Potential impact of COVID-19 on the Indian sanitation ecosystem

April 2020

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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 18,600\(^1\) 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

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

1. Protecting our sanitation workers – Swachhagrahi Safety, Assurance and Financial Empowerment Scheme (Swachhagrahi-SAFE)
   - Life and health insurance
   - Upskilling for longer term livelihood solutions through NSKFDC
   - Provisioning of PPE.

2. Reinvigorating private sector participation in the sanitation ecosystem
   - Enabling policies to improve contracting ecosystem
   - Risk weighted credit guarantee fund
   - WaSH incubator/accelerator
   - Policy for small business/startups.

3. Shift ODF strategy – household toilets for all
   - 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
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**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.

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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.
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**Supply of PPE**
Overall short supply and focus on provisioning to healthcare workers to significantly impact already slim provisioning.

**Safety of sanitation workers**
A significant number of sanitation workers is in the informal sector, with no social or health safety net. Providing essential sanitation services in a pandemic situation significantly exposes them to infection, exacerbated by inadequate provisioning of PPE.

**Business continuity**
There are no formal business continuity mechanisms at the local government level; in case of exponential infection spread, will become an area of concern.

**Quality of local governance**
It is unknown whether the quality of local governance will improve; however, the same is imperative to deal with similar situations in the future.

**Impact on urban poor**
Inadequate service delivery in urban slums, exacerbated by potential hotspots in particular due to limited possibility of social distancing, will impact WaSH services to urban poor, further magnified by loss of livelihood.

**Private Sector**

**Construction activities**
Almost all construction activity has come to a halt due to the lockdown. Reverse migration will lead to labour shortages and is expected to impact construction activities in the short to medium term.

**Cash-flow management**
Constrained business operations and reduced resource utilisation have led to revenue impact. Interim increase in costs associated with supporting labour/contractor force during COVID-19 has led to a negative impact on profitability.
**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 it's 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.
**Recommendaions**

### Guidelines and advisories

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<thead>
<tr>
<th>Short to medium term recommendations</th>
<th>Long term recommendations</th>
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<tbody>
<tr>
<td>• 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</td>
<td>• Changes in existing policies would be needed to align with health-related outcomes</td>
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<tr>
<td>• Advisory on separate collection, transport and scientific disposal of bio-medical and fecal waste generated from quarantined households/communitys.</td>
<td>• Development of an integrated waste-management policy for optimising the use of recycled waste</td>
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<td>• 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.</td>
<td>• Modifications to solid waste management plans are required to make them COVID-19 resilient needs to be developed by cities.</td>
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<td>• Awareness and safety training programmes to be organised for sanitation staff</td>
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<td>• Activities need to be undertaken to ensure continued operation of FSTPs and STPs</td>
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<td>• Resume construction work on existing FSTPs, STPs, and other sanitation-related projects.</td>
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### Business continuity and return to normalcy

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<td>• 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.</td>
<td>• Look at ways of availing user charges for sanitation services for revenue generation and project sustainability.</td>
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### Protection of sanitation workers (Health and livelihood)

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<td>• An adequate supply of PPEs and enforce the use</td>
<td>• Capacity building of sanitation workers to ensure mandatory usage of PPEs</td>
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<tr>
<td>• Logistics arrangements and approvals for transportation of PPEs need to be prioritized and fast-tracked</td>
<td>• Economic/healthcare safety nets (for example, life and health insurance) for sanitation workers and their families in the event of getting infected.</td>
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<td>• Regular health check of sanitation workers needs to be carried out and, if infected, self-isolation arrangements need to be made</td>
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<td>• Work in rotational shifts to reduce any possible exposure to the infection and avoid service disruptions</td>
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<td>• Exempt old and high-risk (from co-morbidity perspective) category sanitary workers from duty.</td>
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Recommendations

Sustaining behaviour change for safe sanitation practices

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<tr>
<td>• IEC campaigns for increased awareness among citizens in terms of handwashing hygiene, and sustained use of toilets, and cleanliness of public spaces.</td>
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Protection of urban poor/vulnerable communities

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<td>• Disinfecting and proper cleaning of community and public toilets with the provision of soap and sanitisation material</td>
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<td>• Waste management and desludging services to focus on slum and densely populated areas for catering to emergency needs.</td>
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<tr>
<td>• Provision of individual household toilets (IHHL) for urban poor – transition from community facilities</td>
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<td>• Discourage citizens from reverting to open defecation.</td>
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Private sector

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<td>• Ensure continuity of contracts and payments</td>
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<td>• Increase and enhance partnerships to improve short-term service delivery.</td>
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<tr>
<td>• Promote private sector partnership and help build the technical capacity of city utilities to implement sanitation projects effectively</td>
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<tr>
<td>• Focus on identifying pathways to improve the financial and economic viability of sanitation PPP projects.</td>
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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.
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.
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.
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