Evaluation of the Utilization Of Individual Household Latrines Constructed in the State from 2010-11 to 2014-2015



STUDY CONDUCTED FOR

Karnataka Evaluation Authority,
Government of Karnataka
AND

State Water and Sanitation Agency, RDPR Department,
Government of Karnataka

BY

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External

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PREFACE

The Government of Karnataka has been making sustained efforts to make Karnataka Open Defecation Free State by 2019. The Evaluation Study on The Utilisation of Individual Household Latrines Constructed in the State Department of State Water and Sanitation Agency Government of Karnataka RDPR Department was initiated by the Department of Rural Development and Panchayat Raj to assess the extent to which the Individual household toilets are constructed and utilised by the beneficiaries. The study is outsourced by KEA to the ECO Core CarbonX Sols Pvt. Ltd. Hyderabad. A sample of 12342 households covering eight districts from four divisions in the State was drawn for the study. The findings of the study indicate that the usage of the toilets is very high i.e. 95.5 percent and that water availability, education, income and psychological factors play an important role in the usage of latrines.

I expect that the findings and recommendations of the evaluation study will be useful to the Department in its mission to attain the goal of 100 percent Open Defecation Free State.

The study received support and guidance of the Principal Secretary and the Secretary Planning, Programme Monitoring and Statistics Department, Government of Karnataka. The officers of the Department of Rural Development and Panchayat Raj have also extended their support and cooperation by providing the necessary information. The review of the draft report by members of the Technical Committee of KEA, and an Independent Assessor, has provided useful insights and suggestions to improve the draft report. I duly acknowledge the assistance rendered by all in successful completion of the study.

01/8/17

Chief Evaluation Officer

Karnataka Evaluation Authority

Acknowledgement

At the outset, we, Core CarbonX Solutions Pvt. Ltd would like to acknowledge Karnataka Evaluation Authority and State Department of Water and Sanitation Agency Government of Karnataka RDPR Department for providing us with an opportunity to assess the "Evaluation of the utilization of Individual Household Latrines Constructed in the State from 2010-11 to 2014-15" in Karnataka State.

CoreCarbonX would like to acknowledge following persons for their valuable support and guidance for the successful completion of the study.

- Shri. Shivaraj Singh, IFS, Present Chief Evaluation Officer, Karnataka Evaluation Authority
- Principal Secretary and the Secretary Planning, Programme Monitoring and Statistics Department, Government of Karnataka
- Officers of the Karnataka Evaluation Authority and Department of Rural Development and Panchayat Raj.

The extensive field data collection would not have been possible without the cooperation of State Water and Sanitation Agency, Karnataka, the Rural Development and Panchayat Raj Development of the Government of Karnataka and Panchayat Development Office (PDO) and their officers. The time contributed and beneficiary information provided to us by all concerned made it possible for us to provide true evaluation of the utilization of IHHL and gratefully acknowledged.

Last but not the least, the enumerators who have worked very hard and sincerely to gather the data covered under study deserves special mention. Without the dedication of the enumerators the evaluation of the utilization of IHHL study could not have been completed.

Managing Director,

Core CarbonX Solutions Pvt. Ltd,
Hyderabad

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List of Acronyms' and Abbreviations

Expanded Form	Abbreviation
Government of Karnataka	GoK
Individual household Latrines	IHHL
Open Defecation Free	ODF
Central Rural Sanitation Program	CRSP
Total Sanitation Campaign	TSC
Nirmal Bharat Abhiyan	NBA
Swacch Bharat Mission	SBM
Rural Development and Panchayat Raj Department	RDPR
Nirmal Bharat Abhiyan	NBA
Swachh Bharat Abhiyan	SBA
Below Poverty Line	BPL
Above Poverty Line	APL
focused group discussion	FGD
Karnataka Evaluation Authority	KEA
Gram Panchayat	GP

Executive Summary

Government of Karnataka (GoK) has been vigorously pursuing the mission on urban and rural sanitation through a number of interventions aimed at health and safety of population. Apart from community sanitation programmes, households are also being provided with financial assistance to build their own latrines. In this context, the GoK commissioned an evaluation study to assess the status and ground realities on the use or otherwise of the latrines built in the entire state of Karnataka. The evaluation study has focused on the extent to which individual household toilets are constructed and where the desired benefits have been accrued to the beneficiaries especially the BPL and APL beneficiaries, whether they are utilizing it or not. Thus study covers all the four revenue divisions Bengaluru, Mysuru, Belgavi and Kalburgi.

The specific objectives of this study are:

1) The main purpose of evaluation is to study the present status of toilets constructed by individual households.
2) To ascertain whether the toilets taken up for construction were actually completed or otherwise.
3) To ascertain the level of usage of toilets constructed in terms of
    a. percentage of family members using or not using them
    b. if not using them then reasons for not using and the present usage of the same other than the purpose they intended to serve

The study was carried out in 12 districts and in selected gram panchayats of those districts. Districts for the study were chosen on the preset criteria and the choice is as provided below:

Highest literacy rate/most urban or both	Bengaluru (U)	Dakshina Kannada	Belagavi	Koppal
Best Water availability	Shimoga	Hassan	Uttarkannada	Bidar
Most backward in the division or has least water availability or both	Kolar	Chamarajanagar	Gadag	Yadgir

To collect data the evaluation team

- Visited the office of the State water and Sanitation Agency, Karnataka and the Rural Development and Panchayat Raj Development of the Government of Karnataka. The

relevant information pertaining to IHHLS constructed in all the districts from the year 2005-06 to 2014-15 was collected including other relevant documentation. Discussions were held with concerned officers of the Agency and RDPR about the past and present status of the scheme "Total Sanitation Campaign"/SBM.

- The project team held Focussed Group Discussions with the elected representatives and officers of the department concerned. The FGDs were held in all the 12 Districts visited by the project team members.
- Preliminary data collection was conducted by use of a structured survey questionnaire and Focus Group Discussion

In the study a total of 12342 households were surveyed.

The Short Term Recommendation based on the study is associated with 1*) Determined awareness campaign 2) Community led interventions, 3) IHHL constructions and operational issues 4) Incentive mechanism for local governments to promote use of IHHL 5) Institutionalise monitoring mechanism* while the Long term Recommendations based on the study are associated with 1*) Provide training and employability to Village Youths 2) Water availability and 3) Co benefits through waste to energy technology.*

However the , key conclusions of the evaluation study which can be utilized for further implementation and improvement of the program are listed below as:

1. Beneficiaries view government incentive as the most important factor in construction of toilet.
2. Water availability, income, education are important differentiator between open and closed defecation.
3. Psychological views play a very vital role in increasing the usage of IHHLs among elders ranging from 20 years and above in age. General view of all beneficiaries was that more focused education and awareness is needed to reduce open defecation and avoid abandoning of IHHLs already built.
4. Though the number of reported open defecation due to filling up of pits or problem associated with toilets is negligible, it is important that the maintenance of the IHHL structure, associated disposal mechanism like pit functioning and water availability is monitored and reviewed periodically to continue the usability of toilets by the beneficiaries.

1 Introduction

The Governments in developing countries have huge challenges of mitigating the twin threats of environmental damage and health and sanitation of the large majority of rural population. India is no exception, series of programmes aimed at accelerated improvements in health and sanitation of households, with major focus on rural areas which are exposed to a number of hazards mainly air-borne and water-borne epidemics. In recent years, gradual damage to the environment has also posed serious problems. Main challenges before the planners are coping with acute shortage of water and sanitation. Incremental allocations are being made year after year to this end. However, fiscal allocation and expenditure alone cannot ensure desired objectives of enhancing health and hygienic conditions of rural masses. Many studies sponsored highlighted the need for community acceptance for changes and wondered whether increased allocations can produce positive outputs The twin problems of health and environmental damage need to be addressed in a holistic perspective to be able to achieve the objectives.

Government of India (GoI) is implementing number of programs to tackle deficiencies in the rural sanitation. India has had different national rural sanitation campaigns, with each hoping to improve the delivery and implementation of the former. These include the Central Rural Sanitation Program (CRSP) in 1986, the Total Sanitation Campaign (TSC) in 2001, the Nirmal Bharat Abhiyan (NBA) in 2012 etc.

However, the introduction of Swachh Bharat Abhiyan, also known as Swachh Bharat Mission (SBM), in 2014, have brought about phenomenal focus on to the sanitation program and reformed it in many ways including many fold increase in expenditure towards IHHL (table 1) and emphasis on a goal of 100% open defecation free (ODF) India.

Table 1: IHHL's constructed and amount spend

Sr. No	Year	IHHLs Constructed	Amount provided (INR crores)	Amounts actually spent
1	2010-11	810,104	58.54	78.62
2	2011-12	414,782	125.66	68.13
3	2012-13	296,429	193.53	96.68
4	2013-14	101,928	94.01	199.76
5	2014-15	876,919	451.55	591.83
Total		**2500,162**	**923.29**	**1045.02**

It is indicated that due to the SBM household toilets have increased by 22.07% since 2nd October 2014 and number of IHHL's in the country stands at 400.48 lakhs (since 2nd October 2014) as on Date (19th May 2017).

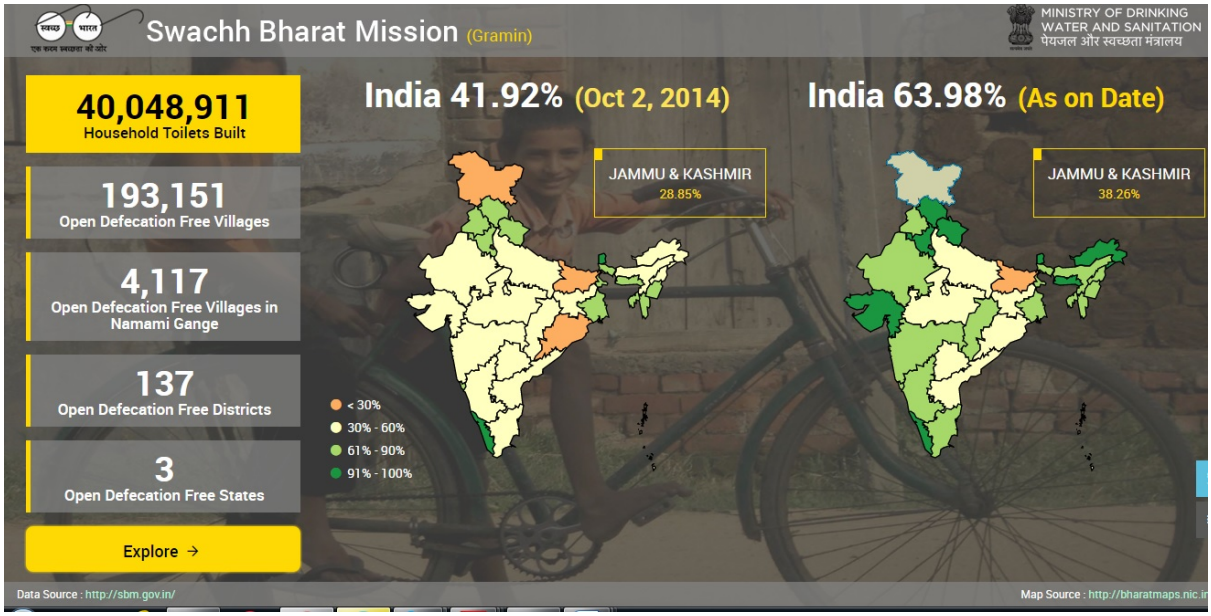

Figure 1: Household toilets built data

Source: Swachh Bharat Mission Dashboard

While countries coverage of IHHL's stands at 63.98%, States of Kerala, Sikkim, Himachal Pradesh and Uttrakhand have reached nearly 100% completion of IHHL program. At the same time, Karnataka has achieved about 65.69% success in IHHLs so far[1].

Karnataka's total land area is 1,91,791 sq.km ranks eighth among major States in India in terms of size is home to 6.11 crore people (2011 Census) accounting for 5.05% of India's population. It has 30 districts and four revenue divisions of Bengaluru, Mysore, Belgaum and Kalburgi to manage its three principal regions- the Coastal Plain region (known as Karavalli), the hilly region of the Western Ghats (known as Malenadu) and the elevated region of the Deccan Plateau (known as Bayalu Seeme). The districts falling under each of the revenue divisions are given below:

Bengaluru Division: Bengaluru urban, Bengaluru Rural, Chikkaballapur, Chitradurga, Davangere, Kolar,Ramanagara, Shivamogga,Tumakuru

Belgaum Division: Bagalkot, Belgaum, Vijayapur,Dharwad, Gadag, Haveri,Uttra kannada

Kalaburagi Division: Bellary, Bidar, Kalaburagi, Kopal, Raichur, Yadgir

[1] http://sbm.gov.in/sbmreport/home.aspx

Mysore Division: Chamarajnagar, Chikkamagaluru, Dakshina Kannada, Hassan, Kodagu, Mandya,Mysuru, Udupi

The total household having toilet in Karnataka is 49.71 lakhs covering 67.38% of the households. This is to achieve the target Open Defecation free by 2019 under the Swachh Bharat Mission. SBM also aims to make India an open defecation free (ODF) country.

Today 137 districts in India have been declared as ODF districts. In Karnataka Bangalore Urban, Bangalore Rural, Kodagu, Dakshina Kannada, Udupi, and Shimoga have declared themselves to be ODF cities. In addition to the ODF districts, the IHHL program is being implemented in all the 6020 Grampanchayats, 176 Talukas and 30 Districts of the state of Karnataka.

With the extent of focus in time, money and targeted goals it is important for the state governments to understand the effectiveness of its programs. With this in view, the state Government of Karnataka desired to evaluate the IHHL schemes implemented during the years 2010-11 to 2014-15 in all dimensions with the following

Specific objectives:

1) The main purpose of evaluation is to study the present status of toilets constructed by individual households.
2) To ascertain whether the toilets taken up for construction were actually completed or otherwise.
3) To ascertain the level of usage of toilets constructed in terms of
    a. percentage of family members using or not using them
    b. if not using them then reasons for not using and the present usage of the same other than the purpose they intended to serve

Government of Karnataka is taking up this study in the entire state of Karnataka. **However, this report covers of only a cluster comprising of four revenue divisions namely, Bengaluru, Mysuru, Belgavi and Kalburgi.**

2 Progress Review

Karnataka state has been implementing a number of sanitation programs right from 1985 with this assistance of central government and external agencies like DANIDA, Royal Netherlands, World Banks, UNICEF and the Development parties. With a view to give special emphasis to rural sanitation “Nirmal Grama Yojana” became operational in 1995 and was implemented for 8 years up till 2003. Afterwards, the state government implemented the centrally sponsored scheme of Total Sanitation Campaign, which was in operation from 2005 to 2012 followed by “Nirmal Bharat Abhiyan” and then the Swachh Bharat Mission”.

Under Swachh Bharat Mission, incentive of Rs. 12,000, of which, the share of Centre and the State being Rs.9000 and Rs.3000 respectively, is being provided to the eligible beneficiaries, belonging to Below Poverty Line Household (BPL) category, restricted APL families (which covers SC&ST families), small and marginal farmers, landless families Physically handicapped families and women headed families, etc), for the construction of individual household latrines. Incentive Rs. 15000/-(Rs.3000/- in excess of the State’s share) is provided to under SCP/TSP allocations.

Though sanitation programmes were being implemented in the state from 1985, a systematic study of families who possessed IHHL had not been conducted up till 2012. In the Year 2012, a Base line survey of families who possess IHHL and who do not was conducted in all districts of the state. The baseline survey found that out of 85, 14,554 household about 54, 99,270 households i.e. about 64.6% of the households were not covered under IHHL. Based on the survey, state government of Karnataka while participating in Swachh Bharat Mission, decided to make concentrated efforts to meet the mission target by the year 2022.

So far based on various reports and other sources the Karnataka government has found that despite the Government’s effort of implementing IHHL through multiple programs:

1. Many beneficiaries in the rural areas are not using the toilets. These toilets are used by some members of the households, alternatively used or not used at all. There is also evidence to show that toilets built with or by government aid are in some cases used as store rooms or even as cow sheds, animal housing, used as bathing or washing space or urinals or even neglected/abandoned entirely.
2. Open defecation exists in several rural and urban areas due to behavioural reasons.

To achieve the target of total sanitation and ODF status requires not only nearly providing toilets but also persuasion to use it by all daily and regularly. The Government on its part is doing everything it can to ameliorate these twin objectives through its various programs in the Rural Development and Panchayat Raj Department (RDPR). **For this purpose the current evaluation has focussed on the extent to which individual house hold toilets are constructed and where the desired benefits have accrued to the beneficiaries especially the BPL and APL beneficiaries, whether they are utilizing it or not.**

3 Problem Statement

Open defecation (OD), which is the act of relieving oneself in the open or inappropriately disposing of excreta, is a public health concern. Over 1 billion people engage in the practice worldwide, contributing to many problems, including water contamination and the spread of diseases leading to, among other things, childhood malnutrition. Approximately 15% of the global population – nearly 1 billion people in the world openly defecates and India has four times this global rate, with nearly 54% of its population practicing open defecation. The problem is most acute in rural regions, where 60-%70% of Indians openly defecate.

The Government of India has enacted multiple programs to tackle deficiencies in rural sanitation. Beginning in 1986, India has had four different national rural sanitation campaigns, with each hoping to improve the delivery and implementation of the former. The reforms include the Central Rural Sanitation Program (CRSP) in 1986, the Total Sanitation Campaign (TSC) in 2001, and the Nirmal Bharat Abhiyan (NBA) in 2012. The NBA campaign was short-lived, Government of India replaced it in October 2014 with the Swachh Bharat Abhiyan (SBA) or "Clean India Mission." Government of India updated the goal, calling for an ODF India by 2019.

Karnataka is making concerted efforts in implementing a number of sanitation programmes with Government of India assistance and external aid. The goal is to ensure that there is no open defecation anywhere in the rural and urban areas of the State. The state has initiated remarkable efforts to make Karnataka ODF by 2019. Some of the initiatives have been highlighted in the below:

- Achieving target construction of toilets in the households
- Nairmalya Awards to encourage Panchayat raj institutions for prioritising implementation of sanitation programme and to inculcate competitive spirit among grama panchayats.
- Intensive IEC activities to keep the people informed about the concept and implementation of SBM. Capacity building programme for the officials of Gram Panchayats, non-official personnel like Asha workers, Anganwadi workers, NYKS volunteers, representatives of self-help groups, volunteers of Bharat Nirman, elected representatives etc.

Though the State Government is carrying out many schemes for ODF, desired outcomes were not achieved. They are many challenges and it is not only that Open Defecation in the State is not because there are no toilets. The SQUAT survey highlighted that people in India continue with open defecation despite having household latrines. It is reported that most people who live in India defecate in the open. Most people worldwide who defecate in the open live in India. Karnataka is no exception. As the rest of the world steadily eliminates open defecation, this behavior stubbornly persists in India. The SQUAT survey highlights below findings that reasons for open defecation -

A. A latrine worth using is expensive and non-affordable.
B. Fully government-constructed latrines are the least likely to be used.
C. Of people who defecate in the open, 47% explain that they do so because it is pleasurable, comfortable, or convenient.
D. Of individuals who defecate in the open despite having access to a latrine in their household, fully 74% cite these same reasons.
E. Open defecation is not generally considered unhealthy. Most people believed that open defecation is part of a healthy, wholesome way of life.

Several other studies/articles highlights the reasons for open defecation such as
2013-14 annual report of the Department of Health Research though 100 percent households have access to individual, that community or shared toilets, only around 81.56 percent are using it as toilet.

Another report in the Washington Post narrates people of Mukhrai (a village in Mathura district of Uttar Pradesh) giving reasons for reservation towards toilet, *stating that the toilet so close to the house is not a good idea, Small size of of pit and stigma associated with cleaning of toilet; it will fill up quickly. The open breeze outside is better than sitting inside this tiny room*.

In an article by Soutik Biswas "*Why India's sanitation crisis needs more than toilets*", Soutik Biswas writes that "*Toilet use did not necessarily increase with prosperity: in Haryana, one of India's richest states, most people in the villages continue to defecate in the open. Also, men living in households with toilets are more likely to defecate in the open than women*",

Sangita Vyas, Managing Director at Rice, a New Delhi-based research group stated that sanitation issues. "*People fear a situation when their pit fills up and there is nobody willing to clean it because of the social stigma. That fear discourages sustained use of toilets.*

Some studies cite lack of water as the reason as to why IHHLs end up being unused, alternatively used or not used. But, an article titled "Build toilets in the mind first" by Bhupesh Bhandari written for the Business Standard newspaper dated 28th August 2014 tells that "*research carried out by the World Bank shows there is no correlation between water availability and open defecation.*

In fact, women, followed by infirm people, are the biggest champions of toilets inside homes. There is only one block (sub-district) in the country that is totally free of open defecation - in the water-scarce Churu district of Rajasthan". Later the same article informs that "*the biggest deterrent to toilets is actually the Indian mindset….. There is ample evidence to suggest that toilets built with government help are often used as store rooms or even cowsheds. The Punja government had launched a programme to build community toilets in the state, but these quickly fell into disuse"*.

It has also been found in an evaluation study that individual household latrines (IHLs) are converted to storage units, animal housing, or are neglected entirely (O'Reilly 2010).

Another article in Hindu states that Mysuru City Corporation (MCC) is unlikely to be achieved 100% Swachh because it is finding it difficult to build toilet in 75 remaining households for lack of space in the households. Thus, total sanitation and getting rid of open defecation requires not merely providing toilets, but also persuasion to use it by all daily and regularly and combination of different alternatives. To achieve ODF India by 2019, SBM initiative has structural guidelines that are best understood as a gradual aggregating of implementation plans from each unit of government in the Indian state including Karnataka state, with national level plans meant to supplement state plans; the latter includes specific annual activities and a communications and monitoring strategy. It requires critical thinking exercises that provides a comprehensive approach of the early- and intermediate-term changes in the society that are needed to reach a long-term goal of ODF society by 2019.

4 Scope, Objectives and Evaluation Questions:

Objective of the Evaluation

The main purpose of evaluation is to study the present status of toilets constructed by individual households. Also to ascertain whether the toilets taken up for construction were actually completed or otherwise .The second objective is to ascertain the level of usage of toilets constructed in terms of (a) percentage of family members using or not using them and if no, the reasons there for, In case the toilets are constructed and are not being used, ascertain the present usage of the same other than as latrines.

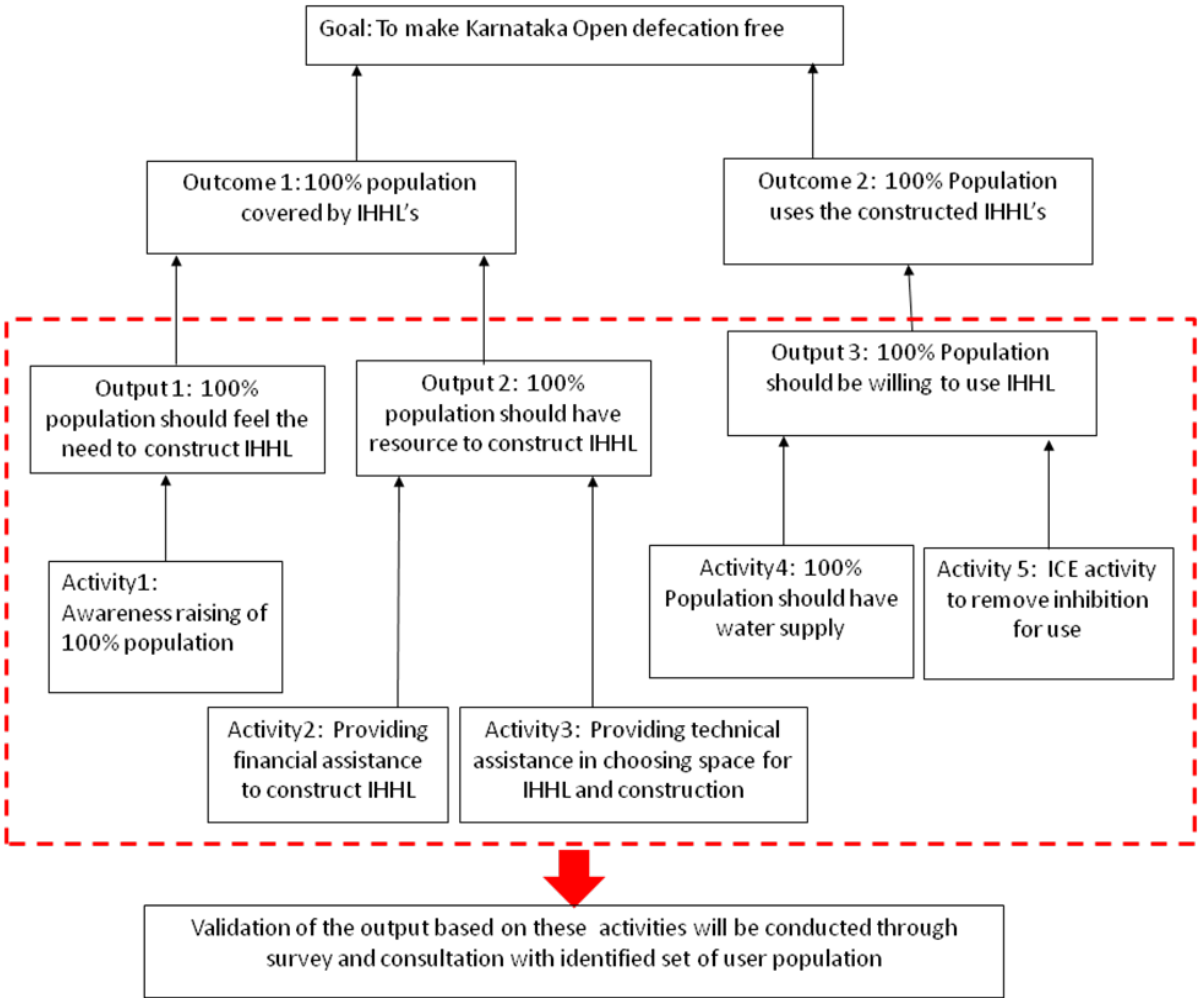

Figure 2: Framework of the IHHL program and Outputs for evaluation

Scope of the Evaluation

Government of Karnataka is taking up this study in the entire state of Karnataka. However, the scope of the study was to cover a cluster comprising of four revenue divisions namely, Bengaluru, Mysuru, Belgavi and Kalburgi.

This evaluation study responds to the below mentioned questions:

1) Ascertain the percentage of Individual House Hold Latrines/ Toilets(IHHL) constructed in the years 2010-11 to 2014-15 which are found to exist as on the date of evaluation as (a) completely built and capable of being used (irrespective of being fully or partly used or not used all), (b) incomplete and not capable of being used, and, (c) do not exist;
2) Assess the percentage of the Individual House Hold Latrines/ Toilets (IHHL) constructed in the years 2010-11 to 2014-15 and built completely and capable of being used, are indeed being used by all the members of the household on a regular basis;
3) Ascertain number of households members who are using IHHL or not (relation, sex, age, education level etc.) including how many members and who (relation, sex, age, education level etc.) are those not using them;
4) Assess motivational factor for using IHHL;
5) Analyse the percentage of IHHL which are (a) used for some time and then discontinued, and, (b) are never used at all with reasons for such use and discontinued and in case of those not being used, the reasons therefore;
6) Ascertain the present day usage of the IHHLs (all except non-existent ones) not being used. Being used as latrines and/or for other uses like storehouse, rubbish collection place, animal tying room etc.;
7) Determine whether the IHHLs constructed in the years 2010-11 to 2014-15, being used by all members of the household are statistically significantly different between BPL and APL households;
8) Ascertain whether the percentage of the IHHL constructed in the years 2010-11 to 2014-15, being used by all members of the household are statistically significantly different between urban and rural households;

9) Study and analyse percentage of usage of IHHLs constructed during 2005 to 2007 that are non-existent at present. Also determine whether this is significantly different for those constructed during 2010-11 to 2014-15;
10) Study and analyse whether Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15, being used by all members of the household are statistically significantly different than that of any of the years from 2005 to 2007 and of so, identify reasons for the same;
11) Study and analyse to ascertain whether or not there is a pattern in the usage of IHHLs that can be seen from 2010-11 to 2014-15, and if so, the type;
12) Study and analyse whether education, income, social status, profession, availability of land or age of the decision maker have any significant influence on usage of IHHLs by a household;
13) Study and determine whether availability of water, presence of or the usage of toilets in the households surrounding a household and IHHLs in the neighbourhood school going children have any significant influence on usage of IHHLs;

On the basis of the inputs obtained from the above evaluation, changes if any to be incorporated in the programme of providing IHHLs will be suggested so as to ensure full use of IHHLs by all households.

5 Evaluation Design:

The evaluation team constituted a project team comprising of experts, core staff, and support and field staff to support the department. The project team consists of below mentioned team members:

- an independent team leader with expertise in strategic planning and in management and in conducting major evaluations,
- a second core team member with experience in running large evaluation programmes and
- a third team member with wide range of experience in statistics and project management

The project team was supported by the Project Lead, Project Collaborator and Principal Consultant from the CoreCarbonX. The Project Collaborator and Principal Consultant provided support to the team in data analysis, documentation and reporting.

To conduct the field survey research assistants were engaged. They were responsible for covering the inputs from the households. The field studies were supervised by a Project Collaborator-Surveyor who traversed between selected divisions, districts and GPs.

The core team visited selected Panchayats to have interactions with households, GP members, other local groups to elicit qualitative information and assess the present perceptions and mind set of the local communities.

Table 2: The key project team members for this study

Team Type	Name	Position in the Team
Evaluation Team	Dr SP Srimathi	Principal Investigator
Evaluation Team	Ms Shaily Maloo	First member, Civil engineer
Evaluation Team	Ms Manjari Chandra	Second Member, Statistician
Core Team	Mr Niroj Mohanty	Project Lead
Core Team	Mr. G.N. Ramachandran	Project Collaborator -Survey
Core Team	Mr. Shailendra Kewat	Project Collaborator-Coordination
Core Team	Mr. Ashish Chaudhary	Principal Consultant-Analysis
Core Team	Mr. Vinayak Mahajan	Principal Consultant-Quality

		Control
Core Team	Ms P. Vyshnavi	Analyst
Core Team	Ms T. Akhila	Analyst
Core Team	Ms N. Radhika	Analyst
Core Team	Mr.N. Shiva Shankar	Consultant - Field Inspector
Core Team	Mr.S. Karthik Rao	Consultant - Field Inspector
Core Team	Mr.Ashish Das	Consultant - Field Inspector
Core Team	Mr.M. Kumar Raja	Consultant - Field Inspector
Core Team	Mr.V. Anil	Consultant - Field Inspector
Core Team	Mr. Andrew Clive Teron	Consultant - Field Inspector
Core Team	Mr. Mohammad Sadik	Consultant - Field Inspector
Core Team	Mr. V. Manju	Consultant - Field Inspector

Selection of Survey sites

The scheme is being implemented in all the 6020 Grampanchayats, 176 Taluks and 30 Districts of the state. A total of 25, 00,162 IHHLs have been constructed in Karnataka during 2010-11 to 2014-15. Considering the huge number of evaluation population a representative sample from the following cluster are formed based on the conditions mentioned in the approach and methodology. The core team and support staff conducted field visits in April 2016-April 2017 to the selected district. The list of surveyed districts is provided in the table below.

Table 3: Districts Selected for the study

Reasoning for Inclusion	**Revenue Division**			
	Bengaluru	Mysore	Belgaum	Kalburgi
	Districts			
Highest literacy rate/most urban or both	Bengaluru (U)	Dakshina Kannada	Belagavi	Koppal
Best Water availability	Shimoga	Hassan	Uttarkannada	Bidar
Most backward in the division or has least water availability or both	Kolar	Chamarajanagar	Gadag	Yadgir

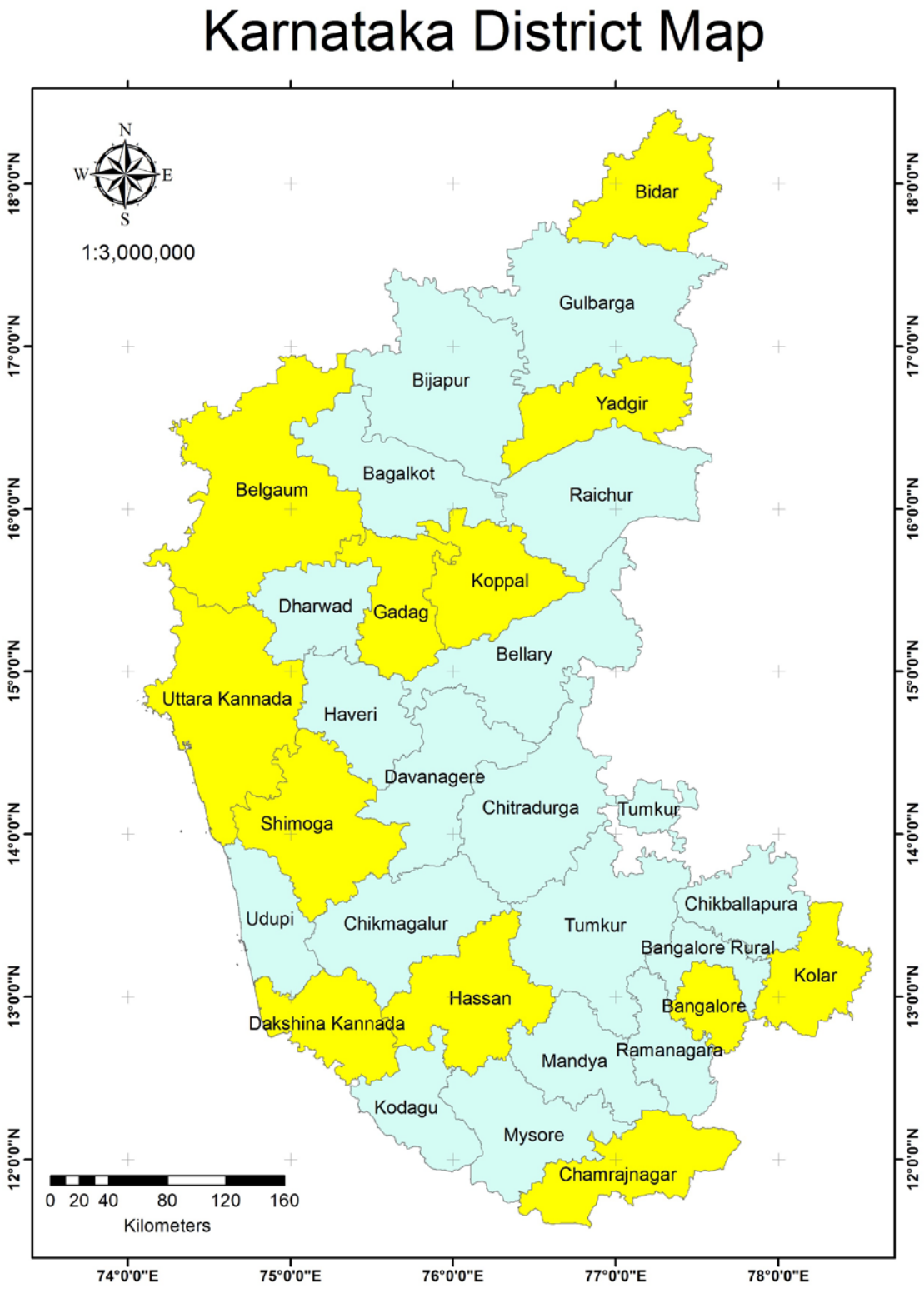

Figure 3: Spatial distribution of districts selected for the study (The survey were carried out in the yellow marked districts)

From every district selected for the survey, beneficiaries list were collected from Zilla parishad and gram panchayat. The list of villages and number of households surveyed are listed in Annexure 2.

Consultations with KEA and line department were done for defining the evaluation indicators. The consultant had developed a survey questionnaire/data collection methodology in consultation with KEA and relevant department officials. The basis of the evaluation questionnaire was based on the evaluation questionnaire in the TOR as the basis for planning the evaluation study. A mix of both a) survey of IHHL constructed household and 2) Focused Group Discussion (FGD) with elected representatives and officers of the department concerned were devised for collection of inputs on the indicators.

6 Evaluation Methodology

The scope of work requires this evaluation to assess two broad areas:

A: Status on the structures of IHHL

B: Status on usage of the IHHL

Therefore, the study requires not only a physical examination of the existence of the IHHL's but also stakeholder engagement to understand the usability of these structures. The usability of structures would need to be viewed from socio-economic, social-religious and socio-cultural aspects that influence the attitude and behaviour of users or beneficiary.

Since the study has to be conducted in limited timeframe and with limited resource, it is important to choose a statistically representative sample size to respond to the study objectives. The selection of locations for sampling is based on the criteria mentioned below:

Selection of Districts: Within the four revenue divisions identified the representative districts were selected based on the following three criteria:

- At least one district chosen in revenue division must have the highest literacy rate or it must be most urbanised district or both
- At least one district which has the best water availability
- At least one district which is either most backward in the division or has least water availability or both.

Based on the above criteria, three districts were chosen in each division to provide 12 districts for the study.

Selection of Gram Panchayats within the selected districts: Within cluster 2 i.e. the selected districts, the gram panchayats to be covered for evaluation were selected based on:

- gram panchayats in which IHHLS' have been constructed in all the years 2010-11 to 2014-2015 and in at least one of the years from 2005-2007
- at least 100 latrines built in between 2005-2007 and at least 1000 built in the duration of 2010-11 to 2014-15

Based on this latest 25 gram panchayats were chosen in each of the identified district.

From the 12 sample districts, 3 taluks in each district were selected as sample taluks based on the list of beneficiaries data (details provided in Table 5). Minimum of 1000

IHHLs constructed households were surveyed in each of the district. In addition, 2005 - 07 IHHLs constructed toilets were also surveyed.

Data collection for the evaluation

- **Primary data** collected is the main source of information for this project. Primary data collection was based on the **household survey** in the identified locations, focused group discussion (FGD) with elected representatives and officers of the department concerned.
- A thorough **review of relevant documentation** on State Water and Sanitation Mission, Karnataka available with the Rural Development and Panchayath Raj Department of the Government of Karnataka, and Karnataka Evaluation Authority (KEA). In this context, relevant information found upon review of all existing documents on IHHL, and other recent and relevant evaluation, in particular country and sub-regional evaluations, which contains relevant information to the theme;
- **Detailed consultations with the stakeholders** in the Rural Development and Panchayath Raj Department of the Government of Karnataka, Zilla Parishad, and Gram panchayats, from senior management to the planning and policy units to the implementation units, and also including relevant elected member representatives having an important role in the strategic planning discussions of IHHL was carried out.

For primary data collection a detailed questionnaire was prepared which addresses the status on the structures of IHHL and Status on usage of the IHHL's. The FGDs had provided a dynamic forum for exchange of experience and views on the process while the household visits allowed for more in-depth interaction between the evaluators and stakeholders at the field level.

A matrix on the source of data and tools and techniques for data collection is given below to answer each question that the evaluation study needs to address.

Table 4: Evaluation data source matrix

Question	Source of data	Tools/techniques for Collection of data
1. What is the percentage of Individual House Hold Latrines/Toilets (IHHL)	1 Rural water supply and sanitation	1 Specially devised

Question	Source of data	Tools/techniques for Collection of data
constructed in the years 2010-11 to 2014-15 which are found to exist as on the date of evaluation as (a) completely built and capable of being used (irrespective of being fully or partly used or not used all), (b) incomplete and not capable of being used, and, (c) do not exist at all?	Directorate 2. Zilla Panchayat and Gram Panchayat 3.Individual households In selected districts	computer compatible data sheets 2. Questionnaire I 3. Physical verification of selected works 4.photographs
2. What percentage of the Individual Household Latrines/Toilets(IHHL) constructed in the years 2010-11 to 2014-15 and built completely and capable of being used, are indeed being used by all the members of the household on a regular basis? This information may be given year wise.	1 individual users 2 Physical verification 3 documentation	Collection of data for reference years, analysis through Questionnaire/ Schedule Interactions with households Interactions with Panchayats
3. In case of those IHHL which are not being used by all members of the household, how many members and who (relation, sex, age, education level etc.) are those who are using not using them and why? Also, how many members and who (relation, sex, age, education level etc.) are those who are using not using them? What are the motivational factors for using IHHL?	Individual households Head of the household, individual members of household	Information to be captured through household schedules (Q-1) Interactions with heads of the families
4. Amongst the Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15 (all except non-existent ones) not being	Individual households Through field survey capturing information in specially designed	Collection of data from individual owners Interactions with households under

Question	Source of data	Tools/techniques for Collection of data
used as on the date of evaluation, what is the percentage of IHHL which were (a) used for some time and then discontinued, and, (b) were never used at all? What were the reasons for discontinuance in case (a) and for not using at all in case (b)?	questionnaires (U-1)	one-to-one method
5. What is the present day usage of the IHHLs (all except non-existent ones) not being used on the date of evaluation? (Examples could be used as storehouse, rubbish collection place, animal tying room etc.) 6. Is the percentage of the Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15, being used by all members of the household statistically significantly different between BPL and APL households? This information may be given year wise. Similarly, what is the inference for IHHLs being used by some members of the household for BPL and APL households?	Selected sample households Physical verification by the Field Survey teams photography	Individual HHs, family members Use of questionnaires/ Interactions with groups Panchayats
7. Is the percentage of the Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15, being used by all members of the household statistically significantly different between urban and rural households?	Individual users inputs obtained through field studies/surveys Analytical study of data to draw statistical conclusions	Household schedules Personal discussions Physical verification

Question	Source of data	Tools/techniques for Collection of data
8. The unit cost of IHHLs in the years 2005 to 2207 was considerably less than that of 2010-11 to 2014-15. What is the percentage of2005 to 2007 constructed (any one year may be enough for evaluation) which are non-existent as on the date of evaluation? Is this significantly different for the average of the same for the entire period 2010-11 to 2014-15?	Individual households under two situations namely Units constructed during 2006-07 and between 2010-11 and 2014-15	The Household Questionnaire has a special column for HHLs constructed during 2005-07 which be used in ascertaining the percentages and reasons thereof. Interactions with this category of HHs will be conducted to elicit information on this
9. The unit cost of IHHLs in the years 2005 to 2207 was considerably less than that of 2010-11 to 2014-15. Is the percentage of the individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15, being used by all members of the household statistically significantly different than that of any of the year's from2005 to 2007? Why?	Two sets of respondents, namely a)those constructing HHLs during 2005-7 and (b)those constructing IHHLs after 2010-2015	Analytical study of inputs received from the respondents and determining the characteristics under two different situations.
10. Is there a pattern in the usage of IHHLs (full and partial use both included) that can be seen from 2010-11 to 2014-15? What is it?	Users Field Studies across selected districts/blocks/ panchayats	Questionnaire HHN-1
11. Does the education, income, social status, profession, availability of land or age of the decision maker (generally the eldest member or the highest earning member) have any significant	Study of socio-economic status of selected users households Interactions with the	Questionnaires HHN 1

Question	Source of data	Tools/techniques for Collection of data
association with the usage of IHHLs by a household If indeed so, which are those and how significant they are?	members of selected households	
12. Does availability of water, presence of or the usage of toilets in the households surrounding a household (peer/social acceptability) and, children of the household going to schools have any significant association with the usage of IHHLs by the household?	1.study on status of water supply system/ arrangements, 2. study of surroundings of selected households and their neighborhood 3.study of other economic and social aspects of the HHs	HHN 1 Interactions with GP representatives
13. What changes should be incorporated in the programme of providing IHHLs so that more and more of them are utilized regularly by all members of all households?	1.All available secondary data from the concerned agencies 2. Household surveys/studies	Analytical study of available information Inputs from respondent households and FGDs with agencies/ representatives

A detailed questionnaire was developed for household survey based on the matrix above and is attached as Annexure I to this report. The questionnaire captures the information from (i) old IHHLs (2005-07) and (ii) recent IHHLs (2010-11 to 2014-15).

The responses of the survey are analysed using MS excel. To determine statistical significance t-test are applied to relevant data sets. Standard assumptions were used for the statistical analysis wherever needed. Observations and findings are presented in the subsequent chapters.

7 Data collection and Analysis:

The evaluation team visited the office of the State water and Sanitation Agency, Karnataka and the Rural Development and Panchayat Raj Development (RDPR) of the Government of Karnataka. The relevant information pertaining to IHHLs constructed in all the districts from the year 2005-06 to 2014-15 was collected including other relevant documentation. Discussions were held with concerned officers of the Agency and RDPR about the past and present status of the scheme "Total Sanitation Campaign"/SBM.

The beneficiary list for all the 12 districts were collected from concerned officials of the Rural Development and Panchayat Raj Department of targeted districts and gram panchayat. The survey inspector then visited the beneficiary household and collected the information from each beneficiary by actual inspection of the IHHL in the selected villages and Gram Panchayats as per the questionnaire specially designed for this survey. Each and every IHHL of the period 2010-11 to 2014-15 was photographed and geo-referenced by reporting the latitude and longitude with GPS mapping.

The project team held Focussed Group Discussions with the elected representatives and officers of the department concerned. The FGDs were held in all the 12 Districts visited by the project team members. Preliminary data collection by survey was collected as per the schedule mentioned in table below.

Table 5: District wise and Taluk wise survey schedule

Revenue Division	Districts	Taluk	Date of Visit
Kalaburgi	Koppal	Koppal	08.06.2016 to 11.06.2016
Belgavi	Gadag	Gadag	15.06.2016 to 18.06.2016
Belgavi	Uttar Kannada	Sirsi	24.06.2016 to 27.06.2016

Mysore	Dakshina Kannada	Mangaluru	04-07-2016 to 27.06.2016
Mysore	Hassan	Hassan	11.07.2016 to 13.07.2016
Bengalure	Shimoga	Hosanagar	29.06.2016 to 01.07.2016
Mysore	Chamrajnagar	Chamarajnagar	19.07.2016 to 22.07.2016
Mysore	Chamrajnagar	Gundlupet	19.07.2016 to 22.07.2016
Mysore	Chamrajnagar	Yelanduru	19.07.2016 to 22.07.2016
Bengaluru	Bengalure (U)	Bengalure East	17.08.2016 to 24.08.2016
Bengaluru	Bengalure (U)	Bengalure North	17.08.2016 to 24.08.2016
Bengaluru	Kolar	Kolar	16.09.2016 to 21.09.2016
Bengaluru	Kolar	Mulbagal	16.09.2016 to 21.09.2016
Bengaluru	Kolar	Bangarpet	16.09.2016 to 21.09.2016
Belgavi	Belgavi	Belagavi	28.09.2016 to 03.10.2016
Belgavi	Belgavi	Chikkodi	28.09.2016 to 03.10.2016
Belgavi	Belgavi	Khanapur	28.09.2016 to 03.10.2016
Kalburgi	Kalburgi	Yadgir	11.10.2016 to 08.10.2016
Kalburgi	Kalburgi	Shahapur	11.10.2016 to 08.10.2016
Kalburgi	Kalburgi	Shorapur	11.10.2016 to 08.10.2016
Kalburgi	Bidar	Bidar	25.10.2016 to 30.10.2016
Kalburgi	Bidar	Aurad	25.10.2016 to 30.10.2016
Kalburgi	Bidar	Bhalki	25.10.2016 to 30.10.2016

Upon completion of the baseline data collection, the CoreCarbonX initiated data entry process.

The Data entry process had a systematic process that covered the following main stages:

- receiving and logging of data
- data entry
- validation of data
- error correction
- filing of data

The project had established a data entry system prior to beginning data entry that had procedures for handling data entry and potential problems during the data entry process. Data from the Household survey Forms were stored into the Survey_Tracking_Form.xls (STF). The project team were responsible for regularly entering the data in the STF, ensuring that for each input from survey form is correct and any data entry problems is recorded. The data entry were done by consultant and then checked for inconsistent or illogical answers by the supervisor. All issues were rectified in the field before the teams move on to the next commune and/or district. Discrepancies were rectified by the data entry supervisors.

All the data collected were coded numerically. Pre-coded answers had an option when such systems were of multiple-choice questionnaires. For open or semi-open questions, however, the full range of answers were codified and classified.

The percentages of total and partial non-responses were measured to assess the quality of the field data. Total non-response may happen as a result of a respondent's refusal to answer, geographical isolation or failure to identify the holding. The reasons were listed meticulously. Partial non-response might have happened due to the absence of right respondent from households, or it might be the result of the respondent's deliberate concerning the data requested.

Validation of data processing and checking for consistency are important steps in the process of taking the values data. The procedures for correcting inconsistent data or providing missing entries were applied when strictly necessary, based on quantitative and qualitative criteria determined in accordance with experience. Great care was taken to avoid erroneous imputations. The final data sets were compiled and consistency checks performed.

8 Findings and Discussion

8.1 Socio-demographic status of Karnataka

According to 2011 censes the population of Karnataka has increased to 6, 10, 95,297 (Male 3, 09, 66,657 Females 3, 01, 28,640) with a sex ratio of 968 females for every 1000 males. The population is comprised of Hindu 83%, Muslim 11%, Christian 4%, Jain 0.78% and Buddhists 0.73%.

In 2001, the total population of state was 5, 28, 50,562 out of which 2, 68, 98,918 were males and 2, 59, 51,644 were females. In 2001, Karnataka ranked 9th by population among all 28 states and union territories of India.

Among all the districts Bengaluru district is the most populated district with 96,21,551 persons and account for 15.75 % of the state total population while Kodagu district with a population of 0.91% is the least populated district. Except Bengaluru rural (9, 90,923) and Kodagu (5.54, 519) district, all the remaining 28 districts have population higher than 1 Million. 61.33 % of Karnataka's population resides in rural areas and 38.67 are urban residents.

Among the districts ,Bengaluru is the most urbanised district 90.94% of its population residing in urban areas followed by Dharwad district (56.82%) and (D.K 47.67%), Mysore District (41.5%) and Ballari Dist (37.52%). The least urbanised district in the state is Kodagu with (14.61%) preceded by Koppal dist (16.81%), Mandaga (17.08%), Chamrajnagar 17.14% and Yadgir Dist 18.79%

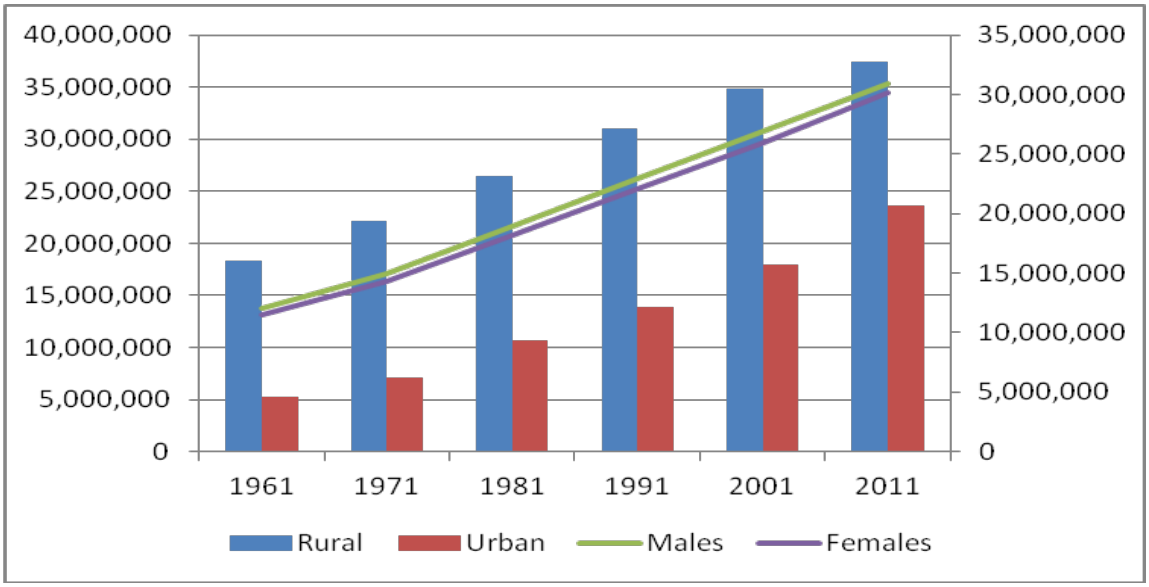

Figure 4: Population in Karnataka Rural and Urban 1961 to 2011.

As per census, the households in Karnataka have increased from 1, 04, 01,918 households in 2001 to 1, 33, 57,027 households in 2011 registering a decadal growth rate of 28.41%. At the same time, population per household i.e. size of household has reduced from 5.1 to 4.6 persons/households. This directly co-relates with the moving social profile where the increase in number of households has been more than the increase in population in the last decade. Out of this, only 44.5% of households in state have source of water within their premises. 37.3% of households have to fetch water from a source located within 500m in rural areas and18.2% of urban population have to fetch water from 100 m in urban areas.

Table 6: Basic Statistics of Rural and Urban Karnataka

Profile	Rural	Urban	State wide
No. Of Households	7946657	5410370	1335027
Literacy Rate			
Females	59.71%	81.36%	68.08%
Males	77.61%	90.04%	82.47%

8.2 Observations and Findings from Focused Group Discussion

Group discussions were carried at all the 12 districts selected for the study. Generally the FGD was carried out at the Zilla Parishad with the Members, Officials, PDOs, Secretary and beneficiaries and at the few villages. In FDG the participation varied from location to location, ranging from 5-10 people to 30-40 people at some places. The FDG was carried out in vernacular language motivating the people to speak their views on the IHHL scheme.

Overall the population at all the FDG's stressed on the need of continuing with awareness session to increase the usage by toilets, to avoid abandoning of toilets. Generally, the stress was on educating the public on health issues associated with ODF. Details of the issues discussed during FDG at each location are provided in Annexure III.

8.3 District wise observations and findings based on the survey

1. Bengaluru Urban District

Bengaluru district is located in the division of Bengaluru. In 2011, Bengaluru Urban had population of 9,621,551 of which male and female were 5,022,661 and 4598890 respectively. In 2001 census, Bengaluru Urban / metropolitan had a population of 6537124 of which males were 3426599 and remaining 3110525 were females. Population of Bengaluru Urban district

grew by 47.18% between 2001 and 2011. Population density of Bengaluru increased from 2,985 to 4,381 people per sq km. Average literacy rate of Bengaluru is 87.67% in 2011. Male literacy rate (91.01%) is much higher than female literacy rate (84.01%). About 10.94% of the population is in the age group of 0-6 yrs. 1105 beneficiaries were surveyed at Bengaluru to assess the status of IHHL construction and use. The findings of the survey are described below.

Status of IHHL structure: This survey report covers the IHHLs that are built in Bengaluru urban area. From the survey it was found that all individual household toilets constructed in the past, starting from 2005-06 till date, exist as on the day of evaluation and are 96.11% in use by all members of the family (table below). IHHL at all 1104 beneficiaries surveyed have been constructed completely and are capable of being used. 100% IHHL constructed in the years 2010-11 to 2014-15 are found to exist as on the date of evaluation. There were no incomplete and not capable of being used IHHLs and all IHHLs inspected existed on the date of evaluation (as provided in table below). Out of the total IHHLs built 1 IHHLs belong to people living above the poverty line (APL) while remaining 1103 IHHLs belong to people living below the poverty line (BPL). From 2005 till date IHHL use in Bengaluru is 100%. However, there is some variation observed the use of IHHL by all family members (presented in table below). It is found that in 2005-06 and 2011-12 the usage was 100% by all members of the family. However, in rest of the years it has been in the range of 93% to 97%. Thus, statistically the usage has not been significantly different between the 2005-2007 and 2010-2011 to 2014-15.

Table 7: Bengaluru IHHL construction status (2005-06 to 2014-15)

Year	No. of IHHL Beneficiary Surveyed	Completely Built and capable of being used		Incomplete and not capable of being used		Do not exist at all	
		No of IHHL capable of being used	%	Incomplete and not capable of being used	%	No. of non-existing IHHLs	%
2005-06	14	14	100.00%	0	-	0	0%
2006-07	86	86	100.00%	0	-	0	0%
2010-11	76	76	100.00%	0	-	0	0%
2011-12	13	13	100.00%	0	-	0	0%
2012-13	163	163	100.00%	0	-	0	0%
2013-14	377	377	100.00%	0	-	0	0%
2014-15	376	376	100.00%	0	-	0	0%
Total	**1105**	**1105**	**100%**	**0**	**-**	**0**	**0%**

Usage of IHHLs: Out of 1105 IHHLs completely built, 1062 are currently being used by all members of the family whereas in 43 household cases some members of the family are not using them. From 2010-11 to 2014-15, some family members of 3.89% of the completely built IHHL households are not using the toilet regularly. Yearly breakup of IHHLs constructed and used, from the year 2010-11 and 2014-15 is provided in table below. All the households where some members of the family are not using the IHHL belong to those from BPL families except 1. In Bengaluru district the IHHLs are not being put to other uses as all the households are using them partially.

Table 8: Percentage of IHHLs in Bengaluru used by all members of the family

Year	Completely Built and capable of being used		
	No. of IHHL built	No. of IHHLs used by all members of the family	%
2005-06	14	14	100.00%
2006-07	86	83	96.51%
2010-11	76	71	93.42%
2011-2012	13	13	100.00%
2012-2013	163	159	97.55%
2013-14	377	366	97.08%
2014-15	376	356	94.68%
Total	**1105**	**1062**	**96.11%**

Out of total of 56 members not using IHHLs, it is found that only 10 members are below the age of 40 years. It is also observed that most of the females who are not using IHHL are above 40 years and mostly neither educated nor earning member. From the data of non-users in Bengaluru **Urban** it appears that among education, income, age and sex, age and education are the governing factor for those not using the IHHL

Most of the fathers, mothers and population above the age of 40 using open defecation cited that they preferred open defecation and found IHHL's to be uncomfortable and inconvenient, hence they do not use IHHLs. While the younger population either preferred open defecation or non availability of water to be a deterrent in using IHHLs. Amongst those using IHHLs more than 96% of the users of IHHLs cited all three, safety, comfort and hygiene as the primary reason for using them.

Table 9: Detailed breakup of non-users of IHHL in Bengaluru district

User Type	Age(years)				Education					Income		
	0-20	20-40	>40	<10	10th	12th	Graduate	PG	PhD	0-3000	3000-6000	>6000
Self												
Father	0	1	13	12	1	1	0	0	0	0	0	14
Mother	0	1	7	8	0	0	0	0	0	7	0	1
Sons	2	3	0	0	2	2	1	0	0	5	0	0
Daughter	2	1	0	1	0	2	0	0	0	3	0	0
Grand Father	0	0	13	9	3	0	1	0	0	13	0	0
Grand Mother	0	0	13	13	0	0	0	0	0	13	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0

Similarly the usage of IHHLs by BPL population ranges from 93.42% to 100% for IHHLs built between 2010-11 to 2014-15. Since only one IHHL has been built for APLs in this period, it will not be relevant to compare them.

Table 10: IHHLs built and used by BPL and APL from 2005-06 to 2014-15

Year	**No. of IHHL constructed**	**Status of use of IHHL by BPL families**			**Status of use of IHHL by APL families**		
		IHHL constructed	No of IHHL in use	%	IHHL constructed	No of IHHL in use	%
2005-06	14	14	14	100.00%	0	0	-
2006-07	86	86	83	96.51%	0	0	-
2010-11	76	76	71	93.42%	0	0	-
2011-12	13	13	13	100.00%	0	0	-
2012-13	163	163	159	97.55%	0	0	-
2013-14	377	376	365	97.07%	1	1	100%
2014-15	376	376	356	94.68%	0	0	-
Total	**1105**	**1104**	**1061**	**96.10%**	**1**	**1**	**100%**

From 2005 till date IHHL use in Bengaluru is 100%. However, there is some variation observed in the use of IHHLs by all family members (presented in above). It is found that in 2005-06 and 2011-12 the usage was 100% by all members of the family. However, in rest of the years it has been in the range of 94% to 98%.

Whereas, the average cost of building IHHLs has increased nearly three times in the years 2010-2015 over the years 2005-2007. At the same time average incentive received from government has also increased significantly i.e. more than 50% of the cost is now being borne by the government. In absolute numbers the average cost of IHHLs covered through government incentives was 28% in 2006 and is about 67% in 2014-15.

Table 11: Average Cost of IHHLs and Government Incentive

Year	Average cost of IHHL	Incentive received from Govt.	Average cost of IHHL in 2005-07 & 2010-15	Average Incentive received from Govt.
2005-06	4234	1200	3612	1200
2006-07	2991	1200		
2010-11	7778	3000	10304	5620
2011-12	3750	3700		
2012-13	8340	4700		
2013-14	13686	4700		
2014-15	17963	12000		

Motivation to build toilet: All the beneficiaries' survey i.e. 100% of the households expressed the availability of subsidy from the government, availability of water, sense of safety, and good hygienic conditions as the reason for their motivation to build **toilets**.

Reasons for using the toilet: All beneficiaries using the toilet unanimously pointed that availability of water while using the toilet, sense of safety and hygiene are the reasons for them to use the toilet.

Increasing the utilization of toilets:

All the surveyed beneficiaries stressed that government must focus on awareness creation on the need to use toilets, its benefits and the health problems associated with open defecation. They expressed that higher publicity of health problems and change in community mind-sets is a must for increasing use of toilets and stopping open defecation along with the other efforts already in place.

2. Shimoga

Shimoga district comes under the division of Bengaluru. In 2011 census, Shimoga had a population of 1,752,753 of which male and female were 877,415 and 875,338 respectively. In 2001 census, Shimoga had a population of 1,642,545 of which males were 830,559 and remaining 811,986 were females. Population of Shimoga district grew by 6.71% between 2001 and 2011. Population density of Shimoga increased from 193 to 207 people per sq km. Average literacy rate of Shimoga was 80.45% in 2011. Male literacy rate (86.07%) is much higher than female literacy rate (74.84%). About 10.43% of the population is in the age group of 0-6 yrs. 1152 beneficiaries were surveyed in the Shimoga District to assess the status of IHHL construction and use.

Status of IHHL structure: From the survey it was found that all individual household toilets constructed in the past, starting from 2005-06 till date, exist as on the day of evaluation and are 96.61% are in use by all members of the family (table below). Toilets at all 1152 beneficiaries have been constructed completely and are capable of being used. 100% IHHLs constructed in the years 2010-11 to 2014-15 are found to exist as on the date of evaluation. All the IHHL's constructed are completely built and capable of being used. There were no incomplete and not capable of being used IHHLs. Out of the total IHHLs built 20 IHHLs belong to people living above the poverty line (APL) while remaining IHHLs belong to people living below the poverty line (BPL).

Table 12: Shimoga IHHL construction status (2005-06 to 2014-15)

Year	No. of IHHL Beneficiary surveyed	Completely Built and capable of being used		Incomplete and not capable of being used		Do not exist at all	
		No of IHHL capable of being used	%	Incomplete and not capable of being used	%	No. of non-existing IHHLs	%
2005-06	36	36	100.00%	0	-	0	-
2006-07	106	106	100.00%	0	-	0	-
2010-11	35	35	100.00%	0	-	0	-
2011-12	31	31	100.00%	0	-	0	-
2012-13	81	81	100.00%	0	-	0	-
2013-14	86	86	100.00%	0	-	0	-
2014-15	777	777	100.00%	0	-	0	-
Total	**1152**	**1152**	**100%**	**0**	**-**	**0**	**-**

Usage of IHHLs: Out of 1152 IHHLs completely built, 1113 are currently being used by all members of the family whereas in 39 households some members of the family are not using the IHHL on regular basis. Yearly breakup of IHHL's constructed and used, from the year 2005-07 and 2010-15 is provided in table below.

Table 13: Percentage of IHHLs in Shimoga used by all members of the family

Year	Completely Built and capable of being used		
	No. of IHHL built	No. of IHHLs used by all members of the family	%
2005-06	36	36	100.00%
2006-07	106	104	98.11%
2010-11	35	34	97.14%
2011-12	31	31	100.00%
2012-13	81	79	97.53%
2013-14	86	83	96.51%
2014-15	777	746	96.01%
Total	**1152**	**1113**	**96.61%**

Out of total of 57 members not using IHHLs, it is found that only 15 members are below the age of 40 years. It is also observed that most of the females who are not using IHHL are above 40 years and mostly neither educated nor earning member. From the data of non-users in Shimoga it appears that among education, income, age and sex, age and education are the governing factor for those not using the IHHL.

Most of the fathers, mothers and population above the age of 40 using open defecation cited that they preferred open defecation and found IHHL's to be uncomfortable and inconvenient, hence they do not use IHHLs. While the younger population either preferred open defecation or non availability of water to be a deterrent in using IHHLs. Amongst those using IHHLs more than 99% of the users of IHHLs cited all three, safety, comfort and hygiene as the primary reason for using them.

Table 14: Detailed breakup of non-users of IHHL in Shimoga district

User Type	Age(years)			Education						Income		
	0-20	20-40	>40	<10	10th	12th	Graduate	PG	PhD	0-3000	3000-6000	>6000
Father	0	3	18	17	3	1	0	0	0	11	0	10
Mother	0	4	10	14	0	0	0	0	0	13	0	1
Sons	3	2	0	1	2	1	1	0	0	5	0	0
Daughter	2	1	0	0	3	0		0	0	3	0	0
Grand Father	0	0	11	11	0	0	0	0	0	11	0	0
Grand Mother	0	0	3	3	0	0	0	0	0	3	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0

All the households where some members of the family are not using the IHHL belong to those from BPL. In 2011-12 the use of IHHLs by BPL families was also 100%. It has subsequently decreased in percentage to about 96%. On an average during the study period the average use of IHHL by BPL families has been about 97% where as it has been 100% by the APL families.

Table 15: IHHLs built and used by BPL and APL from 2005-06 to 2014-15 in Shimoga

Year	**No. of IHHL constructed**	**Status of use of IHHL by BPL families**			**Status of use of IHHL by APL families**		
		IHHL constructed	No of IHHL in use	%	IHHL constructed	No of IHHL in use	%
2005-06	36	36	36	100.00%	0	0	_
2006-07	106	100	98	98.00%	6	6	100%
2010-11	35	35	34	97.14%	0	0	_
2011-12	31	28	28	100.00%	3	3	100%
2012-13	81	81	79	97.53%	0	0	_
2013-14	86	82	79	96.34%	4	4	100%
2014-15	777	770	739	95.97%	7	7	100%
Total	**1152**	**1132**	**1093**	**96.55%**	**20**	**20**	**100%**

More than 99% of the users of IHHLs cited all three, safety, comfort and hygiene as the primary reason for usage of IHHL. In Shimoga district the IHHLs are not being put to other uses as the latrines in all the households are used by at least one member of the family. All IHHLs in Shimoga have been built in rural area and are in use as per the statistics provided

above. All IHHL's built in 2005-07 are in existence on the date of evaluation as well as in use.

From 2005 till date IHHL use in Shimoga is 100%. However, there is some variation observed in the use of IHHL by all family. It is found that in 2005-06 and 2011-12 the usage was 100% by all members of the family. However, in rest of the years it has been in the range of 96 to 98.0%.

The average cost of building IHHLs and the incentive from government have both increased. It is observed that average cost of construction in 2005-2007 was about 3762 INR and has now increased to 11324 (in the study duration). Similarly average subsidy has also grown and it is observed that in 2014-15 government paid for nearly 90% of the cost of IHHL.

Table 16: Average Cost of IHHLs and Government Incentive in Shimoga

Year	Average cost of IHHL	Incentive received from Govt.	Average cost of IHHL in 2005-07 & 2010-15	Average Incentive received from Govt.
2005-06	6289	1200	3762	1200
2006-07	1235	1200		
2010-11	8027	3000	11324	5620
2011-12	9203	3700		
2012-13	12099	4700		
2013-14	13212	4700		
2014-15	14080	12000		

Motivation to build toilet: All the beneficiaries' survey i.e. 100% of the households expressed the availability of subsidy/incentive from the government, availability of water, sense of safety, and good hygienic conditions as the reason for their motivation to build toilets.

Reasons for using the toilet: All beneficiaries using the toilet unanimously pointed that availability of water while using the toilet, sense of safety and hygiene are the reasons for them to use the toilet.

Increasing the utilization of toilets: All the beneficiaries stressed that government must focus on awareness creation on the need to use toilets, its benefits and the health problems

associated with open defecation. They expressed that higher publicity of health problems and change in community mindset is a must for increasing use of toilets and stopping open defecation along with the other efforts already in place.

TALE OF A WOMEN'S REGAINED SELF RESPECT WITH SANITARY TOILET

Indrama had been staying in Kalagi, Sonathi for the past 25 years, from the time she married. Kalagi is a small village and did not have a proper system for sanitation. However, she was born and brought up in one of the adjoining semi urban areas where her lifestyle was also shaped accordingly. "On the first day I came home after the wedding, I started looking for the toilet", said Indrama candidly. "It was only later that I came to know that my house didn't have the toilet". It took her a little while but she somehow managed and settled in her household chores and new way of life "without the toilet". Years passed by and she continued to live without toilet with her husband and children.

Forced by the circumstances she had to wait for dark even for nature's call. This was extremely embarrassing for her. She did not know what to do and started taking this as a matter of her fate. The toilet construction program under TSC and SBM when took up in her village of Kalagi, her house was also came under the scheme. Along with other villagers, she got benefitted and has constructed a toilet. She is currently very happy. "Many times we have seen diarrheal when people and kids are affected. We had seen so many kids under such distressful conditions. But now with toilets in each household....it is such a great relief. The diarrheal instances have reduced drastically" she said. "I don't have words to thank Govt. and Panchayat. It might be a very small thing for others but it made a huge difference in my life. I somehow seem to have retained my self-respect and can carry out my household chores with dignity" said Indorama, praising and blessing the mission for its work.

3. Kolar

Kolar is located under the division of Bengaluru. As per the 2011 census, Kolar population was 1,536,401 out of which male and female were 776,396 and 760,005 respectively. In 2001 census, Kolar had a population of 1,387,062 of which males were 603,312 and remaining 685,385 were females. Population of Kolar district grew by 10.77% between 2001 and 2011. Population density of Kolar increased from 346 to 386 people per sq km. Average literacy rate of Kolar is 74.39% in 2011. Male literacy rate (81.81%) is much higher than female literacy rate (66.84%). About 11.09% of the population is in the age group of 0-6 yrs.

Status of IHHL structure: 1071 beneficiaries were surveyed at Kolar to assess the status of IHHLs construction and use. From the survey it was found that all IHHLs constructed in the past, starting from 2005-06 till date, exist as on the day of evaluation and 100% IHHLs are in use. Toilets at all 1071 surveyed beneficiaries have been constructed completely and are capable of being used. Out of the total IHHLs built only one IHHL belongs to people living above the poverty line (APL) while remaining 1070 IHHLs belong to people living below the poverty line (BPL). All the IHHL's constructed are completely built and capable of being used. There were no incomplete and not capable of being used IHHLs at Kolar.

Table 17: Kolar IHHL construction status (2005-06 to 2014-15)

	No. of IHHL Beneficiary surveyed	Completely Built and capable of being used		Incomplete and not capable of being used		Do not exist at all	
		No of IHHL capable of being used	%	Incomplete and not capable of being used	%	No of IHHL in use	%
2005-06	6	6	100%	0	-	0	-
2006-07	9	9	100%	0	-	0	-
2010-11	114	114	100%	0	-	0	-
2011-12	82	82	100%	0	-	0	-
2012-13	78	78	100%	0	-	0	-
2013-14	334	334	100%	0	-	0	-
2014-15	448	448	100%	0	-	0	-
Total	**1071**	**1071**	**100%**	**0**	**-**	**0**	**-**

Usage of IHHLs: Out of 1071 IHHLs completely built, 1019 are currently being used by all members of the family whereas in 52cases some members of the family are not using them. Yearly breakup of IHHL's constructed and used, from the year 2010-11 and 2014-15 is provided in table below. It is found that the usage of IHHLs was about 86.66% between 2005 to 2007 and it has increased to 95.26% from 2010-2015. Thus, statistically the usage is significantly different between the 2005-2007 and 2010-2011 to 2014-15.

Table 18: Percentage of IHHLs in Kolar used by all members of the family

Year	Completely Built and capable of being used		
	No. of IHHL built	No. of IHHLs used by all members of the family	%
2005-06	6	4	66.67%
2006-07	9	9	100.00%
2010-11	114	109	95.61%
2011-12	82	76	92.68%
2012-13	78	74	94.87%
2013-14	334	324	97.01%
2014-15	448	423	94.42%
Total	**1071**	**1019**	**95.14%**

Out of total of 73 members not using IHHLs, it is found that only 46 members are below the age of 40 years. It is also observed that most of the females who are not using IHHL are above 40 years and mostly neither educated nor earning member. From the data of non-users in **Kolar** it appears that among education, income, age and sex, age and education are the governing factor for those not using the IHHL

Most of the fathers, mothers and population above the age of 40 using open defecation cited that they preferred open defecation and found IHHL's to be uncomfortable and inconvenient, hence they do not use IHHLs. While the younger population either preferred open defecation or non availability of water to be a deterrent in using IHHLs. Amongst those using IHHLs more than 99% of the users of IHHLs cited all three, safety, comfort and hygiene as the primary reason for using them.

Table 19: Detailed breakup of non-users of IHHL in Kolar district

User Type	Age(years)				Education					Income		
	0-20	20-40	>40	<10	10th	12th	Graduate	PG	PhD	0-3000	3000-6000	>6000
Self												
Father	0	0	14	11	3	0	0	0	0	7	0	7
Mother	0	0	1	0	1	0	0	0	0	1	0	0
Sons	22	0	0	20	1	1	0	0	0	22	0	0
Daughter	18	3	0	16	3	0	2	0	0	21	0	0
Grand Father	0	0	5	5	0	0	0	0	0	4	1	0
Grand Mother	0	0	5	5	0	0	0	0	0	5	0	0
Other	2	1	2	4	1	0	0	0	0	5	0	0

Only one IHHL has been built for APL family and it is in use whereas all others belong to BPL families and the usage by BPL families is 95.14%.

Table 20: IHHLs built and used by BPL and APL from 2005-07 to 2010-15 in Kolar

Year	**No. of IHHL constructed**	**Status of use of IHHL by BPL families**			**Status of use of IHHL by APL families**		
		IHHL constructed	No of IHHL in use	%	IHHL constructed	No of IHHL in use	%
2005-06	6	6	4	66.67%	0	0	-
2006-07	9	9	9	100%	0	0	-
2010-11	114	114	109	95.61%	0	0	-
2011-12	82	82	76	92.68%	0	0	-
2012-13	78	78	74	94.87%	0	0	-
2013-14	334	334	324	97.01%	0	0	-
2014-15	448	447	422	94.41%	1	1	100%
Total	**1071**	**1070**	1018	95.14%	**1**	**1**	**100%**

The average cost of building IHHLs and the incentive from government have both increased. It is observed that average cost of construction in 2005-2007 was about INR 4533 and has now increased to INR 8734 (in the study duration). Similarly average subsidy has also grown and it is observed that in 2014-15 government paid for nearly 90% of the cost of IHHL.

Table 21: Average Cost of IHHLs and Government Incentive in Kolar

Year	Average cost of IHHL	Incentive received from Govt.	Average cost of IHHL in 2005-07 & 2010-15	Average Incentive received from Govt.
2005-06	3833	1200	4533	1200
2006-07	5233	1200		
2010-11	5930	3000	8734	5620
2011-12	6865	3700		
2012-13	8195	4700		
2013-14	8984	4700		
2014-15	13696	12000		

Motivation to build toilet: At Kolar all the beneficiaries (i.e.100%) agreed to the fact that availability of government incentive, safety and hygiene has been the main factor in building of IHHL. All the respondents have identified availability of water as an important criteria for building toilets while a small fraction i.e. 68 people have stated increased income as the reason to have IHHL.

Reasons for using the toilet: All beneficiaries (100%) using the toilet unanimously pointed that availability of water while using the toilet, sense of safety and hygiene are the reasons for them to use the toilet.

Increasing the utilization of toilets:

Beneficiaries expressed that higher publicity of health problems and change in community mindset is a must for increasing use of toilets and stopping open defecation along with the other efforts that are already in place.

4. Belgaum/Belgavi

Belgaum district is located in the division of Belgaum. In 2011, Belgaum population was 4,779,661 of which male and female were 2,423,063 and 2,356,598 respectively. In 2001 census, Belgaum had a population of 4,214,505 of which males were 2,150,090 and remaining 2,064,415 were females. Population of Belgaum district grew by 13.41% between 2001 and 2011. Population density of Belgaum increased from 314 to 356 people per sq km. Average literacy rate of Belgaum is 73.48 % in 2011. Male literacy rate (82.20 %) is much higher than female literacy rate (64.58 %). About 13.10 % of the population is in the age group of 0-6 yrs. 1105 beneficiaries were surveyed at Belgaum to assess the status of IHHL construction and use.

Status of IHHL structure: From the survey it was found that all IHHLs constructed in the past, starting from 2005-06 till date, exist as on the day of evaluation. 100% IHHL constructed in the years 2010-11 to 2014-15 are found to exist as on the date of evaluation. All the IHHL's constructed are completely built and capable of being used. There were no incomplete and not capable of being used IHHLs. Out of the total IHHLs built 59 IHHLs belong to people living above the poverty line (APL) while remaining 1046 IHHLs belong to people living below the poverty line (BPL). All IHHLs surveyed in Belgaum fall under rural area.

Table 22: Belgaum IHHL construction status (2005-06 to 2014-15)

Year	No. of IHHL Beneficiary surveyed	Completely Built and capable of being used		Incomplete and not capable of being used		Do not exist at all	
		No of IHHL capable of being used	%	No of IHHL not capable of being used	%	No. of non-existing IHHLs	%
2005-06	70	70	100%	0	-	0	-
2006-07	31	31	100%	0	-	0	-
2010-11	59	59	100%	0	-	0	-
2011-12	24	24	100%	0	-	0	-
2012-13	78	78	100%	0	-	0	-
2013-14	409	409	100%	0	-	0	-
2014-15	434	434	100%	0	-	0	-
Total	**1105**	**1105**	**100%**	**0**	**-**	**0**	**-**

Usage of IHHL: Out of 1105 completely built IHHLs, all family members in 99% households are using it whereas some members in 1% of the households are not using it regularly. It is found that IHHLs constructed in 2005-2007 the usage percentage of IHHL is around 99% (by all members of the family). However, IHHLs built in years 2010-2015 it has been in the range of 98% to 100%. Thus, statistically the usage has not been significantly different between the 2005-2007 and 2010-2011 to 2014-15.

Table 23: Percentage of IHHLs in Belgaum used by all members of the family

Year	Completely Built and capable of being used		
	No. of IHHL built	No. of IHHLs used by all members of the family	%
2005-06	70	69	98.57%
2006-07	31	31	100.00%
2010-11	59	58	98.31%
2011-12	24	24	100.00%
2012-13	78	77	98.72%
2013-14	409	405	99.02%
2014-15	434	431	99.31%
Total	**1105**	**1095**	**99.09%**

Out of total of 11 members not using IHHLs, it is found that only 4 members are below the age of 40 years. It is also observed that most of the females who are not using IHHL are above 40 years and mostly neither educated nor earning member. From the data of non-users in Belgaum it appears that among education, income, age and sex, age and education are the governing factor for those not using the IHHL

Most of the fathers, mothers and population above the age of 40 using open defecation cited that they preferred open defecation and found IHHL's to be uncomfortable and inconvenient, hence they do not use IHHLs. While the younger population either preferred open defecation or non availability of water to be a deterrent in using IHHLs. Amongst those using IHHLs more than 99% of the users of IHHLs cited all three, safety, comfort and hygiene as the primary reason for using them.

Table 24: Detailed breakup of non-users of IHHL in Belgaum district

User Type	Age(years)				Education					Income		
	0-20	20-40	>40	<10	10th	12th	Graduate	PG	PhD	0-3000	3000-6000	>6000
Self												
Father	0	0	2	2	0	0	0	0	0	2	0	0
Mother	0	0	3	3	0	0	0	0	0	3	0	0
Sons	2	1	0	1	1	1	0	0	0	3	0	0
Daughter	0	1	0	0	1	0	0	0	0	1	0	0
Grand Father	0	0	1	1	0	0	0	0	0	1	0	0
Grand Mother	0	0	1	1	0	0	0	0	0	1	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0

All the households where some members of the family are not using the IHHL belong to those from BPL. There are 10 such households. However, the average use of IHHL among BPL population is also nearly 99% which is statistically not significantly different from the APL population usage.

Table 25: IHHLs built and used by BPL and APL from 2005-06 to 2014-15 in Belgaum

Year	**No. of IHHL Beneficiary surveyed**	**Status of use of IHHL by BPL families**			**Status of use of IHHL by APL families**		
		IHHL constructed	No of IHHL in use by all member s of the family	%	IHHL constructed	No of IHHL in use	%
2005-06	70	64	63	98%	6	6	100%
2006-07	31	31	31	100%	0	0	-
2010-11	59	56	55	98%	3	3	100%
2011-12	24	23	23	100%	1	1	100%
2012-13	78	76	75	99%	2	2	100%
2013-14	409	398	394	99%	11	11	100%
2014-15	434	398	395	99%	36	36	100%
Total	**1105**	**1046**	**1036**	**99%**	**59**	**59**	**100%**

The average cost of building IHHLs and the incentive from government have both increased from 2005-06 to 2014-15. It is observed that average cost of construction in 2005-2007 was

about INR 4388 and has now increased to INR 12564 (in the study duration). Similarly average subsidy has also grown and it is observed that in 2014-15 government paid for nearly 63% of the cost of IHHLs as compared to 27% in 2005-06.

Table 26: Average Cost of IHHLs and Government Incentive in Belgaum

Year	Average cost of IHHL	Incentive received from Govt.	Average cost of IHHL in 2005-07 & 2010-15	Average Incentive Received from Govt.
2005-06	4454.29	1200	4388.83	1200
2006-07	4323.38	1200		
2010-11	12138.89	3000	12564.74	5620
2011-12	9391.30	3700		
2012-13	11134.38	4700		
2013-14	10525.88	4700		
2014-15	19633.26	12000		

Motivation to build IHHLs: Availability of subsidy is the primary motivation for building of IHHLs mentioned by 94.26% of surveyed households, followed by hygiene and safety aspect of IHHLs as mentioned by 93.39% of surveyed households. Only 33.70% participants identified availability of water as a motivational factor in building the IHHLs.

Reasons for using the IHHLs: 94.35% surveyed households identified availability of water as the most significant reason for using toilets. 94.26% surveyed households identified safety and hygienic conditions as their reason for using the toilets.

Increasing the utilization of IHHLs:

All the 94.43% of surveyed households stressed that government must focus on awareness creation on the need to use toilets, its benefits and the health problems associated with open defecation. They expressed that higher publicity of health problems and change in community mindset is a must for increasing use of toilets and stopping open defecation along with the other efforts already in place.

5. Bidar

Bidar district is located under the Kalburgi division. In 2011, Bidar had a population of 1,703,300 of which male and female were 870,665 and 832,635 respectively. In 2001 census, Bidar had a population of 1,502,373 of which males were 771,022 and remaining 731,351 were females. Population of Bidar district grew by 13.37% between 2001 and 2011. Population density of Bidar increased from 276 to 313 people per sq km. Average literacy rate of Bidar is 70.51% in 2011. Male literacy rate (79.09%) is much higher than female literacy rate (61.55%). About 13.18% of the population is in the age group of 0-6 yrs. 1049 beneficiaries were surveyed at Bidar to assess the status of IHHL construction and use.

Status of IHHL structure: Bidar is a rural area and all IHHLs built in Bidar belong to rural area. From the survey it was found that all IHHLs constructed in the past, starting from 2005-06 till date, exist as on the day of evaluation (table below). Out of 1049 beneficiary households, 1028 beneficiaries have constructed the IHHL completely and are capable of being used while in 21 households IHHLs are incomplete and are not capable of being used. The incomplete IHHLs are found to be built in the years 2012-13 and 2014-15, the highest being in 2014-15. Out of the total IHHLs built 50 cases belong to people living above the poverty line (APL) while remaining 999 cases belong to people living below the poverty line (BPL). 99% IHHLs constructed are completely built and capable of being used and 1% are incomplete and not capable of being used. None of the IHHLs constructed so far were found to be missing or non-existent during the survey.

Table 27: Bidar IHHL construction status (2005-06 to 2014-15)

Year	No. of IHHL Beneficiary surveyed	Completely Built and capable of being used		Incomplete and not capable of being used		Do not exist at all	
		No of IHHL capable of being used	%	Incomplete and not capable of being used	%	No. of non-existing IHHLs	%
2005-06	12	12	100%	0	0%	0	-
2006-07	14	14	100%	0	0%	0	-
2010-11	22	22	100%	0	-	0	-
2011-12	35	35	100%	0	0%	0	-
2012-13	230	229	100%	0	0%	1	0.43%
2013-14	217	217	100%	0	0%	0	-
2014-15	519	499	96.14%	0	0%	20	3.85%
Total	**1049**	**1028**	**97.99%**	**0**	**0%**	**21**	**2.01%**

Usage of IHHLs: Out of 1028 IHHLs completely built surveyed households, 939 are currently being used by all members of the family whereas 89 are not being used by all the family members. 91.51% of the IHHLs built during the year 2010-11 to 2014-15 are being used by all members of the family where as 8.66% of them are not being used all member of the family. From 2005-2007, about 84.61% of IHHL are being used by the households. . Thus, statistically the usage of IHHL has not varied significantly amongst the year 2005-07 and the years 2010-15.

Table 28: Percentage of IHHLs in Bidar used by all members of the family

Year	Completely Built and capable of being used		
	No. of IHHL built	No. of IHHLs used by all members of the family	%
2005-06	12	11	91.67%
2006-07	14	11	78.57%
2010-11	22	20	90.91%
2011-12	35	33	94.29%
2012-13	229	215	93.89%
2013-14	217	181	83.41%
2014-15	499	468	93.79%
Total	**1028**	**939**	**91.34%**

Out of total of 270 members not using IHHLs, it is found that only 100 members are below the age of 40 years. It is also observed that most of the females who are not using IHHL are above 40 years and mostly neither educated nor earning member. From the data of non-users in Bidar it appears that among education, income, age and sex, age and education are the governing factor for those not using the IHHL

Most of the fathers, mothers and population above the age of 40 using open defecation cited that they preferred open defecation and found IHHL's to be uncomfortable and inconvenient, hence they do not use IHHLs. While the younger population either preferred open defecation or non availability of water to be a deterrent in using IHHLs. Amongst those using IHHLs more than 99% of the users of IHHLs cited all three, safety, comfort and hygiene as the primary reason for using them.

Table 29: Detailed breakup of non-users of IHHL in Bidar district

User Type	Age(years)			Education						Income		
	0-20	20-40	>40	<10	10th	12th	Graduate	PG	PhD	0-3000	3000-6000	>6000
Self												
Father	0	14	43	50	6	1	0	0	0	52	0	5
Mother	0	18	31	47	1	1	0	0	0	49	0	0
Sons	15	21	1	34	2	1	0	0	0	37	0	0
Daughter	16	8	0	21	2	1	0	0	0	24	0	0
Grand Father	0	0	54	53	0	1	0	0	0	54	0	0
Grand Mother	0	0	41	41	0	0	0	0	0	41	0	0
Other	2	6	0	5	1	2	0	0	0	8	0	0

The survey consists of 50 households of APL family whereas remaining has been built for BPL families where IHHL has been built. It is observed that the average usage of IHHLs in the study period is not statically significantly different for APL and BPL families. However, it is observed that on individual year basis there is a slight difference in percentage of APL houses and BPL houses using IHHLs which is demonstrated in the below table.

Table 30: IHHLs built and used by BPL and APL from 2005-06 to 2014-15 in Bidar

Year	No. of IHHL constructed	Status of use of IHHL by BPL families			Status of use of IHHL by APL families		
		IHHL constructed	IHHLs used by all members of the BPL households	%	IHHL constructed	IHHLs used by all members of APL household	%
2005-06	12	11	10	90.91%	1	1	100%
2006-07	14	14	11	78.57%	0	0	-
2010-11	22	22	20	90.91%	0	0	-
2011-12	35	33	31	93.94%	2	2	100%
2012-13	229	215	203	94.42%	14	12	86%
2013-14	217	206	171	83.01%	11	10	91%
2014-15	499	477	448	93.92%	22	20	91%
Total	**1028**	**978**	**894**	**91.41%**	**50**	**45**	**90%**

It is observed that while the cost of IHHLs has tripled in last decade the incentive available from government has increased 10 times in absolute value. Thus, nearly 80-90% of the cost is born by the government in 2014-15 as compared to 2005-06.

Table 31: Average Cost of IHHLs and Government Incentive in Bidar

Year	Average cost of IHHL	Incentive received from Govt.	Average cost of IHHL in 2005-07 & 2010-15	Average Incentive received from Govt.
2005-06	5250	1200	4758.33	1200
2006-07	4266.67	1200		
2010-11	7527.14	3000	11250.74	5620
2011-12	8447.62	3700		
2012-13	16068.16	4700		
2013-14	9800.00	4700		
2014-15	14410.79	12000		

Motivation to build IHHLs: All the beneficiaries households surveyed i.e. 100% of the 1049 households expressed the availability of subsidy from the government, availability of water, sense of safety, and good hygienic conditions as the reason for their motivation to build toilets.

Reasons for using the IHHLs: All beneficiaries' households using the toilet unanimously pointed that availability of water while using the toilet, sense of safety and hygiene are the reasons for them to use the toilet.

Increasing the utilization of toilets:

100% of the surveyed households stated that government must focus on awareness creation on the need to use toilets, its benefits and the health problems associated with open defecation. They expressed that higher publicity of health problems and change in community mindset is a must for increasing use of toilets and stopping open defecation along with the other efforts already in place.

6. Chamarajanagar

Chamarajanagar district is located in the Mysore division. In 2011, Chamarajanagar population was 1,020,791 out of which male and female were 512,231 and 508,560 respectively. In 2001 census, Chamarajanagar population was estimated as 965,462 out of which males were 489,940 and remaining 475,522 were females. Population of Chamarajanagar district grew by 5.73% between 2001 and 2011. Population density of Chamarajanagar increased from 181 to 189 people per sq km. Average literacy rate of Chamarajanagar is 61.43 % in 2011. Male literacy rate (67.93 %) is much higher than female literacy rate (54.92 %). About 9.86% of the population is in the age group of 0-6 yrs. 1191 beneficiaries were surveyed at Chamarajanagar to assess the status of IHHL construction and use.

Status of IHHL construction: From the survey it was found that all individual household IHHLs constructed during 2005-07 to 2010-15 are in existence as on the day of evaluation and 97% in use by all members of the family (table below). IHHLs at all 1191 beneficiaries are constructed and are capable of being used. Out of the total IHHLs built 8 IHHLs belong to people living above the poverty line (APL) while remaining 1183 IHHLs belong to people living below the poverty line (BPL). 100% IHHLs completed during the years 2010-11 to 2014-15 are found to exist and capable of being used on the date of evaluation.

Table 32: Chamarajanagar IHHL construction status (2005-06 to 2014-15)

Year	No. of IHHL Beneficiary surveyed	Completely Built and capable of being used		Incomplete and not capable of being used		Do not exist at all	
		No of IHHL Completely Built and capable of being used	%	No of IHHL Incomplete and not capable of being used	%	No of IHHL Do not exist at all	%
2005-06	46	46	100%	0	-	0	-
2006-07	106	106	100%	0	-	0	-
2010-11	93	93	100%	0	-	0	-
2011-12	54	54	100%	0	-	0	-
2012-13	150	150	100%	0	-	0	-
2013-14	184	184	100%	0	-	0	-
2014-15	558	558	100%	0	-	0	-
Total	**1191**	**1191**	**100%**	**0**	**-**	**0**	**-**

Out of 1191 IHHLs completely built, 1152 IHHLs are currently being used by all members of the family whereas in 39 households IHHLs are not being used by all members of the family. From 2005-07 and 2010-11 to 2014-15 all members of 1152 surveyed beneficiaries are using the IHHL i.e. 96.72% of the total toilets built. Yearly breakup of IHHLs constructed and used, from the year 2010-11 to 2014-15 is provided in table below. From 2005-07 IHHL usage percentage in Chamarajanagar is 97%. However, there is some variation observed in the usage percentage of IHHL by all family members. It is found that the usage by all family members is in the range of 94% to 99% in the evaluation duration. Thus, statistically the usage has not been significantly different between the 2005-2007 and 2010-15.

Table 33: Percentage of IHHLs in Chamarajanagar used by all members of the family

Year	Completely Built and capable of being used		
	No. of IHHL built	No. of IHHLs used by all members of the family	%
2005-06	46	45	97.83%
2006-07	106	103	97.17%
2010-11	93	92	98.92%
2011-2012	54	52	96.30%
2012-2013	150	145	96.67%
2013-14	184	174	94.57%
2014-15	558	541	96.95%
Total	**1191**	**1152**	**96.72%**

Out of total of 170 members not using IHHLs, it is found that only 64 members are below the age of 40 years. It is also observed that most of the females who are not using IHHL are above 40 years and mostly neither educated nor earning member. From the data of non-users in Chamarajanagar it appears that among education, income, age and sex, age and education are the governing factor for those not using the IHHL

Most of the fathers, mothers and population above the age of 40 using open defecation cited that they preferred open defecation and found IHHL's to be uncomfortable and inconvenient, hence they do not use IHHLs. While the younger population either preferred open defecation or non availability of water to be a deterrent in using IHHLs. Amongst those using IHHLs more than 99% of the users of IHHLs cited all three, safety, comfort and hygiene as the primary reason for using them.

Table 34: Detailed breakup of non-users of IHHL in Chamarajanagar district

User Type	Age(years)				Education					Income		
	0-20	20-40	>40	<10	10th	12th	Graduate	PG	PhD	0-3000	3000-6000	>6000
Self												
Father	0	9	13	15	5	2	0	0	0	0	0	22
Mother	0	13	13	20	3	3	0	0	0	19	0	7
Sons	14	15	3	3	6	16	5	2	0	32	0	0
Daughter	11	0	0	1	0	7	3	0	0	11	0	0
Grand Father	0	0	5	5	0	0	0	0	0	5	0	0
Grand Mother	0	0	8	8	0	0	0	0	0	8	0	0
Other	0	2	1	1	1	0	1	0	0	3	0	0

Table 35: IHHLs built and used by BPL and APL from 2005-06 to 2014-15 in Chamarajanagar

Year	**No. of IHHL constructed**	**Status of use of IHHL by BPL families**			**Status of use of IHHL by APL families**		
		IHHL constructed	IHHLs used by all members of the BPL households	%	IHHL constructed	No of IHHL in use	%
2005-06	46	45	44	97.78%	1	1	100%
2006-07	106	100	97	97.00%	6	6	100%
2010-11	93	93	92	98.92%	0	0	-
2011-12	54	54	52	96.30%	0	0	-
2012-13	150	150	145	96.67%	0	0	-
2013-14	184	184	174	94.57%	0	0	-
2014-15	558	557	540	96.95%	1	1	100%
Total	**1191**	**1183**	**1144**	**96.70%**	**8**	**8**	**100%**

Out of 1183 IHHLs only 1144 IHHLs are used by all members of the BPL family whereas others are partially used or not used by any member at all. 26 are not used at all whereas 13 are partially used. All the surveyed APL family members are using the IHHLs. Though there is a 3% shortfall in IHHL usage by BPL families as compared to APL's it is not statistically significant.

Table 36: Average Cost of IHHLs and Government Incentive in Chamarajanagar

Year	Average cost of IHHL	Incentive received from Govt.	Average cost of IHHL in 2005-07 & 2010-15	Average Incentive received from Govt.
2005-06	5965.22	1200	6311.85	1200
2006-07	6658.49	1200		
2010-11	8349.46	3000	9346.78	5620
2011-12	7490.74	3700		
2012-13	8583.33	4700		
2013-14	8648.37	4700		
2014-15	13662.01	12000		

Motivation to build toilet: All the beneficiaries surveyed i.e. 100% of the 1191 households stated the availability of subsidy from the government, availability of water, sense of safety, and good hygienic conditions as the reason for their motivation to build toilets.

Reasons for using the toilet: All beneficiaries using the toilet unanimously stated that availability of water while using the toilet, sense of safety and hygiene are the reasons for them to use the toilet. It is evident that availability of water is a key reason for building toilets and in it's absence while using the users may discontinue using the toilets.

Increasing the utilization of toilets: All the 1191 beneficiaries stated that government should focus on awareness creation on the need to use toilets, it's benefits and the health problems associated with open defecation. They expressed that higher publicity of health problems and change in community mind-sets is a must for increasing use of toilets and stopping open defecation along with the other efforts already in place.

7. Dakshina Kannada

Dakshina district is located under the division of Mysore. In 2011, Dakshina Kannada had population of 2,089,649 of which male and female 1,034,714 and 1,054,935 respectively. In 2001 census, Dakshina Kannada had a population of 1,897,730 of which males were 938,434 and remaining 959,296 were females. Population of Dakshina Kannada district grew by 10.11% between 2001 and 2011. Population density of Dakshina Kannada increased from 416 to 430 people per sq km. Average literacy rate of Dakshina Kannada is 88.57 % in 2011. Male literacy rate (93.13 %) is much higher than female literacy rate (84.13 %). About 9.97 % of the population is in the age group of 0-6 yrs. 1119 beneficiaries were surveyed at Dakshina Kannada to assess the status of IHHL construction and use.

Status of IHHL construction: From the survey it was found that all individual household IHHLs constructed during the period 2005-07 and 2010-2015 are in existence as on the day of evaluation. The survey results show that IHHLs at all 1119 beneficiaries have been constructed completely and are capable of being used. Out of the total IHHLs built 17 IHHLs belong to people living above the poverty line (APL) while remaining 1112 IHHLs belong to people living below the poverty line (BPL). 100% built IHHLs surveyed in the years 2010-11 to 2014-15 are found to exist as on the date of evaluation. All the IHHLs are completely built and capable of being used. There were no incomplete and not capable of being used IHHLs and all IHHLs inspected existed on the date of evaluation.

Table 37: Dakshin Kannada IHHL construction status (2005-06 to 2014-15)

Year	No. of IHHL Beneficiary surveyed	Completely Built and capable of being used		Incomplete and not capable of being used		Do not exist at all	
		No of IHHL Completely Built and capable of being used	%	No of IHHL Incomplete and not capable of being used	%	No of IHHL Do not exist at all	%
2005-06	10	10	100	0	-	0	-
2006-07	86	86	100	0	-	0	-
2010-11	106	106	100	0	-	0	-
2011-12	64	64	100	0	-	0	-
2012-13	190	190	100	0	-	0	-
2013-14	352	352	100	0	-	0	-
2014-15	311	311	100	0	-	0	-
Total	**1119**	**1119**	**100%**	**0**	**-**	**0**	**-**

Status of IHHL usage: Out of 1119 completely built IHHLs, 1106 IHHLs are currently being used by all members of the family whereas 13 are not being used by all members of the family. Yearly breakup of IHHLs built and used, from the year 2010-11 to 2014-15 is provided in table below. In Dakshina Kannada district the IHHLs are not being put to other uses as all the households are using them.

Usage of IHHLs built in 2005-2007 and 2010-2015 is 99%. However, there is some variation observed in the use of IHHL by all family members. Thus, statistically the usage by all family members has not been significantly different between the 2005-2007 and 2010-2011 to 2014-15.

Table 38: Percentage of IHHLs in Dakshin Kannada used by all members of the family

Year	Completely Built and capable of being used		
	No. of IHHL built	No. of IHHLs used by all members of the family	%
2005-06	10	9	90.00%
2006-07	86	86	100.00%
2010-11	106	99	93.40%
2011-2012	64	64	100.00%
2012-2013	190	189	99.47%
2013-14	352	351	99.72%
2014-15	311	308	99.04%
Total	**1119**	**1106**	**98.84%**

In 13 BPL beneficiary households, IHHLs are not used by all members of the family. All the households where some members of the family are not using the IHHL belong to those from BPL. Out of total of 20 members not using IHHLs, it is found that only 10 members are below the age of 40 years. It is also observed that most of the females who are not using IHHL are above 40 years and mostly neither educated nor earning member. From the data of non-users in Dakshina Kannada it appears that among education, income, age and sex, age and education are the governing factor for those not using the IHHL

Most of the fathers, mothers and population above the age of 40 using open defecation cited that they preferred open defecation and found IHHL's to be uncomfortable and inconvenient, hence they do not use IHHLs. While the younger population either preferred open defecation

or non availability of water to be a deterrent in using IHHLs. Amongst those using IHHLs more than 99% of the users of IHHLs cited all three, safety, comfort and hygiene as the primary reason for using them.

Table 39: Detailed breakup of non-users of IHHL in Dakshin Kannada district

User Type	Age(years)				Education					Income		
	0-20	20-40	>40	<10	10th	12th	Graduate	PG	PhD	0-3000	3000-6000	>6000
Self												
Father	0	0	2	0	1	0	0	1	0	2	0	0
Mother	0	1	3	3	0	1	0	0	0	3	0	1
Sons	2	4	0	5	1	0	0	0	0	6	0	0
Daughter	3	0	0	3	0	0	0	0	0	3	0	0
Grand Father	0	0	2	2	0	0	0	0	0	2	0	0
Grand Mother	0	0	3	3	0	0	0	0	0	3	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0

The survey results observed that 17 built IHHLs belongs to APL families from 2010-2015 and they are 100% in use. Similarly, 1102 IHHLs have been from BPL families and 98% of them are in use. Thus, the usage of IHHLs is not statistically significantly different among APL and BPL users.

Table 40: IHHLs built and used by BPL and APL from 2005-07 and 2010-11 to 2014-15

Year	**No. of IHHL constructed**	**Status of use of IHHL by BPL families**			**Status of use of IHHL by APL families**		
		IHHL constructed	No of IHHL in use by all members of the family	%	IHHL constructed	No of IHHL in use	%
2005-06	10	10	9	90%	0	0	-
2006-07	86	86	86	100%	0	0	-
2010-11	106	106	99	93.4%	0	0	100%
2011-12	64	63	63	100%	1	1	100%
2012-13	190	182	181	99.45%	8	8	100%
2013-14	352	350	349	99.71%	2	2	100%
2014-15	311	305	302	99.01%	6	6	100%
Total	**1117**	**1102**	**1089**	**98.81%**	**17**	**17**	**100%**

As per the survey results, the average cost of building IHHLs has increased from INR 6205 in the year 2005-06 to 15429 in the year 2014-15. The survey result shows that the incentive received from government has increased from INR 1200 to INR 12000 in 2014-15. It covers about 85% of the IHHL cost. On an average about 50% of the IHHL cost was borne by the government in between 2010-2015. Thus, average incentive received in this duration is much higher than the incentive received in 2005-07.

Table 41: Average Cost of IHHLs and Government Incentive

Year	Average cost of IHHL (INR)	Incentive received from Govt.(INR)	Average cost of IHHL in 2005-07 & 2010-15 (INR)	Average Incentive received from Govt. (INR)
2005-06	6205.26	1200	5764.95	1200
2006-07	5324.64	1200		
2010-11	7176.76	3000	10316.84	5620
2011-12	8005.26	3700		
2012-13	9871.36	4700		
2013-14	11101.48	4700		
2014-15	15429.32	12000		

Motivation to build IHHLs: 1031 households stated that the availability of subsidy from the government as the main reason for building the IHHL apart from availability of water, sense of safety, and good hygienic conditions. One respondent expressed school going children and improved professional income as the reason for building the IHHL.

Reasons for using the IHHLs: All the beneficiaries i.e.100% using the toilet unanimously stated that availability of water is a must for using toilets, while 80% have stated safety and hygiene conditions as the reasons for them to use the toilet. 25% beneficiaries stated usage of IHHLs as a social need.

Increasing the utilization of IHHLs:

679 (i.e. about 60.78%) of the beneficiaries, suggested ways to increase the efficiency of the IHHL programme whereas; others did not provide any inputs. Nearly all expressed that higher publicity of health problems is needed. About 60% felt that change in community

mindset is a must for increasing use of toilets and stopping open defecation along with the other efforts already in place. Awareness creation and publicity of health problems by not using IHHLs should be further elaborated.

8. Gadag

Gadag district is located in the division of Belgaum. In 2011 census, Gadag population was estimated as 1,064,570 of which male and female were 537,147 and 527,423 respectively. In 2001 census, Gadag population was estimated as 971,835 of which males were 493,533 and remaining 478,302 were females. The data shows that population of Gadag district grew by 9.54 % between 2001 and 2011. Population density of Gadag increased from 209 to 229 people per sq km. Average literacy rate of Gadag is 75.12 % in 2011. Male literacy rate (84.66 %) is much higher than female literacy rate (65.44 %). About 12.44% of the population is in the age group of 0-6 yrs. The current study involved survey of 1088 beneficiary households at Gadag to assess the status of IHHL construction and usage.

Status of IHHL structure: From the survey it was found that all individual household IHHLs constructed during 2005-07 and 2010-15 are in existence as on the day of evaluation and 91% are in use by all members of the family (table below). IHHLs at 1076 beneficiary households are constructed completely and are capable of being used. However, IHHLs in 12 beneficiary households have not been built completely and are not capable of being used. 100% IHHL constructed during the years 2010-11 to 2014-15 are found to exist as on the date of evaluation. Out of the total IHHLs built 19 IHHLs belong to households living above the poverty line (APL) while remaining 1069 IHHLs belong to households living below the poverty line (BPL).

Table 42: Gadag IHHL construction status (2005-06 to 2014-15)

Year	No. of IHHL Beneficiary Surveyed	Completely Built and capable of being used		Incomplete and not capable of being used		Do not exist at all	
		No of IHHL Completely Built and capable of being used	%	No of IHHL Incomplete and not capable of being used	%	No of IHHL do not exist at all	%
2005-06	26	26	100%	0	_	0	_
2006-07	43	43	100%	0	_	0	_
2010-11	140	139	99.29%	1	0.7%	0	_
2011-12	91	91	100%	0	_	0	_
2012-13	98	98	100%	0	_	0	_
2013-14	267	267	100%	0	_	0	_
2014-15	423	412	97.4%	11	2.6%	0	_
Total	**1088**	**1076**	**98.9%**	**12**	**1.1%**	**0**	**_**

Status of IHHL usage: Out of 1076 IHHLs completely built, 990 are currently being used by all members of the family whereas 61 are not used by for defecation, 11 are partially used and 3 are in damaged conditions. Out of the IHHLs which are not in use 36 have been abandoned and 38 are being used as storehouse. Yearly breakup of IHHLs constructed and used, from the year 2010-11 and 2014-15 is provided in table below. The average usage of IHHLs built in 2005-07 is 91.3% and year 2010-15 is 92.05%. Thus, there is no substantial percentage change in use of IHHLs by all members of a family for 2005-07 and 2010-15. Hence, it is found that in 2005-07 and 2010-15 the usage of IHHLs by all family members is statistically not significant.

Table 43: Percentage of IHHLs in Gadag used by all members of the family

Year	Completely Built and capable of being used		
	No. of IHHL built	No. of IHHLs used by all members of the family	%
2005-06	26	24	92.31%
2006-07	43	39	90.70%
2010-11	139	116	83.45%
2011-2012	91	88	96.70%
2012-2013	98	92	93.88%
2013-14	267	261	97.75%
2014-15	412	370	89.81%
Total	**1076**	**990**	**92.01%**

Out of total of 298 members not using IHHLs, it is found that only 160 members are below the age of 40 years. It is also observed that most of the females who are not using IHHL are above 40 years and mostly neither educated nor earning member. From the data of non-users in **Gadag** it appears that among education, income, age and sex, age and education are the governing factor for those not using the IHHL

Most of the fathers, mothers and population above the age of 40 using open defecation cited that they preferred open defecation and found IHHL's to be uncomfortable and inconvenient, hence they do not use IHHLs. While the younger population either preferred open defecation or non availability of water to be a deterrent in using IHHLs. Amongst those using IHHLs

more than 99% of the users of IHHLs cited all three, safety, comfort and hygiene as the primary reason for using them. .

Table 44: Detailed breakup of non-users of IHHL in Gadag district

User Type	Age(years)				Education					Income		
	0-20	20-40	>40	<10	10th	12th	Graduate	PG	PhD	0-3000	3000-6000	>6000
Father	0	24	64	82	0	6	0	0	0	88	0	0
Mother	0	46	46	90	0	2	0	0	0	92	0	0
Sons	35	22	1	40	11	7	0	0	0	58	0	0
Daughter	21	4	0	18	4	3	0	0	0	25	0	0
Grand Father	0	0	12	11	1	0	0	0	0	12	0	0
Grand Mother	0	0	13	13	0	0	0	0	0	13	0	0
Other	0	8	2	9	0	1	0	0	0	10	0	0

Only 19 IHHLs have been built for APL families while 1069 IHHLs have been built for BPL families. While 100% of these IHHLs built for APL families are in use, the survey shows that 90.24% of IHHLs of BPL households are in use.

Table 45: IHHLs built and used by BPL and APL from 2005-06 to 2014-15

Year	**No. of IHHL constructed**	**Status of use of IHHL by BPL families**			**Status of use of IHHL by APL families**		
		IHHL constructed	No of IHHL in use by all members	%	IHHL constructed	No of IHHL in use	%
2005-06	26	19	17	89.47%	7	7	100%
2006-07	43	43	39	90.70%	0	0	-
2010-11	139	139	116	83.45%	0	0	-
2011-12	91	89	86	96.63%	2	2	100%
2012-13	98	98	92	93.88%	0	0	-
2013-14	267	265	259	97.74%	2	2	100%
2014-15	412	404	362	89.60%	8	8	100%
Total	**1076**	**1057**	**971**	**90.24%**	**19**	**19**	**100%**

Yearly comparison shows that cost of building IHHLs has doubled from 2005-06 to 2014-15. At the same time, the government incentive has increased ten times. Thus, in 2014-15 the government incentive covered nearly 95% of the cost for constructing IHHLs. Average cost

of IHHL in 2005-06 and 2006-07 was 5776 and government incentive was INR 1200 and the average cost in 2006-07 to 2014-15 became 11924 ad government covered INR 5620 on an average. Thus the average government incentive in this period grew to 50%.

Table 46: Average Cost of IHHLs and Government Incentive

Year	Average cost of IHHL	Incentive received from Govt.	Average cost of IHHL in 2005-07 & 2010-15	Average Incentive received from Govt.
2005-06	6201.69	1200	5776.22	1200
2006-07	5350.75	1200		
2010-11	8149.50	3000	11924.59	5620
2011-12	13313.75	3700		
2012-13	13409.94	4700		
2013-14	12527.56	4700		
2014-15	12222.18	12000		

Motivation to build toilet: All the beneficiaries' survey i.e. 100% of the 1064 households expressed the availability of subsidy from the government as the main motive to build toilets. Whereas about 800 to 900 households expressed availability of water for toilets, sense of safety and good hygienic conditions as their motivation to build toilets.

Reasons for using the toilet: While using the toilets safety and hygiene are expressed as two main reasons for using the toilet. Most of the beneficiaries expressed that availability of water is important for using toilets.

Increasing the utilization of toilets:

All the beneficiary households surveyed stressed that government must focus on awareness creation on the need to use toilets, its benefits and the health problems associated with open defecation. They expressed that higher publicity of health problems and change in community mindset is a must for increasing use of toilets and stopping open defecation along with the other efforts already in place.

9. Hassan

Hassan district is located in the Mysore division. In 2011 census, Hassan population was estimated as 1,776,421 of which male and female were 883,667 and 892,754 respectively. In 2001 census, Hassan population was estimated as 1,721,669 of which males were 859,086 and remaining 862,583 were females. Population of Hassan district grew by 3.18% between 2001 and 2011. Population density of Hassan has decreased from 261 to 253 people per sq km. Average literacy rate of Hassan is 76.07% in 2011. Male literacy rate (83.64%) is much higher than female literacy rate (68.60%). About 9.32% of the population is in the age group of 0-6 yrs. The current study involved survey of 1228 beneficiary households at Gadag to assess the status of IHHL construction and usage.

Status of IHHL construction: From the survey it was found that 100% individual household IHHLs built in 2005-07 and 2010-15 exist as on the day of evaluation and 97% are used by all members of the family. 100% of IHHLs are constructed completely and are capable of being used. Out of the total built IHHL surveyed 1 IHHL belong to APL while remaining 1227 IHHLs belong to people from BPL families. 100% IHHL constructed in the years 2010-11 to 2014-15 are found to exist as on the date of evaluation. There were no incomplete and not capable of being used IHHLs and there were no missing IHHLs (As provided in table above).

Table 47: Hassan IHHL construction status (2005-06 to 2014-15)

Year	No. of IHHL Beneficiary surveyed	Completely Built and capable of being used		Incomplete and not capable of being used		Do not exist at all	
		No of IHHL Completely Built and capable of being used	%	No of IHHL Incomplete and not capable of being used	%	No of IHHL Do not exist at all	%
2005-06	21	21	100%	0	-	0	-
2006-07	189	189	100%	0	-	0	-
2010-11	187	187	100%	0	-	0	-
2011-12	117	117	100%	0	-	0	-
2012-13	52	52	100%	0	-	0	-
2013-14	215	215	100%	0	-	0	-
2014-15	447	447	100%	0	-	0	-
Total	**1228**	**1228**	**100%**	**0**	**-**	**0**	**-**

Status of usage of IHHLs: Out of 1228 IHHLs completely built surveyed, 1198 are used by all members of the family whereas 19 cases where all members of the family are not using them regularly. Whereas in other cases IHHLs are partly used by members of the family. From 2010-11 to 2014-15 all members of 11 beneficiary households surveyed are not using the IHHL i.e. 1% of the total toilets built and one family never used the build toilet. Yearly breakup of IHHL's constructed and used, from the year 2010-11 and 2014-15 is provided in table below. The average usage of IHHLs built in 2005-07 is 98.09% and year 2010-15 is 97.44%. Thus, there is no substantial percentage change in use of IHHLs by all members of a family for 2005-07 and 2010-15. Hence, it is found that in 2005-07 and 2010-15 the usage of IHHLs by all family members is statistically not significant.

Table 48: Percentage of IHHLs in Hassan used by all members of the family

Year	Completely Built and capable of being used		
	No. of IHHL built	No. of IHHLs used by all members of the family	%
2005-06	21	21	100.00%
2006-07	189	185	97.88%
2010-11	187	179	95.72%
2011-2012	117	117	100.00%
2012-2013	52	49	94.23%
2013-14	215	214	99.53%
2014-15	447	433	96.87%
Total	**1228**	**1198**	**97.56%**

Out of total of 79 members not using IHHLs, it is found that only 39 members are below the age of 40 years. It is also observed that most of the females who are not using IHHL are above 40 years and mostly neither educated nor earning member. From the data of non-users in **Hassan it** appears that among education, income, age and sex, age and education are the governing factor for those not using the IHHL

Most of the fathers, mothers and population above the age of 40 using open defecation cited that they preferred open defecation and found IHHL's to be uncomfortable and inconvenient, hence they do not use IHHLs. While the younger population either preferred open defecation or non availability of water to be a deterrent in using IHHLs. Amongst those using IHHLs more than 99% of the users of IHHLs cited all three, safety, comfort and hygiene as the primary reason for using them.

Table 49: Detailed breakup of non-users of IHHL in Hassan district

User Type	Age(years)				Education					Income		
	0-20	20-40	>40	<10	10th	12th	Graduate	PG	PhD	0-3000	3000-6000	>6000
Self												
Father	0	4	12	14	0	2	0	0	0	16	0	0
Mother	0	7	12	18	0	1	0	0	0	19	0	0
Sons	6	12	1	2	5	5	6	1	0	19	0	0
Daughter	4	2	0	4	0	1	1	0	0	6	0	0
Grand Father	0	0	9	9	0	0	0	0	0	9	0	0
Grand Mother	0	0	6	6	0	0	0	0	0	6	0	0
Other	0	4	0	2	1	0	1	0	0	4	0	0

Only 1 APL IHHL was built in Hassan for the study duration is in use, resulting in 100% usage by APL. All other IHHLs have been built for BPL households and their usage average out to be of 97.56% which is statistically not very significantly different from APL households. In fact, in 2011-12 all IHHLs built in BPL households also achieved 100% usage.

Table 50: IHHLs built and used by BPL and APL from 2005-07 and 2010-11 to 2014-15

Year	**No. of IHHL constructed**	**Status of use of IHHL by BPL families**			**Status of use of IHHL by APL families**		
		IHHL constructed	No of IHHL in use by all members of the family	%	IHHL constructed	No of IHHL in use	%
2005-06	21	21	21	100.00%	0	0	-
2006-07	189	189	185	97.88%	0	0	-
2010-11	187	186	178	95.70%	1	1	100%
2011-12	117	117	117	100.00%	0	0	-
2012-13	52	52	49	94.23%	0	0	-
2013-14	215	215	214	99.53%	0	0	-
2014-15	447	447	433	96.87%	0	0	-
Total	**1228**	**1227**	**1197**	**97.56%**	**1**	**1**	**100%**

Yearly comparison shows that cost of building IHHLs is doubled from 2005-06 to 2014-15. At the same time, the government incentive has increased ten times. Thus, in 2014-15 the

government incentive covered nearly 80% of the cost for constructing IHHLs. Average cost of constructing IHHL in 2005-06 and 2006-07 was around INR 8004 and government incentive was INR 1200. The average cost in 2010-11 to 2014-15 became INR 12274 and government covered INR 5620 on an average. Thus the average government incentive in this period grew to 40%.

Table 51: Average Cost of IHHLs and Government Incentive

Year	Average cost of IHHL	Incentive received from Govt.	Average cost of IHHL in 2005-07 & 2010-15	Average Incentive received from Govt.
2005-06	8180.18	1200	8004.97	1200
2006-07	7191.75	1200		
2010-11	8035.94	3000	12274.58	5620
2011-12	9249.60	3700		
2012-13	13927.27	4700		
2013-14	14377.19	4700		
2014-15	15782.88	12000		

Motivation to build IHHLs: All the beneficiaries' surveyed i.e. 100% of them stated the availability of subsidy from the government, availability of water, sense of safety, and good hygienic conditions as their motivation to build toilets.

Reasons for using the IHHLs: All beneficiaries using the toilet unanimously (i.e. 100% of 1228) stated that availability of water while using the toilet is necessary for continue use of toilet, and it gives a sense of safety and hygiene.

Increasing the utilization of IHHLs:

All the 1228 surveyed households' beneficiaries stated that government must focus on awareness creation on the need to use toilets, its benefits and the health problems associated with open defecation. They expressed that higher publicity of health problems and change in community mindset is a must for increasing use of toilets and stopping open defecation along with the other efforts already in place.

10. Koppal

Koppal district is located in Kalburgi division. In 2011 census, Koppal population was estimated as 1,389,920 of which male and female were 699,926 and 689,994 respectively. In 2001 census, Koppal population was estimated as 1,196,089 of which males were 603,312 and remaining 592,777 were females. The census shows that population of Koppal district has grown by 16.21% between 2001 and 2011. Population density of Koppal has increased from 215 to 250 people per sq km. Average literacy rate of Koppal is 68% in 2011. Male literacy rate (78.54%) is much higher than female literacy rate (57.55%). About 14.5% of the population is in the age group of 0-6 yrs. The current study involved survey of 1150 beneficiary households at Koppal to assess the status of IHHL construction and usage.

Status of IHHL construction: From the survey it was found that 100% beneficiary households surveyed IHHLs constructed during 2005-07 and 2010-2015 are in existence and 89.44% are in use by all members of the family (table below). 1127 IHHLs are constructed completely and are capable of being used. While 21 beneficiaries have not constructed the IHHL other 2 IHHLs are incomplete and not capable of being used. Out of the total built IHHLs surveyed, none of the IHHLs belong to people living above the poverty line (APL). 2 IHHLs are incomplete and not capable of being used. 1127 IHHLs constructed are completely built and capable of being used. 21 IHHLs do not exist.

Table 52: Koppal IHHL construction status (2005-06 to 2014-15)

Year	No. of IHHL Beneficiary surveyed	Completely Built and capable of being used		Incomplete and not capable of being used		Do not exist at all	
		No of IHHL Completely Built and capable of being used	%	No of IHHL Incomplete and not capable of being used	%	No of IHHL Do not exist at all	%
2005-06	9	9	100%	0	-	0	-
2006-07	19	19	100%	0	-	0	-
2010-11	20	18	90%	0	-	2	10.00%
2011-12	17	16	94%	0	-	1	5.88%
2012-13	117	117	100%	0	-	0	-
2013-14	319	317	99%	0	-	2	0.63%
2014-15	649	631	97%	2	0.3%	16	2.47%
Total	**1150**	**1127**	**97%**	**2**	**0.3%**	**21**	**4.74%**

A PEAK INTO AWARENESS CAMPAIGN BY SELF MOTIVATED STUDENT

Hiresindhogi village in Koppal area where open defecation was common. Socially the village has been associated with the age old system of Devadasis and Adivasis. However, amidst this social and cultural situation of the village a young girl named Mallamma, who is studying in 9th class, took the lead in awareness against ODF in the village. She not only felt the need of IHHLs for self but for others as well. She mentioned that electronic messages like those on television initiated with the government and the Prime Minister himself were her motivation and encouragement to creating awareness on the subject.

She started advertising about the positive effects of latrines by holding pamphlets and booklets along with singing songs about hygiene and safety for women and girls. The student galvanized the village to have toilets in school and households. Her continuous effort met a strong ally in IHHL program which gave village and its institutions an opportunity to do progress on reducing open defection. Gradually the situation of OD is improving in the village not just in the number of IHHLs but also in the attitude of villagers across the GP showing enthusiasm about IHHL. Construction of IHHL structures is under progress which will be completed in second half of this year along with GP's and governments assistance.

Status of use of IHHL: Out of 1127 completely built IHHLs surveyed, 1011 are currently being used by all members of the family whereas 83 IHHLs are not being used by any member of the family. Amongst the IHHLs built during 2010-11 to 2014-15, 33 IHHLs are not used by all members of the family on regular basis. Yearly breakup of IHHL's constructed and used during the year 2010-11 and 2014-15 is provided in below table. The average usage of IHHLs built in 2005-07 is 100% and year 2010-15 is 89.4%. Thus, it is found that in 2005-07 and 2010-15 the usage of IHHLs by all family members is statistically significant.

Table 53: Percentage of IHHLs in Koppal used by all members of the family

Year	Completely Built and capable of being used		
	No. of IHHL built	No. of IHHLs used by all members of the family	%
2005-06	9	9	100.00%
2006-07	19	19	100.00%

2010-11	18	17	94.44%
2011-2012	16	16	100.00%
2012-2013	117	112	95.73%
2013-14	317	297	93.69%
2014-15	631	541	85.74%
Total	**1127**	**1011**	**89.70%**

Out of total of 401 members not using IHHLs, it is found that only 201 members are below the age of 40 years. It is also observed that most of the females who are not using IHHL are above 40 years and mostly neither educated nor earning member. From the data of non-users in Koppal it appears that among education, income, age and sex, age and education are the governing factor for those not using the IHHL

Most of the fathers, mothers and population above the age of 40 using open defecation cited that they preferred open defecation and found IHHL's to be uncomfortable and inconvenient, hence they do not use IHHLs. While the younger population either preferred open defecation or non availability of water to be a deterrent in using IHHLs. Amongst those using IHHLs more than 99% of the users of IHHLs cited all three, safety, comfort and hygiene as the primary reason for using them.

Table 54: Detailed breakup of non-users of IHHL in Koppal district

User Type	Age(years)				Education					Income		
	0-20	20-40	>40	<10	10^{th}	12th	Graduate	PG	PhD	0-3000	3000-6000	>6000
Self												
Father	0	18	84	98	3	0	1	0	0	97	0	5
Mother	0	34	83	113	3	0	1	0	0	117	0	0
Sons	40	46	0	57	11	14	4	0	0	86	0	0
Daughter	19	8	0	9	8	5	5	0	0	27	0	0
Grand Father	0	0	11	11	0	0	0	0	0	11	0	0
Grand Mother	0	1	21	21	1	0	0	0	0	22	0	0
Other	10	25	1	30	4	2	0	0	0	36	0	0

There are no APL families beneficiaries in Koppal (in the survey pool). Thus, comparison between APL and BPL users are not being done.

Table 55: IHHLs built and used by BPL and APL from 2005-07 and 2010-11 to 2014-15

Year	No. of IHHL constructed	Status of use of IHHL by BPL families			Status of use of IHHL by APL families		
		IHHL constructed	No of IHHL in use by all members of the family	%	IHHL constructed	No of IHHL in use	%
2005-06	9	9	9	100.00%	0	0	-
2006-07	19	19	19	100.00%	0	0	-
2010-11	18	18	17	94.44%	0	0	-
2011-12	16	16	16	100.00%	0	0	-
2012-13	117	117	112	95.73%	0	0	-
2013-14	317	317	297	93.69%	0	0	-
2014-15	631	631	541	85.74%	0	0	-
Total	**1127**	**1127**	**1011**	**89.70%**	**0**	**0**	**-**

The average cost of construction of IHHLs has been varying over the years. Infact it was highest in the year 2010-11 at INR 17148 and it decreased to 55% in subsequent year as per the survey inputs. So, the average cost of constructing IHHLs from 2010-2015 has been 12891 and government incentive in this duration has been INR 5620 i.e. about 45% of the cost. However, earlier during 2005-06 average cost was INR 9198 and incentive was INR 1200 which was about 13% of the cost of IHHL. Thus, government subsidy has increased substantially.

Table 56: Average Cost of IHHLs and Government Incentive

Year	Average cost of IHHL	Incentive received from Govt.	Average cost of IHHL in 2005-07 & 2010-15	Average Incentive received from Govt.
2005-06	10000	1200	9196.88	1200
2006-07	8393.75	1200		
2010-11	17148.96	3000	12891.33	5620
2011-12	9281.08	3700		
2012-13	12106.36	4700		
2013-14	12242.20	4700		
2014-15	13678.04	12000		

Motivation to build IHHLs: 100% of the surveyed beneficiaries stated the availability of subsidy from the government, sense of safety, and good hygienic conditions as the reason for their motivation for building IHHLs. Only 552 households said availability of water was a reason for their decision to build IHHL.

Reasons for using the IHHLs: 100% of the surveyed beneficiaries stated that availability of water was a must for them to use IHHL. While 521 people stated that sense of safety and hygiene are the reasons for them to use the toilet.

Increasing the utilization of toilets:

100% of the surveyed beneficiaries stated that government must focus on awareness creation on the need to use toilets, its benefits and the health problems associated with open defecation. They expressed that higher publicity of health problems and change in community mindset is a must for increasing use of toilets and stopping open defecation along with the other efforts already in place.

11. Uttar Kannada

Uttar Kannada district is located in the Belgaum division. In 2011, Uttar Kannada had population of 1,437,169 of which male and female were 726,256 and 710,913 respectively. In 2001 census, Uttar Kannada had a population of 1,196,089 of which males were 603,312 and remaining 592,777 were females. Population of Uttar Kannada district grew by 6.17% between 2001 and 2011. Population density of Uttar Kannada increased from 132 to 140 people per sq km. Average literacy rate of Uttar Kannada is 84% in 2011. Male literacy rate (89.63%) is much higher than female literacy rate (78.39%). About 10.45% of the population is in the age group of 0-6 yrs. The current study involved survey of 1122 beneficiary households at Uttar Kannada to assess the status of IHHL construction and usage.

Status of IHHL construction: From the survey it was found that all individual household IHHLs built during 2005-06 and 2010-15, exist as on the day of evaluation and 99.18% are in use by all members of the family (table below). The survey found that IHHLs are constructed in 1122 beneficiaries' households and are capable of being used; while in 1 case IHHL is incomplete and cannot be used. The beneficiary did not construct toilet as the septic tank facility and water connection did not exist. Out of the total beneficiaries households surveyed where IHHLs are built, 4 belong to households living above the poverty line (APL) while remaining 1118 households belong to people living below the poverty line (BPL).

Table 57: Uttar Kannada IHHL construction status (2005-07, 2010-15)

Year	No. of IHHL Beneficiary surveyed	Completely Built and capable of being used		Incomplete and not capable of being used		Do not exist at all	
		No of IHHL Completely Built and capable of being used	%	No of IHHL Incomplete and not capable of being used	%	No of IHHL Do not exist at all in use	%
2005-06	47	47	100%	0	_	0	_
2006-07	70	70	100%	0	_	0	_
2010-11	91	91	100%	0	_	0	_
2011-12	97	97	100%	0	_	0	_
2012-13	181	181	100%	0	_	0	_
2013-14	185	184	99.46%	1	0.6%	0	_
2014-15	451	451	100%	0	_	0	_
Total	**1122**	**1121**	**99.91%**	**1**	**0.09%**	**0**	**_**

Status of IHHL usage: Out of 1121 completely built IHHLs households, 1112 cases all family members are currently using the IHHLs and in 4 cases all family member are not using it on regular basis. Yearly breakup of IHHL's constructed and used, from the year 2010-11 and 2014-15 is provided in table below. The average usage of IHHLs built in 2005-07 is 100% and year 2010-15 is 99.1%. Thus, it is found that in 2005-07 and 2010-15 the usage of IHHLs by all family members is statistically not significant.

Table 58: Percentage of IHHLs in Uttar Kannada used by all members of the family

Year	Completely Built and capable of being used		
	No. of IHHL built	No. of IHHLs used by all members of the family	%
2005-06	47	47	100.00%
2006-07	70	70	100.00%
2005-07	117	117	100.00%
2010-11	91	91	100.00%
2011-12	97	97	100.00%
2012-13	181	174	96.13%
2013-14	184	183	99.46%
2014-15	451	450	99.78%
Total	**1121**	**1112**	**99.19%**

Out of total of 10 members not using IHHLs, it is found that only 1 member is below the age of 40 years. It is also observed that most of the females who are not using IHHL are above 40 years and mostly neither educated nor earning member. From the data of non-users in Uttar Kannada it appears that among education, income, age and sex, age and education are the governing factor for those not using the IHHL

Most of the fathers, mothers and population above the age of 40 using open defecation cited that they preferred open defecation and found IHHL's to be uncomfortable and inconvenient, hence they do not use IHHLs. While the younger population either preferred open defecation or non availability of water to be a deterrent in using IHHLs. Amongst those using IHHLs more than 99% of the users of IHHLs cited all three, safety, comfort and hygiene as the primary reason for using them.

Table 59: Detailed breakup of non-users of IHHL in Uttar Kannada district

User Type	Age(years)				Education					Income		
	0-20	20-40	>40	<10	10th	12th	Graduate	PG	PhD	0-3000	3000-6000	>6000
Self												
Father	0	0	0	0	0	0	0	0	0	0	0	0
Mother	0	0	0	0	0	0	0	0	0	0	0	0
Sons	1	0	0	1	0	0	0	0	0	1	0	0
Daughter	0	0	0	0	0	0	0	0	0	0	0	0
Grand Father	0	0	9	9	0	0	0	0	0	9	0	0
Grand Mother	0	0		0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0

The surveyed household for IHHL built consist of 4 IHHLs for APL households and 1118 for BPL households i.e. 99% of the IHHLs were built for BPL households. The average usage level among these families is 99%.

Table 60: IHHLs built and used by BPL and APL from 2005-07 and 2010-11 to 2014-15

Year	**No. of IHHL constructed**	**Status of use of IHHL by BPL families**			**Status of use of IHHL by APL families**		
		IHHL constructed	No of IHHL in use	%	IHHL constructed	No of IHHL in use	%
2005-06	47	46	46	100.00%	1	1	100%
2006-07	70	69	69	100.00%	1	1	100%
2010-11	91	90	90	100.00%	1	1	100%
2011-12	97	97	97	100.00%	0	0	_
2012-13	181	181	174	96.13%	0	0	_
2013-14	184	184	183	98.92%	0	0	_
2014-15	451	450	449	99.78%	1	1	100%
Total	**1121**	**1117**	**1108**	**99.19%**	**4**	**4**	**100%**

The average cost of construction of IHHLs has been varying over the years. The cost of building IHHLs in the year 2005-06 was INR 6806 and it grew to INR13535 by 2014-15 i.e. double the cost. At the same time government incentive increased by 10 times. Thus, in 2005-2007 the incentive from government was about 25% of the cost of IHHL and in between 2010-2015; incentive was 50% of the average cost for the duration.

Table 61: Average Cost of IHHLs and Government Incentive

Year	Average cost of IHHL	Incentive received from Govt.	Average cost of IHHL in 2005-07 & 2011-15	Average Incentive received from Govt.
2005-06	6806.32	1200	6928.89	1200
2006-07	7051.46	1200		
2010-11	8571.43	3000	11088.89	5620
2011-12	10707	3700		
2012-13	10766.49	4700		
2013-14	11864.36	4700		
2014-15	13535.15	12000		

Motivation to build IHHLs: All the beneficiaries' surveyed, stated that the availability of subsidy from the government is the main motivation to build toilet. At the same time 100% of the beneficiary households found sense of safety, and good hygienic conditions as the reason for their motivation to build toilets.

Reasons for using the IHHLs: However, while using the IHHL 100% of the beneficiaries stated that availability of water is an important factor in usage of toilets along with safety and hygiene.

Increasing the utilization of toilets:

All the 1022 beneficiaries stated that government must focus on awareness creation on the need to use IHHLs, its benefits and the health problems associated with open defecation. They highlighted that higher publicity of health problems and change in community mindset is a must for increasing use of toilets and stopping open defecation along with the other efforts already in place.

A STORY OF MEDICAL, PHYSICAL AND SOCIAL CHALLANGE IN THE ABSENCE OF IHHL

In Niti-Shawar village of Devalmakki gram panchayat in Karwar Taluka of Uttar Karnataka, Mr X households stay there for many years. One of the family member who is a septuagenarian, is nearly bed ridden for years. His grandson and daughter-in-law take care of his needs including sanitary needs. In the absence of IHHL, they used to dispose his faeces in nearby fields. As there was no toilet to dispose it, the family members were always looking forward for dumping places far away from residential places. This was both mentally and physically uncomfortable for them. This discomfort fettered away the day toilet was constructed near their premises. This has provided relief to the family members from finding places for dumping the faeces of Mr X. Entire family is thankful to government authorities for this "Dodda Saulabhya" (big facility).

12. Yadgir

Yadgir a district is located in Kalburgi division. In 2011, Yadgir had population of 1,174,271of which male and female were 590,329 and 583,942 respectively. In 2001 census, Yadgir had a population of 956,180 of which males were 482,347 and remaining 473,933 were females. Population of Yadgir district grew by 22.81% between 2001 and 2011. Population density of Yadgir increased from 183 to 223 people per sq km. Average literacy rate of Yadgir is 51.83% in 2011. Male literacy rate (62.25%) is much higher than female literacy rate (41.38%). About 16.20% of the population is in the age group of 0-6 yrs.
The current study involved survey of 1018 beneficiary households at Yadgir to assess the status of IHHL construction and usage.

Status of IHHL construction: From the survey it was found that all individual household IHHLs built during 2005-07 and 2010-11 exist as on the day of evaluation and 98.72% are capable of being used. The survey results shows that IHHLs at 1005 beneficiary households are constructed completely and are capable of being used and 13 beneficiary households IHHLs are incomplete and are not capable of being used.

Table 62: Yadagir IHHL construction status (2005-07, 2010-15)

Year	No. of IHHL Beneficiary surveyed	Completely Built and capable of being used		Incomplete and not capable of being used		Do not exist at all	
		No of IHHL Completely Built and capable of being used	%	No of IHHL Incomplete and not capable of being used	%	No of IHHL Do not exist at all	%
2005-06	0	0	-	0	-	0	-
2006-07	0	0	-	0	-	0	-
2010-11	61	61	100%	0	0.0%	0	-
2011-12	111	109	98%	2	1.8%	0	-
2012-13	272	271	100%	1	0.4%	0	-
2013-14	130	129	98.72%	1	0.8%	0	-
2014-15	444	435	98%	9	2.0%	0	-
Total	**1018**	**1005**	**99%**	**13**	**1.28%**	**0**	**-**

Status of IHHL usage: Out of 1005 completely built IHHLs surveyed, 960 are currently being used by all members of the family whereas in 45 cases all family member are not using it regularly. Yearly breakup of IHHL's constructed and used, from the year 2010-11 and 2014-15 is provided in table below.

Table 63: Percentage of IHHLs in Yadagir used by all members of the family

Year	Completely Built and capable of being used		
	No. of IHHL built	No. of IHHLs used by all members of the family	%
2005-06	0	0	-
2006-07	0	0	-
2010-11	61	59	96.72%
2011-12	109	104	95.41%
2012-13	271	261	96.31%
2013-14	129	124	96.12%
2014-15	435	412	94.71%
Total	**1005**	**960**	**95.52%**

Out of total of 133 members not using IHHLs, it is found that only 104 members are below the age of 40 years. It is also observed that most of the females who are not using IHHL are above 40 years and mostly neither educated nor earning member. From the data of non-users in **Yadgir** it appears that among education, income, age and sex, age and education are the governing factor for those not using the IHHL.

Most of the fathers, mothers and population above the age of 40 using open defecation cited that they preferred open defecation and found IHHL's to be uncomfortable and inconvenient, hence they do not use IHHLs. While the younger population either preferred open defecation or non availability of water to be a deterrent in using IHHLs. Amongst those using IHHLs more than 99% of the users of IHHLs cited all three, safety, comfort and hygiene as the primary reason for using them.

Table 64: Detailed breakup of non-users of IHHL in Yadagir district

User Type	Age(years)				Education					Income		
	0-20	20-40	>40	<10	10th	12th	Graduate	PG	PhD	0-3000	3000-6000	>6000
Self												
Father	0	22	13	26	5	2	2	0	0	35	0	0
Mother	0	26	12	14	7	7	0	0	10	38	0	0
Sons	26	6	0	14	7	7	2	2	0	32	0	0
Daughter	22	2	0	20	1	2	1	0	0	24	0	0
Grand Father	0	0	2	2	0	0	0	0	0	2	0	0
Grand Mother	0	0	2	2	0	0	0	0	0	2	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0

The survey result does not have any IHHLs that belongs to APL households, thus, no comparison can be drawn amongst the APL and BPL usage and building of IHHLs.

Since no IHHLs were built for the period 2005-2007, no comparison of the government incentive in these two time frames could be made. However, from 2010 to 2015 the percentage of IHHL cost covered by incentive or government has increased substantially from about 40% to 80%.

Table 65: Detailed breakup of BPL and APL user of IHHL in Yadagir district

Year	**No. of IHHL constructed**	**Status of use of IHHL by BPL families**			**Status of use of IHHL by APL families**		
		IHHL constructed	No of IHHL in use by all members of the family	%	IHHL constructed	No of IHHL in use	%
2005-06	0	0	0	NA	0	0	NA
2006-07	0	0	0	NA	0	0	NA
2010-11	61	61	59	96.72%	0	0	NA
2011-12	109	109	104	95.41%	0	0	NA
2012-13	272	271	261	96.31%	0	0	NA
2013-14	130	129	124	96.12%	0	0	NA
2014-15	444	435	412	94.71%	0	0	NA
Total	**1018**	**1005**	**960**	**95.52%**	**0**	**0**	**NA**

Table 66: Average Cost of IHHLs and Government Incentive

Year	Average cost of IHHL	Incentive received from Govt.	Average cost of IHHL in 2005-07 & 2011-15	Average Incentive received from Govt.
2005-06	0	0	0	0
2006-07	0	0		
2010-11	8245.45	3000	9400.73	5620
2011-12	7745.54	3700		
2012-13	7466.79	4700		
2013-14	7815.38	4700		
2014-15	15730.50	12000		

Motivation to build toilet: All beneficiaries found availability of subsidy from the government as an important motive to build IHHL along with safety and hygiene guided.

Reasons for using the toilet: All beneficiaries using the toilet unanimously pointed that availability of water while using the toilet, sense of safety and hygiene are the reasons for them to use the toilet. .

Increasing the utilization of toilets:

Most of the beneficiaries stressed that government must focus on awareness creation on the need to use toilets, its benefits and the health problems associated with open defecation. They expressed that higher publicity of health problems and change in community mindset is a must for increasing use of toilets and stopping open defecation along with the other efforts already in place.

Yadgiri is the only place where people were willing to use the biogas generated from latrine waste for cooking. This number is 225.

9 Detailed Findings

Information was collected from 12 districts at the village/ward and household levels. Information on status of toilet and usage patterns etc. was collected at from the knowledgeable persons from the beneficiary households. The results of the present survey for district level are presented in the form of sample percentages and those at the household level are estimated proportions. Nearly 12342 beneficiary households were surveyed in 12 districts. Detailed tables are given at Appendix A.

Based on the district wise evaluation undertaken in this study, it can be concluded that in the study area:

1) **What is the percentage of Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15 which are found to exist as on the date of evaluation as (a) completely built and capable of being used (irrespective of being fully or partly used or not used all), (b) incomplete and not capable of being used, and, (c) do not exist at all?**

Information was collected from the beneficiary households about the construction status of IHHLs. Further probing was done on the incomplete and not capable of being used and don't exist at all toilets. Out of the 12342 households surveyed, 99.42% households were found to have completely built and capable of being used toilets. 21 households in Koppal, it was observed that no toilet were in existence. Out of the sample households in 12 districts, 0.4% households were found to be having incomplete IHHLs and not capable of being used. Utara Kannada (0.1%), Gadag (1.18%), Bidar (2.05%), Yadgir (1.28%) and Kopal (0.18%) were the districts with incomplete and not capable of being used IHHL.

Table 67: – IHHL constructed and capable of use

Revenue division	District	Total no. of IHHL Beneficiary surveyed	Completely built And Capable of being used	%	Incomplete and not capable of being used	%	Do not exist at all	%
Belgaum	Uttara Kannada	1005	1004	99.90%	1	0.1%	0	0%

	Gadag	1019	1007	98.82%	12	1.18%	0	0%
	Belgaum	1004	1004	100%	0	0%	0	0%
Bangalore	Bangalore	1005	1005	100%	0	0%	0	0%
	Shimoga	1010	1010	100%	0	0%	0	0%
	Kolar	1056	1056	100%	0	0%	0	0%
Kalburgi	Bidar	1023	1002	97.95%	0	0%	21	2.05%
	Yadgir	1018	1005	98.72%	13	1.28%	0	0%
	Koppal	1122	1099	97.95%	2	0.18%	21	1.87%
Mysore	Chamarajanagar	1039	1039	100%	0	0%	0	0%
	Dakshina Kannada	1023	1023	100%	0	0%	0	0%
	Hassan	1018	1018	100%	0	0%	0	0%
	Total	**12342**	**12272**	**99.43%**	**28**	**0.23%**	**42**	**0.34%**

2) What percentage of the Individual Household Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15 and built completely and capable of being used, are indeed being used by all the members of the household on a regular basis? This information may be given year wise.

Information was collected from knowledgeable persons in the sample households about use of these toilets by all the members of the household on a regular basis. From the 12342 sample surveyed, 95.55% wards were found to be used by all members of family on regular basis. 2010-11 (94.4%), 2011-12(97.5%), 2012-13(96.33%), 2013-14 (96.4%) and 2014-15 (94.7%) reflects ≥95% usage rate of IHHLs by all the members of household for all these years .

Table 68: – IHHL constructed and used by all members of family

Year	**No. of IHHL completely built and capable of being used**	**No of IHHLs used by all members of the household**	**%**
2010-11	1001	945	94.41%
2011-12	733	715	97.54%
2012-13	1688	1626	96.33%
2013-14	3071	2963	96.48%
2014-15	5779	5479	94. 81%
Total	**12272**	**11728**	**95.57%**

3) **In case of those IHHL which are not being used by all members of the household, how many members and who (relation, sex, age, education level etc.) are those who are using not using them and why? Also, how many members and who (relation, sex, age, education level etc.) are those who are using not using them? What are the motivational factors for using IHHL?**

Out of total of 1515 members not using IHHLs, it is found that only 754 members are below the age of 40 years. It is also observed that most of the females who are not using IHHL are above 40 years and mostly neither educated nor earning member. From the data of non-users in **12 Districts** it appears that among education, income, age and sex, age and education are the governing factor for those not using the IHHL

Most of the fathers, mothers and population above the age of 40 using open defecation cited that they preferred open defecation and found IHHL's to be uncomfortable and inconvenient, hence they do not use IHHLs. While the younger population either preferred open defecation or non availability of water to be a deterrent in using IHHLs. Amongst those using IHHLs more than 99% of the users of IHHLs cited all three, safety, comfort and hygiene as the primary reason for using them.

Table 69: Distribution of non-users of IHHL across various parameters

User Type	Age(years)				Education					Income		
	0-20	20-40	>40	<10	10th	12th	Graduate	PG	PhD	0-3000	3000-6000	>6000
Father	0	95	278	327	27	15	3	1	0	310	0	63
Mother	0	150	221	330	15	15	1	0	10	361	0	10
Sons	168	132	6	178	49	55	19	5	0	306	0	0
Daughter	118	30	0	93	22	21	12	0	0	148	0	0
Grand Father	0	0	134	128	4	1	1	0	0	133	1	0
Grand Mother	0	1	116	116	1	0	0	0	0	117	0	0
Other	14	46	6	51	8	5	2	0	0	66	0	0

Assess motivational factor for using IHHL

Availability of water for using the IHHL, safety and hygienic conditions while defecating were found to be the most important motivational factors for using IHHL. A very small

portion of people considered usage of IHHL as a matter of social status and a small portion considered it important as their income increased.

4) **Amongst the Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15 (all except non-existent ones) not being used as on the date of evaluation, what is the percentage of IHHL which were (a) used for some time and then discontinued, and, (b) were never used at all? What were the reasons for discontinuance in case (a) and for not using at all in case (b)?**

Out of the total household survey it was observed that in 12272 households the IHHL were constructed. The below results shows percentage of non usage and partial usage of IHHL and its reasoning:

Table 70: – Distribution of non-users of IHHL across districts

District	Total no. of IHHL Constructed	Used for some time and then discontinued	%	reasons for discontinue	were never used at all	%	Reason for not using at all	Partially used	%	reason for not using at all	Constructed but demolished	%
Uttara Kannada	1004	1	0.10%	Storehouse	0	0.00%		0	0%		0	0%
Gadag	1007	58	5.76%	Storehouse/abandon/ rubbish collection	0	0.00%		8	0.79%	Abandon	3	0.30%
Belgaum	1004	0	0.00%		0	0.00%		0	0%		0	0%
Bangalore	1005	0	0.00%		0	0.00%		0	0%		0	0%
Shimoga	1010	10	0.99%	Storehouse	0	0.00%		0	0%		0	0%
Kolar	1056	0	0.00%		0	0.00%		0	0%		0	0%
Bidar	1002	26	2.59%	Store house, Abandon	0	0.00%		2	0.20%		0	0%
Yadgir	1005	17	1.69%	Storehouse	0	0.00%		0	0%		0	0.00%
Koppal	1099	85	7.73%	Storehouse	0	0.00%		7	1%	Water Availability	0	0%
Chamarajanagar	1039	11	1.06%	Storehouse/Abandon	0	0.00%		12	1.15%	Water Availability/rubbish place/abandon	0	0%
Dakshina Kannada	1023	2	0.20%	Insufficient of Water/store house	0	0.00%		1	0.10%	Insufficient of Water	2	0.20%
Hassan	1018	10	0.98%	Storehouse	1	0.10%		6	0.59%	Storehouse	0	0%
Total	**12272**	**220**	**1.79%**		**1**	**0.01%**		**36**	**0.29%**		**5**	**0.04%**

5) What is the present day usage of the IHHLs (all except non-existent ones) not being used. Being used as latrines and/or for other uses like storehouse, rubbish collection place, animal tying room etc.

Table 71:– Use of IHHLs not in use

Revenue division	District	Store house	Rubbish Collection Place	Animal Tying room	Dumping Place	Abandon
Belgaum	Uttara Kannada	1	0	0	0	0
	Gadag	33	1	0	0	35
	Belgaum	0	0	0	0	0
Bangalore	Bangalore	0	0	0	0	0
	Shimoga	10	0	0	0	0
	Kolar	0	0	0	0	0
Kalburgi	Bidar	28	0	0	0	0
	Yadgir	17	0	0	0	0
	Koppal	92	0	0	0	0
Mysore	Chamarajanagar	11	1	0	0	11
	Dakshina Kannada	1	2	0	0	2
	Hassan	16	0	1	0	0
	Total	**209**	**4**	**1**	**0**	**48**

6) Is the percentage of the Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15, being used by all members of the household statistically significantly different between BPL and APL households? This information may be given year wise. Similarly, what is the inference for IHHLs being used by some members of the household for BPL and APL households?

Table 72 (a)**:– IHHL constructed and use by all members of BPL and APL**

Year	IHHL constructed in No.of BPL households	IHHLs used by all members of the BPL households	%	IHHL constructed in No. of APL households	IHHLs used by all members of APL household	%

2010-11	996	940	94.38%	5	5	100.00%
2011-12	724	706	97.51%	9	9	100.00%
2012-13	1664	1604	96.39%	24	22	91.67%
2013-14	3040	2933	96.48%	31	30	96.77%
2014-15	5697	5399	94.77%	82	80	97.56%
Total	**12121**	**11582**	**95.55%**	**151**	**146**	**96.69%**

H0 as (APL-BPL)% = 0 i.e. Difference in proportion of BPL and APL households where all members are using toilets.

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And H1 as (APL-BPL)% ≠ 0

At 95% confidence interval z value is 0.673. As z is smaller than 1.96 then there is a 95% degree of confidence that the difference between the BPL and APL is not statistically significant.

Table 73 (b)**:– IHHL constructed and use by some members of BPL and APL**

Year	IHHL constructed in No.of BPL households	IHHLs used by some members of the BPL households	%	IHHL constructed in No. of APL households	IHHLs used by some members of APL household	%
2010-11	996	22	2.21%	5	0	0.00%
2011-12	724	11	1.52%	9	0	0.00%
2012-13	1664	45	2.70%	24	1	4.17%
2013-14	3040	80	2.63%	31	0	0.00%
2014-15	5697	122	2.14%	82	1	1.22%
Total	**12121**	**280**	**2.31%**	**151**	**2**	**1.32%**

H0 as (BPL-APL)% = 0 i.e. Difference in proportion of BPL and APL households where some members are using toilets.

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And H1 as (BPL-APL)% ≠ 0

At 95% confidence interval z value is 0.80. As z is smaller than 1.96 then there is a 95% degree of confidence that the difference between the BPL and APL is not statistically significant.

Therefore, the difference in proportions in 73 (a) and 73 (b) can‘t be termed as being statistically significant.

Hence, both BPL and APL populations have almost same proportion of usage, when measured by all members and some members of households using the toilets.

Overall there is no difference in the use of IHHL by all members of the family between BPL and APL families.

7) Is the percentage of the Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15, being used by all members of the household statistically significantly different between urban and rural households?

Table 74: Comparison of IHHL construction and use between urban and rural areas (2010-15)

District	Total no. of IHHL	Total no of IHHLs constructed in Urban Areas	no of IHHLs used by all members of the urban household	%	Total no of IHHLs constructed in Rural Areas	no of IHHLs used by all members of the Rural household	%
Total	**12321**	**1005**	**965**	**96%**	**11267**	**10763**	**96%**

H0 as (Urban-Rural)% = 0 i.e. Difference in proportion of Urban and Rural households where all members are using toilets.

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And H1 as (BPL-APL)% ≠ 0

At 95% confidence interval z value is 0.72. As z is smaller than 1.96 then there is a 95% degree of confidence that the difference between the two sets is not statistically significant

No significant difference was observed between the IHHL usage by beneficiaries from urban areas and rural areas.

8) The unit cost of IHHLs in the years 2005 to 2207 was considerably less than that of 2010-11 to 2014-15. What is the percentage of 2005 to 2007 constructed (any one year may be enough for evaluation) which are non-existent as on the date of evaluation? Is this significantly different for the average of the same for the entire period 2010-11 to 2014-15?

Total no. of IHHL constructed in the year of 2005-07	Non - existing in the year of 2005-07	%	Total no. of IHHL constructed in the year of 2010-11 to 2014-15	Non - existing in the year of 2010-11 to 2014-15	%
1056	0	0.00%	12342	42	0.34%

H0 as ((Non existing IHHL 2010-15)-(Non existing IHHL 2005-07))% = 0 i.e. Difference in proportion of non existing IHHL between 2010-15 and 2005-07.

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And H1 as ((Non existing IHHL 2010-15)-(Non existing IHHL 2005-07)) % ≠ 0

At 95% confidence interval z value is 1.89. As z is smaller than 1.96 then there is a 95% degree of confidence that the difference between the two periods is not statistically significant

9) The percentage of the Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15, being used by all members of the household Statistically significantly different than that of any of the years from 2005 to 2007? Why?

Table 75: Comparison of IHHL construction and use between 2005-07 and 2010-2015 and used by all members of households

Total no. of IHHL constructed in the year of 2005-07	Total no of IHHLs used by all members of the household in 2005-07	%	Total no. of IHHL constructed in the year of 2010-11 to 2014-15	Total no of IHHLs used by all members of the household in 2010-11 to 2014-15	%
1051	**1024**	**97.43%**	**12272**	**11728**	**95.57%**

H0 as ((Non existing IHHL2005-07)-(Non existing IHHL2010-15))% = 0 i.e. Difference in proportion of non existing IHHL between 2005-07 and 2010-15

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And H1 as ((Non existing IHHL2005-07)-(Non existing IHHL2010-15))% ≠ 0

At 95% confidence interval z value is 2.86. As z is greater than 1.96 then there is a 95% degree of confidence that the difference between the two periods is statistically significant. However, it has been observed that for each district the z value is smaller than 1.96.

10) Is there a pattern in the usage of IHHLs (full and partial use both included) that can be seen from 2010-11 to 2014-15? What is it?

Table 76: Pattern in the usage of IHHL

Type of use	2010-11	2011-12	2012-13	2013-14	2014-15
Percentage of Partial Used of IHHL	3.40%	0.95%	0.95%	0.91%	3.06%
Percentage of Full used of IHHL	96.60%	99.05%	99.05%	99.09%	96.94%

The pattern shows that percentage of partial used cases during the year 2010-11 and 2014-15 is around 3%. The survey result shows that majority of partial used during the year 2010-11 attributes to Gadag district and in other district it is not very minimal. Thus, the 20% partial used during Gadag has skewed the overall figure to 3.40% partial use for the entire district. In cases of year 2011-14 the partial usage cases are around 1%. It has been observed that the case of partial used has increased to 3.06% for the year 2014-15. This is because of recent installation where households are getting accustomed to IHHL usage.

11) Does the education, income, social status, profession, availability of land or age of the decision maker (generally the eldest member or the highest earning member) have any significant association with the usage of IHHLs by a household? If indeed so, which are those and how significant they are?

The study shows that education, age and income are important determinants of open defecation. The study finds that educational accomplishment, income and age are an important determinant of open defecation behavior. Families with better levels of educational accomplishment and increase income are more likely to refrain from open defecation. The study reflects that the practice of open defecation has come down with higher income of households, which is also established in case of APL families where all the districts except Bidar no open defecation are observed. Similarly, it has been observed that elder people have a higher tendency towards open defecations. Also, adequacy of water in the households or area where the toilet constructed is an important determinant for effecting reduced open defecation. The findings suggests that mere provisioning of toilet is not enough; it has to be augmented by infrastructural investment in water supply and by providing greater emphasis on combining awareness with education.. During focus group discussion it was highlighted

that availability of land also plays a critical role in urban pockets and for landless BPL family during IHLL consideration.

12) **Study and determine whether availability of water, presence of or the usage of toilets in the households surrounding a household and IHHLs in the neighbourhood school going children have any significant influence on usage of IHHLs.**

Parameters	Percentage
Availability of water	91%
Presence of or the usage of toilets in the households surrounding a household	85%
Children of the household going to schools	89%

10 Reflections and Conclusion

The IHHL constructed under Swachh Bharat Mission and other mission have distinct objectives which primarily focus on improving sanitation of rural and urban areas and bring in a positive change in the life of the households. This report has described in detail the projects under consideration and the related findings and observations. The aim of this study was to evaluate the projects in accordance to set objectives and assess the Utilization of Individual Household Latrines Constructed in the State under various central and state incentive mechanisms to the target population in line with the pre-planned outcomes. Going further, the study also evaluated the opportunities for improvement for the projects in order to achieve better results. The assessment involved in-depth review of the projects, extensive site visits and interactions with the beneficiaries through surveys and interviews. The project team studied the ground realities of the initiatives, their outcomes in the existing process. The dynamics of a traditional approach constructing toilets for increasing usage are changing. Investing on a project does not matter, but what matters is the short and long term impact of the project activity on the society and the resulting behavioral change. This survey of 12 districts gives several insights in to households toilet constructions and usage activities and indicates a drastic change in the approach being followed currently.

The programme currently relies on three aspects for managing its engagement: construction of toilets at households, IEC activities along with a review of the implemented projects. The current framework follows a conventional approach where the focus is on toilet construction and conventional IEC activities to deliver the agenda. What is missing is the deployment of a effective project monitoring, thorough capacity development for managing responsibility and behavioral change triggers for non users. With the target for making India open defecation free (ODF) by 2019 under the Swachh Bharat Mission-Gramin (SBM-G) programme, Karnataka is making concerted efforts to achieve the target. Performances in each of the districts are quite commendable. A majority of the surveyed households has shown successful outcome in terms of existence of toilets in the households and its usage by all members of the households. However, the study finds hindrances in case of minority households who are either not using the toilets or some members of these households are using it.

Using household data from field surveys, the study has analysed the variables in the cross-sectional dataset. The data set consists of12342 household sample in 12 selected districts and focus group discussion in each district. The reference period for the evaluation study is from

June 2016 to March 2017. Due to misreporting, interpreters' subjectivity and conceptual issues, the dataset is limited by missing observations and other definitional problems. Despite these limitations, the study has attempted to capture utilization of Individual Household Latrines dynamics to draw meaningful patterns and suggest policy interventions for target under SBM initiative.

The study tried to assess the status of households toilets constructed on certain variables of interest –output variable measured in terms of a physical status of toilet at the household level. The results show all the district except Gadag, Bidar, Yadgir and Koppal toilets are completely built and being capable of used. Beneficiaries view government incentive as the most important factor in construction of toilet. Many of these households had cited non availability of sufficient fund or no receipt of fund as the prime reason for incomplete or non-existence of toilets. It has been observed that transparency in funding status to the household is lacking in all these cases. The institutional framework possibly can adopt GIS based online monitoring for better efficacy of fund distribution.

Moreover, the study shows that education, age and income are important determinants of open defecation. The study finds that educational accomplishment, income and age are an important determinant of open defecation behavior. Families with better levels of educational accomplishment and increase income are more likely to refrain from open defecation. The study reflects that the practice of open defecation has come down with higher income of households, which is also established in case of APL families where all the districts except Bidar no open defecation are observed. Similarly, it has been observed that elder people have a higher tendency towards open defecations. Also, adequacy of water in the households or area where the toilet constructed is an important determinant for effecting reduced open defecation. The findings suggests that mere provisioning of toilet is not enough; it has to be augmented by infrastructural investment in water supply and by providing greater emphasis on combining awareness with education.

Another common finding across the projects was that the non users beneficiary households percentage is 4.43% during the year 2010-15. In the study, if at least a member in the household is practicing open defecation, the household is being considered as practicing open defecation. The estimated percentage of open defecation in the study comes to be of 4.43%. Although it is in a very smaller percentage, it is still an obstacle towards the target of eradicating open defecation. There is a need to reorient our policies on awareness, enticement

and functional toilet facilities with adequate water supply. Although the SBM programme has moved from toilet building to ensuring behaviour change, the study find that many of the non-users are not adequately aware of harmful effect of their open defecation. In addition, many of them are accustomed to the comfort of OD behaviors.

From the awareness point of view, intensive IEC activities are being held to keep the people informed about the concept and implementation of SBM. Normally, IEC activities are carried out by making use of print and TV media, wall writings, dramas, declarations, jathas, short documentaries. Information about the campaign is also passed on through house visits, personal/group discussions, indoor/outdoor games, meetings, songs, quiz, oath taking, padayatras, shramdhan. However, lack of focus on awareness raising is very visible on the ground. For instance: an important innovation introduced under the SBM was the creation of a cadre of volunteers known as Swachhta Doots responsible for spreading door to door awareness; yet only 8% of the households surveyed were aware of these Swachhta Doots. Wherever the survey team travelled for survey it was noticed that nearly every village wall were painted symbol or slogan or poster of the Swachh Bharat Mission, and there is a buzz amongst officials across all districts we visited. However, it was visible that it has still failed to create a meaningful impact on people who are not using the IHHL. One of the primary reason behind this being the implicit objective of physical construction of toilet and without much emphasis on behaviour change where the focus is mostly adopting without one-size-fits-all approach. All IEC initiatives need close look and need to be identified what works and what does not, identify bottlenecks, capture, promote and initiate innovations. This need to be tuned based on ad hoc research and action research.

In totality, the study suggests that impactful awareness, increase role of Institutions and communities engagements emerge as significant policy variables impacting the 100% ODF objectives. Other key variables, such as education, income, age and water availability also have a significant bearing on the success of the usage of toilets.

11 Recommendations and way forward

In order to address the problems raised above, a set of strategies with action points are suggested below. Some of these recommendations may be implemented immediately or in short term while others may require longer duration for implementation. However, it is suggested that a complete feasibility of all recommendations is undertaken before implementing them.

Short Term Recommendation

1. Determined awareness campaign: Many studies have already highlighted that construction of toilets simply for achieving targets without contemporary awareness creation for their use may not actually reduce open defecation to the desired extent. Besides subsidy, the biggest factor for open defecation is addressing the habit, cultural, and mindset of people to bring about a real effect. The current study also identified habit-related reasons for continuing with open defecation despite having a toilet. Numbers of non-users under the current study have expressed their preference for open defecation and several non-users find IHHLs inconvenient. Defecation for these non-users is often associated with a social practice where few of them walk certain distance to find an appropriate place for defecating in the open. In addition, the study identifies lack of awareness of negative health impact associated with open defecation among the households. It has been observed that so far use of IEC for behavioural change is grossly inadequate. While analysing suggestions received from the households, effective mediation of IEC appears as the most important requirement. Behaviour change takes time. An intense awareness campaign is required, especially in poor performing districts Gadag, Bidar and Koppal.

There needs to be a strong focus on diverse, localised, multiple and repeated modes of communication. Rapid Action Learning Units (RALU) should be put in place at the State and District levels to monitor, to provide advice on corrective action and upscale good practices. These are to be small flexible teams who will keep in close touch and up to date with realities on the ground. They can learn what works and what does not, identify bottlenecks, capture, promote and initiate innovations and conduct quick ad hoc research and action research.

Actions:

- RALU should be put in place at the State and District levels to monitor, to provide advice on corrective action and upscale good practices.
- Massive and more intense awareness programs needs to be considered.
- The OD should be linked with health of the people especially children. As observed from the survey, elder people are not using toilets, if it is directly linked with the health of their children and family, it will have an impact on their behavior.
- Communication materials on behavioral aspects should be appropriately developed to give a household /communities awareness about ODF.
- Community should be engaged for communication with their neighbour for creating awareness.
- Materials developed may be done at state level that can, at a later date, be translated into local dialects keeping in mind the needs of different regions so as to keep uniformity in the contents of the message.
- Map the areas used for open defecation for dissemination of hazard of open defecation.
- Promote appropriate IEBC strategy that should focus more on inter personal contacts and more effective use of information channels.
- **Promote information and awareness dissemination:** Decipher perceptions about benefit of ODF by the general public and create an understanding in order to promote behavioral change at individual/household level.
- **Mobilize resources:** Provide customized advocacy programs for NGOs, institutions and the private sector organizations in order to attract their participation.
- **Create political will:** Provide interactive awareness and sensitization sessions and advocacy to elected members at District and Local Government levels.
- **Influence practice:** Provide a capacity building training modules for government officers (Planners, Plan Implementers, Technocrats, Extension Officers, Development Officers, Social Development Officers, and Environment Officers etc.) serving at State/Regional/District level line Departments; Divisional Secretariats; and Local government bodies (Municipalities, Urban Councils) and volunteers.
- **Promote linkages and champions:** Promote the link up with other on-going communication initiatives undertaken by identified target institutions to incorporate waste management in their respective sectors through development of customized

message and delivery strategies for beneficiary groups.

- **Empower children and youth as Swachh Doot (ambassadors of change):** Provide resource material and knowledge dissemination tools such as videos, animation games/ films, interactive quizzes, text etc., for school teachers, children and undergraduates to enable incorporation of sanitations in their practices thereby creating an empowered younger generation capable of serving as animators of attitudinal change.

2. Community led interventions

Community led, demand driven interventions to combat open defecation practices, like Community Led Total Sanitation (CLTS), focuses on community-wide behavioural change, rather than merely toilet construction. The process brings about behavioural change in the communities, making community members use the toilets and stop defecating in open. It is an innovative methodology for mobilising communities to completely eliminate open defecation (OD). Communities are facilitated to conduct their own appraisal and analysis of open defecation (OD) and take their own action to become open defecation free.[2]

This has to involve focuses on the behavioural change for ensuring real and sustainable improvements – investing in community mobilisation for the creation of open defecation-free.

Actions

1. Awareness should be raised even for minority who continues to defecate in the open and make everyone is at risk of disease.
2. Intense local mobilisation and facilitation to enable villagers to analyse their sanitation and waste situation and bring about collective decision-making to stop open defecation.
3. The engagement has to be based on collective change, propels people into action and encourages innovation, mutual support and appropriate local solutions, thus leading to greater ownership and sustainability.

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[2] http://www.communityledtotalsanitation.org/page/clts-approach

3. IHHL constructions and operational issues

There may be instances where the household will not have sufficient space for toilet constructions. This may arise in the urban areas where household mostly live in small space. In addition, filling up of Latrine pit/Septic Tank and lack of proper operation and maintenance options are some of the constraints. With passage of time users may experience this problem and this may lead to abandonment of usage of IHHLs. Before the problem multiplies maintenance of IHHLs options need to be considered and long term plan of action need to be planned out.

Actions:

- Wherever no space is available mostly in urban areas or colonies living under extreme poverty in villages, community toilets can be considered. Operation and maintenance of the same should need to be defined for sustainability of the facilities.
- Regular usage and pit maintenance procedure should be explained to the concerned beneficiaries and any social biases should be explained.
- Local capacities should be built in villages to address the problem of pit filling through appropriate operation and maintenance capacity development programme. This can be linked with Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) schemes. As a long term measure the pit waste for bio-remediation and/or generation of energy from IHHLs waste should be promoted by development of capacity of bio toilets. A set of people capacity should be created for O& M work and for construction of bio toilets.

4. Incentive mechanism for local governments to promote use of IHHL

After construction of the IHHL, it was observed that minority beneficiaries still do not construct or do not use the IHHL. The activity largely remains a top down push and not a bottom up push. Involving the local gram panchayat's and creating incentives for them will help create a local drive to pursue remaining non-users to construct and use IHHL.

Local panchayat should be motivated to drive the IHHL program. This can be carried out by making local officers responsible for one or two gram panchayats ODF program. Further competitions and awards for gram panchayats performance on ODF can bring boost to the whole system. Similarly, the gram panchayats should be made aware of the awards like

Nairmalya Awards/ Nirmal Gram Pushkara and other benefits that can be accrued it they village becomes ODF.

Actions:

- Plan incentives for the institutions and people involved for efforts on making the village region ODF.

5. Institutionalise monitoring mechanism

In achieving ODF, it is critical for the Government to ensure that the services being delivered to the users meet the agreed time, cost, and quantity and quality standards. There are also instances where listed beneficiaries have highlighted the issues of non-completion of toilets by the contractor/agents or non-receipt of incentives. It is, therefore, necessary to create a well-defined institutional monitoring structure that oversees overall toilet contract performance starting from identification of targeted households to incentive transfer to contractor engagements to toilet constructions to commissioning of toilets. This will help in bringing in a transparent full proofed mechanism for implementation of toilet programme in households. .

Actions:

- Create a SWACHH sub-committee under each Gram-panchayat, representing a member from each Village under the Gram-Panchayat. These members along with swachh doot will monitor the progress of the work.
- Develop a one-page monitoring questionnaire, where the data can be updated half-yearly for first three years by Swachh-doot or sub-committee
- Facilitate a GIS based system, which can facilitate record keeping about the households where toilets have been constructed. This may keep a provision where households can access their account and can have the access to update their information.

Long term Recommendations

1. Provide training and employability to Village Youths

Government of India under SBM has introduced few online courses, but practical awareness cum training on technicalities of Drinking water and sanitation to be provided (with 75% concession) on toilets, water and waste management, which will meet the targets of both SBM as well as employability of village youth. In addition, there are greater business opportunities for rural youths on toilet construction, material supply and maintenance of toilets.

Actions

- An entrepreneurship development programme and support system to entrepreneurship associated with ODF and other sanitation programme should be considered.

2. Water availability

While analysing suggestions received from the households, non-availability of water connection/bore well/tube well at the household and irregular water supply were found as some of the reasons for non usage of toilets. The problem faced by many of these households is lack of water for flushing. It is also observed that percentage of households having adequate water for flushing is much higher among those households that have toilets and not using it or partially using it. This problem is mostly faced by non-users in Bidar, Koppal, Hassan, Belgaum and Gadag. Thus, in these districts there is a need to improve water supply at the household level in addition to the construction of the toilet. Proper attention should be given to the availability of water (other than drinking) to the households.

It is important that a dedicated tap connection can be made available in the IHHLs, to make them more hygienic and increase the ease of use. Some of the states like Chhattisgarh have been providing a tap connection along with IHHL.

Actions

- Identify the regions for integrating the water supply and toilet construction activities
- Evaluate the possibility budgetary allocations for the same.
- Review and plan feasible implementation

3. Co benefits through waste to energy technology

Using biogas for generation of power or fuel for local community is technologically possible. However, several socio-cultural bias prevails in using fuel generated from human excreta. In addition, there are lacks of pilot project under this category which is a deterring people to understand the benefits associated with it.

Certain technologies suggest that, it is sufficient to have a treatment plant of 2 Cum size, for treating human waste and bio waste generated in a household having a family comprising up to a total of five members. The most important point to be taken note of while operating a plant is, to regulate the quantity of waste to be fed into the plant, strictly in accordance with the optimum treatment capacity per day. If, however, the plant is overfed by the deposit of more quantity of waste, the working efficiency of the plant will gradually become deteriorated. In such situations the gas produced from such plants may not be ignited, and in some cases stink odour may also come out from the plant in a large measure. But if the plant is fed with the bio waste in accordance with its treatment capacity, the plant will work very efficiently for a pretty long period. Even if the quantity of waste fed into the plant is a little less than the prescribed limit, or the plant is not fed at all for a few days the working of the plant will not be affected[3]. This would address the problem of handling pit waste by frequent filling up and also provided localized energy solutions. However, targeted ICE activities would be needed to get the technology accept at large scale after successful implementation of pilot activity.

Bio digester technology has been developed for resolving the problems of un-decomposed human waste by Defence Research and Development Organisation. This technology can be piloted in certain pockets of the state for showcasing it to the beneficiaries.

Actions

- Communication materials on bio-digester toilets, should be appropriately developed for creating awareness among the households about the benefits associated with it.
- Social customs and beliefs may vary significantly within a State. It will therefore be appropriate to carry out targeted IEBC activities for creating awareness about the biogas among the households.

[3] http://www.biotech-india.org/EcoFriendly_Biogas.aspx

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Annexure 1: Survey Questionnaire

QUESTIONNAIRE HHL 1

SURVEY SHEET

PART A: GENERAL DATA

Questionnaire Number Distt: Date

Village Panchayat Taluka

For toilets being partially used or incomplete or incapable of being used,☐ the personal interview should be of the decision maker of the household only

Name of the decision maker of the household:

House number: Mobile: Age: M/F

Geo-referenced by reporting the latitude and longitude

PART B: SOCIO ECONOMIC DATA

SC☐/ ST☐/ OBC☐/ GENERAL☐/Physically Challenged☐

Religion:Hindu☐/Chirsitian☐/Muslim☐ Budhisim☐Jain☐Sikh☐

Whether BPL☐/ APL☐

Sources of income

i. Farming☐
ii. Business☐
iii. Employee☐
iv. Farm Labor ☐
v. Others☐ (Please Specify):
vi. Total family income: INR/Month

Whether Joint Family Yes☐/No☐

No. of members in the family: Male Female

Land owner: Yes☐/No☐

PART C: HH Latrine Details

1. Location of the Latrine vis a vis the house
    a. Within living area of the house ☐
    b. Outside living area but within boundaries of the house ☐
    c. Totally outside the house are i.e. in some common area etc. ☐
2. Cost of IHHL:
    a. Incentive received from Govt.:

b. Actual Cost of latrine:

c. How differential being arranged:

3. In which year the Latrine was constructed?

   a. 2005-06 ☐ 2006-07 ☐ 2010-11 ☐ 2011-12 ☐ 2012-13 ☐ 2013-2014 ☐ 2014-2015 ☐

4. Superstructure: water facility ☐hand wash unit☐

   Substructure: Twin Pit☐, Septic tank☐, Bio toilets☐ common sewage system☐

5. What is the current status of Latrine?

a) Completely built and capable of being used☐, if yes whether it is indeed being used by all members of households on a regular basis? Yes ☐ No☐

b) Latrine Constructed but not being used or partly used ☐

Option	Status	Reason
a	Used for sometime and then discontinued ☐	
b	Were never used at all ☐	
c	Partially used ☐	
d	Not capable of being used ☐	
e	Constructed but demolished/damaged ☐	

c) Latrine being partly completed ☐ if yes, why?

d) Don't exist at all ☐

6. In case the latrine is an incomplete structure, why the latrine has not constructed fully?

   a) Unit cost higher than provided in the scheme ☐
   b) Could not mobilise additional fund ☐
   c) Objection from members of the family ☐
   d) Objection by neighborhood ☐
   e) Other Specify ☐

7. How many members and who are those who are using and not using them and why?

Members	Age	Sex	Education	Profession/ Income	Using or not
Father					**Using:** Comfort☐ Safety☐ Hygine☐ **Not using:** Water Availability☐ Pits fill frequently and unable to clear☐ Preferred open defecation☐ not comfortable Inconvenient☐ not clean☐
Mother					**Using:** Comfort☐ Safety☐ Hygine☐ **Not using:** Water Availability☐ Pits fill frequently and unable to clear☐ Preferred open defecation☐ not comfortable Inconvenient☐ not clean☐
Son					**Using:** Comfort☐ Safety☐ Hygine☐ **Not using:** Water Availability☐ Pits fill frequently and unable to clear☐ Preferred open defecation☐ not comfortable Inconvenient☐ not clean☐
Daughter					**Using:** Comfort☐ Safety☐ Hygine☐ **Not using:** Water Availability☐ Pits fill frequently and unable to clear☐ Preferred open defecation☐ not comfortable Inconvenient☐ not clean☐
Grand father					**Using:** Comfort☐ Safety☐ Hygine☐ **Not using:** Water Availability☐ Pits fill frequently and unable to clear☐ Preferred open defecation☐ not comfortable Inconvenient☐ not clean☐
Grand Mother					**Using:** Comfort☐ Safety☐ Hygine☐ **Not using:** Water Availability☐ Pits fill frequently and unable to clear☐ Preferred open defecation☐ not comfortable Inconvenient☐ not clean☐

Other :					**Using:** Comfort☐ Safety☐ Hygine☐ **Not using:** Water Availability☐ Pits fill frequently and unable to clear☐ Preferred open defecation☐ not comfortable Inconvenient☐ not clean☐

8. What is the present day usage of latrine not being used?
   a. Storehouse ☐
   b. Rubbish collection place ☐
   c. Animal shed ☐
   d. Abandon ☐
   e. Dumping places ☐
   f. Others (Please specify) ☐
9. What influences decision for construction of Latrine?
   Availability of subsidy ☐ Availability of water☐ neighbor have toilet ☐ children of the household going to schools and influence ☐ improved income/profession☐ safety ☐ hygiene ☐
10. What factors have significant association with the usage of Latrine?
    Availability of water☐ neighbor have toilet ☐ children of the household going to schools ☐ improved education☐ professional status ☐ social status demands ☐ safety ☐ hygiene☐ increase in income
11. How the cleanliness of the toilet is being done?
    Households☐ engaged personnel☐ not done☐
12. Do you suggest any changes in current program on latrine for more and more of them utilization by all member of households?
13. What can be done to ensure that toilets are used by all members of the household, always?
14. Whether you will use the biogas if it will be generated from Latrine waste?
    Yes☐/No☐
    If no, what is the reason?
15. What is your view on open defecation?
    a) It is inevitable ☐
    b) It is hazardous to health and environment ☐
    c) It will continue to persist till the mindset of the community changes☐

d) It can be curbed by stringent legislation ☐

e) Others (specify) ☐

Signature of beneficiary Enumerator

Comments of supervisor

Signature

Annexure 2: Detailed about surveyed

District	Taluka	Panchayat	Village	Beneficiaries
Uttara Kannada	Karwar	Chittakula	Chittakula	56
	Karwar	Devalmakki	Devalmakki	27
	Karwar	Devalmakki	Naitisavar	21
	Karwar	Devalmakki	Bargal	13
	Karwar	Amadalli	Amadalli	104
	Karwar	Amadalli	Todur	56
	Karwar	Mudgeri	Muknabag	14
	Karwar	Mudgeri	Mathawada	14
	Karwar	Mudgeri	Addav	1
	Karwar	Mudgeri	Mudgeri	115
	Sirsi	Banavasi	Banavasi	158
	Sirsi	Isalooru	Isalooru	66
	Sirsi	Isalooru	Sannakeri	15
	Sirsi	Huttagaar	Huttagaar	19
	Sirsi	Huttagaar	Ganeshnagar	55
	Sirsi	Huttagaar	Puttanamane	16
	Sirsi	Bisalkoppa	Malalgaon	45
	Sirsi	Itguli	Koppa	14
	Sirsi	Itguli	Kalla Koppa	12
	Sirsi	Itguli	Kalugar	3
	Sirsi	Itguli	Itguli	3
	Sirsi	Itguli	Balegadde	7
	Sirsi	Bisalkoppa	Bisalkoppa	56
	Sirsi	Bisalkoppa	Yekkambi	37
	Sirsi	Unchalli	Unchalli	38
	Sirsi	Unchalli	Kabbe	18
	Sirsi	Unchalli	Karekopppa	2
	Sirsi	Unchalli	Kalli	8
	Sirsi	Hulekal	Hancharata	64
	Sirsi	Hulekal	Bakkal	57
	Sirsi	Itguli	Hosanagara	8
	Total			**1122**

District	Taluka	Panchayat	Village	Beneficiaries
Gadag	Gadag	Adavi Somapur	Adavi Somapur	99
	Gadag	Adavi Somapur	Dodda Tanda	47
	Gadag	Adavi Somapur	Papanashi Thanda	53
	Gadag	Antur	Antur	43
	Gadag	Antur	Bentura	49
	Gadag	Beladhadi	Nabapur	34
	Gadag	Beladhadi	Beladhadi	54
	Gadag	Beladhadi	Kablayatakatti	33
	Gadag	Beladhadi	Brahmanandapur	39
	Gadag	Binkadakatti	Binkadakatti	100
	Gadag	Haralapura	Haralapura	81
	Gadag	Hatalageri	Hatalageri	59
	Gadag	Hombala	Hombala	80
	Gadag	Hulakoti	Hulakoti	108
	Gadag	Kurtakoti	Kurtakoti	76
	Gadag	Neeralagi	Neeralagi	50
	Gadag	Timmapur	Timmapur	83
	Total			**1088**

District	Taluka	Panchayat	Village	Beneficiaries
Belgaum	Belgaum	Kadoli	Kadoli	102
	Belgaum	Nilaji	Nilaji	100
	Belgavi	Mutaga	Mutaga	100
	Chikodi	Kerur	Kerur	50
	Chikodi	KhanKhadaklatdakalat	Khadaklat	100
	Chikodi	Appachiwadi	Mattiwadi	49
	Chikodi	Appachiwadi	Sulagoan	33
	Chikodi	Appachiwadi	Hadnal	32
	Chikodi	Appachiwadi	Appachiwadi	86
	Khanapur	Beedi	Adi	121
	Khanapur	Beedi	Beedi	42
	Khanapur	Beedi	Gali Halli	10
	Khanapur	Beedi	Hindalgi	11
	Khanapur	Belegundi	Bokanur	8
	Khanapur	Belegundi	Belagundi	7
	Khanapur	Belegundi	Bokanur	19
	Khanapur	Belegundi	Sonolli	25
	Khanapur	Belegundi	Belagundi	40
	Khanapur	Jamboti	Jamboti	51
	Khanapur	Bekawad	Hadalga	24
	Khanapur	Bekawad	Khairwad	9
	Khanapur	Bekawad	Bekawad	37
	Khanapur	Bekawad	Banki Barsi Kathi	14
	Khanapur	Nandgad	Nandgad	35
	Total			**1105**

District	Taluka	Panchayat	Village	Beneficiaries
Bangalore	Bangalore East	Halanayakanahalli	Chiknayakanhalli	70
	Bangalore East	Kannuru	Bande Bommasandra	40
	Bangalore North	Dasanapura	Kattu Gollahally	23
	Bangalore East	Audagalli	Kithaganur	88
	Bangalore North	Dasanapura	Dasanapura	17
	Bangalore North	K. Golahalli	Kattu Gollahally	19
	Bangalore North	Kithana Halli	Bettali	37
	Bangalore North	Betta Halasur	Betta Halasur	38
	Bangalore North	Betta Halasur	Gadenahalli	41
	Bangalore North	Betta Halasur	Tharahunse	9
	Bangalore North	Gopalapura	Gopalapura	81
	Bangalore North	Huskur	Huskur	62
	Bangalore North	Huskur	pillahalli	38
	Bangalore North	Huskur	Mathahalli	50
	Bangalore North	Huskur	Honnasanndra	25
	Bangalore North	Huskur	Narasipura	24
	Bangalore North	Huskur	Ranajipalya	13
	Bangalore North	Huskur	Dodipallya	7
	Bangalore South	Agara	Agara	25
	Bangalore South	Agara	Agara	12
	Dodballapur	Hadripura	Naranahally	100
	Bangalore South	Somana Halli	Somana Halli	56
	Bangalore South	Somana Halli	Giri Goudana Doddi	27
	Bangalore South	Somana Halli	Mukodlu	17
	Bangalore South	Agara	Byrasandra	14
	Bangalore South	K. Golahalli	Gangasandra	17
	Bangalore South	K. Golahalli	kallegoudana pallya	60
	Bangalore South	Agara	Saladoddi	9
	Bangalore South	Agara	Tataguni	14
	Bangalore North	Huskur	Vaderahalli	12
	Bangalore North	Huskur	Torenagasandra	25
	Bangalore North	Huskur	Bettanagere	35
	Total			**1105**

District	Taluk	Panchayat	Village	Beneficiaries
Shimoga	Bhadravati	Kumaranahalli	Devarahalli	45
	Bhadravati	Anatharagange	Devanarasipura	66
	Bhadravati	Antharagange	Rathnapura	4
	Bhadravati	Antharagange	Antharagange	45
	Bhadravati	Kumaranahalli	Kumaranahalli	22
	Bhadravati	Kumaranahalli	Guddadaneralekere	14
	Bhadravati	Kumaranahalli	Kumaranahalli	23
	Hosanagara	Reppenpete	Baruve	17
	Hosanagara	Koduru	Shakhavalli	16
	Hosanagara	Koduru	Karigerasu	4
	Hosanagara	Yalagallu	Yalagallu	6
	Hosanagara	Koduru	Koduru	30
	Hosanagara	Sonale	Varamballi	27
	Hosanagara	Jeni	Jeni	3
	Hosanagara	Jeni	Masagalli	54
	Hosanagara	Nagara	Nagara	82
	Hosanagara	Nagara	M. Nagar	118
	Hosanagara	M. Guddekoppa	M. Guddekoppa	80
	Hosanagara	Maruthipura	Hosakesare	6
	Hosanagara	Maruthipura	Maruthipura	14
	Hosanagara	Maruthipura	Majavana	6
	Hosanagara	Maruthipura	Punaje	11
	Hosanagara	Koduru	Koduru	43
	Hosanagara	Melinabesige	Ramachandrapura	14
	Hosanagara	Purappemane	Purappemane	16
	Hosanagara	Purappemane	H. Kallukoppa	7
	Hosanagara	Purappemane	Kodur	1
	Hosanagara	Purappemane	Dodda Belagodu	6
	Hosanagara	Purappemane	Halasalamalavalli	7
	Hosanagara	Purappemane	Hebbailu	23
	Hosanagara	Purappemane	Nindre	3
	Hosanagara	Purappemane	Chikkabelagodu	4
	Hosanagara	Melinabesige	Manasette	10
	Hosanagara	Melinabesige	Malali	7
	Hosanagara	Melinabesige	Salageri	16
	Hosanagara	Melinabesige	Sutha	14
	Hosanagara	Melinabesige	Melinabesige	3
	Hosanagara	Melinabesige	Goragodu	21
	Hosanagara	Melinabesige	Vasave	6
	Hosanagara	Trinive	Nellunde	15
	Hosanagara	Haridravathi	Alageurimandri	15
	Hosanagara	Haridravathi	Haridravathi	15
	Hosanagara	Haridravathi	Bilagodu	5

	Hosanagara	Haridravathi	Hunasavalli	5
	Hosanagara	Haridravathi	Heelagodu	13
	Hosanagara	Haridravathi	Amachi	2
	Hosanagara	Haridravathi	Baniga	5
	Shimoga	Kommanalu	Aladahalli	9
	Shimoga	Kommanalu	Bannikare	31
	Shimoga	Kommanalu	Bikkonahalli	15
	Shimoga	Kommanalu	Boodigere	16
	Shimoga	Bidare	Bidare	57
	Shimoga	Bidare	Honnavile	15
	Hosanagara	Humcha	Humcha	33
	Hosanagara	Humcha	Hondalgadde	7
	Total			**1152**

District	Taluk	Panchayat	Village	Beneficiaries
Kolar	Bangarapet	Inora Hosahalli	Inora Hosahalli	67
	Bangarapet	Inora Hosahalli	Ombathuguli	18
	Bangarapet	Mava Halli	Mava Halli	45
	Bangarapete	Chikka Anandahally	Pakarahalli	34
	Bangarapete	Chikka Anandahally	Hudukula	41
	Bangarapete	Chikka Anandahally	Vatrakunta	41
	Bangarapete	Chikka Anandahally	Chikkaakkadahalli	5
	Kolar	Narasapura	Narasapura	98
	Kolar	Arabhilkothanur	Arabikothanoru	29
	Kolar	Kondarajanahalli	Kondarajanahalli	52
	Kolar	Kondarajanahalli	Ammerahalli	48
	Kolar	Honnenahalli	Honnenahalli	55
	Kolar	Arabhilkothanur	Thyavanahalli	30
	Kolar	Arahalli	Hodalavadi	10
	Kolar	Arahalli	Seepura	22
	Kolar	Arahalli	Hoohalli	79
	Mulbagal	Hanumanahalli	Meleri	51
	Mulbagal	Kappalamadagu	Kappalamadagu	140
	Mulbagal	Amblikal	Amblikal	75
	Mulbagal	Hanumanoru	Hanumanoru	55
	Mulbagal	Sonnavadi	Sonnavadi	76
	Total			**1071**

District	Taluka	Panchayat	Village	Beneficiaries
Bidar	Aurad	Badalgaon	Badalgaon	31
	Aurad	Ekamba	Ekamaba	50
	Aurad	Thana Kushnoor	Thana Kushnoor	102
	Aurad	Santpur	Kappikeri	30
	Aurad	Santpur	Santpur	24
	Aurad	Jojana	Jojana	88

	Bhalki	Beeri	Beeri	104
	Bhalki	Dawargaon	Chitta	36
	Bhalki	Dawargaon	Chitwaddi	37
	Bhalki	Dawargaon	Gonalli	14
	Bhalki	Dadagi	Dadgi	98
	Bidar	Amalapur	Amlapur	59
	Bidar	Amalapur	Gornalli	45
	Bidar	Manhalli	Manhalli	122
	Bidar	Nagur	Ghodampalli	102
	Bidar	Markal	Markal	43
	Bidar	Markal	Benaknalli	40
	Bidar	Markal	Chikpet	24
	Total			**1049**

District	Taluka	Panchayat	Village	Beneficiaries
Yadgiri	Shahapur	Ibrahimpur	Ibrahimpur	87
	Shorapur	Kamantagi	Kamantagi	46
	Shorapur	Kamantagi	Balashety Hal	58
	Yadgiri	Thanagundi	Boomshettahalli	55
	Yadgiri	Thanagundi	Thanagunda	67
	Shahapur	Vadagera	Vadagera	144
	Shorapur	Narayan Pura	Narayan Pura	17
	Shorapur	Narayan Pura	Kattugolan Halli	57
	Shorapur	Hunasagi	hunasagi	132
	Shorapur	Kodekall	Kodekal	74
	Yadgiri	Mudnal	Mudnal	55
	Yadgiri	Mudnal	Kattugolan Halli	54
	Yadgiri	Putapak	Jawahar nagar	122
	Shahapur	Halogar	Kumonur	50
	Total			**1018**

District	Taluk	Panchayat	Village	Beneficiaries
Koppal	Koppal	Boodagumpa	Boodagumpa	68
	Koppal	Guladalli	Gabbur	70
	Koppal	Halageri	Halageri	63
	Koppal	Hirebagnal	Aallanagar	80
	Koppal	Hirebagnal	Hirebagnal	56
	Koppal	Hirebagnal	Karkihalli	25
	Koppal	Hirebagnal	Chikkabaganal	155
	Koppal	Hiresindhogi	Budihal	71
	Koppal	Hiresindhogi	Hiresindhogi	138
	Koppal	Hiresindhogi	Handral	57
	Koppal	Hosalli	Hosalli	47
	Koppal	Huligi	Haleningapur	46

	Koppal	Kaltavargeri	Kaltavargeri	37
	Koppal	Kaltavargeri	Abbigeri	14
	Koppal	Kaltavargeri	Kenchandoni	27
	Koppal	Kunikeri	Lachanakera	135
	Koppal	Shivpur	Shivpur	61
	Total			**1150**

District	Taluka	Panchayat	Village	Beneficiaries
Chamarajanagar	Chamarajanagar	Hardanahalli	Hardanahalli	60
	Chamarajanagar	Hardanahalli	Bandigere	41
	Chamarajanagar	Madapura	Kadahally	61
	Chamarajanagar	Mangala	Mangala	102
	Chamarajanagar	v.chatra	v.chatra	100
	Gundelapeta	Shindanapura	Keleasurupura	81
	Gundelapeta	kannegala	kannegala	98
	Gundelapeta	Shivapura	Shivapura	188
	Gundelapeta	Terakanambi	Terakanambi	102
	yalanduru	yariyuru	Ganiganur	101
	yalanduru	Madduru	Madduru	100
	yalanduru	Mambally	Mambally	57
	yalanduru	Yaragamballi	Yaragamballi	100
	Total			**1191**

District	Taluka	Panchayat	Village	Beneficiaries
Dakshina Kannada	Manglore	Belma	Badyar	3
	Manglore	Belma	Belma	29
	Manglore	Balepune	Balepune	136
	Manglore	Belma	Kallu Gunde	21
	Manglore	Konaje	Konaje	64
	Puttur	Panaje	Panaje	16
	Puttur	Noojibalthila	Ranjalady	20
	Puttur	Noojibalthila	Noojibalthila	46
	Puttur	Bettampady	Bettampady	38
	Puttur	Perabe	Kunthur	13
	Puttur	Perabe	Perabe	13
	Puttur	Kaniyuru	Charvaka	8
	Puttur	Kaniyuru	Dolpady	12
	Puttur	Kaniyuru	Kaniyoor	6
	Puttur	Nidpalli	Nidpalli	18
	Puttur	Kodimbady	Kodimbady	17
	Puttur	Kodimbady	Belllippady	34
	Puttur	Volamogaru	Volamagaru	42
	Puttur	Aryapu	Aryapu	26
	Puttur	Aryapu	Kuriya	11
	Puttur	Hirebandady	Hirebandady	9
	Puttur	Nelyady	Nelyady	30
	Puttur	Kaukrady	Ichlampaly	22
	Puttur	Kadaba	Kodimbala	58
	Puttur	Kedambady	Kedambady	53
	Puttur	Belanduru	belanduru	88
	Puttur	Golithottu	Konalu	22
	Puttur	Golithottu	Alanthaya	16
	Puttur	Golithottu	Golithottu	11
	Puttur	Kadaba	Kadaba	6
	Puttur	Kombaru	Kombaru	50
	Puttur	Munduru	Mundur	64
	Puttur	Munduru	kemminje	4
	Puttur	Munduru	Sarve	7
	Puttur	Kabaka	Kabaka	27
	Puttur	Kabaka	Kodimbala	11
	Puttur	Narimogaru	Narimogaru	68
	Total			**1119**

District	Taluka	Panchayat	Village	Beneficiaries
Hassan	Hasan	Ambuga	Basthi Halli	81
	Hasan	B.Katihalli	Sankenahalli	52
	Hasan	B.Katihalli	Srirama Nagara	14
	Hasan	B.Katihalli	B.Katihalli	44
	Hasan	Boovana Halli	Boovana Halli	249
	Hasan	Boovana Halli	Gavena Halli	16
	Hasan	Bylahalli	Bylahalli	71
	Hasan	Channangihalli	Bachihalli	17
	Hasan	Channangihalli	Kabbathi	24
	Hasan	Channangihalli	Channangihalli	16
	Hasan	Channangihalli	Kithane	59
	Hasan	Hanumantha Pura	Hanumantha Pura	89
	Hasan	Harala Halli	Dasrakoppalu	22
	Hasan	Kandali	Echala Halli	77
	Hasan	Kandali	Anchi Halli	16
	Hasan	Kandali	Kandali	84
	Hasan	Kattaya	Kattaya Kaval	33
	Hasan	Kattaya	Byadarahallli	13
	Hasan	Kattaya	Mantikoppalu	7
	Hasan	Kattaya	Jinnenahalli	10
	Hasan	Kattaya	Chikkanayakanahalli	12
	Hasan	Kattaya	Kodaramanahalli	9
	Hasan	Kattaya	Anjaneyapura	7
	Hasan	Kattaya	Bommenahalli	5
	Hasan	Kattaya	Doranahalli	23
	Hasan	Kattaya	Kattaya	6
	Hasan	Koravangala	H.Mylanahalli	51
	Hasan	Kowsika	Kowsika	69
	Hasan	Tejur	Hachagowdana Halli	22
	Hasan	Tejur	Tejur	30
	Total			**1228**

Annexure 3: Focused Group Discussions District wise Synopsis

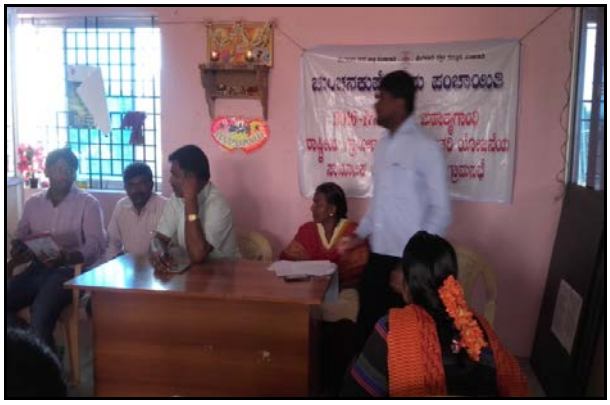
I. District: Bengaluru Urban

Taluk: Bangaluru Urban, **Venue:** Z P Office, **Date:** 2-9-2016, **No. of Participants**: 10

The group discussion involved Z.P Members, Secretary and beneficiaries. The discussion was initiated by the moderator invoking the benefits of toilet and pressing beneficiaries for their experiences. All beneficiaries stated that they were involved in the process of scheme and their application was given due attention. The selection process was said to be completed in 3-4 days. Weaker and women sections were also represented.

The highlights of the meeting/discussion are as follows:

- Some latrines were said to be not used as owner were said to be reluctant due to not used to confined area, few cited lack of water.
- Attendees stressed on the need to spread more awareness about the benefits of toilet like, health and women safety
- Despite Bangaluru being commercial and political capital of the state ODF has eluded was one of the main concerns of the attendees
- Nearly unanimous focus group member agreed that fund available for the scheme is sufficient with only a few demanding more fund (Rs. 20,000 instead of Rs. 15,000/-)
- The construction of toilet is monitored by EO, PDO, GP staff and elected representatives
- Though availability of funds, Water, Hygiene, Cleanliness and Safety were major factor for the individuals and community for toilet construction these parameters were said to be better compared to most of the other districts of the state
- Members present also pointed the issues OD that it is hazardous to health and environment and should be curbed by stringent legislation



Notes:

As per the interaction with the EO & ZP members Bengaluru urban is said to be good compared to other districts however it is lagging behind some of the coastal and western districts of the state. There has to be a major awareness and behavioural change campaign for Bengaluru to be 100% ODF. More public engagement is required both at community and government level.

II. District: Chamarajanagar

Taluk: Chamrajanagar, **Venue:** Z P Meeting Hall, **Date:** 18-7-2016, **No. of Participants**: 20

The group discussion involved Z.P Members, Secretary and beneficiaries. The discussion was initiated by the moderator invoking the benefits of toilet and pressing beneficiaries for their experiences. All beneficiaries stated that they were involved in the process of scheme and their application was given due attention. The selection process was said to be completed in 3-4 days. Weaker and women sections were also represented.

The highlights of the meeting/discussion are as follows:

Some latrines were said to be not used as owner were said to be reluctant due to not used to confined area, few cited lack of water

- Attendees stressed on the need to spread more awareness about the benefits of toilet like, health and women safety
- Nearly unanimous focus group member agreed that fund available for the scheme is sufficient with only a few demanding more fund (Rs. 20,000 instead of Rs. 15,000/-)
- The construction of toilet is monitored by EO, PDO, GP staff and elected representatives
- Though availability of funds, Water, Hygiene, Cleanliness and Safety were major factor for the individuals and community for toilet construction these parameters were said to be better compared to most of the other districts of the state
- Members present also pointed the issues OD that it is hazardous to health and environment and should be curbed by stringent legislation

Notes:

The HH latrine penetration is said to be 60% to 65% which is not very high compared to other districts of the state. Few men are said to be reluctant using toilet reasoning with curbing their “Freedom”. However most of the beneficiaries and other are hopeful that toilet facility presence and usage is only going to grow up now onwards.

III. District: Hassan

Taluk: Hassan, **Venue:** T P meeting hall, **Date:** 11-7-2016, **No. of Participants**: 31

The group discussion involved G.P. members, Secretary and beneficiaries. The discussion was initiated by the moderator invoking the benefits of toilet and pressing beneficiaries for their experiences. All beneficiaries stated that they were involved in the process of scheme and their application was given due attention. The selection process was said to be completed in 3-4 days. Weaker and women sections were also represented.

The highlights of the meeting/discussion are as follows:

Some latrines were said to be not used as owner were said to be reluctant due to not used to confined area, few cited lack of water

- Attendees stressed on the need to spread more awareness about the benefits of toilet like, health and women safety
- Nearly unanimous focus group member agreed that fund available for the scheme is sufficient.
- The construction of toilet is monitored by EO, PDO, GP staff and elected representatives
- Though availability of funds, Water, Hygiene, Cleanliness and Safety were major factor for the individuals and community for toilet construction these parameters were said to be better compared to most of the other districts of the state
- Members present also pointed the issues OD that it is hazardous to health and environment and should be curbed by stringent legislation

Notes:

As per the interaction with the EO & PDO's Hassan taluk is good compared to other talukas, here the group emphasized that 80-85% usage of latrines are being used. The rest 15-20% non usage is because of the old people who did not change their minds in the rural area. The other talukas are only 70-75% ODF because of more rural population and less educated population. It will take another 5 years to change their mind since the administration is doing maximum to stop open defecation.

IV. District: Shimoga

Taluk: Hosanagar, **Village:** M. Guddekoppa, Panchayat Office, **Date:** 28-6-2016, **No. of Participants**: 11

The group discussion involved G.P. members, Secretary and beneficiaries. The discussion was initiated by the moderator invoking the benefits of toilet and pressing beneficiaries for their experiences. All beneficiaries stated that they were involved in the process of scheme and their application was given due attention. The selection process was said to be completed in 3-4 days. Weaker and women sections were also represented.

The highlights of the meeting/discussion are as follows:

- Some latrines were said to be not used as owner were said to be reluctant due to not used to confined area, few cited lack of water
- Attendees stressed on the need to spread more awareness about the benefits of toilet like, health and women safety
- Nearly unanimous focus group member agreed that fund available for the scheme.
- The construction of toilet is monitored by EO, PDO, GP staff and elected representatives
- Availability of funds, Water, Hygiene, Cleanliness and Safety were major factor for the individuals and community for toilet construction
- Members present also pointed the issues OD that it is hazardous to health and environment and should be curbed by stringent legislation

Notes/Summary:

As per the view of PDOs and elected representatives the population of this district are interested to use the toilets, due to rains and culture, even then there is 15-20% households don't have toilets. Those who have also gone to the open areas in some of the cases since there is water shortage, those households go to open space for defecation. RDPR staff and elected representatives are working hard to educate the people to avoid open defecation.

V. District: Uttar Karnataka

Taluk: Sirsi, **Venue:** T P Meeting Hall, **Date:** 24-06-2016, **No. of Participants**: 25

The group discussion involved Panchayat members, PDOs, Secretary and beneficiaries. The discussion was initiated by the moderator invoking the benefits of toilet and pressing beneficiaries for their experiences. All beneficiaries stated that they were involved in the process of scheme and their application was given due attention. The selection process was said to be completed in 3-4 days. Weaker and women sections were also represented.

The highlights of the meeting/discussion are as follows:

- Attendees stressed on the need to spread more awareness about the benefits of toilet like, health and women safety
- Nearly unanimous focus group member agreed that fund available for the scheme
- The construction of toilet is monitored by EO, PDO, GP staff and elected representatives
- Though availability of funds, Water, Hygiene, Cleanliness and Safety were major factor for the individuals and community for toilet construction these parameters were said to be better compared to most of the other districts of the state

Notes:

It was discussed that in many villages of U.K. there are small huts and building toilets was found to be a challenge at many places. However as this area is not as water starved as other dry districts of state there was enthusiasm for ODF and cleanliness. It was also mentioned during the meeting that toilet need not be within premises, if house is small or difficult in

access then outside are can also be utilized for the constructions and many examples were sighted form within districts by some beneficiaries and officials.

VI. District: Belgaum

Taluk: Belgaum, **Venue:** T.P Office, **Date:** 28-9-2016, **No. of Participant**: 12

The group discussion involved G.P. members, Secretary and beneficiaries. The discussion was initiated by the moderator invoking the benefits of toilet and pressing beneficiaries to share their experiences. All beneficiaries stated that they were involved in the process of scheme and their application was given due attention. The selection process was said to be completed in 3-4 days. Weaker and women sections were also represented.

The highlights of the meeting/discussion are as follows:

- Attendees stated the need to spread more awareness about the benefits of toilet like, health and women safety
- Availability of funds, Water, Hygiene, Cleanliness and Safety were major factor for the individuals and community for toilet construction
- Members present also pointed the issues OD that it is hazardous to health and environment and should be curbed by stringent legislation
- There were suggestions that to store water, storage tanks have to be constructed or fixed. In addition the pits has to be bigger to avoid quick filling
- The suggestion for stopping OD varied from spreading awareness to strict punishment and legislation

Note:

Belgaum is the urban center of northern Karnataka. The OD is mostly spread in slums and rural area which will require support system apart from awareness campaign.

VII. District: Gadag

Taluk: Gadag, **Venue:** T.P Meeting Hall, **Date:** 15-6-2016, **No. of Participant**: 16

The group discussion involved G.P. members, Secretary and beneficiaries. The discussion was initiated by the moderator invoking the benefits of toilet and pressing beneficiaries to share their experiences. All beneficiaries stated that they were involved in the process of scheme and their application was given due attention. The selection process was said to be completed in 3-4 days. Weaker and women sections were also represented. However some beneficiaries pointed out severity of lack of water in Taluk and Gadag district in general.

The highlights of the meeting/discussion are as follows:

- Attendees stressed on the need to spread more awareness about the benefits of toilet like, health and women safety
- The construction of toilet is monitored by EO, PDO, GP staff and elected representatives
- Availability of funds, Water, Hygiene, Cleanliness and Safety were major factor for the individuals and community for toilet construction
- Members present also pointed the issues OD that it is hazardous to health and environment and should be curbed by stringent legislation

Note:

It was concluded that Panchayat & RDPR staff are working on ground to educate and motivate the people about safety and hygiene problems due to open defecation.

VIII. District: Dakshin Kannada

Taluk: Dakshin Kannada, **Venue:** T.P Meeting Hall, **Date:** 4-7-2016, **No. of Participant**: 8

The group discussion involved G.P. members, Secretary and beneficiaries. The discussion was initiated by the moderator invoking the benefits of toilet and pressing beneficiaries to share their experiences. All beneficiaries stated that they were involved in the process of scheme and their application was given due attention. The selection process was said to be completed in 3-4 days.

The highlights of the meeting/discussion are as follows:

- Attendees stressed on the need to spread more awareness about the benefits of toilet like, health and women safety
- Availability of funds, Water, Hygiene, Cleanliness and Safety were major factor for the individuals and community for toilet construction
- Some beneficiaries were sharing their experience of other districts of the state emphasizing about how Dakshin Kannada is way ahead of others in Karnataka
- This district is highly literate and many people are aware of the need of toilet for hygiene and cleanliness however there were suggestions that more aggressive awareness program is required both at district and state level.
- There were suggestions that to store water, storage tanks have to be constructed or fixed. In addition the pits has to be bigger to avoid quick filling

Note:

The district of Dakshin Kannada is highly literate with high penetration of latrines at household levels. The water availability is also comparatively higher than other districts of state.

IX. District: Bidar

Taluk: Bidar, **Venue:** T P Meeting Hall, **Date:** 24-10-2016, **No. of Participants**: 9

The focused group discussion involved Z.P Members, PDOs, Secretary and beneficiaries. The discussion was initiated by the moderator invoking the benefits of toilet and pressing beneficiaries for their experiences. All beneficiaries stated that they were involved in the process of scheme and their application was given due attention. The selection process was said to be completed in 3-4 days. Weaker and women sections were also represented.
The highlights of the meeting/discussion are as follows:

- Attendees stressed on the need to spread more awareness about the benefits of toilet like, health and women safety
- Nearly unanimous focus group member agreed that fund available for the scheme
- The construction of toilet is monitored by EO, PDO, GP staff and elected representatives
- Though availability of funds, Water, Hygiene, Cleanliness and Safety were major factor for the individuals and community for toilet construction these parameters were said to be better compared to most of the other districts of the state

Notes:

Water scarcity has been a major issue and sometimes it has affected negatively toilet usage and latrine at house program in Bidar region. It was discussed that apart from creating awareness about latrine construction and usage, there is need to have a permanent solution for water woes.

X. District: Koppal

Taluk: Koppal, **Venue:** T.P Meeting Hall, **Date:** 8-6-2016, **No. of Participant**: 10

The group discussion involved G.P. members, Secretary and beneficiaries. The discussion was initiated by the moderator invoking the benefits of toilet and pressing beneficiaries to share their experiences. All beneficiaries stated that they were involved in the process of scheme and their application was given due attention by authorities. Weaker and women sections were also represented.

The highlights of the meeting/discussion are as follows:

Most of the attendees stated that latrine has made improvements in their life and social status

- Attendees stressed on the need to spread more awareness about the benefits of toilet like, health and women safety
- Availability of funds, Water, Hygiene, Cleanliness and Safety were major factor for the individuals and community for toilet construction
- Members present also pointed the issues OD that it is hazardous to health and environment and should be curbed by stringent legislation
- Water scarcity is also a factor for not using the latrine, while some people feel going to the open area is far better.
- It was also highlighted that water needed for cleaning has to be poured in with maximum water, till then it will not be flushed out. This raises the issue that more awareness about using toilets is needed.
- Some attendees agreed that it will take some more time for successful implementation and use of latrines.
- There were suggestions that to store water, storage tanks have to be constructed or fixed. In addition the pits has to be bigger to avoid quick filling

Note:

The district administration has decided to make Koppal district as free of open defecation by the end of 2016 year. Also they have decided that one of the Taluk's (Gangavathi) has to be free of open defecation by October 2nd 2016. The entire administration is working hard to reach the goal.

XI. District: Yadgir

Taluk: Yadgir, **Venue:** T P Meeting Hall, **Date:** 20-05-2016, **No. of Participants**: 18

The group discussion involved Panchayat members, PDOs, Secretary and beneficiaries. The discussion was initiated by the moderator invoking the benefits of toilet and pressing beneficiaries for their experiences. All beneficiaries stated that they were involved in the process of scheme and their application was given due attention. The selection process was said to be completed in 3-4 days. Weaker and women sections were also represented.

The highlights of the meeting/discussion are as follows:

- Attendees stressed on the need to spread more awareness about the benefits of toilet like, health and women safety
- Nearly unanimous focus group member agreed that fund available for the scheme The construction of toilet is monitored by EO, PDO, GP staff and elected representatives
- Though availability of funds, Water, Hygiene, Cleanliness and Safety were major factor for the individuals and community for toilet construction these parameters were said to be better compared to most of the other districts of the state

Notes:

Water scarcity has been a major issue and sometimes it has affected negatively toilet usage and latrine at house program in Yadgir region. There was common demand of water tank at local level, big pit and drainage system. It was discussed that apart from creating awareness about latrine construction and usage, there is need to have a permanent solution for water woes.

XII. District: Kolar

Taluk: Kolar, **Venue:** Z P Meeting Hall, **Date:** 7-9-2016, **No. of Participant**s: 10

The group discussion involved Z.P Members, PDOs, Secretary and beneficiaries. The discussion was initiated by the moderator invoking the benefits of toilet and pressing beneficiaries for their experiences. All beneficiaries stated that they were involved in the process of scheme and their application was given due attention. The selection process was said to be completed in 3-4 days. Weaker and women sections were also represented.

The highlights of the meeting/discussion are as follows:

- Attendees stressed on the need to spread more awareness about the benefits of toilet like, health and women safety
- Nearly unanimous focus group member agreed that fund available for the scheme
- The construction of toilet is monitored by EO, PDO, GP staff and elected representatives
- Though availability of funds, Water, Hygiene, Cleanliness and Safety were major factor for the individuals and community for toilet construction these parameters were said to be better compared to most of the other districts of the state

Notes:

Kolar has sufficient tribal population where latrine construction and usage awareness and facilitation are important requirements as per the attendees of the meeting. Kolar's vicinity to Bengaluru needs to be enchased and toilet facility implementation and usage awareness are first few steps to improve human life parameter in Kolar areas.

Answers to Review comments

	Initial comments	**Comments on revised report**	**Remarks by CCX**
1	Name of the Bengaluru should Bengaluru Urban district?	Changed	
2	Provide horizontal bar in place of 0 percentage	Changed	
3	The Column “Do not exist at all “ in table 13 for Shimogga district is unnecessary	Not changed (retained as it is)	Although the column is not significant, it has been retained considering the template used for the table for all the district for maintaining consistency on tabular format.
4	The draft showing the tail of Indramma on page 35 should be set right as it contains grammatical and spelling mistakes and poor quality English	Contents are changed	
5	The utilization of latrines constructed in Belgavi district drops to93%. An explanation as to why education and awareness campaigned has not been so effective as compared to other districts should be brought on record. (Figure 93% does not match in the draft report)	This issue is not discussed in the report.	We have observed that utilization of latrine constructed in Belgavi dist is 99% in the draft report and it continues to have the same. We will be very obliged if you could please clarify which section of the report you are referring to.

6	It is seen from table 31 in respect of Bidar district that APL families also require education and awareness program, unlike many other districts of the state. This can be discussed in the report.	This issue is not discussed in the report.	In case of Bidar, it was observed that there are instances of non usage of IHHL by APL households.
7	In table 34 of Chamarajanagar district, the word 45 females should be rechecked, it may be 45 families.	It is not corrected or any explanation is also not given.	The reference is wrt to females. It has been stated with a change “It is also observed that most of the females who are not using IHHL are above 40 years and mostly neither educated nor earning member.”
8	Table 444 and 445 may be replaced with tables 44 and 45	Corrected	
9	The description ’18 persons refused to use due to water availability” is found to be inconsistent and the caption” “Motivation to build “ the water availability is one of the reasons for it. The two statements required to be rechecked.	It seems to be not effected in the report.	In Gadag , the survey was conducted during the month of June. Thus, there are instances of problem associated with water availability during the same period. This may be the reason for non usage of toilet associated with water availability although water availability is a

			major motivational factor for construction of toilets.
10	In Hassan district, the elders are stated to be not using the latrines because of water unavailability, whereas the description under the caption "Motivation to build" is contradictory. If both the statements are required to be retained, proper justification may be provided.	Explanation not clearly mentioned in the report.	In Hasan, it is the same cases. Although water availability is a motivational factor for toilet constructions, there are instances of water scarcity that led to instances of non usage. The survey was done during July which reflects memory of water scarcity in the mind of respondents.
11	Table 655 and 666 may be placed with tables 65 and 66	Corrected	
12	Specific local issues of the district with regard to the program should be brought on record	Recommendation are divided as short and long term recommendations	District level initiative are highlighted

Other comments

1) Figures given in most of the tables and analysis part of the revised report does not match with the draft report. Reasons for these variations are also not given.

CCX: The percentage was earlier calculated based on the total number of users which was considered as toilet constructed. However, some of the toilets were not in existence or incomplete which need to be excluded from total number of toilets constructed. Thus, the new percentage for toilets constructed has excluded incomplete and don't exist IHHL

households from the total toilet constructed category. In addition, due to misreporting, interpreters' subjectivity and conceptual issues, the dataset is limited by missing observations and other definitional problems. Thus, some of the IHHL survey sheet have been negated during the data cleaning.

2) Compliance report matrix for technical committee meetings observation and independent assessor's comments are not given in the report.
CCX: This is submitted as a part of the report

3) Chapter prescribed in the KEA guidelines viz 1) progress report 2) problem statement 3) data collection and analysis are not included and chapter introduction is named as "background" & Chapter reflection and conclusions is named as "Limitation and Conclusion".
CCX: The changes are incorporated in the new report.

4) In annexure part, term of reference, inception report is not given as prescribed in the KEA guidelines.
CCX: term of reference and Inception report is submitted as a part of Annexure.

In addition comments received during project presentations have been highlighted below:
1) Evaluation questions to be answered with detailed analysis
CCX: Details analysis has been represented in the revised report

2) Long and short term recommendations to be separated by design and implementation of the scheme and to be synchronised with the objective of the Scheme.
CCX: Long term and short term recommendations has been represented separately and has been synchronized with the project objectives.

Annexure 4: Terms of Reference

1 Title of the study:

The study is titled "Evaluation of the Utilization of Individual Household Latrines Constructed in the State."

2 Department implementing scheme:

As per the Memorandum of Understanding entered with the Government of Karnataka, the Agency has been given power as per norms set by the World Bank for monitoring and implementing the sanitation programme.

The Hon'ble Minister for Rural Development & Panchayat Raj is the President of the Agency and guides the Agency in policy decisions and holding periodical reviews. The Governing Council of the Agency is headed by the Additional Chief Secretary and Development Commissioner which accords administrative approval for scheme to be implemented and reviews the progress periodically. The Principal Secretary to Government RDPR department is the Vice Chairman of the Governing Council and guides the agency by regular reviews and policy decisions in carrying out its activities. The Commissioner KRWSSA is the Chief Executive of the Agency and member secretary of the Governing Council and General Body. He is responsible for the management of day to day affairs and planning and execution of works.

3 Background Information:

The combination of poor sanitation facilities and open defecation is a concern for both environmental and human health. Edwin Chadwick first made the link between lack of sanitation and disease in the mid-19th century. Through examination of the poor living conditions, disease, and life expectancy of English and Welsh residents, and using statistics from the General Registration (Chadwick, 1842), Chadwick concluded-

"The defective town cleansing fosters habits of the most abject degradation and tends to the demoralization of large numbers of human beings, who subsist by means of what they find amidst the noxious filth accumulated in neglected streets and bye-places".

Attributing disease to uncleanliness, Chadwick advocated for cleaning, draining, and ventilating as means to improve health. John Snow built upon Chadwick's claim by

discovering the link between uncleanliness and human health. Snow, using the Broad Street Pump incident as an example, showed how sewage-specifically, a baby's diaper polluted with cholera-from a nearby cesspit contaminated the county's water source and thus inflicted anyone who drank the water from the pump (Summers, 1989). Water was identified as the source of transmission, exemplifying the effects of poor sanitation on human health via water-borne diseases.

Similar to the diaper that contaminated the water source in London, human excreta from public defecation can also generate environmental and human health concerns. One gram of fresh faeces from an infected person can contain up to 106 viral pathogens, 106-108 bacterial pathogens, 104 protozoan cysts or oocysts, and 10-104helminth eggs (Mara et al., 2010). Public defecation in open fields can lead to human contact with excreta via various water routes: contamination of fingers, field crops, food flies, etc.

A relevant example is a study by Rajgire (2013) who looked at the effect of open defecation practices on the chemical and bacteriological quality of water in Open Defecation Free (ODF) and Open Defecation Not Free (ODNF) villages in the Amravati district of India. In these villages, individuals used water from various sources, including open well, tube well, hand pump, and water supplied by Gram Panchayat (GP) for drinking and domestic use. Using data from 138 villages, Rajgire's (2013) results show that faeces contaminated 17% of the water samples from ODF villages, and 48% of the samples from ODNF villages. Using antibiotic resistance analysis, both the ODF and ODNF villages' water samples were shown to have a poor water quality index.

Poor health due to inadequate sanitation is a by-product of a complex human environment cycle: public defecation in open fields enters and contaminates water sources, and these polluted water sources interact with crops, food, and flies, among others, and eventually transfer their contaminants to humans. This cycle can be broken through installation of adequate sanitation measures, such as latrines or toilets. However, construction is not enough; there must both be a demand for such facilities and the presence of a proper supply, so that the toilets that are installed are actually used and continually maintained.

Jawaharlal Nehru (1889-1964), India's first prime minister, remarked, "The day every one of us gets a toilet to use, I shall know that our country has reached the pinnacle of progress". Yet the presence of a toilet in of itself is not enough to ameliorate India's poor sanitation: the

value of a toilet must be realized and appreciated so that when a toilet is constructed, it is actually used. Demand for toilets is reliant upon the value individuals place on toilets. To increase this value requires an understanding of the individual and the society how sanitation is understood historically, culturally, and socially-and thus what mechanisms can be implemented to decrease value for alternative forms of defecation, add value to sanitation and toilets, and thus increase the individual demand for toilet construction and usage.

The Government has enacted multiple programs to tackle deficiencies in rural sanitation. Beginning in 1986, India has had four different national rural sanitation campaigns, with each hoping to improve the delivery and implementation of the former. As outlined in Table 1, the reforms include the Central Rural Sanitation Program (CRSP) in 1986, the Total Sanitation Campaign (TSC) in 2001, the Nirmal Bharat Abhiyan (NBA) in 2012, and the Swachh Bharat Abhiyan (SBA) more recently in 2014. Table 1 compares and contrasts the latter three sanitation reforms. Without a uniform mechanism, and more importantly, knowledgeable and effective leaders in localized communities to carry out such campaigns, sanitation reforms-despite their praiseworthy approaches-are oftentimes plagued by a focus on the short-term construction of toilets, rather than long-term infrastructure or educational activities.

The State has been implementing a number of sanitation programmes from 1985 with Government of India assistance and external aid. The goal is to ensure that there is no open defecation anywhere in the rural and urban areas of the State.

Open Defecation in the State (and the Country too) is not because there are no toilets. If that were to be the case, once all the households and public buildings are provided with toilets, the problem of Open Defecation would come to an end. But that has neither happened nor seems to be easily happening. It is reported that 2 Most people who live in India defecate in the open. Most people worldwide who defecate in the open live in India. Karnataka is no exception. As the rest of the world steadily eliminates open defecation, this behaviour stubbornly persists in India. Indeed, with 67% of rural households and 13% of urban households defecating in the open according to the 2011 census, India now accounts for 60% of the world's open defecation.2 The SQUAT survey highlighted that people in India continue with open defecation despite having household latrines. The reasons for open defecation and other relevant findings of the report included-

A. A latrine worth using is expensive and non-affordable.
B. Fully government-constructed latrines are the least likely to be used. A majority of people who live in households with a fully government constructed latrine defecates in the open; and one-third of such latrines are not usually used by anyone at all.
C. Of people who defecate in the open, 47% explain that they do so because it is pleasurable, comfortable, or convenient.
D. Of individuals who defecate in the open despite having access to a latrine in their household, fully 74% cite these same reasons.
E. Open defecation is not generally considered unhealthy. Most people believed that open defecation is part of a healthy, wholesome way of life.

It is reported in the 2013-14 annual report of the Department of Health Research though 100 percent households have access to individual, that community or shared toilets, only around 81.56 percent are using it as toilet. Yet another report in the Washington Post narrates people of Mukhrai (a village in Mathura district of Uttar Pradesh) stating, *"Having a toilet so close to the house is not a good idea. The pit is too small; it will fill up quickly. I don't want the bother of cleaning it up frequently. Going out to the open field is healthier. The open breeze outside is better than sitting inside this tiny room"*.

In the article *"Why India's sanitation crisis needs more than toilets*" Soutik Biswas writes that *"Toilet use did not necessarily increase with prosperity: in Haryana, one of India's richest states, most people in the villages continue to defecate in the open. Also, men living in households with toilets are more likely to defecate in the open than women*", and that "*the act of emptying the pit latrine is associated with the socially degrading caste system,*" said Sangita Vyas, Managing Director at Rice, a New Delhi-based research group that studies sanitation issues. *"People fear a situation when their pit fills up and there is nobody willing to clean it because of the social stigma.* That *fear discourages sustained use of toilets*.

Some cite lack of water as the reason as to why IHHLs end up being unused, alternatively used or not used. But, an article titled "Build toilets in the mind first" by Bhupesh Bhandari written for the Business Standard newspaper dated 28th August 2014 tells that "*research carried out by the World Bank shows there is no correlation between water availability and open defecation. In fact, women, followed by infirm people, are the biggest champions of toilets inside homes. There is only one block (sub-district) in the country that is totally free of open defecation - in the water-scarce Churu district of Rajasthan*". Later the same article

informs that "*the biggest deterrent to toilets is actually the Indian mindset….. There is ample evidence to suggest that toilets built with government help are often used as store rooms or even cowsheds. The Punjab government had launched a programme to build community toilets in the state, but these quickly fell into disuse*".

It has also been found in an evaluation study that individual household latrines (IHLs) are converted to storage units, animal housing, or are neglected entirely (O'Reilly 2010). In yet another study it is reported that around 81 percent of all the individual toilets constructed are being used as regular toilets. Among those which are not being used as regular toilet, 13 percent are not in use at all, 4 percent are being used as storage space or cattle sheds and the rest 2 percent are being used as bathing or washing space or urinals.

Total sanitation and getting rid of open defecation requires not merely providing toilets, but also persuasion to use it by all daily and regularly. Those who get the toilets should not feel that they are stuck with it.

4 Aims and Objectives of SBM:

The aims and objectives of NBA is to improve the standard of hygiene of the rural population by educating them on the need of sanitation; individual cleanliness, family and community oriented cleanliness; to provide sanitation facilities to all schools and Anganwadis in the villages, to inculcate good habits among the rural children; to see that community themselves dispose of solid and liquid waste in proper manner. Achieving success in all these areas, is primary objective of NBA/SBM. For the purpose of this evaluation, we will focus only on the extent to which individual household toilets constructed under SBM or any other scheme providing it are being used.

The unit cost of individual household latrines for the past 5 years is as follows-

Sl. No	**Name of the Scheme**	**Unit Cost**	**Incentives given in Rs. by**		
			GOI	**GOK**	07.05.09 to 01.05.11
1	TSC- 2009-2011	3000	1500	1500	
2	TSC 2011-2012	3700	2200	1500	
3	Nirmal Bharat Abhiyan (from 1st April 2012 to 01.10.2014)	4700	3200	1500	

4	Swachh Bharat Mission (from 02.10.2014 onwards).	12000	9000	4000	

Under SBM both BPL and rural APL beneficiaries (APL beneficiaries restricted to SC/STs small and marginal farmers, landless labourers with homestead, physically handicapped and women headed households) are eligible for payment of incentive of Rs. 12000 (GOI 9000 + GOK 3000) and Rs. 15000 to SC/STs (Rs. 3000 over and above from the grant of SCP/TSP) from 02.10.2014 for those who construct individual household toilets for the work orders issued on 02.10.2014 and onwards.

The physical and financial progress of construction of Individual House Hold Latrines (IHHL) from 2010-11 to 2014-15 is as follows-

Sl	**Year**	**IHHLs Constructed**	**Amount provided (crores)**	**Amounts actually spent**
1	2010-11	810,104	58.54	78.62
2	2011-12	414,782	125.66	68.13
3	2012-13	296,429	193.53	96.68
4	2013-14	101,928	94.01	199.76
5	2014-15	876,919	451.55	591.83

5 Purpose and Scope of Evaluation:

The scope of work includes the entire State of Karnataka. However, the actual evaluation will be limited to a sample comprising of 25% of the district population. The sample districts and villages etc. are detailed in the paragraph titled *"Sampling Size and Method of Evaluation"* which follows later.

The purpose of evaluation is to study and report as to whether the individual household toilets constructed in the past exist as on the day of evaluation or not? If not, what happened to them? Amongst those existing, how many are fully constructed and how many partly constructed/broken? Amongst the fully constructed usable toilets, how many are being used by (a) all members of the household, and, (b) only few members of the household? Where toilets are usable but not used by any member, what is the use to which it has been put to and why? What is the reason for non-usage/partial usage of the toilets? What can be done to ensure that toilets are used by all members of the household, always?

6 Evaluation questions

1. What is the percentage of Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15 which are found to exist as on the date of evaluation as (a) completely built and capable of being used (irrespective of being fully or partly used or not used all), (b) incomplete and not capable of being used, and, (c) do not exist at all?

2. What percentage of the Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15 and built completely and capable of being used, are indeed being used by all the members of the household on a regular basis? This information may be given year wise.

3. In case of those IHHL which are not being used by all members of the household, how many members and who (relation, sex, age, education level etc.) are those who are using not using them and why? Also, how many members and who (relation, sex, age, education level etc.) are those who are using not using them? What are the motivational factors for using IHHL?

4. Amongst the Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15 (all except non-existent ones) not being used as on the date of evaluation, what is the percentage of IHHL which were (a) used for some time and then discontinued, and, (b) were never used at all? What were the reasons for discontinuance in case (a) and for not using at all in case (b)?

5. What is the present day usage of the IHHLs (all except non-existent ones) not being used on the date of evaluation? (Examples could be used as storehouse, rubbish collection place, animal tying room etc.)

6. Is the percentage of the Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15, being used by all members of the household statistically significantly different between BPL and APL households? This information may be given year wise.

Similarly, what is the inference for IHHLs being used by some members of the household for BPL and APL households?

7. Is the percentage of the Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15, being used by all members of the household statistically significantly different between urban and rural households?

8. The unit cost of IHHLs in the years 2005 to 2207 was considerably less than that of 2010-11 to 2014-15. What is the percentage of 2005 to 2007 constructed (any one year may be

enough for evaluation) which are non-existent as on the date of evaluation? Is this significantly different for the average of the same for the entire period 2010-11 to 2014-15?

9. The unit cost of IHHLs in the years 2005 to 2207 was considerably less than that of 2010-11 to 2014-15. Is the percentage of the Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15, being used by all members of the household statistically significantly different than that of any of the years from 2005 to 2007? Why?

10. Is there a pattern in the usage of IHHLs (full and partial use both included) that can be seen from 2010-11 to 2014-15? What is it?

11. Does the education, income, social status, profession, availability of land or age of the decision maker (generally the eldest member or the highest earning member) have any significant association with the usage of IHHLs by a household? If indeed so, which are those and how significant they are?

12. Does availability of water, presence of or the usage of toilets in the households surrounding a household (peer/social acceptability) and children of the household going to schools have any significant association with the usage of IHHLs by the household?

13. What changes should be incorporated in the programme of providing IHHLs so that more and more of them are utilized regularly by all members of all households?

7 Sampling size and Method of Evaluation:

The beneficiary wise, Gram Panchayat wise information for all districts is available on the website www.mwds.gov.in for the period 2012 to 2015. For earlier data, the district Coordinators/Gram Panchayats will have to be contacted.

(a) About the Sample: For the purpose of sampling, the entire State of Karnataka will be the meta population. The four revenue divisions of Bengaluru, Mysore, Belgaum and Kalburgi form the first cluster from which three districts are selected in each division forming the second cluster. The selection of second cluster is not random; of the three selected, one is which has the highest literacy rate or is most urbanized, or both, the second is one that has best water availability and the third is which is either most backward in the division or has least water availability, or both. Within these all the Gram Panchayats will form the population of evaluation sampling units. At least twenty five Gram Panchayats will be selected from these, covering at least 3taluks, in which all the IHHLs constructed in the years 2010-11 to 2014-15 (the year of sanction will be the criteria for allocation of year of

construction) and one of the years from 2005-06 to 2007-08 (to answer evaluation questions 9 and 10) will be the sampled units. The second stage cluster is as follows-

Sl. No	Revenue Division	Districts Selected
1	Bangalore	Bangalore Urban, Shimoga and Kolar.
2	Mysore	Dakshina Kannada, Hassan and Chamarajanagar.
3	Belgaum	Belgaum, Uttarkannda and Gadag.
4	Kalburgi	Koppal, Bidar and Yadgir

(b) **About Method of Evaluation:** The evaluation will be done by the actual inspection of the IHHL in the selected Gram Panchayats. Each and every IHHL of the period 2010-11 to 2014-15 will be photographed (digitally) and geo-referenced by reporting the latitude and longitude. The location of the IHHL vis a vis the house (within living area of the house, outside living area but within boundaries of the house, totally outside the house are i.e. in some common area etc.) will be noted. In case of non-existent toilets or fully and regularly used toilets, the beneficiary or the decision maker of the household will be personally interviewed to elicit answers on a questionnaire that would provide the information for answering evaluation questions. In case of toilets being partially used or incomplete or incapable of being used, the personal interview should be of the decision maker of the household only.

Added to this, there will be Focused Group Discussion (FGD) with elected representatives and officers of the department concerned.

If possible, the report should carry a chapter comparing the PIT technology with the Bio-digester model developed by DRDO.

8 Deliverables time Schedule:

The Commissioner, State Water and Sanitation Mission, Karnataka will provide available year wise district wise/taluk wise data to the Consultant Evaluation Agency and issue will issue necessary instruction to the concerned ZPs, TPs and GPs to co-operate and facilitate for collection of the necessary data during the course of study. It is expected to complete the

study in 6 months time excluding the time taken for approval. The evaluating agency is expected to adhere to the following timelines and deliverables.

a. Work plan submission : **One** month after signing the agreement.
b. Field Data Collection : **Three** months from date of work plan approval
c. Draft report Submission : **One** month after field data collection
d. Final Report Submission : **One** month from draft report submission
e. Total duration : **6** months.

9 Qualifications and experience of the Team:

The evaluating agency should have research experience of long duration and should be well versed Kannada language and the State geography and demography. They should have personnel with-

- Experience in conducting Evaluation of large programmes in Solid Waste Management sectors.
- Ability to produce necessary documentation and reports and publish within stipulated period.
- Must have worked in similar projects.
- Have subject experts among panel with clear understanding of sanitation, hygiene and waste management.
- Experience with the State Government on similar work preferable.
- Qualifications of or equivalent to BE in Environmental Engineering/Civil Engineering, and Graduate in Statistics and Social sciences.

The agency should furnish detailed profile/bio data of each of the members of the team to be proposed for the evaluation assignment.

10 Qualities Expected from the Evaluation Report:

The following are the points, only inclusive and not exhaustive, which need to be mandatorily followed in the preparation of evaluation report:-

a) By the very look of the evaluation report it should be evident that the study is that of State Water and Sanitation Mission, Karnataka, of the Rural Development and Panchayath Raj Department of the Government of Karnataka, and Karnataka Evaluation Authority (KEA) which has been done by the Consultant. It should not intend to convey that the study was

the initiative and work of the Consultant, merely financed by the State Water and Sanitation Mission, of the Government of Karnataka.

b) Evaluation is a serious professional task and its presentation should exhibit it accordingly. Please refrain from using glossy, super smooth paper for the entire volume overloaded with photographs, graphics and data in multicolour fancy fonts and styles.
c) The Terms of Reference (ToR) of the study should form the first Appendix or Addenda of the report.
d) The results should first correspond to the ToR. In the results chapter, each question of the ToR should be answered, and if possible, put up in a match the pair's kind of table, or equivalent. It is only after all questions framed in the ToR that is answered, that results over and above these be detailed.
e) In the matter of recommendations, the number of recommendations is no measure of the quality of evaluation. Evaluation has to be done with a purpose to be practicable to implement the recommendations. The practicable recommendations should not be lost in the population maze of general recommendations. It is desirable to make recommendations in the report as follows:-

(1) Short Term practicable recommendations

These may not be more than five in number. These should be such that it can be acted upon without major policy changes.

(2) Long Term practicable recommendations

There may not be more than ten in number. These should be such that can be implemented in the next four to five financial years, or with sizeable expenditure, or both but does not involve policy changes.

(3) Recommendations requiring change in/of policy:

These are those which will need lot of time, resources and procedure to implement or those which intend to drastically modify the scheme.

11 Cost and Schedule of Budget release

Output based budget release will be as follows

a. The **First instalment** of Consultation fee amounting to 30% of the total fee shall be payable **as advance** to the Consultant after the approval of the inception report, but

only on execution of a bank guarantee of a scheduled nationalized bank valid for a period of at least 12 months from the date of issuance of advance.

b. The **Second instalment** of Consultation fee amounting to 50% of the total fee shall be payable to the Consultant after the approval of the Draft report.

c. The **Third and final instalment** of Consultation fee amounting to 20% of the total fee shall be payable to the Consultant after the receipt of the hard and soft copies of the final report in such format and number as prescribed in the agreement, along with all original documents containing primary and secondary data, processed data outputs, study report and soft copies of all literature used to the final report.

Tax will be deducted from each payment as per rates in force. In addition, the evaluator is expected to pay statutory taxes at their end.

12 Contact person to get further details about the study:

Sri. Krishnappa Additional Director State Sanitation Mission (Ph No. 9448396504 & 080-22032576), Sri. Jagadish, Consultant, (Phone no. 9448396582) Miss. Sindhu. S - 9980269139 and will be the contact persons for giving information and details for this study. (Email Id of Sanitation Mission is wsrdpr@gmail.com).

13 Review Committee:

The Commissioner – NBA may constitute a Review Committee under his/her chairperson to evaluate the technical and financial proposals and to finalize the selection of the agency. Also this Committee will review the quality of the work of the agency in the field and also the outputs submitted before the release of payments. The decision of the Committee will be final for all the above aspects.

The entire process of evaluation shall be subject to and conform to the letter and spirit of the contents of the government of Karnataka order no. PD/8/ EVN (2) /2011 dated 11th July 2011 and orders made there under.

The Terms of Reference were approved by the Technical Committee of KEA in its 21st Meeting held on 29th September 2015.

Sd/-
Chief Evaluation Officer
Karnataka Evaluation Authority

Annexure 5: Inception Report

INCEPTION REPORT

for

The Evaluation Study

on

The Utilization of Individual Household Latrines Constructed in the state of Dept of State Water and Sanitation Agency Government of Karnataka RDPR Department

Submitted

To

Karnataka Evaluation Authority, Bengaluru

By

Core CarbonX Sols Pvt Ltd

Hyderabad

MARCH 2016

1 Introduction

The Governments in developing countries have huge challenges of mitigating the twin threats of environmental damage and health and sanitation of the large majority of rural population. India is no exception, series of programmes aimed at accelerated improvements in health and sanitation of households, with major focus on rural areas which are exposed to a number of hazards mainly air-borne and water-borne epidemics. In recent years, gradual damage to the environment has also posed serious problems. Main challenges before the planners are coping with acute shortage of water and sanitation. Incremental allocations are being made year after year to this end. However, fiscal allocation and expenditure alone cannot ensure desired objectives of enhancing health and hygienic conditions of rural masses. Many studies sponsored highlighted the need for community acceptance for changes and wondered whether increased allocations can produce positive outputs The twin problems of health and environmental damage need to be addressed in a holistic perspective to be able to achieve the objectives.

2 Context

Government of India (GoI) is implementing number of programs to tackle deficiencies in the rural sanitation. India has had four different national rural sanitation campaigns, with each hoping to improve the delivery and implementation of the former. As outlined in Table 1, the reforms include the Central Rural Sanitation Program (CRSP) in 1986, the Total Sanitation Campaign (TSC) in 2001, the Nirmal Bharat Abhiyan (NBA) in 2012, and the Swachh Bharat Abhiyan (SBA) more recently in 2014. Government of India has been providing financial support to various State Governments with a view to improving living conditions in rural areas.

On the lines of GoI, Government of Karnataka (GoK) has also been vigorously pursuing the mission on rural sanitation through a number of interventions aimed at health and safety of rural population. Apart from community sanitation programmes, rural households are also being provided with financial assistance to build their own latrines. The GoK intends to assess the status and ground realities on the use or otherwise of the latrines built .

Among many ills, open defecation is quite common in rural households. Realising this, the GoI has taken prevention of this unhealthy practice on a war footing and on Mission Mode. The goal is to ensure that there is no open defecation anywhere in the rural and urban areas.

Mere availability of latrines either at community or individual level, does not result in prevention of open defecation. Total sanitation and getting rid of open defecation requires not merely providing toilets, but also peoples will to age-old open defecation habits in the interest of their wellbeing.

IHHLs- progress

Sl	Year	IHHLs Constructed	Amount provided (crores)	Amounts actually spent
1	2010-11	810,104	58.54	78.62
2	2011-12	414,782	125.66	68.13
3	2012-13	296,429	193.53	96.68
4	2013-14	101,928	94.01	199.76
5	2014-15	876,919	451.55	591.83
Total		**2500,162**	**923.29**	**1045.02**

3 Objectives of Evaluation:

The main purpose of evaluation is to study the present status of toilets constructed by individual households. Also to ascertain whether the toilets taken up for construction were actually completed or otherwise .The second objective is to ascertain the level of usage of toilets constructed in terms of (a) percentage of family members using or not using them and if no, the reasons therefore, In case the toilets are constructed and are not being used, ascertain the present usage of the same other than as latrines.

4 Broad Scope of the study:

Ascertain the percentage of Individual House Hold Latrines/ Toilets (IHHL) constructed in the years 2010-11 to 2014-15 which are found to exist as on the date of evaluation as (a) completely built and capable of being used (irrespective of being fully or partly used or not used all), (b) incomplete and not capable of being used, and, (c) do not exist

- Assess the percentage of the Individual House Hold Latrines/ Toilets (IHHL) constructed in the years 2010-11 to 2014-15 and built completely and capable of

being used, are indeed being used by all the members of the household on a regular basis.

- Ascertain number of households members who are using IHHL or not (relation, sex, age, education level etc.) including how many members and who (relation, sex, age, education level etc.) are those not using them;;
- Assess motivational factor for using IHHL;;
- Analyse the percentage of IHHL which are (a) used for some time and then discontinued, and, (b) are never used at all with reasons for such use and discontinued and in case of those not being used, the reasons therefor.
- Ascertain the present day usage of the IHHLs (all except non-existent ones) not being used. Being used as latrines and/or for other uses like storehouse, rubbish collection place, animal tying room etc.
- Determine whether the IHHLs constructed in the years 2010-11 to 2014-15, being used by all members of the household are statistically significantly different between BPL and APL households.
- Ascertain whether the percentage of the IHHL constructed in the years 2010-11 to 2014-15, being used by all members of the household are statistically significantly different between urban and rural households;
- Study and analyse percentage of usage of IHHL constructed during 2005 to 2007 that are non-existent at present. Also determine whether this is significantly different for those constructed during 2010-11 to 2014-15
- Study and analyse whether Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15, being used by all members of the household are statistically significantly different than that of any of the years from 2005 to 2007 and of so, identify reasons for the same;
- Study and analyse to ascertain whether or not there is a pattern in the usage of IHHLs that can be seen from 2010-11 to 2014-15, and if so, the type
- Study and analyse whether education, income, social status, profession, availability of land or age of the decision maker have any significant influence on usage of IHHLs by a household.
- Study and determine whether availability of water, presence of or the usage of toilets in the households surrounding a household and IHHLs in the neighbourhood school going children have any significant influence on usage of IHHLs.

On the basis of the inputs obtained from the above analysis, suggest changes if any to be incorporated in the programme of providing IHHLs so as to ensure their full use by all households.

5 Approach

The study has two dimensions namely:

A: Status on the structures of IHHL and

B: Status on usage of the IHHL

Status on the structures of IHHL

I. Whether the IHHLs constructed in the past exist or not and if not, their present status.
II. What is the share of fully constructed vis a vis partly constructed/broken IHHLs.

Status on usage of the IHHLs

i) Among IHHLs, how many are being used by

(a) All members of the household, and,

(b) Only few members of the household

(c) Where IHHLs are usable but not used by any member,

ii) If fully constructed IHHLs are not used, what is the present use reasons for their non-use

iii) Reasons for non-usage/partial usage.

The consultant is of the view that open defecation system is an age-old ill practice of the society in the absence of any alternative system.

This practice is continuing in spite of construction of latrine units across the rural and urban areas ,perhaps due to (i) inadequate supply of water and the users' helplessness (ii) Natural resistance to any changes (iii) mind-set of the households, and above all, indifference about environmental impact of the practice of open defecation.

Therefore, apart from the physical status of the individual latrines, the consultant would also focus on socio-economic, social-religious and socio-cultural aspects that have great influence on the attitude and behaviour of households;

6 Methodology

The evaluation will gather information mainly through the following tools:

- A thorough review of relevant documentation from within State Water and Sanitation Mission, Karnataka, of the Rural Development and Panchayath Raj Department of the Government of Karnataka, and Karnataka Evaluation Authority (KEA). In this context, a study will be prepared reviewing all existing documents on IHHL, and other recent and relevant evaluation, in particular country and sub-regional evaluations, which could contain analysis relevant to the theme of this evaluation;
- In-depth interviews with a range of stakeholders in Rural Development and Panchayath Raj Department of the Government of Karnataka, Zilla Parishad, and Gram panchayats, from senior management to the planning and policy units to the implementation units, and also including relevant elected member Representatives having an important role in the strategic planning discussions of IHHL;
- Questionnaires to households etc.;
- Visits to all the identified villages in 12 districts
- Focused Group Discussion with elected representatives and officers of the department concerned.

Questionnaires will be the primary means of information-gathering from the households. This will be supplemented by information from elected representatives and officers of the department concerned. The FGDs will offer a dynamic forum for exchange of experience and views on the process. The household visits would allow for more in-depth interaction between the evaluators and stakeholders at the field level.

Field studies would be carried out using questionnaires/ schedules as below

- **Household Schedules**

There will be set of questionnaires/schedules to capture information from (i) old IHHLs (2005-07) and (ii) recent IHHLs(2010-11 to 2014-15)

For field study, 12 Field research assistants are being positioned in four teams, each comprising three RAs. Each team comprising three RAs will be responsible for covering the required number of households. The field studies will be supervised by a Coordinator/ supervisor who will traverse between selected divisions, districts and GPs./

The core team will visit good number of selected Panchayats ,(around 10 per taluka or 120 GPs , hold interactions with households, GP members, other local groups to elicit qualitative information and assess the present perceptions and mind set of the local communities so as to arrive at conclusions . .

The consultant is in the process of accessing District wise, and taluka wise data on IHHLs constructed during the two periods i.e. 2005-07 and 2010-11 to 2014-15. The sample households will be selected using statistical sampling techniques in such a way that all the questions forming part of the RFP are answered .Tentatively following will be the sample size :

Division	**Districts**	**Sample Size (2010-11 to 2014-15)**	**Sample Size (2005-06 to 2007-08)**
Bengaluru	Bengaluru(U)	Min 1000 latrines for each districts or actual number of latrines whichever is less	Atleast 100 latrines constructed in any one of the year or actual number of latrines constructed in the said year whichever is less.
	Shimoga		
	Kolar		
Mysuru	Dakshin Kannada		
	Hassan		
	Chamrajnagar		
Belgavi	Belgavi		
	Uttar Kannada		
	Gadag		
Kalburgi	Koppal		
	Bidar		
	Yadgir		
Total	12		

Under cluster 2

Within the divisions, the consultant will select Blocks/Talukas that have

a) With highest literacy or is urban

b) With best water availability

c) Most backward or least water availability

Under cluster 3

This will comprise twenty five Gram Panchayats spread over three talukas

From these Gram panchayats, samples will be drawn from

a) HHLs constructed in the years 2010-11 to2014-15

b) HHLs constructed during any one of the years 2005-07

- **Field Verification**

Once the HHL units are selected, the Consultant's Field Research Assistants (RAs) will visit each of them and take all details including photography of the HHL, with GPS mapping.

- **One-to-one discussions**

All the selected households will be visited by the RAs and details will be collected in any one of the two schedules developed for this purpose.

- **Group Discussions**

In recent years, interactions with groups have proved to be highly useful since they provide useful and unbiased and objective inputs hence , the Research Assistants and in some cases, the Core Team, would hold Focussed Group Discussions with the elected representatives and officers of the department concerned. It is proposed to hold around 12 FGDs in the selected 12 Zilla Parishads level and few FGDs at the Gram panchayat level,

Organization of the Evaluation

The Evaluation Team

The consultant has constituted a team of experts to carry out the task and evolved a suitable methodology, sequencing all the activities in time-slice as per RPF document.

The evaluation team consists of

- an independent team leader with expertise in strategic planning and in management and in conducting major evaluations,

- a second core team member with experience in running large evaluation programmes and
- a third team member with wide range of experience in statistics and project management

The Core Team comprises following experts

Name	Position in the Team
Dr SP Srimathi	Principal Investigator
Mrs Shaily Maloo	First Member, Civil engineer
Ms Manjari Chandra	Second Member, Statistician

The core team and support staff has planned field visits to the selected district from April 2016.

The team will have the support of research assistants for background desk studies, organization of the questionnaire survey, and other tasks as needed. The evaluation is managed and supported by an Evaluation Manager and an Assistant Manager from the CoreCarbonX Office of Evaluation. The Evaluation Manager and Assistant Manager will participate in and support the regional team and will provide support to the team in the preparation of the inception report, regional reports and the overall evaluation report.

Responsibilities

Team Leader: The evaluation Team Leader will participate in and lead the whole evaluation process starting as early as possible, including the preparatory phase during which she will have responsibility for preparation of this Inception Report. The Team Leader will be responsible for coordinating the contributions of the various team members, and for presenting and discussing evaluation findings with key stakeholders. She will have ultimate responsibility for the substantive content of the Final Evaluation Report, which she will present to the Programme Committee.

Second and Third Core Team Member: She will participate in the whole evaluation process starting as early as possible, including the preparatory phase. The core team member will

have responsibility for leading the regional field missions and preparation of the interim reports from those missions. She will contribute to the overall evaluation report as decided upon with the Team Leader.

Support Consultants: they will join the regional field missions of the team, and provide expertise on the local issues and conditions in the region, assist in identifying the key informants in the regions visited, participate in interviews and team discussion, and provide written inputs to the regional reports and the final report as requested by the core team members.

Communication strategy and stakeholder consultation

To the extent possible, the evaluation team will maintain close contact and interaction with the final recipients of the evaluation recommendations throughout the process of the evaluation. Regular consultations will be held with these stakeholders to get their feedback concerning the outcomes of the various stages of the evaluation.

A mini-workshop will be held in Bangalore (1) to discuss the outcomes of the field visits and the team's findings and preliminary conclusions, and (2) to receive feedback on the full evaluation report before it goes through the last phase of finalisation.

7 Compliance Matrix

Information gathering and generation of required data is planned keeping in view the broad terms of study in general and the questions in particular. The consultant will ensure that the questions provided in the RFP document would be addressed and for this purpose, following strategy/ plan is proposed.

Question	**Source of data**	**Tools/techniques for Collection of data**
1. What is the percentage of Individual House Hold Latrines/Toilets(IHHL) constructed in the years 2010-11 to 2014-15 which are found to exist as on the date of evaluation as (a) completely built and capable of being used (irrespective of being fully or partly used or not used all), (b) incomplete and not capable of being used, and,	1 Rural water supply and sanitation Directorate 2. Zila Panchayat and Gram Panchayat 2.Individual households In selected districts	1 Specially devised computer compatible data sheets 2. Questionnaire I 3. Physical verification of selected works 4.photographs

(c) do not exist at all?		
2. What percentage of the Individual Household Latrines/Toilets(IHHL) constructed in the years 2010-11 to 2014-15 and built completely and capable of being used, are indeed being used by all the members of the household on a regular basis? This information may be given year wise.	1 individual users 2 Physical verification 3 documentation	1Collection of data for reference years ,analysis through Questionnaire/Schedule Interactions with households Interactions with Panchayats
3. In case of those IHHL which are not being used by all members of the household, how many members and who (relation, sex, age, education level etc.) are those who are using not using them and why? Also, how many members and who (relation, sex, age, education level etc.) are those who are using not using them? What are the motivational factors for using IHHL?	Individual households Head of the household, individual members of household	Information to be captured through household schedules (Q-1) Interactions with heads of the families
4. Amongst the Individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15 (all except non-existent ones) not being used as on the date of evaluation, what is the percentage of IHHL which were (a) used for some time and then discontinued, and, (b) were never used at all? What were the reasons for discontinuance in case (a) and for not using at all in case (b)?	Individual households Through field survey capturing information in specially designed questionnaires (U-1)	Collection of data from individual owners Interactions with households under one-to-one method
5. What is the present day usage of the IHHLs (all except non-existent ones) not being used on the date of evaluation? (Examples could be used as storehouse, rubbish collection place, animal tying room etc.) 6. Is the percentage of the Individual	Selected sample households Physical verification by the Field Survey teams photography	Individual HHs, family members Use of questionnaires/ Interactions with groups Panchayats

House Hold Latrines/Toilets(IHHL) constructed in the years 2010-11 to 2014-15, being used by all members of the household statistically significantly different between BPL and APL households? This information may be given year wise. Similarly, what is the inference for IHHLs being used by some members of the household for BPL and APL households?		
7. Is the percentage of the Individual House Hold Latrines/ Toilets(IHHL) constructed in the years 2010-11 to 2014-15, being used by all members of the household statistically significantly different between urban and rural households?	INDIVIDUAL users inputs obtained through field studies/surveys Analytical study of data to draw statistical conclusions	Household schedules Personal discussions Physical verification
8. The unit cost of IHHLs in the years 2005 to 2207 was considerably less than that of 2010-11 to 2014-15. What is the percentage of2005 to 2007 constructed (any one year may be enough for evaluation) which are non-existent as on the date of evaluation? Is this significantly different for the average of the same for the entire period 2010-11 to 2014-15?	Individual households Under two situations namely 1 Units constructed during 2006-07 and 2 between 2010-11 and 2014-15	The Household Questionnaire has a special column for HHLs constructed during 2005-07 which be used in ascertaining the percentages and reasons thereof. Interactions with this category of HHs will be conducted to elicit information on this
9. The unit cost of IHHLs in the years 2005 to 2207 was considerably less than that of 2010-11 to 2014-15. Is the percentage of the individual House Hold Latrines/Toilets (IHHL) constructed in the years 2010-11 to 2014-15, being used by all members of the household statistically significantly different than that of any of the years from2005 to 2007? Why?	Two sets of respondents, namely a)those constructing HHLs during 2005-7 and (b)those constructing HHls after 2010-2015 (Questionnaire2)	Analytical study of inputs received from the respondents and determining the characteristics under two different situations.
10. Is there a pattern in the usage of IHHLs (full and partial use both included) that can be seen from 2010-11 to 2014-15? What is it?	Users Field Studies across selected districts/blocks/panchayats	Questionnaire HHN-1

11. Does the education, income, social status, profession, availability of land or age of the decision maker (generally the eldest member or the highest earning member) have any significant association with the usage of IHHLs by a household If indeed so, which are those and how significant they are?	Study of socio-economic status of selected users households Interactions with the members of selected households	Questionnaires HHN 1
12. Does availability of water, presence of or the usage of toilets in the households surrounding a household (peer/social acceptability) and, children of the household going to schools have any significant association with the usage of IHHLs by the household?	1.study of status of water supply system/ arrangements, 2. study of surroundings of selected households and their neighborhood 3.study of other economic and social aspects of the HHs	HHN 1 Interactions with GP representatives
13. What changes should be incorporated in the programme of providing IHHLs so that more and more of them are utilized regularly by all members of all households?	1.All available secondary data from the concerned agencies 2. Household surveys/studies	Analytical study of available information Inputs from respondent households and FGDs with agencies/representatives

8 Work Plan- Progress

The consultant has already initiated work as per Terms of Reference. Activities so far accomplished include

- Team composition- for proposed field studies
- In House Briefings
- Questionnaires/ Schedules For Households (Annexure 1)and formats for secondary data collection ;
- Preliminary Field Visit To Kallipura in Honagenhalli - Kolar District interactions with a few households ;
- Accessing data from Zilla parishads: Since many of the districts, district wise details are not available, efforts are continuing to access same including Taluk-wise/panchayat wise details of IHHLs constructed during the reference period.

Keeping in view the tasks involved in addressing the TOR requirements, the consultant has proposed following Time frame for accomplishing the designed tasks:

Sr. No.	Activity	Timeline
1	Execution of MOU .	Completed 9.2.16
2	Preliminaries/in –house discussions, team work Plan preparation- questionnaires/checklists	On-going and concurrent
3	Preliminary Field Visits to one village	Accomplished
4	Inception Report- submission to KEA	22 March 2016
5	Field Team deployment and HH Survey	1st April to end of June
6	Data analysis/processing/draft report preparation	Concurrent and by 1st week of July 16
7	Draft report presentation	End July 2016
8	Final Report-preparation and Presentation	10 days after receipt of comments / suggestions from KEA / concerned agency/school/Dept.
9	Hardcopies submission to KEA	OPEN

9 Limitations

The consultant is in the process of accessing all the available data pertaining to the programmes to be evaluated . However, the required data is not readily available mainly:

Details of IHHLs constructed division-wise, District-wise, Taluk-wise and Gram Panchayat wise are not readily available .

Lack of readily available information from the district is a critical factor considering limited timeline for survey work.

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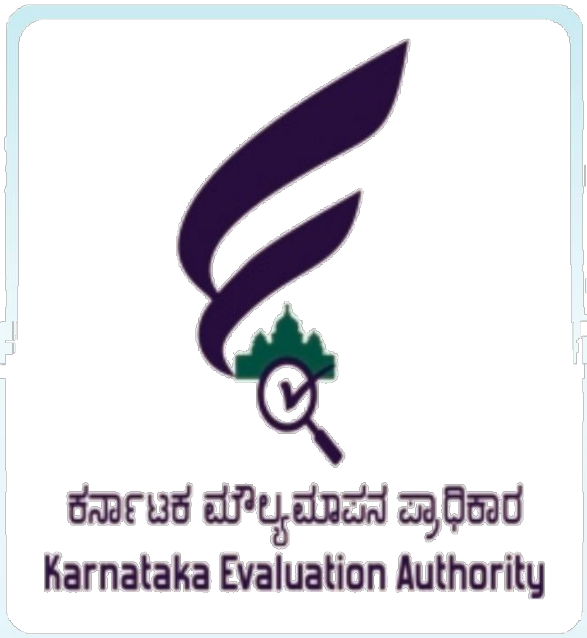

Evaluation of the Utilization of Individual Household Latrines Constructed in the State from 2010-11 to 2014-15