

BAMBOO BOARDS AND BEYOND



BAMBOO
BOARDS &
BEYOND

THE CHINA EXPERIENCE

The United Nations Development Programme (UNDP) and the Asian Pacific Centre for Transfer of Technology (APCTT) New Delhi, have supported a concept development workshop on the creation of new applications with laminated bamboo boards through a research and development initiative by India's premier design institute, the National Institute of Design. This workshop hopes to position bamboo as a sustainable, eco-friendly industrial material of the future.

M P RANJAN

NATIONAL INSTITUTE OF DESIGN

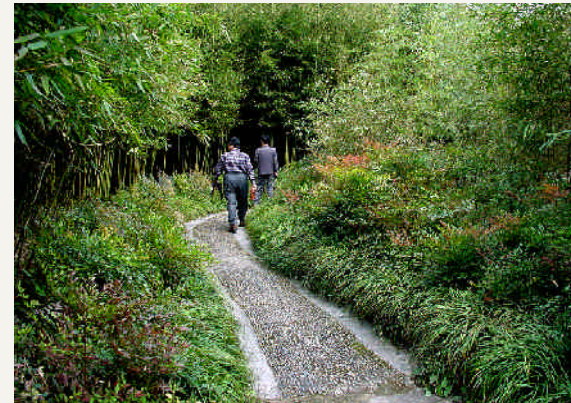
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A K Bansal, DIRECTOR, IPIRTI and
Prof. M P Ranjan, NID in China
during the study tour October 1999.



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China has established efficient systems for the cultivation and harvesting of bamboo.

BAMBOO FORESTS

BAMBOO PLANTATIONS



HARVESTING



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TRANSPORTATION



TRIMMING



SPLITTING



Chinese use simple methods for the transport of bamboo. Numerous small scale units are involved in the conversion of bamboo into sized splits.





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CLEANING AND SIZING THE SPLITS



Chinese techniques for sizing of bamboo splits are simple and cost effective.

STACKING THE SPLITS





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PROCESSING THE BAMBOO STRIPS



Factories in China manufacturing bamboo boards, use steam and boiling water pretreatment for the sized splits.

SPLITTING THE STRIPS





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PRE-GLUEING PROCESS



China has trained men and women who select the splits and make ready the pre-press stages using simple jigs.



PRE-PRESS OPERATION





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GLUE APPLICATION



Glue application on splits is done manually or with mechanical rollers, bundled and kept ready for pressing into laminated bamboo boards.

GLUED BUNDLES





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TRANSPORT TO PRESS



HEAT PRESSING



Heat pressing into edge glued strips or horizontal layers is done on hydraulic presses in medium sized factories.

STACKING AND STORING





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BOARD TRIMMING



Pressed bamboo boards are stacked, trimmed and finished using simple wood-working machines.

STACKING



EDGE FINISHING





BAMBOO BOARDS

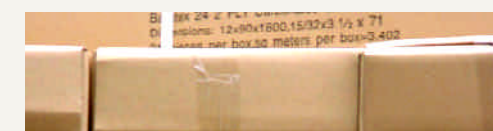
AND BEYOND

SURFACE FINISH



Finished boards are sanded on sophisticated continuous belt sanders, surface treated with resins and oven baked before packing.

PACKAGING





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EXPORT

CHINA : ONE BILLION USD

China is reported to have exported over US \$ 1 billion worth of bamboo boards for flooring applications in 1999-2000.

Over 300 factories backed by a large catchment of farmers have achieved remarkable results.



INDIA : ?



India can learn from this experience. Bamboo Boards and Beyond is an effort to create an awareness to mobilize the Indian interest in *Bamboo, the sustainable, eco-friendly, industrial material of the future.*



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ICSID International Council of Societies of Industrial Design
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