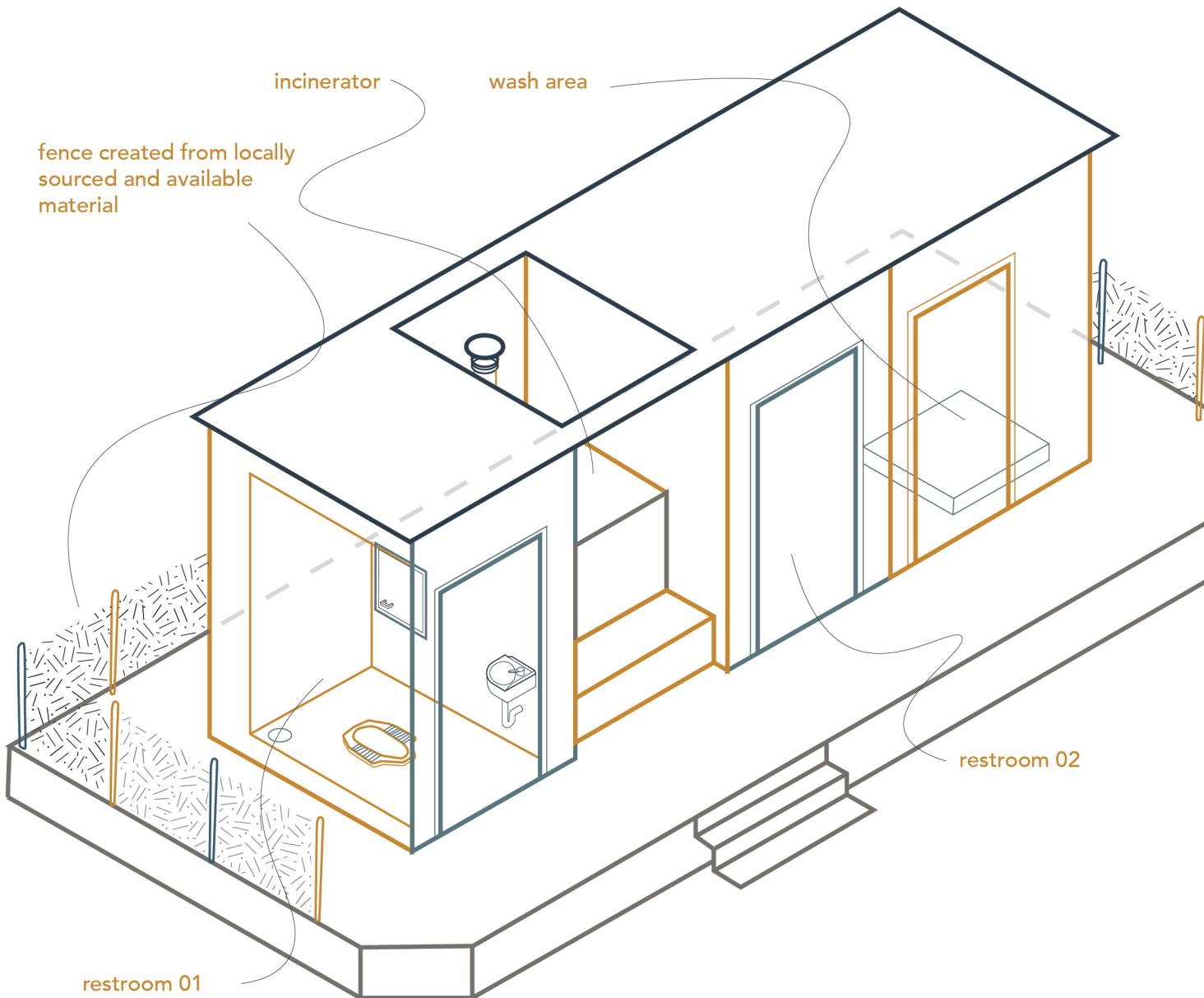


# KHUSHI



a sustainable sanitation solution for rural schools

In India, sanitation is a subject which is critical in spatial limitation, infrastructural challenges and policy making. The perception of the washroom being an 'unclean' structure and separate from the main habitat along with menstrual hygiene being a taboo



due to the lack of awareness of menstrual hygiene and no supporting toilet infrastructure, girls stop going to school. to understand WASH practices in rural areas, there is a necessity to accept the local tradition while designing infrastructure.

this proposal provides a compact solution which is lightweight and easily assembled. apart from the cubicles, the site can be utilized to reduce dependence on electricity and waste treatment facilities. certain safety concerns have been addressed as well.



**15%** reduction in violence against women after construction of toilets in rural settlements in India.



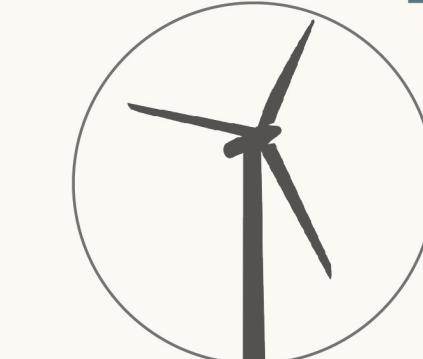
**40%** government schools lacked a functioning common toilet in India (2012)

## observations towards a solution

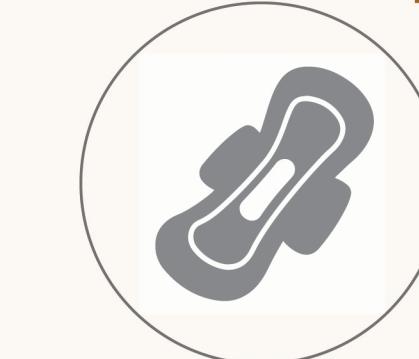


► advantage of open space and prevailing wind direction around school building within campus.

electrical power can be generated as needed using renewable solar or wind energy

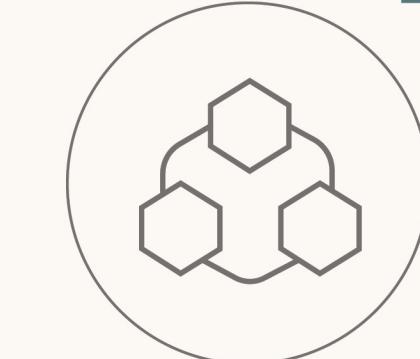


all girls can be encouraged to follow good WASH practices. friends can influence each other

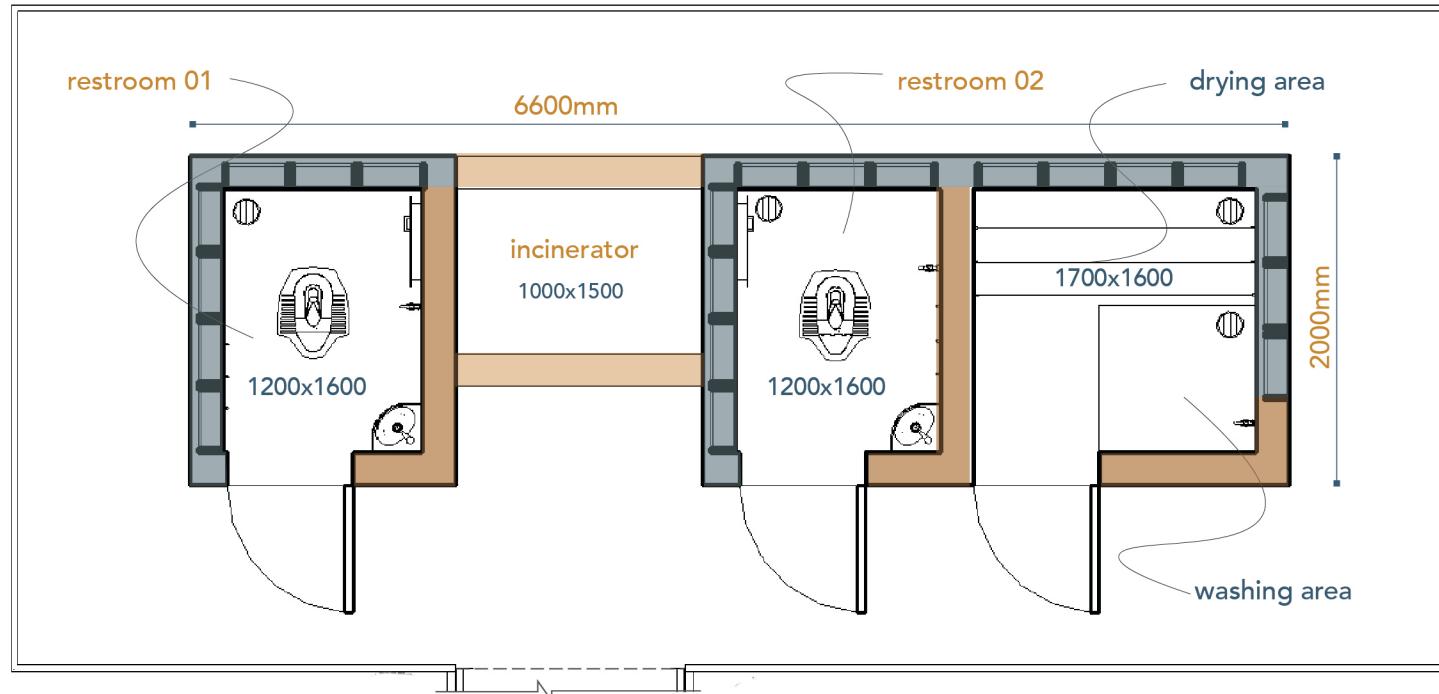
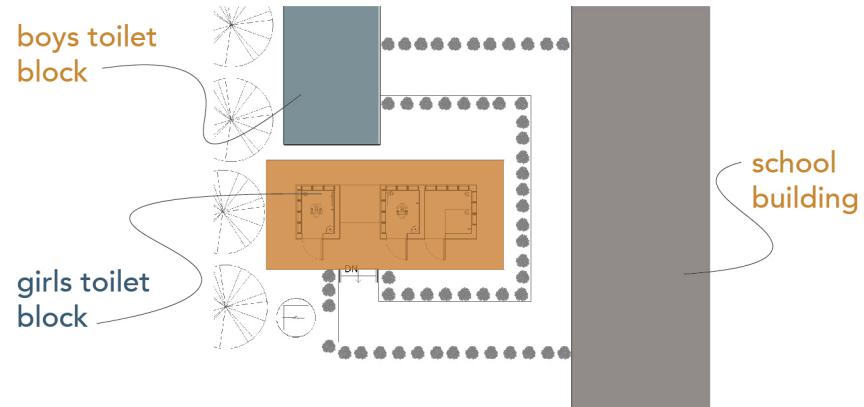


► easy to clean surfaces using traditional methods

modular and simple design for ease of construction in all areas.



In this proposal, the enclosed space is divided into a wash area and a changing area / drying area. The raised wash area is a prefabricated SS panel with integrated floor trap and soap dish. The dry area consists of clotheslines and cabinets for sanitary supplies like sanitary napkins and medicine.



apart from the toilet requirement, menstrual hygiene has been stressed on. most girls travel two km or farther to come to school and wear folded pieces of cloth to stem the menstrual flow which can lead to soiling of clothes or infection if worn too long.

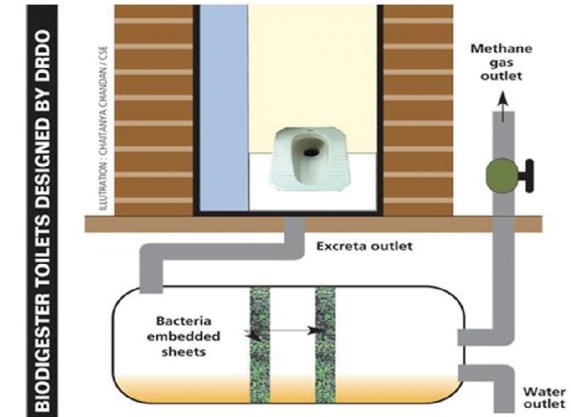
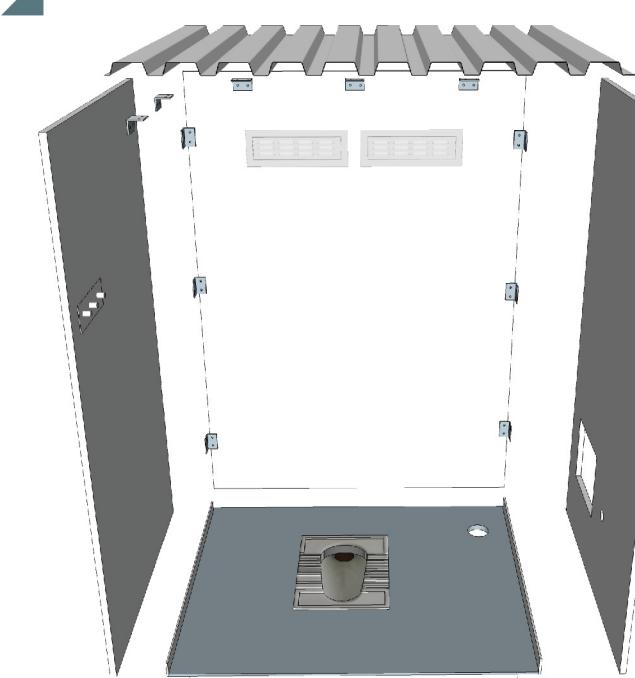
an ancillary wash area has been provided where girls can wash their soiled garments and put them to dry. a dry changing area is present to put on fresh clothes if required.

## sustainable materials & construction practice

for affordability and easy accessibility to material to build the washrooms, vernacular materials have been listed which can be utilized to create the washroom without reliance on skilled workers.

**GARV SS Toilet**  
pre-fab SS toilets which can be easily transported and installed with minimum requirement of  
the module can be replicated with any of these material.  
reduction of construction cost by 30-40%

Description	Qty	Rate	Amount
PVC Wall panel (Sheet=8' x 4')	10	1000	10000
Corrugated Aluminium Panel (Sheet=8' x 4')	2	1000	2000
Prefabricated SS Indian WC	2	4000	8000
SS silicon insulated chute door	2	600	1200
MS Ventilator (12" x 6")	2	600	1200
CPVC Health Faucet	2	55	110
SS Basin with faucet (Corner basin)	2	1000	2000
Solar Powered Aluminium exhaust fan (6")	2	1000	2000
SS Incinerator (50 napkin capacity)	1	5000	5000
FRP DRDO Biogester 500L	1	7000	7000
CPVC Plumbing (Supply) (In M)	20	33	660
CPVC Plumbing (Drainage) (In M)	2	75	150
Joinery nuts and bolts		LS	200
Handles, Latches and wall hooks (2 each)		LS	480
<b>Total Cost</b>			<b>40000</b>



DRDO biogester convert excreta to manure. no leachate into water table from urine or excreta and no requirement of treatment or manual scavenging

the pre fabricated PVC panels have joints which can be attached by nuts and bolts. a hole to accommodate the chute door, wall hooks and clamps for the SS basin and health faucet will be provided in the panels.

The walls can be fitted on to the SS floor. The floor will consist of the IWC and the floor trap. water for ablution can be tapped off the main water tank.