



Sanitation Capacity  
Building Platform

# RESILIENT URBAN SANITATION RESPONSE FRAMEWORK

## RESILIENT URBAN SANITATION RESPONSE FRAMEWORK (RUSR)



**Swiftiness**

**Timeliness of  
Response**

- Work Stoppages
- Functional sanitation infrastructure



**Appropriateness**

**Scale and  
Reach**

- Coverage of critical areas
- Coordination at all levels
- Appropriate deployment of available resources
- Use of innovation in response strategy



**Effectiveness**

**Systemic  
Effectiveness**

- Strategic Deployment of Sanitation Workers
- Emergency Measures taken & Outcomes
- Treatment and Safe Disposal of Infected Material
- Urban sanitation systems strengthening

The Resilient Urban Sanitation Response Framework (RUSR) has been developed based on the challenges of Covid 19. It assesses the sanitation response from the lens of Swiftiness, Appropriateness and Effectiveness. It can be applied to a city or any administrative unit, like a District or a City or a State government - that is engaged in direct emergence response work – to develop a benchmark for understanding and assessing the emergency response.

The RUSR framework is a practitioners guidance tool for assessing a disaster response from an immediate response to an institutional effectiveness scale. Some of the highlights of RUSR are:

- Does not use jargon or indicators that cannot be measured and monitored. It is logical in its approach
- Provides a linear dimension that is missing from most frameworks and indicators – understanding what was done first and later on.
- Easily understandable by practitioners to assess their own work. More indicators can be added for a specific emergency response under the 3 main heads: Swiftiness, Appropriateness and Effectiveness.

The RUSR framework can be applied to not just urban sanitation but also other disaster response interventions (with appropriate changes).

### **RUSR Framework and its application for assessing Covid 19 Response effectiveness**

#### **Swiftiness**

The timeliness of response, can also be seen as a resilient indicator. How long did it take to initiate the pre disaster urban sanitation works. Was it 3 days or a week or more. Hence 1. Work stoppage Duration and 2. Functional Sanitation Infrastructure are two important indicators of swiftiness of response in terms of resumed operations.

#### **Appropriateness**

Resuming operations is not enough. What was done to resume operations in the most appropriate way, to address the sanitation challenges that needed priority attention in a city/state level. What was done to identify these challenges and how were resources deployed to serve the most vulnerable and risk prone communities. The four indicators that can be monitored are 1. Coverage of priority critical areas/communities and Safety of Sanitation workers, 2. Coordination of stakeholders to ensure an effective and appropriate response, 3. Appropriate deployment of Sanitation workers and Equipment, 4. Appropriate (not indiscriminate) deployment of innovative measures and technologies.

#### **Systemic Effectiveness of Response**

How effective were the coordination mechanisms and strategic deployment of resources and sanitation services is the most critical element of a disaster response. Was there any strategic deployment of sanitation workers like

the medical professionals were rationed and deployed by Hospitals? How were existing systems strengthened during the response to improve their effectiveness. Have the Integrated Command and Control Centres integrate into their routine working, the monitoring of sanitation services with an explicit public engagement protocol of information disclosure and sharing? What measures were taken to ensure sanitation workers safety as a systems effectiveness measure and not a one-time Covid 19 response action.

### **Swiftiness of Response**

A nationwide lockdown was announced on 23<sup>rd</sup> March 2020, initially for 21 days but has continued (with a graded opening up), till the date of writing this report at the end of July 2020.

#### **In future the ULBs will have to**

- Define the swiftiness of their emergency response protocols. Define the time frame within which restoration of essential services is ensured, as part of the standard operating procedure. Whether this is 24 hours or 48 hours, a definitive commitment in the protocols of ULBs to respond to any future disasters and lockdowns, should be done and defined in the ULB mandate and operation guidelines, as a lesson from Covid 19.
- Define what an effective use digital technology can be for an emergency response related to sanitation and other basic services. How this is integrated into the routine working of the Integrated Control and Command Centres of cities (that have them) and for other cities as well.
  - E Passes are issued to all sanitation service providers. For this, a regular system of updated municipal employees and contractual staff will have to be maintained and updated.
  - Information dissemination on sanitation workers in your area, de sludging tankers, waste collecting vehicles, supervisors, etc. – their contact details are available as part of normal functioning of Independent Control and Command Centres.

The sudden lockdown, did disrupt the normal processes and work of sanitation including solid waste and liquid waste management, road cleaning and the operations of septic tank cleaning. This is important given the suddenness of the lockdown that gave only 4 hour notice and led to disruption of all movement and services at a scale never witnessed before. Something that happens during sudden natural disasters like earthquakes (even Cyclones now provide a warning window of at least 48 hours and don't happen at a country wide level) or a war.

In many cities, sanitation workers did not have passes for movement, vehicular movement was blocked leading to difficulties for workers to reach their normal designated work areas, and services of desludging septic tankers, solid waste dumpers was also curtailed. In the absence of clear protocols on emergency response, this disruption in sanitation services occurred in many if not all the cities of India.

### Appropriateness of Response

Urban Local Bodies were stretched to their limit, in responding to Covid 19 at several fronts, not just sanitation. An APPROPRIATE sanitation response has to factor in the other pressing priorities: 1. Health services provisioning including “Tracing of Infected patients and their Contacts”, Covid 19 Testing at scale, 2. Hot Spots management, 3. Distribution of food to the vulnerable and poor, 4. Managing the lockdown with Police department and above all 5. Community and People engagement to constantly inform, educate and support the people.

Appropriate sanitation response implies that **available resources** of sanitation workers, equipment and services, were well accounted for and deployed in the most appropriate way possible and **additional hiring** and **incentives** for workers were adopted where required. That the available resources were **deployed in proportion to the need and vulnerable communities across a city**. That there was a mapping of and reach out done for the most vulnerable communities specially the slum dwellers and informal settlements, those without shelter or street dwellers who could not access safe water and sanitation. That they were not left out.

Here both the **intent**(measured in terms of a conscious coordinated mechanisms of different stakeholders to reach out to map, plan and implement WASH services for the most vulnerable) and the **evidence** on the ground in terms of most appropriate deployment of sanitation workers and services in the critical wards and zones of the city, are important measurable indicators.

**Education, Awareness and Training on Sanitation Workers Safety** for different works including using PPEs and hygiene, hand washing and self-cleaning practices – are also a critical element of an appropriate response. You may have deployed your resources well but without adequate awareness and support on how to protect the workers.

Innovative measures for addressing the resumption of services, the use of IT technology including Drones and App based monitoring and mapping of conditions and spread of Covid 19 infection, are important but in themselves don't ensure that they APPROPRIATELY cover the most vulnerable communities where you need to not just monitor movement or fixed app based responses. Direct reach out by ULB staff and volunteers, house to house enumeration and support services are

most critical for undertaking any meaningful community based planning and collaborative citizen-administration engagement.

While a lot of proactive actions were visible in terms of setting in place an appropriate response mechanism to address sanitation services in Covid 19 hot spot localities in a city, lessons need to be drawn by ULBs for future responses.

- Identifying most vulnerable and poor settlements, street dwellers, migrant workers and wage labour, and providing shelter services with adequate water and sanitation facilities.
- Ensuring Community and Public Toilets, especially in slums and informal settlements, are cleaned and sanitised at a higher intensity.
- How appropriate was the sanitation workers safety trainings – were these understood by all categories of workers, were the PPE use and hygiene measures explained well.
- Have clear protocols developed with the State disaster Management Agencies, to put in place protocols and coordination with Police department, to ensure that movement of sanitation workers and their vehicles is ensured on par with medical services and support of ambulance services and doctors.
- Coordination mechanisms at different levels at State, ULBs and Districts : Where ULBs can coordinate with Health-Police-State Administration and with CSR and NGO initiatives : to oversee critical areas of coordination of all work, including funding, procurement, norms, distribution and planning. Meetings held regularly and Minutes disseminated.

### Systemic Effectiveness of Response

During Covid 19 there was a clear risk of the pandemic hitting the hospitals and making the whole hospital systems collapse(this risk also applied to our front line sanitation workers who are most exposed to all communicable disease). Hospitals and medical fraternity undertook a strategic deployment of Doctors and Para Medics to Covid 19 and non Covid 19 wards and patients, and keeping a reserve batch of doctors and para medics at home. This way the whole hospital management system upgraded its functioning to be effective for the emergency.

An EFFECTIVE emergency response therefore never remains a one off response. If it has been effective in mitigating and emergency stress, then it will strengthen and improve the SYSTEM effectiveness of any institutional unit – the ULB, State or District.

**Systems strengthening of urban sanitation.** Covid 19 sanitation challenge has shown the need for maintaining

up to date records of sanitation workers(contractual and permanent). This repository of information on how many permanent and temporary sanitation workers are there in a ULB and also aggregated at the state level. Only if you have this information can you plan and undertake any emergency response at the scale that Covid 19 demanded. Are these records now available at the ULB and State level? Is this integrated into a Sanitation Workers Safety protocol at ULB and state level – to ensure that Medical Insurance for the Workers and their Families, and workers Life and Accident Insurance, is now upgraded and made part of the mandatory ULB and state annual plan and budget?

Procuring PPEs and training workers is also not possible without these basic records, specially at the state level covering all the ULBs in a state. At the ULB level, a strategic deployment of sanitation workers for different priority works in the city is not possible either, without such records.

Sanitation workers alongwith medical staff, bear the brunt of frontline exposure to Covid 19. Hence a **strategic deployment of sanitation workers, like the Health Sector and Hospitals, is required.** This implies hiring a large team of sanitation workers and deploying them for different tasks(some for Hotposts only, others for Public Spaces, etc.) and also keeping a pool of workers as reserve.

**Ensuring health and safety of sanitation workers** is not a one-time Covid 19 emergency priority. Health and safety of sanitation workers does not only imply only providing PPEs. PPEs are the lowest ladder of workers safety protocols that come after the Infrastructure improvements and safety measures at workplace are there, there are standard operating procedures to improve workers safety in place, and finally providing Health, Medical and Life insurance cover.

PPEs cannot be gender neutral and have to be made so that women sanitation workers can also wear them. Just providing PPEs is not enough, training and awareness on using them is important, alongwith other hygiene and safety precautions. This again cannot be done as a one-time exercise for Covid 19. It has to be integrated into the regular training and awareness work every year.

An EFFECTIVE emergency response is one that not only succeeds in containing the risk. It is also effective in terms of use of limited resources for maximum impact that translates into systemic improvements :

- Updated protocols, systems and records of sanitation workers and material resources at hand with a ULB and state level at all times.
- A Strategic deployment of these resources
- Providing the full protective cover for front line workers including health, medical, accident and life insurance cover as a standard protocol.
- And finally the response is complete in terms of a full chain of mitigation, control and safe disposal of infected waste.

## Resilient Urban Sanitation Response Framework (RUSR)

Response	Swiftiness : Timeliness of Response	Appropriateness : Scale and Reach	Effectiveness : Systemic Effectiveness
	<p><b>Work Stoppages</b></p> <ul style="list-style-type: none"> <li>■ How many days Solid Waste Management (SWM) and Liquid Waste Management (LWM) work stopped. Less than 3, more than 7 days</li> <li>■ When were Passes issued to sanitation workers</li> <li>■ Percentage of Workers who reported to duty within 5 days</li> </ul>	<p><b>Coverage of critical areas</b></p> <ul style="list-style-type: none"> <li>■ % CT/PTs attended to in x days</li> <li>■ % Slums and Informal colonies cleaning in y days</li> <li>■ % Hotspots covered in z days</li> <li>■ % Other critical areas – Mandis, Markets, attended to in x days</li> <li>■ Education of Sanitation Workers for different works and their Safety education and awareness, done through WhatsApp messaging or any Meetings and Trainings</li> </ul>	<p><b>Strategic Deployment of Sanitation Workers</b></p> <ul style="list-style-type: none"> <li>■ Roaster of all sanitation workers available for a city and for all ULBs of a state</li> <li>■ Additional requirements for workers and back up workers requirements for different zones and wards worked out</li> <li>■ Strategic Deployment of sanitation workers in different areas done, to ensure that COVID 19 Hotspot areas, Public places and commercial places : workers are separated and deployed</li> </ul>
	<p><b>Functional sanitation infrastructure</b></p> <ul style="list-style-type: none"> <li>■ SWM resumed for x% of colonies in 3 days, Y% colonies in 7 days</li> <li>■ STP functional x days</li> <li>■ Septic Tanks cleaning started in x days</li> <li>■ Community toilets/Public toilets (CTs/PTs) cleaning started in x days</li> </ul>	<p><b>Coordination at all levels</b></p> <ul style="list-style-type: none"> <li>■ How and with whom : Disaster Management Authority, Health, Police, Social welfare departments</li> <li>■ Part of any coordination mechanism. When was it set up – less than 3 days, more than 7 days</li> <li>■ Decisions/ Actions taken as a result of coordination Collaboration done with State Disaster Management Authority (SDMA)</li> <li>■ Any lessons learnt from previous emergency response now applied to COVID 19</li> </ul>	<p><b>Emergency Measures Taken &amp; Outcomes</b></p> <ul style="list-style-type: none"> <li>■ Health/Life insurance Policy procured for sanitation workers : within x days</li> <li>■ Assessment of sanitation workers safety requirements done. List prepared or available with a ULB for different types of sanitation workers and their Personal Protective Gear</li> <li>■ List of PPE vendors and price comparisons ready within 15 days</li> <li>■ Any proposal or procurement request made</li> <li>■ PPE Procurement orders placed or PPEs received in the first x days</li> <li>■ Percentage of sanitation workers falling sick or COVID 19 infected and not reporting for duty</li> </ul>
		<p><b>Appropriate deployment of Sanitation workers and Equipment</b></p> <ul style="list-style-type: none"> <li>■ % Deployment of workers increased or Decreased</li> <li>■ % Dumpers and Road cleaning machines functional</li> <li>■ % Deployment of Sanitization materials increased or decreased</li> </ul>	<p><b>Treatment and Safe Disposal of Infected Material</b></p> <ul style="list-style-type: none"> <li>■ Plan developed for treating infected material originating from Households, Hospitals</li> <li>■ Plan developed for cleaning PTs/ CTs</li> <li>■ Implementation done</li> <li>■ Outcomes</li> </ul>

Response	Swiftness : Timeliness of Response	Appropriateness : Scale and Reach	Effectiveness : Systemic Effectiveness
		<p><b>Innovation if any</b></p> <ul style="list-style-type: none"> <li>■ SWM</li> <li>■ LWM</li> <li>■ COVID 19 Hotspots cleaning</li> <li>■ Bio Medical Waste management</li> <li>■ Behaviour Change Communication work with communities</li> <li>■ Monitoring</li> </ul>	<p><b>Urban sanitation systems strengthening</b></p> <ul style="list-style-type: none"> <li>■ Documentation done if any of COVID 19-Sanitation response</li> <li>■ Systems improvements introduced in Urban Sanitation work – Roasters of employees, Materials – updated and available for easy access at ULBs and State Level</li> <li>■ Long term infrastructure improvement priorities identified – safe collection and transportation of infected waste</li> <li>■ Workers Health and Safety, Insurance and other welfare Measures institutionalised.</li> <li>■ Measures identified for uninterrupted work of SWM and LWM, uninterrupted operations of STPs and SWM plants</li> </ul>

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