Vikas Community

India / Auroville, Tamil Nadu
79.813736, 12.000980
Client Name: Auroville
Project website: http://www.earth-auroville.com/vikas_community_en.php
249,99,58,0.6

Project Description

The Vikas Community was built in Auroville from 1991 to 1998. It includes 23 apartments and communal spaces like a community kitchen, sports grounds, and landscaping incorporating rainwater catchment systems. The buildings were built using Compressed Stabilized Earth Blocks (CSEB), ferrocement elements and other appropriate building technologies.

Building Details

Type of Building
Residence complex

Type of project
New Building Project

Number of Floors
2 and 4

Type of unit
Studios, 1 BHK, & 2 BHK

Number of units
23

Net floor area
1448 m²

Non Air-conditioned area
1448 m²

Year of completion
1998 for the last building

Year of occupancy
1993 for the first building

Project Team

Organisation
Auroville Building Centre / Earth Unit

Architech
Satprem Maïni

Climate Analysis

Describe the local climate
Vikas Community is located in Auroville, an international township in the southern Indian state of Tamil Nadu, close to the city of Pondicherry. The climate is hot and humid, with the bulk of rain coming during the North-East Monsoon (October-December) and to a lesser degree during the South-West Monsoon (June-August). The town is located close to the sea, on a plateau. Significant reforestation efforts have created large swaths of forest throughout Auroville, which has significantly improved the micro-climate of the area during hot seasons. This allows passive ventilation strategies to be a very effective

mode of cooling.

Design Approach

Site integration
The natural layout of the Vikas site informed its design, maintaining existing greenery and topography. Solar and wind energy were harnessed through photovoltaics and a wind pump for water infrastructure.

Building design
The buildings were designed to respond to environmental factors such as wind direction and heavy rains, but also to reflect the spiritual aspirations of the community through the communal features and the incorporation of Sri Aurobindo's symbol in the dimensions of the buildings.

Special Feature

Natural Lighting
Large windows for light and ventilation

Water efficiency
Landscaping incorporates rainwater catchment systems and decentralized wastewater treatment systems (DEWATS) for reuse of water for gardening purposes.

Passive heating/cooling
Windows with sunshades and pronounced overhangs; improved ventilation with the increased velocity of wind through pier walls; a solar chimney that creates a natural stack effect draft inside the apartments through the temperature differential inside the chimney.

Cost effective features
Earth building technologies & ferrocement used extensively throughout the buildings, soil from the site excavation used for CSEB block production.

Energy systems

Interior Lighting
According to occupant

Exterior Lighting
Energy-efficient lighting

Ceiling Fans
According to occupant

Air-conditioning
N/A

Lift
None

Energy efficient systems
Building designed and executed to be entirely run on solar power, Windmill-operated borewell