PERSPECTIVES ON THE ROLE OF BLENDED FINANCING IN WASH
It gives me great pleasure to write this foreword for a publication that in many ways is the first of its kind on the subject of Blended Finance in the WASH sector.

Sanitation was not made into a people’s movement till the government’s determined push in 2014 through the Swachh Bharat campaign. It can be said that India showed the world how a task as complex and finance intensive as Sanitation for such a vast country like ours was achieved in four short years.

While there is still much to be done, we are certainly considered a role model globally for the manner in which we have built a solid foundation for WASH which now needs to be sustained into the future.

I am delighted to have such a galaxy of eminent practitioners contributing to this book with their thoughts and recommendations on the subject. All of them in one way or another have added great value to the sector and aided the country’s sanitation agenda.

The issues of WASH are even more relevant today than before, especially with the COVID-19 pandemic. The close linkages between Health, Hygiene, Sanitation and Water are tremendously complex, far reaching and requiring of our urgent attention.

Financing for the sector has largely been a government mandate but it is becoming more and more apparent that given the urgency of the situation, the private sector needs to step up its philanthropy. However even more critical would be the for-profit models including public private partnerships to help resolve some of the more pressing issues in partnership with the government.

None of this is possible without finance - after all it is the wheels of finance that keep the economy progressing forward.

We hope that this series of reflections on Blended Finance for the WASH sector from eminent minds will help catalyze your thoughts and actions and act as a primer to financing in WASH.

Naina Lal Kidwai
Chair, India Sanitation Coalition
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While access to water and sanitation is a basic right for every citizen, to be rightfully provided by the Government, in most countries including India the reality falls short of the need on several fronts.

The WASH economy in India which covers the entire value chain of water and sanitation starting with the building of toilets, ensuring their usage and maintenance, building the right types of treatment plants for faecal sludge and most importantly the availability of water to clean the waste as well as management of waste water is a major cause for concern. All aspects of BUMT – Build, Use, Maintain, and Treat – coupled with availability of water are critical to creating proper sanitary conditions; as a community we continue to face significant financing gaps mainly due to a lack of understanding of the different types of funding required for each phase in the value chain.

Sustainable Development Goal (SDG) 6 which promises to ensure the availability and sustainability of Water and Sanitation for all, is working around a massive gap where 4.5 billion people worldwide lack access to proper sanitary conditions and of which one third resides in India.

Let’s take a look at the challenges that still remain for us to address if we are to meet the SDG 6 requirements and its impact on SDGs 1.4 (men and women, particularly the poor and vulnerable have equal access to economic resources), SDG 3.3 (end epidemics such as AIDS, Tuberculosis, malaria, neglected tropical diseases, combat disease, water-borne diseases and communicable diseases), SDG 3.9 (reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination) and SDG 12.4 (environmentally sound management of chemicals and wastes with reduced release to air, water and soil in order to minimize their adverse impacts on human health and the environment).

Since its inception in 2014 the Swachh Bharat Mission that aimed to “ensure access to sanitation facilities (including toilets, solid and liquid waste disposal systems, and village...”

In monetary terms, as of September 2019 the gap in financing Water and Sanitation projects for Developing countries was USD 410 bn of which India requires raising Rs. 52,000 crore i.e. USD 7 billion.

The torchbearer for sanitation Mahatma Gandhi propounded that cleanliness and sanitation were an integral part of the Gandhian way of life. In his words “Sanitation is more important than political Independence.”
**THE STATE OF PLAY**

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**THE CHALLENGE THAT REMAINS**

A. Extent of the Gap

Let’s take a look at the challenges that still remain for us to address if we are to meet the SDG 6 requirements and its impact on SDGs 1.4 (men and women, particularly the poor and vulnerable have equal access to economic resources), SDG 3.3 (end epidemics such as AIDS, Tuberculosis, malaria, neglected tropical diseases, combat disease, water-borne diseases and communicable diseases), SDG 3.9 (reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination) and SDG 12.4 (environmentally sound management of chemicals and wastes with reduced release to air, water and soil in order to minimize their adverse impacts on human health and the environment).

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An impressive record by all counts but the reason to launch Swachh Bharat ODF+ by the Government in 2020 was to ensure that the gap that still exists in the construction, use and maintenance of toilets is filled and made sustainable in the long term in addition to an added emphasis on managing the solid and liquid waste.

Aid has built 9.16 crore toilets across India, over 5.5 lakh villages have been declared ODF SBM, access to toilets has been provided to 93.1% of households with 30 States/UTs being covered 100% under Individual House Hold Latrine(IHHL) ODF.

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The chart below details the current manner in which human excreta is disposed either through sewage or as faecal sludge.

**Figure 1 - Routes of Faecal Sludge Generation**

Source: www.eai.in/ref/ae/wte/typ/clas/fecal_sludge.html
It is clear from the above that the gap between the generation of human excreta and current manner of its disposal is haphazard, unhealthy and could be fatally dangerous if not managed properly. While there are several reasons for this gap, the primary reason remains an acute shortage of financing.

Financing the WASH value chain in the short timeframe given to the completion of the SDG targets needs more than government involvement which till date has been the primary funder. While Private involvement by Corporates in the form of CSR funding has also increased substantially in the last 4 years and greatly helped to fill the gap specifically with regard to building the infrastructure the gap in funding is still significant and the reasons are obvious.

Estimating the size of the problem, and to understand the gap that exists between sewage infrastructure and sewage generated in cities, WaterAid’s research states that of the 38,000 million litres per day of sewage which is generated, treatment capacity exists for only about 12,000 million litres per day (32%)\(^5\) in all metropolitan Class 1 cities and Class 2 towns in India.

The study adds that “there is a large gap between generation and treatment of waste water in India. Nearly 39% of the Sewage Treatment Plants (STPs) do not conform to the general standards prescribed under the Environmental (Protection) Rules for discharge into streams as per the Central Pollution Control Board’s (CPCB) survey report.”

It also speaks of underutilization of existing treatment capacities in several cities with untreated sewage continuing to be discharged into water streams in the same cities. With such a high level of septage being released directly into the ground water the extent of surface water pollution is estimated to be as high as 70% in India\(^5\).

**B. Current Financing Methods falling short**

The concept of pay and use toilets operated by various NGOs, works well in public areas with the payment taking care of the maintenance of the toilets as well as beer salaries however, this concept is not workable in slums where the public is unable to pay the charge however small. In rural areas this issue is more pronounced.

In addition, there is a great need to look at introducing more behavioural change programs around the usage of toilets and where centuries of open defecation habits need addressing. All these are challenges that cannot be converted into commercial dividend and hence require unconventional forms of financing which are mainly philanthropic in nature either by the private sector or in collaboration with the government by co-financing relevant programs of change for the poorest communities that require them.

Turning to the larger gap we face in the treatment of faecal sludge and the management of waste water. As per the Ministry of Jal Shakti\(^7\) “If sanitation is to be managed safely, it is important to go beyond the toilet and examine containment, emptying, transport, treatment and reuse or disposal of faecal waste. FSM is central to achieving the vision of an Open Defecation Free India. Developing solutions to challenges of FSM therefore has an important place in the sanitation story of the country”
THE GOOD NEWS

In February 2017, India announced a national policy on Faecal Sludge and Septage Management (FSSM) to set the context, priorities and direction for states on FSSM for on-site sanitation. The policy discussed the gaps and issues in urban sanitation leveraging international perspectives against which to measure these gaps both in rural and urban circumstances. The main recommendation they propose is that with the rapid growth of urbanization, conventional sewage systems will not be able to meet the requirement of the public and while most of the sewage systems constructed in low income countries like India have failed on account of the high operational and management costs, there is need to “consider decentralized technologies and FSSM services as long term and sustainable options.”

The need for FSSM services while relevant to both urban and rural populations, it is estimated that future growth and complexity will come in the urban areas. As per Census 2011, 31% of India’s population lives in urban areas and the UN 2014 estimate is of 410 million people living in urban areas with an expected addition of 173 million being added by 2030. The bulk of these people will gravitate to the urban slums in search of a place to stay. Take the example of India’s 2 largest cities Mumbai and Delhi, Mumbai is estimated to have 6.5 million slum dwellers which is nearly half its population, while Delhi is home to 1.8 million slum dwellers. And these numbers are only increasing. The close proximity of housing, the density of population and very often the absence of proper sanitation facilities leads to several risks which are related to their survival.

The financing and management of these facilities be they piped sewer systems, septic tanks, with slab/ventilated improved pit, without slab/open pit, night soil open drain, night soil serviced by humans or animals or Public latrines – the financing mechanisms are mostly government schemes, private donations or grants from foundations.

But there is a new sun rising where financing of faecal sludge can be made commercially viable through offsite treatment plants or FSTPs that can service entire communities in densely populated urban areas. For rural areas onsite models are proving to be the most financially efficient options as of now.

In the Centre for Water and Sanitation’s Policy Brief “Financing and Business Models for Faecal Sludge and Septage for Urban India” it is mentioned that “to achieve universal coverage for treatment facilities across all cities in India which rely on Onsite sanitation systems is estimated to be INR 7,100 Crores(cr.) over a 5 year period from 2018 – 2022.” In percentage terms this would be approximately 3.3% of the allocation across all government flagship programs considering the 50/50 share of the central government.

The policy brief also outlines several options to finance the FSTPs in urban areas. In their findings the segregation of capital cost versus operational cost is the key to ensuring the type of funder that would be interested in investing. Public private partnerships (PPP) appear to be the most logical with Philanthropic funding, financing the capital cost and government or private funders investing in the operational cost which are on-going and
nec essary for good performance and sustainability. (Refer Annexure 1)

Over a period of time investment in the operational cost could see a modest dividend as the FSTP makes revenue.

Several business models can be proposed based on the readiness of the state and the size of the infrastructure planned. The Policy brief suggests the following core parameters to define business models:

Core parameters to define business models

<table>
<thead>
<tr>
<th>Service arrangement</th>
<th>Financing</th>
<th>Contractual structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stand alone FSTP</td>
<td>Capex sources</td>
<td>ppp</td>
</tr>
<tr>
<td>STP Co-treatment</td>
<td>Private player</td>
<td>PSP</td>
</tr>
<tr>
<td>SWM Co-treatment</td>
<td>Local government</td>
<td>PPP with VGF/HAM</td>
</tr>
<tr>
<td></td>
<td>State / National government</td>
<td>Operating agency</td>
</tr>
<tr>
<td></td>
<td>Phil/non-profits</td>
<td>Private player</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Local government</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capex sources</td>
</tr>
<tr>
<td>Opex sources</td>
</tr>
<tr>
<td>Local taxes (via Govt)</td>
</tr>
<tr>
<td>Reuse revenue</td>
</tr>
<tr>
<td>Local/State govt.</td>
</tr>
<tr>
<td>Grant - phil/non-profits</td>
</tr>
<tr>
<td>User charges</td>
</tr>
<tr>
<td>Tipping fee</td>
</tr>
</tbody>
</table>

(Perspectives on the Role of Blended Financing in WASH)
Each model is defined around a **Service arrangement** of the type of FSTP to be serviced—standalone, co-treatment and integrated desludging treatment.

The **Financing** requirements are determined—CAPEX and OPEX sources, reuse markets, willingness to pay by households, repayment capacity of Urban Local Bodies that would benefit from the services of the FSTP.

It is equally important to determine the Contractual structure of model wherein project definition, identification of stakeholder responsibilities, terms of agreement such as long term collaboration through PPP or Payment Service Provider (PSP) or a license to operate etc.

As an example, Maharashtra has adopted a local government funded business model. While the State would support the local government in financing fully or partially the capex for the facility as well as putting the necessary regulatory structures in place, the local government has to ensure that the land is provided by them as well as the ongoing funding and management of the facility. The recovery of operational costs is anticipated through sanitation and property tax that the local government would charge. Over a period of time the cost of running the facility is managed by the local government. (Annexure 3a)

In Tamil Nadu the State government has deployed a cluster based approach for treatment wherein there is a common FSTP servicing a cluster of cities. (Annexure 3b)

In Andhra Pradesh the state funds the FSTPs in 78 ULBs through a hybrid annuity model (HAM). Here the private sector provides 50% of the funding and is allowed to operate the facility for 10 years. The state as part of its 50% share pays partially for the upfront CAPEX costs as well as operations costs. The private sector is repaid through annuity payments across 10 years. (Annexure 3c)

However, it is clear whichever model is adopted, the dividend would be marginal and investors should recognize this upfront. With the government at a state or city level being the prime funder for any model, the revenue if any would get necessarily ploughed back into similar facilities that would be required.

### BLENDED FINANCE – THE NEW MANTRA?

As seen above, with the focus on waste treatment generating several innovative financing methods, let us have a quick look at the instruments that are being proposed.

No one form of finance is going to help tackle the challenge has been established with all models considering a blend of philanthropic and debt funding what we call broadly Blended Finance. The Organization for Economic Co-operation and Development (OECD) defines Blended Finance as “the strategic use of development finance to mobilise additional finance towards sustainable development in developing countries” It acts as “a market building instrument to provide a bridge from grant and other donor financing towards more self- sustaining financing approaches” (OECD)

Unfortunately, till date the quantum of commercial finance generated through blended models for water and sanitation globally has been
severely limited. As per the OECD globally, “Only 1.36% (USD 2.14 billion) of total private finance from 2012 – 2017 (USD 157.2 billion) was mobilised in water and sanitation through blended finance instruments”\textsuperscript{10}

As far as India is concerned, we are yet to seriously consider blended finance as the answer to resolving our financing needs in WASH.

So what are these instruments that allow for private financing to be made possible?

**Figure 1. BLENDED FINANCE MECHANISMS AND INSTRUMENTS**

Structure and/or intermediation of instruments to mobilise private capital

<table>
<thead>
<tr>
<th>FUNDS</th>
<th>INSTRUMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYNDICATION</td>
<td>EQUITY INSTRUMENTS</td>
</tr>
<tr>
<td>SECURITISATION</td>
<td>DEBT INSTRUMENTS</td>
</tr>
<tr>
<td>PUBLIC-PRIVATE PARTNERSHIPS (PPPS)</td>
<td>MEZZANINE INSTRUMENTS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EQUITY INSTRUMENTS</th>
<th>DEBT INSTRUMENTS</th>
<th>MEZZANINE INSTRUMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GUARANTEES AND INSURANCE</td>
<td>HEDGING</td>
<td>GRANTS AND TECHNICAL ASSISTANCE</td>
</tr>
</tbody>
</table>

Source: OECD (2018)

Globally, guarantees account for 58% (USD 1.24 billion) of private finance mobilised followed by syndicated loans at 29% (USD 0.6 billion approx.)\textsuperscript{11}

The models that deploy these instruments creating financing structures for water and sanitation projects are primarily looking at altering the risk return ratio in a way that allows the commercial sector to invest.

Contractual arrangements, transparency of deliverables, clarity of policy guidelines and role clarity among the stakeholders are all utilised to reduce risk through these various instruments.

India has recently begun the journey of blending different types of financing options to address its water and sanitation needs. Here are some examples:

In the past only 20% of Udaipur’s faecal sludge was managed professionally. The Indian Centre for Policy Research and the Bill and Melinda Gates Foundation deploying a Public Private Partnership model were successful in setting up a 15 kilolitres a day capacity covering all the non-sewered parts of the city. The local government would fund 80% of the CAPEX with the balance 20% being provided by the commercial operator in this case, Hindustan Zinc Ltd a mining company operating in the area. The initial contractual agreement would be for a period of 5 years and the terms of the contract are Design, Build, Operate and Transfer. (Refer Annexure 2a)

In another example, dealing with micro-financing of sanitation loans to build toilets Water.org’s WaterCredit initiative provides technical assistance to financial institutions to design water and sanitation loan products for low income borrowers. (Refer Annexure 2b)
Given the potential and size of the need, blended finance has a very definite attraction for both lenders and borrowers in this sector. What is required is to ensure that the right structures are conceived for the differing requirements which will then help hasten their implementation and make India truly Swachh Bharat.

CONCLUSION

Given some of the challenges outlined above, the size and scope of the opportunity and the importance of achieving the SDG targets, it is critical we create a common space where all stakeholders can freely discuss the real issues that challenge the sector and build partnerships with each other in order to build real and lasting solutions.

The ISC as a well-established thought leader in this space has the ability to bring together all stakeholders across the ecosystem to dialogue, brainstorm, strategize and create the necessary policies that help facilitate the best suited funding models for the sector.

Financing SDG 6 and providing Water and Sanitation to the country is not a standalone requirement. The reality is that its interlinkages are several, with Health, Hygiene, Diseases, Agriculture, Nutrition, Education and most recently the World’s greatest threat in the form of COVID19—all require a robust sanitation network and clean water at the core. Financing WASH is no longer a necessity; it is a matter of survival for all of us.

RESEARCH

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11. Making Blended Finance work for Water and Sanitation; Policy Highlights; OECD 2018
## ANNEXURE 1

Table 1: Service/Business Models for Faecal Sludge Treatment

<table>
<thead>
<tr>
<th>Model Description</th>
<th>Benefits</th>
<th>Need to address</th>
<th>Applicability</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Philanthropic funded treatment facility:</strong> Treatment plant capex and initial Opex by philanthropic and operations by private</td>
<td>Plugs the funding gap for new treatment technologies and models; No financial or implementation burden on governments</td>
<td>Not a sustainable source of funds for the long term or for established technologies/models</td>
<td>Philanthropic funding typically drives capex investment, and supports opex recovery in the short/medium term</td>
<td>Wai, Narsapur, Warangal</td>
</tr>
<tr>
<td><strong>2. State government funded through national/state programs for capex and opex:</strong> Treatment plant capex by state government, Opex by State or local government and operations by private</td>
<td>Govt. participation in capex funding incentivizes private participation</td>
<td>Requires allocation of public funds; The limited role of ULB in implementation and monitoring may challenge sustainability</td>
<td>Relevant where Government has some funding capacity but limited operating capacity and where private sector participation is considered important from an operations perspective.</td>
<td>Odisha, Chhattisgarh, UP</td>
</tr>
<tr>
<td><strong>3. Local Government funded for capex and opex:</strong> Treatment plant capex and Opex by local government and operations by private</td>
<td>Govt. participation in capex funding incentivizes private participation; Sustainable plant operations since implementation is with the private operator</td>
<td>Requires allocation of public funds for FSSM capex; Need to assess ULB financial capacity to finance Opex of treatment plants.</td>
<td>Relevant where local government has funding capacity but limited operating capacity</td>
<td>Sinnar and Umred in Maharashtra</td>
</tr>
<tr>
<td><strong>4. Partially funded by private sector and state government and operated by private:</strong> Treatment plant capex by private and state government; and Opex by state government and operations by private</td>
<td>Reduces the initial capex burden for governments</td>
<td>Difficulty in finding players with the financial and technical capacity; May discourage small players with low financial capacity</td>
<td>Relevant in scenarios where private sector participation and part funding is prioritized and government support is needed to bridge viability gap funding and justify commercial return</td>
<td>Andhra Pradesh and Telangana</td>
</tr>
<tr>
<td><strong>5. Integrated model for scheduled desludging and treatment:</strong> Same private firm operates both desludging and treatment service for one city</td>
<td>Integrated models offer efficiencies, convenience, and easier contracting, with the same private provider</td>
<td>dependency on a single player (1) compounds risk of non-performance, and (2) crowds out existing smaller players</td>
<td>There are private players with capacity to manage both treatment and desludging operations</td>
<td>Leh, J&amp;K</td>
</tr>
<tr>
<td><strong>6. Integrated model with a cluster based approach:</strong> Same private firm operates both desludging and treatment service for a group of nearby cities</td>
<td>Cluster approach and co-treatment can provide efficiencies in treatment facilities</td>
<td>Co-operation among cities, efficient road connections</td>
<td>As above, but where the nearby cities are willing to come together for a cluster approach</td>
<td>Thongthawil Service Co. Ltd, Thailand</td>
</tr>
</tbody>
</table>

Source: Based on the Landscape studies for Business Models across 4-states by CEPT University (2019a, 2019b). (pp 110-118)
ANNEXURE 2

WATER CREDIT: MICROFINANCE SANITATION LOANS TO EXPAND ACCESS TO SANITATION IN INDIA

The challenge:
- Making the population of India open defecation free.
- Incentivising eligible households to invest in toilet construction and access to water supply.
- Addressing up-front cash reserves gap for construction of toilets.

The solution:
Water.org’s WaterCredit initiative facilitates household sanitation asset or service acquisition through partnership with local financial institutions. It provides technical assistance and project preparation funds to financial institutions to set up dedicated water and sanitation loan products to low-income borrowers. Under most circumstances, these institutions already lend to low-income clients but are reluctant to lend specifically for water and/or sanitation due to perceptions of high repayment risk. The WaterCredit structure is designed to support these institutions to pilot water and sanitation lending. The strategic use of technical assistance and/or small grants from Water.org’s philanthropic donors for project preparation – market assessment, loan product development, borrower education materials, etc. – aims at increasing the outreach of sanitation services by mobilising household and commercial finance.

INNOVATIVE FINANCING IN PRACTICE

FUNDING WASTEWATER AND FAECAL SLUDGE TREATMENT AND REUSE IN UDAIPUR

The challenge:
- Improving faecal sludge management in Udaipur City, India.
- As of 2014, only 20% of the city’s population was covered by the network in place to dispose, recycle and effectively treat waste.

The solution:
In this context, the project “Partnering for MEWAR: Managing Environment through Waste Reuse” has been conceptualised by the Indian Centre for Policy Research in partnership with the Bill and Melinda Gates Foundation to introduce a specific system of improved faecal sludge and septage management in Udaipur. The project aims to build on an existing partnership between the public and private sector to provide faecal sludge treatment and reuse. A Faecal Sludge Treatment Plant of 15 kilolitres per day capacity to cover the requirements of the non-sewered parts of the city is being developed. The municipal government will provide 80% of the construction costs, while 20% of the costs will be provided by the concessionaire, likely Hindu Zinc Limited (a mining company operating in the area). The project is structured as a Design Build Operate Transfer project for a five-year initial term.

Source: Making Blended Finance Work for Water and Sanitation (OECD, 2019a)
ANNEXURE 3

A. MAHARASHTRA

Maharashtra - Local government funded business model for treatment

B. TAMILNADU

In Tamil Nadu, the state government has adopted a cluster based approach for treatment

C. ANDHRA PRADESH

In Andhra Pradesh, the state government has played an important role in funding of FSTPs in 78 ULBs through a hybrid annuity model (HAM)

Source: Policy Brief - Financing and business models FSSM (CWAS - CEPT July 2019)
behaviour change programmes at scale. Since 2014, 10,28,67,271 Household Toilets have been built under SBM. All States and Union Territories have been declared ODF free. Under SBM-G, NABARD extended credit support to National Centre for Drinking Water, Sanitation and Quality (NCDWS&Q) towards part funding of Central share towards construction of 3 crore household toilets. NABARD has released Rs. 12,298.20 Crore to NCDWS&Q under SBM-G as on 31 March 2020.

NRDWP provides support for Pipe Water Supply Schemes projects which are in an advanced stage of completion from earlier years, released to the states at the beginning of the fiscal year. The restructured scheme has enabled the state water supply schemes to be more efficient and performance oriented.

The Government of India has also advocated Private and Public Sector Enterprises to contribute towards the Swachh Bharat Mission through donations to the Swachh Bharat Kosh and spend their CSR funds.

Mr. G. R. Chintala
Chairman at NABARD

1. How do you believe WASH goals are being financed in India?

The Government of India has shown unprecedented focus in ensuring access to sustainable sanitation and potable drinking water through the Swachh Bharat Mission (SBM) and National Rural Drinking Water Program (NRDWP).

SBM focuses on supporting communities to achieve open defecation free (ODF) status through inclusive, sustainable and high-quality sanitation and hygiene behaviour change programmes at scale. Since 2014, 10,28,67,271 Household Toilets have been built under SBM. All States and Union Territories have been declared ODF free. Under SBM-G, NABARD extended credit support to National Centre for Drinking Water, Sanitation and Quality (NCDWS&Q) towards part funding of Central share towards construction of 3 crore household toilets. NABARD has released Rs. 12,298.20 Crore to NCDWS&Q under SBM-G as on 31 March 2020.

NRDWP provides support for Pipe Water Supply Schemes projects which are in an advanced stage of completion from earlier years, released to the states at the beginning of the fiscal year. The restructured scheme has enabled the state water supply schemes to be more efficient and performance oriented.

The Government of India has also advocated Private and Public Sector Enterprises to contribute towards the Swachh Bharat Mission through donations to the Swachh Bharat Kosh and spend their CSR funds.
for creation of infrastructure and awareness generation.

There are several existing models of lending in the sanitation and water sector that are being used across the country and replicated. Suitable loan products have been developed for household lending for water and sanitation either through direct lending by banks or through last mile partners such as SHGs and MFIs.

NABARD provides credit support to State Governments under the Rural Infrastructure Development Fund (RIDF) for construction of rural infrastructure in water and sanitation. NABARD has also provided credit support to Government of Telangana under NABARD Infrastructure Development Assistance (NIDA) for Mission Bhagirathi for provision of safe drinking water to every household.

2. **What are some of the innovative financing instruments / methods being used presently in India?**

Banks continue to innovate and scale up new products based on demand. India Post Payments Bank is now acting as business facilitator for Punjab National Bank to reach the last mile consumer. The postmen will help generate demand and will assist in loan disbursement and repayment.

Small finance banks have started using their extensive branch network to reach last mile consumers.

Public and private sector banks are providing 'sanitation and water' loans to the credit-linked SHGs of State Rural Livelihood Missions (SRLMs) and bulk loans to Business Correspondents.

3. **What do you think are the challenges in financing WASH for India to meet SDG 6?**

WASH, as you may be aware, is an umbrella term used to broadly describe the entire infrastructure and the systems (institutions, people, finance and regulations) required to provide water, sanitation and hygiene services in the international development context. Estimates by The World Bank indicate that the present value of additional investment needed in WASH through 2030 will exceed USD 1.7 trillion.

Stable and long-term financing and planning is essential for sustaining ODF status. Short-term and one-time planning, without a future investment roadmap will result in poor quality toilets or sewerage infrastructure, which ultimately increases the O&M expenses, resulting in unsustainability of the infrastructure created as well as unsustainability of positive behaviour.

Water and sanitation has historically been financed by the public sector through taxes, tariffs and transfers. While public funding continues to have an important role to play in the sector, these flows are not sufficient to address total financing
needs and achieve the 2030 Agenda for Sustainable Development ("2030 Agenda").

While the international development community, has put the private sector at the center stage, as a source for additional investments in sustainable development, private finance for the water sector does not reached the scale commensurate with the challenge. Risk-return considerations and structural issues related to profitability of operating business models often undermine commercial investment.

4. **According to you which is the best financing method that could be used to finance WASH projects in the country?**

Without addressing foundational issues in the sector, however, any finance mechanism, whether public, private or blended, will be a short-term, band-aid solution and the sector will continue the cycle of dependency on external assistance rather than fixing the root causes and building self-sufficiency.

To manage some of the challenges and encourage commercial lending, the development community has started promoting financing mechanisms that blend commercial finance with grants or guarantee debt service payments, allowing for lower interest rates and longer tenors. The rationale behind blended finance is to make water and sanitation investments more commercially viable for investors and catalyze private investment in developing countries by de-risking individual projects and schemes. However, the few isolated experiences with blended finance in the water sector to date, supported by international donors, have predominantly been in middle-income countries and failed so far to be replicated at scale.

Ultimately, the availability of finance is primarily a function of government leadership and regulation, the operational strength of the service providers and coordination among the suppliers of finance.

5. **Do you think a mix of different financing methodologies i.e. philanthropic capital, outcome based financing, venture capital etc. are the future of WASH financing in the country? 6. Could you share some examples that come to mind to illustrate your point?**

The sector requires significantly more funding to ensure that water and sanitation infrastructure investments are properly maintained and deliver quality services over time. Solutions that take a blended approach - strategically and intentionally combining aid, public and private finance - are emerging as an optimal approach to stretching limited public and aid resources.

Microfinance is one tool that can act as a catalyst for the private component of blended finance. It can also be effectively paired with government subsidies to
accelerate water and sanitation access, as has been occurring since the roll-out of the Swachh Bharat Abhiyan.

There is a large percentage of low-income households which could finance WASH improvements over time. However, WASH microfinance is neither intended to reach people living at the absolute bottom of the economic pyramid (ABOP) nor those facing high costs of obtaining access. Those populations will continue to need government support. If microfinance reduces pressure on governments to support those closer to the poverty line, public funding can be more effectively targeted to the ABOP.

Barriers to scaling WASH microfinance are high levels of real and perceived risk incurred by financial institutions engaged in microfinance. Financial institutions incur high levels of risk due to lower-than-average collateral requirements and higher administrative costs. There are higher costs associated with managing multiple small loans as compared with fewer, larger loans, and creditworthiness assessments are harder to conduct with people who have little or no credit history.

Government policies and investment practices should facilitate investment from domestic and international investors and from private users themselves. Effective combinations of policies and practices can catalyse household, utility, and sector-level financing models that crowd-in private funding to increase coverage more quickly and sustain services over time.

Blended finance- the strategic use of public taxes, development grants and concessional loans to mobilize private capital flows to emerging and frontier markets-can leverage additional funds for the sector and reduce borrowing costs as compared to a fully commercial arrangement. Multilateral development banks (MDBs) and the IMF should play a key role in "catalysing, mobilizing and crowding in" private funds and leverage their contributions to stimulate additional public and private funds.

Of late, Social impact investors willing to accept lower return on capital while maximizing impact of their philanthropic engagements along with crowd funding have also emerged as new modes of financing.

Identifying effective ways to address risk is a major barrier to be overcome through new applications and updates to existing tools, including the establishment of mechanisms to provide guarantees, risk insurance, structuring pooled vehicles or co-investment platforms at national, regional or multilateral levels to reduce costs, and preparing grant funding for project preparation and execution.

6. **What additional political and institutional reforms according to you need to be made in order to achieve SDG 6?**
When UN Member States adopted the 2030 Agenda, they signaled with the title 'Transforming our World' that it should trigger fundamental changes in politics and society. With this Agenda, governments committed to changing course and leaving the path of 'business as usual'.

There is a need for a whole-of-government approach towards sustainability. The national strategies for sustainable development should not be regarded as one among many but constitutes the overarching framework for all policies.

It is important to recognize, however, that the implementation of the 2030 Agenda is not just a matter of better policies. The effectiveness of the required policy reforms in the 2030 Agenda implementation process requires more holistic and more sweeping shifts in how and where power is vested, and it depends on the existence of strong, democratic and transparent public institutions at national and international levels.

The aspirational nature of the 2030 Agenda, along with the broad scope and interlinked nature of the Sustainable Development Goals calls for rethinking governmental strategies and for applying different approaches to governance, based on the principles of accountability, innovation, integration, and collaboration. The multi and cross-sector nature of the Sustainable Development Goals covering multiple policy areas requires strong collaboration among all parts of government, along with institutions, the business sector and the Civil Society (CSO).

Leaving no one behind (LNOB) necessitates a whole of government and a whole of society approach, where all ministries, public agencies and public at large are involved in the decision-making process. Finally, the limited resources available at the national level require a special focus on budgeting and financing to ensure an effective implementation of the Sustainable Development Goals.
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The multi-dimensional and cross-sector nature of the Sustainable Development Goals covering multiple policy areas requires strong collaboration among all parts of government, along with institutions, the business sector and the Civil Society (CSO). Leaving no one behind (LNOB) necessitates a whole of government and a whole of society approach, where all ministries, public agencies and public at large are involved in the decision-making process. Finally, the limited resources available at the national level require a special focus on budgeting and financing to ensure the effective implementation of the Sustainable Development Goals.

When UN Member States adopted the 2030 Agenda, they signaled with the title ‘Transforming our World’ that it should trigger fundamental changes in policies and society. With this Agenda governments committed to changing course and leaving the path of ‘business as usual’.

The first time I saw its implementation after the law on “The Employment of Manual Scavengers and Construction of Dry Latrines Prohibition act 1993” was passed, thereafter as a banker I have been a part of the village adoption scheme under Integrated Rural Development Program (IRDP) and thereafter engagement in the various initiatives of Jawaharlal Nehru National Urban Mission (JNNURM) and of course Swachh Bharat Mission has given it a very comprehensive perspective. Although SBM has given broad perspective, it is essential to break down each activity for its achievement.

2. What are some of the innovative financing instruments / methods being used presently in India?

With regard to the innovative financing solutions, we very well know that the instruments like Development Impact Bonds, Municipal or Green Bonds, the investors look for definite delivery of the project commitments and accordingly it’s very essential that to attract such investments, a transparent
3. **What do you think are the challenges in financing WASH for India to meet SDG 6?**

I will like to confine my comments related to sanitation, while the banks are also engaged in financing for water and hygiene. While conceptually lots of studies have been undertaken it is essential that the activities under sanitation be properly identified for being implemented for an Individual and Community in Rural, Urban and metro centers. It is essential that while the activities are identified like necessity of toilets, treatment plants for faecal sludge and septage management and the existing gaps should be measured, be quantified in terms of what quantum of finance will be required to achieve the hundred percent goal.

Once it is identified the next step would be to understand what is to be done at the Individual level and what is to be done at the Community level. This will make it easier to apply various financing tools for funding such activities. To achieve sanitation related goals, both Institutions and people are equally responsible. This includes Central and State governments, District administration, Local bodies, Block level administration, the Panchayats and the villages themselves. This new initiative can be plugged to a Smart City's objective. It can also be an effective tool to achieve sanitation goals both at Individual and Community levels. Sanitation goals will further need to be divided into units again as Individual and Community infrastructure requiring finance.

4. **According to you which is the best financing method that could be used to finance WASH projects in the country?**

As a banker I strongly feel that financing of the individual toilets as a top up facility with any other credit facility given to borrowers' will be successful, such as; with every crop loan we give a toilet construction loan, with every MSME loan we give a top up loan and ensure that each and every household is covered and thus we achieve 100% ODF. The next important task is financing FSSM where a huge amount of capital and operational expenditure is involved. Unless the revenue is well-defined in terms of output products, its price and market of buyers to cover the debt servicing costs, such project will not find many takers. Banks have been lending for the Effluent treatment plants in Industrial areas and many of them have been viable entities and have been successful. On the same lines the FSSM projects should be conceived under PPP model. Any project is viable when the supply of raw material and sale of its output is secure, in this case i.e. faecal sludge is being collected on an on-going basis and if
adequate amount of faecal sludge is provided for plant operation, the plant will run at optimum capacity. If these challenges are properly examined and addressed then I am very confident that the country can have many FSSM plants operating and they shall serve the purpose of sanitation.

5. **Do you think a mix of different financing methodologies i.e. philanthropic capital, outcome based financing, venture capital etc are the future of WASH financing in the country?**

With regard to the used cases, I will like to go back to my days of a Branch manager at Indore, Madhya Pradesh in 1994 wherein I have provided credit for construction of toilets for which beneficiaries were identified by Indore development Authority. I am happy to inform that most of these loans were well serviced by borrowers.

On similar lines in Maharashtra under Maharashtra Arthik Vikas Mahanmandal (MAVIM) banks have supported lending activities through SHGs (Self Help Groups) such as ICICI financing in Jalna district, Maharashtra. In this project also the recovery rate has been very satisfactory.

The banks have been lending for Solid Waste Management projects and have also participated in municipal bonds.

Cities like Indore and Nagpur have exhibited that the collection of fecal sludge and treatment of the same can be converted into a commercial activity by using the produce like energy, compost etc and pay for it at a commercial rate.

**Used cases:**

I find that CEPT University jointly with C-WAS (Centre for Water and Sanitation, CEPT) and CRDF (Centre for Research and Development Foundation, CEPT) have under taken a study and Developed Business Models for FSSM and covered few used cases in the states of Maharashtra, Odisha and Andhra Pradesh etc. I propose that the Techno-Economic Viability Study be undertaken for such projects and a viable model could be evolved under Public Private Partnership.

I recommend following 2 Models to be studied:
Let me give a little flavour of how the banking industry can come forward and make a huge difference.

I would like to conclude saying that proper identification of the activity and arranging finance in a blended fashion and ensuring meticulous execution will be a success for achieving the SDG 6.2 (adequate and equitable sanitation and hygiene for all and end open defecation with special attention to girls, women and vulnerable) for sanitation in our country.

iii. The principle urges financial institutions to recognise that environmental issues are interconnected at local, regional and global levels, which makes it imperative for them to address issues such as climate change, global warming, biodiversity conservation through their lines of credit and investment also. Financial institutions should develop specific products and credit lines to support such projects.

6. Could you share some examples that come to mind to illustrate your point?

Financial institutions should invest in environmentally friendly products and businesses that enhance positive environmental impact.

iii. Financial institutions should explore collaborating with government, development finance institutions and other agencies, investors, and leverage existing schemes and lines of credit, use diverse instruments to mobilise capital directed towards clean technologies, climate mitigation and adaption, renewable energy, sustainable transport and such like.

The Indian Banks Association has already adopted the “National Voluntary Guidelines for Responsible Financing”. Responsible Finance requires integrating Environmental, Social and Governance risk management into Financial Institutions’ business strategy, decision-making processes and operations. The guidelines contain Eight Principles and five pillars of implementation. The Principle No 4 covers “Environmentally friendly products, services and investment”.

ii. Strategy, initiatives and products that address global environmental issues such as climate change, global warming, etc.

Descripion and applicability:

Areas of Disclosure

Model description

The same private firm operates both desludging and treatment service in the city. The treatment facility and trucks may be funded by the government or by private sector fully or partially. Recovery could be from the government (PPP contract) or from desludging charges. Desludging charges from H&Hs are the source of opex funding for conveyance and Treatment. Charges are collected directly by the operator (user charges) or indirectly through the government (FSSM taxes) which then pays the operator.

Benefits

- Integrated models offer efficiencies, convenience, and easier contracting with the same private provider.
- In an integrated approach, there is an incentive for the operator to bring all collected FSS to the plant for treatment.

Challenges

- Dependency on a single player (1) compounds risk of non-performance, and (2) crowds out existing smaller players.

Applicability

Relevant in areas where there are private players with capacity to manage both treatment and desludging operations.

Prototype 2: Integrated model with a cluster based approach

Model description

The same private firm operates both desludging and treatment service for a group of nearby cities. The treatment facility and trucks are funded by the private sector fully or partially. Recovery is mainly from desludging charges and partial from the government (PPP contract). Charges are collected directly by the operator (user charges) or indirectly through the government (FSSM taxes) which then pays the operator.

Benefits

- Cluster approach can provide efficiencies and cost recovery for treatment facilities.

Challenges

- Co-operation among cities, efficient road connections.

Applicability

Relevant in areas where there are private players with capacity to manage both treatment and desludging operations. Also where the nearby cities are willing to come together for a cluster approach, or where a private provider has the capacity to work with several nearby cities.
I would like to conclude saying that proper identification of the activity and arranging finance in a blended fashion and ensuring the meticulous execution will be a success for achieving the SDG 6.2 (adequate and equitable sanitation and hygiene for all and end open defecation with special attention to girls, women and vulnerable) for sanitation in our country.

6. **Could you share some examples that come to mind to illustrate your point?**

Let me give a little flavour of how the banking industry can come forward and make a huge difference.

The Indian Banks Association has already adopted the “National Voluntary Guidelines for Responsible Financing”. Responsible Finance requires integrating Environmental, Social and Governance risk management into Financial Institutions' business strategy, decision making processes and operations. The guidelines contain Eight Principles and five pillars of implementation. The Principle No 4 covers “Environmentally friendly products, services and Investment, details furnished below:

**Description and applicability:**

i. The principle recognises that financial institutions can play a vital role in minimising environmental damage and contributing to green growth by increasingly investing in cleaner and environmentally responsible businesses and products.

ii. The principle urges financial institutions to recognise that environmental issues are interconnected at local, regional and global levels, which makes it imperative for them to address issues such as climate change, global warming, biodiversity conservation through their lines of credit and investment also. Financial institutions should develop specific products and credit lines to support such projects.

iii. Financial institutions should explore collaborating with government, development finance institutions and other agencies, investors, and leverage existing schemes and lines of credit, use diverse instruments to mobilise capital directed towards clean technologies, climate mitigation and adaptation, renewable energy, water, sustainable transport and such like.

**Areas of Disclosure**

i. Strategy, initiatives and products that address global environmental issues such as climate change, global warming, etc.

ii. Lines of credit and investment in clean technology, energy efficiency, renewable energy climate mitigation and adaptation projects.

**Principle 4**

*Environmentally friendly products, services and investment*

Financial institutions should invest in environmentally friendly products and businesses that enhance positive environmental impact.
iii. Examples of collaboration for the above.

All the districts of the country are being managed by one or the other public sector banks (PSBs) as the lead bank. At the district level, there is a district level consultative committee which is chaired by the District Magistrate (DM) and this agency can be used for identifying projects, financing requirements and the ways and means of the finance. The bankers have set up large number of Financial Literacy centers in all the districts which can also be leveraged for creating necessary awareness and literacy about sanitation. Bankers have a network of more than 3,00,000 (3lakh) Business Correspondents who are actually servicing each and every household and therefore can be utilized for the said purpose.

7. What additional political and institutional reforms according to you need to be made in order to achieve SDG 6?

I believe that Banks, Nonbanking Finance Companies and Micro -Finance Institutions would be certainly eager to associate in not only creating awareness, literacy but funding of the projects if the projects are found to be commercially viable and feasible for implementation. We will have to explore whether the financing of an entity by lending institution alone would work or a blend of various stakeholders put together can make it a feasible and viable activity. As we know there are various Investors who are looking forward for investments through Development bonds, Impact bonds as well as Commercial bonds being floated by, particularly Urban Local Bodies supported by credit enhancement by the State Government. Besides lending or investment, huge funds are available under CSR and of course government subsidies directly or through PPP models.

Further Indian Banks Association (IBA) has said that India Sanitation Coalition may decide to recommend to RBI to consider any lending to sanitation up to 50 cr. should be treated as under priority sector lending.

They appreciated business correspondents and further said that District administration should monetarily incentivize in creating the leads for toilet construction in the rural areas.
1. **How do you believe WASH goals are being financed in India?**

The way WASH sector is financed across the world, is quite similar in practice in India. WASH sector is financed largely by public as in government funding and then there is a combination of loans from various multilateral and unilateral funding, those two have been the second largest chunk of WASH funding in India. Then come the philanthropists as well as private sector commercial funding in India and combinations of these four are usually found. In India, the largest is the public sector i.e. government funding, followed by micro loans, pure philanthropy and its combination.

2. **What are some of the innovative financing instruments / methods being used presently in India?**

Historically WASH sector is financed through public funds; because there's a belief that this sector is not conducive to commercial funding either due to high risk or perceived lack of demand due to low awareness. WASH sector was often considered non bankable, supported by only developmental / philanthropic funds. There has also been a belief that people who live at the base of the economic pyramid are un-bankable and hence dependant on government for access to safe water and sanitation.
Essentially Water.org’s work has been to address this market failure. Our belief is that people living in poverty pay very high rates for access to water and sanitation either in an actual way that is tankers or as a percentage of their income or coping costs - the number of hours spent in going and collecting water, time spent in finding a place to relieve themselves.

It is also our belief that communities and people do know what solution they need but a big barrier that often stands between them and the solution is the lack of upfront capital. That’s the barrier, we have tried to address not by investing in a new channel but by looking for channels which already reach people in poverty and those are - micro lenders, micro financing institutions, self-help group institutions, banks, small finance banks all of them reach the segment of the population with different products, our idea was if we could convince the financial institutions to also offer loans to people that they need for building water and sanitation infrastructure.

And that’s exactly what we have tried to do which now we have been doing for several years now. It started in India, we now work across 13 countries wherein financial institutions are giving small loans to people that either need to build their toilets or construct water sanitation infrastructure. And it was obviously hard first to convince financial institutions and people, financial institutions were worried that these loans seemed to be for non-income generating purpose and hence were worried how people will repay, they didn't think people will borrow to build a toilet or to build a piped water connection. Even for the communities themselves, during the SBM phase 1 they either didn't feel the need for building a toilet or about piped water connection they felt that government should give them access since this is a basic human right. We had these concerns from both sides and overtime these concerns have been addressed.

Water.org has now reached more than 4 million people in India about 1.2 crore people in India where a variety of micro finance institutions have made small loans to the tune of 3800 crores, our partners work across 23 states of India and the average loan size is just under 15,000. This is a blended finance example, the reason is the assistance we are providing to financial institutions, we are helping them design the loan product, we are helping them build the right collaterals, there is an inevitable behaviour change component, we are helping them train the trainers, we are helping them figure how to monitor whether the loan is used for the right purposes and where applicable we are giving them small grants for a limited period of time, and why we feel that is necessary is because we feel that lending is business for partners it is not charity. Because we believe only when it is a sustainable business it will continue otherwise if it is CSR money it will stop after some time.
But because these loans do require a little more effort in selling and monitoring and we know that the initial costs may be a little higher till the portfolio size increases, is the reason, behind us giving a small grant which is acting as a risk mitigator. Now not all financial institutions need that grant and not always there is a grant applicable to them. The way to think about this is whatever risk mitigation is needed for a limited period of time we will provide for it. Once the scale of the portfolio increases then no longer is any risk mitigant needed by the financial institutions and they can continue to lend. That is exactly what blended finance is, blending a small part of grant to a large part of commercial financing so that commercial financing can be made more viable.

Going back to my example of how our partners have lend close to 4,000 cr., now this 4,000 cr. is not something we have provided to them. It is a set finance that they have normally the access from banks, borrowings, various sources also from equity but the amount of grant is 1/40th of them. We have spent about 50 - 60 crores in grant, this amount of 50 - 60 crores has resulted into generating about 4,000 crores of commercial capital being spent in the sector and this is what blended financing is - blending of this philanthropic grant money to catalyse 4000 crores of lending.

Most of this blending happens at the bottom of economic pyramid, and people have no security for them. In this scenario the primary mechanism of doing this is group lending, mostly a SHG model, the group takes its own position saying that give us 'X' amount of money that we are taking a collective responsibility for and we commit to paying back. It allows them to use this money for various activities and primarily this concept is for income generation but we are a strong supporter of saying that water and sanitation are income enabling and by taking a loan for water and sanitation will guarantee better health and hence continue working for better incomes. That's the premise on which structuring is made. There are two parts here - the banks and the development financial institutions who provide the capital and then there are multiple channels that disburse these loans, there are SHGs, NBFCs, MFIs and there are SRLMs (State Rural Livelihoods Mission) who help promote, effectively there are a number of institutions that play a second role in promoting these funds so that people become aware of them. The key thing here is what is blended financing in this case.

3. What do you think are the challenges in financing WASH for India to meet SDG 6?

Let me begin with the global numbers, one of the biggest challenges globally in achieving SDGs is the amount of financing gap. The World Bank estimated that from 2016 to 2030 the world needs to spend 114 billion dollars every year to access WASH.
The amount of money actually spent is a third of that, thus every year there is a gap of about 80 billion dollars.

The next question arises that, is there enough water since here in India the challenge is over extraction of ground water. On the sanitation side while there is phenomenal progress by way of SBM, ensuring that every household has a toilet. However in urban areas, as far as the financial gap goes it is important to see where blended finance solution is practical so that the pure aid funding or public sector development funding can be directed towards where it is required the most. No point utilizing the public sector funds in areas which can benefit from partly funded blended solutions. This is the need of the hour.

I think 2 things are happening: lack of awareness and lack of marketing of SDG funding. What is happening especially talking about priority sector - for example agriculture is prioritized from the 1970’s, it is well entrenched into the system and it is easier to lend within the system which is approved. So a lack of awareness on SDG 6 is a huge gap and there are many SDGs and therefore many priorities, WASH being a very small part of it. Hence, the challenge is lack of capital, adequate capital not mobilized primarily because of other competing areas. WASH needs to be recognized as, the bankers need to understand it, this is beyond agriculture, small trader, artisan's work, it is something that impacts everybody but what it ends up getting is very little attention.

If we look at the entire sector then it seems hard to find a solution, it is important to break it down and look at each sub section - What's the biggest market barrier, what can we do in terms of blending to make it financeable, for example the solution that we spoke about, that is access at a household level, what can we do here to blend so that households are investing in their solutions, are they taking up ownership similarly if we now look at small businesses, small community water purification enterprises or small faecal sludge management companies again what's the barrier, are they able to access that capital, if not what can we do to give them that access so that they can get capital, so that more of these enterprises can be set.

So one of the ideas of blending, that we have experimented with and continue to work with is in the community water enterprises. Is there some sort of fee that can be provided to financial institutions, or if the total cost is for example 100 rupees, then can 20 rupees be a grant, partly equity, partly grant, partly loan so that the whole package becomes financeable. Similarly for FSM companies if they are unable to attract access to debt capital then what be done either from guarantees from an existing fund or some kind of grant funding so that
these kinds of enterprises become financeable. So I think, it is really important to break it down look at sub sections and then in the subsections figure out what is the market barrier and then find ways of addressing the market barrier.

These are certain risks that are bankable, when I talk about community water infrastructures they are viable businesses, FSM is a viable business.

What about unviable entities, for example if it is a water utility; if it is fundamentally unviable then you can’t use blended finance as your solution, because the first effort is to make that entity viable which means reducing the non-revenue water, it might mean reducing wastage of water, metering of water, it might mean overtime giving more access like a 2 hour guarantee, water tariffing, basically making the entity viable. It shouldn’t lead one to believe all challenges in water sanitation may be met by way of blending. We need to make sure first that the entity first is a viable entity. If it’s not a viable entity, whatever kind of blending you do you cannot make it financeable.

We had 2 sets of problems, either we have a utility company, in case of government entities - either we have inefficiency built in these organizations, corruption, policy, classic non-payments, delayed payments which make it non-attractive for a banker to even consider, the minute they hear we want to lend to a utility. On the other end of the spectrum, young sanitation enterprises that are upcoming, sometimes they are in the rural areas, sometimes they are in the urban areas as the ones like the Toilet Board Coalition has been promoting, and they have a separate set of problems, and here again as I said you’ve got to break down the challenges at the enterprise level into very different tracks.

You can certainly talk about blended finance as a concept and it can do many things, it can reduce your interest rate or the risk debt burden that you have or it can be converted into equity and therefore stabilize the organization.

What is important here that when we look at these smaller enterprises, we sometimes look at creating sophisticated investment options, I’ll call them sophisticated instruments of getting funds but some of the basic options are not utilized? For the banker, what is most important is if the small enterprise can easily demonstrate the stability of the business, their ability to write a business plan, how they will reach out to different market segments etc. If these are not established well, that's where the biggest challenge lies, to nudge these institutions to make an easier case while approaching the banks and get the bankers to in turn lend them capital.

4. According to you which is the best financing method that could be used to finance WASH projects in the country?
Finance can help reduce the interest rate, for example if 30 rupees of loan is needed, if 10 rupees can be given as grant funding, automatically the cost of loan comes down or you give some sort of partial guarantee, then the interest rate charged by the lender comes down, you can do all sorts of permutations and combinations to what makes sense, therefore, I do believe a blended finance, which can even be an outcome based approach can be utilized. So the outcome can be for the government as well.

If the government says that X number of households, should have access to FSM - when their tanks get full, the sludge is taken out in an economic manner and then is treated. If this outcome is met they are going to give X amount of relief, then this is an outcome-based funding.

This is also a form of blended financing. Provided the project/entity is viable then I think that blended finance is the way to go except there will be sections of society which are really poor, the really vulnerable who will always need a pure grant based funding.

In my view there is no best financing method; at this stage all forms of financing methods should be encouraged. So let’s understand what the main barriers are that we need to overcome, to make it attractive especially for the private investors, if you know the perceived and the real risk need to be either eliminated or reduced. The returns that one gets, in Vedika’s example, by improving returns and the level of blending will reduce the size of borrowings and therefore your returns will look much more attractive, you will get better break evens. This is all that the lender will be interested to see how and by when will returns come and will your project be successful from risk perspective. The two major things are that blending finance needs to create opportunities that are lower in risk or perceived risk and good returns on investment.

5. Do you think a mix of different financing methodologies i.e. philanthropic capital, outcome based financing, venture capital, etc. are the future of WASH financing in the country?

Financing is - somebody will lend money when two things are viable for them the operational cost and the risk cost. The lender/bank/organizations’ will lend if I don't have any risk and the returns are good.

On the other side the larger banks where we are working currently, we need to see whether they have risk guarantee. They are known as first loss risk guarantee and second loss risk guarantee. Basically, if you can take away some of my lending risk then I am happy to lend in the market. If you can take care of some portion of my Non Performing Assets (NPA) then it's a good idea because operationally I know I can manage. We understand the partner's
6. Could you share some examples that come to mind to illustrate your point?

An illustration I would like to talk about is MAVIM (Mahila Arthik Vikas Mahamandal). MAVIM is a self-help group promoting institution. It is a Maharashtra Government owned organization with its focus on women empowerment and livelihood and it works across all 35 districts of the state of Maharashtra.

Essentially what they have is several thousands of SHGs which are in turn federated. One self-help group will have about 10 - 20 women and this federated structure is called CMRC (Community Management Research Centre) under which there are about 10 - 20 SHGs. Each CMRC is registered and they have about 300 such CMRCs across Maharashtra.

MAVIM itself is not a lender but each SHG starts with savings. So say a group of 10 women will start with a small amount of saving and this helps the group become a client of the bank. This one group is equated as one client and if they have saved about 1,000 rupees then the bank will start giving loans for one is to one. One SHG is linked to only one bank. Therefore, for 1,000 rupees of savings, 1,000 rupees loan is provided.

And this loan is being used by different women for different purposes. One woman may use it to buy a cow another may use it to set up a small shop, another say uses it to build a toilet and that is how the self-help group works. As overtime the group becomes more mature, the lending to savings ratio keeps increasing. And in case one woman in the group is unable to pay her monthly instalment, the savings act as a buffer and that's how the self-help group creates a very good credit history with the bank. We started working with MAVIM 2-3 years ago as we were impressed by the structure of self-help group and the loans by the banks to the self-help groups that were predominantly for livelihood purposes. We asked if they could have lending for water and sanitation, we will have to determine whether there is a need for such an infrastructure and make sure that the banks allow for their loans to be used for such non income generational purposes.

And that's how we started working with them. And earlier we thought MAVIM would be interested in working with only a few CMRCs however they liked the idea and said they wanted all our CMRCs to be familiar with it.

We said we will help create the right collaterals, we will with train the trainer so that each CMRC can be trained and we will help work with the banks so that they understand that this is an acceptable risk and MAVIM has been a fantastic partner,
cumulatively now we generated 60,000 loans, and the number of people is about 2,50,000 - 3,00,000. And we continue to work with them.

7. **What additional political and institutional reforms according to you need to be made in order to achieve SDG 6?**

While the regulatory support is there, policy is there for lending in this sector, in terms of regulatory policy all wise things are there. I think what is needed much now is really a nudge, as Manoj mentioned some time back, there are a lot of competing priorities between FIs, so how do you really focus on this sector and how do you understand that access to safe water and sanitation if you solve the math actually means solutions for so many things like health, which is incredibly important in the times of Covid-19, it means a solution for education, food, gender, so many SDGs inter-linked. So how does one ensure that the regulatory and policy environment is very pro this sector and to nudge the institutions we certainly need regulatory and practical approaches. One could be with RBI can saying WASH will be on priority sector lending, but like how they have given a sub limit for agriculture, they could also give a sub limit for water and sanitation.

In effect all the banks will have to make an effort to understand this sector better and have to make an effort to lend in WASH. Both a carrot and stick approach can be used. RBI could use a carrot approach: if you lend in this sector then they will give you a credit in your priority sector. For example if you give a loan of Rs. 100 then it be counted as Rs. 150 basically, this can be a nudge by RBI for financial institutions to lend.

The government can also do similar nudges for example for SLBCs at the state level and similar committees at the district level (DLBC), the government, Ministry of Finance can say that at SLBC meetings which happen every quarter, the district meetings happen every month, it should be made a procedure to monitor and track the amount of lending happening for water and sanitation.

A simple thing like that can bring change, because no banker would want to come back every quarter with zero lending, if something is being monitored then inevitably there will be some results.

So, there are mechanisms like these that can be adopted which increase lending in the sector. The last thing I would say in terms of CSR again, right now CSR money can only be used as a grant but allow CSR to be catalyser either for some outcome based financing or to provide some guarantee, so let's say can CSR be allowed, about 20 - 25% of the total money catalytically so as to encourage more spending in the sector.
1. **How do you believe WASH goals are being financed in India?**

   It is estimated that $114 bn has been required per year since 2015 to solve the water crisis and achieve SDG6 by 2030 globally. The WASH sector witnessed funding of $35 bn in FY16 globally, highlighting how far behind we are in plugging in the required financial resources to achieve the SDGs. Philanthropy constituted 2% of the global funding for WASH. India has required $8 bn per year since 2015 to achieve the SDG6 and the key channels in the WASH Financing from the Indian context are - *Financial Institutions* (NBFCs/MFIs), Banks, MSME Financiers, Innovative Impact Investing, and Philanthropy. The WASH sector is at a very nascent stage in India and far from being able to attract adequate financial resources to achieve the SDG6. Having said that, the sector is slowly but evolving, with India disbursing 7 lakh loans in FY18 for WASH facilitating $140 million that have reached 3 million people. The channels for WASH financing have also evolved in India from only MFIs and SHGs in FY15 to the aforementioned avenues by FY19.

2. **What are some of the innovative financing instruments / methods being used presently in India?**

   India over the last 4-5 years has started seeing the emergence of *Innovative Financing instruments/mechanisms* involving efforts from multiple stakeholders to catalyse capital towards accelerating social impact and achieving the SDGs. Few of them are mentioned below -
- **SDG Impact Bonds (by Grameen Impact Investments India):** an innovative Pay for Success financial instrument for Social Enterprises/NGOs to catalyse additional private capital for their initiatives, incentivize them for impact, and reduce their cost of debt financing.

  **Example** - The Women Holistic Empowerment and Enhanced Livelihood (WHEEL) impact bond being the world's first domestically funded sustainable development goals bond (SDG bond) which would work towards helping 2,000 marginalized tribal women in Maharashtra and Madhya Pradesh to become self-reliant and empowered by training them to become poultry farmers (micro-entrepreneurs), with a specific outcome target of an average annual net income of ₹30,000 through this intervention.


- **Development/Social Impact Bonds:** Pay for success financing instruments used to link socially conscious private investors with enterprises that aim to deliver social outcomes. It draws on elements of impact investing, Public Private Partnership (PPP), and payments by result financing.

  **Example** - In this payment-by-results model, CIFF (as an outcome payer) promises to pay back the investor, UBSOF, the original investment amount plus extra returns as long as the agreed targets are delivered by Educate Girls (the service provider).

  (https://www.educategirls.ngo/dib.aspx)

- **Guarantee Backed Models:** Philanthropic funds used to provide guarantee to Financial Institutions/Banks/Impact Investors to catalyse additional capital in the market building it sustainably instead of providing one off grants on a project to project basis.

  3. **What do you think are the challenges in financing WASH for India to meet SDG 6?**

     The COVID-19 impact will be serious for the WASH sector - both positive (in terms of awareness of the importance of WASH) but in the short-term negative. Given existential concerns of the poor and migrants/gig workers, there is likely to be less focus on using any resources for construction of toilets, sanitation, etc. and more on basic sustenance, food and medicines.

     Some of the additional key challenges in financing WASH in India are-

     - Lack of understanding of the Product by Banks/Financial Institutions
4. **According to you which is the best financing method that could be used to finance WASH projects in the country?**

I strongly believe that SDG Impact Bond in the sector could go a long way towards addressing some of the key challenges highlighted above. We can work towards creating a SDG6 Sanitation Impact Bond that would provide credit facilities to a pool of MFIs to on-lend for their WASH portfolio and to a pool of Social Enterprises (SEs) to scale their innovative and affordable WASH solutions. The Bond would involve efforts from multiple stakeholders - Impact investor/Guarantor/MFIs/SEs/Outcome Funders (Philanthropic Capital including Government) that would achieve the following:

- Catalyse additional private capital in the sector
- Build the credibility and credit history for the MFI's and SEs WASH products
- Showcase the achievement of quantifiable impact through WASH financing
- Make the case for including WASH under PSL for Banks
- Open the doors to other avenues of funding/financing

5. **Do you think a mix of different financing methodologies i.e. philanthropic capital, outcome based financing, venture capital, etc. are the future of WASH financing in the country?**

Definitely, the WASH sector in India currently is at a nascent stage and requires innovative financing instruments/philanthropy/Government support to build the enabling environment and infrastructure for this sector to scale sustainably and make the sector attractive for more commercial investments. We have seen the similar evolution in other sectors.
like microfinance which at start was driven by philanthropic capital and credit guarantees but is now directly connected to the commercial capital markets. So, with time and efforts from all the stakeholders, more commercial investment from Venture Capital (VCs) and Private Equity (PE) is definitely the future for the sector.

6. **Could you share some examples that come to mind to illustrate your point?**

As I briefly mentioned above, Microfinance as a sector has seen similar evolution in the last 15 years. The Banks like that of Bandhan started as a not-for-profit entity which operated on a grant based models to provide micro loans to underprivileged sections of the society. It required efforts from multitude of stakeholders like that of Grameen Capital India, Rockefeller Foundation amongst others to come up with innovative guarantee mechanism at that time to use philanthropic grant as a guarantee to take a debt facility and thus enabling additional capital in the sector and making steps towards transforming microfinance as a sustainable for-profit business model. The sector as a whole since then has evolved to the point that NBFC-MFIs are now directly connected to the capital markets - both debt and equity; and also comes under PSL for Banks.

7. **What additional political and institutional reforms according to you need to be made in order to achieve SDG 6?**

Some of the key initiatives/reforms that we can work towards in addressing the challenges in WASH financing and achieve SDG6 are -

1. **Create Partial Risk Guarantee Mechanisms** with the development finance organizations like that of International Finance Corporation (IFC) to alleviate aversions of the financial institutions to provide capital in the sector.

2. **Create Innovative Financing instruments** like that of SDG Impact Bonds highlighted earlier with multiple stakeholders including the Government *(which can play the role of Outcome Funding)*.

3. **Advocacy towards utilization of Corporate CSR as a guarantee or outcome-based funding in the innovative financing instruments**

4. **Advocacy along with the associations like that of Indian Banks’ Association (IBA) to include WASH under PSL**
like microfinance which at start was driven by philanthropic capital and credit guarantees but is now directly connected to the commercial capital markets. So, with efforts from all the stakeholders, more commercial investment from Venture Capital (VCs) and Private Equity (PE) is definitely the future for the sector.

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Some of the key initiatives/reforms that we can work towards in addressing the challenges in WASH financing and achieve SDG6 are -

1. Create Paral Risk Guarantee Mechanisms with the development finance organizations like that of International Finance Corporation (IFC) to alleviate aversions of the financial institutions to provide capital in the sector
2. Create Innovative Financing instruments like that of SDG Impact Bonds highlighted earlier with multiple stakeholders including the Government (which can play the role of Outcome Funding).
3. Advocacy towards utilisation of Corporate CSR as a guarantee or outcome-based funding in the innovative financing instruments
4. Advocacy along with the associations like that of Indian Banks’ Association (IBA) to include WASH under PSL
5. Could you share some examples that come to mind to illustrate your point?
6. What additional political and institutional reforms according to you need to be made in order to achieve SDG 6?

How do you believe WASH goals are being financed in India?

It is a combination of government funding, commercial and philanthropic sources of funds. The government’s push for an open defecation free (ODF) country and the stimulus through subsidies played a critical role in steering commercial funding in the sector. While the sources remain the same, the implementation is being geared towards achieving the objective of sustaining ODF. The three sources of funding are also witnessing a change in their relative shares of the overall funding.

While the financiers focus on repair, upgrade activities, treatment and disposal of faecal sludge, philanthropic funding is also supporting programmes aimed at ensuring behavioural changes.

2. What are some of the innovative financing instruments / methods being used presently in India?

There is a growing consciousness in the market about SDG which is resulting in more innovative financing options being explored. Impact investing firms have also begun warming up to these innovative financing options which will, in turn, lead to a variety of funding choices for the sector, among them being social impact bonds, development impact bonds, diaspora bonds. Result based financing with strong monitoring mechanism, and Environmental Social and Governance (ESG) focused funding are some of the growing financing trends. There are also instances of crowd funding.
campaigns using platforms both within India and abroad.

3. **What do you think are the challenges in financing WASH for India to meet SDG 6?**

The biggest and immediate challenge in financing is to keep the momentum going on WASH and not let it slip in terms of priority and mind space for the funding agencies. Now that the first phase of construction of toilets has been achieved, it is imperative to understand that the next critical phase of repair, upgradation, construction of Faecal Sludge Treatment Plants (FSTPs) and sustaining these activities will need significant investments as well. Behavioural change has to also go hand in hand, and we are still far from achieving the objective on that front, while this has to be an on-going effort.

In these times, when India is in the grip of the Covid-19 pandemic, WASH and Covid-19 imperatives need to be integrated and funding agencies need to view this as an interdependent.

4. **According to you which is the best financing method that could be used to finance WASH projects in the country?**

It is not really about any option being the best. Given the scale of the requirement, all viable financing options should be on the table. Obviously, the most desirable option will be one which is both commercially viable for the funding agency and affordable from the point of view of the beneficiary community.

5. **Do you think a mix of different financing methodologies i.e. philanthropic capital, outcome based financing, venture capital etc. are the future of WASH financing in the country?**

Absolutely, we can never have a one-size-fits-all approach to WASH financing since there are varied stakeholders and at various economic strata. Therefore, it is absolutely necessary to have a mix of instruments catering to different requirements.

6. **Could you share some examples that come to mind to illustrate your point?**

Given that the CSR regulations make significant funds available, these can be also used for innovative funding solutions such as outcome funding, revolving loans etc. However, one needs to assess all aspects of this carefully since there are detailed regulations governing CSR expenditure.

7. **What additional political and institutional reforms according to you need to be made in order to achieve SDG 6?**

As mentioned earlier, it would be critical to integrate WASH and Covid-19 efforts. Because in the new world Covid-19 is here to stay and WASH financing needs to be woven in together with it. For sustaining WASH, it is essential that the conversation around it remains a priority so that the momentum of the hard work done this far continues.
Mr. Vikas Bali
CEO at Intellecap

1. How do you believe WASH goals are being financed in India?

At present, SDG6 is primarily financed through public finance mechanisms in India. However, innovative approaches have been adopted by the State and the Central Government to increase private sector involvement in urban infrastructure. Public Private Partnership models in which the private sector provides a part of the total funding requirement, Property tax mechanisms like Sanitation Cess are increasingly being encouraged in India to address the huge financing gap. Many philanthropic organizations and impact investors have also supported the development of the sector through grant support, capacity building and identifying innovative business models.

2. What are some of the innovative financing instruments / methods being used presently in India?

In terms of demand side financing, the Sanitation Credit models being adopted by microfinance institutions have been garnering attention. The loans, offered by MFIs at a lower interest rate and longer repayment period than other loans (for example, business loans), are to be used for either financing a new toilet, or to upgrade or repair an existing toilet. This model, if structured effectively to ensure appropriate usage, has the potential to scale across the country.

On the supply side financing, the Tamil Nadu government has been at the forefront of innovative financing. Their two interventions, Tamil Nadu Urban Development Fund (TNUDF) and its special purpose...
vehicle, Tamil Nadu Water and Sanitation Pooled Fund (WSPF) have the potential to replicate in other parts of the country. While TNUDF is largely utilized by the larger municipalities with predictable revenues, WSPF has been able to support smaller Urban Local Bodies (ULBs) in financing WASH projects. The Government of Tamil Nadu (GoTN) owns 72% of the capital and 28% is held by three Indian private financial institutions which have a majority stake in the asset management company that manages the fund, the Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL).

3. **What do you think are the challenges in financing WASH for India to meet SDG 6?**

The reasons why water and sanitation entrepreneurs struggle to access funding fall broadly into two categories: economic and regulatory barriers. Economic barriers include:

(a) **Low cash-flows:** In India, most of the WASH enterprises are dependent on public finance for Capital Expenditure (CAPEX) funding and are only able to generate minimal revenues through operations (which are further dependent on public finance). This limits their ability to repay commercial financing.

(b) **Tariff constraints:** Since, both Water and Sanitation sectors are considered under basic services, the private enterprises need to comply with tariff regulations and consequent implications on the top line.

(c) **Lack of sustainability:** Businesses' ability to develop economies of scale is limited due to the high cost of investment, and uncertainty about businesses' profitability. As a result, many business models are considered riskier as compared to other sectors. Commercial banks tend to limit their lending because of the inability of water and sanitation enterprises to prove their sustainability.

Regulatory barriers include:

a) **Capacity barriers:** Limited capacity among the public sector in designing appropriately scaled projects and suitable tendering for firms to operate these projects is one of the major hurdles.

b) **Legal frameworks:** The frameworks associated with these WASH projects and challenges associated with approvals (like access infrastructure, acquiring land etc.) also dampen investment.

4. **According to you which is the best financing method that could be used to finance WASH projects in the country? Could you share some examples that come to mind to illustrate your point?**

It has been established that private sector will need to address the huge gap in financing WASH infrastructure in India. In
order to attract more private sector capital into the sector, there’s a need to provide low cost debt for working capital. We need to explore options which blend grants and commercial capital to offer debt to these enterprises at a lower rate.

Risk guarantees sponsored by leading development financial institutions can also improve access to finance for enterprises by encouraging the banks to undertake riskier loans. Models like TNUDF and exploring tax components like sanitation cess may address the demand side financing challenges.

5. Do you think a mix of different financing methodologies i.e. philanthropic capital, outcome based financing, venture capital, etc. are the future of WASH financing in the country?

Blended finance structures are required to catalyse financing in the WASH sector. Purely grant based and commercial return based models have failed to develop sustainable business models. There is a need to reduce the burden of high cost financing on the enterprises in the early stage and hence blended models would be able to manage these challenges. Development Impact bonds in Education (Educate Girls and British Asian Trust) have started showing success in India. A pilot model can be developed and tested to support WASH enterprises in India. The sector can also explore innovative models like Social Venture Funds (SVF) which are classified as category 1 Alternate Investment Funds. An SVF with a focus on WASH sector can attract finance from donors and commercial investors and establish a financing mechanism which believes on muted returns.

A revolving fund which sources different forms of capital while addressing challenges like higher cost of capital and delay in realization of payments could be a useful mechanism to catalyse private sector funding in the sector.

6. What additional political and institutional reforms according to you need to be made in order to achieve SDG 6?

As discussed in the earlier sections, there is an urgent need to improve the capacity of the ULB staff to structure a sustainable project. The current project structures adopt a myopic view for private sector by curbing their innovation and scaling capacity. The structures curb the earning capability for the private sector. Risk mitigation in contracts is another major hurdle. WASH sector needs to adopt Model Contract documents like the road sector for their project. Currently the private sector is asked to manage risks which are not under their control (for example, delay in land acquisition does not include a clause on additional payment). Centre led models where appropriate directions on the framework, commercial structure, financing mechanism, operational issues etc., are provided is needed as part of the reforms.
1. How do you believe WASH goals are being financed in India?

Currently most of the WASH initiatives are being anchored by Government funding, but supported by other partners such as Corporates, bilateral and multilateral in a case by case manner.

2. What are some of the innovative financing instruments / methods being used presently in India?

Philanthropies and Corporates are playing a supportive role to the Government currently, facilitating the Swachh Bharat Mission (SBM) interventions.

3. According to you which is the best financing method that could be used to finance WASH projects in the country?

There is no one shoe fits all solution. The sector must be approached in a deconstructed manner along the WASH value chain. I'll illustrate this with an example -

To address access to quality drinking water in rural India multiple CSR and philanthropic bodies are building infrastructures, however the operational sustainability of this infrastructure also needs to be built through project financing. The success of the interventions by the CSR/Philanthropy is inextricably linked to the
efficient functioning of the infrastructure, thus project financing with a consortium of partners such as banks, government and philanthropy can allocate financing to establish market-based solutions.

4. **Do you think a mix of different financing methodologies i.e. philanthropic capital, outcome based financing, venture capital etc are the future of WASH financing in the country?**

Yes, while the Government will always play a key role in this sector, this must be backed up by support from other partners as well.

5. **Could you share some examples that come to mind to illustrate your point?**

When we consider treatment of water in urban area, the government and private sector has set up Sewage Treatment Plants (STPs), Effluent Treatment Plants (ETPs) and Common and Combined Effluent Treatment Plants (CETPs). However, governance is an issue as the treated water does not often match the required water quality standards - leading to untreated water being discharged into rivers and groundwater. Here there is an opportunity to create a market for solutions which can build the efficiency if the existing central systems. For example, a biotechnology start-up with organic products customized for different sectors (paper, FMCG etc.) to build the operational efficiency of the treatment infrastructure. However, such start-ups are CAPEX heavy and might require support. The support can come from different sources such as venture capital to establish the start-up and preferred credit terms from lending agencies to finance the CAPEX heavy installations (wherein costs are to be borne by the start-up or vendor themselves) which can be provided as a service by the start up or by a vendor distributor.

A similar use case of funding CAPEX heavy systems can be for recycling at source, today the opportunity costs of procuring water is expensive and recycling units can be set up at source to reuse the treated water for secondary purposes. Preferred credit terms allow such business models to become viable - thereby helping with scale.

6. **What additional political and institutional reforms according to you need to be made in order to achieve SDG 6?**

There is a need of integrating working capital requirement into existing policies. Working capital is always a concern for MSMEs and start-ups, creating a soft capital/ working capital fund for MSMEs for example, in menstrual hygiene space (incinerators are mandatory to treat sanitary napkins, but very expensive, hence needs to be a service driven model), or for start-ups with CAPEX heavy deep science solutions. The fund set up by the Government (SIDBI+ bilateral, multilateral and other funding agencies) can route the working capital through GoI recognized technology business incubators.
sanitation and in some cases, promote business approaches to sanitation. There are also ideas relating to channelling the corporate CSR into funds (per the CSR Act) to play a catalytic role in scale up of business models in sanitation.

3. **What do you think are the challenges in financing WASH for India to meet SDG 6?**

WASH needs much more financing than what is available right now. Further, as is typical of any infrastructure or utility business, WASH requires the development of long term assets. Currently, most of the financing available is short term and therefore it either burdens the sanitation asset or restricts the creation of sanitation assets which further restricts sanitation access.

4. **According to you which is the best financing method that could be used to finance WASH projects in the country?**

I think long-term development impact bonds where the outcomes are not just social impact but also business scalability will prove to be catalytic in building the
sanitation sector. These bonds while providing access to sanitation could also make sanitation SME's investment attractive.

5. **Do you think a mix of different financing methodologies i.e. philanthropic capital, outcome based financing, venture capital, etc. are the future of WASH financing in the country?**

Absolutely, provided we orient both philanthropy and outcome-based financing towards enabling business scalability to a point where venture capitalists or commercial investors could come in.

6. **Could you share some examples that come to mind to illustrate your point?**

In the TBC accelerator portfolio, which currently consists of 25 enterprises across 12 countries, we see a similar pattern - they started their journeys with philanthropic and outcome based capital which strengthened their business scalability and put them at the doorstep of commercial investors. In the last year alone, six sanitation enterprises have raised commercial capital.

7. **What additional political and institutional reforms according to you need to be made in order to achieve SDG 6?**

In terms of government support, there is urgent need to make the ULB's financially strong so that their contracts are deemed creditworthy by commercial investors. Additionally, procurement methods need to be friendlier to sanitation SME's who often do not have a deep financial track record.
SUMMATION

a) A problem for all

WASH has clearly moved centre stage globally with the advent of COVID-19. Prior to that, the issues around sanitation were viewed primarily in the perspective of the economically backward section of society. Today basic things like hand washing encompass all of society.

If this is a universal problem, then it is equally critical to integrate WASH and Covid-19 efforts. As Aloka Majumdar, HSBC says "Because in the new world Covid-19 is here to stay and WASH financing needs to be woven in together with it".

Royston Braganza from Grameen India's example highlights the challenge of giving importance to one over the other" Given existential concerns of the poor and migrants workers, there is likely to be less focus on using any resources for construction of toilets, sanitation, etc. and more on basis sustenance, food and medicines." There is an urgent need for balance with knee jerk reactions only creating greater problems.

b) Building awareness around the need

One of the good outcomes of Covid-19, if one can call it that is the immediate awareness of what requires to be done. Starting with the government all the way down the ladder it is evident that the need for hygiene in all aspects of life is paramount.

While a part of the population with access to data will know how to resolve their needs it is critical to address the issue of financing for those at the bottom of the pyramid. The need to be made aware of what is available, their eligibility and where it can be sourced using existing channels for communication and delivery which the poor are comfortable with. i.e. SHGs (Self Help Groups)

It is also important to educate the financial institutions on the bankability of this section of society. As Vedika Bhandarkar, the Chief of Global Impact for Water.org has said "There's also been a belief that people who live at the base of the economic pyramid are unbankable and hence dependant on government for access to safe water and sanitation".

However, true sustainability will only be attained if the right tools are made available to them to manage independently their own financial needs.

c) Managing Risk

One of the biggest challenges to the private sector getting involved is the issue around risk management. As Vikas Bali, CEO of Intellecap points out "Currently the private sector is asked to manage risks which are..."
not under their control for example; delay in land acquisition does not include a clause on additional payment. Centre led models where appropriate directions on the framework, commercial structure, financing mechanism, operational issues etc., are provided is needed as part of the reforms.

- As a solution, according to Venugopal Gupta, Toilet Board Coalition government support is an "urgent need to make the ULB's financially strong so that their contracts are deemed creditworthy by commercial investors. Additionally, procurement methods need to be friendlier to sanitation SME's who often do not have a deep financial track record"

**d) The importance of Financing**

It is clear that the single most important impediment to building a sustainable WASH structure in India is the availability of finance. While the government has been the primary financial supporter of the sector over the last several decades, it is clear that the private sector needs to step in and support the government programs on a dedicated basis.

Various types of financing models have been spoken about with one universal truth - there is no one model that will resolve WASH issues in their entirety. As Aloka Majumdar says "While the financiers focus on repair, upgrade activities, treatment and disposal of faecal sludge, philanthropic funding is also supporting programmes aimed at ensuring behavioural changes."

Looking at the issue from a commercially viable perspective Vedika Bhandarkar opines "we feel that lending is business for partners it is not charity. Because we believe only when it is a sustainable business it will continue otherwise if it is CSR money it will stop after some time" and Mr Tanksale adds "Unless the revenue is well-defined in terms of output products, its price and market of buyers to cover the debt servicing costs, such project will not find many takers. Cities like Indore and Nagpur have exhibited that the collection of faecal sludge and treatment of the same can be converted into a commercial activity by using the produce like energy, compost etc. and pay for it at a commercial rate"

Mr G. R. Chintala, very succinctly summarises the issue when he says "Ultimately, the availability of finance is primarily a function of government leadership and regulation, the operational strength of the service providers and coordination among the suppliers of finance.....Without addressing foundational issues in the sector, however, any finance mechanism, whether public, private or blended, will be a short-term, band-aid solution and the sector will continue the cycle of dependency on external assistance rather than fixing the root causes and building self-sufficiency"

Some interesting recommendations around financing expressed:
The importance of blended finance lending is to meet the need, thus, finance to be made available when required and as per the requirement of the stakeholders and not at the end of the process.

Microfinance - Size of the loan should not matter, it is the outcome that is relevant. The risk to be borne by the lending institution (blended finance = grant + commercial financing).

Largely financed through government funding - public private partnerships is the future.

Importance of self-financing at a household, community and business level by making finance packages available and within reach.

If microfinance reduces pressure on governments to support those closer to the poverty line, public funding can be more effectively targeted to the ABOP.

Integrating working capital requirement into existing policies. Working capital is always a concern for MSMEs and start-ups, creating a soft capital/working capital fund for MSMEs.

Create Partial Risk Guarantee Mechanisms with the development finance organizations like that of IFC to alleviate aversions of the financial institutions to provide capital in the sector.

Create Innovative Financing instruments like that of SDG Impact Bonds with multiple stakeholders including the Govt. (which can play the role of Outcome Funding).

Advocacy towards utilization of Corporate CSR as a guarantee or outcome-based funding in the innovative financing instruments.

Advocacy along with the associations like that of IBA (Indian Banks' Association) to include WASH under PSL.
India Sanitation Coalition (ISC), launched in June 2015, at Federation of Indian Chamber Commerce and Industry (FICCI), enables and supports safe and sustainable sanitation by bringing multiple organizations on a common platform through a range of catalytic actions. These include supporting the unlocking of WASH financing with focus on the private sector, forging partnerships with allied organizations for leading the discourse on sustainable sanitation; convening, curating and disseminating best practices in the sanitation advocacy — space and providing inputs into the policy aspects of sanitation through participation at allied forums.

**Vision**

To enable and support an ecosystem for sustainable sanitation.

**Mission**

To be an aggregator of knowledge and networks with nationwide outreach, focusing on models.