Malabar FOCUS

Building costs go down, naturally

Bamboo replaces bricks; mud takes the place of cement

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KALPETTA: The common man's dream of building a house is often dashed by the sky-rocketing price of raw materials such as sand. The Uravu Eco-links, a social organisation in the district, is offering a solution through an innovative, eco-friendly construction technology.

The technology uses locally available materials such as bamboo, areca nut palms, mud and ferro-cement, reducing construction cost up by up to 30 per cent without compromising on the strength of the building.

Adaptability of structure is the major attraction of the technology, T. Sivaraj managing director of the organisation, says. The design of an eco-friendly house could be changed according to the aesthetic sense of the owner.

Rs.7.5 lakh

The organisation had constructed a 450-sq ft cottage on an elevated structure, with a bedroom and a veranda, at a cost of Rs.7.5 lakh. The walls of the bamboo cottage were plastered with ferro-cement and mud.

The cost could be reduced by nearly 50 per cent in future as many trial and error methods had been applied on the model project, Mr. Sivaraj says. The construction of four similar structures is under way. Bamboo and areca nut palms could be used as an alternative to costly wood, but they should be treated with boric acid and borax powder to resist wood borers.

The structures could last years, Juerg Grunder, Professor, Department of Architecture (Wood and Civil engineering) Bern University, Switzerland, who is also the designer of the project, says.

The technology could be used to build huge structures too, Mr. Sivaraj says. He adds that K.V. George, an engineer with the organisation, had constructed a 2,500-sq.ft. disaster-resistant house at Karapuzha in the district at a cost of Rs.10 lakh (The amount is minus painting and flooring costs.)

Areca nut palm and ferro-cement are prime raw materials. Using eco-friendly materials, Uravu Eco-links had built a 101-metre bamboo bridge for the Archaeology Department at Madavoorpara in Thiruvananthapuram; a modern bamboo raft with a seating capacity of 125 persons for the Forest Department at Kuruva near Pulpally; and many housing structures for private resorts in Wayanad.

The organisation is also rearing a bamboo nursery with 36 species of bamboos of which five are ideal for construction. It supplies saplings to farmers and organisations.

ONLY GREEN: *(top left) A cottage built by the Uravu Eco-links in Wayanad district with bamboo poles and areca nut palms; and (left) a bamboo bridge built for the Archaeology Department in Thiruvananthapuram.*