August 2021

Proposed layouts and alternatives for SHELTER-WASH HH and communal layouts

Mozambique Shelter Cluster
ShelterCluster.org
Coordinating Humanitarian Shelter

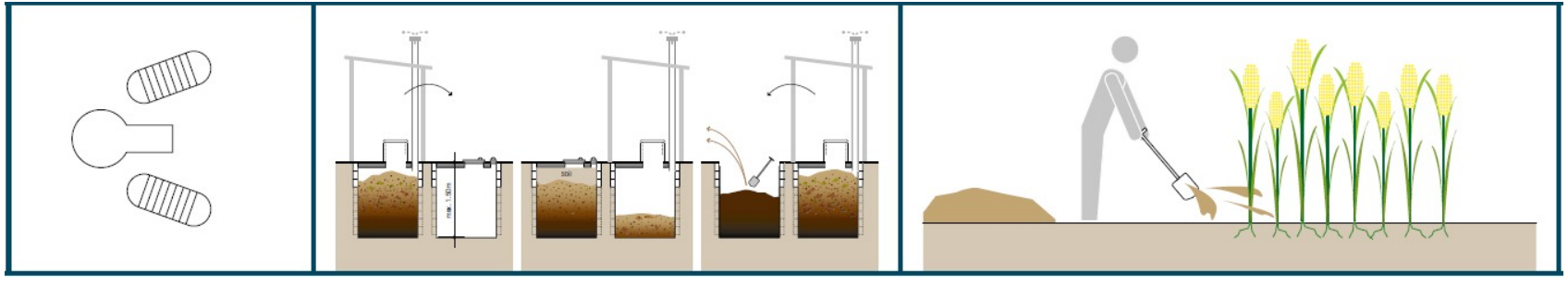
SHELTER-WASH Typologies

- Household level interventions
- Sustainable and durable solutions
- Environmentally friendly
- Re-cycle and Re-use. Promoting resource recovery
- Promotes circular economy and livelihoods schemes within the community

Source: SOIL project, Haiti, cabbage grown in compost from faecal sludge

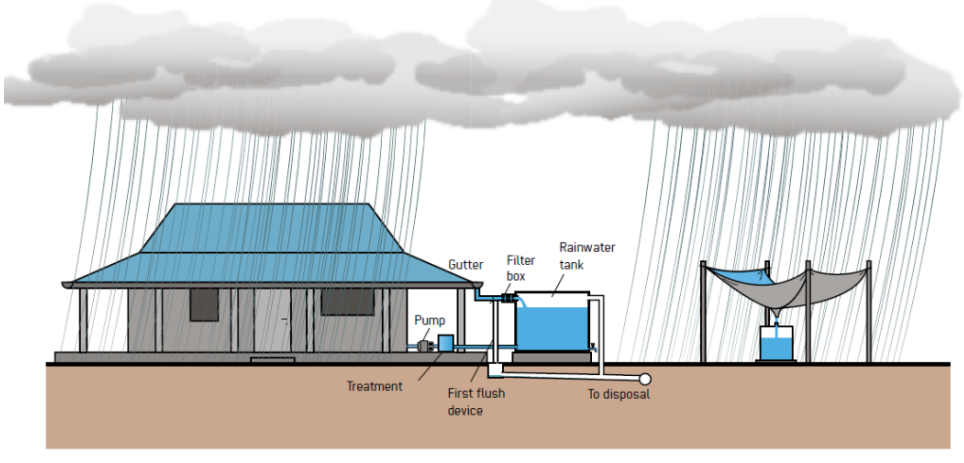
PRO	CONS
Appropriate for limited space and water scarce area	Proper removal of the composted material
Durable solution – long life spam	Not appropriate in places with high water table
Humic soil (compost) as soil conditioning	Proper operation (extended periods)

Proposed System – Level 2 response
WATERLESS PIT SYSTEM WITHOUT SLUDGE PRODUCTION



Source: Compendium of sanitation systems and technologies, Eawag, 2nd edition

PRO	CONS
Free – easy to upscale and maintain	Proper maintenance to avoid solids, and other solids, sand
Durable solution – long life spam	Need of disinfection, when possible
Good quality – low investment	No taste, which sometimes is not accepted by the community



Source: Compendium of water supply technologies in emergency, 1st edition

SHELTER-WASH Proposed Solution – LEVEL 1

Community initiatives for Emergency Shelter extensions

Source: SHELTER – IOM, proposed typologies

Emergency shelter type B + single pit latrine (space for second pit) + rainwater harvesting with tarpaulin (tank provided)

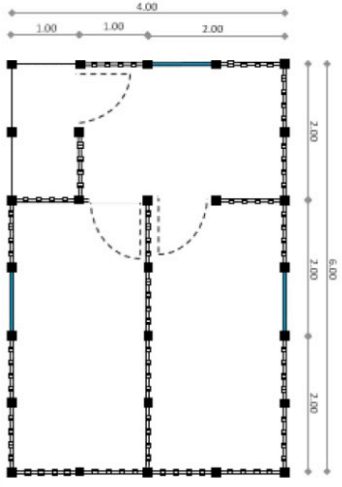
SHELTER-WASH Proposed Solution – LEVEL 2





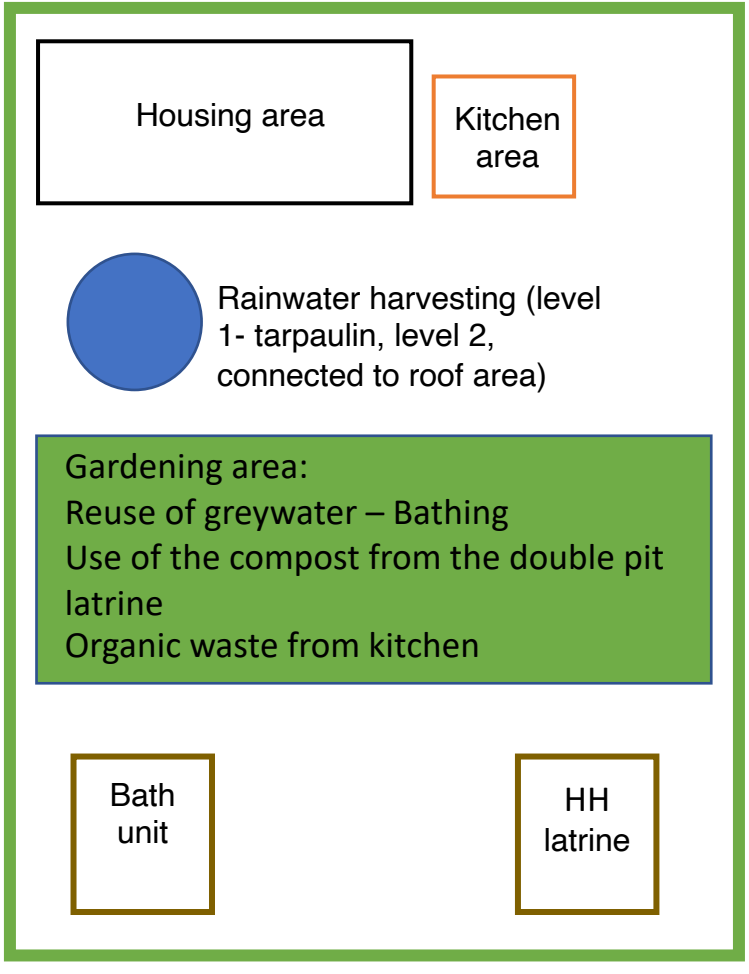
PAU a PIQUE Houses

- 24sqm (6m X 4m) 2 rooms, 1 living room and veranda
- Target: 499 Houses
- Materials: Macane, estacas (Eucaliptus), Barrotes, CGI roofing, Iron rods, cement, fixing materials, etc.
- Approximately USD 1600-1,800 (including labor)



Source: SHELTER – IOM, proposed typologies

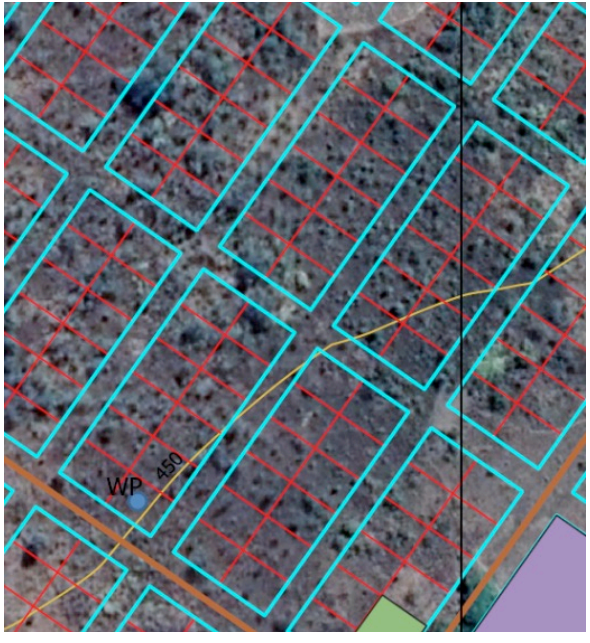
Pau a pique house+ Doubled pit latrine (construction of 2nd pit) + rainwater harvesting with (gutter and conecction to tank (PVC – UV resistant, aluminium, bamboo ☺)



Considerations:

1. Reuse of the tarpaulin in the transition from emergency assistance shelter kit (reduce of waste and plastic).
2. Preliminary assessment for acceptance and reticence to use
3. Create sensibilization to understand the role of the compost, and their value
4. Reuse of greywater.
5. Pilot for a three months to adapt methodology to the context and learn from do and dont's
6. Creation of livelihoods by desludging of the latrine (community jobs)

Communal proposed layout



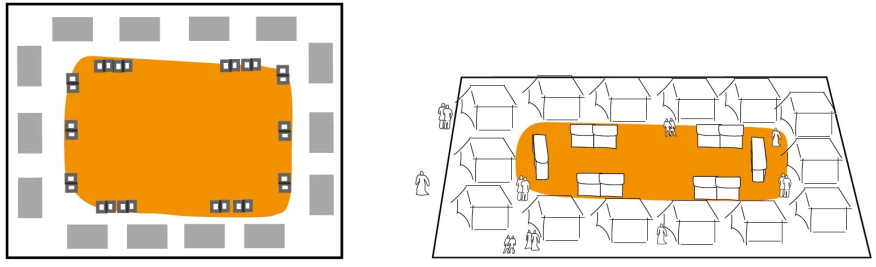


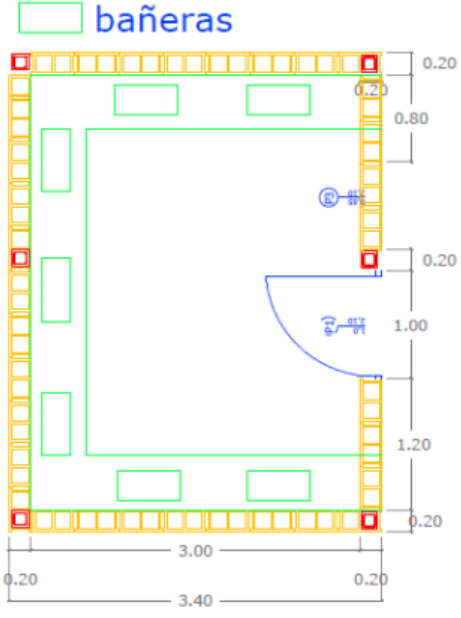
Image 15: Square blocks are arranged with shelters on the outside and latrines and other WASH facilities on the inside, enclosing some common space within

Pros	Cons
Provides community shared spaces within the cluster, and away from public paths	The space in the middle of the cluster can be contested, or taken over by one dominant family. Emptying of latrines may be difficult.
Provides space for gardens, and privacy for latrines and showers within the cluster	*Informal fencing or barriers annexing part of the space within the cluster can create blind alleyways, or enclosed spaces where women and girls can be trapped and attacked.*
Provides space for expansion or additions to the shelters	

Communal proposed facilities – Water and Sanitation

Rainwater Harvesting facilities

Children bathing/laundry areas
(proper sensibilization)
Communal area for women



Reuse of the grey water