

Bamboo Research & Training Centre



By,
Avinash Kumar, IFS
Director, BRTC

13/08/2023

Introduction

BRTC is an autonomous organization of the Maharashtra Forest Department, established under the visionary guidance of Hon. Shri. Sudhir Mungantiwar, Minister for Forests, Cultural Affairs, and Fisheries.

Vision

To become a premier institute in Bamboo Sector through Research, Training, and Skill Development.

Focus

- Value addition in the field of bamboo for the betterment of society.*
- Research and development of high-yielding bamboo species for the upliftment of farmers.*
- Provide cutting-edge training and create self-employment opportunities.*

*Established on
4th Dec 2014*



Various activities under BRTC

Training

- *Diploma in Bamboo Technology*
- *Training to Farmers*
- *Bamboo Vocational Training*

Technical consultancy

- *Implementation of SFURTI Scheme*
- *Establishment and functionalization of different Bamboo Clusters.*

Research work

- *Bamboo flowering in TATR*
- *Different seed treatments on Bamboo.*
- *Suitable species for degraded mining land.*

Bamboo Processing

- *Operating 6 CFC with MAVIM*
- *Agarbatti Unit at Pombhurna with MAVIM*

Various sales outlets

Training:

Particular	Year	Total
Short Term Trained	2015-2023	1925
DBT enrolled Students	2017-2023	74

Livelihood Generation:

Particular	Year	Total
Products prepared by CFC's and Sold via outlets	2021 to Sept 2023	77718
Total Amount of product sale to promote livelihood generation	2021 to Sept 2023	Rs. 1,04,15,411



Vocational Training



Farmers Training



Diploma in Bamboo Technology

A group of approximately 15 people, including men and women in various attire, are standing in a line across a field of dry, yellowish-brown grass. In the background, there are several trees, some with green leaves and others bare, and a range of blue-grey mountains under a hazy sky. The overall scene suggests a field study or a group photo in a natural, possibly mountainous, environment.



Technical support by BRTC in implementation of SFURTI SCHEME



Product Photographs

Chandrapur Agarbatti Project (CAP), Pomburna



Outlets



Common Facility Centre



1. CHANDRAPUR



2. VISAPUR



3. POMBHURNA



4. MUL



5. CHIMUR



6. SINDEWAHI

Recognitions



*Gold medal by SKOCH Group
in Employment Generation.*



*GRIHA 'Exemplary
Performance Award' under
the Sustainable Building
Category*



Bamboo Research & Training Centre

Overview:

- *Capacity of more than 200 students*
- *Total Project cost is around 100 crore (12 million USD)*
- *Implementing Agency : PWD*
- *Project Consultant: SHiFt - Studio For Habitat Futures*
- *Bamboo Building constructed by Jans Bamboo*

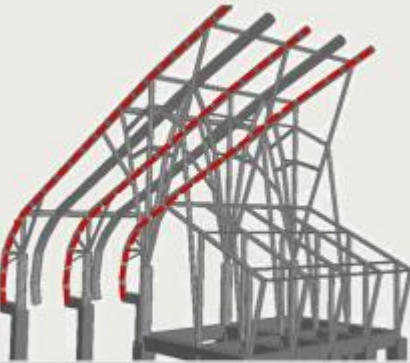
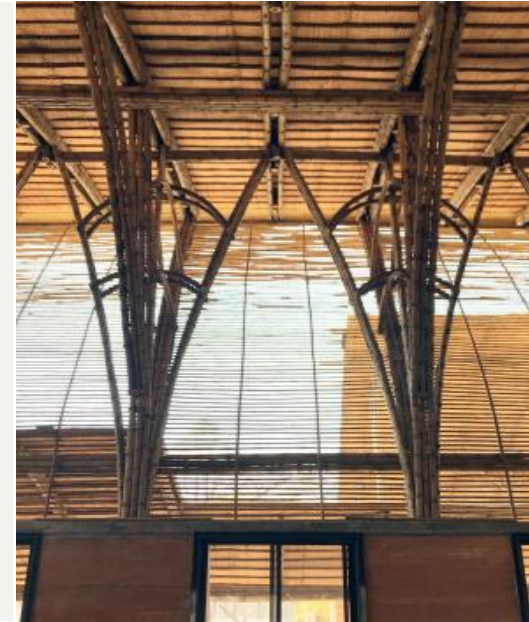
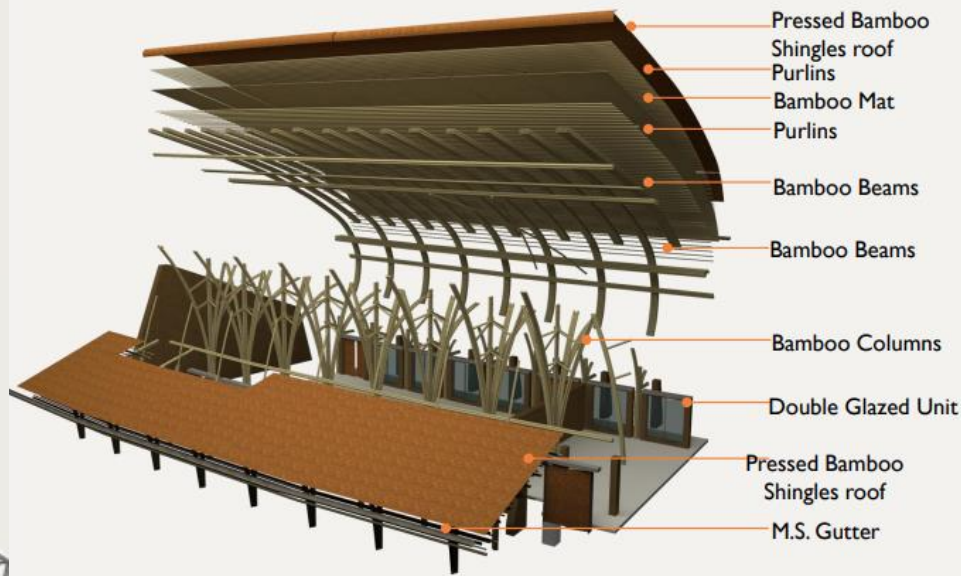
Campus area- 4.99 Ha.

- *Academics*
- *Administration*
- *Hostel & Canteen*

Bamboo Setum - 3.98 Ha

- *Bamboo species collection*
- *Bamboo Nursery*
- *Research*
- *Practical Training*
- *Bamboo Storage*

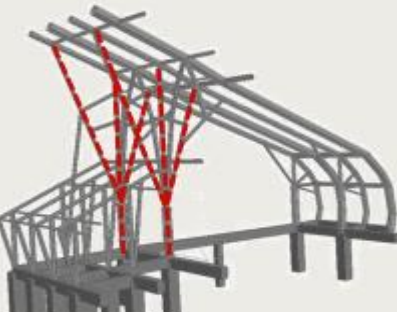
The structure is designed as per relevant Indian Standard Codes. While being bamboo, the reduced self weight and interlocking/overlapping bamboo members increase stability for earthquake and cyclone/winds.



A. Earthquake Resistant Design

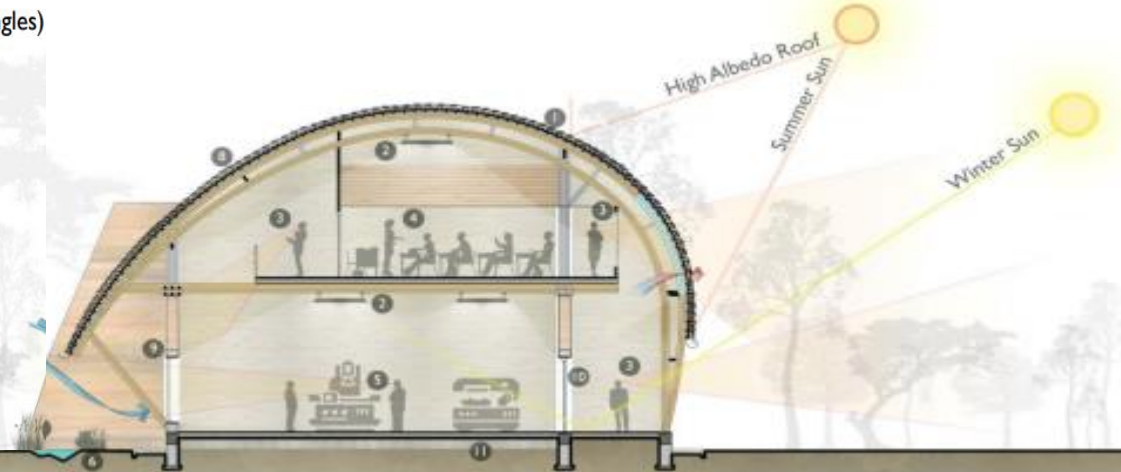


B. Reduced Self weight



C. Wind Resistant Design

- 1 High Albedo Roof (Bamboo Shingles)
- 2 LED Lights (workshop area)
- 3 View of Landscaped Areas
- 4 Classroom
- 5 Machineries
- 6 Rainwater Swale
- 7 Rammed Earth Wall
- 8 Bamboo Shingle+ Bamboo Mat Roof
- 9 Stone Chaukhats
- 10 Bamboo Doors
- 11 Cable Tray in floor



Section AA (Through Academic Block)

Amount of CO₂ sequestration per hectare
= 17 tonnes/year (source: currentscience.oc.in)

4yrs of average aged bamboo
(used of bamboo in age of 3yrs and 5 yrs)

Total Bamboo used = 200,000 rmt = 50,000 plants
= 35000 poles of Bambusa Strictus (plants per acre 1,800)
+ 15000 poles of Balcoa (plants per acre 4000)
= 17 acres = 6.87 Hectares

CO₂ sequestered = 6.87 hectare x 4yr x 17 tonnes
= 467 Tonnes

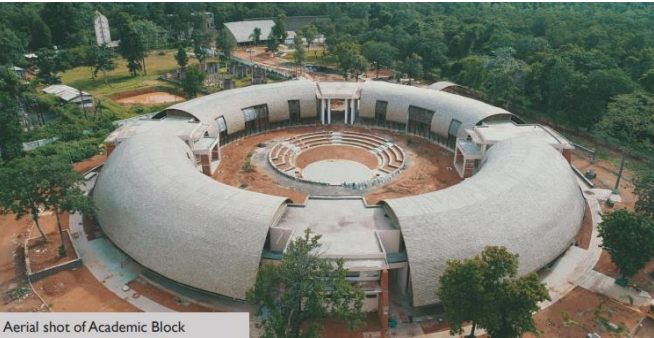


Business as Usual

Amount of RCC =
3000cum x 2224.8 CO₂/cum = 6675 Tonnes

Amount of steel =
450Tonne x 3800 CO₂/Tonne = 1710 Tonnes

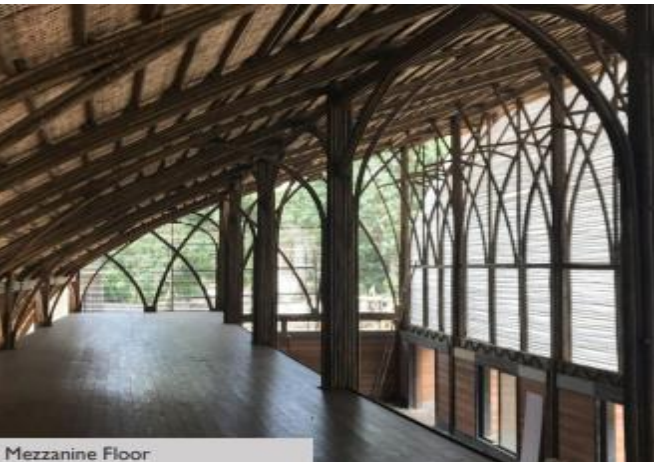




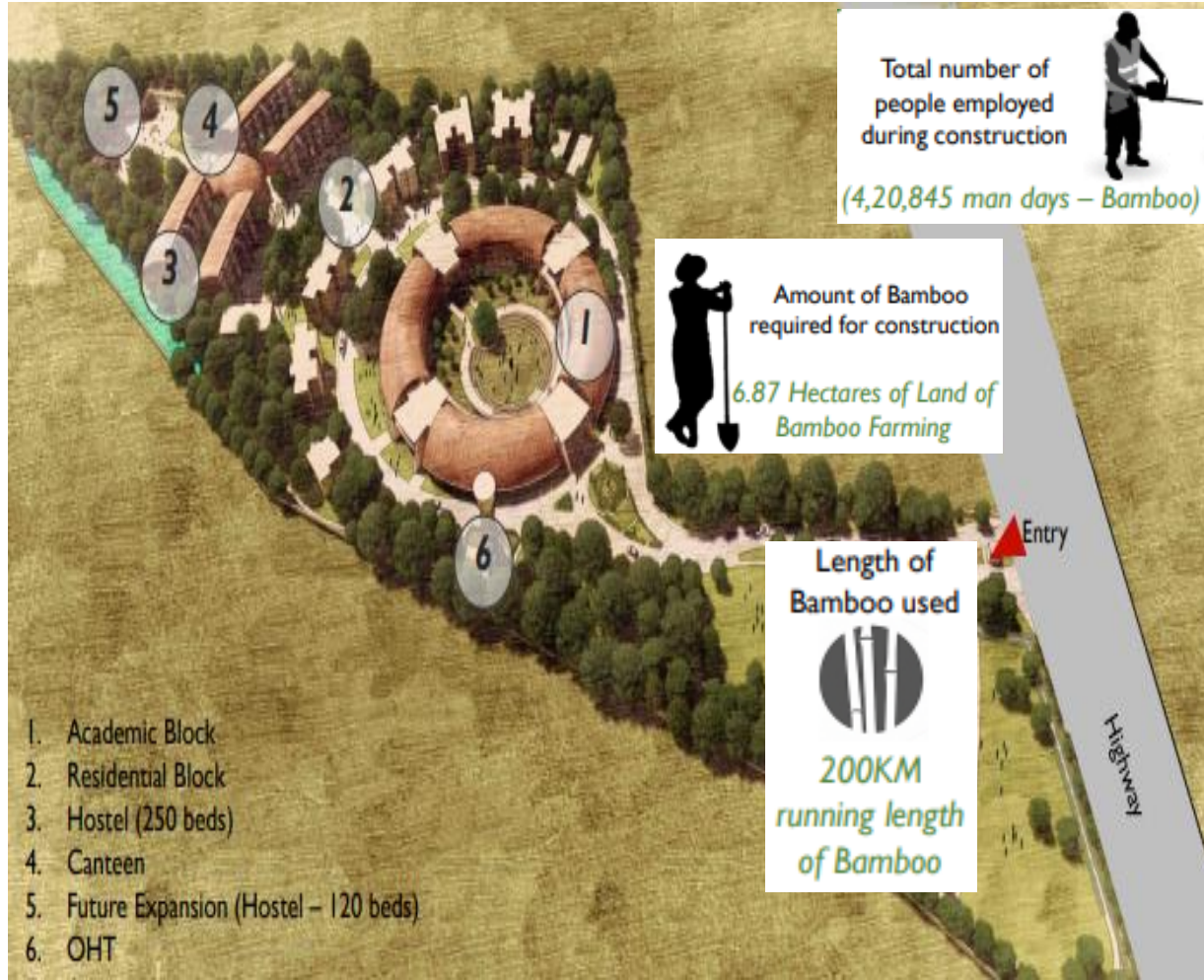
Aerial shot of Academic Block



Bamboo Screens and bamboo roof



Mezzanine Floor





Thank You
