



IMPACT ASSESSMENT REPORT

CSR INVESTMENT ON BIO TOILETS

Raska Village,
Limbdī Taluka, Surendranagar, Gujarat

2015-2016

SUBMITTED BY
INNOVATIVE FINANCIAL ADVISORS PVT. LTD. (FIINOVATION)

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Acknowledgement

Pipavav Railway Corporation Limited commissioned Fiinnovation to execute a third party impact assessment of their CSR initiative at Raska village, Limbdi block, Surendranagar District, Gujarat. The intervention focused on installing 100 bio-toilets at the household level. This Impact Assessment Report is an outcome of the evaluation study conducted by Fiinnovation of the effort made by Pipavav with technical assistance and collaboration of Community Friendly Movement (NGO).

We are extremely thankful to Mr. V S Sivasubramanian, CSR Team Lead for providing this opportunity. He has been instrumental in conceptualizing, envisioning and providing overall guidance for conducting the field research. The requisite support and assistance provided by Mr. S L Makwana & Mr. Harshad C. Yadav who provided their insights during the study period and assisted the research team in making necessary arrangement for smoothening the process of data collection.

We would also like to express our gratitude to Mr. Rahul Kumar, Chief Project Coordinator of Community Friendly Movement (implementing partner), for being there and provide support at local level to conduct the study. The insights regarding the project design and planning provided by CFM's Mr. Saurabh Ghosh, Secretary and Mr. Sanjay Kumar, Project Director added immense value to our study outcomes.

We acknowledge the efforts of various government officials including the Taluka Pramukh, TDO-incharge, Member of Zilla Parishad for sharing their perspectives on the initiative and extending their whole hearted support in this evaluation. Fiinnovation team would like to express to all the stakeholders its sincere appreciation of the assistance received in the preparation of the entire report.

It has been a great experience for the entire Fiinnovation team to bring out this work and we believe it will further help Pipavav Railway Corporation Limited determination for improving the lives of the marginalised population on sanitation and achieve better outcomes in the sector.

Executive Summary

Sanitation has been declared as the second biggest problem in India as 64% of Indians still defecate in open. Given the situation, and scarcity of water sources in the remote backward villages of Gujarat, PRCL emphasized on designing and installing bio toilets as an initiative to prevent open defecation practices, promote better sanitation and hygiene outcomes, and facilitate reduced water usage patterns for sanitation purpose. PRCL initiated a planned approach to shortlist the backward villages located in the vicinity of 271 Km long Broad Gauge railway lines laid between Surendranagar and Pipavav port. Based on a detailed need assessment, the Company identified Raska for holistic village development programmes and started with services like construction of overhead water tank, installing 100 bio-toilets at household level, construction of a community centre etc.

With a keen intent to know further on the impact of the CSR project, PRCL commissioned Fiinnovation to conduct an in-depth impact study. Evaluation of the CSR initiatives within a defined timelines is one of the significant aspects which if undermined, will surely compromise on the levels of success achieved, effectiveness and future course of action for social initiatives whereas third party assessments ensure transparency, project accountability and unbiased assessments. Fiinnovation, reiterates the necessity of such assessment studies for any CSR project so that the stakeholders are also aware of the returns on the social investments that have been done by the Company under their CSR.

The field visits were conducted from 15th to 18th March, 2017 to understand the impact of project on all key stakeholders including households, youth, Government officials, Community Resource Person (CRP) and administrative staff and this detailed study report presents the impact of the project. The detailed insights forecast that the project has been fairly successful in reducing the instances of open defecation, providing a safe space for sanitation and creating an impact on the hygiene outcomes and cleanliness of the area. There are many households in the area which further requested for bio-toilets in their houses. Fiinnovation devised the evaluation framework and designed requisite tools for the study and data analysis of the findings are being formulated to be presented in a detailed report with the observations and feedback received on ground with respect to the intervention.

As the bio-toilets were implemented in three phases, Fiinnovation adopted Systematic Random Sampling (SRS) technique for each of the phases to design the sample size and accordingly, identified households were interviewed. Control group interviews have been conducted to compare the effects of bio-toilet vis-a-vis the houses still engaged in open defecation. During the focused group discussion (FGD) with youth members, one of the youth of Raska village quoted:

Conventionally, the concept of constructing toilets attached to houses are not much in practice in the villages of Gujarat, so breaking the community stereotype mindset has much been of a task and currently, the households are using the bio-toilets. Earlier majority of the population prefer to defecate in the open and travel to the fields for excreting faeces. Most of the women members including people found it difficult to move in public during the sunshine hours to relieve

It was observed that the bio-toilets installed at Raska village, Limbdi block have added immense value to the lives of rural community members since there were no such provisions in the past. Installing bio-toilets have helped them to address such issues and have a safe, protected space for defecation, located in the proximity of their homes.

Post intervention, there have been some noticeable changes across the health indicators. Faecal contamination have reduced considerably and even the instances of health symptoms including diarrhoea, malaria, common cough and cold, and other such vector borne diseases have reduced, as reported in the sample population.

Case study of young girls, women, old community members have also been collected for highlighting the outcomes on their daily routine life.

"Pehle Khana Khane Ke Liye Ghar Jate The, Aur Shauch Karne Ke Liye Bahar Jate The" Whereas

"Abhi Khana Khane Ke Liye Aur Shauch Karne Ke Liye Ghar Pe Hi Jatein Hain"....

(A sense of satisfaction was eminent as she happily quoted the words)

young girls, women and old themselves.

Indians defecate everywhere. They defecate mostly besides the railway tracks. But they also defecate on the beaches; they defecate on the hills; they defecate on the river banks; they defecate on the streets; they never look for cover.”

*—V.S. Naipaul An Area ...
OUTLOOK OCT. 2013*

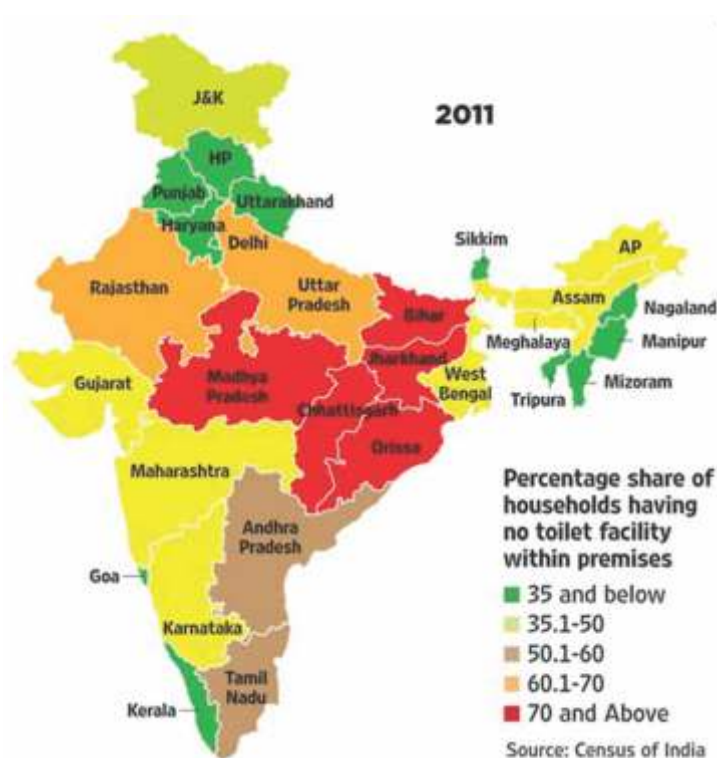
Background

Current Scenario in India

In India, water and sanitation coverage in health facilities is estimated to be 72% and 59% respectively. This puts patients and healthcare workers at unacceptable risk of infection, including some of the most vulnerable members of society – new mothers and their new births.

With 167 maternal deaths per 100,000 live births and 22 new-born deaths per 1,000 live births, India has one of the highest rates of maternal and infant mortality in the world. Studies have shown that many deaths in the first month of life result from diseases and conditions that are preventable. Sepsis, a leading cause of infection in new-births, is associated with unclean practices at and after birth. One in five new-born deaths within the first month of birth, could be prevented by ensuring access to clean water and providing a clean birthing environment. Evidence also suggests that poor water, sanitation and hygiene in health care facilities are associated with high in-hospital maternal mortality.

“We don't drink too much water before coming to school so that we don't have to use the toilet. It's always dirty. In case it's urgent, we take permission from the teacher and go home,” confessed Indore Government school students in Jan. 2017. The research conducted by WaterAid India in last 2 years suggests that a number of health care issues are caused due to inappropriate WaSH facilities especially sanitation. The assessment gave a sense of the issues and problems related to WASH especially sanitation in HCFs. However, one of the areas that were not explored was the status of sanitary staff or cleaning staff in those centers.



In the background of such a situation, the CSR initiative of a major Indian railway support company, Pipavav Railway Corporation Limited (PRCL) is one step towards solving one of the oldest and large-scale problems of India. The company has undertaken a structured and holistic development approach in order to ensure that the CSR fund is brought to an effective use and delivers the much-needed impact in the communities of Rural India.

“We don't drink too much water before coming to school so that we don't have to use the toilet. It's always dirty. In case it's urgent, we take permission from the teacher and go home,” confessed Indore Government school students in Jan. 2017

Pipavav Railway Corporation Limited (PRCL) has been formed as a Joint Venture Company with equity participation of Ministry of Railways, Government of India and Gujarat Pipavav Port Limited to undertake the construction, operation & maintenance of the 271 km long Broad Gauge Rail line constructed between Surendranagar and Pipavav port.

The Ministry of Railways has conferred concessional rights to PRCL, for constructing the broad gauge rail line and thereafter operating & maintaining the said line for a period of 33 years', through a Concession Agreement of 28 June 2001. By virtue of this Concession Agreement, PRCL is a part of Railway Administration as per the Railways Act, 1989. PRCL is entrusted to carry out the operations and maintenance of the rail line through Western Railway, as their nominated operator.

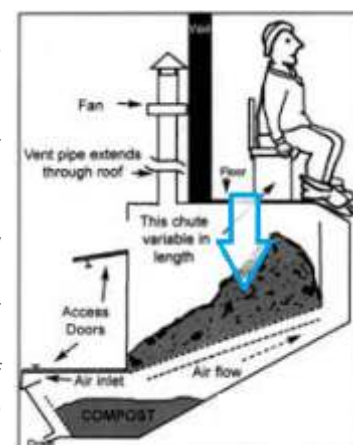
The approach of PRCL towards Corporate Social Responsibility is oriented to identify and formulate projects in response to actual societal needs in diverse areas and to implement them with full involvement and commitment in a time bound manner. In cases where other agencies/organizations are involved, approach is to focus on collaboration and partnerships. It acts as an agency to ensure delivery of services satisfying strongly felt social and community needs rather than merely financing and funding of on-going programmes.

A number of interventional sites were selected with very little sanitation facility and aged family members; where most of the population was going out in open spaces to defecate, looming a big danger of water born disease epidemic outbreak in the region. Community being an integral part of CSR operations, the company wanted to ensure that no one is forced anymore to indulge in open defecation practice. To address this problem in a sustained manner, the company adopted sanitation as one of the top causes as part of its CSR policy. In pursuance of its CSR policy, it gave a go ahead to set-up environment friendly bio-toilets in and around its areas of operations to eliminate open defecation practice

As part of its Corporate Social Responsibility (CSR), Pipavav Railway Corporation Limited constructed 100 bio-toilets for the residents of Raska Village, Limbdi Taluka, Surendranagar District in Gujarat. These bio-toilets differ from the conventional toilets as all of the human waste is processed and converted into harmless water thus promoting environmental sustainability. The Project commenced in December 2015 and was completed in the 1st week of August 2016 with the technical support by the NGO- Community Friendly Movement.

A local NGO Community Friendly Movement (CFM) was identified for looking after the installation and maintenance of these toilets in the long run. The work began in December 2015 wherein PRCL and CFM teams getting together and conducting days of groundwork which included surveys and some social engineering to ensure only the needy and those who are severely affected are selected as beneficiaries for toilets.

100 residential households in Raska were selected to host a bio-toilet facility within their premises by Pipavav Railway Corporation Limited (PRCL) under the CSR interventions. Raska, a 67.92% literate village with 960 workers (615 main workers and 345 marginal workers), is located in Limbdi Mandal of Surendranagar District, Gujarat. The nearest city of Raska is LIMBDI which is about 10 km from the Village. The Raska is about 10 km from the Sub-District Head Quarter Surendranagar and 41 km from the District Head Quarter LIMBDI. Raska village is surrounded by LIMBDI N.A. and its Gram Panchayat is Raska. The total Geographical Area of this village is 1336.160 Hectares with nearly 417 numbers of households are accommodating a population of 2063 in which male population is 50.8% and female population is 49.2%.



The status of drainage facilities available in Raska, Limbdi is mentioned in the below given table:

Table1: Drainage facilities in Raska	
Closed Drainage	Not Available
Open Drainage	Not Available
No Drainage	Available
Open Pucca Drainage Covered with Tiles Slabs	Not Available
Open Pucca Drainage Uncovered	Not Available
Open Kuccha Drainage	Not Available
Drain water is Discharged	Not Available
Total Sanitation Campaign	Not Available
Community Toilet Complex (including Bath) for General Public	Not Available
Community Toilet Complex (excluding Bath) for General Public	Not Available
Rural Production Centres or Sanitary Outlet	Available
Rural Production Mart or Sanitary Hardware Outlet	Not Available
Community Waste Disposal System after House to House Collection	Not Available
Community Bio-Gas or Recycle of Waste for Production Use	Not Available
No System (Garbage on road/street)	Available

Source: <http://www.villagedata.in/gujarat/surendranagar/limbdi/raska>

The project entails construction of a bio toilet utilising a 3 feet x 7 feet bio digester tank for collection and waste decomposition. With an estimated 5 persons per household, 500 people had been benefitted from this project contributing to 24 percent of the village population.

¹<http://www.census2011.co.in/data/village/512560-raska-gujarat.html>

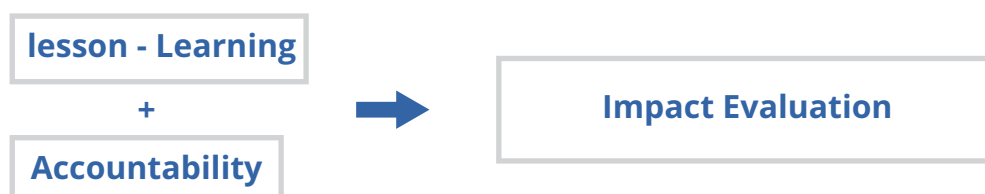
²<http://www.census2011.co.in/data/village/512560-raska-gujarat.html>

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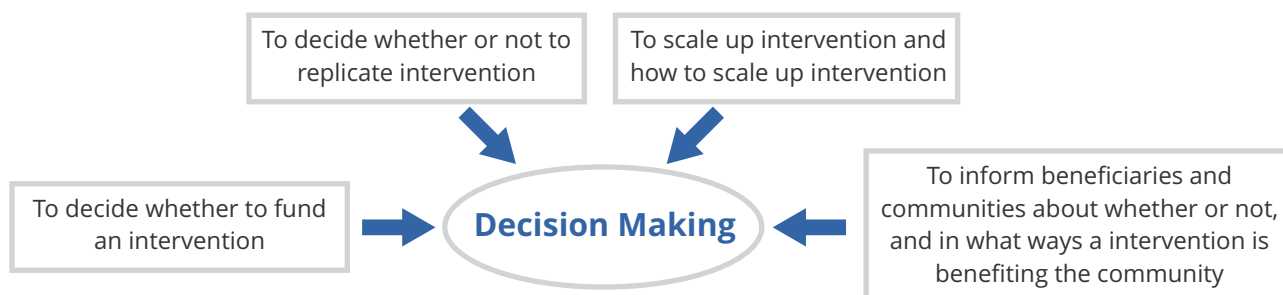
Purpose of the Study

The objectives of Impact Evaluation vary, depending on the type of initiative or program or project. Generally, the purpose is to assess the effectiveness and efficiency of the program and its efficacy in relationship to the original expectations. Impact evaluation also depends on who is the end user and what are the expectations of the endeavor. An end user may simply be interested in knowing if the program delivers well against the plotted objectives. In some cases, it also intends to assess the cost of achieving these objectives and whether the resources invested could have been put to better use. The study also focused towards measuring the program's impact beyond simply achieving a set of prescribed objectives.

Impact evaluation served both objectives of evaluation:



A well designed evaluation answer questions about program design: what worked and what did not and hence provide policy relevant information for realignment and the design of future initiatives. Also, structured impact evaluation answer crucial questions pertaining to materiality of programs and enable in decision making processes on given below aspects:



Objectives of the Study

Impact evaluation study enabled the research team to assess the program, policy or project and their variables in order to:

- Evaluate the project activities in terms of their efficiency and efficacy to achieve the expected outputs and outcomes.
- Evaluate the achievements of the project objectives and outcomes in terms of number and quality.
- Map the scalability of the project.
- Identify the gaps in the project implementation, beneficiary involvement, and recommendations to improve program delivery in future.

Approach

Given the objectives mentioned above, impact evaluation assessed the success or failure of the development program or project. Every CSR project works in close alignment with its specified CSR policies and has programs and projects which require effective planning and implementation as well as ensure compliance between expectations and outcomes, hence monitoring and evaluation. A key feature of any development programs is the active and meaningful participation of all the key stakeholders encompassing the community members, youth, community resource person, local Government officials, PRI members, project implementation staff-members.

Based on the above mentioned outline; a comprehensive approach to assess the CSR Initiatives help to assess the impact at different levels i.e. From the national, district, block levels to the community levels.

Methodology

The study focused specifically on empirical evaluations of the CSR program and provides results of the evaluations. This report has not only described the program effectiveness but also suggested methods for evaluating the program. In estimating the impact, the adoption profile and the transferability of trial results to practice were checked on the relevance of the outputs to beneficiaries in different regions and the implementation costs, as well as the community awareness of the option and their capacity to exercise it. The data and findings were collated and assimilated according to the profiling indicators as set forth in the tools & questionnaire guidelines.

In addition to conducting a review of available program documents from PRCL, the questionnaires were drafted with the intention to collect mainly qualitative and inferential data. However, a portion of the findings also included quantified and enumerated data reflecting personal and demographic information of the subjects who were interviewed; and helped to construct a general purview of the situation faced by the program participants. A database was prepared with a complete record of enumerated findings, as well as the interview sheets of all stakeholders: current beneficiaries; community resource person; PRI members; administrative staffs and state functionaries.

Study Instruments

Quantitative and qualitative surveys was conducted among the target respondents taking statistically desirable sample size. The activities involved in the process of Impact Evaluation include:

- Preparation and finalization of questionnaires for the groups (IDI/KII/FGD)
- Pretesting of all the questionnaires
- Defining the process for sampling data collection and interviews in Field Manual
- Providing training to data collectors and field investigators and also developing the training manual
- Ensuring quality control during data collection, scrutiny and entry to minimize bias
- Editing and processing of data
- Preparation & submission of the report

Stakeholder Engagement

The stakeholders from the community were identified and interviewed using various tools designed specifically for the study. The stakeholders groups involved in the study were:

- Community Households
 - Target Group and
 - Control Group
- Youth
- Community Resource People (CRPs)
- Implementation Staff
- Government Officials

Key Tools

The various tools used for data collection process for this study are enumerated as below:

- In-Depth Interview (IDIs)
- Key Informant Interviews (KIIs)
- Focused Group Discussions (FGDs)
- Success Case Studies (CSs)

The research team, comprising of the lead consultant and interviewer/enumerators, conducted and documented the above with individual respondents to gather information on constraints, opportunities and improvements that can be made within the existing program. The interviews/discussions were conducted through structured questionnaires to derive some quantitative data, and were also extended to discussions with respondents in order to supplement the structured findings of the questionnaires with qualitative information as well.

The data collection exercise was quantitative as well as qualitative in nature. The sample respondents were interviewed and consulted through structured guidelines developed for IDI/KII/FGD questionnaires administered during field activities by Hindi/Gujarati speaking interviewers. The interviewers were charged with conducting simultaneous translation of the questionnaires from English into Spoken Hindi/ Gujarati for the respondents, who gave their responses and remarks in Hindi/ Gujarati, which were then translated and recorded into written English on the individual questionnaires. All of the data collected in the field and recorded on the questionnaires was reviewed over collectively by the consultant and the interviewers. All of the quantifiable data was then transposed into a spreadsheet format, including the contact list, with additional comments and remarks recorded during individual interviews and separated according to stakeholder group and questionnaire design, and then compiled into separate documents respective of stakeholder group. These qualitative findings have been shared, along with the quantified data in the findings. It is imperative that the current impetus of the program is maintained in order to sustain and intensify the gains achieved by the program. This study helped to identify the challenges in program implementation that need to be addressed in order to intensify the gains achieved by the program. Founded on the gaps and strengths identified, recommendations have been put forward to help improvise on similar intervention efforts. All the observations and recommendations are based on firsthand experience of the programme implementation design and field understanding.

The study employed a mix of quantitative and qualitative methods. The quantitative methods were used to assess the likely effect of exposure to the program intervention on several key outcomes using rigorous statistical methods. And the qualitative method helped in getting a better insight and in-depth understanding of the impact of the intervention from the perspectives of program beneficiaries, communities, program implementers, among others. Both the quantitative and qualitative facets of this evaluation were used to collect data in program implementation areas. The criteria for the indicators chosen for evaluation were as follows.

Description of the Criteria Being Used

Criteria	Description
Relevant	Indicators were representative of the most important aspects of implementation and of the outcomes and impacts intended.
Clear	Indicators were unambiguous and clearly defined in the project's context, and in a manner understood and agreed by all stakeholders. Any adjectives used to describe the qualities of an indicator need to be precisely defined.
Specific	Indicators measured specific changes, and were specific to a timeframe, location and target or other stakeholder group
Measurable	There were practical ways to measure the indicators, either in quantitative or qualitative terms that were within the capability of the monitoring organization.
Consistent	The values of the indicators were reliable and comparable over time when collected using the same methods. This was made more likely by measuring the indicators in a standardized way and with sound sampling procedures.
Sensitive	Indicators were sensitive to the expected changes and were capable of revealing short-term movements.

<i>Criteria</i>	<i>Description</i>
Attributable	The indicators were based on an established or probable relationship expected to cause the intended change. In moving from inputs and outputs to outcomes and impacts attribution must typically rely less on direct observation of cause and effect and more on statistical evidence of change and its probable cause.

Study Design

The approach compared the key responses between those survey respondents who were directly exposed to the project intervention among those who remained unexposed to the program intervention using statistical techniques.

IDI, KII, CS and FGD participants were recruited in close consultation with the implementing agency. The principle of “homogeneous strangers” was employed to enroll participant for the IDI/KII/FGD/CS. The process was facilitated by data collectors and field investigators, both of whom were neither a resident of the study site nor a member of the target group but fluent in Hindi/ Gujarati (both written and verbal). The operational guidelines were incorporated in the field manuals prepared for the study for easy implementation and administration. All discussions were recorded after getting verbal consent from the study participants and notes were taken for the same.

Population Covered

The research methodology comprised of a mix of qualitative and quantitative techniques. As per available data set, the bio toilets were installed in three phases as detailed below:

Table2: List of beneficiaries				
Sl. No.	Name of Beneficiary	GPS		Unique Code
		North	East	
Phase 1				
1.	Parmar Devgi Bhai Mohan Bhai	22° 34.798	22° 44.406	In the initial phase unique codes were not created and hence not allotted to the toilets constructed.
2.	Arjun Bhai Petha Bhai	22° 34.801	22° 44.406	
3.	Parnar Jiwa Bhai Punja Bhai	22° 34.803	22° 44.356	
4.	Jagdish Bhai Vasta Bhai	22° 34.104	22° 44.282	
5.	Ranjan Ben Pursotam Bhai	22° 34.914	22° 44.390	
6.	Shamji Chatur	22° 34.934	22° 44.334	
7.	Mala Raisan	22° 34.933	22° 44.334	
8.	Shivan Daaya	22° 34.934	22° 44.325	
9.	Govardhan Daaya	22° 34.931	22° 44.330	
10.	Tava Bechar	22° 34.521	22° 44.381	
11.	Dinesh Hari	22° 34.810	22° 44.407	
12.	Ramesh Bhikha	22° 34.972	22° 44.283	
13.	Mansu Guga	22° 34.964	22° 44.310	
14.	Chatur Trikam	22° 34.788	22° 44.383	
15.	Parveen Bhai Devji Bhai	22° 34.840	22° 44.393	
Phase 2				
Sl. No.	Name of Beneficiary	GPS		Unique Code
		North	East	
1.	Ramesh Bhai Taba Bhai	22°34.875	22°44.386	27
2.	Parbhu Bhai Paswa Bhai	22°34.883	22°44.331	32
3.	Anuda Mepa	22°34.987	22°44.285	41
4.	Rama Mehra	22°34.929	22°44.297	36
5.	Khengar Khema	22°34.954	22°44.314	42
6.	Sangram Muma	22°34.905	22°44.318	33
7.	Hira Reva	22°34.905	22°44.320	34
8.	Mera Thura	22°34.927	22°44.297	35
9.	Bhagwan Khimji	22°34.927	22°44.282	39
10.	Ghan Shyam Bhawan	22°34.969	22°44.326	44
11.	Sunder Khima	22°34.857	22°44.310	47
12.	Hasmukh Uka	22°34.852	22°44.314	46
13.	Jiwa Ram Mani Ram	22°34.855	22°44.329	38
14.	Thakar Singh Narsingh	22°34.855	22°44.270	49
15.	Dhiru Nagar	22°34.895	22°44.287	37
16.	Hari Raja	22°34.887	22°44.345	31
17.	Mulji Bhika	22°34.869	22°44.352	30
18.	Mahendar Ramji	22°34.856	22°44.363	29
19.	Devji Tava	22°34.872	22°44.374	28
20.	Dudha Lalji	22°34.810	22°44.359	22
21.	Mohan Raja	22°34.833	22°44.396	26
22.	Kanji Mohan	22°34.808	22°44.407	17
23.	Tokar Vira	22°34.785	22°44.382	18
24.	Teja Punja	22°34.808	22°44.359	23
25.	Tarun Ganesh	22°34.792	22°44.404	16
26.	Jayanti Bhikha	22°34.972	22°44.283	40
27.	Tarsi Jiva	22°34.384	22°44.361	24
28.	Jetha Vishram	22°34.821	22°44.369	21
29.	Parmar Devgi Mekha	22°34.793	22°44.373	19
30.	Chandu Bhai Magan Bhai	22°34.833	22°44.397	25

31.	Satubha Pravat Singh	22°34.859	22°44.276	50
32.	Dana bhai parama Bhai	22°34.808	22°44.348	20
33.	Raja Dev Singh	22°34.964	22°44.312	43
34.	Amra sela	22°34.964	22°44.311	45
35.	Kesha Chatur	22°34.841	22°44.284	48

Phase 3

Sl. No.	Name of Beneficiary	GPS		Unique Code
		North	East	
1.	Nathi Ben Dungar Bhai	22°34.805	22°44.406	52
2.	Bechar Bhai Kheta Bhai	22°34.111	22°44.250	66
3.	Bala Bhai Harji Bhai	22°34.845	22°44.338	82
4.	Karsan Gela	22°34.964	22°44.312	73
5.	Gopal Gobar	22°34.929	22°44.297	98
6.	Gopal Maaya	22°34.921	22°44.297	69
7.	Jaga Daaya	22°34.955	22°44.283	72
8.	Bharat Dila	22°34.891	22°44.282	71
9.	Shyamji Sagan	22°34.913	22°44.280	70
10.	Waja Bhai Walji Bhai	22°34.909	22°44.287	81
11.	Chika Kana	22°34.854	22°44.295	83
12.	Kamlesh Dhanji	22°34.853	22°44.323	80
13.	Gem Bha Balu Bha	22°34.921	22°44.256	97
14.	Sankar Lakhman	22°34.871	22°44.280	91
15.	Hem Bha Rau Bha	22°34.877	22°44.257	96
16.	Niru Bhai Vaju Bha	22°34.868	22°44.250	74
17.	Bhopa Rama	22°34.879	22°44.344	63
18.	Lakhman Jetha	22°34.864	22°44.329	67
19.	Mala Balu	22°34.872	22°44.345	64
20.	Vithal Rupa	22°34.885	22°44.354	61
21.	Kanti Kuver	22°34.835	22°44.359	58
22.	Hira Daaya	22°34.833	22°44.384	55
23.	Khima Daaya	22°34.833	22°44.383	59
24.	Uka Lakhu	22°34.859	22°44.353	60
25.	Ajit Karshan	22°34.789	22°44.404	51
26.	Kishor Narsi	22°34.819	22°44.398	53
27.	Ramesh Nanji	22°34.833	22°44.370	57
28.	Tikam Bechar	22°34.814	22°44.377	54
29.	Alji Kuver	22°34.833	22°44.396	65
30.	Kanji Bhai Parama Bhai	22°58125	71°73896	87
31.	Mohan Muljee	22°58009	71°73916	89
32.	Kheta Dayaa	22°58143	71°73906	93
33.	Kanjee Jeram	22°57999	71°73096	56
34.	Dev jee Kuber	22°58105	71°73978	62
35.	Nandu Hari Bhai	22°57989	71°7389	94
36.	Jeram Vala	22°57959	71°73845	95
37.	Jayesh Devjee	22°58106	71°73845	77
38.	Labhu Dev jee	22°58061	71°73845	79
39.	Bijal Bhudhar	22°58103	71°73831	76
40.	Ashu ben Harjee	22°58101	71°73831	75
41.	Popat Jai Singh	22°5811	71°73855	85
42.	Gowardhan Ranchoor	22°58115	71°74042	90
43.	Rana Bhikha	22°58179	71°73854	86
44.	Maanga Kaama	22°5844	71°73802	68
45.	Devu Jiva	22°58196	71°73874	88
46.	Govind Ukka	22°5808	71°73844	78
47.	Moti Veshraam Solanki	22°58111	71°73932	92
48.	Dev jee dhanjee Nayak	22°58076	71°73859	84
49.	Sanjay Jai raam Taviya	22°58128	71°73816	100
50.	Ram jee Bhai Punja Bhai	22°57984	71°73987	99

Sample and Population Selection

Sample size determination is the act of choosing the number of observations or replicates to include in a statistical sample. The sample size is an important feature of any empirical study in which the goal is to make inferences about a population from a sample. In practice, the sample size used in a study is determined based on the expense of data collection, and the need to have sufficient statistical power.

A Systematic Random Sampling (SRS) method was adopted to select samples from each of the three phases in this study. Initially 30 households were proposed to be covered in the study. Including a buffer of 10% sample, research team selected 33 households encompassing the three sampling frames. The proposed sample was distributed on pro-rata basis. 05 households were selected from Sampling Phase I, 08 from Sampling Phase II and 20 from Sampling Phase III.

The sample plan followed vis-à-vis planned is detailed below-

Tools	Proposed		Achieved	
	Tools Used	Population Covered	Tools Used	Population Covered
IDIs Target Group HH	30	150	33	165
IDIs HH- Control Group	10	50	10	50
KIIs Youth (Male & Female)	30	30	32	32
KIIs CRPs	3	3	3	3
KIIs local Government Officials	3	3	3	3
KIIs Implementation Staff	2	2	5	5
FGDs Youths	5	50	5	40
Case Studies	2	2	4	4
Total	85	290	95	302

Minimizing Errors

- 1. Type 1 Errors:** Finding positive indicators when there's none
 - Error can be minimized after data collection, during statistical analysis
 - Need to adjust the significance levels of impact estimates (e.g. 99% or 95% confidence intervals)
- 2. Type 2 Errors:** Cannot see that there really is a positive indicator
 - Indicates that the statistical test has low power
 - Error must be minimized before data collection
 - Best method of doing this: ensuring you have a large enough sample

Study Instruments

Quantitative and qualitative survey was conducted among the target respondents taking statistically desirable sample size.

The activities involved in the process of Impact evaluation included:

- Preparation and finalization of questionnaires for the groups (IDI/KII/FGD/CS)
- Pretesting of all the questionnaires
- Defining the process for sampling data collection and interviews in field manual
- Providing training to data collectors and field investigators and also developing the training manual
- Ensuring quality control during data collection, scrutiny and entry to minimize bias
- Editing and processing of data
- Preparation & submission of the report



Area Profile

Demography

The existing demographic details have been enlisted below as per the census 2011.

Table 4: Demographic details of Raska Village

<i>Particulars</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>
Total No. of Houses	417	-	-
Population	2,063	1,047	1,016
Child (0-6)	280	146	134
Schedule Caste	594	310	284
Schedule Tribe	0	0	0
Literacy	67.92 %	78.58 %	57.03 %
Total Workers	960	566	394
Main Worker	615	0	0
Marginal Worker	345	74	271

Field Findings

Field Observations (Based on Household Interviews-Target & Control Group)

Finding 1:

A total of 43 households (Target and Control Group), participated in the survey, of which 81% respondents were males and 19% were females. 63% of the respondent belonged to the Other Backward Castes (OBC). Majority (75%) have nuclear families.

The profile of the respondents has been listed below:

Indicators Parameters	Profile of Households	
	Categories	Percentage
Gender	Male	81%
	Female	19%
Caste	General	2%
	OBC	63%
	SC	33%
	ST	2%
Family Type	Nuclear	75%
	Joint	25%

Finding 2:

The control group i.e. the households who do not have a toilet in their house, felt that the toilets are expensive to build. Given their low source of monthly income (a meagre INR 7151.16 per month reported), they find it difficult to construct toilets at their own. Interestingly, the control group members pointed out that they have to walk around 2 to 2.5 kilometres every day on an average to move to the fields to defecate, as open defecation is the single option available for them.

Finding 3:

Among the total sampled beneficiary households, 100% respondents reported of being aware about PRCL initiatives implemented in the village. 55% of respondents unfortunately were not aware of the functionality or relevance of bio-toilets.

Finding 4:

Out of the 33 household provisioned with bio-toilets, all the family members confirmed that they have adopted hand washing as a practice.

Finding 5:

In the overall sample, 96% clean their toilets on regular basis post usage and among them 47% use acid to clean the toilets and remaining households use water, detergent and other medium to clean toilets.

Finding 6:

Out of the 33 household provisioned with bio-toilets, 14% of the respondents reported that they are facing some problems in the bio-toilets, of which the foremost was odour issue. This resulted mostly as the bio-digester tanks were not inoculated with the bacteria solution; as a result the desired decomposition of the excreta was not happening. The odour was mostly because of the methane gas emissions. Bacteria were not introduced as the deposits were not sufficient in the tanks so as to provide food substratum to the fast growing bacterial colony. Most of the toilets were being used for past 3-4 months and hence deposits were not sufficient enough to fill the tanks. However the water filter attached was filtering the waste water and recycling it for further recharge of ground water.



Palu Bayen, W/o Chandu Bhai, 40 years, mother of 2 son and 2

daughters has been using the bio-toilet for past 8 months.

Both husband and wife are engaged in weaving as

they had to travel long distances to field for open issues in monsoon season. The daughters expressed utter shame as they had to go in open and was barely possible to relieve at daytime. Now they are happy to have an own toilet.

“ Pehle souch karne bahar jate the aur ghar pe khana khane ate the.....”

Ab khana khane aur souch karne ghar hi jate hain”

daily wage labour. Earlier travel long distances to defecation had had issues in monsoon season. The daughters expressed utter shame as they had to go in open and was barely possible to relieve at daytime. Now they are happy to have an own toilet.

Field Observations (Based on Youth Interviews)

Finding 1:

A total of 32 Youth were interviewed, of which, 97% were males and 3% were females. From among the respondents, 34% were in the age group of 18-25 years, 55% in the age group of 26-35 years and 11% were above 35 years of age.

Table 6: Demographic details of respondents (Youth)

Indicators Parameters	Profile of Youth	
	Categories	Percentage
Gender	Male	97%
	Female	3%
Age Group	18-25	34%
	26-35	55%
	Above 35	11%

Finding 2:

From among the Youth respondents interviewed, only 6% of them were illiterate whereas 41% of them have attended education up to Upper Primary level. None of them had undergone or received any technical or formal skills training at any point of time.

Table 7: Education details of respondents

Parameters	Indicators	
	Categories	Percentage
Educational Level	Illiterate	6%
	Primary	9%
	Upper Primary	41%
	SSC	19%
	HSC	22%
	Diploma UG	3%
	PG	0
	Neo Literate	0
Vocational Skills	Any Skill/Vocational Course Undertaken	0

Finding 3:

Survey with the household and youth showcased reduced instances of health symptom or diseases. 78% respondents reported no instances of diseases followed by 7% suffering from malaria and 7% from Dengue and other diseases including Cholera, Typhoid and skin related problems.

Table 8: Health details of respondents

<i>Health Parameters</i>	<i>Indicators</i>
Diseases	Percentage
Cholera	2%
Dengue fever	7%
Typhoid	2%
Malaria	7%
Skin Problem/Pain	4%
No Disease	78%

Finding 4:

Out of the total youth surveyed, 18% possessed toilets at home, of which 50% have toilets constructed under PRCL Bio Toilet initiatives.

Finding 5:

75% of youth complained of shyness and shame while defecating in the open. 25% stressed on the fact that it becomes difficult during monsoons to defecate in open. Moreover, they also claimed that it leads to wastage of time and energy.

Observations (from Youth Focused Group Discussions)

- Bio-toilets installed at Raska village, Limbdi block have added immense value to the lives of rural community members as there were no such provisions earlier in the area. Conventionally the concept of having toilets attached to houses are not much in practice in the villages of Gujarat, so breaking the community stereotype mindset was much of a task and currently the households are using the bio-toilets.
- Earlier majority of the population prefer to defecate in the open and travel to the fields for excreting faeces. Most of the women members including young girls, women and old people found it difficult to move in public during the sunshine hours to relieve themselves. Installing bio-toilets have helped them to address such issues and have a safe, protected space for defecation, located in the proximity of their homes.
- Earlier the surroundings used to look dirty, unhygienic and often spotted with dumps, which has reduced considerably over the period of last 7-8 months as mostly the households are availing bio-toilets recently.
- There have been some changes across the health indicators, as chances of faecal contamination have reduced considerably and even the instances of health symptoms including diarrhoea, malaria, common cough & cold and other such vector borne diseases have reduced, as reported in the sample population.
- The bio-toilets were developed in form of 12 concrete moulds in a workshop close to the village and then assembled & installed at the identified space, provided by the enlisted community households. There are individual water tanks installed beside each of the bio-toilets that have a removable two piece concrete slab lid for covering the storage water. As the village has scarcity of water supply so mostly these water tanks are filled by buckets. Most of the villagers reported that it is difficult for children, women or old age people to remove the lid and pour/extract water from such concrete tanks.
- The sanitary block has a bio digester tank beneath for collection of faecal deposits. There is a clamp that connects the latrine to the tank. It is usually a light weight PVC funnel clamp that is designed. In bio-toilets, normally less amounts of flush water is used to clean the latrines. However, the villagers use bucket of water to clean the toilets and in many cases the clamp has fall inside the bio digester tank resulting in an open space and mosquitoes are coming out of the tank. Even people complained of foul odour from the tanks and showed concerns that the tank may be inadequate for storage of waste, if used optimally and may need cleaning on bi-weekly basis only.

- The design of the bio-toilet comprise of a wash basin attached to wall of the toilet, in order to emphasize and ensure hand washing practices before and after use of toilets . However, these wash basins are non-functional as the direct running water supply is not installed in these bio-toilets. As per the project design, the implementing agency (Community Friendly Movement) conducted camps, motivation sessions with the villagers to inspire them to invest in resources like installing a small PVC water tank (200 liters) and tap connections so that running water would be made available in the toilets, which did not happen due to lack of sustained community participation.



“Sarkari toilets are also installed in the village but not so good in comparison to these bio-toilets”

- There is a demand for more bio-toilets from the rest of households in the area. It was suggested that the design may be made more appropriate by:
 - ✓ Installing an overhead water tank with connection, and water tap facility inside the toilet to enable the flush facility. Wash basin and the outer water tank may be eliminated from the design going ahead. However it was noted that during a field visit to Raska, the Managing Director of PRCL, Shri Amitabh Lal and Medical Consultant Dr. Mridula Kapoor explored the same option with the community members but the feedback received was not positive, as the community members were not willing to contribute and construct water tanks on their own.
 - ✓ Adding a solar light that will ease the community to use the toilets in odd-hours. Solar lamps provision was made in the initial project. However, this could not be made due to some difficulties faced by the implementing agency.

Ranjan Bayen D/o Kanji Bhai is a user of bio-toilet since last 8 months. Engaged in weaving sector as a daily wage worker, she has studied upto Class IX at Raska Primary School. She feels that bio-toilets have provided a space to defecate and also beneficial for the family as they have saved time on walking to fields for open defecation. She stated that it has reduced their shyness as they shamed to go for relieving at daytime and the overall cleanliness of the area has improved. Overall health savings has resulted and every day they save ½ to 1 hour time, which she devotes in her work to earn more.

Observations (Based on KIIs with the Government Officials)

- The Government officials (including Taluka Development Officer, Zilla Panchayat member, Taluka Pramukh) stressed on the fact that the bio-toilets installed in Raska village engage a new technique comprising of bio digester tanks and water filters that filter the waste water which trickles down to increase the ground water levels.
- It was also pointed out by the team that the bio-toilets (worth INR 21,000) are better in quality in comparison to the normal toilets that are sponsored under Government schemes (worth INR 12000).
- Though, the Government officials were involved in the inauguration ceremony of the project, they were not involved in the quarterly review workshops.



Observations (Based on FGD with Community Resource Persons)

- As per the communication of CRPs, the sanitation facility of the area improved providing safer space for defecation to young women, girls, old age people and sick people; reduced instances of open defecation; improve health outcomes such as outbreak of diseases be it malaria or diarrhoea.
- Community participation was ensured through frequent community meetings and the CRPs were involved while identifying the households and sensitizing them on project concepts.
- Given the facility of bio-toilets being installed close to the homes, it enabled the community to save ½ to 1 hour time every day, that were used to commute to fields for the purpose of relieving.

Observations (Based on FGD with Administrative Officials)

- PRCL initiated a planned approach to shortlist the backward villages located in the vicinity of 271 Km long Broad Gauge railway lines laid between Surendranagar and Pipavav port. Based on a detailed need assessment, the company identified Raska for holistic village development programmes and started with services like construction of overhead water tank, installing 100 bio-toilets at household level, construction of a community centre etc.
- Community Friendly Movement submitted a comprehensive project on Anhad Village Development that focus on development of Raska through various initiatives including construction of overhead water reservoir, bio-toilets, community centre, offer skill trainings, better sanitation facility at schools, provide remedial coaching, construction of culvert between Dalit-awas 1 & 2 communities etc. Out of all the actual needs, PRCL emphasized on sanitation and bio-toilet project was initiated with CFM. The different projects will be separately approved from time to time, post successful completion of each project.
- A structured monitoring mechanism was set forth to monitor the project. Joint review visits were organized by the PRCL and CFM officials. A Whats-app group has been created in which project updates are posted for review and reference of all stakeholders.
- The project addressed needs in the areas of sanitation, cleanliness, safe space for defecation and reduced health symptoms. It was observed that the bio digester tanks were not inoculated with bacteria culture that resulted in odour generation. It is mandatory that the bio-toilets are used for longer duration so that sufficient waste generate in the tank that will serve as food substratum for the bacteria to grow fast. In absence of bacteria, decomposition of the feces will not happen.
- The bio-toilets were installed in three phases (Phase I- 15 toilets; Phase II- 35 toilets; Phase III- 50 toilets) and second & third phase beneficiaries were provided exposure to bio-toilets and educated further.



Success Case Stories

Samu Bayen, an old lady in the community, aged 75 years used to find it difficult to defecate in the open. Age being the primary factor for this husband wife couple, made it more difficult for them to relieve at times and poor economic condition constrained them to construct own toilets. Their son, son-in-laws stay at Rajkot and work there. Every day travelling 1Km and defecating in the open was an arduous hassle for them. It was at that juncture PRCL installed the bio-toilets which provided them a great relief.



She feels that health has improved nowadays, and they are able to save on medical expenses....



Khimji Bhai S/o Daya Bhai stays in the village with her wife Puri Bayen. Both find it difficult to meet the ends of life and hence at this age of 65 years are working as agricultural labor in others' fields to run their day to day expenses. Their daughters are married off at Limbdi and Dhangadra areas. When they first heard of bio-toilets from Sarpanch, Sajan Bhai, they were eager to install the facility and contributed in labor to dig the pits. Due to shortage of space the toilet is installed on one side of the small road. They believe that they are able to save 1 hour time daily as they travelled to far off fields for defecating. Earlier fever or intestinal cramps were common, but now health has improve. They clean the toilets on regular basis...

"We are grateful to Sarpanch and PRCL and Rahul Jee who considered our application and gifted us the toilet to use....at least we poor have our own Souchalay..."

Recommendations

Scaling - Up

- Separate earmarked budget shall be allocated for social mobilization process and sensitize the communities on use and importance of bio-toilets, its present day relevance in water conserving scenario, functionality and maintenance aspect.
 - There is a dire need for alteration or slight modification in the model designed by IIT Kanpur and utilized by Community Friendly Movement. A small PVC water tank of 200 litres may be installed at the top of the toilet along with tap connections. A solar light may be installed inside the chamber for usage in evening hours.
 - Implementation budget shall be revised for future implementation.
 - The community at large expressed their keen interest in installation of more bio-toilets covering the entire households.
 - The project may be conceived as holistic village development project, rather than implementing in small phases encompassing areas like sanitation, health, education, livelihood and environment.
 - A project review committee may be formed including representation from Government officials, NGO, Corporate and the Community Resource Persons for all the CSR interventions.
-

Other CSR Interventions Proposed

- A water filter and lavatory facility may be installed at the secondary school in Raska.
- Low cost housing facility may be provided to marginalize families in the villages.
- Construction of a culvert (Pulia) between Dalitwas 1 & 2 communities that remains clogged with waste deposits, polythene and other debris; this leads to unhygienic surroundings and in monsoon period overflow into nearby houses and water sources, resulting in spread of numerous water borne diseases.
- Construction of RCC roads in the village Raska and construction of 1500 meters sewage line of which currently 300 meters is done
- There is need for construction of a community centre at one of the backward villages like Liyadh.

Limitations to the Study

- Due to change in the political sphere, present Sarpanch was not positive about the initiative.
- Harsh climatic conditions and extreme temperatures made it difficult for the respondents to focus on the interview at noon hours.
- Many of the women members were working at fields so their interviews were scheduled and conducted at afternoon.
- Target population being pre-occupied with work due to harvesting season hence a bit of reluctance was faced which was later resolved through continuous involvement at different intervals causing loss of time.
- As the bacteria were introduced post this study, i.e. on 21 March, so the impact study should have been timed at a gap of 3 months from completion of full set of activities.

Research Team

Mr. Abhinaba Majumdar

A post graduate in Forestry from Forest Research Institute, Dehradun comes with a rich experience of 12 years working in the livelihood sector with special emphasis on developing value chains, pro-poor market development and skilling initiatives. He has worked in monitoring and research projects, engaging Lot Quality Assurance Sampling techniques (LQAS). He has worked at both grassroots as well as managerial positions across the development sector. Prior to joining Fiinnovation in 2016, he has worked with reputed organizations including Reach India, Access Development Services, Panchayat and Rural development Department, Government of West Bengal and CAPART. Currently he leads the livelihood portfolio of the organization and responsible for developing proposals, assist in monitoring & evaluation studies.

Mr. Swapnil Gupta

A management professional with 5 years of experience in managing assessment studies, is currently working with the program monitoring division of Fiinnovation. He has completed his Master's in Business Administration (MBA) from Uttar Pradesh Technical University. Prior to joining at Fiinnovation, he has worked with management consulting organizations including TNS India Pvt. Ltd. And ICRA Management Consulting Pvt. Ltd. In this study, he was responsible for managing the field activities comprising of data collection, supervising the data surveyors, data entry and cleaning exercises. He can fluently speak in English and Hindi.

Jawahar Bhai

A graduate with 20 years experience in social sector projects. Speak Hindi, Gujarati and English.

Hitesh Bhai

A graduate with 7 years experience in NGOs. Speak Hindi & Gujarati fluently.

Hansa Ben

A graduate with 12 years experience in NGOs, hail from Rajkot & speaks Hindi, Gujarati fluently.

ANNEXURES

Impact Evaluation of BT Initiative of PRCL

In Depth Interview Schedule (Households)

Introduction

Form No.-

I want to thank you for taking the time to meet with me today. My name is _____ and I would like to discuss with you few things about your area. This shall help us to get a better understanding your point of view about CSR intervention of PRCL.

The interview should take less than an hour. I shall be recording the session because I don't want to miss any of your comments. Although I will be taking some notes during the session, I can't possibly write fast enough to get it all down. Because we're on tape, please be sure to speak up so that we don't miss your comments.

All responses will be kept confidential. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify you as the respondent. Remember, you don't have to talk about anything you don't want to and you may end the interview at any time.

Are there any questions about what I have just explained?

Are you willing to participate in this interview?

Interviewee

Interviewer

Date

Legal Guardian (If interviewee is under 18)

Key Information

State		District		Block/Village	
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Section A: Identification Details

Name of Respondent		Since when have you been living in the city (in Years)	
Age (in Years)		Gender	Male
			Female
Father/Husband's Name		Caste	General
			OBC
			SC
			ST
Religion		Type of family	Nuclear
			Joint

Section B: Household Demographic Information

S. No.	Name/Relationship	Age (in Years)	Gender	Education	Occupation	Marital status	Monthly Income (In Rupees)

Section C: Sanitation

Q. No.	Question	Options	Codes	Skip
1	Do you have toilet facility at home?	<input type="checkbox"/> Yes	1	Go to 6
		<input type="checkbox"/> No	2	
2	If no, What is the reason behind not building household toilet? (multiple answer possible)	No proper place to build	1	
		Do not want to use toilet	2	
		Too expensive	3	
		Have another toilet available	4	
		Other (please specify).....	5	
3	Where do people in the household go to defecate /urinate? (multiple answer possible)	Shared toilet with neighbours	1	
		Public pit toilet	2	
		Public flush toilet	3	
		ODS (Open Defecation System)	4	
		Other (please specify).....	5	
4	If ODS, What kind of difficulty you or members of your household face? (fill this, if coded 4 in Q-3)			
5	How far do you have to walk for open defecation? (fill this, if coded 4 in Q-3)	Time (in minutes).....		Go to sec-E
		Distance (in Kilometers).....		
6	If Yes, Is it constructed under PRCL CSR Bio-Toilet initiative/Community friendly movement?	<input type="checkbox"/> Yes	1	
		<input type="checkbox"/> No	2		Go to sec-D

7	Do you and your household members use toilet constructed under PRCL CSR Bio-Toilet initiative/ Community friendly movement?	<input type="checkbox"/> Yes	1	Go to 9
		<input type="checkbox"/> No	2	
8	If no, Why?			
9	If yes, How often do you and your household members use?	Daily	1	Go to 11
		Sometimes	2	
10	If sometimes, why?			
11	Do you and your household members know about functionality aspects/details of Bio-Toilets?	<input type="checkbox"/> Yes	1	Go to 13
		<input type="checkbox"/> No	2	
12	If no, why?			
13	If yes, from whom you came to know?	PRCL/NGO Members	1	
		Neighbors	2	
		Family/friends/relatives	3	
		Other (please specify).....	4	
14	What do you know about the Bio-toilet functioning /details?			
15	Does the toilet have water facility?	<input type="checkbox"/> Yes	1	Go to 17
		<input type="checkbox"/> No	2	
16	If no, why?			
17	If yes, Is sufficient water available at all the times for defecate/urinate?	<input type="checkbox"/> Yes	1	
		<input type="checkbox"/> No	2	
18	Is there any difference in the water usage pattern in a conventional vis-à-vis Bio Toilet?	<input type="checkbox"/> Yes	1	
		<input type="checkbox"/> No	2	
19	If yes, what difference have you observed?			
20	Where does, the toilet waste go?	Bio-digester tank (attached to Bio-toilet)	1	
		Directly to sewer line	2	
		Flow in open drainage	3	
		Dispose it in the pit	4	
		Flow in open field	5	
		Other (please specify).....	6	
		Don't know/ no answer	7	
21	If coded 1 in Q 20, How often is the Bio-digester tank cleaned?			
22	Who is responsible for cleaning Bio-digester tank?	Household members	1	
		Cleaning Staff	2	
		Other (please specify).....	3	
23	How is the solid waste (manure) of Bio-digester tank being utilized?	Used as manure in agricultural field	1	
		Disposed off as it is	2	
		Other (please specify).....	3	
24	How is the waste water coming out from the Bio-digester tank being utilized?	Recycled and re-used	1	
		Disposed off as it is	2	
		Other (please specify).....	3	
25	If coded 1 in Q-24, then how do you recycle and re-use the same?			
26	How is the Methane gas emitted from the Bio-digester tank being utilized?	For cooking purposes	1	
		Not utilized	2	
		Other (please specify).....	3	
27	If coded 1 in Q-26 Do you find any difference in monthly household expense on procurement of cooking fuel (LPG/Coal)			

28	How often is the bacterial sheet of Bio-digester tank replaced or recharged? Probe: (if so what is the frequency)			
29	Are you facing any problem in toilet constructed under the PRCL CSR Bio-Toilet initiative?	<input type="checkbox"/> Yes	1	Go to Sec-D
		<input type="checkbox"/> No	2	
30	If yes, what type of problem are you facing? (multiple answer possible)	Drainage problem	1	
		Filled too soon	2	
		Smells very foul	3	
		Toilet needs repair	4	
		Problem during monsoon	5	
		No problem	6	
		Other (please specify).....	7	
31	Do you know about the maintenance aspects of Bio-Toilet?	<input type="checkbox"/> Yes	1	
		<input type="checkbox"/> No	2	
32	If yes, why?			

Section D: Hygiene

Q. No.	Question	Options	Codes	Skip
1	Does your toilet get cleaned?	<input type="checkbox"/> Yes	1	
		<input type="checkbox"/> No	2	Go to 5
2	How often your toilet get cleaned?	Daily	1	
		Weekly	2	
		Fortnightly	3	
		Once in a month	4	
		Never	5	
3	Who keeps the toilets or the toilet area clean	Family Member's	1	
		Cleaning staff	2	
		Other (please specify).....	3	
4	What toilet cleaning agents are used at your home to clean toilet? (multiple answer possible)	Acid	1	
		Detergent's	2	
		Liquid toilet cleaner	3	
		Only with water	4	
		Other (please specify).....	5	
		Don't Know/ No answer	6	
5	Do you and your household members adopt hand washing practices?	<input type="checkbox"/> Yes	1	
		<input type="checkbox"/> No	2	
6	If yes, when do you and your household members wash hands?	Before eating food	1	
		After eating food	2	
		After coming in contact with dirt and waste	3	
		After cleaning and mopping house	4	
		After cleaning toilet facility	5	
		After finishing Kitchen and other domestic work	6	
		Other (please specify).....	7	

Section E: Health Status

Did any member of your family suffer from any illness (Past one year) (if no please move to next section)

 Yes

 No

Name	Age	Sex (M/F)	Type of illness	Cause for illness	Treatment received from	Present Status

Diseases like: Diarrhea, Cholera, Common cold/fever/cough, Dengue fever, Typhoid, Pneumonia, Jaundice, Malaria

Section F: Benefits And Issues

Q. No.	Question	Options	Codes	Skip
1	What benefits did you and your family have from the Bio-toilet facility of PRCL with respect to:			
a	Health (Better health and Hygiene facilities)			
b	Education (Increased hours in education due to lesser hour of involvement other domestic chores)			
c	Livelihood (Improved income level and reduced expenses on fuel cost, health expenses etc.)			
2	What challenges faced after construction of Bio-toilet facility of PRCL?			
3	Recommendations and suggestions			

Section G: Control Group				
Q. No.	Question	Options	Codes	Skip
1	Do you know about the PRCL CSR initiative been implemented in your area?	<input type="checkbox"/> Yes	1	
		<input type="checkbox"/> No	2	Go to 3
		Don't Know/ No answer	3	Go to 3
2	If yes, which intervention do you know about? (multiple answer possible)	Healthcare and Sanitation	1	
		Fencing around railway tracks	2	
		Construction of overhead water supply tanks	3	
		Construction of internal roads	4	
		Providing waterless urinals	2	
		Providing water coolers	5	
		Developing community center	6	
		Providing computer infrastructure /hardware	7	
		Bio-Toilets Initiative	8	
Other (please specify).....	9			
3	What according to you were the criteria selecting an individual house for constructing Bio-Toilet?			
4	What changes/difference have you seen in your family as compared to families who were benefitted by PRCL Bio-Toilet initiative?			
5	In case the initiative is extended or enhanced what shall be the criteria for selecting the beneficiaries?			
6	Recommendations and suggestions			

This is to certify that the information provided above is true to the best of my knowledge.

Signature of Interviewee

Name of Interviewee

Impact Evaluation of BT Initiative of PRCL

KII - Youth

Introduction

Form No.-

I want to thank you for taking the time to meet with me today. My name is _____ and I would like to discuss with you few things about your area. This shall help us to get a better understanding your point of view about CSR intervention of PRCL.

The interview should take less than an hour. I shall be recording the session because I don't want to miss any of your comments. Although I will be taking some notes during the session, I can't possibly write fast enough to get it all down. Because we're on tape, please be sure to speak up so that we don't miss your comments.

All responses will be kept confidential. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify you as the respondent. Remember, you don't have to talk about anything you don't want to and you may end the interview at any time.

Are there any questions about what I have just explained?

Are you willing to participate in this interview?

Interviewee

Interviewer

Date

Legal Guardian (If interviewee is under 18)

Key Information

State		District		Block/Village	
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Section A: Identification Details

Name of Respondent		Since when have you been living in the city (in Years)	
Age (in Years)		Gender	Male
			Female
Father/Husband's Name		Caste	General
			OBC
			SC
			ST
Religion		Type of family	Nuclear
			Joint
Education Details	Neo Literate	Primary (1 to 5)	Upper Primary (5 to 9)
	High School (10th)	Senior Secondary (11th - 12th)	Graduate/Post graduate
Employment Details			
Are you currently working/ employed?	Yes		No
If Yes, Type of occupation			

Section B: Sanitation

Q. No.	Question	Options	Codes	Skip
1	Do you have toilet facility at home?	<input type="checkbox"/> Yes	1	Go to 6
		<input type="checkbox"/> No	2	
2	If no, What is the reason behind not building household toilet? (multiple answer possible)	No proper place to build	1	
		Do not want to use toilet	2	
		Too expensive	3	
		Have another toilet available	4	
		Other (please specify).....	5	
3	Where do people in the household go to defecate/urinate? (multiple answer possible)	Shared toilet with neighbours	1	
		Public pit toilet	2	
		Public flush toilet	3	
		ODS (Open Defecation System)	4	
		Other (please specify).....	5	
4	If ODS, What kind of difficulty you or members of your household face?(fill this, if coded 4 in Q-3)			
5	How far do you have to walk for open defecation? (fill this, if coded 4 in Q-3)	Time (in minutes).....		Go to sec-E
		Distance (in Kilometers).....		
6	If Yes, Is it constructed under PRCL CSR Bio-Toilet initiative/Community friendly movement?	<input type="checkbox"/> Yes	1	
		<input type="checkbox"/> No	2	Go to sec-D
7	Do you and your household members use toilet constructed under PRCL CSR Bio-Toilet initiative/Community friendly movement?	<input type="checkbox"/> Yes	1	Go to 9
		<input type="checkbox"/> No	2	
8	If no, Why?			

9	If yes, How often do you and your household members use?	Daily	1	Go to 11
		Sometimes	2	
10	If sometimes, why?			
11	Do you and your household members know about functionality aspects/details of Bio-Toilets?	<input type="checkbox"/> Yes	1	Go to 13
		<input type="checkbox"/> No	2	
12	If no, why?			
13	If yes, from whom you came to know?	PRCL/NGO Members	1	
		Neighbors	2	
		Family/friends/relatives	3	
		Other (please specify).....	4	
14	What do you know about the Bio-toilet functioning /details?			
15	Does the toilet have water facility?	<input type="checkbox"/> Yes	1	Go to 17
		<input type="checkbox"/> No	2	
16	If no, why?			
17	If yes, Is sufficient water available at all the times for defecate/urinate?	<input type="checkbox"/> Yes	1	
		<input type="checkbox"/> No	2	
18	Is there any difference in the water usage pattern in a conventional vis-à-vis Bio Toilet?	<input type="checkbox"/> Yes	1	
		<input type="checkbox"/> No	2	
19	If yes, what difference have you observed?			
20	Where does, the toilet waste go?	Bio-digester tank (attached to Bio-toilet)	1	
		Directly to sewer line	2	
		Flow in open drainage	3	
		Dispose it in the pit	4	
		Flow in open field	5	
		Other (please specify).....	6	
		Don't know/ no answer	7	
21	If coded 1 in Q 20, How often is the Bio-digester tank cleaned?			
22	Who is responsible for cleaning Bio-digester tank?	Household members	1	
		Cleaning Staff	2	
		Other (please specify).....	3	
23	How is the solid waste (manure) of Bio-digester tank being utilized?	Used as manure in agricultural field	1	
		Disposed off as it is	2	
		Other (please specify).....	3	
24	How is the waste water coming out from the Bio-digester tank being utilized?	Recycled and re-used	1	
		Disposed off as it is	2	
		Other (please specify).....	3	
25	If coded 1 in Q-24, then how do you recycle and re-use the same?			
26	How is the Methane gas emitted from the Bio-digester tank being utilized?	For cooking purposes	1	
		Not utilized	2	
		Other (please specify).....	3	
27	If coded 1 in Q-26 Do you find any difference in monthly household expense on procurement of cooking fuel (LPG/Coal)			
28	How often is the bacterial sheet of Bio-digester tank replaced or recharged? Probe: (if so what is the frequency)			

29	Are you facing any problem in toilet constructed under the PRCL CSR Bio-Toilet initiative?	<input type="checkbox"/> Yes	1	Go to Sec-D
		<input type="checkbox"/> No	2	
30	If yes, what type of problem are you facing? (multiple answer possible)	Drainage problem	1	
		Filled too soon	2	
		Smells very foul	3	
		Toilet needs repair	4	
		Problem during monsoon	5	
		No problem	6	
		Other (please specify).....	7	
31	Do you know about the maintenance aspects of Bio-Toilet?	<input type="checkbox"/> Yes	1	
		<input type="checkbox"/> No	2	
32	If yes, why?			

Section C: Hygiene

Q. No.	Question	Options	Codes	Skip
1	Does your toilet get cleaned?	<input type="checkbox"/> Yes	1	Go to 5
		<input type="checkbox"/> No	2	
2	How often your toilet get cleaned?	Daily	1	
		Weekly	2	
		Fortnightly	3	
		Once in a month	4	
		Never	5	
3	Who keeps the toilets or the toilet area clean	Family Member's	1	
		Cleaning staff	2	
		Other (please specify).....	3	
4	What toilet cleaning agents are used at your home to clean toilet? (multiple answer possible)	Acid	1	
		Detergent's	2	
		Liquid toilet cleaner	3	
		Only with water	4	
		Other (please specify).....	5	
		Don't Know/ No answer	6	
5	Do you and your household members adopt hand washing practices?	<input type="checkbox"/> Yes	1	
		<input type="checkbox"/> No	2	
6	If yes, when do you and your household members wash hands?	Before eating food	1	
		After eating food	2	
		After coming in contact with dirt and waste	3	
		After cleaning and mopping house	4	
		After cleaning toilet facility	5	
		After finishing Kitchen and other domestic work	6	
		Other (please specify).....	7	

Section D: Health Status

Did any member of your family suffer from any illness (Past one year) (if no please move to next section)

 Yes

 No

Name	Age	Sex (M/F)	Type of illness	Cause for illness	Treatment received from	Present Status

If yes, prompt for Diseases like: Diarrhea, Cholera, Common cold/fever/cough, Dengue fever, Typhoid, Pneumonia, Jaundice, Malaria

Section E: Benefits And Issues

Q. No.	Question	Options	Codes	Skip
1	What benefits did you and your family have from the Bio-toilet facility of PRCL with respect to:			
a	Health (Better health and Hygiene facilities)			
b	Education (Increased hours in education due to lesser hour of involvement other domestic chores)			
c	Livelihood (Improved income level and reduced expenses on fuel cost, health expenses etc.)			
2	What challenges faced after construction of Bio-toilet facility of PRCL?			
3	Recommendations and suggestions			

This is to certify that the information provided above is true to the best of my knowledge.

Signature of Interviewee

Name of Interviewee

Impact Evaluation of BT Initiative of PRCL

FGD Questionnaire for Youth

Key Information			
District		Block:	
Village	Gram Panchayat:		

Details of the participants			
S.No.	Name	Age	Gender
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

General Details		
1	Are you aware about the presence of PRCL in your area (Y/N)?	
2	Do you know that PRCL had implemented Bio-toilets CSR intervention in your area (Y/N)?	
3	<i>Benefits:</i> Do you believe that Bio-Toilet intervention by PRCL contribute to improvement in your health, education and employment?	
4	<i>Changes/improvement:</i> What kind of changes/improvement you noticed among you and your family members from Bio-Toilet intervention by PRCL?	
5	<i>Changes/improvement:</i> What are the main problems related to sanitation and hygiene in your area? What issues created/ made by the Bio-Toilet intervention by PRCL?	
6	Recommendations and suggestions	

Impact Evaluation of BT Initiative of PRCL

Key Informant Interview Schedule (CRPs)

Introduction

Form No.-

I want to thank you for taking the time to meet with me today. My name is _____ and I would like to discuss with you few things about your area. This shall help us to get a better understanding your point of view about CSR intervention of PRCL.

The interview should take less than an hour. I shall be recording the session because I don't want to miss any of your comments. Although I will be taking some notes during the session, I can't possibly write fast enough to get it all down. Because we're on tape, please be sure to speak up so that we don't miss your comments.

All responses will be kept confidential. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify you as the respondent. Remember, you don't have to talk about anything you don't want to and you may end the interview at any time.

Are there any questions about what I have just explained?

Are you willing to participate in this interview?

Interviewee

Interviewer

Date

Legal Guardian (If interviewee is under 18)

Key Information			
State		District	
Village			
Name		City	
Age (in Years)	.....Year's	Gender	Male
			Female
Number of years of working (in Years)			.....Year's

Q.no.	General Questions		
1	Do you know about the Bio-Toilet initiative implemented by PRCL in your area?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2	If yes, please explain? <i>(If no coded in Q-1, then please end the interview)</i>		
3	Please describe the major activities and its process of the Bio-Toilet initiative implemented by PRCL?		
4	Have you participated/supported/contributed in the Bio-Toilet initiative activities?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
5	If yes, please explain?		
6	What improvement's/changes you noticed in your area regarding sanitation and hygiene facilities?		
7	What do you think the benefits does are getting from the Bio-Toilet initiative? [Probe: benefits in terms of practice's of sanitation and hygiene facilities, education, employment and health status]		
8	What overall changes do you think the program intervention has brought to your area?		
9	Does the project captured all the issues of sanitation and hygiene in your area?		
10	If no, What are the issues not being captured by the project?		
11	Recommendations and suggestions		

This is to certify that the information provided above is true to the best of my knowledge.

Signature of Interviewee

Name of Interviewee

Impact Evaluation of BT Initiative of PRCL

Key Informant Interview Schedule (Government Officials)

Introduction

Key Information			
State		District	
Village			
Name		City	
Age (in Years)	.....Year's	Gender	Male
			Female
Number of years of working (in Years)	.....Year's		

Q.no.	General Questions		
1	Do you know about the Bio-Toilet initiative implemented by PRCL in your area?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2	If yes, please explain? <i>(If no coded in Q-1, then please end the interview)</i>		
3	Please describe the major activities and its process of the Bio-Toilet initiative implemented by PRCL?		
4	Have you participated/supported/contributed in the Bio-Toilet initiative activities?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
5	If yes, please explain?		
6	What improvement's/changes you noticed in your area regarding sanitation and hygiene facilities?		
7	What do you think the benefits does are getting from the Bio-Toilet initiative? [Probe: benefits in terms of practice's of sanitation and hygiene facilities, education, employment and health status]		
8	What overall changes do you think the program intervention has brought to your area?		
9	Does the project captured all the issues of sanitation and hygiene in your area?		
10	If no, What are the issues not being captured by the project?		
11	Recommendations and suggestions		

This is to certify that the information provided above is true to the best of my knowledge.

Signature of Interviewee

Name of Interviewee

Impact Evaluation of BT Initiative of PRCL

Key Informant Interview Schedule (Admin Staff)

Introduction

Form No.-

I want to thank you for taking the time to meet with me today. My name is _____ and I would like to discuss with you few things about your area. This shall help us to get a better understanding your point of view about CSR intervention of PRCL.

The interview should take less than an hour. I shall be recording the session because I don't want to miss any of your comments. Although I will be taking some notes during the session, I can't possibly write fast enough to get it all down. Because we're on tape, please be sure to speak up so that we don't miss your comments.

All responses will be kept confidential. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify you as the respondent. Remember, you don't have to talk about anything you don't want to and you may end the interview at any time.

Are there any questions about what I have just explained?

Are you willing to participate in this interview?

Interviewee

Interviewer

Date

Legal Guardian (If interviewee is under 18)

Key Information

District		Block:		Gram Panchayat:	
Village					

Identification Details

Name			Designation		
Age (in Years)	.....Year's	Gender	Male		
			Female		
Number of years of working (in Years)	.....Year's				

General Questions

1	Please describe the major activities and its process of the Bio-Toilet initiative implemented by PRCL?	
2	What was your role in the activities of Bio-Toilet initiative of PRCL? In what way were you involved in the planning, implementation and monitoring of the program?	
3	Please describe about reporting mechanism for this project? Whom do you report and how often? Who reports to you and how frequently?	
4	Is there any monitoring mechanism for this Bio-Toilet initiative of PRCL? How the monitoring of the Bio-Toilet initiative of PRCL being done? Please explain the process of monitoring?	
5	Please tell us about the field visits mechanism?	
6	What according to you were the criteria for selecting an individual house for constructing Bio-Toilet?	
7	What challenges does your organization faced during planning, implementation and execution of Bio-Toilet initiative?	
8	What measures were taken to overcome the challenges?	
9	What are the major achievements of the Bio-Toilet initiative? What objectives of the initiative were not achieved?	
10	What are the main benefits does beneficiaries are getting from the Bio-Toilet initiative? [Probe: benefits in sanitation and hygiene facilities, education, employment and health status]	
11	What are the changes brought by the Bio-Toilet initiative in the life of community members? (for interviewers changes can be positive and negative, hence record both statements)	

12	Are the following resources being deployed by the project is/are sufficient/or needs more resources	
A	Human resources	
B	Financial resources	
C	Infrastructural support	
D	Advocacy/ Liaison	
E	Others	
13	How you make sure the sustainability of the Bio-Toilet initiative?	
14	What are the major lessons learned from this Bio-Toilet initiative?	
15	Recommendations and suggestions for the improvement of the Bio-Toilet initiative?	

This is to certify that the information provided above is true to the best of my knowledge.

Signature of Interviewee

Name of Interviewee



GLIMPSES FROM RASKA VILLAGE





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