



CHANGING BEHAVIOUR

Empowering Communities & Transforming Lives



IMPACT ASSESSMENT REPORT





Creating Sanitation
Change Leaders

Foreword

It is indeed a privilege and honour to release this report that charts the evolution of Dettol Banega Swachh India (DBSI) from a multi-strand programme focused on Changing Behaviour to a cohesive and comprehensive programme that delivers total transformation of sanitation and hygiene ecosystem and therefore public health in the areas it has been deployed.

In collaboration with partners ranging from all levels of government, local NGOs, international development organisations and most importantly, communities across the length and breadth of the country, DBSI has been proven to be a force for good for the Prime Minister Narendra Modi led Swachh Bharat Mission.

Driven by the core ethos of RB's "Purpose led Business" the DBSI evolution has not only just improved quality of sanitation and hygiene now, but also for the future. Targeting some of the most marginalised sections of society, the DBSI programme has not only impacted and improved millions of underprivileged lives but has saved lives especially of children in the community and provided them the health tools to grow up as responsible and productive citizens contributing to developing a New, Clean and Healthier India.

Jagran's commitment to improving lives in the communities it serves alongside its reach in the heartlands of India have delivered the ideal synergy for DBSI to flourish and the success of the DBSI programme in changing millions of lives is a testament to the successful partnership forged between RB & Jagran to improve India's health and productivity not only for today but for the future.

The programme has won numerous awards including that from the Hon'ble President of India among various other international and national awards including being recognised as among Top 12 interventions at the 2nd Innovative Practices Awards for Sustainable Development Goals (SDGs) at the GCNI 13th National Convention among many others.

Our grateful thanks to all our partners for making DBSI the success it is today and especially the RB and Jagran Peהל core team who have worked tirelessly to make the vision a reality. They have been the best reflections of "Purpose Led Business" ethos and once again demonstrated the highest standards of commitment towards improving lives of the most vulnerable.

Gaurav Jain
Senior VP – South Asia
Reckitt Benckiser

Sameer Gupta
Executive President
Jagran Peהל

Accolades

Hon'ble President of India
Shri. Ramnath Kovind awarded
DBSI for its contribution towards
Swachh Maharashtra
2nd Nov 2017



Shri. Ram Nath Kovind
Hon'ble President of India



Shri. Narendra Modi
Hon'ble Prime Minister
of India

“NDTV has started a campaign
Banega Swachh India (Dettol Banega
Swachh India), Dainik Jagran too is
continuously running a campaign
for this cause.”

Mann Ki Baat, October 2015

**DBSI has won over 30 prestigious National and
International awards.**

- Awarded by the Hon'ble President of India for Swachh Maharashtra - Urban
- Cannes for Harpic Public Health
- India CSR Health Impact – Award for Swachh Bharat
- Flame Asia Gold 2017
and many others.

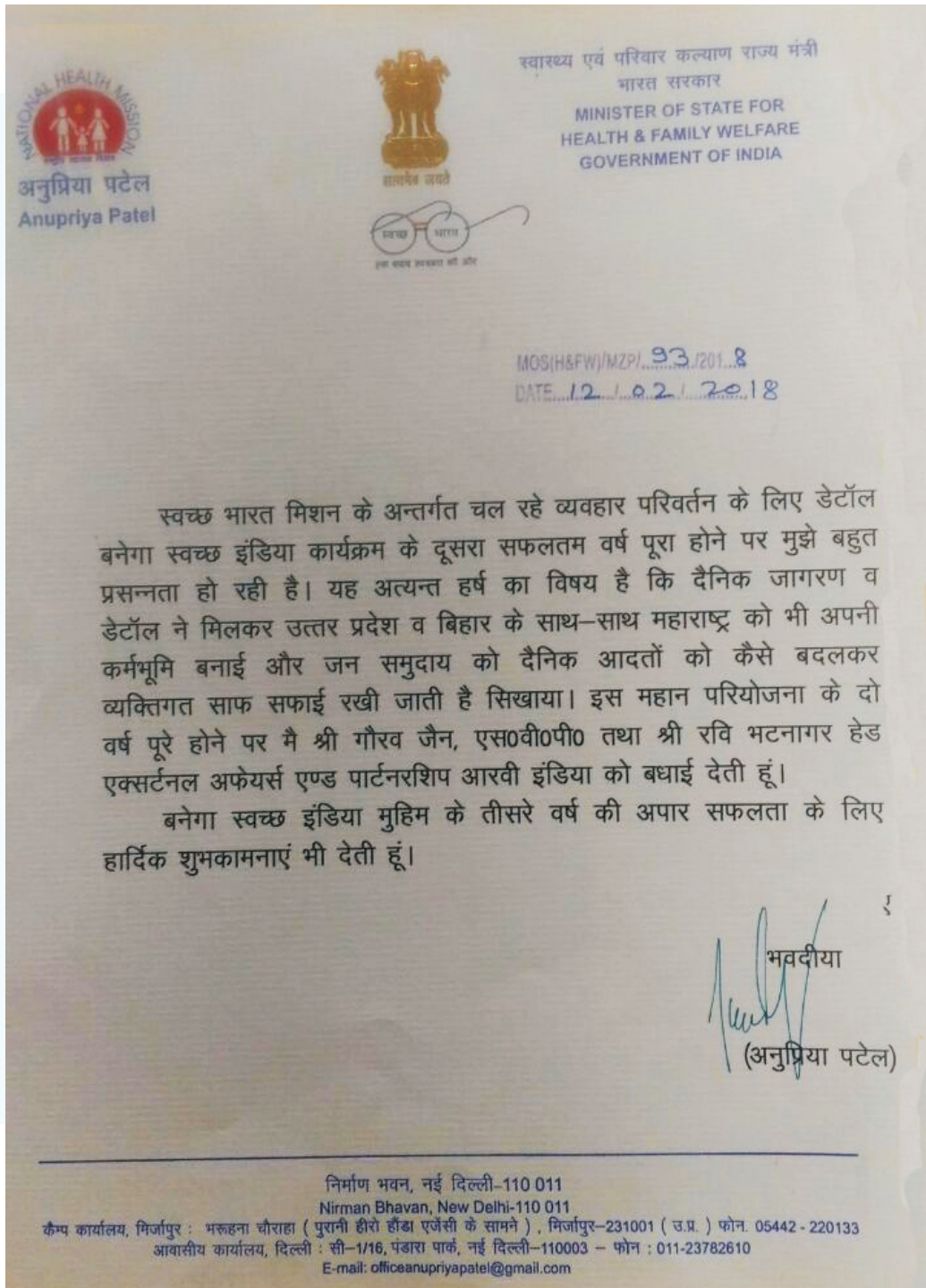


Support & Appreciation from



Hon'ble Anupriya Patel

Minister of State for Health & Family Welfare
Govt. of India.

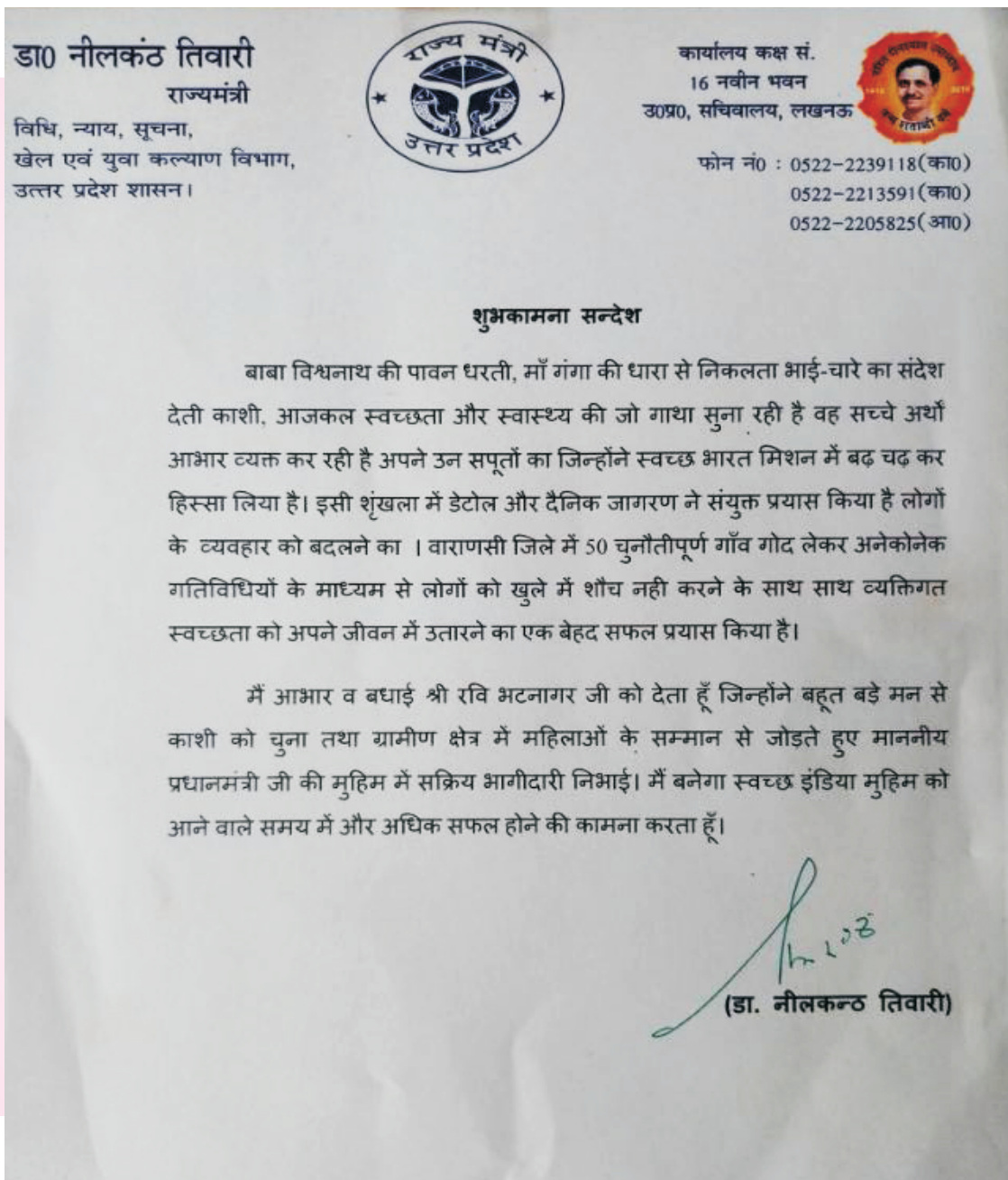


Support & Appreciation from



Hon'ble Dr. Neelkanth Tiwari

Minister of State (Independent charge) Law and Justice,
Information, Sports and Youth Welfare - Uttar Pradesh



Support & Appreciation from



Hon'ble Shri. Syed Shahnawaz Hussain
National Spokesperson, BJP

सैयद शाहनवाज हुसैन
राष्ट्रीय प्रवक्ता
पूर्व केन्द्रीय मंत्री, भारत सरकार



भारतीय जनता पार्टी
Bharatiya Janata Party

शुभकामना संदेश

स्वच्छ भारत मिशन भारतवर्ष का एक अहम कार्यक्रम है। मैं तो यह कार्यक्रम महात्मा गांधी जी के द्वारा आरंभ किया गया और काफी वर्षों से चल रहा है किन्तु प्रधानमंत्री नरेन्द्र भाई मोदी जी ने इस कार्यक्रम को किताबों से बाहर निकाल कर अमल में लाने का अभूतपूर्व, अतुलनीय तथा सफलतम प्रयास किया है। दैनिक जागरण ने डेटाल के साथ मिलकर बनेगा स्वच्छ इण्डिया की मुहिम अत्यधिक जोरों-शोरों से आरम्भ की और देखते ही देखते ग्रामीण अंचलों में इसका प्रभाव इतनी तेजी से बढ़ा कि इस कार्यक्रम का जिक्र माननीय प्रधानमंत्री मोदी जी ने अपने पसंदीदा कार्यक्रम "मन की बात" में किया।

बनेगा स्वच्छ इण्डिया में जिस प्रकार धर्म गुरुओं को प्रशिक्षण देकर इस मिशन की दिशा और दशा बदली है यह अति प्रशंसनीय है। मैं आर०बी० इण्डिया के श्री गौरव जैन जी एवं श्री रवि भट्टनागर जी को बधाई देता हूँ जिन्होंने इस महान परियोजना का लगातार दूसरा सफल वर्ष पूरा किया है। मुझे बेहद प्रसन्नता है, इस महान कार्यक्रम का भागीदार बनने पर।

डेटाल-बनेगा स्वच्छ इण्डिया कार्यक्रम को गगनचुम्बी बनाने के लिए मेरी ओर से ढेरों शुभकामनायें।

भवदीय,

(सैयद शाहनवाज हुसैन)
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भारतीय जनता पार्टी

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Editor's note

“Changing Behaviour” has been the motto of Dettol Banega Swachh India (DBSI) since its inception and it continues to be the driving force for the programme. DBSI has continuously evolved through learning and betterment and the result has been improvement in the lives of millions of people across the country.

While changing behaviour and inculcating the best practices of sanitation and hygiene in communities inter-generationally remains the core purpose, ensuring that the demand of infrastructure is met and that a local sustainable economy can be built around sanitation and waste is now a key part of our remit as enabling partners to the national Swachh Bharat Mission.

This report showcases the ambitious journey of our flagship programme “Changing Behaviour – Creating Sanitation Change Leaders” from the conceptual stage to the siloed delivery of the pilot in 200 villages in UP and Bihar to 40 urban local bodies in Maharashtra. The outcomes and potential impact of the first year are examined through a prism of analysis to understand how DBSI can be deployed better in delivering rapid and wide-scale transformation. The development of a more comprehensive approach of deploying DBSI that harnessed the strength of the various strands into one common thread and focus have been explored in detail too.

Maharashtra’s aim to be ODF in urban spaces had a few challenges in the form of six districts that needed serious and holistic intervention to ensure that the state’s ODF goals could be achieved. In these six districts, DBSI’s new comprehensive strategy was piloted and this report highlights its outcomes and the potential impact. It must be noticed that each area wherein DBSI intervened was declared ODF within the stipulated time.

Chronicling this journey would not have been possible without the hard work, commitment and support of our partners, from the highest offices of the land to the block development officers and PRI leaders, village heads, as well as the myriad stakeholders from Anganwadi workers, mothers, caregivers, religious leaders and the communities themselves.

I am grateful to and would like to thank the senior leadership at RB, both in India and globally, for the privilege of leading DBSI, their continued confidence, much appreciated guidance and strategic partnership. Also, I would like to extend my gratitude and a special and heartfelt thanks to my DBSI core team both at RB and Jagran, along with the Jagran Pehel leadership.

Ravi Bhatnagar

Director Corporate Affairs – Asia, Middle East & South Africa
RB

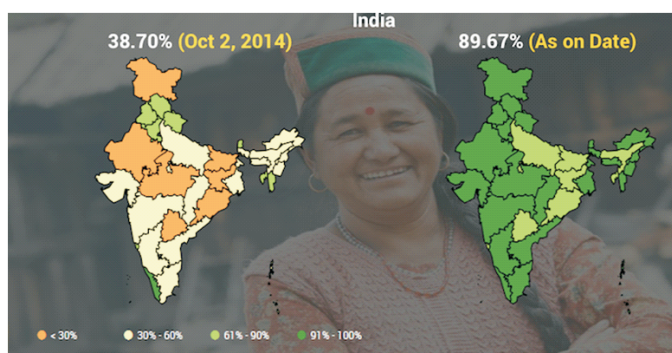
Executive summary

When it comes to SDGs, especially Goal 6 i.e. “water and sanitation: access to adequate and equitable sanitation and hygiene for all and end open defecation”; the role of India is pivotal. Unless India meets the target – the chances of the world coming close to meeting the targets are negligible. And that’s being optimistic.

In the past four years, since Prime Minister Narendra Modi’s “Jan Andolan” to deliver a New, Clean, Healthier and Productive India launched the Swachh Bharat Mission – India has been largely successful in battling open defecation.

Building more toilet infrastructure and the economic activity that it brings have been a key part of the success story – however infrastructure alone was never the solution for India.

Toilet building is not a new phenomenon in India. Multiple initiatives, especially under PM Vajpayee and then extended under PM Singh’s Nirmal Bharat Abhiyaan, focused on development of infrastructure and toilet construction. This supply-driven approach, however, could not garner much success because the focus lay on output i.e. number of toilets, rather than outcomes i.e. the ODF status.



Substantial evidence with sources as credible as the SQUAT Report 2014 and Census of 2011 show that while there is a significant chunk of the population that lacked access to adequate facilities; a large chunk of those who had toilets did not choose to use it. Adopting a supply driven approach with the assumption that if there are toilets people will use them – has proven to be erroneous as building infrastructure did not challenge the entrenched views of cleanliness and hygiene inculcated and handed down through generations as community knowledge sharing; albeit flawed.

The magnitude of the sanitation challenge in India and the underlying economics demand that people need to be motivated to actually use and ensure the regular upkeep of toilets. Under the aegis of the Swachh Bharat Mission, this is where the Dettol Banega Swachh India programme has played a revolutionary role in transforming the sanitation scenario by focusing on changing entrenched behavior that challenged and successfully won over the inculcated habits imbibed through generations.

This is where Swachh Bharat Mission differs from its predecessors. DBSI has been a pioneer on transforming public health by improving hygiene and sanitation standards through sustainable community driven behavior change.

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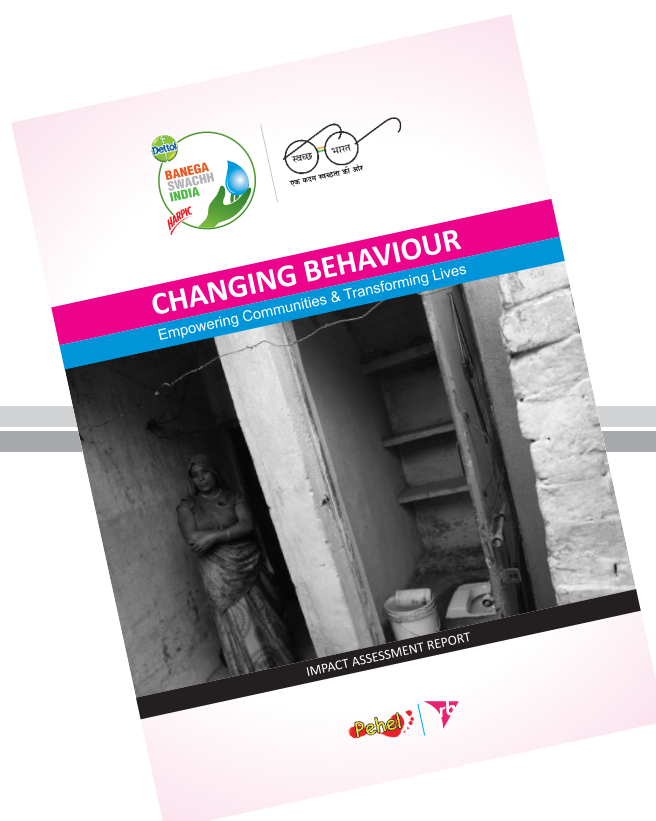
Executive summary (contd...)

Daunting the task may have been, but DBSI with customized solutions and localised behaviour change communication (BCC) tools has successfully empowered communities across generations and has undoubtedly established itself as a catalyst in delivering healthier and more productive communities across India, especially amongst the most marginalized in our society.

The rise in demands for clean toilets has also fostered the creation of a robust sanitation economy that has the potential for massive economic growth and sustainable development, given the societal benefits accrued from ensuring universal access and enabling frugal innovation.

The intellectual construct driving the strategic thinking to the deployment approach and localized strategy; to the reach and outcomes the programme has delivered through the first couple of years has been highlighted in this report as part of the evolutionary journey of Dettol Banega Swachh India's flagship programme "Changing Behaviour: Creating Sanitation Change Leaders".

Importantly, this report also estimates the potential economic impact of the reduction in diarrhea cases and that of toilet building.



Changing Behaviour: *Creating Sanitation Change Leaders*

The underlying idea was to empower and enable trusted community leaders (PRI, Faith Leaders, Mothers and Care givers) to be the pillars of the programme and be the change drivers, by improving their communities' well-being through better public health outcomes and making people healthier and more productive. Not just behavior, through partnership with a whole host of committed stakeholders including the government, DBSI enabled these communities to unlock the bottlenecks imposed by lack of economic resources, participation, knowledge on appropriate toilet technology and water supply among others.

Following the completion of Phase I, extensive internal assessments were undertaken in order to develop a common vision and purpose for Phase 2. Previously, the strands of the DBSI programme had been delivered in silos and the strengths of each strand were not harnessed to drive holistic transformation within the communities. Thus, DBSI developed a new strategic framework around an evidence-based model that was piloted in Maharashtra's worst performing districts in the Swachh Survekshan survey.

The Swachh Maharashtra campaign aimed to make urban Maharashtra ODF by 2018. In an effort to understand specific challenges that needed to be addressed, the DBSI program conducted a detailed representative Dipstick Survey across urban and rural households among 6 chosen districts in Maharashtra. The strategic gap identified was addressed through a rapid deployment of a more holistic version of changing behavior bringing together lessons learnt from India and various parts of the world especially East Asia.

At a glance, the reach and outcome of the programme has been highlighted below:

Reach	PHASE 1 States: 2 Villages: 200 Households: 85,205 Individuals: 3,40,820	PHASE 2 States: 3 Districts: 13 Households: 5,61,876 Individuals: 22,47,504
Outcomes	<ul style="list-style-type: none"> 6120 additional toilets (12% increase) 13,000 change leaders identified, trained & deployed (7 households per change leader) 75/200 either attained ODF status or are formally pursuing sustainable ODF status 100% awareness of importance and process of handwashing 22% increase in handwashing in critical moments 77% households in Bihar and 66% households in UP are washing hands at critical moments conservative estimate of \$1.5 million added to national economy at a cost of INR 28 per person 	<p>1,20,625 additional toilets built in total</p> <p>Maharashtra:</p> <ul style="list-style-type: none"> All 40 Urban Local Bodies (ULBs) covered by DBSI declared ODF 100% target audience reached 100% target audience knowledge enriched and empowered on improved hygiene, ODF and handwashing Spearheaded focused initiative on Solid Waste Management <p>Bihar:</p> <ul style="list-style-type: none"> 77% villages declared ODF 20 Change Leaders identified 31,960 toilets constructed <p>Uttar Pradesh:</p> <ul style="list-style-type: none"> 73% villages declared ODF 36 Change Leaders identified 29,562 toilets constructed

- Initiative Appreciated by more than 100 different organizations / agencies / govt. bodies
- Awarded by Hon'ble President of India, Ram Nath Kovind for making Maharashtra Urban ODF
- Awarded Swachh Bharat Impact Initiative of the year by Paras Healthcare
- Awarded Flame Awards Asia Global as best CSR Campaign of the year
- Appreciated by Hon'ble CM, Uttar Pradesh, Yogi Adityanath
- Appreciated by Hon'ble CM, Bihar, Nitish Kumar
- Appreciated by Shri Shahnawaz Hussain, BJP Spokesperson
- Programme recognized and appreciated by DMs and other Govt. Officials
- Mayors and Municipal commissioners of various Districts of UP, Bihar and Maharashtra



Potential Impact Assessment

The World Health Organisation (WHO) estimates that 300,000 lives can be saved through the Swachh Bharat Programme, however, that could prove to be a very conservative estimate. If health practices and sanitation standards reflect global best practice standards with ecologically sustainable yet effective waste solutions and most importantly the will of communities to yearn for a better quality of life, then it is the firm belief of the DBSI team that the scourge of child deaths due to easily preventable water borne diseases can be eradicated.

WHO Data suggests that 48% of all children in India across socio-economic strata are suffering from stunting, which means almost half the population is being hindered in achieving it's full potential. DBSI, as an enabler for the national mission for a clean and healthier India could potentially unlock billions through improvements in productivity and these will be reflected not only in the knowledge sector, but in the unorganised sector as well.

Estimating a 50% reduction in the cases of diarrhea amongst adults based on the assumption of an economic loss of \$15 for 2 working days, over \$1440 million can potentially be saved annually in the states of Bihar, Uttar Pradesh and Maharashtra.

Not just productivity, the economic activities created through just the demand for toilet for a part of the population that is still lacking adequate sanitation facilities could yield over 12 billion dollars.

The direct economic activity in building 10 million toilets at a per cost of \$200 is \$2 billion. Conservatively estimating an economic multiplier of 3 implies that the total economic impact of building toilets is \$6 billion in Bihar, Uttar Pradesh and Maharashtra each.

These results affirm that massive economic benefits can be potentially accrued within the Swachh Bharat Mission, if the interventions under the DBSI programme are implemented across the length and breadth of the country.

It is changing behavior that is propelling India towards meeting the SDGs & DBSI is a force for good in achieving the national mission.

The Context

As potentially the world's most populous country by 2030, India's experience with rising population levels has shown an increase in densely populated urban and rural settlements that lack safe and adequate sanitation infrastructure and sustainable and clean waste management practices. Unless concrete steps are taken to address related infrastructural and behaviour change issues, the sanitation and hygiene challenge in India will worsen. The Indian economy pays a steep annual cost, estimated at \$120 billion or 6.5% of lost GDP annually, due to inadequate WASH (water, sanitation and hygiene) indicators. However, the costs of investment in improving India's sanitation and water scenario is off-set by benefits accrued in sectors like health, tourism, employment etc.

By 2030, India has committed to achieving the UN's Sustainable Development Goals, spearheaded under the official rubric of "Transforming our World: the 2030 Agenda for Sustainable Development". India's sanitation and hygiene problem relates to Goal 6 i.e. "water and sanitation: access to adequate and equitable sanitation and hygiene for all and end open defecation" and specifically to target 6.2 i.e. achieving access to adequate and equitable sanitation and hygiene for all, while ending open defecation and paying special attention to the needs of women and girls as well as those in vulnerable situations.

The availability and access to clean sanitation facilities can be linked to multiple other SDGs as well. These include: eradicating poverty (Goal 1), hidden hunger and malnutrition (Goal 2) and inequality (Goal 10); ensuring public health and well-being (Goal 3), cognitive development of children (Goal 8), gender equity (Goal 5) and quality education (Goal 4) by preventing drop-outs and illnesses; creating safe and resilient cities/human settlements (Goal 12) with an ODF status and curbing pollution from accumulated domestic waste (Goal 14); promoting peace and justice (Goal 16) via accountable, effective and inclusive institutions responsible for sanitation facilities and finally, fostering partnerships based on innovation and technology transfer in the sanitation sector to accelerate implementation, access and sustainability (Goal 17).

Changing behaviour is key to achieving the SDGs as sustainable transformation of any community hinges upon the complex relationships between individual behaviour and broader social change. Individual citizens as well the wider communities must make meaningful and long-term changes to their behaviours in order to achieve long-lasting and sustainable impact. No amount of policy enforcement, infrastructural support or technological innovations can fully succeed unless there is widespread change in the existing consumption patterns, habits, practices and behaviours of people. Envisioning a sustainable future demands a collective rethinking of core values and cultural norms with change being driven within and by the communities towards improved outcomes.

UN's
Sustainable
Development
Goals



Potential Impacts of WASH Strategies



Individual and Public Health: Saving human lives from easily preventable diseases such as cholera and diarrhea, pneumonia and blinding trachoma

- Improved sanitation and effective waste management can lead to a **16%** and **63%** reduction in cases of diarrhea respectively
- Washing hands with soap can reduce incidences of diarrhea by **42-47%**
- A 15 minute reduction in water collection time can reduce diarrhea by **41%**

Nutrition: Unsafe water, inadequate sanitation and unsafe hygiene practices contribute to 50% of undernutrition cases, stunting etc. Safe WASH can prevent long-term morbidity and at least 8,60,000 child deaths a year caused by undernutrition.



Economy: Improved water and sanitation can improve school enrolment, attendance and retention, provide security and proper menstrual hygiene for girls/women and increase female participation in the workforce. This enables children to lead fulfilled lives and become more productive citizens for the wider economy.

In order to curb the challenges related to the hygiene and sanitation problem in India, an increased focus is needed not only on the construction of toilets, but also on the working, usage and maintenance of sanitation facilities along with ensuring that the best practices are enshrined in the collective public consciousness.

When these objectives are met and nurtured in a viable and sustainable socio-economic ecosystem across rural and urban India, a truly new and clean India will emerge.





Under the **Swachh Bharat Mission (SBM)**, launched on October 2, 2014, India pledged to achieve universal sanitation coverage and an Open Defecation Free (ODF) status by October 2, 2019. This mission-mode, cross-sectoral and multi-stakeholder response to the sanitation challenge in India has morphed into a full-fledged national “**Jan-Andolan**”, led by Prime Minister Narendra Modi. It lays emphasis upon behaviour change among people regarding the use of toilets for improved health, hygiene and sanitation practices. Access to sanitation facilities throughout India must include toilets, solid and liquid waste disposal systems and village cleanliness. In order to achieve this, PM Modi called for the mobilization of the private sector, NGOs and other actors to become catalysts and enablers of the Swachh Bharat Mission and the SDGs.

The sanitation and hygiene situation is complex and for a multi-layer economy and culture like India, concerted and cohesive efforts are required from all quarters of society. Thus, the efforts of multiple stakeholders need to be directed towards the achievement of an ambitious goal of this kind, based on the creation of a stable ecosystem, around a demand-led programme for sanitation financing and behaviour change communication, to ensure long-term sustainability. Behaviour change plays a crucial role in achieving these because unless a demand is created amongst community members for infrastructure and sanitary and hygienic habits are imbibed by people, an enabling environment cannot be created.



Har Sapna Sachh Karega India
BANEGA SWACHH INDIA

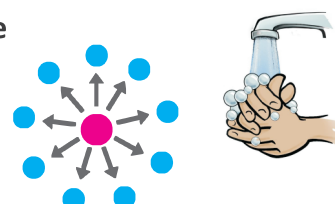


In a proactive bid to support Prime Minister Narendra Modi’s clarion call, RB in association with its core delivery partner Jagran Peheh launched the “**Dettol Banega Swachh India**” (DBSI), for the enhancement of sanitation, hygiene and public health standards of 100 million people across India, by driving behaviour change to improve sanitation and hygiene practices as well as ensure better WASH standards; and thus improve quality of life for citizens especially those marginalized in society.

The aim was and remains to be an effective catalyst and enabler for Swachh Bharat Mission and help create a Clean and New India that delivers value and sustainable benefits in both urban and rural India.

The DBSI programme, aimed at transforming communities from within by improving the state of sanitation, hinges upon 4 core principles:

1. Driving habit change and attitude towards hand hygiene
2. Ensuring mass reach
3. Ensuring best-in-class on-ground execution
4. Using RB’s expertise in hygiene-related products



Behaviour Change – The Core of DBSI Strategy

The raison d'être of the DBSI strategy is the altering of perceptions, beliefs and behaviour by supporting the larger message that clean sanitation and hygiene habits will lead to better health outcomes.

India's public health challenge due to lack of sanitation and hygiene cannot be solved by building toilets alone as lacks of knowledge, including lack of knowledge exacerbated by generational cultural norms have inculcated and nurtured the wrong lessons and practices when it comes to defecation. These are evidentiary facts as demonstrated by both the Indian Census of 2011 and SQUAT Report of 2014.

According to these reports:

The national Swachh Bharat Mission (SBM) and its inclusion in the approved areas for CSR spend did bring in a lot of interest in making India clean and tackling the scourge of open defecation. While most investments and efforts went into much needed infrastructure development i.e. toilets – it was clear to the core DBSI team that behavior change was a clear strategic gap that needed to be addressed. However, RB made a decision to fill the strategic gap that linked demand creation and toilet building as well as ensured that best practices of hygiene and sanitation become the norm. 2014-15 data on hand washing and the figure below clearly shows that behaviour change is as big a challenge to Swachh Bharat as lack of infrastructure, if not bigger.

The intellectual construct was based on creating a sense of urgency for change through knowledge and behaviour change within the community rather than just supply toilets for not toilets but cleaner and safer toilets; along with best practices of sanitation and hygiene being embedded in the collective consciousness of the community to drive sustainable change.

Hence, DBSI launched a series of strands targeting different segments of the community – however, the **Changing Behaviour: Creating Sanitation Change Leaders** was the flagship programme that aimed to deliver sustained transformative changes across communities in the first instance.



66% of population or over 63 million households in Bihar, Haryana, Madhya Pradesh, Rajasthan & Uttar Pradesh would most likely defecate in the open even if they were provided with toilets.

In Bihar and UP respectively	BIHAR	UTTAR PRADESH
Households who have latrines but prefer to OD	42.5% or Over 8 million households	54.2% or Over 22 million households
Households who defecate in the open	83.1 % or Over 16 million households	80.7% or almost 33 million households

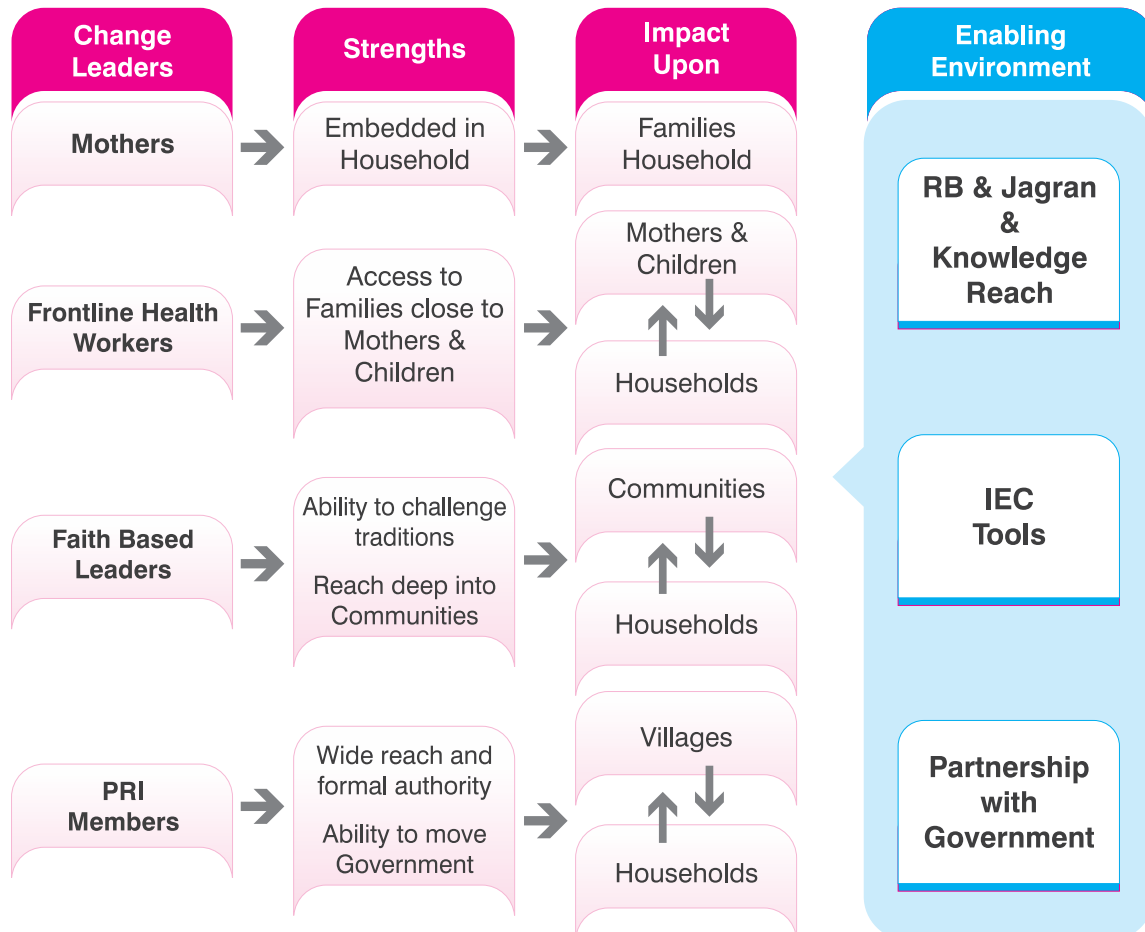
Source: The Census Report, 2011/SQUAT Report 2014

The Programme

The Changing Behaviour: Creating Sanitation Change Leaders empowers and enables trusted community leaders (PRI & Faith Leaders), care givers and mothers to be catalysts of change and improve their communities' well being through better public health outcomes that make citizens not only healthier but also more productive. Recognizing the importance of re-iteration to convert new knowledge into habit, the impact of efforts of the trained Change Leaders was enhanced through a range of Behaviour Change Communication (BCC) tools & activities. These BCC tools disperse knowledge and information to the wider community and reiterate sanitation messages to reinforce the message through important conscious and sub-conscious reiteration of interventions both in organised settings as well as through day to day activities.

The DBSI leadership understood the importance of having extensive and effective relationships with key stakeholders at all levels of the government (from New Delhi to the block level) along with others such as toilet providers and financing groups to NGOs to deliver optimal value for the target communities. However, the core relationship between RB & Jagran Pehel (the CSR arm of the Jagran Group) was crucial and imperative to the success of the programme, especially since it combined RB's expertise in developing innovative health & hygiene products with Jagran's unparalleled reach and trusted status in the heartlands of India – thus making the partnership a force multiplier to deliver optimal value through the DBSI programme.

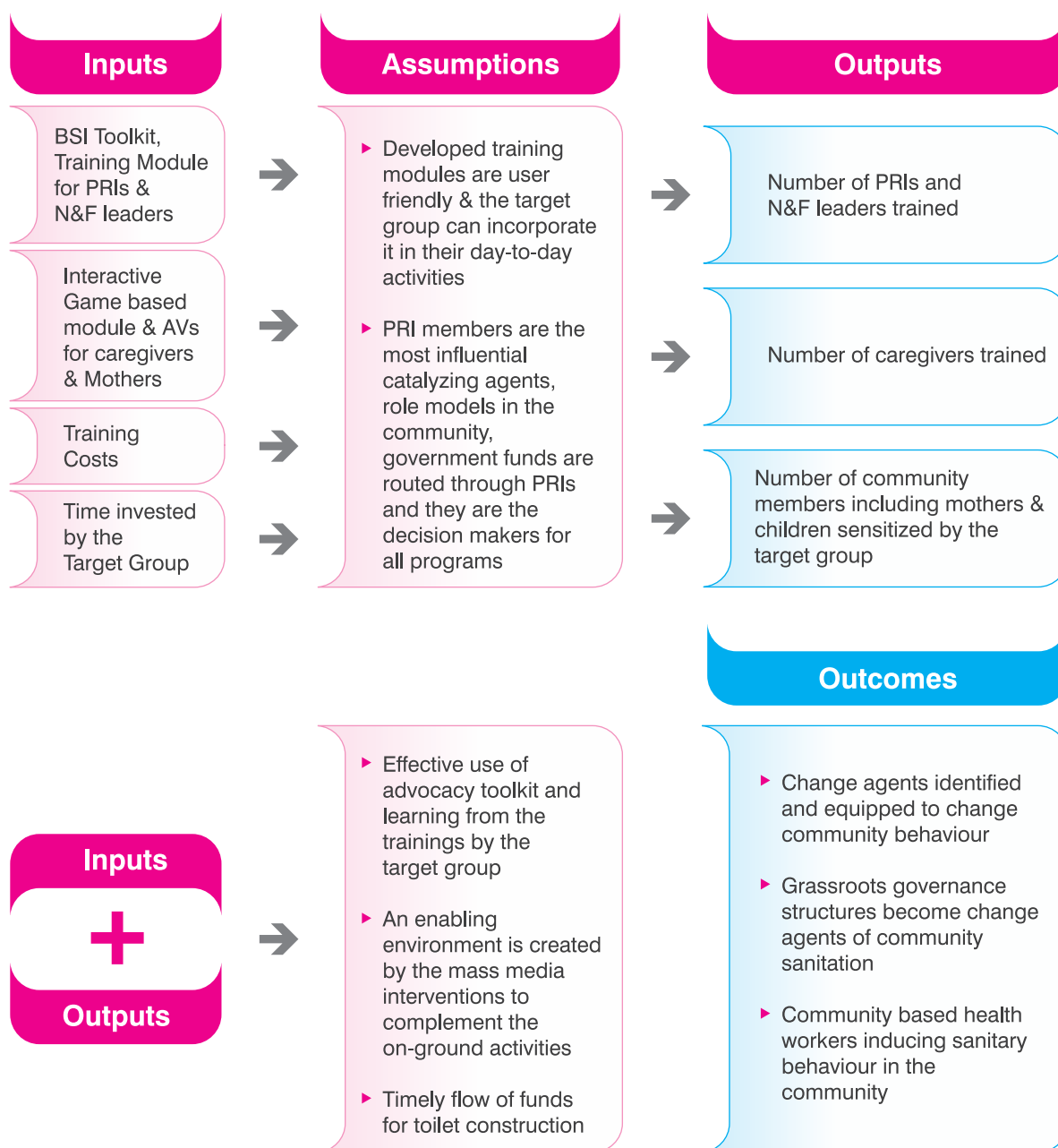
The Pillars of the Programme



Intellectual Construct of the Programme

The diagram below presents the thematic construct based on the inputs and outputs and overall outcomes that were assumed by the programme leadership during the launch – and the deployment and performance assessment following the first year was based on this framework.

Input Output Process Flow



On the ground Strategy and Approach

While the intellectual construct provided the broad framework and strategy, there were a few barriers that needed to be crossed to deliver the strategy effectively on the ground. There was consensus across the board that even in a localized area of about 200 villages – a local approach was a key to success of the programme, especially if barriers were to be broken.

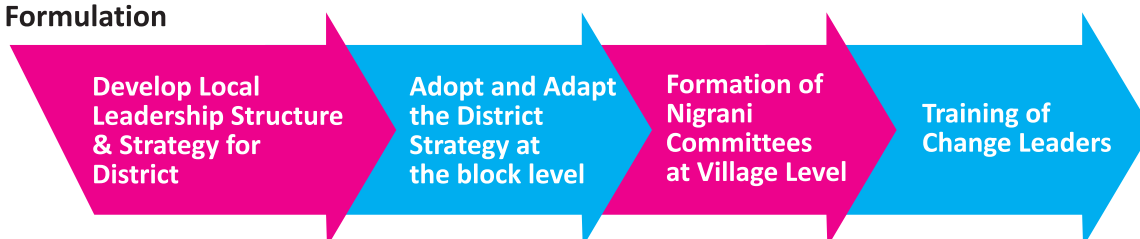
The key barriers were:

- Cultural Mindsets inculcated through generational misconception of sanitation & hygiene
- Lack of knowledge of the threats posed by lack of adequate sanitation & hygiene practices
- Low literacy rates
- Lack of participation of community leaders & PRI members in sanitation & hygiene activities
- Lack of economic resources to build infrastructure
- Scarcity of water
- Lack of knowledge on toilet technology
- Lack of an integrated sanitation ecosystem that supports holistic development

In Phase I of the programme, DBSI aimed to tackle the top issues and prove that the DBSI model of behavior change induced demand creation and improved sanitation and hygiene practices.

A localized approach was developed to address the specific challenges of each of the villages and the model of engagement and its process has been presented in the diagram below.

Structural Strategy & Implementation Plan Formulation



Approach of Delivery



Expected Local Outcomes



Obviously, each part of the process laid out above has various sub-processes, especially in the case of the last two. Most of the activities that engaged with the end user and provided direct & indirect interventions came during those phases for the pilot project of Changing Behaviour: Creating Sanitation Change Leaders.

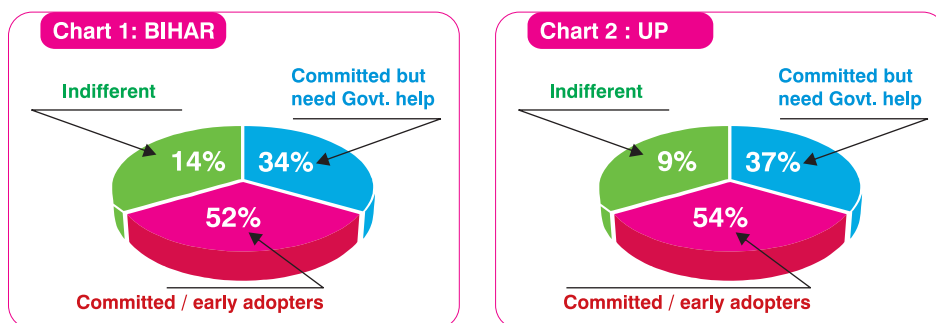
The Deployment in the First Year

Deployment was based on ensuring the initiative was impactful in transforming villages and helping them attain sustainable ODF status quickly. Therefore, the programme targeted the low hanging fruits where little efforts could deliver substantial value. Implementing the last mile approach and achieving sustainable ODF status in a limited time were the key factors that determined the 200 villages where the programme was launched in August 2015.

54% (27,000) households in the chosen 100 villages in UP and 52% of households in the chosen 100 villages in Bihar were committed to having a toilet. Another 37% and 34% respectively wanted toilets but needed government help. These numbers made them ideal targets for the initiatives.

Households attitude towards Toilet building

Field research conducted at the household level in villages in Bihar and Uttar Pradesh revealed:



Deployment strategy : The Committed Adopters

Strategy

Targeting maximum possible resources on households that are most likely to achieve ODF status – the low hanging fruits.

The programme design ensured that 27,000 households (equivalent to 54%) in UP and 17,772 households (52%) in Bihar receive reiterative proactive interventions from change leaders at least 6 times per year and help them attain sustainable ODF status as quickly as possible.

Total number of interventions in the first year for the early adopters :

State & Committed Households	No. of Change Leader Interventions per year	Total Number of Interventions per year
Bihar 17,772 households	6 times per year	106,632 interventions
Uttar Pradesh 27,000 households	6 times per year	162,000 interventions
Total: 44,772 households		268,632 interventions

The Committed but Needs Government Assistance

Strategy

Interventions to help these households become proactive in pursuing ODF status + effectively utilising PRI members & strategic relationship with government to help facilitate government aid to build toilets

Total Number of Interventions in the first year for those who seek Government assistance

State & Committed households needing govt. help	No. of Change Leader Interventions per year	Total Number of Interventions per year
Bihar 11,587 households	4 times per year	46,348 interventions
Uttar Pradesh 18,915 households	4 times per year	75,660 interventions
Total: 30,502 households		122,008 interventions

The Indifferent

Strategy

Increase awareness and threats of open defecation through culturally adaptive behavior change communication

Indifferent households



Rural UP

**4601 or
9% households**



Rural BIHAR

**4771 or
14% households**



Yet, they remain a critical part of the target audience; as these indifferent households are key to achieving sustainable ODF status for villages.

Hence, the Changing Behaviour programme ensured exposure of this group to local folk media (such as Nukkad Nataks) & interactive group sessions (such as Chaupals with change leaders) to ensure increase in awareness of both, the risks of open defecation and how becoming ODF could transform their lives for the better.



Swachh Bharat Mission and Maharashtra

Maharashtra is the second most populous state and third largest state by area in India. It is also among the wealthiest and most industrialised states in India. Thus, Maharashtra has a significant impact on India's overall sanitation and cleanliness standards. **The Government of Maharashtra launched the Swachh Maharashtra Abhiyan at the state level.** The mission is being implemented by the Urban Development Department (UDD) through a dedicated Swachh Maharashtra Mission Directorate. At the city level, the Urban Local Bodies (ULBs) are responsible.

Maharashtra has a total of 265 Urban Local Bodies. According to the 2011 Census of India, its urban population is 5,08,27,431 i.e. 45.23% of the state's total population. Unsurprisingly, Maharashtra has the second largest number of cities (44) among the 434 cities that participated in the Swachh Survekshan 2017. Given the expanse of the state of Maharashtra, especially in terms of its people and wealth, its performance in the Swachh Survekshan paints an interesting picture, complete with contradictions alongside massively untapped potential.

- Navi Mumbai is the only city that figures in the Top 10. In 2014, before the launch of the Swachh Bharat Mission, an initial survey ranked it at number 13. Navi Mumbai has shown considerable improvement as it moved from being 12th in 2016 to 8th in 2017. In the 2016 survey, half of the top 20 cities were in Maharashtra.
- With Pune at the 13th position, there are only two cities in the state that have reached the Top 20. Seven cities have found a place in the top 100 i.e. Ambarnath (89th), Chandrapur (76th), Pimpri-Chinchwad (72nd), Shirdi (56th), Greater Mumbai (29th), Pune (13th) and Navi Mumbai (8th).
- At the other end of the spectrum, Maharashtra also has the second worst city, Bhusawal, ranked 433rd. 8 cities fall in the 300-400 range. The remaining 28 cities are roughly equally divided in the 100-200 and 200-300 range.

The rural assessment index reveals similar levels of disparity within Maharashtra. With a cleanliness score of 96.8, Sindhudurg has been given the 1st rank as the cleanest district in India within the "Plains" category. Out of the 53 best performing districts covered in the "Plains" category, 4 other districts in Maharashtra fall among the top 10.

DISTRICT	RANK	CLEANLINESS SCORE
Sindhudurg	1	96.8
Satara	3	92.9
Kolhapur	5	91.6
Ratnagiri	8	90.9
Thane	9	88.7

However, this disparity in performance is not just limited to urban Maharashtra, as this report would demonstrate, this was the case with rural parts of the state as well.

In the second phase, RB and Peהל, Jagran's CSR arm have harnessed the experience of their successful collaboration through various strands of RB's flagship Dettol Banega Swachh India (DBSI) to transform over 40 cities in Maharashtra from underperforming to clean urban living spaces.

The Strategic Audit of State of Health, Hygiene and Sanitation

In an effort to understand the specific challenges that need to be addressed, the DBSI program conducted a detailed representative Dipstick Survey across urban and rural households among 6 chosen districts in Maharashtra i.e. Bhiwandi, Malegaon, Jalna, Parbhani, Buldana and Nanded. A total of 1200 households were surveyed across the rural and urban districts. This included 100 urban households and 150 rural households each. Two districts, Bhiwandi and Malegaon, included only urban sample coverage.

The survey was designed to assess the state of hygiene and sanitation across a range of criteria including ODF, waste management, awareness of SBM along with knowledge and practices of hand washing among others.

The methodology

Adopting the PSI model of Behaviour Change, the study was carried out both at the community level and service provider level. At the community level, quantitative and qualitative information was collected using the structured questionnaire and Focus Group Discussions and at the provider level qualitative information was collected through informal discussions.

The analysis

The focus of DBSI for this particular project, as has already been highlighted in the report above, has been on those areas in the state of Maharashtra that were deemed to be laggards in the Swachh Survekshan surveys of both rural and urban India.

Broadly, the Swachh Survekshan findings and the DBSI Dipstick Survey results converge although the latter have identified in greater detail the underlying causes of the performance results with a bid to target those specific challenges for improvement.

Focus Group Thoughts on Swachh Bharat Mission

Discussions with the sample size of the focus group reveal that majority of the population across the target districts are aware of Swachh Bharat Mission (SBM) – 72% in urban areas and 80% in the rural areas. More importantly, the focus groups gave SBM the credit for toilet building and other sanitation activities and highlighted that there is engagement with representatives of SBM every 6 months. Based on the focus group discussions, it is clear that faith leaders and Anganwadi Workers along with school teachers, & panchayat members are favoured when it comes to influencing the communities to improve hygiene, sanitation and therefore health. The groups also suggested that mass meetings, leaflets, posters/wall paintings and influence of religious leaders are the best ways of ensuring sustainable change in behavior on sanitation in their communities.

Although there is awareness among the representative sample respondents of SBM, the following data on hand washing & diseases such as diarrhoea demonstrates that there is clearly a lack of knowledge when it comes to best practices of sanitation and both personal & community hygiene.

Correct Hand Washing Practices - With Soap

Activities	Bhiwandi	Malegaon	Jalna		Parbhani		Buldhana		Nanded	
	U	U	R	U	R	U	R	U	R	U
Before Cooking	7	21	25.3	21	10	16	24	7	47	19
After using the toilet	41	75	62.7	72	40	64	65.3	34	28	43
Before eating / touching food	17	34	32.7	37	21.3	28	36.7	36	12.7	27
Before Praying	3	11	20.7	17	3.3	2	22.7	0	1.3	12
Before feeding an infant	2	11	27.3	22	12	4	22	0	6	6
After cleaning child's feces	14	27	28	32	27.3	18	24.7	3	12.7	19
After dusting / sweeping	7	26	24.7	44	22	26	22.7	12	12	22
After touching pets / their waste	4	18	28.7	19	12.7	4	32.7	5	6	0
After blowing nose / Coughing	14	10	24	13	1.3	1	21.3	0	0.7	0
After cleaning utensils	4	9	24	12	0.7	0	22.7	0	0	0

Correct knowledge of Diarrhoea

- Adult / Children in the household adopt the same practice of hand washing in both Rural and Urban areas
- Only **1.7% of Rural** and **0.5% of Urban** households have correct knowledge of Diarrhoea



The lack of understanding of the co-relation between hygiene and sanitation practices and the diseases shows that behavior change communication (BCC) tools & proactive interventions need to be deployed alongside a viable infrastructural ecosystem to ensure these districts reverse their performance in Swachh Survekshan and more importantly, improve the quality of life of the residents. This reversal would enable an improved economy with a healthier and more productive community.

The Key Challenges

Although there are some notable exceptions across parameters like drinking water facilities, there is a pattern of convergence when it comes to the challenges faced by these communities with regards to hygiene, sanitation and public health.

There are various manifestations of the challenges faced by these communities, however these manifestations can be classified into two broad key challenges that the dipstick survey (strategic audit) has revealed:

A. Lack of Knowledge and Awareness on Hygiene and Sanitation

The hand washing data, where vast majority of people do not wash their hands after cleaning children after toilet use among many others, along with the lack of garbage bins in all but few homes across the six districts highlight the lack of awareness & knowledge on hygiene and sanitation and their best practices.

Changing mindsets and generationally conditioned behavior and practices will have to be a priority for DBSI intervention to ensure sustainable transformation and improvement in quality of life.

B. Lack of Infrastructure & Viable Ecosystem

With a substantial minority lacking any toilet facilities, and a larger minority with toilets without adequate waste management system, the sanitation infrastructure leaves much to be desired for. The health risks are exacerbated by the less than adequate and effective waste management systems for both solid and liquid waste among others.

These risks showcase the need for holistic interventions to address the infrastructural challenges including financial barriers & supply ecosystem to ensure sustainable and transformative improvement in hygiene and sanitation standards.

Key frameworks & strategies are being deployed by the DBSI programme to fast track the transformation of these poor performing districts into “clean” districts and therefore, contribute to the national Swachh Bharat Mission – the success of which is critical in delivering the global Sustainable Development Goals (SDG) by 2030.

As highlighted in the report earlier, the RB-Jagran partnership, by harnessing the collective strength of the various DBSI strands alongside the expertise & experience of a wide group of stakeholders such as WHO, UNICEF, K4D, Aga Khan Foundation, World Toilet College, Water.org, USAID and Global Interfaith Wash Alliance, has developed a strategic framework across cross cutting issues, specifically to address behavior change as well as infrastructural issues.

The Core Components of the Strategy

- Not Just ODF but ODF ++ - Focusing on holistic improvement of health & hygiene not just ODF but improvements across waste management, personal & community hygiene;
- Developing effective cross sector partnerships at all levels from secretariats & board rooms to the block/village & ward level without duplication of effort;
- Evidence based policies using data to ensure effective targeting and resourcing to ensure optimal ROI; the data from Swachh Survekshan along with the detailed dipstick survey enabled DBSI to target specific interventions based on the local needs & aspirations.
- Effective usage and enriching existing knowledge bases such as the Swachh Sangraha and Hygiene Index would be imperative to avoid duplication of mistakes while adopting best practices;
- Putting community leaders & key influencers both at home & community at the heart of the strategy to ensure long term sustainable change;

These strategies were mixed and matched based on a particular community's need and aspirations and not deployed as a one-size fits all. In fact, the way strategies are delivered in one village might very well differ from that adopted in the next village – but the key criteria that drives the deployment and delivery aspects of the programme relate to what the community needs and what is the most effective and efficient way of delivering it along with the partnership that is required to do so. However, the principles of the core strategies are adhered to.

As the challenges faced by these six districts are fairly similar, with some notable exceptions especially in the “Drinking Water Facilities” category, the strategies deployed are similar in nature.

The Impact of Phase 1 and 2

Based on the input – out model presented earlier in this report along with other detailed quantitative & qualitative assessments conducted through extensive pre- and post-field work, the first and second year's activities were a resounding success considering it was the first roll out of the entire DBSI project.

At a glance, the reach and outcome of the programme has been highlighted below:

Reach	PHASE 1 States: 2 Villages: 200 Households: 85,205 Individuals: 3,40,820	PHASE 2 States: 3 Districts: 13 Households: 5,61,876 Individuals: 22,47,504
Outcomes	<ul style="list-style-type: none"> • 6120 additional toilets (12% increase) • 13,000 change leaders identified, trained & deployed (7 households per change leader) • 75/200 either attained ODF status or are formally pursuing sustainable ODF status • 100% awareness of importance and process of handwashing • 22% increase in handwashing in critical moments • 77% households in Bihar and 66% households in UP are washing hands at critical moments • conservative estimate of \$1.5 million added to national economy at a cost of INR 28 per person 	<p>1,20,625 additional toilets built in total</p> <p>Maharashtra:</p> <ul style="list-style-type: none"> • All 40 Urban Local Bodies (ULBs) covered by DBSI declared ODF • 100% target audience reached • 100% target audience knowledge enriched and empowered on improved hygiene, ODF and handwashing • Spearheaded focused initiative on Solid Waste Management <p>Bihar:</p> <ul style="list-style-type: none"> • 77% villages declared ODF • 20 Change Leaders identified • 31,960 toilets constructed <p>Uttar Pradesh:</p> <ul style="list-style-type: none"> • 73% villages declared ODF • 36 Change Leaders identified • 29,562 toilets constructed

The cumulative impact of the Changing Behaviour campaign, part of the wider Dettol Banega Swachh India initiative collaborating with the wide reach & influence of Jagran Peheal on the ground, has been significant as demonstrated above; and therefore is a net contributor to the national Swachh Bharat Mission.

Importantly, it has demonstrated that changing minds is as important, if not more so, than just building toilets to achieving sustainable ODF status in rural India; and something that can be successfully achieved with targeted and reasonably small investments to transform socio-economic lives of the rural poor. RB & Jagran Peheal would look to tweak and improve the initiative based on the feedback received while proactively seeking to proliferate the programme across rural India in partnership with government, the private sector as well as the international development community & NGOs.

The Changing Behaviour

Creating the Sanitation Change Leaders strand of DBSI demonstrated how focusing on behavior change can and does transform communities when it comes to public health outcomes, through improved sanitation and hygiene infrastructure and practices.

The bottom up demand for improved sanitation infrastructure and hygiene practices along with environment ensures its sustainability. Despite the success achieved and the intellectual model being proven – the DBSI team did not rest on its laurels; instead a rigorous introspective process was put in place to objectively assess the lessons from the first year and more importantly, explore ways to integrate further with the national Swachh Bharat Mission and be an enabler for more holistic transformation of society based on local needs and aspirations.

The Introspection & Consultation Phase:

Following the completion of the activities and data gathering of results and indicators from the first year, rigorous engagements with stakeholders helped develop a common purpose and vision for the second year. Internal assessments of the DBSI programme highlighted that the DBSI strands were delivering significant benefits to the target communities, but a more holistic approach towards making a transformative impact to the entire sanitation and waste management ecosystem would be more fruitful. This would hasten the process of not only making target communities ODF but also ensuring that the target areas become sustainably cleaner and healthier, thus providing improved quality of life for the citizens.



In order to address cross-cutting behaviour change and infrastructural issues via a strategic framework, the RB-Jagran partnership harnessed the collective strength of the various DBSI strands alongside the expertise and experience of a wide group of stakeholders such as WHO, UNICEF, K4D, Aga Khan Foundation, World Toilet College, Water.org, USAID and Global Interfaith Wash Alliance among others. In addition to this, partnerships were developed with the state government leadership as well as district and municipal/panchayat administrations alongside various NGOs and other expert stakeholders including in financing.



The consultation process culminated in a multi-stakeholder event (incorporating all key stakeholders mentioned above and beyond) in Lucknow last summer, which deliberated over the issues relating to not just ODF but also optimal usage of water, deploying toilet technology that minimizes water usage yet has significant impact on the sanitation & hygiene/waste economy of a local area, to continuing the emphasis on behavior change through raising awareness and empowering communities with knowledge & tools to make their localities cleaner & healthier for all.

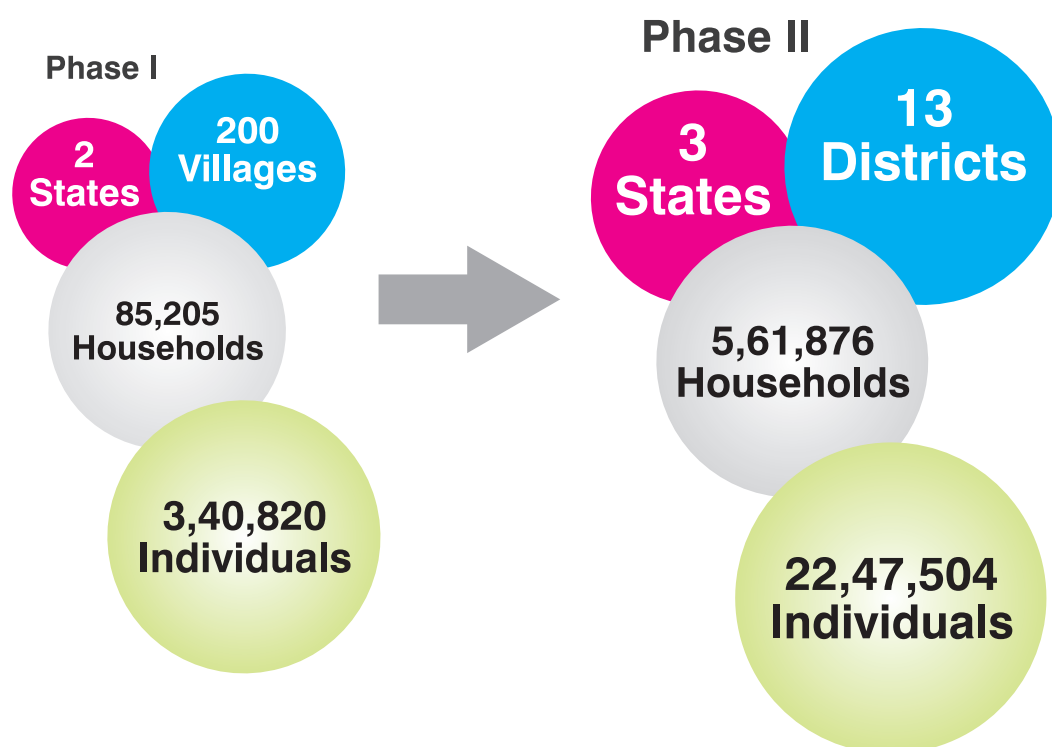
The Impact of Consultation on DBSI

The DBSI programme strands except for Project Hope; such as Hygiene Index, Dettol Schools Project, or even creating Sanitation Change Leaders were delivered in silos. Although each of the strands were indirectly impacting the whole community – DBSI except for Project Hope in Varanasi wasn't harnessing the strengths of the various strands to drive holistic transformation in communities in collaboration with government and other stakeholders.

In consultation with the stakeholders, RB – Jagran partnership has developed a strategic framework of transformation around an evidence based model. The Maharashtra Government had launched the Swachh Maharashtra campaign and had a goal to make urban Maharashtra ODF by 2018. DBSI took up the challenge of transforming the worst performing districts in a rather limited time. This provided DBSI an opportunity to pilot its newly developed strategic framework and thus began the second phase of DBSI's journey.

The Phase II Construct

The DBSI programme laid out an ambitious agenda for Phase II of the programme.



However, the DBSI core leadership at RB – Jagran wanted to ensure that the programme remained truly impactful, thus necessitating the run of a pilot project of the new strategic framework in **Maharashtra** to evaluate how fit for purpose the new strategy would be in transforming communities and improving public health while delivering socio-economic benefits.

Call for Action

The analysis of the cumulative data as well as the individual district data demonstrates that there is a clear need for sustained and impactful Behaviour Change Campaign, which is owned by the community across generations, using proven impactful tools such as Nukkad Nataks, Wall Posters, Community meetings led by community change leaders including but not limited to Panchayati Raj members and faith leaders.

The BCC campaign empowered the community with knowledge and awareness and created the demand for better sanitation and hygiene infrastructure in the community & households as well as personal hygiene. The programme incorporated targeted interventions at the time of open defecation in the early mornings and evenings when people are more likely to do so.

An enabling ecosystem that focused on creating and supporting a sustainable infrastructure that not only helped communities improve hygiene, sanitation and health standards but also drive economic activity supported the BCC campaign.

This RB-Jagran initiative is being delivered in partnership with the state government leadership as well as district and municipal/panchayat administrations alongside various NGOs and other expert stakeholders including in financing. Ensuring there is a bridge financing option through loans from self help groups and others is a key part of the enabling ecosystem.

Programme activities in a Snapshot

The presentations below lay out the evolved ethos and processes for the new cohesive strategic model deployed by DBSI as well as the core activities and immediate outcomes. A caveat must be added that analysis of the outcomes and impact assessment of the second year are currently ongoing, however certain key parameters can be reported.

The Evolved Delivery Model

- Multifaceted Approach
- Technical support from WSP and World Bank
- District, Block and GP level forming strategy, assigning responsibilities to PRIs, officers and employees
- Major roll of DRGs “Behavior change communication (OD) to Community” to identify natural leaders
- Use of Nigrani Committees for ensuring use of Toilets and morning follow up
- IEC activities carried out simultaneously
- Use of right technology by masons
- Involvement of PRIs ensured for Ground level Execution
- Construction of Toilets as demand by individual beneficiaries
- Identify and involved good stake holders
- Sponsoring help to poor but not eligible persons from donors in toilet construction

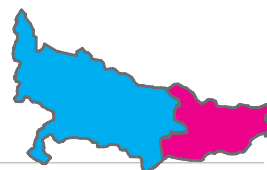
State-wise Core Activities & Key Outcomes

Activity	Maharashtra
Awareness Generation and Capacity Building Activities	<ul style="list-style-type: none"> • Orientation of PRI members/ Corporation Staff and other relevant government departments • Orientation Of FBL/Natural leaders • Orientation of SI/Mukadam/SK • Orientation of NULM/SHG and CBOs/NGOs • Orientation of Good Morning Pathak • Orientation of School Teachers and children (including Scout & Guides, NCC, NSS) • Orientation/Meeting with FLHWs (ASHA/AWW/ANM)
Behavioural Change Activities	<ul style="list-style-type: none"> • School Rally • CLTS Training • Street Play

Key Outcomes

- All 40 ULBs covered by DBSI have been declared Open Defecation Free (ODF)
- Reached 100% of target audience
- Enriched Knowledge & Empowered 100% of Target Audience on ODF, Handwashing Improved Hygiene
- 31,734 Individual and 226 Community Toilets constructed
- Spearheading a focused initiative on Solid Waste Management

State-wise Core Activities & Key Outcomes



Activity	Uttar Pradesh & Bihar
Awareness Generation and Capacity Building Activities	<ul style="list-style-type: none"> • Orientation of PRI members/ Corporation Staff and other relevant government departments • Orientation of FBL / Natural Leaders • Orientation/Meeting with FLHWs (ASHA / AWW / ANM) • Orientation of Teachers and students (school/college) • Orientation of SHGs and NGOs / CBOs • Orientation of Police Personnel / Gram Rakhi / Gram Sevak
Behavioural Change Activities	<ul style="list-style-type: none"> • Street Plays / Mass Media / Video Shows • Rallies of School and College • Events such as Iftar, Chatt • Morning Follow-ups and Triggering • Correct Hand washing Sessions • Sessions on Swachhta Chakra App • Baby-book Distributed • HHD Visits • Sanitation Chaupals • Mothers Group Meetings
Infrastructure Development Activities	<ul style="list-style-type: none"> • HHD toilets Constructed • Community Toilets Constructed • Beautification / Transformation of OD spots



Hon'ble Yogi Adityanath (Chief Minister - Uttar Pradesh) distributing bags (with BSI branding) in community events.

Key Outcomes



77% villages in Bihar and 73 % villages in Uttar Pradesh declared ODF

20 Change Leaders identified in Bihar and 36 in Uttar Pradesh



59,103 Toilets constructed in Bihar and 29,562 Toilets in Uttar Pradesh

Total Population Reach in 3 States

Maharashtra 12,96,746	+	Bihar 1,80,608	+	Uttar Pradesh 7,70,148	=	Total 22,47,502
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Total Toilet Built due to Demand from Programme so far

Maharashtra 31,960	+	Bihar 59,103	+	Uttar Pradesh 29,562	=	Total 1,20,625
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The short-term benefits of eradication of open defecation and hand-washing cannot be assessed. However the potential impact and trajectory can be estimated and this report aims to do so by focusing on the potential impact on just two states.

The Outcomes & Impact Assessment for the Phases I & II

Uttar Pradesh and Maharashtra are two of the most populous states in India (20% and 10% of the India's population respectively). According to the 2011 Census figures, the population of , **Bihar is 104,099,452** , **Uttar Pradesh is 199,812,341** and that of **Maharashtra is 112,374,333**.

Given India's sanitation scenario, the economic costs of inadequate WASH standards can be remarkably high. Based on their proactive initiatives and efforts towards delivering improved outcomes under the Swachh Bharat Mission, some data is provided below provides data around the potential impact assessment (via conservative estimates), if the successful interventions are rolled out across the two states.



1 out of 2 children or roughly 48% children in India suffer from malnutrition. Improvement in WASH standards can significantly make the lives of children healthier and more productive. For the purposes of this study, it is assumed that there is a 50-50 split in the adult and children population.

Stunting / Malnutrition

Therefore, number of children in

Bihar : 5,20,49,726

Uttar Pradesh : 99,90,61,701

Number of children in Maharashtra : 5,61,87,167

For the purposes of this study, it is conservatively assumed that 50% of the children affected by malnutrition can be potentially saved.

Number of children **suffering** from **malnutrition** in



Saved potential number of children **suffering** from **malnutrition** in



**Total lives SAVED from stunting / malnutrition in
Bihar, Uttar Pradesh & Maharashtra**

26,47,51,664

Economic impact of reduction in cases of diarrhea amongst adults

In 2014, it was estimated that 700 million adults (or approximately 75% of the adult population) suffered from diarrhea in India.

Based on India's population demographics, **Uttar Pradesh's share** would be **140 million** and **Maharashtra's share** would be **70 million cases**.

It is assumed that one incident of diarrhea costs 2 working days and the total economic loss for each case of diarrhea incidence is \$7.5 per working day = **\$15**



Number of people having diarrhea incidents in

Bihar = 7,80,74,589

Uttar Pradesh = 7,49,29,628

Maharashtra = 4,21,40,375

Even if a 50% reduction (not 63%) in diarrhea cases is assumed,



Potential reduction in diarrhea incidents in

Bihar = 3,90,37,295

Uttar Pradesh = 3,74,64,814

Maharashtra = 2,10,70,188



Economic impact of potential reduction in diarrhea cases in

Bihar : \$ 58,55,59,425

Uttar Pradesh : \$ 56,19,72,210

Maharashtra : \$ 31,60,52,820

This is just a part of the potential impact of one disease on a part of India's population.

Economic impact of toilet building

Access to safe and clean toilets is an important criterion of the Swachh Bharat Mission. The estimates from National Family Health Survey (NFHS)-4 (2015-16) estimate that open defecation was at approximately 55% across all states, with wide inter-state disparities.

According to the World Bank research, in 2015, roughly 7.5% of the population practiced open defecation in urban India.

For the purpose of this study, the following assumptions have been made:

1. There is roughly a 50-50 divide in the rural and urban populations in **Bihar, Uttar Pradesh and Maharashtra**
2. Approximately 50% of the populations in Bihar, Uttar Pradesh and Maharashtra lacked toilets in the rural areas and roughly 5% of the urban population lacked toilets in 3 states
3. Each household is estimated to have 4 family members

Bihar



Rural population: **5,20,49,726**

Rural population without toilets
2,60,24,863

Number of rural households
without toilets
65,56,216 = 6.5 million (approx.)

Urban population: **5,20,49,726**

Urban population without toilets
26,02,486

Number of urban households
without toilets
6,50,622 = 0.6 million (approx.)

Uttar Pradesh



Rural population: **9,99,06,171**

Rural population without toilets
4,99,53,086

Number of rural households
without toilets
1,24,88,272 = 12 million (approx.)

Urban population: **9,99,06,171**

Urban population without toilets
49,95,309

Number of urban households
without toilets
12,48,828 = 1.2 million (approx.)

Maharashtra



Rural population: **5,61,87,167**

Rural population without toilets
2,80,93,584

Number of rural households
without toilets
70,23,396 = 7 million (approx.)

Urban population: **5,61,87,167**

Urban population without toilets
28,09,359

Number of urban households
without toilets
7,02,340 = 0.7 million (approx.)

For the purpose of this study, it is assumed that 10 million toilets are built in Bihar, UP and Maharashtra in their rural and urban areas. It is also conservatively estimated that the cost of building a SMART/EcoSan toilet is \$200.

The direct economic activity in building 10 million toilets at a per cost of \$200 is \$2 billion. Conservatively estimating an economic multiplier of 3 implies that the total economic impact of building toilets is \$18 billion in Bihar, UP and Maharashtra.

APPROXIMATE FIGURES at a Glance:

POTENTIAL IMPACT	BIHAR	UTTAR PRADESH	MAHARASTHRA	TOTAL
Potential lives saved from stunting / malnutrition	10 million + annually	230 million + annually	10 million + annually	250 million + annually
Potential economic impact of reduction in cases of diarrhea	\$580 million + annually	\$560 million + annually	\$300 million + annually	\$1440 million + annually
Potential economic impact of toilet building	\$6 billion	\$6 billion	\$6 billion	\$18 billion

While these are ballpark figures, the underlying assumptions that have been made are based on existing evidence and studies.

Moreover, conservative estimates have been made. Therefore, given that the larger demographic trends and sanitation conditions remain the same, there are massive economic benefits that can be potentially accrued via the Swachh Bharat Mission if the interventions are rolled out in the entire states of Uttar Pradesh and Maharashtra.

These figures will increase multifold if applied to the entire country.

Way forward for the DBSI journey

The Dettol Banega Swachh India (DBSI) programme, through its flagship **Changing Behaviour: Creating Sanitation Change Leaders** initiative have proven to be an enabler and catalyst for the national Swachh Bharat Mission (SBM) delivering a healthier and more productive India through improved hygiene and sanitation standards.

The ability to deliver sustained & improved transformation of hygiene, sanitation & therefore health; through relatively quick yet well entrenched easily replicable interventions especially in the most marginalized communities in the country is especially noteworthy. However, despite the achievements of the Prime Minister led SBM and its various enabling initiatives such as the DBSI programme; much more needs to be done in a sustained manner to ensure a truly transformed **“Clean, Healthier New India.”**

THE BUMT Approach

DBSI firmly believes in the Build, Use, Maintain and Treat (BUMT) approach of delivering sanitation for all. The philosophy, adopted by the Indian Sanitation Coalition, argues the need for adequate infrastructure i.e toilets for all members of each community. However, as this report establishes that when demand for toilet infrastructure is intrinsically driven from within the community – the toilets are used more effectively and therefore achieving the wider objectives of improved community and personal health. Therefore, sustained Behaviour Change Campaigns (BCC) are imperative and must go hand in hand with increased infrastructural capacity. Infrastructure should not only include toilets but also wider sanitation & sewerage capacity and innovation to truly transform clean India.

However, building infrastructure and empowering communities with knowledge to use it effectively is part of the solution – the maintenance of existing toilets is a crucial step and this must be again achieved by continuous BCC and other forms of hands on training to ensure toilets remain clean & usable. Like with all infrastructure, over a course of time, sanitation infrastructure needs professional “treatment” to ensure the toilets and associated facilities are restored to deliver optimally again.

Financing Sanitation & Hygiene Infrastructure

The communities that need intervention and assistance with BUMT approach are most likely to be from marginalized socio-economic parts of society; where both private and public economic resources are limited. Here innovative practices such as pooling resources to launch “Sanitation Bonds” and other financial tools to enable public-private collaboration on ensuring effective sanitation & public health infrastructure for all. Thereby delivering truly inclusive development – “sabkasathsabkavikas”.

DBSI would continue to work with partners across public, private, third sector and the international development organisations to use the behavior change activities for sustainable transformation of hygiene and sanitation standards to deliver improved public and individuals health across the length and breadth of the country through cohesive integrated impactful initiatives.

