



AFFORDABLE ABODES



SUSTAINABLE LOW COST HOUSING
USING BIO COMPOSITE

IMPACT OF COVID-19

SUPPLY CHAIN DISRUPTION

- Lack of supply of raw materials
- Fear of infection amongst workers
- Increased business cost

THREAT TO FOOD SUSTAINABILITY

- 40% of Asia's farmland facing desertification
- 14-20% of rice crop will be affected by Global warming by 2050

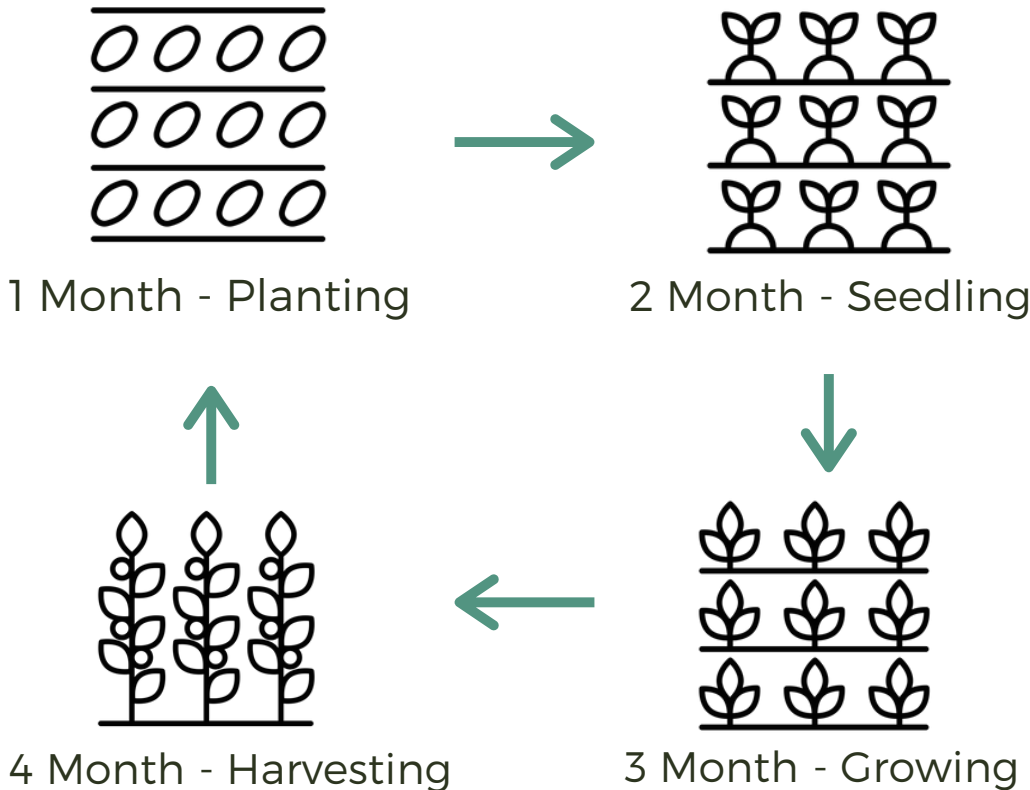
CLIMATE CHANGE

- 40 per cent of energy-related greenhouse gas emissions are from the buildings and construction sector*
- Changing weather patterns are severely affecting crop yields



Why Kenaf?

- Grows well in tropical regions
- 2 growing cycles a year
- Hardy and resilient to pest



1 HECTARE OF KENAF = 15 HOUSES / YEAR



70%
LIGHTER

97%
UP - CYCLED
MATERIALS

40%
CHEAPER TO
INSTALL

FARMING

- Efficient 4 Month planting cycle
- Resilient, high yield crop
- Alternative to Padi



PROCESSING

- >90% Biomass
- up-cycled industrial waste
- No sand required



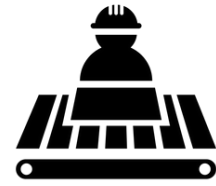
PRE-FAB CONSTRUCTION

- Rapid assembly (1 week / house)
- Minimal skilled labour and equipment needed
- No wastage





Modular Factory Unit



**KENAF BIOMASS
PROCESSING**



**MANUFACTURING KENAFCRETE
BUILDING PANELS**



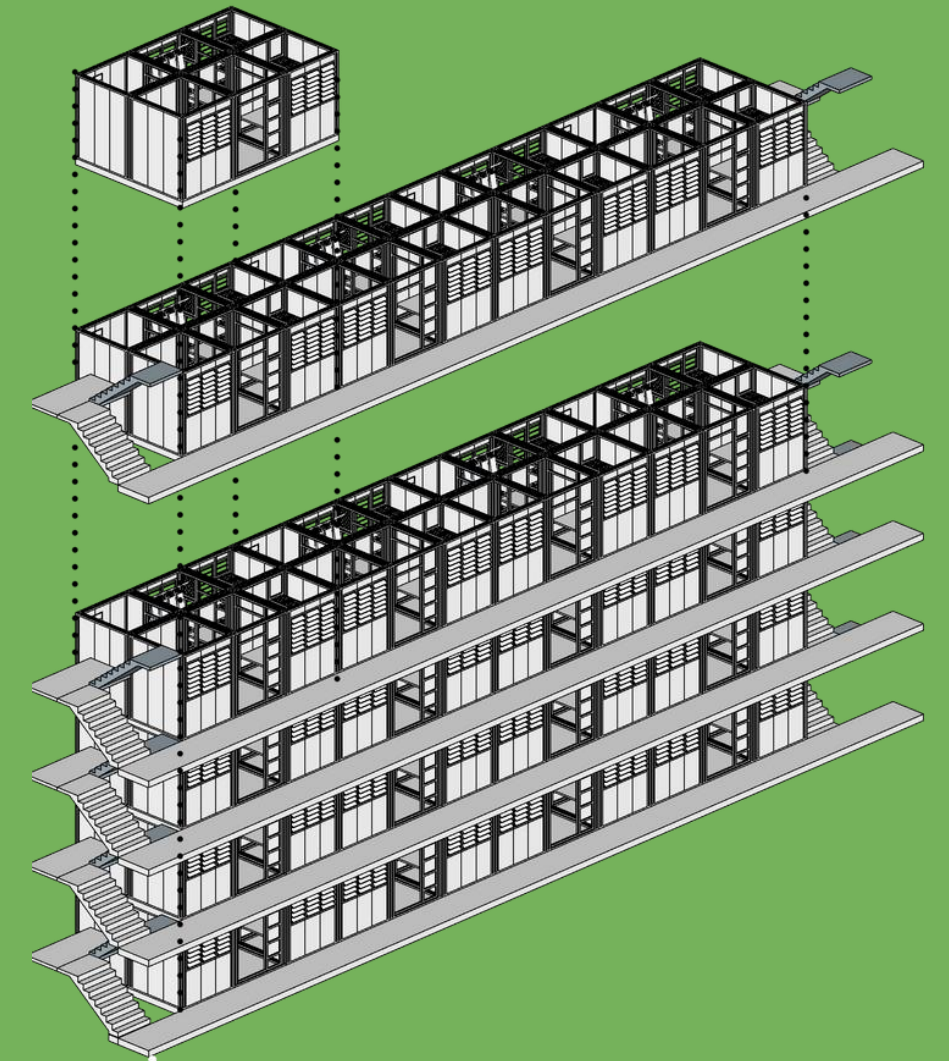
**HOUSING
CONSTRUCTION**



DECENTRALISED PRODUCTION



PRE-FAB MODULAR STRUCTURE



**3-5 WORKERS
PER MODULAR
FACTORY**



1 HECTARE



15 x

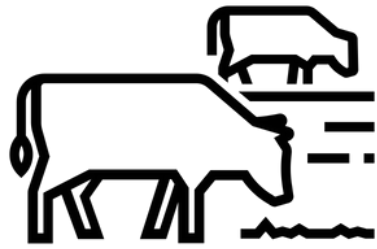


Per Year





NUTRITIOUS
FOOD SOURCE



ANIMAL FEED

COMPOST



KENAF PLANT



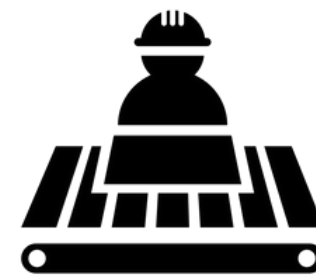
KENAF
FARMING



HOUSING
CONSTRUCTION



MANUFACTURING KENAFCRETE
BUILDING PANELS



PROCESSING
RAW MATERIALS

CIRCULAR ECONOMY

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