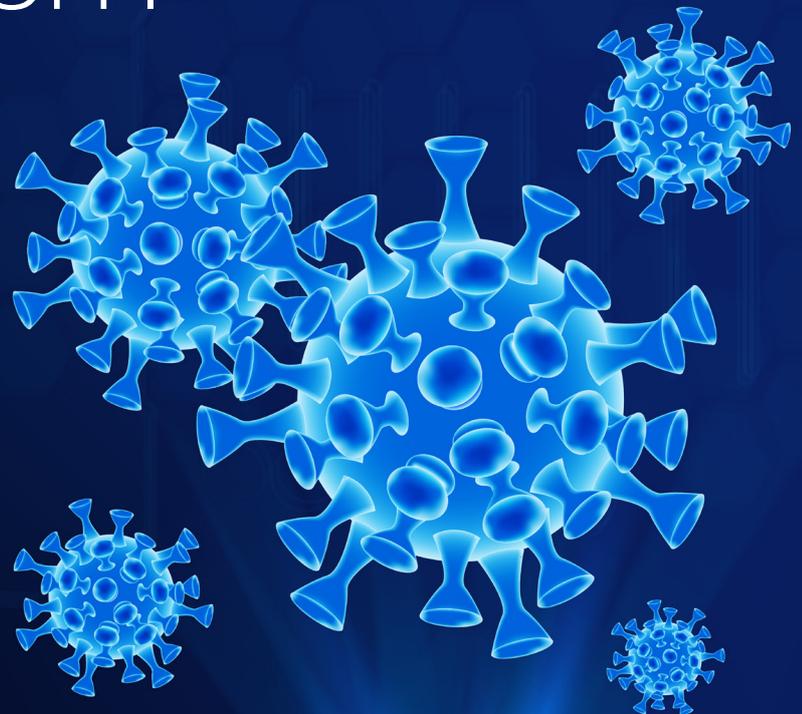


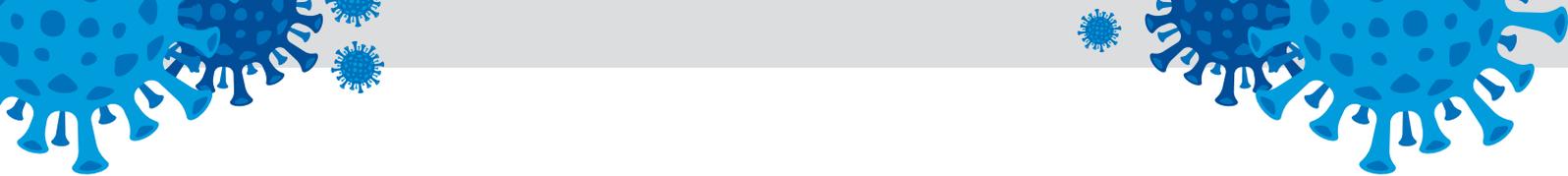


Potential impact of COVID-19 on the Indian sanitation ecosystem



April 2020

home.kpmg/in/covid-19



Foreword

Respond, not react

The COVID-19 pandemic is impacting our lives, as well as our social networks and transactions in ways that we are only now beginning to comprehend. Before the commencement of this year, all of us in the Indian sanitation ecosystem were looking forward to the next phase of India's WaSH (Water, Sanitation and Hygiene) programmes (Swachh Bharat Mission 2.0, Jal Jeevan Mission, etc.) in the urban and rural sectors. This black swan event is now compelling us to fundamentally reimagine the traditional ways of working and responding to the WaSH needs of the Indian people, and consequently all the stakeholders involved in this critical national mission—governments, the private sector, donors and civil society organisations, have to fundamentally rethink their strategies, policies, approaches, and ways of working, for attaining the desired outcomes. India has now seen over 18,600¹ confirmed cases, with several

large cities such as Mumbai, Delhi and Indore emerging as significant hotspots. COVID-19 has impacted all sanitation stakeholders and it is a great concern that some of the most vulnerable, the most exposed, and the most affected are India's sanitation workers. It is essential to pause for a moment and acknowledge the contribution of these cleanliness champions who are putting their own lives on the line and working on the frontlines for preventing the spread of the virus thus keeping us safe and healthy. We must always remember that it is their work in exposed conditions that keeps us safe in our homes.

The local, state and national governments are also responding with all their resources not only to contain the spread of the infection but also to ensure that essential services are being provided, apart from additional responsibilities like doorstep delivery and lockdown/isolation maintenance. Donors and

1. COVID-19 Coronavirus Pandemic, Worldometer; accessed on 21 April 2020

Foreword...*ctd.*

development partners have also stepped forward, providing emergency response assistance, technical support to the government, etc. Furthermore, civil society organisations are playing a significant role not only in supporting continuity of services in cities, but also supporting the urban poor and the vulnerable communities who are most exposed to this crisis.

Similarly, private sector players in the ecosystem are facing significant headwinds as capex projects have come to a halt and payments and liquidity are emerging as significant problem areas, apart from shortage of workers due to the lockdown.

We believe that a concerted effort led by the government, and supported by all parts of this ecosystem, is the need of the hour to maintain the momentum that this sector has acquired in the past five years, and to attain the outcomes of the programme, which are so critical for ensuring

the security and well being of all Indians, as the pandemic has so dramatically demonstrated.

This crisis has also strikingly demonstrated that individual security and well-being are absolutely contingent on the health-security architecture of societies at large, and that efficient and sustainable public sanitation systems are therefore a sine-qua-non for ensuring the welfare of all Indians.

We have put together this paper in an attempt to understand the possible impact of COVID-19 on the Indian sanitation ecosystem, and propose a range of recommendations to mitigate them, as well as to facilitate fast recovery..

Stay safe, stay strong.



Nilachal Mishra

Partner - Infrastructure,
Government and Healthcare
Head - Government
Advisory, KPMG in India

Executive summary

COVID-19 has infected nearly 2.5 million people in more than 210 countries.² Beyond the human tragedy, this pandemic has also ravaged the entire world economy. Human and economic cost is likely to be more significant for lower and middle-income countries, that generally have limited coverage and capacity of water supply and sanitation systems, lower healthcare capacity and larger informal sectors.

This paper, prepared by KPMG in India and RTI, has been put together using insights from more than 25 interviews with senior sanitation sector experts. Key findings are as below:

- Significant decline in government spending expected in short term, impacting new projects
- No significant policy shifts anticipated
- Sanitation workers are in the frontline, and are expected to be affected significantly, shortage of PPE especially in smaller towns
- Revenue contraction at local government level impacting capacity for investments
- Ongoing projects significantly impacted not only by delay in payments, but also a crippling shortage of labour due to reverse migration
- Revenue impact significant for private sector, leading to cash-flow issues, exacerbated by supply chain disruption
- WaSH services to urban poor significantly impacted
- For donor agencies, short term budgetary diversion to healthcare and emergency response expected; WaSH expected to remain priority in the medium to long term for those where it is already a priority
- Increased willingness to pay for quality WaSH services expected in medium to long term.

Strategic recommendations:

 <p>1</p>	 <p>2</p>	 <p>3</p>
<p>Protecting our sanitation workers – Swachhagrahi Safety, Assurance and Financial Empowerment Scheme (Swachhagrahi-SAFE)</p>	<p>Reinvigorating private sector participation in the sanitation ecosystem</p>	<p>Shift ODF strategy – household toilets for all</p>
<ul style="list-style-type: none">• Life and health insurance• Upskilling for longer term livelihood solutions through NSKFDC• Provisioning of PPE.	<ul style="list-style-type: none">• Enabling policies to improve contracting ecosystem• Risk weighted credit guarantee fund• WaSH incubator/accelerator• Policy for small business/ startups.	<ul style="list-style-type: none">• Shift away from community toilets in slum areas• Convergence with PMAY to provide household toilets for all.

2. COVID-19 Coronavirus Pandemic, Worldometer; accessed on 21 April 2020



Sector overview

Size of sector

INR1,718 crore (gross value added, 2017-18)²

Estimated number of sanitation workers in India

5 million (approx.)³

Key programmes/missions on sanitation

- Swachh Bharat Mission – Urban and Gramin
- Atal Mission for Urban Transformation (AMRUT)
- Jal Jeevan Mission

Spend by Government of India on WaSH programmes (2019-20)⁴

- SBM Urban – INR1,300 crore
- SBM Gramin – INR8,338 crore
- AMRUT – INR6,392 crore
- Jal Jeevan Mission (erstwhile National Rural Drinking Water Program) – INR10,000 crore

Critical citizen-facing services

Sanitation

- Desludging of septic tanks, maintenance of network sewers and drains
- Operations and maintenance of sewage-treatment plants and fecal sludge-treatment plants
- Operations and maintenance of community and public toilets

Solid waste management

- Collection and transportation of household waste
- Cleaning and sweeping of public spaces and roads
- Processing of wet and dry waste
- Operation and maintenance of landfill sites.

2. Annual Survey of Industries 2017-18, Ministry of Statistics and Programme Implementation, Government of India, accessed 9 April 2020

3. The Sanitation Workers Project, accessed 9 April 2020

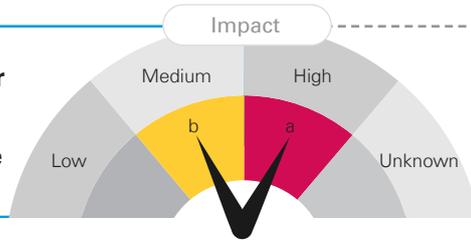
4. Numbers are revised budget for 2019-20; Source: Expenditure Budget from Union Budget 2020-21; accessed 10 April 2020

Current and potential impact

National and State Governments

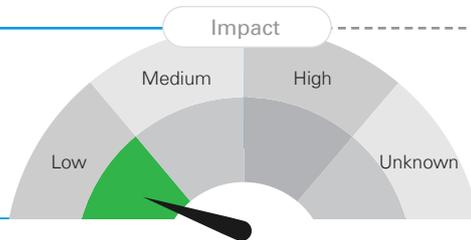
Investment in the sector

- a. Capital expenditure
- b. Operational expenditure



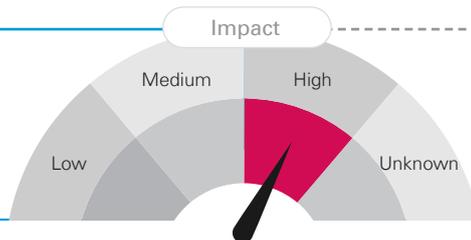
Government spending may decline in the short term and new sanitation projects might get delayed.

Policy changes



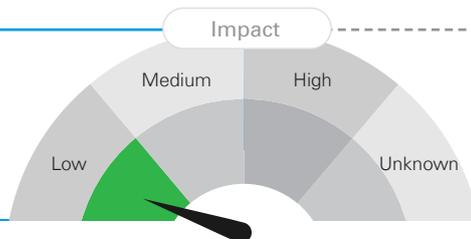
Significant policy changes in sanitation not expected; however, increased focus on personal hygiene foreseen.

Sanitation workers



Sanitation workers are at the frontline. Limited access to PPE, healthcare and economic safety nets affect them significantly.

Change in sanitation focus areas

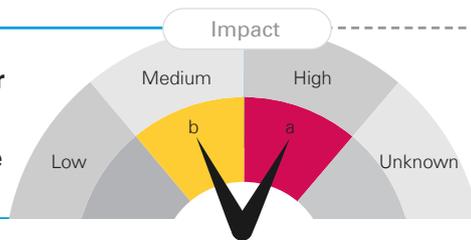


No significant shift expected in the short to medium term.

Local governments/Urban Local Bodies

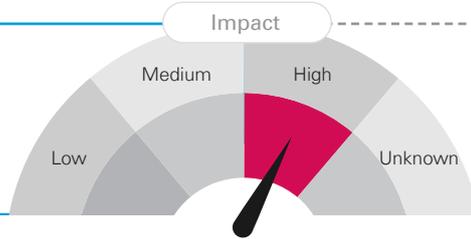
Investment in the sector

- a. Capital expenditure
- b. Operational expenditure

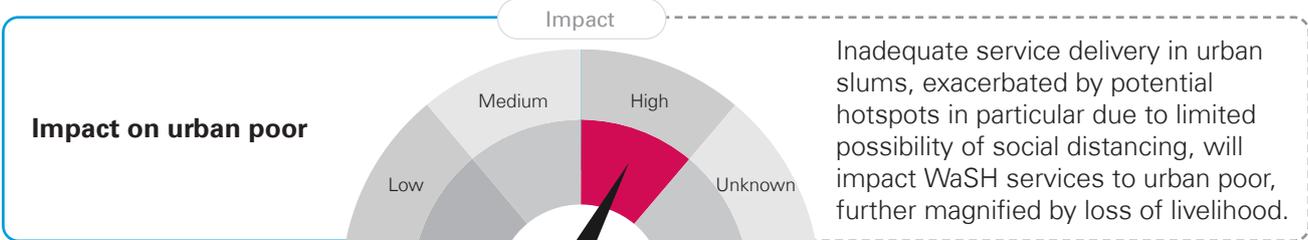
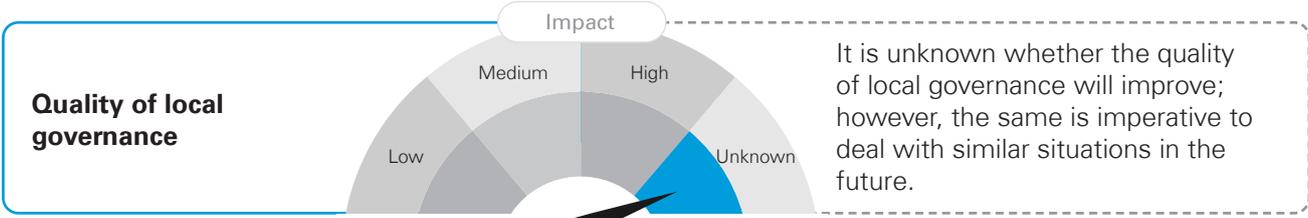
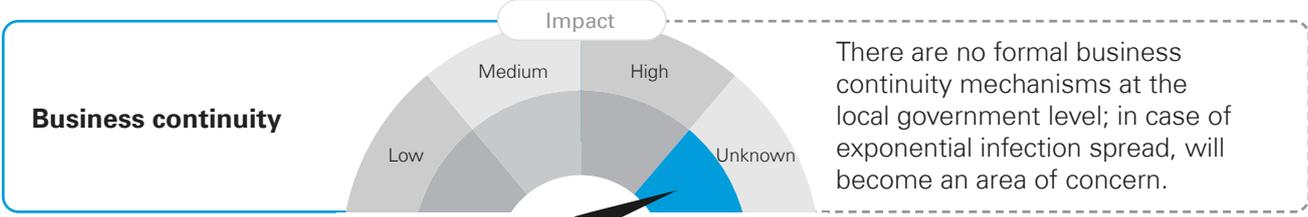
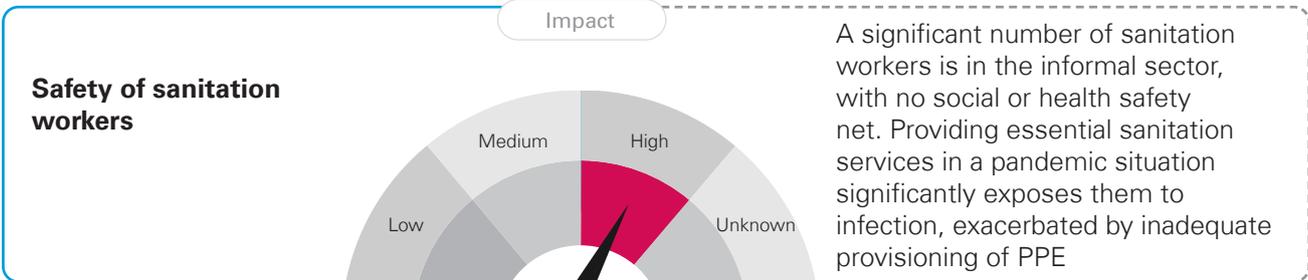
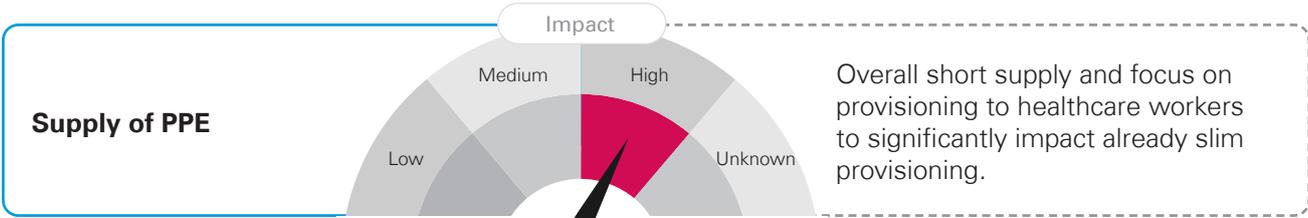


Inevitable revenue contraction is expected to limit local government's capacity for new investments further, i.e., local governments may have to delay capital-intensive projects

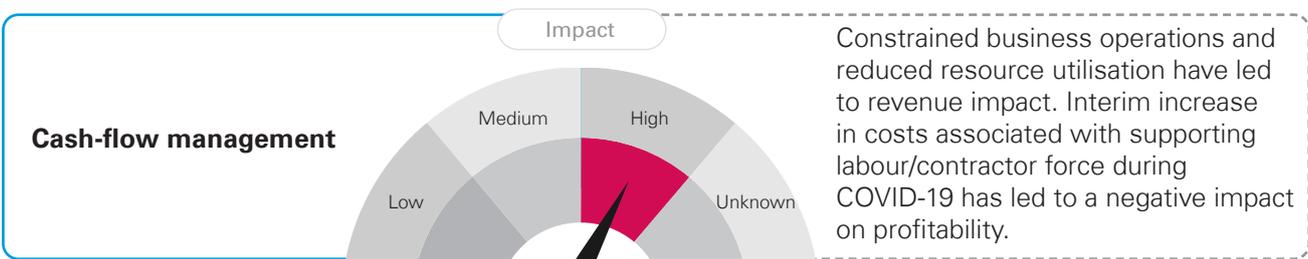
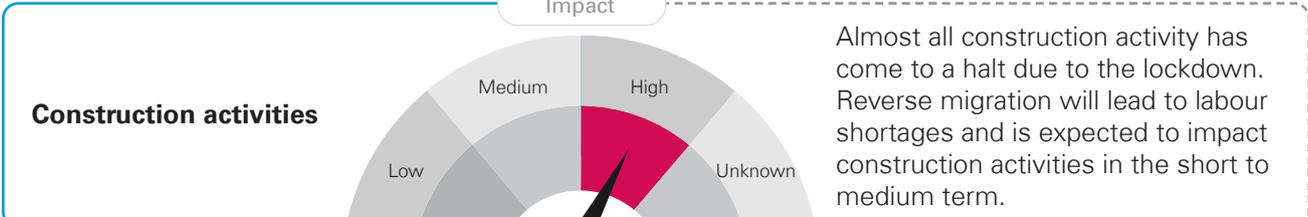
Shortage of human resources



Reverse migration not expected to correct in short term, leading to a crippling shortage of contract labour.



Private Sector



Business opportunities

Opportunities for innovation towards making WaSH systems communicable disease resilient. Collaboration between sanitation and healthcare private-sector companies to offer an integrated value proposition.

Business continuity

Supply chain disruption - availability and transportation of raw materials, including cement, steel, chemicals and other resources.

International/national donor agencies

Budget reallocation | reprioritisation of WaSH

Existing budgetary outlays not expected to be impacted significantly; however, reallocation of resources towards emergency response and healthcare is expected, especially for smaller donors/foundations.

New priority or focus areas

WaSH expected to remain a priority (for those where its already a priority); however, focus on emergency response and livelihoods is expected to increase in the short term

Citizens/civil society organisations

Access to sanitation services

Increased willingness to pay for quality sanitation services expected over the medium to long term. This will help to improve the financial viability of WaSH services.

Behaviour change for personal hygiene and safe sanitation practices

A significant shift in behaviour related to personal hygiene anticipated, expected to result in better and sustainable sanitation outcomes.

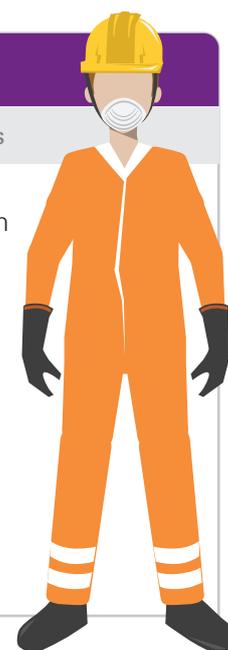
Recommendations

Guidelines and advisories

Short to medium term recommendations	Long term recommendations
<ul style="list-style-type: none"> • COVID-19 has brought to light areas that need to be strengthened to sustain ODF (Open Defecation Free). For example, community and public toilets are considered potential hot spots of COVID-19. In light of the above, a modification is required to existing ODF/ODF+ guidelines to make these sanitation systems COVID-19 resilient • Advisory on separate collection, transport and scientific disposal of bio-medical and fecal waste generated from quarantined households/communities. 	<ul style="list-style-type: none"> • Changes in existing policies would be needed to align with health-related outcomes • Development of an integrated waste-management policy for optimising the use of recycled waste • Modifications to solid waste management plans are required to make them COVID-19 resilient needs to be developed by cities.

Business continuity and return to normalcy

Short to medium term recommendations	Long term recommendations
<ul style="list-style-type: none"> • Respond to the emergency need for sanitation services and prioritise the same. Waste collection and desludging needs to be carried out at regular intervals with proper use of PPE • Awareness and safety training programmes to be organised for sanitation staff • Activities need to be undertaken to ensure continued operation of FSTPs and STPs • Sanitation workers need to be motivated to continue sanitation working during this crisis. Measures need to be taken to retain and attract more sanitation workers • Resume construction work on existing FSTPs, STPs, and other sanitation-related projects. 	<ul style="list-style-type: none"> • Look at ways of availing user charges for sanitation services for revenue generation and project sustainability.



Protection of sanitation workers (Health and livelihood)

Short to medium term recommendations	Long term recommendations
<ul style="list-style-type: none"> • An adequate supply of PPEs and enforce the use • Logistics arrangements and approvals for transportation of PPEs need to be prioritized and fast-tracked • Regular health check of sanitation workers needs to be carried out and, if infected, self-isolation arrangements need to be made • Work in rotational shifts to reduce any possible exposure to the infection and avoid service disruptions • Exempt old and high-risk (from co-morbidity perspective) category sanitary workers from duty. 	<ul style="list-style-type: none"> • Capacity building of sanitation workers to ensure mandatory usage of PPEs • Economic/healthcare safety nets (for example, life and health insurance) for sanitation workers and their families in the event of getting infected.

Recommendations

Sustaining behaviour change for safe sanitation practices

Short to medium term recommendations

- IEC campaigns for increased awareness among citizens in terms of handwashing hygiene, and sustained use of toilets, and cleanliness of public spaces.



Protection of urban poor/vulnerable communities

Short to medium term recommendations

- Disinfecting and proper cleaning of community and public toilets with the provision of soap and sanitisation material
- Waste management and desludging services to focus on slum and densely populated areas for catering to emergency needs.

Long term recommendations

- Provision of individual household toilets (IHHL) for urban poor – transition from community facilities
- Discourage citizens from reverting to open defecation.

Private sector

Short to medium term recommendations

- Ensure continuity of contracts and payments
- Increase and enhance partnerships to improve short-term service delivery.

Long term recommendations

- Promote private sector partnership and help build the technical capacity of city utilities to implement sanitation projects effectively
- Focus on identifying pathways to improve the financial and economic viability of sanitation PPP projects.





1

Strategic recommendation

Protecting our sanitation workers – Swachhagrahi Safety, Assurance and Financial Empowerment Scheme (Swachhagrahi-SAFE)

A comprehensive national programme to provide social and healthcare safety net to sanitation workers (formal, contractual and informal) is the need of the hour. This should include the following.

1. Life Insurance to the tune of INR50 lakh
2. Coverage in employee provident fund, with individual contribution funded through a pool of funds
3. Health Insurance with enhanced cover of INR25 lakh, integrated with Ayushman Bharat
4. Pool of funds to ensure provisioning of adequate PPE
5. Converged scheme through the National Safai Karamcharis Finance & Development Corporation (NSKFDC) to promote livelihood opportunities not only for the sanitation workers, but their children as well.

Sanitation workers provide essential services and play an integral role in maintaining the safety and hygiene in our communities, which is crucial now more than ever, in light of the ongoing COVID-19 crisis. Being at the frontline of pandemic, the sanitation workforce is at higher risk of exposure to the virus. Yet the safety and other needs of sanitation workers are often not provided for and they consequently suffer all the worst effects of poor sanitation: injury, infection, stigma, among others. They also lack economic and social safety net protecting their livelihood.

In addition to millions of workers employed by government and private agencies in sanitation services, there are thousands of informal sanitation workers who are generally not recognized by the administration. They also face disadvantage of not having access to any protective gears or training on handling and disposal of hazardous waste. In order to incentivize sanitation workers and ensure their safety during this crisis, initiatives must be taken by the National, State and Local Governments to protect their health and livelihood.





2

Strategic recommendation

Reinvigorating private sector participation in the sanitation ecosystem

In view of the inevitable economic downturn, the sanitation sector could provide for significant economic opportunities over the short to medium term. The government, to facilitate this, could explore a dedicated programme to streamline private-sector integration into the sanitation ecosystem, hitherto dominated by public utilities. This should include the following.

1. Enabling policies for risk pooling, outcome-based contracts, escrow-based payment mechanisms, cash flow-based payment milestones, etc.
2. A risk-weighted credit guarantee fund could be set up to lower the cost of capital for WaSH enterprises
3. Policy for small business/ startup set aside in public WaSH contracts
4. Dedicated WaSH incubator and accelerator in partnership with industry bodies and technical institutions.

It is evident that the sanitation sector plays an important role in the prevention and containment of disease outbreaks such as COVID-19, and the lack of effective solid and liquid waste management systems can impact the larger system of pandemic management. In situations like these, it is vital that the public and private sector work in tandem, to fill the widening gap of demand and supply of essential services.





3

Strategic recommendation

Shift ODF strategy – household toilets for all

The urban sanitation schemes in India have prioritized on “provision of options” for sanitation rather than ensuring a single point approach of toilet construction for each household. Though it has been successful in ensuring coverage of all citizens to safe sanitation facilities, but much emphasis was required on the community hygiene practices to be inculcated amongst the beneficiaries of these facilities. In the present scenario, it is evident that social distancing would become the new normal in the days to come irrespective of the pandemic showing signs of containment or spread. This would lead to a much larger apprehension amongst the vulnerable sections of the society on using community or public toilets. The usage of shared/ common toilets cannot be discouraged in these times but at the same time, the focus on

ensuring sanitation facilities to all sections of the society cannot be undone with. It is necessary that adequate emphasis is given to ensure community hygiene practices become the new normal for such vulnerable communities. This would ensure seamless transition from shared toilets to individual toilets and will provide adequate window for planning the roadmap by local governments to ensure individual toilets are provided to all.

Thus far, in urban slums where space has been a constraint for provisioning individual household toilets, community/ shared toilets have been used to ensure no open defecation and safe sanitation practices. However, the same comes with an inevitable issue to limited potential for social distancing. India will, in the immediate term, need to shift its strategy for ODF sustainability to provide

individual household toilets for all, perhaps in convergence with slum redevelopment schemes, and/or the Pradhan Mantri Awas Yojana (PMAY) and potentially the National Urban Livelihood Mission (NULM).

Convergence of these three missions with their respective mandates when brought together under a unified approach would ensure such citizens who are most impacted due to the evolving circumstances of COVID-19 are provided with necessary support and will also significantly contribute to longer term ODF sustainability.



Acknowledgments

We are sincerely grateful to the following stakeholders for extending their knowledge and insights to prepare this paper.

- **Mr VK Jindal**
Joint Secretary, and National Mission Director, Swachh Bharat Mission (Urban), Ministry of Housing and Urban Affairs, Government of India
- **Mr Binay Jha**
Director, Swachh Bharat Mission (Urban), Ministry of Housing and Urban Affairs, Government of India
- **Mr Suneet Mehta**
Deputy Secretary, AMRUT, Ministry of Housing and Urban Affairs, Government of India
- **Mr Sudhakar Bobade**
Executive Director – Maharashtra Urban Development Mission, Government of Maharashtra
- **Mr Anand Rudra**
Senior WaSH Sector professional
- **Mr Sameer Rege**
CEO & Director, Mailhem Ikos Environment Pvt Ltd., and Nashik Waste Management Pvt Ltd
- **Mr Rajeev Kher**
Managing Director, 3S India,
- **Mr Sampath Kumar**
Managing Director, TIDE Technocrats and Executive Director, Kalyani Cleantech Private Limited
- **Mr Nimish Shah**
Managing Director at Toilet Board Coalition, India Chapter
- **Mr K S Suresh**
Head – Wastewater BU
- **Mr S Giridharan**, Head – Rural Water Supply BU
- **G. Balasubramanian**
Head - Corporate Center, Water & Effluent Treatment IC, and others at Larsen and Toubro Construction-Water and Effluent Treatment:
- **Dr Rakesh Kumar**
Director, National Environmental Engineering Research Institute
- **Mr Rajan Samuel**
Managing Director – Habitat for Humanity, India
- **Ms Pratima Joshi**

Executive Director – Shelter Associates

- **Mr Sanjay Sharma**
Deputy CEO – Ecogreen Energy Gurgaon Faridabad Private Limited
- **Mr K S Anand Khumar**
DGM – Ramky Enviro Engineers Limited
- Other sector experts
ULB officials, private sector leaders and citizens who have provided significant inputs

Authors

- **KPMG in India:**
 - Abhinav Akhilesh
 - Arpit Guha
 - Prabal Bhardwaj
 - Tina Mathur
- **RTI:**
 - Nutan Zarakpar
 - Kapil Adackaconam Suresan

Research and analysis support

- Himanshu Chaturvedi
- Ikshwaku Sharma
- Priya Iyer (RTI)
- Sreejita Basu
- Vaibhav Rao

Brand and compliance

- Darshini Shah
- Nisha Fernandes
- Satyam Nagwekar

About KPMG in India

KPMG in India, a professional services firm, is the Indian member firm affiliated with KPMG International and was established in September 1993. Our professionals leverage the global network of firms, providing detailed knowledge of local laws, regulations, markets and competition. KPMG has offices across India in Ahmedabad, Bengaluru, Chandigarh, Chennai, Gurugram, Hyderabad, Jaipur, Kochi, Kolkata, Mumbai, Noida, Pune, Vadodara and Vijayawada.

KPMG in India offers services to national and international clients in India across sectors. We strive to provide rapid, performance-based, industry-focussed and technology-enabled services, which reflect a shared knowledge of global and local industries and our experience of the Indian business environment.

About RTI International

Established in 1958, RTI International is an independent, non-profit research and consulting institute dedicated to improving the human condition. We support clients to develop solutions that demand an objective and multidisciplinary approach, one that integrates expertise across the social and laboratory sciences, engineering, and international development. RTI International - India is a wholly-owned subsidiary of RTI International. RTI's contribution to this publication is a part of its ongoing program in India funded by AusAID's Water for Women (W4W) Fund. The W4W Fund is supporting improved health, equality and wellbeing in Asian and Pacific communities through socially inclusive and sustainable water, sanitation and hygiene (WASH) projects.

KPMG in India contacts:

Elias George

Partner and Head

Infrastructure, Government and Healthcare

T: +91 124 336 9001

E: eliasgeorge@kpmg.com

Nilachal Mishra

Partner

Head - Government Advisory

Infrastructure, Government and Healthcare

T: +91 124 669 1000

E: nilachalmishra@kpmg.com

Dr Abhinav Akhilesh

Director

Human and Social Services

Infrastructure, Government and Healthcare

T: +91 124 669 1000

E: abhinavakhilesh@kpmg.com

Dr Sanghamitra Bhattacharya

Technical Director

Human and Social Services

Infrastructure, Government and Healthcare

T: +91 124 669 1000

E: sanghamitrab@kpmg.com

home.kpmg/in

RTI International contacts:

Shalabh Srivastava

Country Director

Research Triangle Institute Global India Pvt Ltd

T: +91 11 4128 7150

E: sssrivastava@rti.org

Nutan Zarpkar

Director - WaSH

Research Triangle Institute Global India Pvt Ltd

T: +91 11 4128 7150

E: nzarpkar@rti.org



Follow us on:

home.kpmg/in/socialmedia



The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2020 KPMG, an Indian Registered Partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved.

The KPMG name and logo are registered trademarks or trademarks of KPMG International.

This document is meant for e-communication only. (006_THL0420_DS)