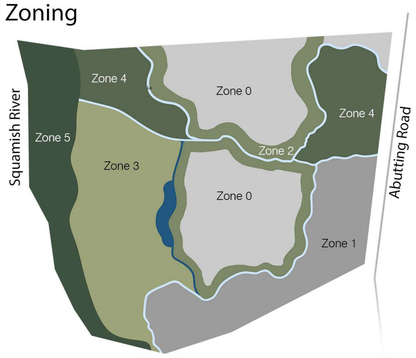
GAIA

Similar to the Gaia hypothesis, which views earth as a self-regulatory organism, our community (living component) is designed on the basis of the existing physical features (non-living component) of the site.

The concept behind the proposed design emphasises on the use of permaculture while zoning the 30 acre site to specify the varying degrees of human intervention in the forest. A bioswale channelising water from the existing streams to a pond at the edge of zone 0 has been designed to enclose the four residential clusters which are placed in the middle of the site such that each unit gets a view of the waterfront. Easy access from the indoor spaces to the outer deck surrounding three sides of each unit plays a major role in establishing strong connections with nature. The provision of skylights over the prominent areas such as the living room and the bedrooms acts as an element that integrates the inhabitants with the forest.

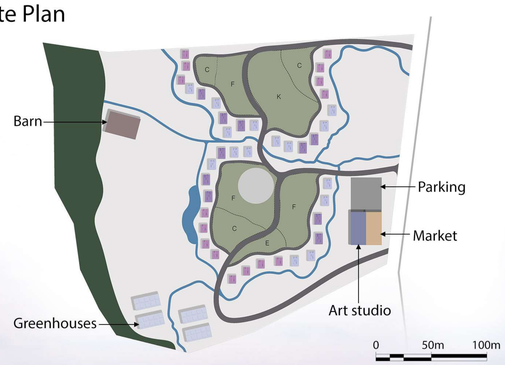
The cluster planning includes a rough demarcation of interaction spaces based on the prevalent user groups in the community. The 30 sq.m units of the southeast cluster have been reserved for elderly couples due to its proximity to the infrastructural facilities. The children's parks include the utilisation of tree houses as extended play areas. Hedges have been used as natural boundaries between units to ensure family privacy with the added advantage of acting as biodiversity hotspots.

Site Zoning



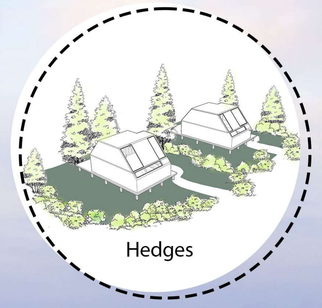
- Existing streams
- Bioswale & constructed pond
- Residential clusters (Z-0)
- Education & utility (Z-1)
- Composting & gardens (Z-2)
- Farmland & cattle rearing (Z-3)
- Semi-managed area (Z-4)
- Wild area (Z-5)

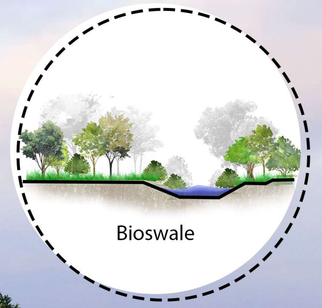
Site Plan

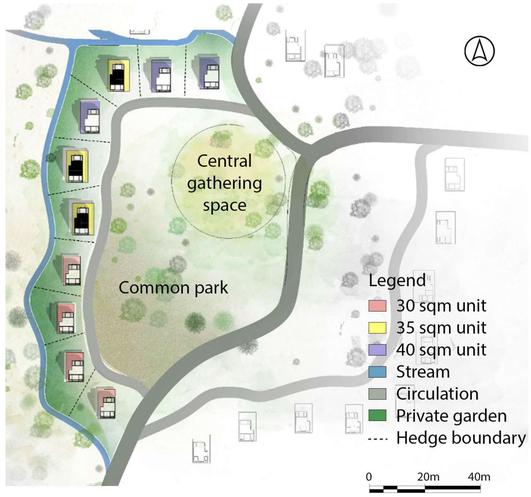


Common interaction space zoning based on user group:
C - Couple
E - Elderly couple
F - Family

Unit placement:
- 30 sq. m
- 35 sq. m
- 40 sq. m

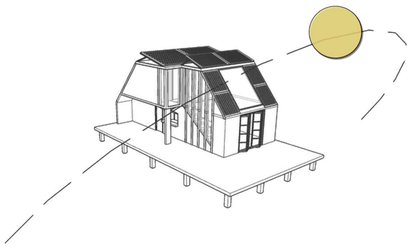




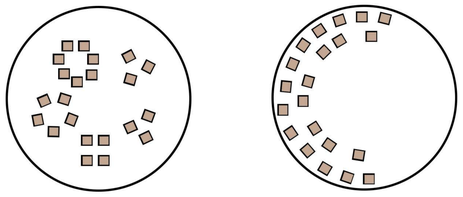


Cluster design

Deck accessible from three sides and the provision of skylight over living room



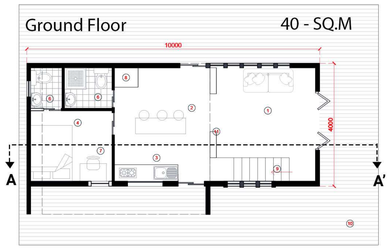
South facing solar panels and BIPV placed at optimal angles for summer and winter

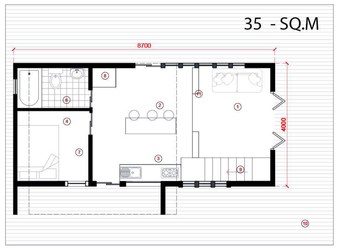


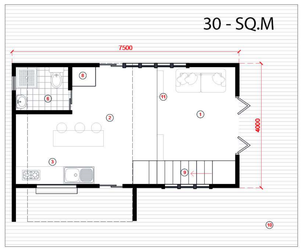
Variable group arrangement

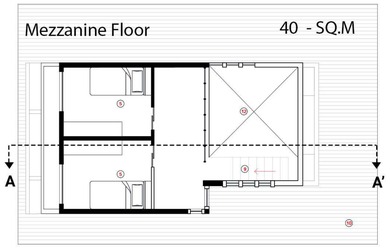
Crowd viewing arrangement

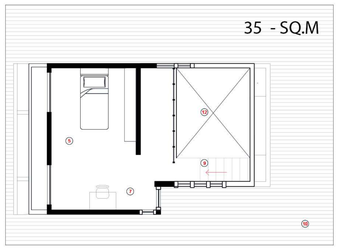
Modular seating for central gathering space

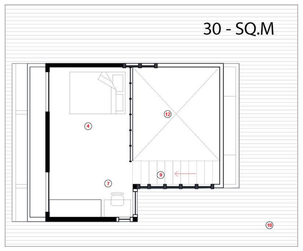


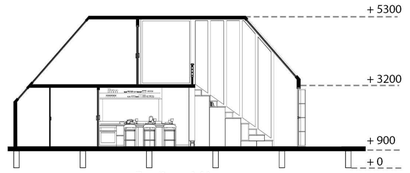










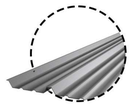


Section AA'

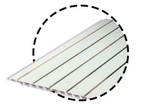
1. Living
2. Dining
3. Kitchen
4. Couple Bed
5. Washroom
6. Deck
7. Kids Bedroom
8. Study
9. Machine store
10. Stairway.
11. Book shelf
12. Seen below

The sustainable solutions proposed for the community include vermicompost bins and biogas plants for waste management along with rainwater harvesting and grey water recycling for optimising water consumption. Off-grid energy solutions include solar panels on the flat roof and BIPV modules on the slope facing the south side.

The transformable furniture designed for the units assign multiple functions to the same space. The breakfast bar can be utilised as an extended kitchen countertop or a dining table. The single bed can be converted into a study and the living room center table can serve as a sofa as well as a guest bed. The provision of movable shelves for increased privacy and wall integrated hangers are other elements that aid the flexibility of the designed spaces.

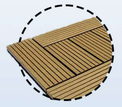


Corrugated metal sheet (Roof)

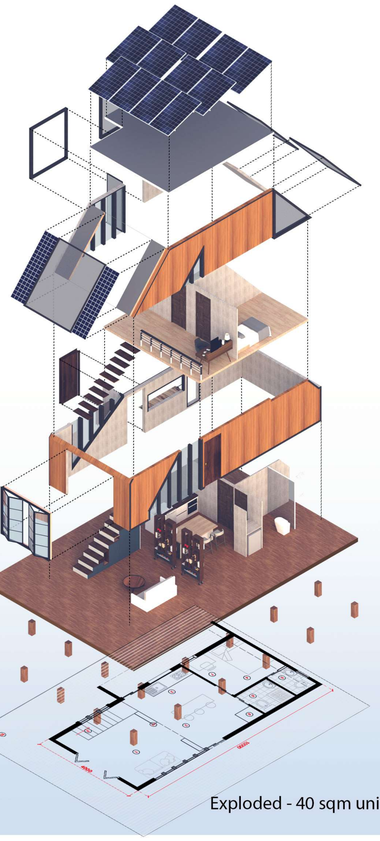


PVC Panelling (Interior Wall)

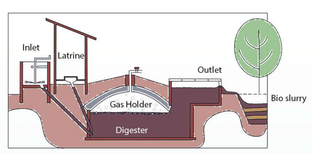
CLT - Panelling (Exterior Wall)



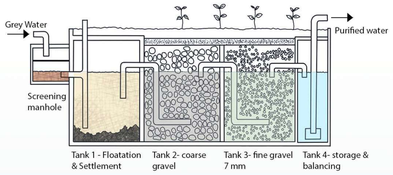
Wood-Plastic Composite (Deck)



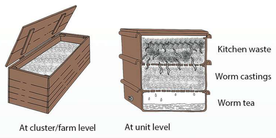
Exploded - 40 sqm unit



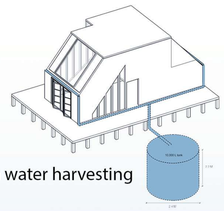
Biogas plant



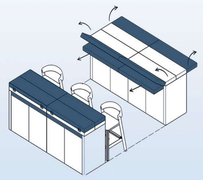
Grey water recycling



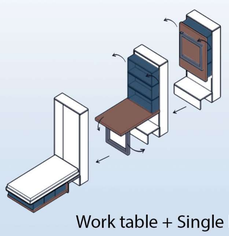
Vermicompost bin



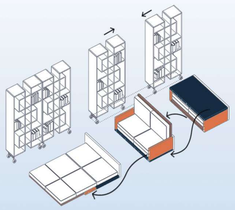
Rain water harvesting



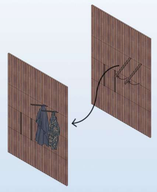
Breakfast bar + Kitchen countertop + Dining table



Work table + Single bed



Center Table + Sofa + Guest bed
Movable Bookshelves



Wall hanger