



# Design, Operation and Maintenance Guidelines of Garima Griha

## Contents

1	Need for Garima Griha.....	4
2	Design Guidelines.....	5
2.1	General guidelines .....	5
2.2	Location and way finding .....	6
2.3	External façade of the facility .....	7
2.4	Security .....	7
2.5	Internal spaces .....	7
2.5.1	Washing area for PPE.....	7
2.5.2	Drying area for PPE .....	8
2.5.3	Changing area/rooms.....	8
2.5.4	Toilets.....	9
2.5.5	Resting area.....	10
2.5.6	Lighting and ventilation .....	10
2.5.7	Hand wash stations and mirrors .....	11
2.6	Water supply and storage.....	11
2.7	Plumbing .....	11
3	Operational And Maintenance Guidelines.....	11
3.1	Location and way finding .....	11
3.2	External façade of the facility .....	11
3.3	Internal spaces .....	11
3.3.1	Washing area for PPE.....	11
3.3.2	Drying area for PPE .....	12
3.3.3	Changing area/ rooms.....	12
3.3.4	Toilets.....	12
3.3.5	Resting area.....	12
3.3.6	Lighting and ventilation .....	12
3.3.7	Hand wash stations and mirrors .....	12
3.4	Water supply and storage.....	12
3.5	Plumbing .....	13
3.6	Opening and closing time .....	13

3.7 O&M staff and their responsibilities..... 13

3.8 Consumables..... 13

3.9 Estimated monthly O&M expenditure..... 13

## 1 Need for Garima Griha

Core sanitation workers deal with hazardous waste in difficult settings including extreme weather conditions like excessive heat and rains. The workers find it difficult to wash and change their dirty clothes after work as they lack a private space with access to soap and water and are forced to return home after work in dirt clothes or change in public. Also, the workers do not find space to store their PPEs and have to carry them every day to and from work. Most of the workers also engage in multiple shifts such as early morning and post noon owing to their job requirements. In the small durations between the shifts, the workers require a resting space to protect themselves from the weather extremities.

The Government of Odisha issued an advisory to develop Garima Grihas in all ULBs. The Garima Grihas shall serve as a restroom for the workers comprising of seating space, facility to wash, dry and store PPE, bathing room and toilet. As of now, 28 Garima Grihas have been constructed and 3 are under construction. These Garima Grihas are actively being used by core sanitation workers.

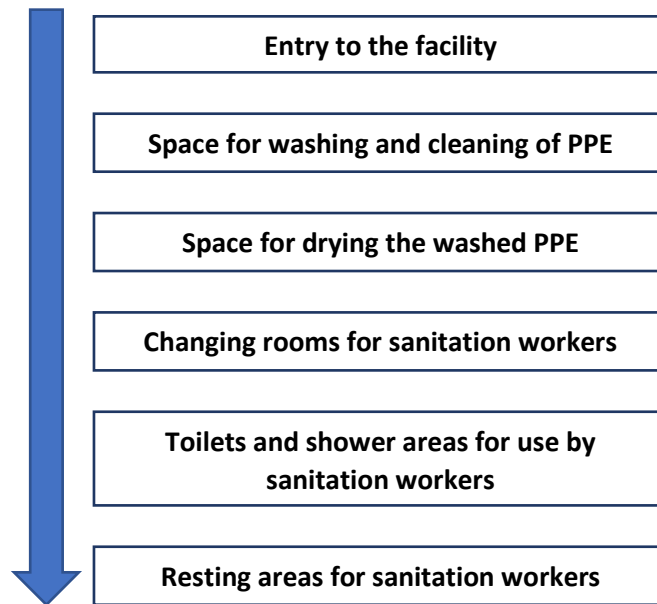
Various collaterals specifically targeting the CSWs with an intent to serve constant reminders to CSWs on good practices and encourage them to adopt safe and healthy practices at workplace are put at significant spots in the Garima Grihas. For instance, the poster on PPE to be worn during cleaning has been put up in the locker room where workers change before going to work. Similarly, the poster on doffing the PPE is put at the PPE washing area where the workers return to for cleaning themselves once they return from work. The collaterals developed cover various messages around provision of desludging services to customers registering request through toll-free no. 14420, prohibition of manual scavenging, PPE required to be worn during manual and mechanical cleaning, process to be followed during confined space entry and do's and don'ts while donning and doffing PPE, etc.



Figure 1: Sanitation workers in Garima Griha

## 2 Design Guidelines

The design and construction of *Garima Grihas* must be undertaken in a manner that is sensitive to the needs of the sanitation workers while being functional and utilitarian in its approach. The design considerations must ensure that optimal use of the space is retained while allowing the spaces to serve their purpose. In this endeavor, spatial design of the facility is suggested based on the following flow of spaces/function:



### 2.1 General guidelines

Based on the minimum spatial requirement of each of the activities/functions; it is suggested that the *Garima Griha* be built on a minimum of 36 sq. m. of space. This will ensure that the facility is able to cater for each of the above-mentioned functions while still ensuring that the internal spaces do not appear congested and claustrophobic to the workers who use it.

The *Garima Griha* design should mandatorily have space for washing and cleaning of PPE, space for drying the washed PPE, changing rooms, toilets and shower areas and resting areas for sanitation workers. The flow of the design of these spaces can be altered as per the orientation and location of the available space. For example, the space provision for washing and cleaning PPE should either be at the entrance of the facility or beside the facility to ensure that the space remains clean and hygienic. A well ventilated drying space should be provided beside the washing and cleaning PPE area. A typical plan of *Garima Griha* is shown in the image below:

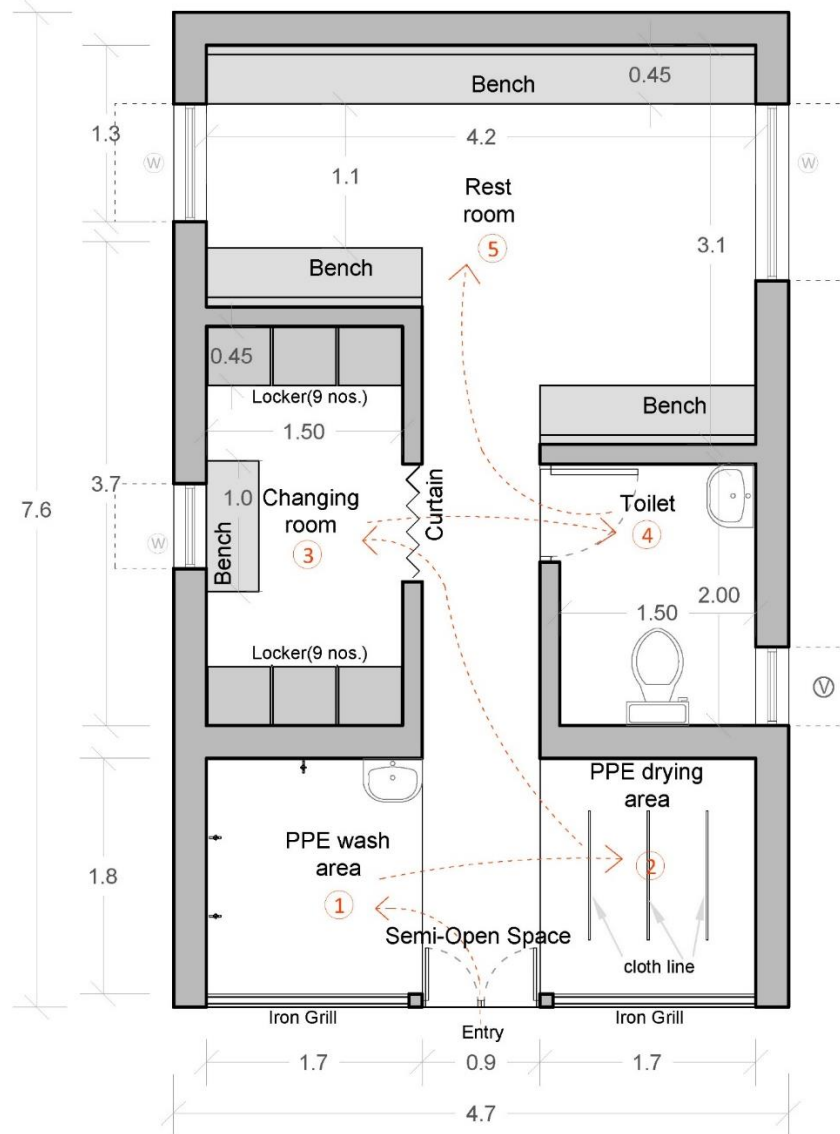


Figure 2: Typical floor plan of Garima Griha

## 2.2 Location and way finding

The facility should be located in easily accessible areas where workers assemble for attendance/ muster roll and providing sanitation services; for example: WATCO premises, near CT/PT etc. The facilities should ideally be located away from shops and establishments selling tobacco and liquor, areas lacking streetlights and areas close to garbage disposal spots, to instill a sense of safety for women using the facility.

The entrance of the building should have at least one clearly legible sign board/signage with the *Garima Griha* name written in the local language and in English for ease of identification. It should be ensured that the entrance and immediate environs of the building are free of obstacles such as garbage vulnerable points, unpaved walkways, water logging and vehicles, that may act as a nuisance to the use of the facility. The building of the Garima Griha should have easy vehicular accessibility and provision for two wheeler and bicycle parking.

## 2.3 External façade of the facility

The external walls of the facility should be painted in white/ cream color with column, beam, slab, chajja highlights in blue. Where permitted, the aesthetics of the external façade may be enhanced with traditional artwork painted in an approved colour palette. To ensure longevity, the external walls should be designed and painted in a manner that reduces possibilities of vandalism and putting up of graffiti and posters. The façade should have *Garima Griha* name written in the local language and in English. External walls can have provision for IEC posters.



Figure 3: Garima Griha constructed in Bhubaneswar

## 2.4 Security

To ensure safety of the facility, unrestricted access during non-operational hours should be avoided. For this purpose, the facility should be equipped with doors/gates fitted with dead-bolts and locks. All windows should be equipped with locking mechanisms such as latches that can only be operated from inside the facility.

The following sections highlight the minimum design guidelines to be followed for each of the internal spaces.

## 2.5 Internal spaces

### 2.5.1 Washing area for PPE

This is a critical function for all personnel using this facility. To prevent spread of waste from dirty PPE, it is important to provide a cleaning area at the entrance of the facility. There should be adequate space for use by 3 to 4 persons at any given time. A minimum area of 1.8m x 1.7m should be provided for this purpose. Taps for water should be provided along the walls. In addition, a wash basin should be

provided for preliminary washing of hands and face. The floor should be provided with a minimum gradient towards the drain covered with a *Nali Trap* that prevents accumulation and stagnation of waste water. The floor should have a tile drop from the outer floor levels. The entrance should have a 0.15m high threshold (stone forming the bottom of a doorway) to avoid the back flow of the waste water. The walls of the washing area should be covered with ceramic tiles (or other material as recommended) to a minimum height of 2.1m for easy cleaning. It should be ensured that the flooring is done with antiskid tiles to prevent accidents.



Figure 4: PPE wash area

### 2.5.2 Drying area for PPE

After washing the PPE, space should be provided to dry the PPE. The drying area should be equipped with clothes lines to hang the PPE. The walls of the space should also be provided with hooks to hang equipment. The walls of the drying area should be covered with ceramic tiles (or other material as recommended) to a minimum height of 2.1m for easy cleaning. The flooring should be done using anti-skid material/tiles to prevent slipping from the runoff water. The floor should be provided with a minimum gradient towards the drain covered with a *Nali Trap* to prevent accumulation and stagnation of waste water. To facilitate natural air drying, the space should either be open to sky or have two walls that are perforated or equipped with large iron grills to allow air circulation.

### 2.5.3 Changing area/rooms

Before leaving for work and after removing the PPE at the end of the day, the workers should be provided with gender segregated changing rooms. The area of the changing room should be calculated as per the average number of users considering 1 sq. m. minimum space requirement per person. The room should be provided with lockers for storage of personal belongings. Wall mounted multiple locker units may be provided with each locker offering a minimum of 0.45m x 0.45m x 0.45m of space as individual storage. A minimum circulation space of 1.5m should be provided so that open lockers do not obstruct movement. The changing room should be provided with a door for ensuring privacy of the users. The doors and walls (if possible) should be provided with hooks to temporarily hang clothes and bags. The room should also be provided with a bench or chair based on availability of space. To ensure



privacy as well as adequate ventilation, ventilators (minimum opening of 0.6m) should be provided in the changing rooms.



Figure 5: Changing rooms for sanitation workers

#### 2.5.4 Toilets

Separate toilets should be provided for men and women. In case of toilets for men, provision of urinals and commodes should be ensured (in case of western style toilet). Urinals may be avoided in case of Indian style squatting toilet. In case that both genders use the same toilet, it is preferable to provide an Indian style squatting seat. Else a urinal and a commode (western style) should be provided.

The doors of the toilets should open outward so that the internal space is used optimally. Provision of hooks should be made on the inside of the door to hang clothes. The doors should be made of UPVC or laminated with waterproof veneer. A bathing area with a tap and bucket should also be provided in the toilet incase a worker wishes to bathe and clean oneself after work. The floors of the toilet should be made of anti-skid material (as per norms). Functional wash basins and clean mirrors should be provided with provision of soap for hand washing. It should be ensured that the floor slopes as per construction norms towards the *Nali Trap* to prevent stagnation of water. The floor should have a tile drop from the outer floor levels. The entrance should have a threshold to avoid the back flow of the waste water. In the women's toilet, provision should be made for installation of a sanitary pad vending machine along with dustbins for disposal of sanitary waste. The toilets should be provided with a ventilator (minimum opening of 0.6m).

### 2.5.5 Resting area

The workers using the facility, require a clean, hygienic space to relax, have their meals and regain their energy. A space should be provided for this purpose. Space may be allocated as per availability; however it is recommended that a minimum clear space of 3m x 3.6m should be provided. The space of the resting area should be calculated as per the average number of users considering 1 sq. m. minimum space requirement per person. The space should have provision of benches/chairs for people to sit. A table should be provided for people to have their meals. The resting area should also have availability of a functional drinking water station (water dispense/ cooler attached to RO) that provides clean drinking water. The resting area should be provided with natural light and ventilation and so it is important that at least one external wall be equipped with windows (as per norms and recommendations of the design).



Figure 6: Resting area with PPE IEC in Garima Griha, Bhubaneswar

### 2.5.6 Lighting and ventilation

The facility should be well lit both on the inside and outside. It should be ensured that the external façade and immediate environs of the facility should be well lit (with halogen lamps, preferably). All internal spaces and rooms should be provided with LED/CFL bulbs. There should be at least one bulb in each room/space. Natural lighting should be encouraged during the daytime.

All public and common areas should be provided with a minimum of one window and ventilator to facilitate natural light and ventilation. Where possible, mechanical systems for ventilation such as exhaust fans may be installed (at a height of at least 2m from the floor level). The windows and ventilators must be secured with latches and grills to prevent break-ins and vandalism.

### 2.5.7 Hand wash stations and mirrors

Wash basins, taps and mirrors should be installed as per approved/recommended designs and specifications. To save water, push taps should be installed where feasible. All hand wash stations should be equipped with soaps (liquid soap dispensers are preferred).



Figure 7: Hand wash with mirror at Garima Griha facility

## 2.6 Water supply and storage

The facility should have either underground/overhead water storage unit that can hold water for at least 1 day (in case of emergencies). In case the facility does not have municipal water supply, a borewell may be provided and a dedicated pump room should be constructed as per standards and covered to keep the machinery protected.

## 2.7 Plumbing

All water supply and storage pipelines should be concealed to prevent contact and damage from external/physical sources. The pipes should be safely secured and made of durable material to be able to withstand basic physical damage and corrosion.

# 3 Operational and Maintenance Guidelines

## 3.1 Location and way finding

The Garima Griha signage placed at the entrance of the building should be maintained properly such that it is clearly legible both during the day and night. Proper care should be taken to refurbish the name (with paint or sticker) as soon as the signage starts to fade.

## 3.2 External façade of the facility

It must be ensured that regular maintenance and upkeep of the facility is carried out such that the paint looks fresh. Ensure that the external wall is not used for commercial advertisements.

## 3.3 Internal spaces

### 3.3.1 Washing area for PPE

It should be ensured that the washing area should be clean and dry after every use. Moreover, it should be fully washed and cleaned twice a day. The taps and the washbasin should be in working condition, with water available at all times. Develop and implement an SOP for cleaning of the wash area (*for example: cleaning of nali trap, ceramic tiles, antiskid tiles, etc.*).

### 3.3.2 Drying area for PPE

It must be ensured that the clothes lines are intact and the PPEs can be fastened to the hooks. The floor should be kept dry at all times to prevent slipping from the runoff water.

### 3.3.3 Changing area/ rooms

The lockers provided for storage of personal belongings should be functional. The door provided in the segregated changing rooms should have a latch to lock it from inside. The latches should be repaired/ replaced if and when they break or fall off. The windows of the changing rooms should have curtains to provide privacy. The hooks should be intact to hang clothes and bag. If the rooms have bench/ chair, it should be structurally intact and should serve its purpose.

### 3.3.4 Toilets

A dedicated SOP for operation and maintenance of toilets should be drafted and implemented clearly stating the cleaning process, maintenance, dos and don'ts and equipment, cleaning of nali trap and supplies for cleaning and maintaining the facility. The toilet should be cleaned twice a day. The urinals and commodes should be in working condition. The door of the toilet should have a provision of a latch to lock it from inside with an intact hook to hang clothes. The tap should be in working condition and the bucket should not be broken with a handle to lift it. The floor of the toilet should be kept dry at all times. The wash basin should be functional with a provision of running water and the mirror should be cleaned. The sanitary pad vending machine should be functional with a provision of a dust bin for disposal of sanitary waste. The bin of the female and male toilet should be emptied at least once a day.

### 3.3.5 Resting area

The space allocated to the workers should be clean and hygienic. The benches and chairs should be intact and in working condition. The water dispenser or RO provided for clean drinking water should be in functional condition and should be repaired and maintained at least twice a year.

### 3.3.6 Lighting and ventilation

In order to maintain adequate lighting in the external façade and the immediate environs of the building, the halogen lamps or other lighting equipment should be maintained and checked such that they are in working condition. The LED/ CFL bulbs provided in internal spaces should also be functioning. The latched and grills of the windows and doors should not be broken and the exhaust fans should also be in working condition to provide ventilation. It should be ensured that the lights and bulbs are switched off during the non-working hours. There should be electricity back up in the form of generator as well.

### 3.3.7 Hand wash stations and mirrors

The wash basins and taps installed should be in working condition with a facility of running water. The mirror should also be cleaned along with the toilet. It should be ensured that the taps installed are not leaking and hand wash stations are equipped with soaps (liquid soap dispensers are preferred).

## 3.4 Water supply and storage

The water storage facility should have either underground/overhead water storage unit that can hold water for at least 1 day (in case of emergencies). It should be ensured that there is water for emergency. The water storage units should be cleaned at frequent intervals. In case the facility has a borewell and a

dedicated pump room, it should be repaired and maintained as and when required and should be covered to keep the machinery safe.

### 3.5 Plumbing

It should be ensured that the pipelines are concealed and do not have any leakage.

### 3.6 Opening and closing time

The toilet should be kept open as per the approved working hours of WATCO. This timing can be extended based on the requirement. When the operating hours exceed the approved working hours, multiple shifts may be planned to keep the facility open, without any interruptions. The facility should be locked during the non-working hours to ensure safety and security of the premise and its amenities.

### 3.7 O&M staff and their responsibilities

Three O&M staff will be required for the regular upkeep of the Garima Griha. Out of these, the cleaner and supervisor will only be required part time, and the caretaker will be required full time.

- i. **Cleaner** will be responsible for keeping the facility clean by carrying out most of the day to day activities. The cleaner should clean the toilet minimum twice a day.
- ii. The assigned **caretaker** can be WATCO assistant managers for Garima Grihas within WATCO premise and sanitary inspector for standalone Garima Grihas who shall be responsible for:
  - Overall O&M and upkeep of the facility
  - Receipt and issue of cleaning materials and equipment
  - Arranging routine repairs and replacements. They should be available at approved working hours of the facility to oversee the cleaning and maintenance of the toilet.
- iii. **Supervisor** will be responsible for monitoring the performance of cleaner and caretakers and for keeping a record on the status of O&M of Garima Griha.

### 3.8 Consumables

There should be adequate supply and storage of consumable items like soap, cleaning powder, broom, mops etc. The expenditure can be divided into monthly and occasional including repairs and other emergency situations.

### 3.9 Estimated monthly O&M expenditure

The following calculations are based on assumptions

S.No.	Heads	Amount in Rs.
	Electricity bill	500
	Cleaner salary	3,000
	Water charges	50
	Repair & Maintenance	500
	Soap, Cleaning powder, Brooms, Mops etc.	950
	Caretaker	5,000
	<b>TOTAL</b>	<b>10,000</b>



For more information, visit

[www.umcasia.org](http://www.umcasia.org)

[info@umcasia.org](mailto:info@umcasia.org)