

# Sustainable Housing Development in Ghana West Africa

## Objective:

Environmentally and economically sustainable structure which meets modern aesthetic and living standards.

## Design:

**Mud Bricks:** Cheap, local material with minimal environmental impact - just dirt & water.



**Bamboo:** Grows quickly using minimal land and water



**Passive Cooling:** Reducing energy consumption by eliminating need for air conditioning.

**Double-Layered Bamboo Roofing:** Reduces solar heat transfer roof



**High Set Windows:** Natural Convection Ventilation



**Large, South-Facing Veranda:** Shaded area provides cool air

Solar Chimney

**Thick Mud Walls:** Dehumidify the air while providing thermal insulation