LIST OF GUIDELINES ON HEALTH AND SAFETY OF SANITATION AND ALLIED WORKERS IN RESPONSE TO COVID 19

Guidelines issued by Government of India

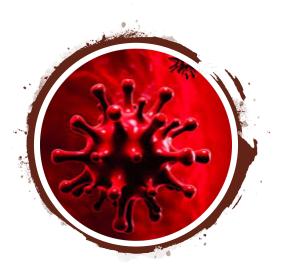
Sr No	Name of the Document	Aspects covered	Organisation	Date
I	Guidelines on rational use of Personal Protective Equipment	Specifications for PPE and instructions for their rational usage among various categories of frontline workers in Healthcare facilities	MoHFW, Gol	March-20
2	Guidelines for Handling,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

Guidelines issued by State Governments

Sr No	Name of the Document	Aspects covered	Organisation	Date
I	Advisory for maintaining cleanliness during lockdown period-Telangana	IVVeltare and protection of Sanifary workers	MAD, Government of Telangana	27.03.2020
2		,	GoO	
3	Advisory for maintenance of cleanliness during lockdown period- Odisha	Instructions for providing PPE for Sanitation Workers	HUDD, Government of Odisha	31.03.2020

Type of sanitation activities, severity of risks involved and protective gear prescribed

S. No.	CATEGORY	TYPE OF RISK	PROTECTIVE GEAR PRESCRIBED		SOURCE (ESSENTIALS)	
			ESSENTIAL	DESIRABLE		
1	Sanitary workers in COVID-19 Hospitals and all other Healthcare facilities	Very High	N95 Mask, Nitrile gloves	Aprons, Gum boots, Coveralls	Guidelines for rational use of PPE by MoHFW	
2	Sanitary workers involved in cleaning quarantine centres	Very High	Triple layer masks, Nitrile gloves	Aprons, Gum boots	Guidelines for rational use of PPE by MoHFW	
3	Sanitary workers involved in handling and collection of BMW from quarantine centres, homes and houses of people under self quarantine	Very High	Triple layer masks, Aprons, Nitrile gloves, Gum boots and Safety goggles		Guidelines for waste disposed from quarantine facilities, CPCB, and Advisory for Health and Safety of Sanitation Workers during COVID-19 by MoSJE	
4	Workers at CBWTF	Very High	Triple layer masks, Aprons, Nitrile gloves, Gum boots and Safety goggles		Guidelines for waste disposed from quarantine facilities, CPCB, MoEFCC	
5	Sanitary Workers involved in Cleaning of CTs and PTs	Moderate to High risk	Triple layer masks, Gum boots, Nitrile gloves, Aprons. Head band and wrist band		Guidelines on disinfection of common public places including offices by MoHFW and Advisory for Health and Safety of Sanitation Workers during COVID-19 by MoSJE	
6	Sanitary workers collecting waste from rest of the households	Moderate Risk	Triple layer masks, Gum boots, Nitrile gloves, Aprons. Head band and wrist band		Additional advisory for maintaining cleanliness during lockdown period by MoHUA and Advisory for Health and Safety of Sanitation Workers during COVID-19 by MoSJE	
7	Street sweepers and drain cleaners	Low risk to moderate risk	Triple layer masks, Gum boots, Nitrile gloves, Aprons. Head band and wrist band		Guidelines on disinfection of common public places including offices by MoHFW and Advisory for Health and Safety of Sanitation Workers during COVID-19 by MoSJE	
8	Desludging operators	Moderate risk	Triple layer masks, Nitrile Gloves, Gum boots, Safety goggles/face shield, Protective outer wear/Aprons		Advisory on safe management of water supply and sanitation services during COVID-19 crisis by MoHUA	
9	Workers employed at STP/FSTP	Moderate risk	Triple layer masks, Nitrile Gloves, Gum boots, Safety goggles/face shield, Protective outer wear/Aprons		Advisory on safe management of water supply and sanitation services during COVID-19 crisis by MoHUA	



Sanitation Worker Safety

Key action imperatives to mitigate risk

V. Srinivas Chary, ASCI

Sources of waste – Contact points

Containment zones/Red zones.

AIIMS' Sanitation Supervisor, 58, Dies Of Coronavirus In Delhi Quarantine facilities /COVID Care Centers.

• Isolation homes /Home quarantine .

 Health care facilities /hospitals/Labs. **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



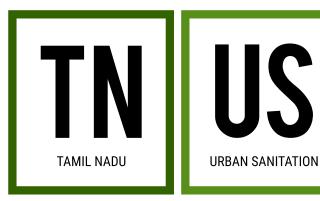
Liquid Waste Management

- Evidence of traces of COVID 19 in feaces 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
- Feacal waste shall be treated at FSTP thermal
- PPE usage by the workers at every level
- Insurance for sanitation workforce

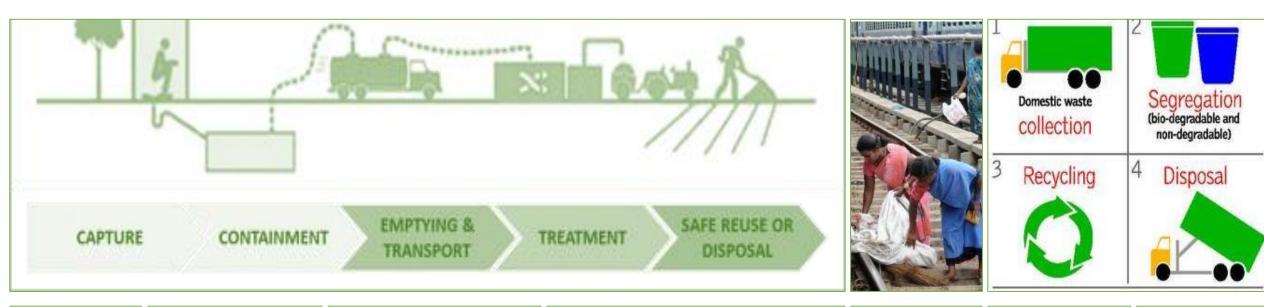








Sanitation Workers and Full Cycle of Sanitation



Toilet cleaners (1,008*)

De-sludging operators (111*)

De-sludging operators & sewer cleaners (1,006*)

Workers at treatment facilities (7*)

Railway track cleaners (110*)

Solid Waste Management workers (724*)

Rag pickers (260*)

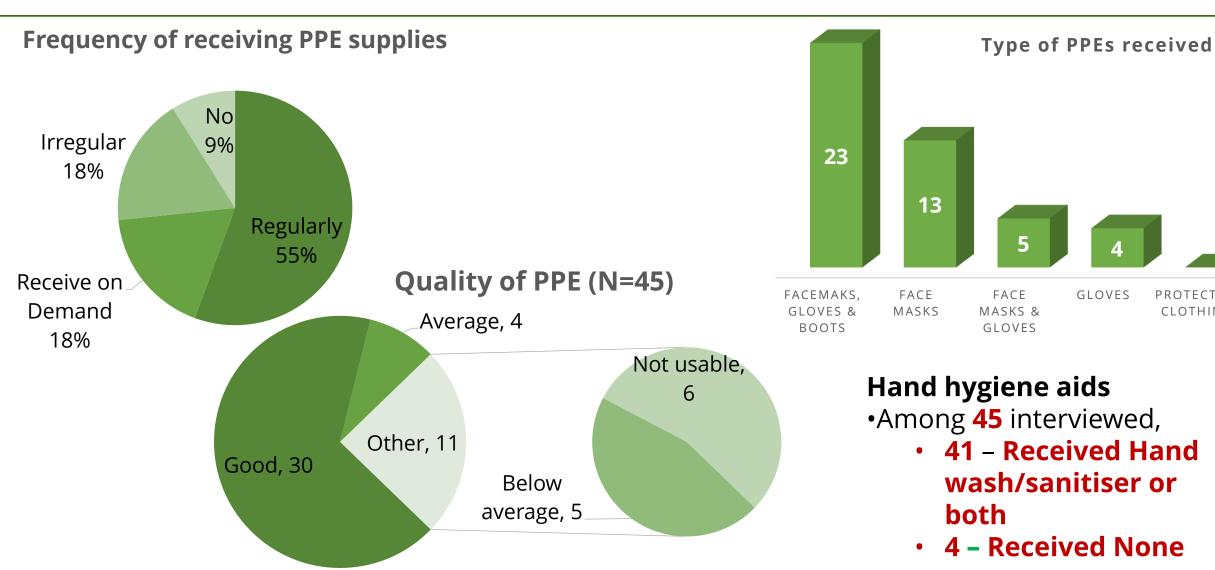
- > Sanitation workers are an integral part of the full cycle of sanitation
- Workers can be categorised by:
 - Various roles in the sanitation chain (see above)
 - Contractual arrangements i.e. ULB-payroll, contracted by ULB, privately employed (e.g. sanitation workers employed by de-sludging truck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

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 PPF
- 3. Safety Guidelines
- 4. Health Camps
- 5. Counselling
- 6. Increasing access to govt. schemes



Findings - Personal Protective Equipment



PROTECTIVE

CLOTHING

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.



 Bio-medical waste from households with covid related quarantined persons must be collected only by ULB authorised bio-medical waste collectors.



- While receiving fecal sludge, conduct tests with extreme caution. Wash hands and any surface which accidentally comes in contact with fecal sludge.
- · Wash hands after performing any task with possible exposure to fecal sludge.



http://tnussp.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



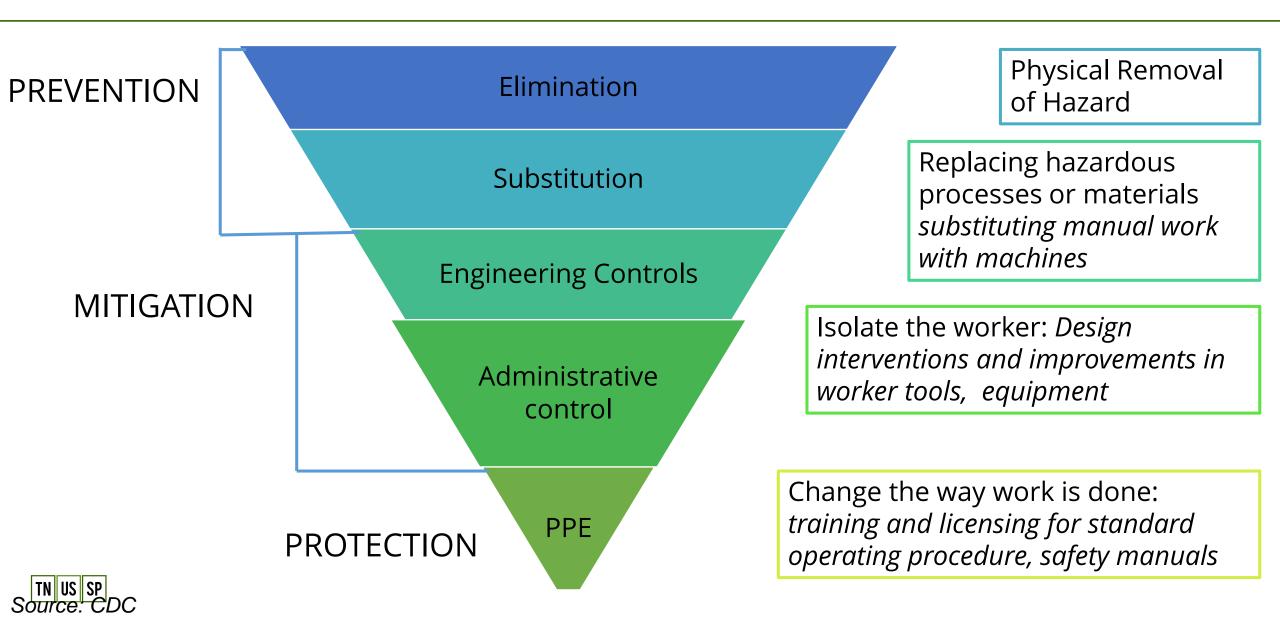




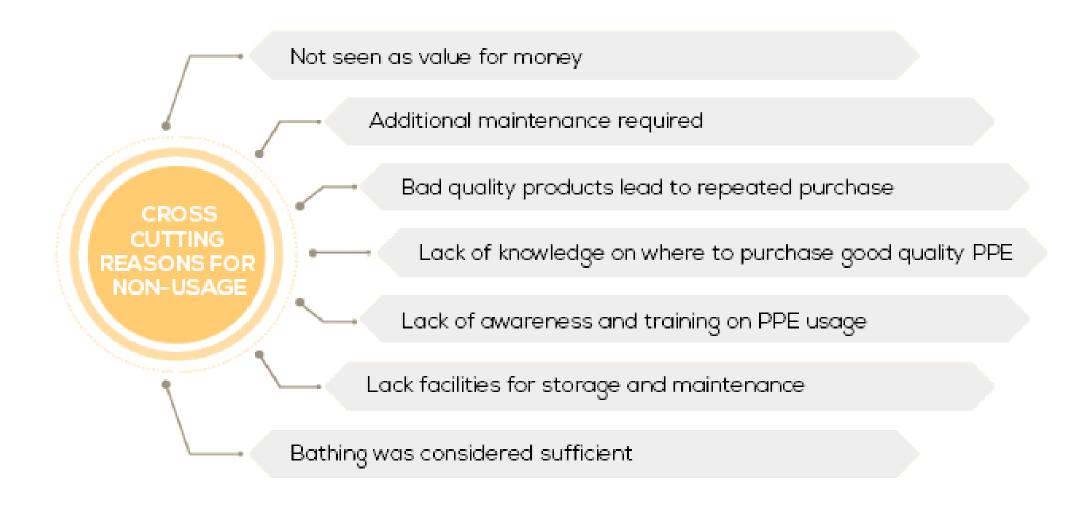


An Occupational Safety Needs Assessment Study

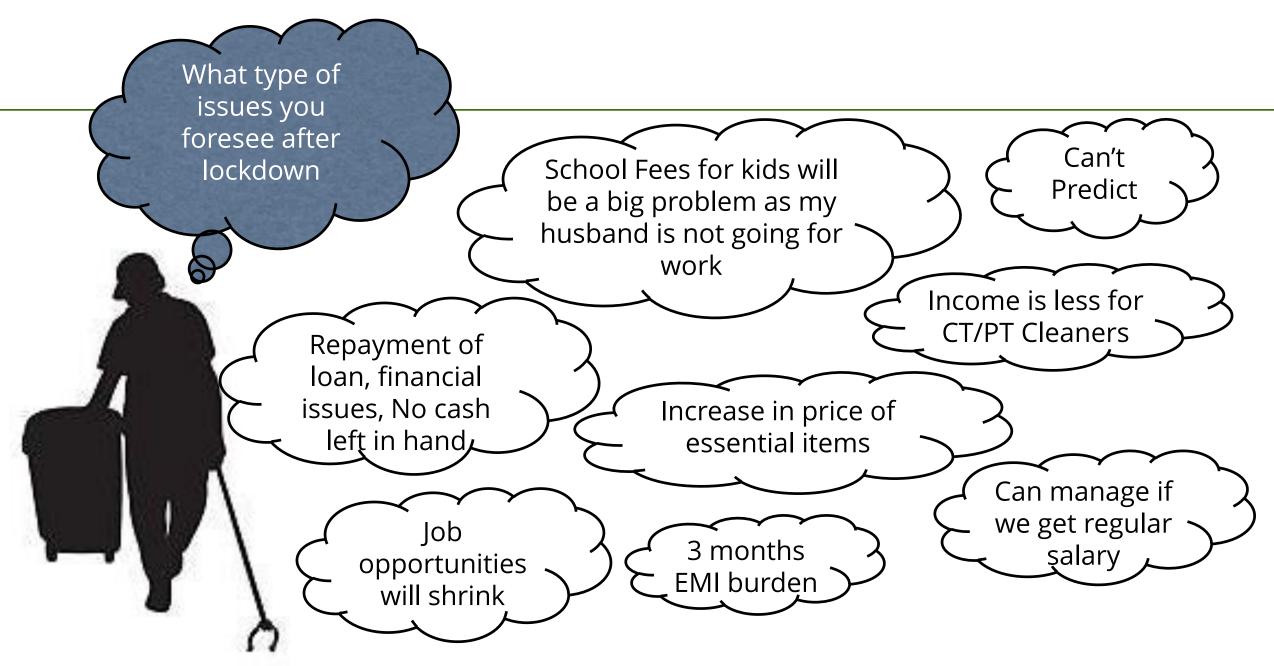
Hierarchy of Safety Controls



PPE Usage and Perception







SUMMARY

- 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 selfemployment
- 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



Occupational Risks and Hazards

They come into direct/ close contact with **fecal matter**

They work in **confined** and often dangerous **spaces**

Risk of getting **musculoskeletal disorders** due to manual labour, infections and respiratory disorder due to exposure to harmful microbes.

Risk of chemical hazards due to harmful gases that may be present

Risk of microbial hazards as the waste has a high concentration of fungiand bacteria.

Added risks during the COVID-19 Pandemic



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 Cocid-19 can also spread through sewage and fecal matter

Sweeper faints, dies after fogging in Uttar

Pradesh
Four Covid-19 patients have died in Uttar Prade

astava in Lucknow

0, 2:33 AM • Updated 9.04.20, 2:33 AM

Sanitation Workers Holding the Fort Against COVID-19 Have No Protective Equipment

The pandemic once again highlights the hazardous conditions that sanitation workers are forced to work in.

SDMC's sanitation worker who tested positive for coronavirus dies at AIIMS

Vibha Sharma | TNN | Updated: Apr 26, 2020, 10:50 IST

'Stigmatised, ostracised': Sanitation workers in Tamil Nadu battle COVID-19

Dharavi-Based Sanitation
Worker's Wife Dies Of
Coronavirus; Family Blames
Kasturba Hospital
Coronaviru

The family said that the hospital staff did not pay attentio for a long time and did not provided with hot water to drin Kasturba Hospital denied the allegations. orkers have tested positive for COVID-19 in Tamil Nadu. ing recovery, the workers battle societal stigma and

Coronavirus: Sanitation Worker Forced to Drink Disinfectant in UP's Rampur, Dies

The incident took place after the victim mistakenly sprayed the disinfectant on a man, who then, along with

AIIMS sanitation supervisor dies due to Covid-19

Sanitation supervisor was on ventilator and succumbed to the infection on Sunday around 7.30 pm.

DELHI

Updated: May 26, 2020 10:30 IST

Initiatives by Various State Governments for Sanitation Workers- CoronaWarriors

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

benef monetary time

Telangana

5.0 -7.5 K

1 month's

salary

Tamil Nadu

West Bengal 5L Punjab 50 L Health Insura



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?

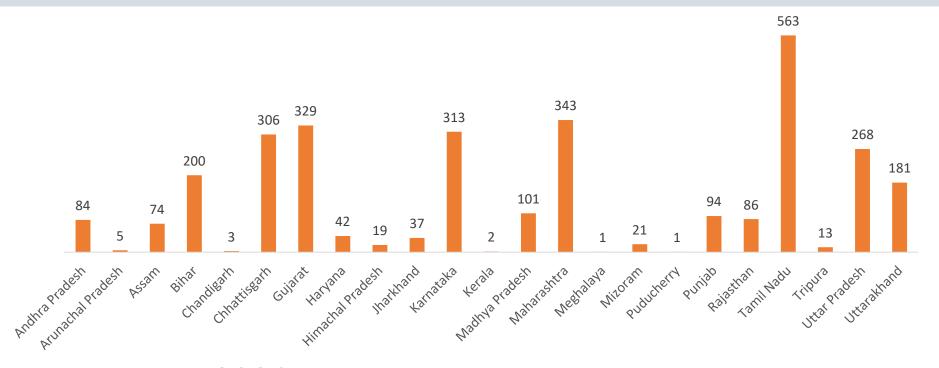


Bringing Informal Sanitation Workers/Manual Scavengers into NULM fold

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

SEPTIC TANK TECHNICIAN

Responsible for construction/fabrication of different types of septic tanks/ soak pit and install at the site

- Level: 4
- Eligibility: 5th Pass with minimum experience of three years in masonry work



FSTP OPERATION & MAINTENANCE TECHNICIAN

Responsible for carrying out day-to-day operations of the FSTP

- **Level**: 4
- **Eligibility:** ITI or 12th Pass with 3 year of experience in water and sanitation sector

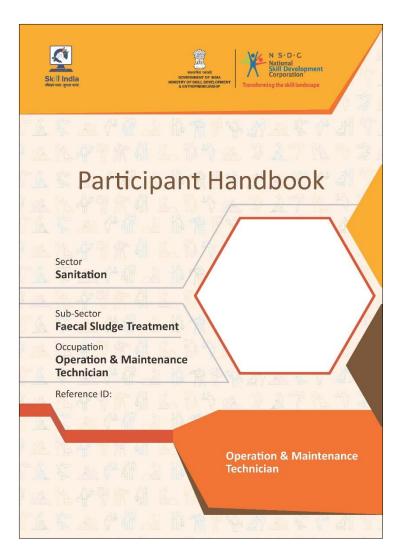


DESLUDGING OPERATOR

Responsible for emptying, transport and disposal of faecal sludge from the septic tank to desludging site

- Level: 4
- **Eligibility:** 5th pass















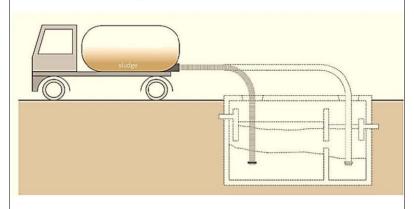
Training Manual for Desludging Operator

Sector: Green Jobs

Sub-Sector: Water Management

Occupation: Installation and Maintenance

Reference ID: SGJ/Q6403



Dedicated Scheme for Safety Equity and Dignity in Sanitation Work

1. Standardising and Regulating delivery of Sanitation works

Ensuring all sanitation work is regulated by the government agencies

Ensuring all sanitation work is carried out by certified professionals under supervision

2. Building eco-system for safe and dignified sanitation working environment

Ensuring availability of appropriate machinery/ equipment for safe sanitation work

Ensuring fair and standard wages and allowances for sanitation work

Issuance of Model Contracts and Standard Operating Protocols (SOPs)

Ensuring occupational health and safety for sanitation workers

Ensuring educational support, housing and mobility support to families of SWs

Ensuring financial security- disability, insurance and retirement

3. Creation of Skilled Sanitation Workforce

Survey of Sanitation Workers

Counselling, Skilling and Registration of sanitation workers

Provision of Personal Protective Equipment for Sanitation Workers

Formation and Strengthening of Collectives (Common Interest Groups) of Sanitation Workers and provision of loan for self-employment

TEC & Capacity Building of stakeholders





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, Gol has regulated the market of COVID 19 PPE in India.
- 8 labs for testing and certifying manufacturers | 600+ certified manufacturers.



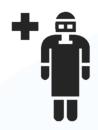
Projected Demand 2 Crore PPE Kits



Ordered Placed 2.2 Crore PPE Kits



Order Completed 75 lakhs PPE Kits



Production Rate
4.5 lakhs PPE Kit
per day

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



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.

COVID 19 Cases – 3 Deaths - 0

February

- 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 – 396 Deaths - 7

March | Week 3

January | Week 4

COVID 19 Cases – 1 Deaths - 0

Ban on export of PPE by Gol

March | Week 1

COVID 19 Cases – 40 Deaths - 0

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

March | Week 4

COVID 19 Cases – 1400 Deaths - 35

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

- 12 manufacturers certified to produce non woven fabric.
- 3 laboratories were added for testing and certifying PPE.
- India places order of 1.5 crore
 PPE kits to China

COVID 19 Cases - 11,487

Deaths - 393

April | Week 2

India is producing

- 4.5 lakh+ PPE kit per day
- 10 lakh+ masks per day

COVID 19 Cases - 1.5 lakh+

Deaths - 4500+

May

April | Week 1

COVID 19 Cases – 5351 Deaths - 160

 China donated 1.7 lakh PPE kit to India.

April | Week 3

COVID 19 Cases – 21,370 Deaths - 645

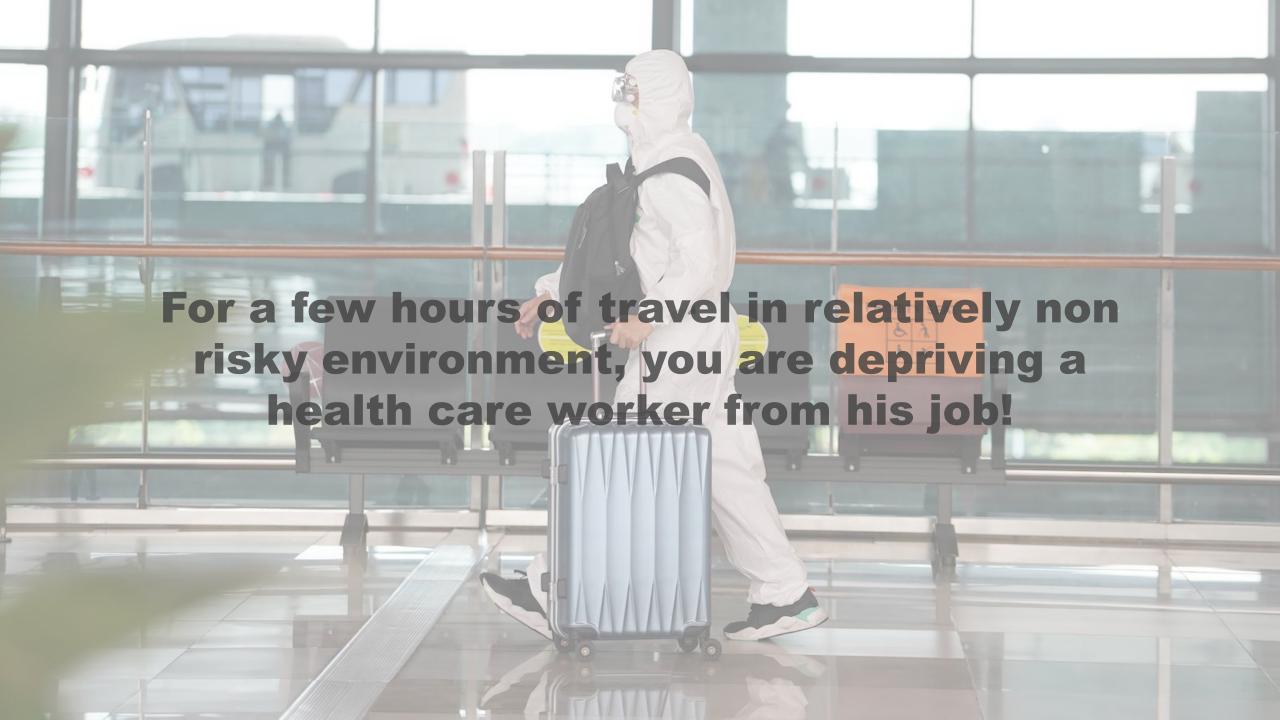
- 30% of the PPE kit donated by China failed testing.
- BIS issues specifications for Bio Protective Coveralls.

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



Thank You

Contact us...

Ecosan Services Foundation







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