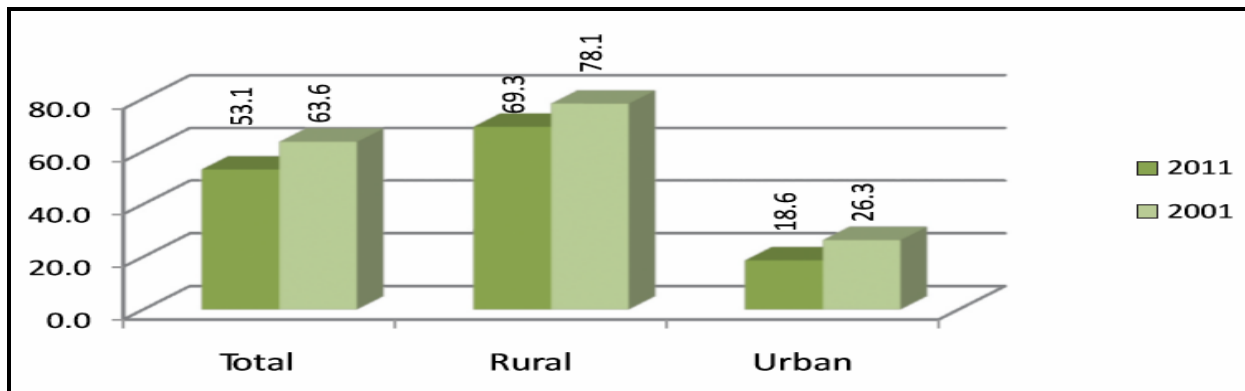
### GIS techniques

This paper has utilized the information and decision support systems to enhance its effectiveness in the analysis of data. GIS techniques are used to prepare maps for this paper. The maps are compared and further analysed to understand the categories of the sanitation facilities across the state and country. From the analysis of such data various conclusions and recommendations are incorporated in this study.

### Current Scenario in Rural India

In spite of the best efforts of the Government of India and respective State Governments' to improve the sanitation conditions in the country, the toilet coverage in rural India is only 30.7% which shows around 70% of the rural people still practice open defecation in the country. Out of 36 states, 14 States are in the country are still below the national average of toilet coverage. As per the 2011 Census, Rural India have 16.78 crores households in that 69.3% household don't have latrine facility within the household premises including with all states.

**Graph 1: Area wise Percentage of Households having No Latrine Facilities in India**



Source: Census of India

If compare to the previous decade from 2001 to 2011, the total country was not covered 63.6% and 53.1% respectively which means 36.4% and 46.9% of the households having latrine facilities within the household's premises. In the rural area, 30.7% and 21.9% households are having the latrine facilities respective period. In urban area covered more latrine facilities compare to the rural areas. Urban India households are having 81.4% (2011) and 73.7% (2001) latrine facilities within the household's premises. As per the 69th NSSO Survey during the July 2012 to December 2012, 59.4% of the country rural households are defecate in the open. Jharkhand and Odisha households are doing 90.5% and 81.3% respectively.

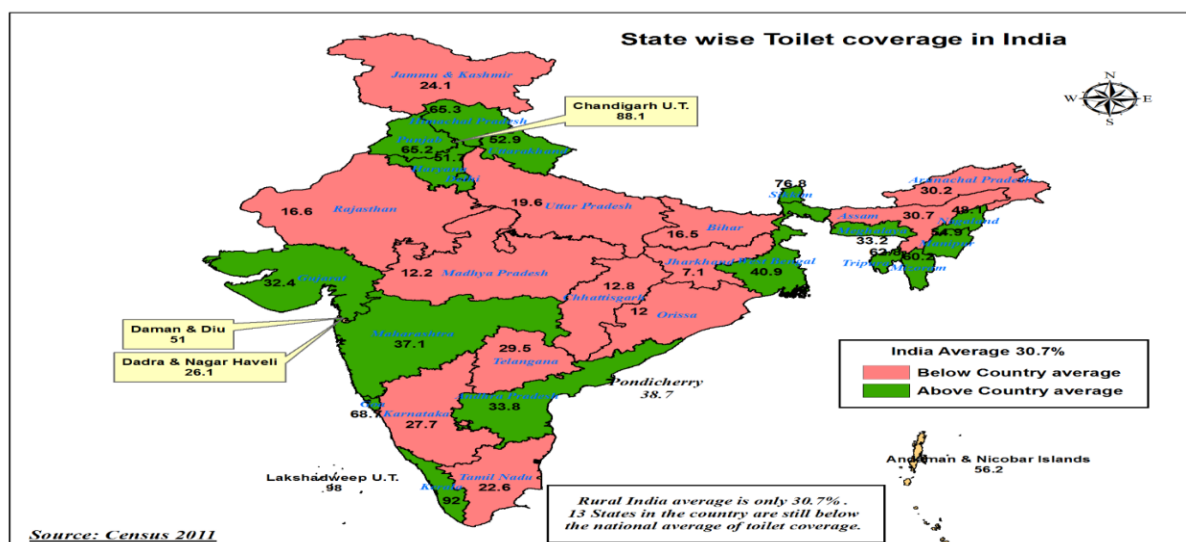
If categorised 4 parts of the availability of the latrine facility < 25%, 25-50, 50-75 and > 75%.

**First category > 75:** Out of 36 states only 8 states like Lakshadweep, Kerala, Chandigarh (88%), Manipur (86%), Mizoram (84.6%), Sikkim (84.1%), Tripura (81.5%) and Delhi (76.3%) having < 75% latrine facilities. Lakshadweep and Kerala states are having above 90% of the latrine facilities.

**Second category from 50-75%:** 11 states are fallen this category. In Goa, 71% rural households having the latrine facilities, Punjab also maintain almost same percentage (70.4%) other states like Nagaland (69.2%), Himachal Pradesh (66.6%), and Andaman (60.2%) states are having above the 60% latrine facilities. Assam, Haryana, Uttarakhand, Meghalaya, Arunachal Pradesh and Daman dayyu states are having 50 to 60% latrine facilities.

**Third category from 25-50%:** only 8 states are having 25-50% latrine facilities. West Bengal only has 46.7% latrine facility and other states such as Puducherry, Jammu and Kashmir, Maharashtra, Gujarat, Andhra Pradesh, Karnataka and Dadra Nagar haveli states are fallen in this category. Maharashtra (38%), Gujarat (33%), Andhra Pradesh (32.2%) and Karnataka (28.4) states are well advanced situation in all other indicators but availability of latrine facilities is very poor and states are having above the country average.

Figure 1: State wise toilet coverage in Rural India



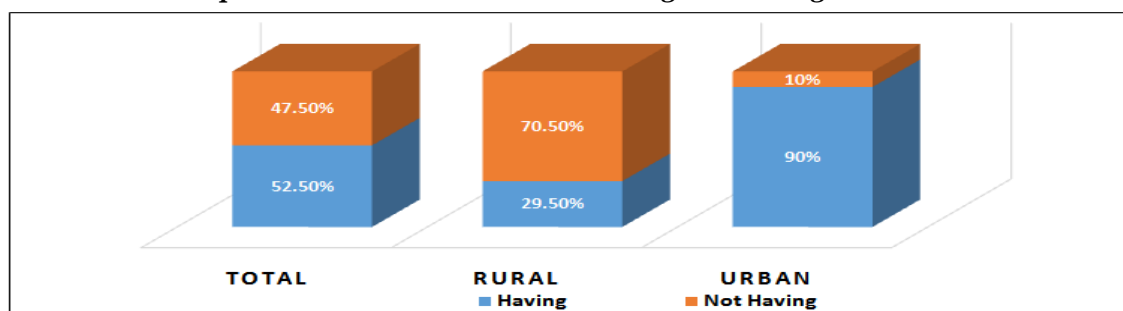
**Fourth category < 25%:** Jharkhand (7.6), Madhya Pradesh (13.1%), Odisha (14.1%), Chhattisgarh (14.5%), Bihar (17.6%), Rajasthan (19.6%), Uttar Pradesh (21.8%) and Tamilnadu (23.2%) states are having below 25% of the latrine facilities within the households premises.

## II. Telangana Overall Situation

Latrine facilities are very poor in total Telangana state. Overall in the state, 52.5% households have latrine facilities within the household’s premises. 47.5% household population does not have the facility. Urban areas households’ population has excellent latrine facilities; it has above 90% and only 10% of household’s population does not have latrine facilities in their household’s premises. It is different in rural and urban points of view. In rural areas, 30% of households have latrine facilities in the household premises.

Urban households have excellent latrine facilities (90%). If government and other organization put in efforts in these lacking areas, it will improve the situation. People hoping Telangana state’s “Drinking water grid” project will fulfil

Graph 2: Area wise sanitation coverage in Telangana State



Source: Census 2011

this gap. Telangana government concentrated on the sanitation facilities and they fixed target to achieve Open Defecation Free (ODF) state up to 2019. But recent data shows the availability of the latrine facilities is very poor in across the state. The Telangana government estimates out of the total of 1, 01, 93,027 households, in accordance with the 214-15 household survey it had carried out, 42, 10,019 households do not have toilet facilities and defecating in open places. The Telangana government has launched the ODF project on October 2,

2015 and aiming to ensure one toilet to each household in rural areas at an estimated cost of Rs 199.02 crore till date completed ODF programme in 975 gram panchayats and Mahbubnagar stood top with 215 GPs with ODF followed by Nizamabad (165), Karimnagar (145), Warangal (106), Medak and Adilabad (102), Rangareddy (58), Nalgonda (47) and Khammam (35). Khammam is having the lowest ODF villages in the state.

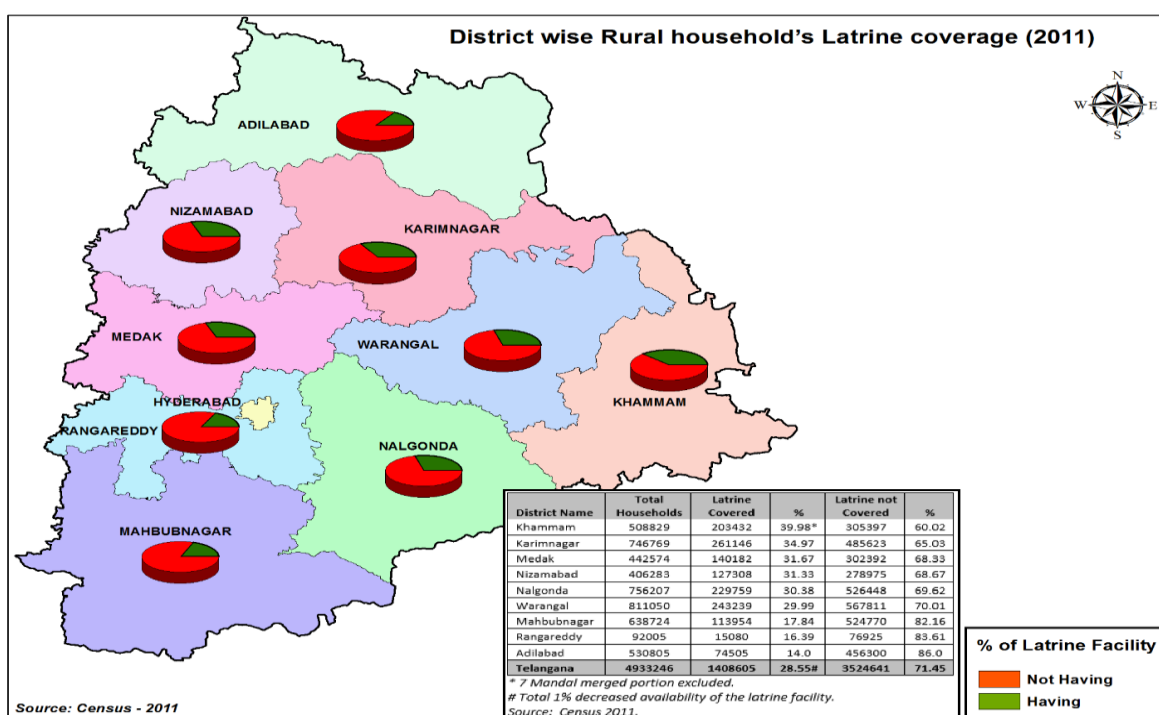
### III. District Wise Scenario

In Total households, Hyderabad and Rangareddy districts performed above state average. Hyderabad 98% and Rangareddy 81% households' are having latrine facilities within the households' premises. If both the districts are excluded, the remaining Telangana districts are having Latrine facilities of just 40.3%. Whereas in Khammam district have 51% and Karimnagar 64% of households got latrine facility in their house premises. Other districts such as Medak, Warangal, Nizamabad and Nalgonda have above 40% households with toilets facility within the premises. Adilabad and Mahbubnagar districts are very poor situation in sanitation situations with 33-35% only.

The rural Telangana state has 29.5% of the latrine facilities within the household premises. Other 70.5% households are not having latrine facilities. The rural household's data decreased up to 1% because after bifurcation of AP and Telangana states, Central government has merged 7 mandals from Telangana state to Andhra Pradesh state. In that situation urban area not merged only merged rural area from Telangana state due to the Polavaram Irrigational Project. The Table 1 shows after merging figures of the Telangana state and these figures are approximate only. Asper the table rural Khammam households are having highest (39.9%) latrine facilities followed by Karimnagar (34.9%), Medak (31.6%), Nizamabad (31.3%), Nalgonda (30.3%) and Warangal (30%) districts rural households are having above the state average. None of the district not reached 40% mark. Hyderabad not having rural population and other three districts such as Mahbubnagar (17.8%), Rangareddy (16.3%) and Adilabad (14%) districts are having very poor facilities within the household's premises. Overall Telangana state, Khammam rural district having top position and bottom position is Adilabad district.

Asper 2011 Census data, Total Telangana has 49.3 lakhs rural households but Baseline survey (BLS)-2012 showing 44.9 lakhs households but Total Detail Entered households 44.6 lakhs only. The difference between the Census 2011 and BLS-2012 survey is almost 4.7 lakhs households. Asper the BLS-2012 survey the percentage of the latrine facility coverage is very low compare to the Census 2011. Total rural Telangana has 28.5% (Census 2011) and 25.8% (BLS-2012). These difference up to gram panchayat level also but SBM (Gramin) is the major source to the central and state governments.

Figure 2: District wise rural household's Latrine coverage in Telangana State



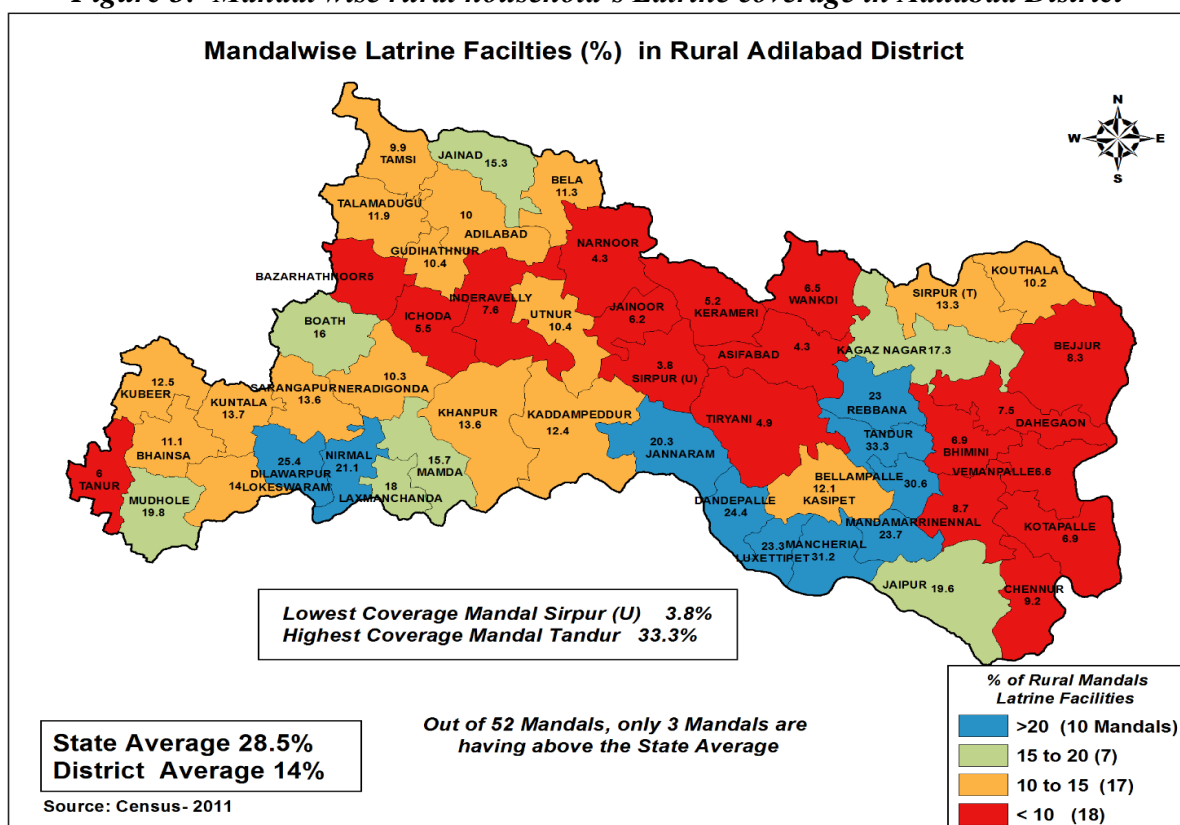
#### IV. Rural Adilabad District

Adilabad is very poor performing districts in overall Telangana with 14% latrine coverage in rural areas due to this reason district selected to analyse. Adilabad district rural households are having only 14% of the latrine facilities within the household's premises. It situated between 77° 47' and 80° E, of the eastern longitudes and 18.40' and 19.56 N', of northern latitudes. The area of the district is 16.1000 sq. km. The district is bounded on north Maharashtra, on the east by Chanda district, on the south by Karimnagar and Nizamabad districts and on the west by Nanded district of Maharashtra State. The district is world famous for its Nirmal toy making & Dhokra casting. The most important river that drains the district is the river Godavari. The Penganga, the Wardha, and the Pranahita com next importance. The Kadam and the Peddavagu are tributaries of the Godavari.

As per the 2011 census, the district has population of 27, 41,239 which accounts for 7.79% of the total population of the State with 10.18% decadal growth. Total male population is 1369597 and female is 1371642. In that urban population is 760259 (27.7%) and 1980980 (72.2%) population living in the rural areas. Adilabad has a sex ratio of 1003 females for every 1000 males. Literacy rate of the district is 61.01% and male literacy rate (70.81%) is more than female literacy rate (51.3%). Out of the 16 thousand sq. km area, 7231.89 sq. km area under the forest department and it has one Integrated Tribal Development Agency (ITDA) known as Utnoor division. It covered 5 mandals and for this agency area and Komaram Bheem project facilitate drinking water. The district has the great Kawal Wild Sanctuary and covered 893 square km-long sanctuary. The sanctuary is one of the richest Teak forests in the State with dense pristine areas free of human disturbance. The River Kadam flows through this area.

As per the Census 2011, overall the district 35% households having drinking water within the premises. Total 29% of the households are having latrine facilities within the household's premises. Rural Adilabad district covered 14% of the rural households are having latrine facilities were as the SBM (Gramin) 2012 data showing the 8.9% households are having the latrine facilities. But this paper analysis is done based on the Census 2011 data only. Almost 86% of the household's population don't have the latrine facilities within the household's premises. Adilabad district having above 40% of the area covered dense forest and has Integrated Tribal Development Agency (ITDA) Utnoor division. These mandalas not having much latrine facilities.

Figure 3: Mandal wise rural household's Latrine coverage in Adilabad District



Out of 52 mandals, only 10 mandals households are having above the 20% latrine coverage within the household's premises. If observed figure 3, the red colour patch is less than 10% latrine coverage only such as Sirpur (U) mandal is the lowest latrine facility coverage mandal in the district with 3.8% followed by Asifabad (4.3%), Narnoor (4.3) and Tiryani (4.9%). These four mandals are having below 5% of the facilities. Bazarhathnoor, Kerameri, Ichoda, Tanoor, Jainoor, Wankdi, Vemanpalle, Bhimini, Kotapalle, Dahegaon, Inderavelly, Bejjur, Nennal and Chennur mandals are having 5 to 10% latrine facilities. Tamsi, Adilabad, Utnoor, Bhainsa, Bela, Kaddam, Khanapur, Lokeswaram mandals also having between 10 to 15% of the facilities. District head quarter Adilabad rural area also not covered much facilities. The Integrated Tribal Development Agency (ITDA) centre Utnoor households are also do not have more latrines. The ITDA headquarters was shifted from Adilabad to Utnoor in September, 1979 with the jurisdiction of (44) Mandals, covering with SCA (Special Central Assistance) funds and (1) Mandal i.e., Kubeer with cluster funds. The tribal sub plan area comprises 38.13% of the geographical area of the district. Due to this reason also the latrine facilities coverage are not much increased.

From 15 to 20% of the latrine facilities coverage in Jainad, Mamda, Boath, Kagaznagar, Luxmanchanda, Jaipur, Mudhole mandals. Only 10 mandals are having above the 20% of the latrine facilities within the household's premises. Jinnaram (20.3%), Nirmal (21.1%), Rebbena (23%), Luxettipet (23.3%), Mandamarri (23.7%), Dandepalli (24.4%) and Dilwarapur (25.4%) mandals are having 20 to 25% and other three mandals such as Bellampalle (30.6%), Mancherial (31.2%) and Tandur (33.3%) mandals having some better facilities compare to the other all district of the mandals.

Asper the Census 2011, Adilabad district having approximately 1800 villages. In all villages only Kosai village from the Talamadugu mandal having 100% latrine facilities within the household's premises and Rechini village from Bejjur mandal having 98.3% latrine facilities. Recently government (December 2015) of Telangana officials are declared 102 villages are Open Defecation Free villages in Adilabad district.

#### *Causes of the Backwardness*

- This district has more rural population (72%) and it is the one of the most backward district in the new state. Main Reason is Illiteracy and more rural and tribal population.
- Forest also one of the cause of the open defecation. Availability of the more open space also a reason.
- Levels of the understanding the situation is very poor due to more tribal population.
- Illiteracy is the one of the main causes of the backwardness of the progress in the latrine facilities.
- Lack of Funds in Adilabad leads to inadequate infrastructure in the district, some Municipalities in Adilabad district are facing the funds problems.
- Geographically it is having dense forest and much not urbanised. It is located north side of the Telangana and far away from the state capital.
- One of the important reasons for people not interested to construct the toilet is problems in availing the government incentive system due to lack of effective monitoring systems.

#### *Recommendation*

- Government to take serious action plane to improve the situation of the latrine facilities through the motivation of people and encourage to construct the individual toilet in their household premises.
- Involving the all political leaders including opposite party leaders also then only it gives good result.
- Frequent change in policy and the program guidelines lead to frequent change in implementation mechanism of the sanitation program at all levels. This has become the major bottleneck in the filed for slow progress in providing water sanitation and hygiene facilities in the rural areas.
- Sanitation has become the responsibility of the stakeholders as rural development department is involved, related government departments are conducting different programmes, and this has created a confusion among the stakeholders as well as the beneficiaries in obtaining the benefits of the designated schemes for sanitation facilities.
- Frame a community group to monitoring the government schemes in the villages with Surpanch, Ward Members, School Head Master and village people.
- Strengthen the already formed group such as Village Water and Sanitation Committee (VWSC) under Gram Jyothi Scheme.
- Lack of awareness also one of the major reason for having low sanitation facilities in rural areas.
- Awareness programmes or schemes are explained in the regional or local language because of the various tribal population.
- There is a Chance of duplicating the benefits of the programs due to lack of beneficiary centred monitoring mechanism.

- Implementing Mobile Application based monitoring system for construction of IHHLs. Already it is running programme across the country. It shall be an effective monitoring tool to accelerate the sanitation coverage, provided it is user friendly and cost effective in a large scale implementation.
- The development plan would also involve many steps of different sizes like stakeholder's mobilization, sanitation mapping, sanitation campaign and monitoring outcomes and others.

## **V. Conclusion**

Water supply and sanitation is a State responsibility under the Indian Constitution. States may give the responsibility to the Panchayat Raj Institutions (PRI) in rural areas. Ministry of Housing and other government departments will do policy setting and their proper implementation. To eradicate the practice of open defecation, Gram Panchayat in rural areas would need to focus not only on building infrastructure, but also on preventing open defecation through peer pressure and shame approach. Rural areas need for sensitization at the grass root level about the health hazards of open defecation. In India huge population and lot of development and welfare programs for the wellbeing of the poor communities needs to have effective monitoring and evaluation systems for proper implementation of the welfare programs which actually designated for the poor. It is observed from the recent reports, India has the major contributor of Open defecators across the world. Around 6 crores people in the country still practices open defecation due to lack of toilet facility is the major cause for open defecation. Overall country, North east states are having good facilities compare to the Central and West and South Indian states. Indian capital city (New Delhi) surrounding states like Panjab, Himachal Pradesh, Uttarakhand and Haryana states rural households are having some better conditions and new born Telangana state (29.5%) also having below the country average.

In Telangana north Telangana districts like Khammam, Nizamabad, Medak and Karimnagar districts rural households are having good latrine facilities compare to south Telangana. One of the surprising issue is Hyderabad surroundings districts like Rangareddy, Mahbubnagar and Nalgonda rural households are don not having much latrine facilities. In Telangana some of the districts rural people are doing in the morning and night time monitoring in the open defecation fields and it will gives good result and eradicate open defecation in rural areas. Adilabad district having very low latrine coverage the main reasons are illiteracy and more rural and Tribal population, dense forest and lack of awareness about the sanitation facilities. The district has lowest toilet covered mandal in entire Telangana state that is Sirpur (U) mandal. It is covered only 3% household's in the mandal.

## **VI. Acknowledgement**

*The author is highly thankful to DCS-CESS and UNICEF unit for utilising the data from the publication of "Constituency wise analysis of drinking water and sanitation conditions in Telangana State" their help is immense in bringing out the present paper.*

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