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SUSTAINABLE SANITATION DEVELOPMENT: EVIDENCE FROM INDIVIDUAL, HOUSEHOLD AND COMMUNITY USE OF TOILETS

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ABSTRACT

Urbanisation has a close association with growth of slums. Sanitation is a serious concern with slum areas with prevalence of unhygienic practices and open defecation. Integrated low cost sanitation scheme is an intervention intended to provide and construct toilets to cover economically weaker sections to do away with the problem of open defecation. The scheme has an upper financial ceiling of Rs. 10,000/- per household shared by Central and State Government on $\frac{3}{4}$ th and $\frac{1}{4}$ basis. The households have reported cleaning their toilets fairly regular. However, variation in cleaning and maintenance of toilets exist mostly on daily and weekly cleaning status. The quality of construction is a major issue where most of the households expressed concern. About $\frac{2}{3}$ rd of the beneficiary respondents were self motivated to use toilet through various awareness programmes. Water supply, electrification, direct benefit transfer, size and maintenance are the issues need improvement as agreed by most of the respondents. Toilets are great relief for women and children. Women feel dignified using the toilets and children find it convenient to use it to save time for study. It has equally contributed to lower occurrence of diseases and improved the overall sanitation of the locality on sustainable basis towards achieving the noble objective of making the local body, block, district and state open defecation free.

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INTRODUCTION

Rapid urbanization in developing countries over the past half century has posed challenges and created opportunities. It has made planned development of cities/towns a necessity in order to make them safe, healthy, inclusive, economically vibrant and sustainable entities with provision of adequate public infrastructure and amenities such as housing, drinking water, drainage and sanitation. On sanitation front, the urban areas are confronted with problems like inadequate supply of clean drinking water, lack of drainage and disposal of household waste water and sewage disposal.

During the Fifth Five-Year Plan period, some schemes were formulated on sanitation perspectives in India. After setting up various commissions and committees for scavengers engaged with removing human excreta manually after cleaning dry latrines, it was at the beginning of the Sixth Five Year Plan that a separate centrally sponsored scheme of liberation of scavengers was introduced by the Ministry of Home Affairs, Government of India under the Protection of Civil Rights Act, 1955. This led to the conversion of dry latrines into pour-flush latrines and construction of new pour flush toilets with a view

to promoting the scheme of liberation of scavengers and for providing clean environment.

Urbanisation, Sanitation and Wellbeing of the people

The word sanitation is derived from the Latin word 'sanitas', which aims to protect and promote human health by providing clean environment and breaking the cycle of diseases. It refers to the principles and practices relating to the collection and treatment of refuse as they impact people and environment (Mulleger, Lanergraber and Lechner, 2011).

Urbanisation is always associated with the growth of slums. Slums are characterised by a cluster of houses generally found in the periphery of old inner city. A slum generally lacks access to public services such as sewerage, water supply, road street lamps etc. Sanitation is a serious concern in slum areas with manifestation of poor sanitation practices and prevalence of wide spread open defecation. The problem of scavenging is closely connected to the social problem of national concern namely the problem of scavenging- the problem of the manual disposal of human excreta. By implementation of the scheme, the scavengers are expected to be liberated enabling them to

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seek alternative dignified occupation (Ladusingh and Singh, 2006).

This initiative of Integrated Low Cost Sanitation Scheme (ILCSS) as a centrally sponsored scheme with focus not only on construction of toilets but about ending open defecation and the ILCS is an environmentally safe method prohibiting dry latrines in the towns thereafter, as dry or bucket latrines constitute a threat to health and hygiene causing neighbourhood environment pollution. The scheme (ILCSS) is specifically designed to cover the economically weaker sections of the society, the EWS households where there is prevalence of dry latrines or who have no latrines and defecate in the open in urban areas. The scheme envisages improvement in overall sanitation in the towns.

In the State of Odisha, this scheme is implemented in five Urban Local Bodies (ULBs) viz. Phulbani, Subarnapur, Burla, Rairakhol and Kendrapara under the aegis of Housing and Urban Development Department. There is a need to know the extent to which the objectives of this Scheme have been achieved and to identify the constraints faced by the implementing agency and the extent to which the achievements were affected by the constraints. It is also essential to study the constraints faced by the beneficiaries particularly women and the extent to which the constraints affect benefits.

The Integrated Low Cost Sanitation Scheme (ILCSS)

The objective of the Scheme is to convert/construct low cost sanitation units through sanitary two-pit pour flush latrines with superstructures and appropriate variations to suit local conditions (area specific latrines) and to construct new latrines where EWS households have no latrines and follow the inhuman practice of defecating in the open in urban areas. This would improve overall sanitation in the towns. The scheme also encourages adoption of new technologies like bio digesters and ecosian toilets by implementing agencies (GoI, 2012).

Implementation of the Scheme

The scheme is being implemented by the Ministry of Housing and Urban Poverty Alleviation directly. First installment of the Government of India subsidy will be sanctioned along with signing of Grant Agreement subject to the condition that actual release of central subsidy will be made in 2 installments related to the actual demand of implementing agencies on their utilization capacity and field level demand. 25% of the subsidy will be released immediately after the approval of the scheme.

Central Coordination Committee and ILCSS

The implementation of the Scheme will involve the following stages:

1. Identification of beneficiaries for conversion of dry latrines in the State by the Local Bodies.
2. Proposals for conversion of dry latrines and construction of new latrines in the ratio of 75:25 will be submitted by the Urban Local Bodies to the State Urban Development Authority (SUDA)/ District Urban Development Authority. They will be discussed, approved and prioritized by the State Coordination Committee
3. Submission of viable projects by the States to the Regional Offices of the HUDCO.

4. Appraisal of the projects by the Regional Offices of HUDCO and submission of the same to the HUDCO Headquarters which in turn will scrutinize the project proposals and submit for consideration of the Central Coordination Committee of the Ministry.
5. The Coordination Committee in the Ministry of Housing and Urban Poverty Alleviation will be constituted under the chairmanship of the Secretary (HUPA). The other members of the Committee will be the representatives from the Ministry of Social Justice & Empowerment, Central Public Health Environment and Engineering Organization (CPHEEO), HUDCO and the concerned State.
6. The role of the Central Coordination Committee will be to consider the proposals submitted by the HUDCO and release of funds.
7. The Central Coordination Committee will meet at least once in every quarter of the year to have an overall review.
8. HUDCO will ensure appraisal of projects and monitor the implementation of the Scheme through its regional offices.

State Co-ordination Committee and ILCSS

Every State shall constitute a State Coordination Committee comprising of the representatives of Regional Office of HUDCO of the concerned departments of the State including the department dealing with social welfare to approve the project proposals at the state level and monitor the actual implementation including eradication of manual scavenging. The Committee will also ensure that the implementation of the scheme does not involve any cost and strict monitoring of the same takes place at the State and Local level Bodies also.

Towns are to be selected from various States and Union Territories irrespective of their population criteria and also from persons belonging to economically weaker section households who have no latrines and defecate in the open in urban areas. Depending upon the prevalence of dry latrines, targets will be fixed. Priority is to be given to those towns which have a predominance of dry latrines. Scheme will be applicable to all towns where dry units exist or for persons who have no latrines and defecate in the open.

The guidelines present the eligibility conditions of the scheme. The scheme covers all the economically weaker section households, which have dry latrines and constructs new latrines where economically weaker section households have no latrines. The scheme is limited to economically weaker section households only.

The scheme has a funding pattern viz, Central subsidy is 75 per cent, State subsidy is 15 per cent and beneficiary share is 10 per cent. The upper ceiling cost of Rs. 10,000 is fixed for the complete unit of a two-pit pour flush individual latrine with superstructure (excluding States falling in difficult/ hilly areas). For the States falling in the category of difficult and hilly areas, 25 per cent extra cost may be provided for each two-pit pour flush latrine. In other words, in States falling in the category of difficult and hilly areas, the upper ceiling cost will be Rs. 12,500/- for one complete LCS unit. 1 per cent of total central allocation may be retained by the Ministry every year, to be

utilized for MIS, Monitoring System, Capacity Building and IEC components.

Against the above backdrop the present paper analyses (i) the linkages between ILCSS and overall sanitation of the urban areas(ii) to examine the use of toilet and its sustainability and (iii) to offer strategic direction for the way forward.

In the ILCS Solid Waste Management under the Integrated Low Cost Sanitation Scheme (ILCSS) a total of 1, 01,942 toilet units are proposed to be constructed in Odisha (H & UD Deptt. Odisha, 2012). The study was conducted on beneficiaries in five ULBs of ILCSS namely Phulbani, Subarnapur, Burla, Rairakhol and Kendrapara. Out of 4690 sanctioned units, a total of 500 beneficiary households were selected randomly which covered 27 from Phulbani, 54 from Subarnapur, 137 from Burla, 174 from Rairakhol and 108 from Kendrapara.

State of Odisha and ILCSS: A Profile

There has been a steady increase in the country’s urban population over the decades. The population has increased from 26 million in 1901 to 377 million in 2011 and from 10% to 31% during the same period. According to the 2011 Census, urbanization has increased at a faster rate than expected. This has reversed the declining trend in the growth rate of the urban population observed during the 1980s and 1990s. Also, for the first time since independence, the absolute increase in the urban population was higher than that in the rural population. This has huge implications on infrastructure and provision of other civic amenities in urban areas.

In 2011 census, the proportion of population living in the urban areas of the state stood at 16.68% as compared to 31.16% for the country. Population density of Odisha stood at 269 per sq. km in 2011. Odisha ranks 31st in the list of most urbanized states of the country, while in terms of actual urban population, the state ranks 11th in the list of states with the largest urban population. However, projects on urbanization have lots of challenges in terms of giving people basic amenities like sanitation, clean water supply etc. But the Integrated Low Cost Sanitation (ILCS), the centrally sponsored scheme of Govt. of India is of much benefit to the Economically Weaker Section (EWS) living in the urban area to have clean sanitation facility. It also aims to improve the overall environment of the locality.

Most of the cities and towns are severely stressed in terms of infrastructure and service availability. In 2011, about 40 % of urban households did not have piped water supply within premises and 44 % of them were devoid of sanitation facilities. Even with a relatively high economic growth registered during the 1990s, 23.6 % of the country’s urban population continued to be below the poverty line (WHO/UNICEF, 2014).

Table 1 Distribution of Population in Sample Districts (2011 Census)

Sl.No.	District	Total population			Urban Population			Female per 1000 Males
		Persons	Male	Female	Persons	Male	Female	
1	Kandhamal	733110	359945	373165	72279	36422	35857	1037
2	Kendrapara	1440361	717814	722547	83534	42761	40773	1007
3	Sambalpur	1041099	526877	514222	308093	158185	149908	976
4	Subarnapur	610183	311312	298871	49941	25678	24263	960
	Odisha	41974218	21212136	20762082	7003656	3625933	3377723	979

Source: Statistical Abstract of Odisha, 2012 Directorate of Economics and Statistics, Odisha, Bhubaneswar

According to the Census of India 2011, 17.37% of the urban population lives in slums, with a significant proportion of it without access to even the most basic services. The inner areas of cities face widespread dereliction and decadence, with significant negative economic consequences.

Table 2 Household Size in Sample Districts and State (in percentage)

Sl. No.	District	Total No. of households(Excluding institutional households)	Household Size (No. of members in the family)						
			1	2	3	4	5	6-8	9+
1	Kandhamal	172,004	5.5	14	16.9	19.5	17.2	24.1	2.7
2	Kendrapara	327,405	3.1	9.0	15.2	24	20.7	23.4	4.6
3	Sambalpur	248,829	5.1	13.2	18.5	24.7	18.2	18.4	2.0
4	Subarnapur	152,454	4.5	15.3	19.6	23.6	18.4	17.5	1.2
	Odisha	9,661,085	4.2	11.9	16.8	23.8	19.1	20.9	3.2

Source: Statistical Abstract of Odisha, 2012 Directorate of Economics and Statistics Odisha, Bhubaneswar

Table 1 gives the distribution of population across the sample districts and State. Table-2: provides the status of distribution of members in the households in the sample ULBs and State. It can be seen that majority of the households in the sample ULBs have either 4 or 5 or 6-8 members family which is also true for the state.

Table 3 Urban Percentage of Households having access to Toilet Facilities in Sample Districts (2011) Locational availability, access to water and toilets across the sample districts

Sl.No.	District	Total Households	Water Closest	Pit Latrine	Other latrine	No. Latrine
1	Kandhamal	16,669	45.9	7.1	3.5	43.5
2	Kendrapara	15,940	51.7	3.5	2.6	42.2
3	Sambalpur	69,871	54.4	1.9	3.2	40.5
4	Subarnapur	11,740	35.2	1.4	2.4	61.0
	Odisha	1,517,073	56.5	4.2	4.1	35.2

Source: Statistical Abstract of Odisha, 2012 Directorate of Economics and Statistics, Odisha, Bhubaneswar

Table 3 explains the access to toilet facilities across the five sample districts where the samples ULBs are situated. Number of households in the five sample districts ranges from 11,740 in Subarnapur to 69,871 in Sambalpur. All the sample districts are below the state percentage of 56.5% in terms of nearby water availability to the household toilets. However in Subarnapur District nearby water availability to the household toilet is visibly less than other sample districts. The percentage of household having pit latrine varies from 1.4 to 7.1 % as compared to the state of 4.2 %. However in case of households having other latrines, the availability is less than the state percentage of 4.1. But in case of percentage of households of the sample districts having no latrines, the magnitude ranges from 40.5 to 61.0 % as compared to the state percentage (35.2 %).

Table 4 Availability of types of water source across the Sample Districts (in urban areas), 2011 (in percentage)

Sl No.	Districts	Total Households	Urban			Other Sources of Water
			Tap Water	Well Water	Hand pump/Tube well Water	
1	Kandhamal	16,669	30	33.9	44.2	1.8
2	Kendrapara	15,940	46.6	14.2	38.1	1.1
3	Sambalpur	69,871	64.2	8.4	26	1.4
4	Subarnapur	11,740	39.6	14.6	40.8	5
	Odisha	1,517,073	48	18.4	31.7	1.9

Source: Statistical Abstract of Odisha, 2012 Directorate of Economics and Statistics, Odisha, Bhubaneswar.

It is known (Table 4) that tap water is available in 30.0 to 64.2 per cent of households as against 8.4 to 33.9 avail from well water, 26.0 to 44.2 per cent avail from hand pump/tube well and 1.1 to 5.0 per cent from other sources.

Again 31.20% households having toilets reported that their toilets are not in use; either it is not completed or damaged. Thus, it can be said that households across the ULBs have reported cleaning their toilets fairly regular (Sastry, 1996).

Table 5 Distribution of Households by the type of Latrine Facility in the Sample Districts, 2011 (in percentage)

Sl No	District	Total No. of households (Excluding institutional households)	Latrine facility Available within premises	Piped sewer system	Septic tank	Other system	With slab/Ventilated improved Pit	Without Slab/Open Pit	Night soil disposed into open drain	Night soil removed by women	Night soil serviced By Animal
1	Kandhamal	172,004	11.1	0.6	7.4	1	0.9	0.9	0.2	0.1	1.1
2	Kendrapara	327,405	17.8	1.3	11.5	1.2	2	0.8	0.2	0.5	1.3
3	Sambalpur	248,829	22.9	2.6	17.6	0.9	0.8	0.4	0.3	0.1	1.4
4	Subarnapur	152,454	10.3	0.5	7.5	0.7	0.7	0.4	0.1	0	1.4
	Odisha	9,661,085	22	2.5	13.6	1.6	2.1	1.4	0.3	0.3	1.4

Source: Statistical Abstract of Odisha, 2012 Directorate of Economics and Statistics, Odisha, Bhubaneswar.

Toilet Structure, Construction, Maintenance and Motivation to Use

Table 6 Requirement of Beneficiary Households on Structure of Toilets

ULB/NAC	Beneficiary HHs	Requirement of households on structure of toilet													
		At least one roof/Wall/Door		Roof, Wall ,Door required		Roof, Wall ,Door required and problem with pit depth		New pan is to be fixed		Floors and wall to be renovated		Another pit is to be constructed		Whether ILCSS latrine fulfilled your sanitation requirement	
		yes	No	yes	No	yes	No	yes	No	yes	No	yes	No	yes	No
Phulbani	27	12 (44.44)	15 (55.56)	13 (48.15)	14 (51.85)	11 (40.74)	16 (59.26)	12 (44.44)	15 (55.56)	10 (37.04)	17 (62.96)	13 (48.15)	14 (51.85)	07 (25.93)	20 (74.07)
Subarnapur	54	7 (12.96)	47 (87.04)	06 (11.11)	48 (88.89)	08 (14.81)	46 (85.19)	07 (12.96)	47 (87.04)	20 (37.04)	34 (62.96)	13 (24.07)	41 (75.93)	28 (51.85)	26 (48.15)
Burla	137	78 (56.93)	59 (43.07)	77 (56.20)	60 (43.80)	81 (59.12)	56 (40.88)	49 (35.77)	88 (64.23)	89 (64.96)	48 (35.04)	56 (40.88)	81 (59.12)	75 (54.74)	62 (45.26)
Rairakhhol	174	137 (78.74)	37 (21.26)	31 (17.82)	143 (82.18)	28 (16.09)	146 (83.91)	42 (24.14)	132 (75.86)	139 (79.89)	35 (20.11)	45 (25.86)	129 (74.14)	52 (29.89)	122 (70.11)
Kendrapara	108	24 (22.22)	84 (77.78)	20 (18.52)	88 (81.48)	23 (21.30)	85 (78.70)	08 (7.41)	100 (92.59)	07 (6.48)	101 (93.52)	36 (33.33)	72 (66.67)	87 (80.56)	21 (19.44)
Total	500	258 (51.60)	242 (48.40)	147 (29.40)	353 (70.60)	151 (30.20)	349 (69.80)	118 (23.60)	382 (76.40)	265 (53.00)	235 (47.00)	163 (32.60)	337 (67.40)	249 (49.80)	251 (50.20)

Note: Figures in the parentheses indicate percentages.
Source: Field Study

The finding presented in Table 6 reveals that 30.20% of households require roof, door, and wall have problems with pit depth apparently. Either the new toilets have no such provisions or needs renovation. While new pans are to be fixed in 23.60% beneficiary households, 53.00 % of them expressed that floor and wall are to be renovated. On the whole, 49.80% of the beneficiaries feel that their sanitation requirement is fulfilled by ILCSS toilets.

Majority (94.44%) of households of Subarnapur having toilets, clean the toilet daily followed by Phulbani (70.37%), Rairakhhol (34.48%), Burla (30.66%) and Kendrapara(30.56%). In Kendrapara ULB, the majority of the households having toilets (56.48%) clean these once in a week. The ULB wise variation in cleaning and maintenance of toilets exists mostly on daily and weekly cleaning status.

Table 7 Regarding Construction and Maintenance of Toilet from Households Standpoint

ULB/NAC	Beneficiary HHs	Regarding Construction & Maintenance							
		Cons. Defect		Ventilation		Material Quality		Requirement of Maintenance	
		Yes	No	Yes	No	Yes	No	Yes	No
Phulbani	27	10 (37.04)	17 (62.96)	04 (14.81)	23 (85.19)	08 (29.63)	19 (70.37)	11 (40.74)	16 (59.26)
Subarnapur	54	05 (9.26)	49 (90.74)	24 (44.44)	30 (55.56)	27 (50.00)	17 (31.48)	28 (51.85)	26 (48.15)
Burla	137	83 (60.58)	54 (39.42)	34 (24.82)	103 (75.18)	70 (51.09)	67 (48.91)	08 (5.84)	99 (72.26)
Rairakhhol	174	141 (81.03)	33 (18.97)	28 (16.09)	146 (83.91)	12 (6.90)	162 (93.10)	131 (75.29)	43 (24.71)
Kendrapara	108	16 (14.81)	92 (85.19)	50 (46.30)	58 (53.70)	81 (75.00)	27 (25.00)	17 (15.74)	91 (84.26)
Total	500	255 (51.00)	245 (49.00)	140 (28.00)	360 (72.00)	198 (39.60)	292 (58.40)	195 (39.00)	275 (55.00)
Coefficient of Variation across ULBs		116.60	57.31	59.55	72.16	85.24	105.07	133.32	68.86

Note: Figures in the parentheses indicate percentages.
Source: Field Study

Table 7 analyses the construction and maintenance of ILCSS toilets from households stand point. At aggregate level, majority (51.00%) households having toilets reported construction defects as against 49% reporting no defects. The quality of construction is a critical issue where most of households expressed concern.

Majority of the households having toilets in Burla (60.58%) and Rairakhol ULBs (81.03%) reported construction defects. Ventilation is not proper as reported by 28.00% households.

The inferior materials are used in ILCSS toilets as reported by 39.60% respondents. While majority (55.0%) of households having toilets are not aware of maintenance of toilets or perceive that Govt. agency will maintain the toilets, only 39.00% expressed the need of maintenance of toilets. The beneficiary households of Rairakhol (75.29%), Subarnapur (51.85%) and Phulbani (40.74%) expressed the urgent need for maintenance of toilets to ensure the durability in use. As the toilets are constructed within limited space ventilation is an issue in most households where these are constructed inside the house, the problems compounded. However, the problem is minimum where the toilets are constructed outside the house. The ULB wise variation on maintenance is apparently due to lack of uniformity in location and construction of ILCSS toilets.

A thorough probe has been made on sharing of operation and maintenance costs of toilets. It is reported by majority (80.20%) of households having toilets that, they themselves undertake the maintenance work but are willing to pay the charges if done by outside agencies. In 8.20% of cases, the toilets are not completed as such cost of maintenance is not coming into picture. Almost all beneficiaries of Phulbani and Subarnapur ULBs reported that either they maintain the toilets themselves or take the help of trained manpower to maintain these on payment of service charges followed by majority of households of all ULBs. The beneficiary households were asked to give their views on who motivated them to use toilets. The results indicated (Table 8) that self-motivation is reported by 64.80% of the respondents. As a matter of fact, the members were feeling uncomfortable to defecate in open field. It has equally lowered their dignity. They got rid of this problem when become beneficiary of ILCSS. Again 61.60% of the respondents get motivated from the local representative who explained them to make the ward open defecation free. The households are also motivated by family members, health workers, NGO, Anganwadi workers and Ashakarmi. ULB wise variation exists in terms of motivation of households to use toilet. The local representative in concerned ULB played a crucial role in motivating the inhabitants to use toilet.

Table 8 Regarding Motivation of HH to use the Toilet

ULB/NAC	Beneficiary HHs	Motivation for use of toilet								
		Self	Family member	Local representative	Media	NGO	Health worker	Anganwadi worker	Ashakarmi	Any other
Phulbani	27	13 (48.15)	0 (0.00)	13 (48.15)	02 (7.41)	07 (25.93)	0 (0.00)	01 (3.70)	0 (0.00)	0 (0.00)
Subarnapur	54	23 (42.59)	0 (0.00)	35 (64.81)	0 (0.00)	02 (3.70)	0 (0.00)	0 (0.00)	54 (100.00)	0 (0.00)
Burla	137	112 (81.75)	35 (25.55)	68 (49.64)	03 (2.19)	110 (80.29)	0 (0.00)	06 (4.38)	0 (0.00)	0 (0.00)
Rairakhol	174	88 (50.57)	01 (0.57)	112 (64.37)	03 (1.72)	05 (2.87)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Kendrapara	108	88 (81.48)	24 (22.22)	80 (74.07)	0 (0.00)	02 (1.85)	0 (0.00)	13 (12.04)	07 (6.48)	0 (0.00)
Total	500	324 (64.80)	60 (12.00)	308 (61.60)	8 (1.60)	126 (25.20)	0 (0.00)	20 (4.00)	61 (12.20)	0 (0.00)

Note: Figures in the parentheses indicate percentages.
Source: Field Study

Table 9 Suggestions given for improving effectiveness of the Scheme

ULB/NAC	Beneficiary HHs	Give Suggestion for improving																	
		Cost to be Increased	Proper Monitoring	Direct account transfer of amount	Size to be Increased	IEC	Water Supply	Treatment	Construction by beneficiary	Construction	NGO not working	Double Pit	Electrification	Maintenance	Proper beneficiary selection	sanitation committee	more awareness required	Drainage	Pit Depth
Phulbani	27	11 (40.74)	03 (11.11)	0 (0.00)	13 (48.15)	03 (11.11)	15 (55.56)	0 (0.00)	01 (3.70)	0 (0.00)	0 (0.00)	17 (62.96)	03 (11.11)	0 (0.00)	0 (0.00)	0 (0.00)	03 (11.11)	01 (3.70)	
Subarnapur	54	27 (50.00)	04 (7.41)	0 (0.00)	21 (38.89)	06 (11.11)	41 (75.93)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	32 (59.26)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	09 (16.67)	0 (0.00)	
Burla	137	59 (43.07)	112 (81.75)	34 (24.82)	07 (5.11)	29 (21.17)	28 (20.44)	0 (0.00)	59 (43.07)	01 (0.73)	05 (3.65)	0 (0.00)	12 (8.76)	24 (17.52)	37 (27.01)	02 (1.46)	0 (0.00)	0 (0.00)	
Rairakhol	174	127 (72.99)	69 (39.66)	31 (17.82)	64 (36.78)	34 (19.54)	156 (89.66)	0 (0.00)	02 (1.15)	05 (2.87)	0 (0.00)	102 (58.62)	26 (14.94)	0 (0.00)	0 (0.00)	0 (0.00)	06 (3.45)	0 (0.00)	
Kendrapara	108	64 (59.26)	38 (35.19)	48 (44.44)	03 (2.78)	49 (45.37)	10 (9.26)	02 (1.85)	09 (8.33)	05 (4.63)	05 (4.63)	04 (3.70)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	03 (2.78)	0 (0.00)	
Total	500	288 (57.60)	226 (45.20)	113 (22.60)	108 (21.60)	121 (24.20)	250 (50.00)	2 (0.40)	70 (14.00)	12 (2.40)	10 (2.00)	4 (0.80)	151 (30.20)	29 (5.80)	12 (2.40)	24 (4.80)	37 (7.40)	23 (4.60)	1 (0.20)

Note: Figures in the parentheses indicate percentages.
Source: Field Study

Table 10 Use of Toilets in Households with Toilet Facilities (in percentage)

ULB/NAC	Beneficiary HHs	Toilet use										Views of Open defecation Even if with additional toilet	
		Used daily		Using Percentage of men		Using Percentage of women		Using Percentage of Children		Additional toilet needed		Yes	No
		Yes	No	Use	Not use	Use	Not Use	Use	Not Use	Yes	No		
Phulbani	27	66.67	33.33	62.96	37.04	74.07	25.93	40.74	59.26	51.85	48.15	33.33	18.52
Subarnapur	54	92.59	7.41	77.78	22.22	87.04	12.96	50.00	50.00	46.30	53.70	16.67	29.63
Burla	137	60.58	39.42	54.01	45.99	59.12	40.88	40.15	59.85	8.03	91.97	3.65	4.38
Rairakhol	174	38.51	61.49	33.91	66.09	37.36	62.64	25.86	74.14	36.78	63.22	27.01	9.77
Kendrapara	108	94.44	5.56	79.63	20.37	91.67	8.33	44.44	55.56	25.93	74.07	12.04	13.89
Total	500	64.00	36.00	55.60	44.40	62.40	37.60	37.20	62.80	28.40	71.60	16.60	11.80

Note: Figures in the parentheses indicate percentages.

Source: Field Study

To improve effectiveness of the scheme, the suggestions of the respondents are presented in Table 9. The analysis revealed that the response of the beneficiaries in order of importance include increased funding for toilet (57.6%) water supply to toilets (50.00%) effective monitoring (45.20%), electrification (30.20%) awareness campaign (24.20%) direct benefit transfer (22.60%), increased size of toilet (21.60%), construction by beneficiary (14.0%), maintenance (5.8%), proper beneficiary selection (2.40%), provision of drainage (4.6%) etc. The beneficiary households across the ULBs agree to the above suggestions more or less.

An attempt has been made to analyse the use of toilets by the households having toilet facilities. The results (Table-10) reveal that beneficiary households use the toilet daily (64.0%), while 55.6% of male members of households use the toilets as against 62.4% women. The women members find difficulty in defecating in the open due to so many reasons and use the toilet in higher number as evinced from the result (Silver and Miller, 2003).

However, in case of children, only 37.2% of them use the toilet as against 62.8% not using. As bathing facility is available in nearby river/pond site they prefer to defecate in the open followed by a quick cleaning and bathing. It is to note that 28.4% of households need additional toilets other than the existing ones and 16.6% of households are willing to leave open defecation if additional toilets are provided. All the ULBs exhibit more or less some pattern in use of toilets. It is inferred that ILCSS toilets are a great relief to women and children. The women feel dignified using the toilets and the children find it convenient to use it to save time for the study.

SUMMARY AND CONCLUSION

Open defecation in urban areas in Odisha clearly has two different components viz. (a) open defecation in spite of availability of individual or community toilets, (b) open defecation in spite of availability of individual toilets. This again would have two components namely (i) mindset and age-old practice, (ii) inadequacy of toilets vis-a-vis requirements.

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The availability of toilets is inadequate during the hours of increased demand for the households as they reported requirement of additional toilets in their households. Again (22.40%) of the total beneficiary households of ULBs are forced to go for open defecation due to non-availability of community latrine. The problem of open defecation is more severe in Rairakhol (66.09%) followed by Phulbani (33.33%). In fact, ILCSS shows that an open defecation free (ODF) campaign that extends communities to end this practice and attain ODF status has made impressive progress, gave notable results towards achieving this target. This is one measure of eradication of open defecation that needs to be seriously pursued in all the ULBs of the state.

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