

Elevated Bamboo ‘Machaan’ Shelter: Low-Cost Hygienic Housing for Goats in Tribal Areas

Profile of Innovator

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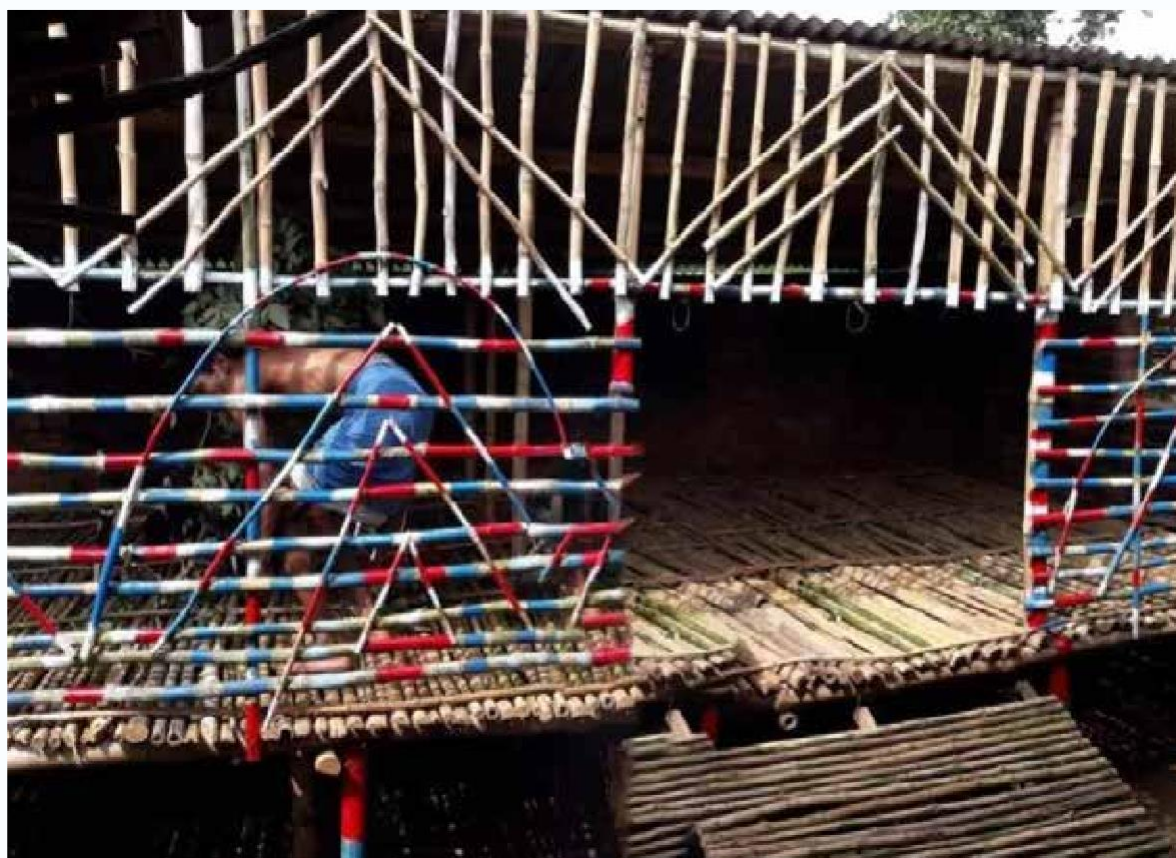


Brief description of Innovation

It is an innovative low-cost, eco-friendly shelter management technique using locally available bamboo/ wooden platform known as “Baans Machaan or Lakdi Machaan” designed for resting and feeding of goat and kids. This shelter model is elevated on wooden or bamboo scaffolding (Machaan) raised 1.5 to 2 feet above the ground 3 feet wide and 10 feet in length sufficient for accommodating for 8-10 goats. Entire structure can be prepared in 5-6 days with cost involvement of Rs. 4000-5000 only. The structure promotes effective drainage for animal waste, maintains a hygienic microclimate, and supports steady growth for diseased free kids.

Innovation’s Highlights

Elevated (2-1.5 ft) shelter made of bamboo or wood. Ensures cross ventilation, dry bedding, and cold/wind protection. Designed specifically for small ruminants like goats and kids. The shelter is climate resilient and environmentally friendly able to maintain 10-8 OC lower temperature inside during summer than outside temperature (44-43 OC).



Elevated Bamboo ‘Machaan’ shelter for goats



Goats housed in low cost 'Machaan' shelter



View of low cost machaan

Benefits/Advantages

Reduces mortality and disease occurrence in goat kids due to pneumonia and cold. Maintains clean and dry housing conditions and low-cost and easy to construct.

Scope & Potential of Innovation for Wider Reach/Out Scaling

Highly useful for economically weaker tribal farmers. Significant potential for replication in rural, tribal, and semi-arid regions where goat farming is a key livelihood. It can be promoted by KVKs, livestock extension agencies, FPOs and rural development programs of state to strengthen climate-resilient housing management.

Scientific Validation required

Needs validation of mortality and morbidity rates before and after shelter adoption, temperature and humidity control within shelters.

Domain

This shelter is quite suitable for tribal farmers, where goatary is a livelihood business.