

Water For People India

# Sanitation Strategy

2018-2023

## *Executive Summary*

*India is rapidly progressing towards total sanitation coverage. Concerted efforts have been made over the past few decades and have yielded results. However, the emerging focus is on last mile coverage, and as we move towards achieving ODF status in India, the emerging challenge is also to manage the large volume of fecal sludge from the growing number of septic tanks, single and twin pit latrines. Hence, proper fecal sludge management (FSM), last mile coverage in sanitation for urban and rural households that maximizes safety and sustainability are emerging priorities. Water For People India has developed this strategy document in alignment with its global sanitation strategy to address the above-mentioned needs.*

*In the strategic period from October 2018 to September 2023 Water For people India would be continuing its work on the following core activities*

- 1. Latrine building in rural areas to reach 220,000 individuals*
- 2. Community latrine building in Urban/peri-urban areas to reach 30000 individuals*
- 3. Fecal sludge management ecosystem development focusing on small town to reach 770,000 individuals*

***Latrine building in rural areas:*** *Water For people India has been working to increase the latrine coverage for the last 7 years in rural India viz Bihar, West Bengal and Odisha. The work has led to the construction of more than 50000 toilets and establishment of more than 120 Point of Purchases (POPs) in our working area. During this strategy period, Water For People India will first do a monitoring research in some identified districts to understand the status of rural supply chain, sanitation coverage, financing delivery mechanism etc. Based on the outcome and learnings we will develop the next steps / strengthening initiatives to increase our investment efficiency further.*

***Community latrine building in Urban /peri-urban areas:*** *Water For People India has constructed around 25 community latrines and is creating “mahalla “committees to look after the operation and maintenance of these facilities. These committee obtain financial contributions from the users to cover the cost of cleaning, a caretaker, cleaning products and minor repairs. During this strategy period, we would be conducting a study to understand the gaps with the existing approaches and then design and implement an alternative more sustainable and scalable public private partnership model.*

***Faecal sludge management ecosystem development focusing on small towns:*** *Safe disposal of faecal sludge means ensuring safety while handling, emptying the sludge from septic tanks/pits and the proper transport and disposal of the removed sludge. The demand and supply services for FSM need to be assessed, along with the associated safety issues. Urban and rural local bodies, state governments, and the central government have a stake in ensuring that the fecal sludge is disposed of properly, in a manner that does not cause any health or environmental hazards. During the strategy period, Water For People India will conduct a detailed feasibility study on FSM in Sheohar district of Bihar in India and based on that would design and implement an idea testing phase core initiative.*

*Overall, Water For People India commits to deliver two sanitation initiatives operating at scale and two sanitation initiatives operating at later stages of market testing focusing on small towns by 2023.*

## 1.0 Introduction and Context

Access to safe and affordable sanitation has been recognized by the United Nations as a fundamental human right. Following the UN declaration of Millennium Development Goals (MDGs) in 2000 and subsequently, the Sustainable Development Goals (SDGs) in 2015, additional 1.4 billion people around the world have gained access to basic sanitation. However, based on the 2015 estimates, about 2.3 billion people, i.e. one third of the world's population, still do not have access to adequate sanitation, and among them 892 million people practice open defecation.<sup>1</sup> Sub-Saharan Africa and Central & Southern Asia have the lowest sanitation coverage and continue to face challenges in achieving universal access.

In India, approximately 60 % of the total population has access to some form of sanitation facility as estimated in 2015. When disaggregated by rural and urban residence, the disparity in sanitation coverage is quite stark. While 93 percent of the urban population has access to sanitation, only 44 percent of the rural population do so. Despite increasing access to sanitation services over the last two decades, over half (56%) of the rural population and 7 percent of the total urban population still practice open defecation in India.<sup>2</sup>

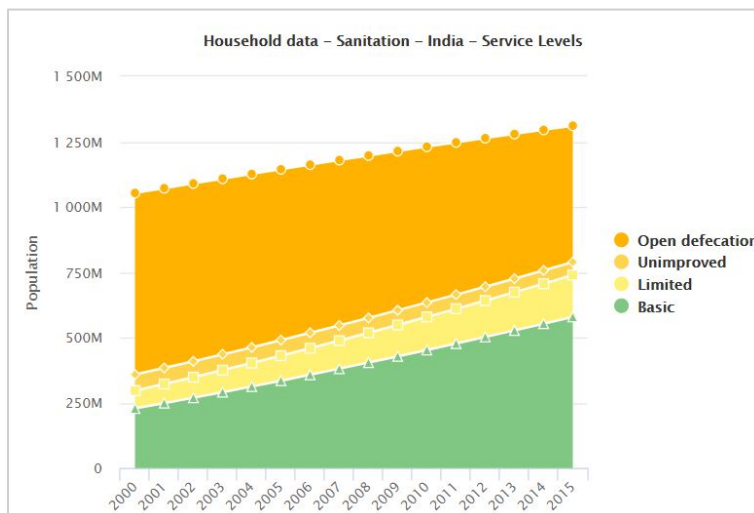


Fig 1: Sanitation coverage in India: Trend in service levels, 2000-2015.

Source: [www.washdata.org](http://www.washdata.org)

To address the persistent gaps in sanitation coverage, especially in rural

India, “Swachh Bharat Mission” (SBM) or Clean India Mission was launched by the Government of India on 2nd October 2014. The Mission’s goal is to achieve “Swachh” or clean and open defecation free India by 2019. The Mission has two sub-missions – the Swachh Bharat Mission (Gramin/Rural) – SBM (G) and the Swachh Bharat Mission (Urban) – SBM(U). Since 2014-2015, the government allocation for SBM (Gramin/rural) has increased five-fold from INR 25 Billion (USD 0.39 Billion) to INR 139.48 Billion (USD 2.18 Billion) in 2017-2018. Consequently, SBM(G) is now the largest scheme run by the Ministry of Drinking Water and Sanitation, and accounts for 70 percent of the Ministry’s total 2017-18 budget, up from 24 percent in 2014-15.

<sup>1</sup> Source: WHO (<http://www.who.int/mediacentre/factsheets/fs392/en/>)

<sup>2</sup> WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP)

## 2.0 Definition of Key Terms in Context of India Sanitation Strategy

**Sanitation:** Safely separating and keeping humans separated from their excreta.

**Sanitation value chain** – The five-stage process of managing fecal waste, including, (i) separation of humans from their waste; ii) safe and dignified emptying process; (iii) transportation of collected waste (sludge) to a transfer station or treatment plant, (iv) treatment or containment for some period, and (v) reuse and/or safe disposal after disinfection.

**Sustainability:** The ability to “keep up, prolong”

**Scale:** Water For People defines scale in terms of the following six parameters:

- Demand increases without intensive promotion.
- The product’s or service’s cost decreases due to market competition or mass production.
- Supply chain growth occurs outside Water For People’s facilitation activities.
- Water For People’s implementation efficiencies are high and lead to low unit investment costs per latrine built or pit emptied.
- Product or service delivery expands into new areas or all areas are covered.
- The central regulating authority actively controls any public health risks related to the service.

**Core initiative:** Any new sanitation idea focused on latrine building or pit emptying as well as any cross-cutting stand-alone sanitation-based technologies whose route to scale is through commercialization. Such initiative is undertaken to achieve Water For People India’s sanitation strategic scale objectives.

**Strengthening initiative:** A separate and specific piece of work aimed at strengthening an identified weakness or problem in a core initiative working at the market testing or scale testing stage. These include methods to reduce costs, increase efficiency, and improve coordination processes.

### 3.0 Water For People: Global Sanitation Framework

Water For People’s global sanitation strategy is based on the need for innovative approaches to sanitation solutions and business models capable of providing long-term sanitation services, as required to meet the United Nation’s Sustainable Development Goal (SDG) 6 target of universal access to sanitation by 2030. The key objectives of the strategy are as follows:

- **Develop sanitation services** that last and deliver affordable, beautiful toilets and quick hygienic emptying services.
- **Achieve full, permanent, easily accessible, sanitation services at scale**, across rural districts, peri-urban areas, cities, countries, and regions by engaging the private sector, designing and executing targeted marketing, and working closely with other like-minded local partners to develop a supply chain of materials and human capability.
- **To transform the sanitation sector** by replicating Water For People’s sanitation strategy and developing movement both nationally and globally, based on rigorous evidence of impact.

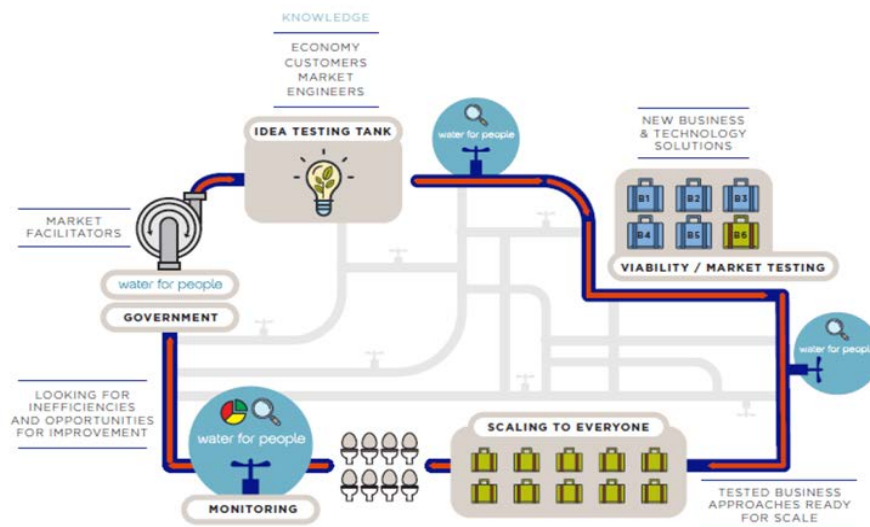


Figure 2: Plumbing schematic and description

As illustrated in Figure 2, at Water For People sanitation initiatives move through a three-phase cyclical process with an emphasis on scale and exit from the beginning:

**Phase 1—Idea Testing:** Water For People supports promising technologies and business plans to grow. The key milestones that determine the viability of the initiatives are: (i) sanitation services and products meet the expectations of households, and (ii) sanitation products and services are used regularly.

Idea testing criteria that determine the movement to the next phase are as follows:

- Every part of the value chain gains significant value add over existing practice
- Customer satisfaction is high over adapting new form of practice or technology
- Product is locally available or made from readily available materials

- Skills and parts required to maintain the service or product are affordable and locally available
- Idea performance is satisfactory and consistent
- Potential for service provider to continue without Water For People or external support
- No opposition from government entities
- Clear path to scale with potential for increasing Water For People efficiency

**Phase 2—Viability/Market Testing:** The market testing tank is where the innovation is introduced to the rigors of the marketplace. Our role entails supporting small-scale, controlled market implementation and evaluating its feasibility. The key milestones are achieved when the developed products and services are desirable, profitable and scalable for the businesses.

The market testing criteria are as follows:

- No part of the core transaction is reliant on external donor-based subsidies
- The core transaction continues without Water for People’s involvement
- Solid and sustainable supply chain for raw materials or equipment
- Good profit margins for all parts of the value chain
- High level of customer satisfaction
- Entrepreneurs have access to finance to expand their businesses
- Value chain members have adequate capacity to manage services or product delivery
- The regulatory authority supports the process in some capacity

**Phase 3—Scale:** In this phase, our role is limited to facilitating the policy environment, marketing the product or service, improving awareness and access to financial services that ultimately lead to a robust marketplace that reaches even the hardest to reach populations.

The scale testing criteria are as follows:

- Scaling structure places two organizations between WFP and the households
- Water For People only supports the marketing process aimed at increasing the demand for product or service
- Water For People only facilitates the growth of the industry, not individual businesses
- Continuous improvement of implementation efficiency over a three-year period
- Water For People supports facilitation processes to encourage new businesses to start up and crowd-in into the market
- The central regulating authority actively develops systems for controlling public health risks
- Water For People has a clear strategy of letting go of the control with a view to finally exiting the sector

Demonstrating success at each phase is critical to achieving scale with any sanitation initiative.

#### 4.0 Water For People India's Strategy (October 2018 – September 2023)

Water For People exists to promote the development of high-quality drinking water and sanitation services, accessible to all, and sustained by strong communities, businesses, and governments. Our organizational values – accountability, courage, empowerment, partnership and transparency – underpin the integrity of our work.

Aligned to the global vision and mission, Water For People India's overall goal is to make a lasting impact in the WASH sector by promoting high-quality drinking water and sanitation services, accessible to all and locally sustained by strong local institutions, government, and private sector players. The key strategic priorities for the next 5 years (October 2018 - September 2023) are summarized below.

##### India Country Strategy: Key Choices

- 1. Everyone Forever at District Level (District/State Level Support to Delivering SDG6):** The EF programs will reach approximately 1.5 million people in Bihar (Sheohar), South 24 Parganas (Sagar, Patharpratima and Namkhana) and Chikhaldara (Maharashtra).
- 2. Safe and Locally Sustained Drinking Water Services (Water Security):** Aligned to the government's focus on comprehensive management of water resources, Water For People India programs will promote efficient, equitable and sustainable management of local water resources. The drinking water initiatives will focus on water safety and security, led by local institutions (Gram Panchayats and its sub-committees). Cumulatively, the initiatives will benefit 14 million people (populations of two districts) through capacity building and outreach initiatives.
- 3. Safe Sanitation Services and Sustaining Behaviour Change in Sanitation:** Our goal is to develop and implement community and household initiatives that improve access to safe sanitation. Behavior change activities will be an important component of sanitation programming. We will also work towards expanding WASH coverage in facilities such as Anganwadi center, schools, health centers as well as community/public toilets. Cumulatively, these initiatives will reach approximately 215,000 people, covering both rural and urban areas
- 4. Sustainable Sanitation at Scale through Market System Development (Rural Latrine Building approach and Fecal Sludge Management):** The Rural Latrine Building initiative will reach out to 250,000 people through various mechanisms aimed at improving latrine coverage such as latrine building among the excluded and vulnerable populations, renovations and upgradation of existing facilities, expanding access to sanitation financing, promoting enterprise development and investing in new toilet technologies. Additionally, the FSM initiatives will be implemented in Bihar and West Bengal reaching up to 770,000 people.
- 5. Cross-Cutting themes:** Pilots and Innovations; Behavior Change Communication, Institution Building; Gender and Social Inclusion; and Decentralized Monitoring

This document focuses on the two strategic goals related to sanitation:

1. **Sustainable Sanitation at Scale through Market System Development** (Rural Latrine Building approach and Fecal Sludge Management)
2. **Safe Sanitation Services and Sustaining Behavior Change in Sanitation**

Cross-cutting themes of monitoring, equity and inclusion, research and development (new idea testing tank initiatives) that are relevant to India's sanitation programs are also included.

## 5.0 Current Sanitation Initiatives in India (As of September 2018)

### 1a. Sustainable Sanitation at Scale through Market System Development (Rural latrine building approach):

Building on Swachh Bharat Mission's momentum to make India open defecation free by 2019, Water For People India has fostered partnerships with local governments and microfinance institutions to develop robust sanitation markets to meet the increased demand for household latrines. Our hands-off approach entails establishing local supply chains, providing technical and marketing support to start-up enterprises, and creating a favorable ecosystem for investment in sanitation businesses. We work with a diverse group of agencies such as self-help groups (SHGs) and their federations, farmer producer organizations (FPOs) and governmental organizations like JEEViKA to ensure sanitation enterprises and local families have access to diverse funding options.

Water For People India has been instrumental in the development and proliferation of sanitation enterprises, also called Points of Purchase (PoPs), in Bihar and Odisha. The PoPs are one-stop shops that provide hardware components and masonry services for toilet construction, renovation and upgradation. In 2012, Water For People seeded eight PoPs across two blocks of Muzaffarpur. The local entrepreneurs were supported to start up their business by providing them with technical support, promotional materials and access to finance. By 2013, these PoPs were collectively selling 1000 latrines/year. By 2018, 80 additional PoPs had entered the market without Water For People India's support. Since then, the sanitation enterprise development initiative has expanded to parts of West Bengal and Odisha where businesses using different financing mechanisms have flourished. This intervention has led to the construction of around 15,000 toilets per year on average with minimal investment. As of September 2018, these initiatives facilitated the construction of more than 50,000 toilets in Bihar, West Bengal, Odisha and Puducherry .

Under this initiative, Water For People India has explored financing through the following mechanisms:

1. Microfinance for sanitation
2. SHG federations
3. Farmer Producers Organization
4. Government Schemes

The next steps for this initiative include:

1. Identifying gaps in the existing supply chain in select districts in Bihar to further expand and strengthen the sanitation market.
2. Continuing supporting the development of PoPs in Odisha.



3. Monitor sanitation initiatives in all the states, i.e. West Bengal, Bihar and Odisha, over the next five years to track and assess their performance and address identified issues.

### 1b. Safe Sanitation Services and Sustaining Behavior Change in Sanitation: Community Latrines in Urban Areas

Water For People India works with the support of funding partners (Corporate Social Responsibility) to renovate community latrine blocks in urban/peri-urban slum areas. In areas where we work, a “*mohalla*” (neighborhood) committee is created and strengthened for operation and maintenance of the facilities. These committees obtain financial contributions from the users to cover the cost of cleaning, including a caretaker, cleaning products and minor repairs. They have two systems for collecting money; (i) a pay-for-use model where INR 2 is charged per use and (ii) a monthly contract model in which each household is charged INR 60 per month. The major constraint to growth and achieving scale of the process is the reliance on donations for capital cost expenditure for the toilet blocks.

In 2019, Water For People India proposes to conduct a scoping study to explore different models and potential partnerships to scale this effort and address the sanitation needs in urban slums as well as in areas with floating population (in and around factories).

### 2. Sustainable Sanitation at Scale through Market System Development (Fecal Sludge Management)

Initiatives that fall in this category allow us to explore innovative solutions along the sanitation value chain as depicted in Figure 3.

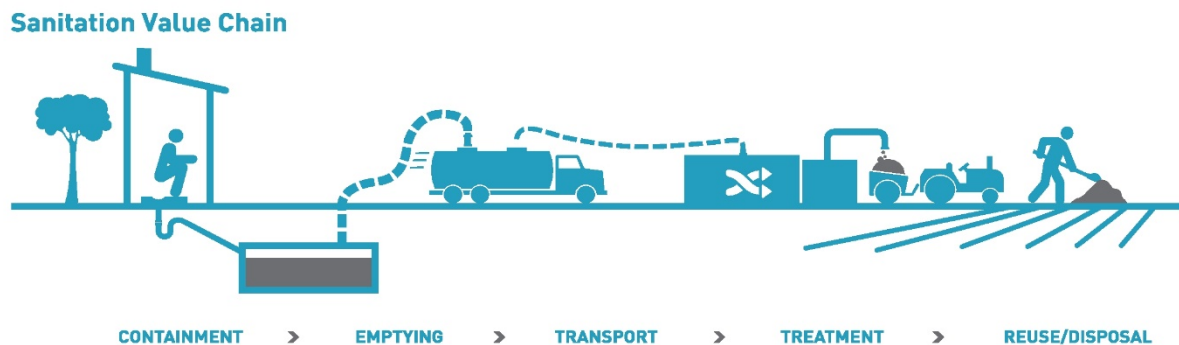


Figure 3: Sanitation value chain

Sanitation solutions described below move through the three developmental phases- from idea testing to testing the market viability to scale testing. Our role remains that of a facilitator. The successful products and services will be delivered through the private sector and the goal is to develop technologies or services that consumers will want, use, maintain, and pay for. Some of the technologies under development are summarized below:

**The STRAW:** Water For People India has developed two types of membrane-based septage treatment system -the STRAW - that uses different types filtration techniques to separate and treat sludge and water in the pit. Recognizing the health hazards of manual scavenging of fecal sludge from septic tanks and the lack of transparency with the final discharge of the collected waste, Water for People India aims

to provide a low-cost, safe option for households. We are currently testing both prototypes in Kolkata in collaboration with a technical university and a subject matter specialist.

Next steps include developing market-ready units upon completion of rigorous testing and collaborating with manufacturers to introduce the technology to the consumers.

**Innovative Toilet Design and Construction:** We are currently testing and scaling up toilet technologies targeting rural customers. In addition to promoting ferro cement based modular toilets and modular septic tanks, we train sanitation businesses and masons on constructing toilet units that are appropriate for the local markets. To market these products and services, Water For People India has partnered with the Ministry of Drinking Water and Sanitation, Government of India to create a mobile-based e-catalogue that illustrates available toilet technologies. Sanitation businesses will be able to use this handy tool to effectively market their products to potential customers.

In addition, Water For People India is planning to fabricate a toilet mold using fiberglass material. Once the fiberglass mold is designed, the product will be marketed to the entrepreneurs as a potential business venture. We will be working on research and development of the mold and aim to scale the viable product/system.

## 6.0 Water For People India – Sanitation Strategy (2018-2023)

Water For People India’s sanitation strategy will be implemented during the period October 2018 - September 2023. With a distinct focus on scale, we envision accelerating last mile sanitation coverage in the rural and peri-urban communities through business models and innovative technologies and identifying appropriate initiatives to effectively and sustainably manage fecal waste.

### Sanitation Strategy: Key Focus Areas

- 1a. Increase the rural sanitation coverage (new construction, renovation and upgradation) efficiently and equitably
- 1b. Demonstrate a sustainable mechanism for public latrine construction in urban and peri-urban areas
2. Develop and market test fecal sludge management related business models
3. Incorporate monitoring and equity as cross-cutting components of sanitation programming

Driven by the principle of achieving sustainable sanitation at scale, this strategy outlines the pathways to achieving India program’s sanitation goals, promising new initiatives to be explored during the strategic period, our approaches to sanitation in rural and urban settings, and cross-cutting issues such as equity and inclusion.

***By 2023, India’s strategic efforts in sanitation will result in one core initiative operating at scale and two additional core initiatives operating at later stages of market testing phase. All the related strengthening initiatives will be working at market testing phase.***

At present, Water For People India is working on or initiating 3 core initiatives:

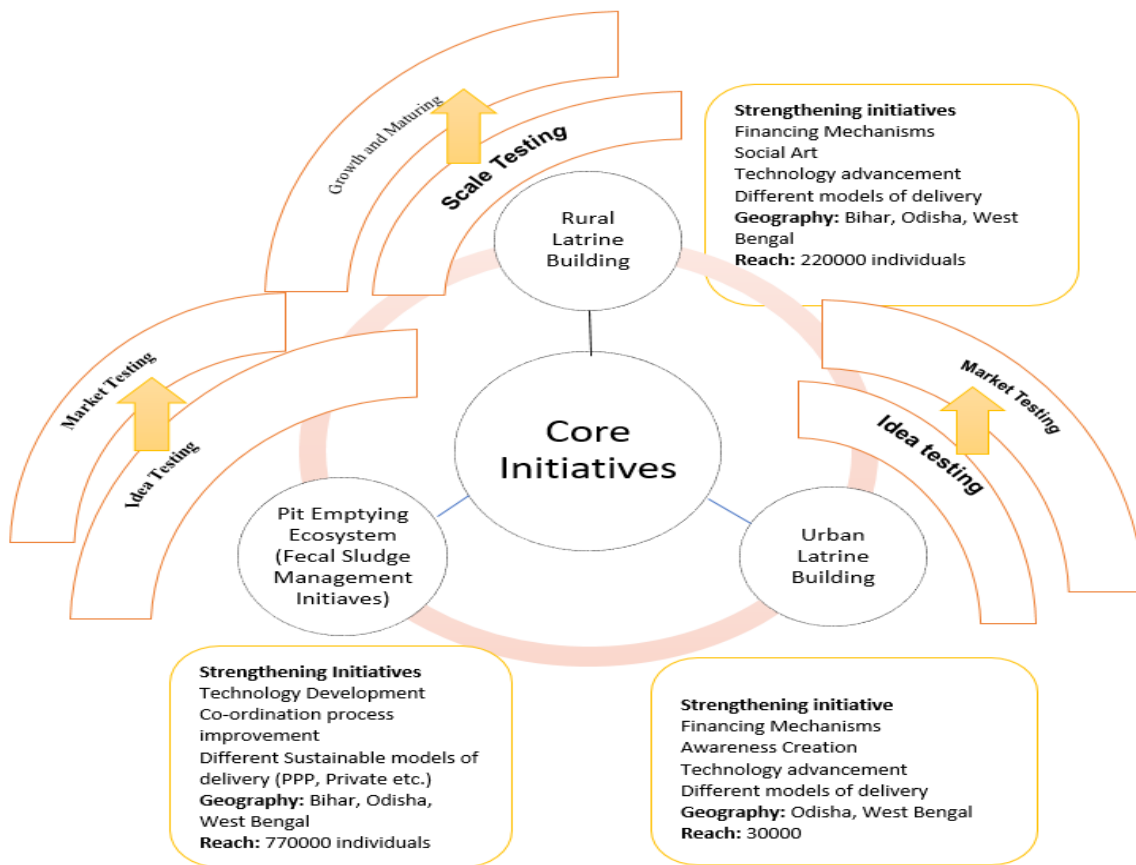
- latrine building in rural areas (new, renovations, upgradation)
- latrine building in urban, peri-urban areas (models for scale up)

- Pit emptying ecosystem in a small town

Additionally, Water For People India has multiple **strengthening initiatives** which are aimed at

- Improving market penetration, usually in terms of making a product or service more accessible to the poor.
- Expanding geographical spread to other areas, cities, regions, states or countries
- Improving monitoring systems to identify gaps and increase regulating authorities' knowledge, control and appreciation of the system.
- Innovating technical advancements to improve impact, effectiveness or regulatory needs and supporting the development of regulatory and coordination processes

Figure: Sanitation Strategic Framework 2018-2023 (Design of Schematic Pending)



## 1a. Sustainable Sanitation at Scale through Market System Development (Rural Latrine Building approach)

**Objective:** Promote safely managed sanitation facilities in rural areas reaching up to 250,000 people. The focus will be on closing last mile coverage gaps by promoting construction of improved latrines by means of sanitation financing, enterprise promotion and new toilet technologies.

**Core Initiative:** Water For People India developed the sanitation enterprise business model with a ‘hands-off’ approach to create resilient, robust sanitation market that is driven by forces of demand and supply. In the initial phase, we sparked interest among potential private entrepreneurs by building our own small cement ring manufacturing (CRM) unit and inviting them to understand and examine how the business operated. Once a handful of entrepreneurs were on board and set up their businesses, which we called sanitation points of purchase (POPs), we shifted to a ‘counselling’ role, providing limited technical assistance. To date, this approach has resulted in the creation of over 100 sanitation micro enterprises across Bihar and construction of over 28,000 toilets. We have further expanded this model to select communities in West Bengal and Odisha.

**Strengthening Initiative(s):** Water For People India has been supporting Microfinance institutions (MFI) to fill funding gaps by offering small credits or loans to people who may not have access to conventional banking. Till 2014, Sheohar district in Bihar was a credit negative zone and there were no MFIs in the area. Recognizing the crucial link between latrine building and financing, Water For People India invested in Indian Grameen Services and Center for Development Orientation and Training (CDOT), and encouraged them to open their branch offices in Sheohar. Today, there are multiple MFIs and banking institutions operating in Sheohar that offer a range of sanitation loans. Our continuous efforts in creating an enabling environment for MFIs to flourish, developing monitoring system to identify gaps and assess impact to expand toilet coverage will help in scaling this initiative during this strategic period.

**Approach:** Water For People has found that using small to medium enterprises to promote, supply components and/or build latrines is the most effective method of increasing latrine coverage. The speed and scale at which this process can be facilitated in rural areas in India depend on:

- Availability of the right quality products at the right price
- Efficiency and extent of the supply chain
- Ease of access to finance
- Transparency, availability, amount, access and knowledge of subsidies
- Capacity, support and motivations of the local government officials
- General capacity of the private sector
- Latent demand for latrines and existing coverage

As a rule, the more favorable and coordinated each of these factors are, the faster the growth of latrine coverage. These factors vary from district to district and state to state, and Water for People India recognizes that latrine building will have the greatest health impact in the areas with the least favorable conditions while recognizing that such places will require substantial efforts and resources. If Sanitation as a Business (SaaB) is to gain credence in the Indian context and if the sector is to be transformed, SaaB will have to demonstrate that it is a relatively low cost, faster and more sustainable method of increasing latrine coverage. To balance the need, speed, scale and cost associated with latrine building, India Country

Program will create a diverse portfolio of locations and partners; some aimed at the most challenging and underserved areas to build latrines, others in areas with favorable conditions.

For example, one of the most difficult areas to develop the markets to build latrines is Sheohar in Bihar. Before Water For People India entered Sheohar, there were no MFIs, capacities within the local government and the private sector were relatively low, the subsidy system was not transparent, demand for proper sanitation was limited, and the supply chain for latrine products was non-existent. At the other end of the spectrum is Pondicherry where capacities, latent demand, and government motivations were high. Additionally, access to finance and subsidy was through well-established and accepted channels. Approaches to latrine building in these two places will differ significantly.

**Geography:** Water for People India will facilitate the latrine building process in Bihar (Sheohar, Muzaffarpur), West Bengal, Odisha and any other areas that will help achieve our scale objectives. With a diverse portfolio, we hope to maximize latrine building experiences and learning from successes and failures and transform the sector in the process.

**Estimated reach:** 250,000 individuals

#### **1b. Demonstrate a sustainable mechanism for public latrine construction in urban and peri-urban areas**

The standard method of providing community based ‘pay as you go’ latrines is the norm in slum settlements. However, it is recognized that this approach is often limited to privately-owned slums and is not appropriate in all types of high-density settlements. Sustainable sanitation solutions for these other types of slums are limited and hence, further research is warranted.

**Strengthening Initiative:** Water For People India will develop and explore different technologies and business models over the term of this strategy with the aim of sustainable business model in 2 slum areas, thereby developing an approach that can be taken to scale.

**Approach:** While the present pay and use model is providing a valuable solution to many vulnerable groups, there are many factors that prevent this approach from becoming truly scalable and sustainable.

According to the 2011 census, approximately 33% of Kolkata’s 4.6 million people live in the slums. These 1,500,000 people live in about 300,000 households and it is estimated that each toilet block serves 53 households. This equates to Greater Kolkata alone requiring around 5,300 toilet blocks to meet the sanitation needs of this population. Moreover, there is no shortage of blocks to renovate. And if it is assumed that each block cost on average Rs 400,000 (USD 5,715) to renovate/construct, it would need around Rs 212 cr. (USD 30.3 million) to ensure all 5,300 blocks have access to sanitation facilities, new or renovated.

This amount of money would be extremely difficult to raise. Also, the time required to reach all the community blocks would be more than 500 years factoring in the human resources needed to complete such a project.

During this strategy period, Water For People India will carry out a study to understand the scope of this problem and identify solutions and barriers that have implications for the scaling process. Based on the findings from the study, we will formulate potential interventions. We expect these interventions to include private and/or government partnerships, engagement of private players to open urban-centric

sanitation business models, and micro-finance institutions. We will also consider the possibility of using commercial funds to cover capital and operation costs

**Geography:** West Bengal and Odisha

**Estimated reach:** 30,000 population

**By 2023, India program will have two sanitation initiatives (Outcomes 1a and 1b) as described above working at scale, mainly focusing latrine building approaches.**

## 2. Develop and market test fecal sludge management related business models

Water For People globally has a deep knowledge and experience on FSM and is constantly exploring ways to implement FSM-based sanitation services in India.

**Core Initiatives:** We will be working on two core initiatives within urban/peri-urban and FSM space viz.:

**FSM based core initiative:** Develop fecal sludge management ecosystem

India is slowly progressing towards full sanitation coverage and as we inch closer to attaining ODF status, in alignment with the government's mission of achieving ODF+ and ODF++, the important task now at hand is managing the large volume of fecal sludge from the growing number of septic tanks and single/double pit latrines. Finding safe and effective ways of emptying, disposing and ideally reusing fecal sludge for energy outputs are the next important avenues.

During the strategic period, Water For People India will focus on FSM value chain and invest in developing cutting-edge technologies and business models that promote the proper management, treatment and reuse of fecal waste while reducing the health risks posed by fecal waste.

**Strengthening initiatives:**

1. Modular toilets and Septic tanks
2. Polymer and ceramic based membrane pit life extender or the STRAW
3. Manual pit emptying technologies
4. Briquettes/ Composting
5. Modified Sanergy FSM business model

**Approach:** The lack of customer dissatisfaction over existing unhygienic practices make developing improvements a challenging process. The analysis of the FSM sector in West Bengal indicates that the opportunities for pure stand-alone market based businesses are limited and that government enforcement is necessary in order to achieve behavior change in sanitation practices. If a business-based FSM idea or technology is to reach scale in India, it has to be developed with the support of the government at every level as the regulatory entity.

It also raises the question as to whether suitable technical solutions are available even if the local government was to be more proactive. There are currently no affordable market ready solutions which the government could endorse/enforce to improve the manage the growing amount of fecal waste.

The India country program will undertake a range of activities related to technology / business model / governance development and identify innovative solutions to some of India's emerging as well as persistent FSM problems.

**Geography:** Water For People India will conduct a feasibility study in Sheohar and based on the findings, we will idea test relevant technology/ business models in Bihar and West Bengal

**Estimated reach:** 740,000 population

**By 2023, at least 2 new innovative technologies/business models focused on small town and urban FSM will be operating at later stages of the market testing phase (Outcome 2).**

## 7.0 Route to Scale

The ability of Water For People India to take any aspect of its sanitation work to scale depends on the rigorous assessment of the initiatives as they move along different stages. After determining that the initiatives are appropriate for the local context, sustainable, and replicable, the initiatives graduate out of our country program. It is important to note that the process is non-linear and warrants iterative modifications throughout.

All the urban latrine building approaches and the FSM work are in early stages of development and will require extensive testing and adjustments. Over the next five years, Water For People India will work closely with our partners to examine the feasibility of different tools, technologies and business models. The overarching goal is to develop sanitation-based business models that support urban latrine building and FSM technologies that can be taken to scale.

The approach to rural latrine building through local entrepreneur is more firmly established and the country program has confidence in its ability to deliver good quality products and services in a commercially viable manner. We will continue to monitor our work in rural latrine building and learn from this initiative to inform and advance new technologies and models.

Water for People in India is well respected by its partners, government entities and WASH sector implementation organizations. However, we understand that we cannot solve India's sanitation problems on our own. As such, we will facilitate and enhance the collaboration process amongst the intermediary actors which goes beyond simply sharing information. It will aim at influencing the sector and changing the way sanitation programs are implemented throughout India.

## 8.0 Equity and Inclusion

Our Everyone Forever approach strives to make safe and sustainable water and sanitation services a universal reality. Along this line, Water for People India works to ensure that desirable latrines are available to all members of the community, even the hardest to reach. To reduce barriers to latrine ownership and usage, we work with community members, local governments and community-based organizations to facilitate access to finance and incentives to build household latrines.

Building a latrine involves a significant upfront investment and families with limited and inconsistent income struggle to save enough money for such payment. Water for People India recognizes that bridging this financial gap is critical to accelerate uptake of sanitation among the poorer segment of the community.

We work closely with MFI and Self-Help Group (SHG) federations to develop a viable and sustainable way of bridging this finance gap. We also support livelihood generation activities among the extremely poor families in the communities we work in.

Our sanitation programs are aware of the challenges faced by the marginalized and vulnerable social groups. Hence, our strategy is to make concerted efforts to identify and reach out to groups that may need additional support. For instance, one of the most difficult groups to reach through a market-based approach are the Dalits. Our approach in this case will entail working closely with the Dalit communities and district government to develop and execute implementation plans that cater to the specific needs of this group.

Gender transformative programming is an avenue that allows us to promote women's participation and leadership in sanitation. We recognize sanitation is tied to women's health, safety and dignity and over the next five years we will continue to work to formulate gender-responsive solutions in the communities and schools. Our work in schools already focus on developing infrastructure that provides separate facilities for boys and girls. Additionally, representation from both genders are encouraged in operations and maintenance student committees. For adolescent girls, menstrual hygiene facilities, including changing rooms and incinerators, will be integrated while constructing toilet blocks. Our sanitation program will include strategies to engage women in a meaningful and productive way in all aspects of the sanitation value chain.

Within FSM, Water for People India will focus on developing business models and technologies that will eliminate the dehumanizing and dangerous practice of manual scavenging. According to various reports, the vast majority of manual scavengers are women who work under precarious conditions without protective equipment. Additionally, this stigmatized practice is relegated to low-caste workers. Our FSM programming will aim to make management, transfer and treatment of fecal waste a safer process such that trained workers are able to engage in this important task in a dignified and professional manner.

## 9.0 Monitoring

Water for People India country program is geographically spread out, diverse in nature and implemented through multiple partners. To ensure consistency and adherence to the goals laid down in this strategy it is necessary to have procedures which must be followed throughout the strategy period. Water For People's sanitation work follows a cyclical path comprising of three stages viz Idea, Market, Scale testing phases. All core initiatives need to pass certain criteria before they graduate to the next phase. For Strengthening initiatives, we consider idea and marketing testing parameters only.

It is with these three stages of initiative development in mind that Water For People has split the monitoring process into two distinct parts. The first part is based on monitoring project progress and improving effectiveness, while the second part on evaluating scale and impact. Sanitation Management Information System (MIS) is the primary platform for the first goal aimed at information and data collection process for improving adaptive management practices. The MIS also supports real-time, continuous learning. Impact monitoring is the focus of the second part, which includes information and data collection processes aimed at proving the impact of an intervention and to measure progress towards Water For People's ambitious sanitation targets. These two mechanisms also keep Water For People India accountable to its partners.



## 10.0 Risks and Mitigation Strategy

Sl. no	Identified Risks	Mitigation strategy
1.	One of the pillars for maintaining ODF is sustainable form of supply chain. However, the Rural Sanitary Marts or the empaneled contractors are grant dependent.	<ul style="list-style-type: none"> <li>- Develop market-led approaches and encourage private sector participation.</li> <li>- Invest in research and development to churn out economically viable products and business models</li> <li>- Explore and support alternative channels of strengthening sanitation supply chain e.g. through Cluster Level federations formed by JEEVIKA</li> </ul>
2.	Banking institutions/financial institutions do not find sanitation loans as a viable product.	<ul style="list-style-type: none"> <li>- Exploring the possibilities of raising guarantee funds for the financial institutions</li> <li>- Evidence-based advocacy</li> </ul>
3.	Fecal sludge management is a new idea and there is little expressed dissatisfaction with the current situation, even when it involves open sewers running next to people's houses. Without dissatisfaction, it is hard to find added value on which to grow a market	<ul style="list-style-type: none"> <li>- Develop and implement high impact awareness dissemination programs</li> </ul>
4.	The analysis of the FSM sector in West Bengal, Odisha and Tamil Nadu indicates that the opportunities for pure stand-alone market-based businesses are limited and that government enforcement is unlikely to be effective. If a business-based FSM idea or technology is to reach scale, it must be developed somewhere between the two extremes and the government involvement at any level should not be ignored or bypassed. The extent and dependence on government support can be variable and an approach requiring a 'light touch' from the government is more likely to be successful and sustainable.	<ul style="list-style-type: none"> <li>- Fierce collaboration with the government on FSM-related programs across India</li> </ul>