LIST OF GUIDELINES ON HEALTH AND SAFETY OF SANITATION AND ALLIED WORKERS IN RESPONSE TO COVID-19
<table>
<thead>
<tr>
<th>Sr No</th>
<th>Name of the Document</th>
<th>Aspects covered</th>
<th>Organisation</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Guidelines on rational use of Personal Protective Equipment</td>
<td>Specifications for PPE and instructions for their rational usage among various categories of frontline workers in Healthcare facilities</td>
<td>MoHFW, GoI</td>
<td>March-20</td>
</tr>
<tr>
<td>2</td>
<td>Guidelines for Handling, Treatment and Disposal of Waste Generated during Treatment/Diagnosis/ Quarantine of COVID-19 Patients</td>
<td>Regarding issuing PPE for workers involved in CBWTF</td>
<td>CPCB, MoEFCC</td>
<td>25.03.20</td>
</tr>
<tr>
<td>3</td>
<td>Advisory for maintaining cleanliness during lockdown period</td>
<td>Welfare and protection of Sanitary workers engaged in collection and transportation of COVID-19 waste</td>
<td>MoHUA, GoI</td>
<td>26.03.20</td>
</tr>
<tr>
<td>4</td>
<td>Guidelines on disinfection of public places</td>
<td>PPE requirement, instructions for hand hygiene and usage of masks for sanitary workers involved in sanitising public places</td>
<td>MoHFW, GoI</td>
<td>29.03.20</td>
</tr>
<tr>
<td>5</td>
<td>Advisory on Safe Management of Water Supply and Sanitation services during COVID19 crisis</td>
<td>Health and safety of sanitary workers involved in water and sanitation services and their interests</td>
<td>CPHEEO, MoHUA</td>
<td>April-20</td>
</tr>
<tr>
<td>6</td>
<td>Role of Frontline workers in prevention and management of Corona virus</td>
<td>How to take care of oneself and carry on with their duties as a frontline worker?</td>
<td>MoHFW, GOI</td>
<td>April-20</td>
</tr>
<tr>
<td>7</td>
<td>Ensuring Health and Safety of Sanitation Workers and Waste-pickers in the wake of spread of COVID-19</td>
<td>Guided the ULBs to prepare the SOP covering, Mandatory orientation, Social Distancing norms and key precautionary measures for Sanitary Workers</td>
<td>NSKFDC, MoSJE, GoI</td>
<td>07.04.20</td>
</tr>
<tr>
<td>8</td>
<td>Advisory for ensuring Health and Safety of Sanitation Workers during COVID-19</td>
<td>Putting in Place a Standard Operating Procedure for sanitation workers</td>
<td>MoSJE, GoI</td>
<td>20.04.20</td>
</tr>
<tr>
<td>9</td>
<td>Instructions for safe disposal of waste from quarantined households</td>
<td>Safe disposal of waste from quarantined households, Sanitary workers’ attendance</td>
<td>MoHUA, GoI</td>
<td>21.04.20</td>
</tr>
<tr>
<td>10</td>
<td>Additional guidelines on rational use of Personal Protective Equipment</td>
<td>Specifications for PPE and instructions for their rational usage among various categories of frontline workers in Healthcare facilities</td>
<td>MoHFW, GoI</td>
<td>15.05.20</td>
</tr>
</tbody>
</table>
## Guidelines issued by State Governments

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<tr>
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<tr>
<td>1</td>
<td>Advisory for maintaining cleanliness during lockdown period- Telangana</td>
<td>Welfare and protection of Sanitary workers</td>
<td>MAD, Government of Telangana</td>
<td>27.03.2020</td>
</tr>
<tr>
<td>2</td>
<td>Safety measures at FSTPs</td>
<td>Personal safety precautions for FSTP operators</td>
<td>GoO</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Advisory for maintenance of cleanliness during lockdown period- Odisha</td>
<td>Instructions for providing PPE for Sanitation Workers</td>
<td>HUDD, Government of Odisha</td>
<td>31.03.2020</td>
</tr>
<tr>
<td>S. No.</td>
<td>CATEGORY</td>
<td>TYPE OF RISK</td>
<td>PROTECTIVE GEAR PRESCRIBED</td>
<td>SOURCE (ESSENTIALS)</td>
</tr>
<tr>
<td>-------</td>
<td>----------</td>
<td>----------------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Sanitary workers in COVID-19 Hospitals and all other Healthcare facilities</td>
<td>Very High</td>
<td>N95 Mask, Nitrile gloves</td>
<td>Aprons, Gum boots, Coveralls</td>
</tr>
<tr>
<td>2</td>
<td>Sanitary workers involved in cleaning quarantine centres</td>
<td>Very High</td>
<td>Triple layer masks, Nitrile gloves</td>
<td>Aprons, Gum boots</td>
</tr>
<tr>
<td>3</td>
<td>Sanitary workers involved in handling and collection of BMW from quarantine centres, homes and houses of people under self quarantine</td>
<td>Very High</td>
<td>Triple layer masks, Aprons, Nitrile gloves, Gum boots and Safety goggles</td>
<td>Guidelines for waste disposed from quarantine facilities, CPCB, and Advisory for Health and Safety of Sanitation Workers during COVID-19 by MoSJE</td>
</tr>
<tr>
<td>4</td>
<td>Workers at CBWTF</td>
<td>Very High</td>
<td>Triple layer masks, Aprons, Nitrile gloves, Gum boots and Safety goggles</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Sanitary Workers involved in Cleaning of CTs and PTs</td>
<td>Moderate to High risk</td>
<td>Triple layer masks, Gum boots, Nitrile gloves, Aprons. Head band and wrist band</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Sanitary workers collecting waste from rest of the households</td>
<td>Moderate Risk</td>
<td>Triple layer masks, Gum boots, Nitrile gloves, Aprons. Head band and wrist band</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Street sweepers and drain cleaners</td>
<td>Low risk to moderate risk</td>
<td>Triple layer masks, Gum boots, Nitrile gloves, Aprons. Head band and wrist band</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Desludging operators</td>
<td>Moderate risk</td>
<td>Triple layer masks, Nitrile Gloves, Gum boots, Safety goggles/face shield, Protective outer wear/Aprons</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Workers employed at STP/FSTP</td>
<td>Moderate risk</td>
<td>Triple layer masks, Nitrile Gloves, Gum boots, Safety goggles/face shield, Protective outer wear/Aprons</td>
<td></td>
</tr>
</tbody>
</table>
Sanitation Worker Safety

Key action imperatives to mitigate risk

V. Srinivas Chary, ASCI
Sources of waste – Contact points

- Containment zones/Red zones.
- Quarantine facilities /COVID Care Centers.
- Isolation homes /Home quarantine.
- Health care facilities /hospitals/Labs.

AllIMS' Sanitation Supervisor, 58, Dies Of Coronavirus In Delhi
Worker Safety needs special attention during the Safe Management (collection, handling, transportation, processing and disposal) of these waste streams.

### Types of Waste

- **Solid waste**
  - Biomedical.
  - Domestic hazardous waste (including adult diapers used by potential COVID patients).
  - Domestic waste – potentially contaminated with COVID-19.
- **Liquid waste**
  - Biomedical (washings)
  - Sewage /grey water
- **Sludge /Septage**
  - Septic tanks linked to health care facilities
  - Household septic tanks /pit latrines
  - Community/public sanitation facilities
  - Package STPs in gated communities etc
- Evidence of traces of COVID-19 in feces and wastewater discharge (Netherlands/China/USA etc)

- Evidence of transmission is yet to be established

- Risks in non-sewered sanitation context are very high

- Effective inactivation of virus can be achieved disinfects – 70% ethanol or sodium hypochlorite.

- Disinfection of wastewater is key.
So, what should city governments and communities do?

- Chlorination at centralized and decentralized STPs
- Cleaning of toilets – PT and CT etc using sodium hypochlorite - soak away pits
- Feecal waste shall be treated at FSTP – thermal
- PPE usage by the workers at every level
- Insurance for sanitation workforce
Sanitation workers are an integral part of the full cycle of sanitation.

Workers can be categorised by:
- Various roles in the sanitation chain (see above)
- Contractual arrangements i.e. ULB-payroll, contracted by ULB, privately employed (e.g. sanitation workers employed by de-sludging truck operators) or independent (daily wage) workers

*Estimated numbers
Work with Sanitation workers in Tamil Nadu during COVID

1. A **rapid assessment** of the situation with **45 sanitation workers** from **Coimbatore and Tiruchirappalli, Tamil Nadu**, in partnership with Praxis India

2. Distribution of PPE

3. Safety Guidelines

4. Health Camps

5. Counselling

6. Increasing access to govt. schemes

Survey conducted between 25th April – 27th April
Findings - Personal Protective Equipment

Frequency of receiving PPE supplies
- Regularly: 55%
- Receive on Demand: 18%
- Irregular: 18%
- No: 9%

Quality of PPE (N=45)
- Good, 30
- Average, 4
- Below average, 5
- Not usable, 6
- Other, 11

Type of PPEs received
- FACEMAKS, GLOVES & BOOTS: 23
- FACE MASKS: 13
- FACE MASKS & GLOVES: 5
- GLOVES: 4
- PROTECTIVE CLOTHING: 0

Hand hygiene aids
- Among 45 interviewed, 41 received Hand wash/sanitiser or both
- 4 received None

Survey conducted between 25th April – 27th April

(Figure 861x12 to 913x39)
(Figure 585x253 to 960x465)
Guidelines for safety of sanitation workers

1. **Risk matrix** for 15 categories of sanitation workers prepared based on the following parameters such as exposure risk to community spread, aerosols, surface contacts, existing institutional support for mitigation.

The following sanitation workers were prioritised as targets for illustrated guidelines:
1. CT/PT care takers/operators
2. Solid waste workers
3. De-sludging operators (DSOs) (Video as well)
4. FSTP operators

2. **Dissemination** – the mobile numbers of sanitation workers were collected from ULBs, local networks and Just Dial and sent through WhatsApp in local language (Tamil)

   Challenges:
   - Duplication of numbers, numbers not being WhatsApp compatible

3. Translated in various languages including **Hindi, Tamil, Telugu & Kannada**.

4. Circulated to Govt. of TN, Govt. of Kerala, sector professionals, and wide set of NGOs.

http://tnusssp.co.in/covid-19
Health camps & counselling sessions

• Health screenings in small batches in Periyanaicken Palayam in collaboration with Govt. hospital

• Special counselling through video conferencing for small groups of sanitation workers from PNP- NNP, Veerapandi and Karamadai in collaboration with Mastermind
Hierarchy of Safety Controls

**PREVENTION**
- Elimination
- Substitution
- Engineering Controls

**MITIGATION**
- Administrative control

**PROTECTION**
- PPE

Source: CDC

**Emptying and De-sludging Practices**

An Occupational Safety Needs Assessment Study

- Physical Removal of Hazard
- Replacing hazardous processes or materials *substituting manual work with machines*
- Isolate the worker: *Design interventions and improvements in worker tools, equipment*
- Change the way work is done: *training and licensing for standard operating procedure, safety manuals*
PPE Usage and Perception

- Not seen as value for money
- Additional maintenance required
- Bad quality products lead to repeated purchase
- Lack of knowledge on where to purchase good quality PPE
- Lack of awareness and training on PPE usage
- Lack facilities for storage and maintenance
- Bathing was considered sufficient
What type of issues you foresee after lockdown

- School Fees for kids will be a big problem as my husband is not going for work
- Repayment of loan, financial issues, No cash left in hand
- Income is less for CT/PT Cleaners
- Increase in price of essential items
- Job opportunities will shrink
- Can’t Predict
- Can manage if we get regular salary
- 3 months EMI burden

Survey conducted between 25th April – 27th April
SUMMARY

1. Safety during COVID 19 is an immediate priority, but the problem is deep-rooted, and systemic

2. PPE: not one time effort, issues of quality, ease use etc.

3. OSS is a pyramid, PPE last line of defence, other factors could potentially be more important for safety

4. Expand focus to safety AND health

5. Better communication (dialogue)

6. Locate safety in the larger context of their lives
Health & Safety of Sanitation Workers

29th May 2020

Presentation by:

Manvita Baradi, Director
Urban Management Centre
www.umcasia.org
Issues faced by Sanitation Workers

- Are viewed as **unclean and stigmatized**; scant value of the work they do.
- Little or **no protective equipment**, is provided to them leading to regular accidents, some resulting in fatalities
- Little support for **rehabilitation and self-employment**
- Unfair and untimely **payment of wages**
- **Poor contractual mechanisms** and lack of SOPs in local governments
- Lack of **awareness and sensitivity** for sanitation workers’ safety among service seekers
- No provision of **insurance** considering the **hazardous nature** of sanitation work
- No provision of **periodic health check ups**
- Lack of facilities to maintain **hygiene**
<table>
<thead>
<tr>
<th>Occupational Risks and Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>They come into direct/close contact with <strong>fecal matter</strong></td>
</tr>
<tr>
<td>They work in <strong>confined</strong> and often dangerous <strong>spaces</strong></td>
</tr>
<tr>
<td>Risk of getting <strong>musculoskeletal disorders</strong> due to manual labour, infections and respiratory disorder due to exposure to harmful microbes.</td>
</tr>
<tr>
<td>Risk of <strong>chemical hazards</strong> due to harmful gases that may be present</td>
</tr>
<tr>
<td>Risk of <strong>microbial hazards</strong> as the waste has a high concentration of fungi and bacteria.</td>
</tr>
<tr>
<td>Added risks during the COVID-19 Pandemic</td>
</tr>
</tbody>
</table>
Additional occupational Risks and Hazards during COVID-19

- Direct exposure to infected individuals and objects, during waste collection; inability to maintain physical distancing
- Risk of transmitting it to their families
- Higher exposure to the disinfectants
- Forced to work as there is fear of losing their job
- Public hostility, further stigmatization and marginalization
- Ongoing studies to assess if Covid-19 can also spread through sewage and fecal matter
### Compensations, in case of death on duty

- **Delhi**: Rs. 1 Crore
- **Punjab**: Rs. 50 Lakh
- **UP**: Rs. 50 Lakh
- **Karnataka**: Rs. 30 Lakh
- **Amritsar**: Rs. 30 Lakh
- **Gujarat**: Rs. 25 Lakh
- **Tripura**: Rs. 10 Lakh
- **West Bengal**: Rs. 5 Lakh

### One time monetary benefit

- **Telangana**: 5.0 - 7.5 K
- **Tamil Nadu**: 1 month’s salary

### Health Insurance

- **West Bengal**: 5L
- **Punjab**: 50 L

### Amritsar - the bank is opening zero balance and savings account for each employee under which Rs30 lakh would be insured in case of accidental death as well as Rs3.25 lakh in case of natural death. In this insurance, Covid-19 disease has also been included, under which no cost of treatment would be borne by the employee.
Where do we want to go from here?
Bringing Informal Sanitation Workers/Manual Scavengers into NULM fold

Under DAY-NULM, states have been directed to fix annual targets min. @ 10% to form SHGs of vulnerable occupation groups, especially sanitation workers.
Sanitation SHGs to be linked to dignified livelihoods opportunities by:
- Mapping for skill training
- Extending Subsidized loans under SEP
- Registration of sanitation workers at CLCs

3086 new SHGs of informal sanitation workers formed
**Qualification Packs**

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
<th>Level</th>
<th>Eligibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEPTIC TANK TECHNICIAN</td>
<td>Responsible for construction/fabrication of different types of septic tanks/ soak pit and install at the site</td>
<td>4</td>
<td>5th Pass with minimum experience of three years in masonry work</td>
</tr>
<tr>
<td>FSTP OPERATION &amp; MAINTENANCE TECHNICIAN</td>
<td>Responsible for carrying out day-to-day operations of the FSTP</td>
<td>4</td>
<td>ITI or 12th Pass with 3 year of experience in water and sanitation sector</td>
</tr>
<tr>
<td>DESLUDGING OPERATOR</td>
<td>Responsible for emptying, transport and disposal of faecal sludge from the septic tank to desludging site</td>
<td>4</td>
<td>5th pass</td>
</tr>
</tbody>
</table>
### Dedicated Scheme for Safety Equity and Dignity in Sanitation Work

<table>
<thead>
<tr>
<th>1. Standardising and Regulating delivery of Sanitation works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensuring all sanitation work is regulated by the government agencies</td>
</tr>
<tr>
<td>Ensuring all sanitation work is carried out by certified professionals under supervision</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Building eco-system for safe and dignified sanitation working environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensuring availability of appropriate machinery/equipment for safe sanitation work</td>
</tr>
<tr>
<td>Ensuring fair and standard wages and allowances for sanitation work</td>
</tr>
<tr>
<td>Issuance of Model Contracts and Standard Operating Protocols (SOPs)</td>
</tr>
<tr>
<td>Ensuring occupational health and safety for sanitation workers</td>
</tr>
<tr>
<td>Ensuring educational support, housing and mobility support to families of SWs</td>
</tr>
<tr>
<td>Ensuring financial security - disability, insurance and retirement</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Creation of Skilled Sanitation Workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey of Sanitation Workers</td>
</tr>
<tr>
<td>Counselling, Skilling and Registration of sanitation workers</td>
</tr>
<tr>
<td>Provision of Personal Protective Equipment for Sanitation Workers</td>
</tr>
<tr>
<td>Formation and Strengthening of Collectives (Common Interest Groups) of Sanitation Workers and provision of loan for self-employment</td>
</tr>
</tbody>
</table>

**IEC & Capacity Building of stakeholders**
Thank you
PPE Market in India
Sanitation Workers’ Safety
& COVID 19 Emergency Response
May 29th, 2020 | 15.00 - 16.00 Hours

Mr. Dhawal Patil,
M.Sc. Hydro Science and Engineering, TU Dresden, Germany
General Manager, Ecosan Services Foundation
Current status

• Ministry of Textile, GoI has regulated the market of COVID 19 PPE in India.
• 8 labs for testing and certifying manufacturers | 600+ certified manufacturers.

Projected Demand
2 Crore PPE Kits

Ordered Placed
2.2 Crore PPE Kits

Order Completed
75 lakhs PPE Kits

PPE industry has seen **56-fold growth** in past 2 months!

Production Rate
4.5 lakhs PPE Kit per day

**2nd Largest COVID 19 PPE Manufacturer**
Timeline

Week 4: Permission to export all categories of PPE.

Week 1: Ban revoked on export of surgical masks and gloves.

- Ban on export of PPE by GoI

COVID 19 Cases – 3
Deaths - 0

February

COVID 19 Cases – 396
Deaths - 7

March | Week 3

- Meeting MoT, MoHFW and PPE manufacturing associations.
- HLL Lifecare Ltd. & South India Textile Research Association.
- Ban on export of raw material required for PPE.

COVID 19 Cases – 1400
Deaths - 35

March | Week 4

- MoHFW issues guidelines for PPE manufacturers and Health care institutions.
- MoHFW procured 60,000 PPE kit. (50% were imported).

March | Week 1

COVID 19 Cases – 40
Deaths - 0

- Ministry of Textile (MoT) was assigned the task to regulate PPE in India.

January | Week 4

COVID 19 Cases – 1
Deaths - 0

- Ban on export of PPE by GoI
April | Week 1
COVID 19 Cases – 5351
Deaths - 160
• China donated 1.7 lakh PPE kit to India.

April | Week 2
COVID 19 Cases – 11,487
Deaths - 393

April | Week 3
COVID 19 Cases – 21,370
Deaths - 645
• 30% of the PPE kit donated by China failed testing.
• BIS issues specifications for Bio Protective Coveralls.

India is producing
• 4.5 lakh+ PPE kit per day
• 10 lakh+ masks per day

COVID 19 Cases – 1.5 lakh+
Deaths – 4500+

China donated 1.7 lakh PPE kit to India.

3 laboratories were added for testing and certifying PPE.

India places order of 1.5 crore PPE kits to China.

BIS issues specifications for Bio Protective Coveralls.

April | Week 1
COVID 19 Cases – 5351
Deaths - 160

April | Week 2
COVID 19 Cases – 11,487
Deaths - 393

April | Week 3
COVID 19 Cases – 21,370
Deaths - 645
• 30% of the PPE kit donated by China failed testing.
• BIS issues specifications for Bio Protective Coveralls.
Hurdles

• Shortage of Supply
  • Specifications
  • Human resources
  • Mechanical equipment and its import
  • Logistical challenges
  • Additional specifications

• Knowledge to manufacture PPE
  • Protective yet comfortable
  • Demand of PPE during non pandemic period

• Non Rational use of PPE
  • Awareness about hazards and risks
  • Understanding about the PPE and its usage
  • Not everyone needs medical grade PPE!

• Quantity over Quality
  • Due diligence and standardisation
  • Certified manufacturers and not certified PPE kits!
  • Quality control of manufactured product
For a few hours of travel in relatively non-risky environment, you are depriving a health care worker from his job!
Thank You

Contact us...

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+ 91 20 2543 0061

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