

MASS COMMUNICATION MODEL FOR RAISING AWARENESS TOWARDS BIO-TOILETS

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ABSTRACT

According to SEWA International (2018), bio-toilets are a decomposition mechanised toilet system decomposing human waste into water and biogas. These toilets provide the safest sustainable switch fighting the multifaceted challenges like open defecation, environmental hazards, health and dignity of individuals (WASH, UNICEF). 68%, almost one-third of people did not have access (WHO, 2016). India launched the Swachh Bharat Mission, a nationwide cleanliness campaign in 2014 to eliminate open defecation. The problem of open defecation in India cannot be resolved through the mere availability of government-built latrines (The Economist). According to the UN Sanitation Report of 2019, millions of new toilets which mark the progress of the Swachh Bharat Mission are producing large amounts of solid and liquid waste that India does not have the ability to treat and dispose of safely. 'Our World In Data 2017' states that 328.72 million people in India are at risk of death owing to poor sanitation. Therefore, development communication becomes essential to adapt and expedite change. Community development necessitates effective communication at all stages, from planning to evaluation (William S. Maria, M. Harisha, Ilango P., 2020).

The aim is to study the feasibility of bio toilets in urban commercial spaces. This research aims to trace the total coverage and prominence given to sanitation by Indian media. The research also tries to examine the role of media in raising awareness in urban households towards bio toilets as well as its installation in community spaces where even traditional toilets aren't installed. The type of research is exploratory, using mixed methods. The research methods are content analysis and survey. The objective of the study is to suggest a communication model in order to raise awareness among residents vis a vis usability of bio toilets and sanitation in the communities using the principles of science communication.

Keywords : Bio toilet, SDG 6, Science, Technology, Sanitation, Open Defecation, Strategy

Research Objectives

- To explore various mass communication strategies in order to appraise and assess the viability of bio-toilets in urban spaces.
- To produce a communication model in order to raise awareness among residents vis a vis usability of bio-toilets and sanitation in urban communities.

Literature Review

The prevalence of open defecation due to a severe shortage of sanitation infrastructure is one of the primary concerns in developing nations such as India (Bapat & Agarwal, 2003; Coffey et al., 2014; Desai, McFarlane, & Graham, 2015; Doron & Jeffrey, 2014; Spears, Ghosh, & Cumming, 2013). Sanitation is primarily concerned with the safe and sanitary treatment of excreta and water - a daily biological requirement. Even in this day and age of technical innovation, 2.3 billion people continue to suffer with their basic need for sanitation, with 892 million still practising open defecation (WHO-UNICEF, 2017). After failing to meet the Millennium Development Goal (MDG) sanitation target, global leaders hope to eradicate open defecation by 2030 through the Sustainable Development Goals (United Nations, 2016; WHO-UNICEF, 2017). (SDG) 6. Government officials are focusing on substantial capacity building for toilets (SBM-GoI, 2018). (Tushar Shah, Rathin Biswas, Kavi Arya, Vikrant Fernandes, and Rathin Biswas (2021)) In an effort to achieve Sustainable Development Goal 6.

The Swachh Bharat Mission (SBM) of the Government of India intends to eliminate open defecation in India by 2018. This point of view examines the ramifications of SBM from the standpoint of women and water in the context of toilets. With the building of 2.4 million toilets, women's vulnerability is predicted to deteriorate due to a lack of available water. The opinion indicates that building toilets as a goal is impossible to achieve and sustain without green technology design that overcomes water and gender constraints (Avinash Kumar, 2017).

After 67 years of independence, politicians in India consider it a national disgrace that over 130 million households lack toilets. More than 72% of rural residents relieve themselves behind bushes, in fields, or along roadsides. India accounts for roughly 600 million of the world's one billion people who do not have access to toilets (The Economist 2014). According to a research conducted in India by the Water and Sanitation Program's (WSP's) Global Economics of Sanitation Initiative (ESI), the national economic costs of poor sanitation are projected to be

\$53.8 billion (WSP, World Bank 2007). Between 2001 and 2011, it is predicted that over 8 million more families defecated in the open. On average, approximately 62.5 percent of Indians have access to a toilet within their home. The percentage of households with toilets within their home premises varies by state, ranging from 22 percent in Jharkhand to 97 percent in Lakshadweep. Rajasthan, Uttar Pradesh, Bihar, Jharkhand, Odisha, and Chhattisgarh are the seven northern states and Madhya Pradesh — about 20 to 40% of homes have toilets on their premises, with the remainder relying on open defecation. According to the World Bank (2016), India has the lowest access to upgraded sanitation facilities (40 percent) compared to Nepal (46 percent), Bangladesh (61 percent), Pakistan (64 percent), and Sri Lanka (95 percent).

Methodology

The type of research is exploratory, using mixed method research design.

Qualitative:

In-depth interviews with environmentalists and activists will be conducted for a comprehensive qualitative understanding of the state of sanitation in Delhi NCR. The following reports and articles will be studied to phrase questions: UNICEF's Drinking water, sanitation and hygiene (2020), Our world in data's Sanitation Report (2021), WHO (2016), The Final Frontier (The Economist, 2014).

Questions for an expert interview have been derived from an article by The Hindu, dated 31 May 2017:

- **How do we address our ethical responsibility in waste management?**

“For starters, we must recognise that nothing in nature is wasted. What we call garbage is simply material that cannot be used. That's because we haven't figured out what it's for. Two, we, humans, are merely small units in vast life cycles — of soil nutrients and water – that we ignore. Our urine and excreta provide food for bacteria in the soil, just as our life-breath, oxygen, is waste material of plants. Three, our sanitation issues are caused by an abundance of facilities and resources rather than a dearth of toilets. We've gotten to the point where we don't hesitate to name and condemn those who defecate in public, but the same humiliating principle isn't applied to those who dump untreated sewage into bodies of water or those who flush their excreta with good drinking water. Expecting empowered, educated residents in cities to do something about the environment now rests on an unseen ethical burden.”

- **What are the limitations of government-run sanitation projects?**

“There are numerous. But if I had to choose one, it would be the language. Our government plans frequently use jargon and politically correct words. When you combine this with a goal-oriented attitude, you have a recipe for ineffectiveness. The issue of sanitation is a societal one. Furthermore, the environment is made up of intangible connections. Because the links are unseen, they are constantly overlooked.

So we don't pause to consider or ask: if the plan to build toilets for everyone is successful, how will a water-scarce country like ours sustain so many toilets?”

- **Did you find examples of sanitation that take into account water and soil and are environment friendly ?**

“Yes, there are shining examples of good cleanliness in many sections of our country. Kolkata features the world's most unusual sewage-handling system.

Ordinary fishermen raise fish from the nutrients in the city's sewage waste water, thus providing food security for the city. In Bengaluru, Arghyam, a non-profit organisation, has organised and supported several endeavours in this sector, ranging from research and training to campaigning. M. Spuraman of the non-profit SCOPE has built hundreds of urine-diverting dry toilets in Tamil Nadu, which restore soil nutrients back to the soil and enable water-saving sanitation.

These are fascinating examples, but they are not models for others to emulate. Sanitation is an idea, a value system that must be adapted to changing local situations. It is not a ready-made framework that can be copied and pasted.”

Quantitative:

Online surveys will be conducted for data collection of our study. A structured questionnaire carrying close-ended questions will be circulated via google form. Stratified sampling will be employed. The sample size of 400 people will be selected to conduct the survey. The sample ranges from 25 to 60 years in age, spreading across Delhi NCR.

Survey Questions are classified under following categories-

Demographics

- Age
- Occupation

- Annual Income
- Place of Residence

Bio-Toilet Awareness

- Do you feel there is a need to raise more awareness towards sanitation practises?
- Do you think access to toilets is necessary but not sufficient in ensuring increased sanitation coverage?
- Do you think the government/NGOs should work more towards hygiene and sanitation practises?
- Are you aware of the diseases associated with community based toilets/ open defecation?
- Will you be comfortable in sharing community based toilets near your locality?
- Where would you prefer using the toilet (when you are outdoors) ?
- What are the points you look for before using a public toilet?
- What kind of toilet facility do members of your household usually use?

Bio-toilet system installation

- Do you know about bio-toilets?
- Have you ever used a bio-toilet?
- If the conventional toilets were to be replaced by bio-toilets, do you think it will make a positive impact on society?
- Would you be comfortable replacing your conventional toilet set up with the new bio-toilet system?
- If you get a bio-toilet installed in your household, would you encourage other people to get it installed?
- Do you think the government should provide any subsidy to promote the installation of bio-toilets

Findings

Survey Results

Based on our preliminary study conducted on a sample of 120 residents primarily located in Delhi NCR and metropolitan cities, it is found out that there is a dire need to spread awareness about sanitation and the sustainable switch that can be made from conventional toilets to bio

toilets. Despite being aware about bio toilets (60%), 68.5% of the respondents have never used a bio toilet.

Target Audience

We have identified our target audience on the basis of their following Demographic & Psychographic parameters:

Demographic

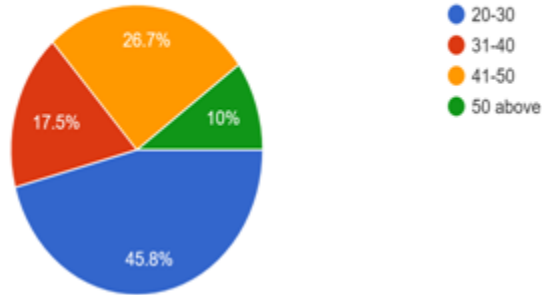
Area	Metropolitan and other tier 1 cities
Age	20 to 50 and above
Social Status	People who use western toilet system
Income	3 - 5 Lakh per annum or above
Education	Literate
Occupation	Employed or Self-employed

Psychographic

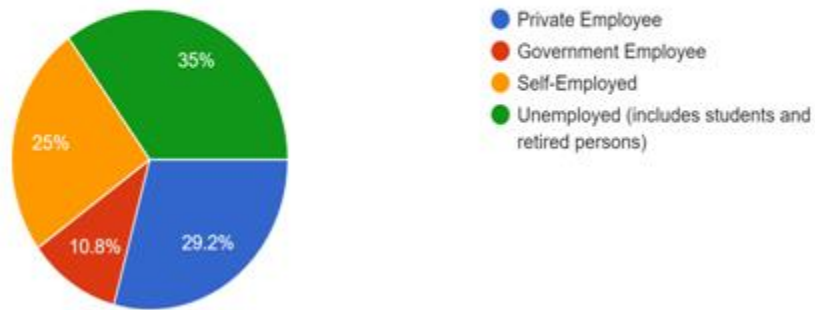
The psychographic parameter divides the target audience on the basis of their social backgrounds. Considering this we have two basic parameters to judge, and they are as follows:

- Income
- Standard Of Living

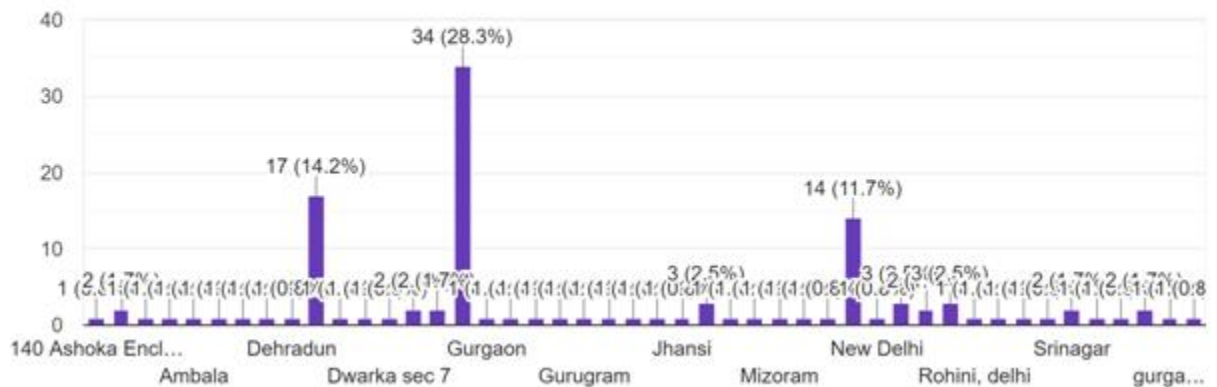
Age
120 responses



Occupation
120 responses

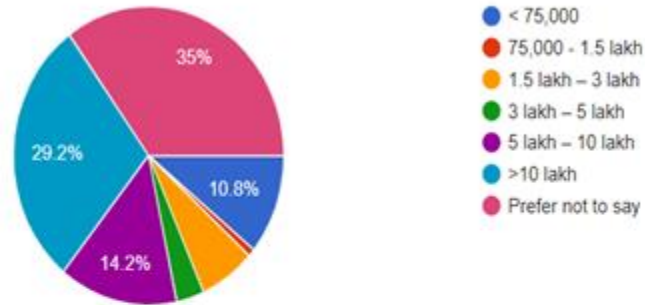


Place of Residence
120 responses



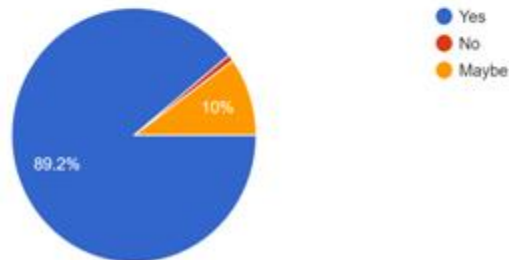
Annual Income

120 responses



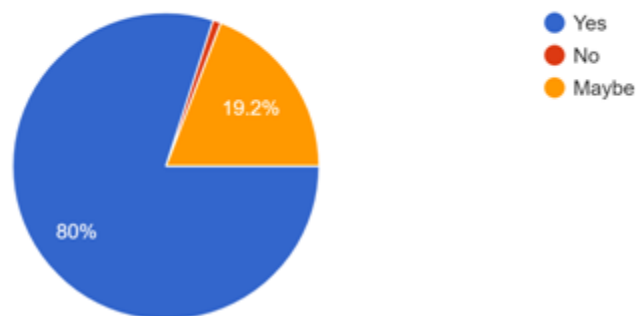
Do you feel there is a need to raise more awareness towards sanitation practices?

120 responses



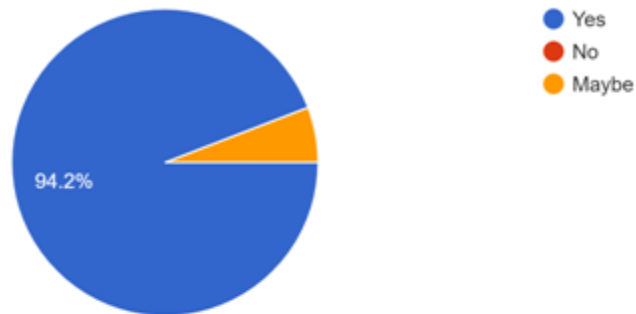
Do you think access to toilets is necessary but not sufficient in ensuring increased sanitation coverage?

120 responses



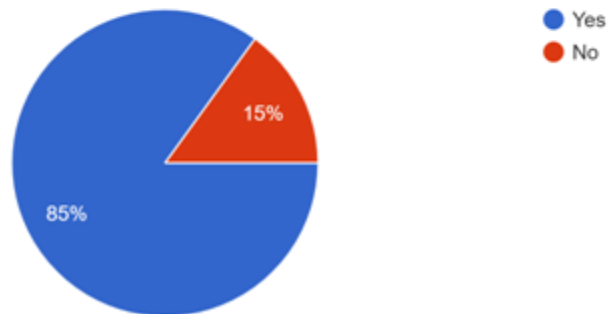
Do you think government/NGOs should work more towards hygiene and sanitation practices?

120 responses



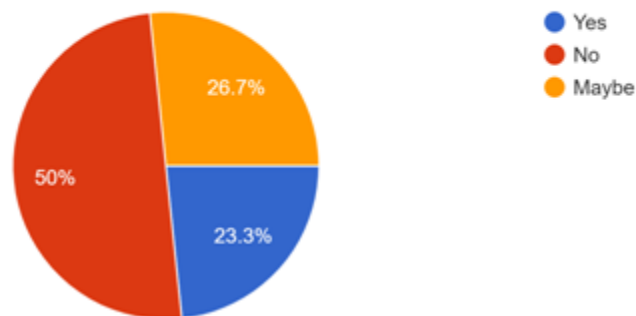
Are you aware of the diseases associated with community based toilets/ open defecation?

120 responses



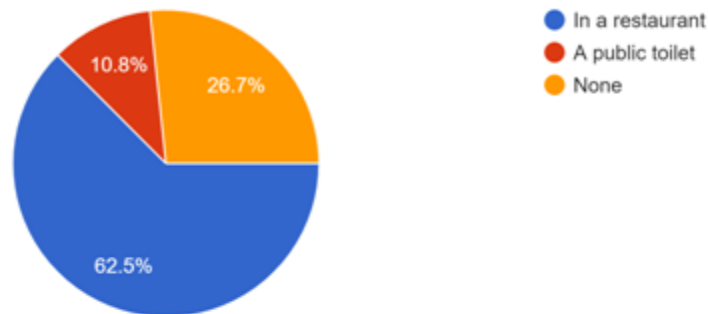
Will you be comfortable in sharing community based toilets near your locality?

120 responses



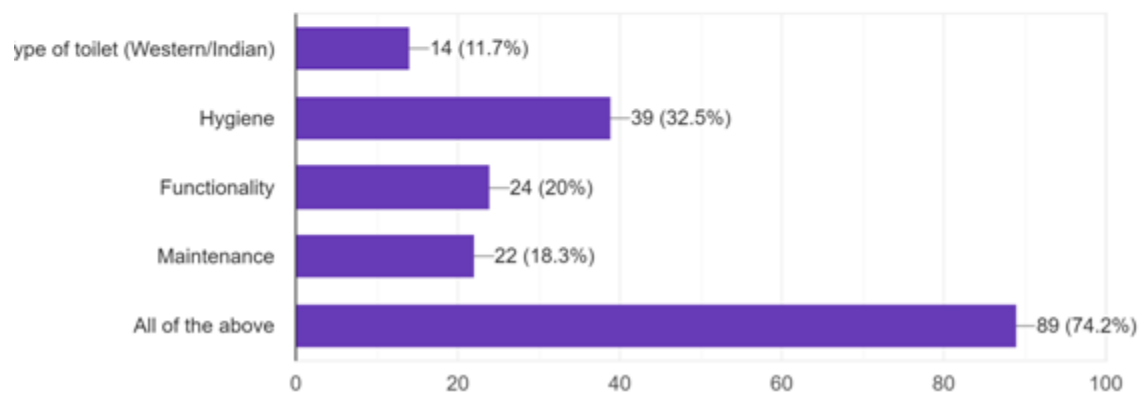
Where would you prefer using the toilet (when you are outdoors) ?

120 responses



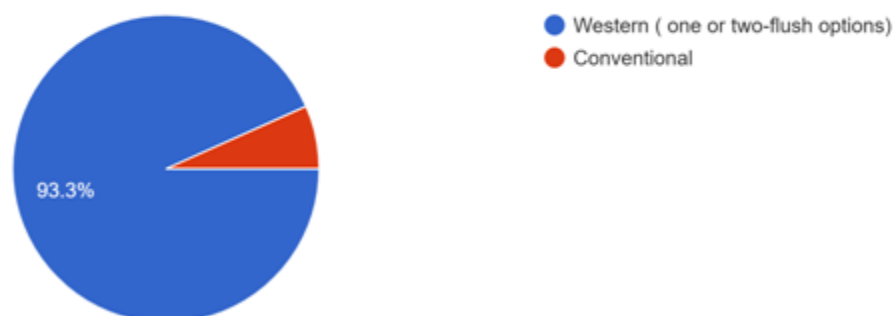
What are the points you look for before using a public toilet?

120 responses



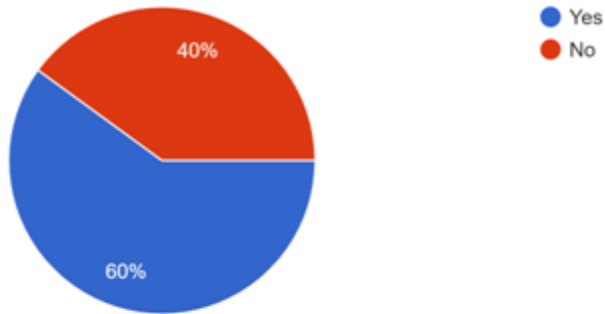
What kind of toilet facility do members of your household usually use?

120 responses



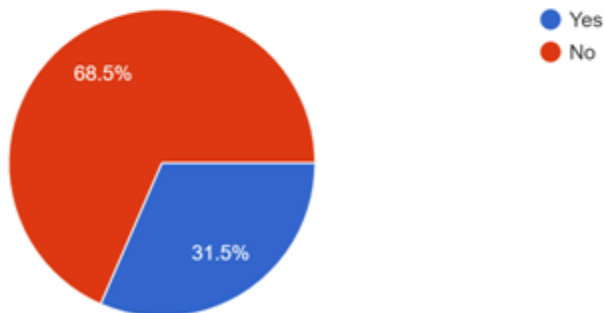
Do you know about bio-toilets?

120 responses



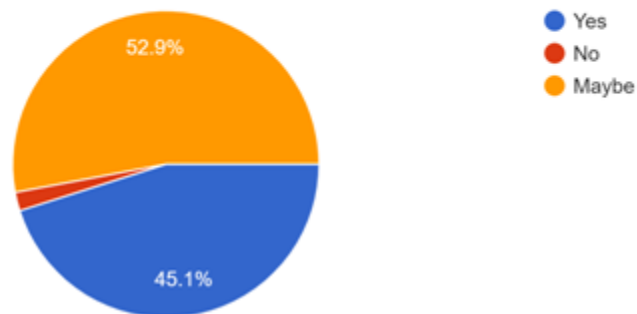
Have you ever used bio-toilet?

111 responses



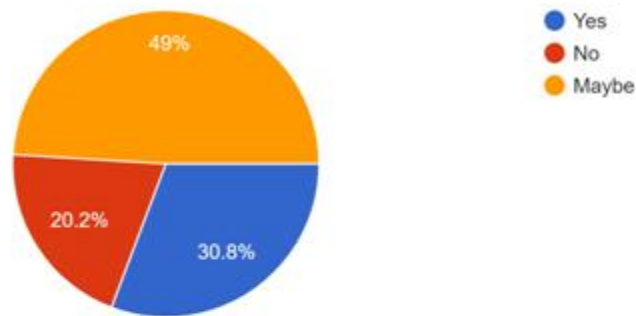
If the conventional toilets were to be replaced by bio-toilets, do you think it will make a positive impact on the society?

102 responses



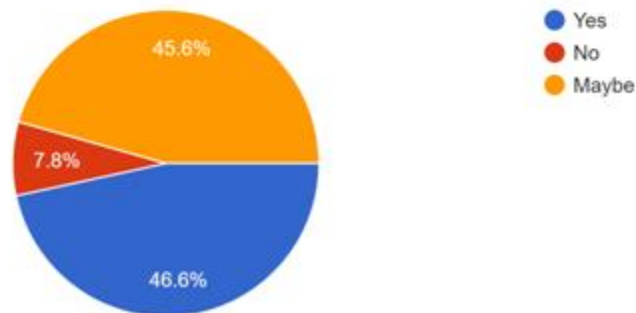
Would you be comfortable replacing your conventional toilet set up with the new bio-toilet system?

104 responses



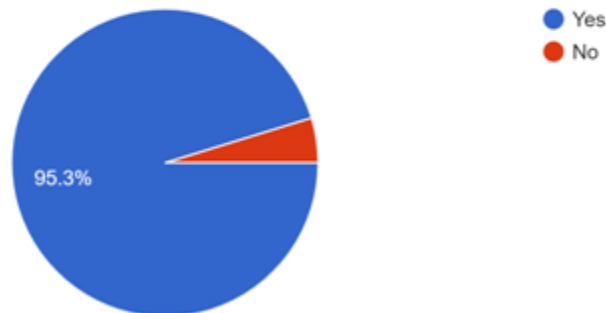
If you get bio-toilet installed in your household, would you encourage other people to get it installed?

103 responses



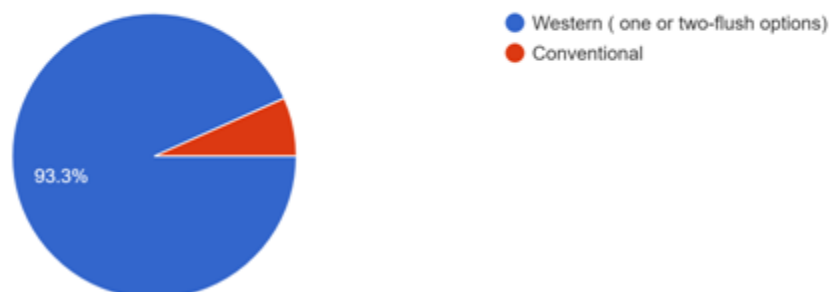
Do you think the government should provide any subsidy to promote the installation of bio-toilets?

106 responses



What kind of toilet facility do members of your household usually use?

120 responses



Discussion

On the basis of the personal interview, focus group discussions and survey findings, the following communication strategy has been devised, keeping in mind the tastes of the Indian audience and the efficiency of various media networks in communicating the desired message.

About the Communication Strategy

In 2014, Swachh Bharat Abhiyan was started by the Government of India. It majorly focused on the sanitation practises in India. India has had a history of overcoming the evil practice of manual scavenging and untouchability. It was initiated to make India open defecation free. Thus, over 10 crore toilets were built across India and their use was promoted through various methods. One remaining challenge in promoting the use of the toilets involved the perception among some Indians that sanitation is not worth paying for. Many people are still comfortable with defecating in the open. By promoting the use of bio-toilets in Indian rural households, this

will explain the negative effects on the health and well-being of society, particularly women and children, associated with open defecation. This strategy- **Train to Drain**- hopes to provide economical and eco-friendly sanitation systems for all — from the most marginalised populations to large institutions, corporations across various states in India.

Bio toilets ensure that there is no physical contact of workers with faecal matter. Therefore, it is a smart and sustainable sanitation system that not only protects the dignity of users but helps in keeping the water bodies pollution-free. Apart from environmental benefits, bio-fuel generated further can be used for lighting lamps or in the kitchen. Thus, creating a ripple effect bringing a social change while ensuring 100% Open defecation free India.

Advertising Media Strategy

With a 360 degree holistic ad strategy, this strategy aims to spread awareness about bio toilets in the urban areas of Delhi NCR and people who use community toilets on a regular basis. Besides, it also revolves around dissemination of information regarding sustainable sanitation practices .

Following advertising tools will be used to spread awareness about **Train to Drain** campaign:

General Objective: - To aware people about:

- Usability and feasibility of bio toilets

Negative effects of open defecation on health and well being of society and thus promoting sanitation and hygiene (and Bio Toilets)

❖ **POSTERS (Online and Print)**

Posters will be advertised in both English and Hindi leading newspapers in terms of their readership, namely TOI and Dainik Bhaskar. These will contain minimalist but factual information about the easy usage of the bio toilets and its affordability. The posters also aim to promote bio toilets by pointing out the negative effects of open defecation on health and well being of society. These posters will be circulated across social media platforms as well, particularly Facebook and Instagram.

❖ **OUTDOOR (Banner Ads)**

Our target audience is huge and diverse. So outdoor media such as banners will help cater to the wide range of audience. There will be banners for the above mentioned objectives and will be put up near crowded places like Connaught Place, Chandni Chowk, Lajpat Nagar Market, Sarojini Nagar Market and Uttam Nagar.

❖ **PODCASTS**

A series of 5 episodes will be uploaded on Spotify, a music streaming app as it is the most used app by youth and adults. Each episode will be 5 minutes in duration.



S.NO.	TITLE	PLATFORM	DURATION
1	<u>The Train to Drain Show</u> Episode 1:	Spotify	5 minutes 20 seconds
2	<u>The Train to Drain Show</u> Episode 2:	Spotify	5 minutes 13 seconds
3	<u>The Train to Drain Show</u> Episode 3:	Spotify	4 minutes 56 seconds
4	<u>The Train to Drain Show</u> Episode 4:	Spotify	5 minutes

5	<p><u>The Train to Drain Show</u></p> <p><u>Episode 5:</u></p>	Spotify	5 minutes 2 seconds
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❖ **RADIO**

To advertise about the campaign, a 16 second ad will also be played on radio, twice in a day, early morning and evening. These will be transmitted in the vernacular language to reach a greater audience. The ads will be broadcasted on AIR FM Rainbow 102.6 MHz, Radio Mirchi 98.3 MHz.

Jingle:

Bio ke subject mein ho gaye fail? Ab ghar laao bio toilet direct from rail.

Translation:

Failed in the subject of Bio? Now bring home bio toilets direct from rail.

❖ **SOCIAL MEDIA**





Media Scheduling

Medium	Date	Placement
Newspaper (Leaflets)		
Times Of India	22nd May- 25th May	Leaflet insertion
Dainik Bhaskar	22nd May- 25th May	Leaflet insertion

Online	Date	Placement
Social Media (Facebook and Instagram)	22nd May- 25th May	Sponsored ads will be shown to the users between their posts. Posts from Biouth's Instagram and Facebook pages will be put up twice (morning and evening) everyday.
Podcast	Date	Timing
Radio Mirchi (98.3 MHz)	11th May- 25th May	Twice a day (morning and evening)
AIR FM Rainbow (102.6 MHz)	20th May - 25th May	Twice a day (morning and evening)
Spotify	17th May - 29th May	Every Tuesday, Thursday, and Saturday upload

Outdoor	Date	Placement
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Banner Ads	4th May- 25th May	To be put up near crowded places like Connaught Place, Chandni Chowk, Lajpat Nagar Market, and Uttam Nagar
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Event Plan

Train To Drain presents a two day online event. Through events, The Toilet Talk followed by standup comedy on day 1, and Khikhilahton ka safarnama the next day, the strategy aims to educate people about bio toilets and its usability in a fun way. Prospective guests for The Toilet Talk will be Parameswaran Iyer, Poorna Khanna and Amit Tandon on Day 1 and Atul Khatri and Lucky Ali on day 2 for Khilkhilahaton ka safarnama.

The events would be engaging, entertaining and would target a wide range of population starting from the student community, millennials, working middle class, intelligentsia and even older people who would connect to comedy and music delivering the message of sustainable sanitation through them. It would be an inclusive one of its own kind of online event to inculcate the essence of open defecation free India, making bio toilets accessible and affordable.

Event Planning Proposal

DAY 1

NAME OF THE EVENT: *Talk About Toilets*

VENUE: Zoom

ESTIMATED GATHERING: 100-150

Panelists and Artists will be invited through E-invites. Pre-Registration through Paytm Insider will be compulsory.

DAY 2

NAME OF THE EVENT: *Khilkhilaahaton ka Safarnama*

VENUE: Zoom

ESTIMATED GATHERING: 100 - 150

PURPOSE:

The main objectives of the Events are:

- To aware people about the concept of Bio Toilets
- To encourage the increased use of Bio Toilets

EVENT PLANNING DETAILS:

- The event is planned to be held at the Zoom meeting app.
- The duration of the complete event would be 2 hours

EVENT PROPOSAL:

The event will be instrumental in increasing the awareness and further in the future expanding the usage of environmentally safe bio toilets available in the market. The online event will be held to achieve the objectives in an efficient manner. Biouth will overtake the organisation of the event along with its prospective media partner, Paytm Insider. The publicity- pre and post event will be the mutual responsibility of the host, all their sponsors, celebrity guests and speakers.

SERVICES:

Biouth will undertake following activities to ensure a successful event-

- Advertising creatives to reach the appropriate audiences
- Reaching out to and coordinate with the guest speakers
- Hampers as a token of gratitude will be given to all the attendees after the two day virtual event.

PROSPECTIVE MEDIA PARTNERS: The publicity of the event would be mainly controlled by Paytm Insider, our official social media platforms and Spotify through podcasts.

PRE-EVENT PUBLICITY: The Pre event publicity will involve the Spotify Podcast: The Train to Drain Show; Radio Advertisements through jingles; Social Media Advertising through Instagram, Facebook and Twitter. The process will begin 15 days prior to the event. It will include engaging stories on social media along with creatives, reels, live sessions, Ask me Anything etc. This will also include the handles of all sponsors and celebrity guests.

POST EVENT PUBLICITY: The Post event publicity strategy includes Event Pictures and Video Bytes on Social Media handles: Instagram, Facebook and Twitter of both the host as well as all its sponsors and guests. It will also include re-sharing the stories of the audience using repost and sharing the positive feedback.

Event Posters



**TIRED OF THE PRERECORDED?
WE'RE GOING LIVE.**
WITH ATUL KATRI AND LUCKY ALI
27 MAY 2021 | 7 PM - 9 PM | EXCLUSIVELY ON ZOOM



REGISTER NOW ON **paytm insider**
IN ASSOCIATION WITH Coca-Cola PPTV LIVE



Prospective Guest Profiles

1. **Parameswaran Iyer** is a former IAS officer who is now building the largest number of toilets in the world. He belongs to the cult of Indian super bureaucrats like T.N. Seshan, Amitabh Kant and K.J. Alphons. Parameswaran Iyer has built 11 crore toilets all over India in 60 months, creating an army of six lakh *swachhgrahis* to carry forward the Swachh Bharat idea, and inspired over 600 skilled young professionals (Zila Swachh Bharat Prearks) who are financed by Tata Trusts.

2. **Poorna Khanna** is an environmentalist by passion and profession. She has a master's degree in Environment Management and wants to change the world for the better, one step at a time. A firm believer in the power of nature, she hopes that with increased awareness, we will be able to create a better future for our children.

3. **Amit Tandon**, based out of Delhi, is a pass-out from IIT and now, is a professional standup comedian. Amit has hosted the New Year Show on Doordarshan channel and also led the spread of the cheer campaign for Comedy Central in Delhi. He is counted among the best-known observational comics in India. He has done more than 500 shows in India and universally. Amit is the founder of Grandmasters of Comedy – a company that focuses on bringing comedy into the corporate world. Also, he is the first comedian to get featured on NDTV Rising Stars of Comedy.

4. Atul Khatri: Atul Khatri is a businessman-turned-comedian who is passionate about making people laugh out loud. He is one of India's most favorite businessmen, a successful standup comedian and YouTube personality who proved comedy is one serious business. Before hitting astounding fame with his incredible skill as a comedian, Atul was the CEO of his family-run business and occasionally posted jokes on Facebook. He grabbed fame after winning CEO's Got Talent in 2014. He was also a finalist at the Melbourne International Comedy Festival and was named one of the Top 30 Comedians in India to watch out for by CNN-IBN. He performs frequently at comedy clubs and does private shows in India and abroad.

5. Lucky Ali: Lucky Ali is an Indian singer, songwriter, musician. With several popular singles and albums, he emerged as a significant figure of Indipop during the 1990s. He used to be insanely famous among the youths of India for his independent songs in the early 2000. He is also the co-founder of Tribe Nation, an online marketplace for farm-grown products. Powered by farmers, Tribe Nation delivers groceries and fresh farm-grown products from local farmers, to customers via a convenient app model, while eliminating inconsistency in prices.

PR PLAN

OBJECTIVES:

- To inform the target audiences about Bio-Toilets.
- To inform the masses and media about the activities done through Train to Drain..
- To encourage the usage of Bio-Toilets against the conventional environmentally taxing toilet system.
- To highlight the urgent need of consumers to shift to environmentally safe toilet alternatives.
- To promote the usage of an environmentally safe alternative- Bio-Toilets.
- To aware people about the features and functions of Train to Drain.

PR PROCESS

PRE-EVENT PR ACTIVITIES

- 1. Interview of Spokesperson:** Media will get the chance to interact and interview the spokespersons of the host organisers to understand the importance of the campaign, the essence of Train to Drain and what is in store in our two day online event.

- 2. Pre - Event Press Releases:** We will share pre-event Press Releases with media partners and other concerned publications, and provide the information about the event and its objectives.

DURING EVENT PR ACTIVITIES

- 1. Media Meeting:** Media will use its digital platform to share the live updates from the event and encourage people to participate in the event, supporting Train to Drain and the noble cause of sustainable sanitation.
- 2. Photo – Opportunity:** Customised Instagram and Facebook AR filters can be used by audiences on Social media to upload their pictures, feedback and screenshots from the event in stories and DPs.
- 3. Interviews with the Guests:** During the event, media partners will take small interviews of the guests so that they can share their views on the theme and give meaningful insights to the audience, encouraging them to adopt Bio-Toilets as a means of living.

POST –EVENT PR ACTIVITIES

- 1. Distribute Post Event Press Release:** After the event, we will distribute press releases with the media.
- 2. Share the event success story in Newspaper and Social Media:** There will also be sharing of the Panel Discussion and event highlights and success with the media. Stories, Tweets, Reposts will be done on social media handles of the organisers, sponsors and guests.

PRESS KIT

- Pre-Event Press Release
- Fact Sheet
- Backgrounder
- Brochure
- Customised notepad with pencil
- Stationary Stand
- Toilet seat disinfectant spray
- Covid masks



Conclusion

The research group observed that the concept of hygiene is the most cost-effective health promotion. Safe water supply and basic sanitation facilities are far from satisfactory in places of public gathering and movement in India. Hence, special attention has to be paid for Public spaces like railways, buses and bus stands, ships and jetties, market places, schools, colleges, cinema halls, theatres, etc. Prime Minister's "Swachh Bharat Abhiyan" or "Swachh Bharat Mission." This analysis was done to show reluctance towards following hygienic sanitation practises still persists. Our research group also felt that holistic political and administrative support are needed to scale up any sanitation revolution that includes revamping the financial discipline regarding vertical fund release from union governments to the states for targeted phase-wise implementation in both urban and rural belts (SK Paul,2020). To achieve the target of awaring individuals on the health of the community there is a need to improve attitudes, both with respect to hygiene in home and general health education, and implement these in conjunction with community water supply and environmental sanitation programmes. The level of agreement among media, policy, and audience on the coverage of Health, water and Sanitation broadcasts are moderate. A comparative analysis reveals that the health information disseminated by the media has a discernible impact on the audience.

The media coverage on health within the media is a difficult process. The nature of coverage of contents is both formal and informal and often combined with creative techniques. Not only is the task of programming challenging, but also an accurate Study of coverage needs research tools, which are specifically designed for attacks. The moderate agreement among the three

perspectives must alert us to the requirement for need-based, well-planned, and researched health broadcasts in close coordination with the service delivery systems. Information gaps prevent wider acceptance of health services. The information needs may vary from one health issue to the other, demanding that the broadcaster possess thorough knowledge about not only the concepts but also the methods of implementation, needs of the target group, and so on. The extension staff should provide the necessary inputs to the media.(P. V. Sharada,2009) In a study by the World Bank, the health impact due to contamination of water sources and the lack of sanitation and hygiene in terms of disease burden and premature deaths brought about by diarrhoea and other water, sanitation and hygiene-related infections, was reported to be between US\$3 and 8 billion per year. This is equivalent to 1.5 to 3% of the gross domestic product of the country. When considering that the economic and developmental planners in the country are struggling to achieve an economic growth rate of 5 – 6%, the futility of their economic logic becomes apparent. Clearly, investments in hygiene promotion along with community water and environmental sanitation would be cost-effective and beneficial in the long term.

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