



International Network for Bamboo and Rattan
In Partnership for a Better World



Contents

In this issue...	1
INBAR in the Region	
♦ INBAR completes demonstration bamboo structure in Bhutan	2
Publications	
♦ Two Books on Nepal's Bamboo and Rattan	3
News from the B&R World	
♦ India's first bamboo park in Tripura	4
♦ Bamboo is liberated, says Environment & Forests Minister	4
♦ No takers for bamboo pulp sanitary napkin unit	4
♦ Indonesia bans rattan exports	5
♦ The world's largest bamboo structure is in Bali	5
♦ Philippines exempts minor forest products from log ban	5
♦ Philippines to implement national standards for engineered bamboo	6
♦ Bamboo processing industry to be set up	6

In this issue...

We welcome you to this edition of the regional Newsletter from INBAR's South Asia Regional Office (SARO).

The United Nations has proclaimed the year 2011 as the International Year of Forests. Various events are being organized throughout the world to celebrate the year, aiming to increase public awareness of the key role that forests play in building a healthier and more sustainable future. Among the events worldwide, India's Ministry of Environment and Forests is organizing the First Indian Forest Congress 2011 during 22-25 November 2011 in New Delhi, India. The Congress, with its central theme as 'Forests in a changing world', will provide opportunity for the forestry community and stakeholders to discuss advances on various aspects related to forestry. Please visit <http://ifc2011.icfre.gov.in/> for more information.

Incorporating the international conference (third in the series) on Modern Bamboo Structures, a three-day international summit on "Sustainable Habitat for Mass Housing, Eco-San and Sustainable Livelihoods" will be held in New Delhi, India, from 9-11 December 2011. INBAR is providing technical support to the event, and Dr. Coosje Hoogendoorn, the Director General of INBAR, is Chairperson of the Conference. Please visit <http://www.inbar.int/show.asp?BoardID=171&NewsID=745>.

In the South Asia region, in Bhutan, INBAR recently completed implementation of a project on bamboo structures to explore bamboo as a sustainable alternative for wood. The goal of the project is to promote local bamboo resources as an efficient building material and provide training and capacity building for the people. We bring you a report.

Write to us your comments, suggestions about the Newsletter. We are eager to hear from you.

INBAR South Asia Regional Office Team

We invite articles, news items and other contributions on issues related to bamboo and rattan for inclusion in the quarterly newsletter. The contributions may typically be about 300 words. All contributions are to be sent to: Mr. T.P. Subramony, Regional Coordinator (South Asia), by e-mail at: subramony@inbart.int

INBAR South Asia Regional Office
 41, 2nd Floor, Zamrudpur Community Centre
 Kailash Colony Extension
 New Delhi 110 048, India.
 Phone: +91-11-4101 5489/90
 Fax: +91-11-2923 5115



INBAR in the Region

INBAR completes demonstration bamboo structure in Bhutan

In our previous issue, we had reported about INBAR activities related to ameliorating the devastating effects of a 6.1 magnitude earthquake in 2009 that hit Mongar district of Bhutan, about 180 km east of the capital Thimpu. The earthquake caused extensive damage to many monasteries and residential houses in the district; INBAR had decided to play its part by contributing with bamboo-based technologies for the reconstruction efforts in Bhutan, which is an INBAR member country.

INBAR recently completed a project on the construction of a demonstration bamboo house in Tingtibi in Bhutan. The project was implemented by INBAR in partnership with the Royal Government of Bhutan. The goal was to promote local bamboo resources as an energy-efficient, renewable and earthquake-resistant building material that would blend into the rich Bhutanese architectural practices.

Bamboo was traditionally used as infill materials for timber-framed house. As the cost of timber is going up and supply limited, people are switching over to concrete thus abandoning a rich architectural tradition. After an intense deliberation with the local engineers, INBAR came up with a design that retained the traditional appearance of the Bhutanese architecture but replacing timber with bamboo as structural element. "More than the strength and cost of the material, the most important part is the cultural acceptability; that is why we preserved the traditional architectural form," claims Nripal Adhikary, architect from INBAR. The size of the structure is 100 sq.m and the cost is roughly half of what a similar timber construction would cost.

The bamboo was treated using Modified Boucherie System, which impregnated boron compound into the bamboo as a prophylactic against pests that degrade bamboo. Modified Boucherie System offers a fairly simple but effective preservation treatment. The plastering was done using red laterite soil with modern technique. This not only provides good thermal comfort but also preserves the bamboo, as it reduces moisture content to a level at which borer beetles cannot thrive. "Nearest hardware store was three hours away so we had to improvise and use local materials like rattan and wood for joinery. In



Bamboo demonstration house built in Tingtibi, Zhemgang District, Bhutan



Another view of the bamboo demonstration house



The inside of a room in the bamboo demonstration house

the end this house is a synthesis of hard work, use of local resources and public participation" says Adhikary.

Recently, there was a big earthquake in the region – this time in Sikkim but close to the area where the demonstration house was built. The house did not suffer any damage, thus proving bamboo's earthquake-resistance properties. The house built is proposed to be inhabited by the Tingtibi community chief. The government has plans to build more similar structures in the next fiscal year.





Two Books on Nepal's Bamboo and Rattan

Review of Traditional Designs and Technologies of Bamboo and Rattan Products in Nepal



Despite a long history of manufacture of bamboo handicrafts, traditional designs dominate and the manufacture is confined to the rural and peri-urban areas. Neither efforts to promote this sector have arrested the vanishing of traditional designs nor have new designs been improved to

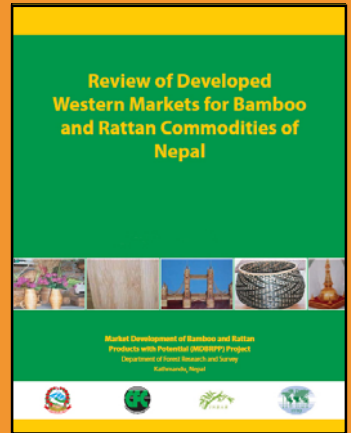
promote their markets. These products are being rapidly replaced by less environment-friendly, cheap plastic substitutes. Consequently, artisans traditionally dependent on bamboo and rattan craft have become socially and economically vulnerable.

With the financial assistance from the Common Fund for Commodities (CFC), through the execution of International Network for Bamboo and Rattan (INBAR) and the technical support of the International Tropical Timber Organization (ITTO), the Department of Forest Research and Survey (DFRS) has been implementing the Market Development of Bamboo and Rattan Products with Potential (MDBRPP) Project since 2005, with the overall objective of improving the quality, durability, market opportunities and resource base of bamboo and rattan-based commodities for their sustainable development in Nepal. The project strategy is to intervene in the areas endowed with indigenous knowledge on bamboo and rattan products but weak in the development of new, high-quality design products.

This book, published by the Department of Forest Research and Survey, Ministry of Forests and Soil Conservation, Government of Nepal, presents a review of Nepali designs and techniques that have been traditionally practised with bamboo and rattan products in the country. A copy of the publication can be downloaded from http://www.inbar.int/publication/PDF/Review_of_Design.pdf.

Review of Developed Western Markets for Bamboo and Rattan Commodities of Nepal

Although, potential of western market for Nepalese bamboo and rattan products has been recognized, no concrete efforts have been made to explore such market. For this reason, the Market Development of Bamboo and Rattan Products with Potential Project (MRBRPP) under the Department of Forest Research and Survey (DFRS) recently



commissioned a study on Review of Developed Western Markets for Bamboo and Rattan Commodities of Nepal.

This publication briefly describes the background of bamboo and rattan resources in Nepal, gives general accounts of the relevant policy documents, elaborates the marketing of bamboo and rattan at home and abroad, and discusses world trade scenario related to bamboo and rattan products. It further deals with status of bamboo and rattan in the western markets, with supplements of export status of Nepal and its potential bamboo and rattan products appropriate for western markets. Moreover, it identifies major constraints and opportunities related to western markets for bamboo and rattan commodities of Nepal, and recommends ways to grab such markets.

This book, published by the Department of Forest Research and Survey, Ministry of Forests and Soil Conservation, Government of Nepal, can be downloaded from http://www.inbar.int/publication/PDF/Western_Market_Study.pdf.

Changes to INBAR's affiliates scheme

INBAR's affiliates scheme has been revamped!!

All online resources are now freely available, and you can subscribe to receive the latest updates from INBAR in your inbox. We hope you will enjoy using the new system.

INBAR is developing new ways of partnering with relevant stakeholders, both individually and institutionally that we'll introduce in the next few months.

Your feedback and opinions are always welcome - please do contact us at andrew@inbar.int.





News from the B&R World

INDIA

India's first bamboo park in Tripura

India's first bamboo park is being set up in the northeastern state of Tripura to promote exports and to bring about a natural revolution in the elastic polymer industry.

The bamboo park, a joint venture between the Tripura Industrial Development Corporation (TIDC) and the Infrastructure Leasing and Financial Services (IL&FS) Limited, is being set up at a cost of Rs 250 million. The project is being set up at the northeast India's biggest industrial zone located at western Tripura's Bodhjungnagar, some 25 km north of Agartala, Tripura's capital.

"In the bamboo park, the core focus would be on the development of specialised common facilities and support infrastructure to build the competitive strength of the various units and enable them to tap the global markets," said TIDC chief Pabitra Kar.

(Source: Mangalorean Star, 06 April 2011)

Bamboo is liberated, says Environment & Forests Minister

"Today, bamboo is liberated," proclaimed India's Union Minister of State for Environment and Forests Jairam Ramesh* at a function, where he handed over to Mendha's community leader Devaji Tofa a transit pass that would allow the sale and transportation of bamboo within the community.

Ever since bamboo was given the status of a minor forest produce (MFP) in the Forest Rights Act, 2006 (Scheduled Tribes and Traditional Forest Dwellers [Recognition of Forest Rights] Act), there has been a campaign for its selling rights – something which the Forest Department has jealously guarded. The Act, which seeks to redress a historical injustice to the tribal communities, apart from entitling them to land ownership, also gives communities rights to collect, use and sell bamboo as an MFP.

The Ministry had written to all States in March, asking them to include bamboo in the list of MFP and to take steps to help communities sell it. Mr. Ramesh said forest officers alone could not protect forest areas; local participation was essential. About 250 million people who live off the

*Currently, Jayanthi Natarajan is the Minister of State for Environment & Forests.

forests cannot be kept out, he commented. He also called for a change in the mental attitude towards tribal communities and forest-dwellers.

(Source: The Hindu, 29 April 2011)

No takers for bamboo pulp sanitary napkin unit



The Nagaland Bamboo Research Centre (NBRC) is finding no entrepreneurs to run its "bamboo pulp sanitary" unit located in Dimapur. The unit, which was set up in 2009 with a capital investment of Rs 3.6 million has not been functioning for more than a year. The money was used to procure machinery and train workers. The product is currently in the design and research stage but is marketable. NBRC had planned on tying up with the National Rural Health Mission to provide sanitary napkins in the rural areas but that didn't materialize either. The unit is just lying idle waiting for buyers.

A band-aid manufacturing machine has also been put in place but that too has no takers. It is learnt that one entrepreneur had decided to run the unit but that didn't work out. An NBRC official informed that at least Rs 300,000 would be required as working capital to run the unit. Machinery and human resources are already in place while the raw material is available at the unit.

Bamboo pulp sanitary napkin has many advantages: bamboo pulp is 300 per cent more absorbent and safer than wood pulp; it economizes on the use of wood and its compost can be made out of it.

The product is made under strict hygienic conditions and goes through various stages of production. In the first stage, bamboo chip is mixed with water and sent for digested pulp washing. The next stage includes bleaching the pulp with bleaching powder and sodium chloride, which is





sent into washing inside the hydro extractor. The next step involves drying. The product is then compressed into absorbent layers and covered with polythene and non-woven sheet. It is then sent for cutting. The hygienic napkins are sealed with adhesive and perfumed before being sent for packing.

(Source: *Morung Express*, 30 July 2011)

INDONESIA

Indonesia bans rattan exports

Trade Minister Gita Wirjawan has confirmed the rattan export ban will be issued early November 2011 and will come into effect in the following month. The law will be evaluated in two years. "We will issue it in the form of a Trade Ministry regulation. This was based on the recommendation from the ministries of trade and forestry as well as the governors," Gita said.

The most important thing was that rattan could not exit Indonesia and would be used by the local industry, the Minister said. The government will also guarantee the traffic of rattan supply through a warehouse receipt system. Rattan materials will be stored in the warehouses nationwide. The period for the export ban has not been set. "We want to ban it as long as possible," said Gita.

Industry Minister M.S. Hidayat maintained that rattan exports was being stopped as they harm the local rattan industry which lacks raw materials. The government's data showed that 60-63,000 tonnes of rattan was absorbed by the local industry while 30-35,000 tonnes was exported.

The moratorium on exporting raw rattan could affect producers in Kalimantan and Sumatra, as they export most of their product rather than sending the raw rattan to domestic furniture makers. Indonesian Rattan Entrepreneur Association (APRI) vice chairman Julius Hosan said on Sunday that the moratorium ruined the present situation, citing the regulation that said raw rattan producers had to supply a certain amount of their product to local furniture industries in Java before receiving an export quota.

Raw rattan began being exported in 2005, which caused a collapse in 70 percent of the furniture industry. AMKRI secretary general Abdul Sobur said that rattan furniture industry revenues have dropped from US\$350 million in 2005 to \$50 million in October 2011 and that the government's steps were wise, as there would be more workers employed.

(Sources: *Tempo Interactive & The Jakarta Post*, 31 Oct 2011)

The world's largest bamboo structure is in Bali



Picture courtesy: Martin Westlake

The world's largest bamboo commercial structure is taking shape in Bali, Indonesia. Off a beaten track, past a towering banyan tree and next to an ancient Hindu temple, the building will eventually house a chocolate factory.

The three-story, 23,000-square-foot building – made from more than 3,000 long, flexible poles – is crowned with a graceful, sloped ceiling nearly 50 feet high. Cheap, tough as concrete, with the ability to bend, and incredibly abundant, bamboo's possibilities are almost limitless.

"Bamboo is definitely regarded as one of the most sustainable building materials in the world," said Frederick Schilling, co-owner of the Big Tree Farms factory, which is putting up the structure. "As a bonus, it is also very beautiful to work with."

Bali's craze, bringing together entrepreneurial expats and local craftsmen, started six years ago with the founding of a local bamboo production company for the construction of Green School, an exclusive international school with 275 students.

(Source: *The Washington Post*, 01 Nov 2011)

THE PHILIPPINES

Philippines exempts minor forest products from log ban

The government would exclude minor forest products (MFPs) in line with an executive order (No. 23) putting in place the indefinite total log ban nationwide. Ramon Paje, Secretary of Department of Environment and Natural Resources (DENR), told members of the Chamber of Furniture Industries of the Philippines (CFIP) that MFPs such as rattan, buri (raffia palm) and vines are exempted from the moratorium.





The CFIP members called for immediate formulation of the implementing rules and regulations (IRR) to avoid disruption in the supply chain that could result to higher costs due to misinterpretations on EO 23 in the local government level and with involvement of the private sector.

To address these environmental concerns, DENR issued four resolutions to serve as guide for the Anti-Illegal Task Force in enforcing the moratorium and in leading the government's anti-illegal logging campaign instead of an IRR. Resolution No. 2011-001 states that all committees shall review existing forestry agreements with timber harvesting component in the natural and residual forests and shall as much as possible include representatives from the academe, civil society, industry and other concerned sectors.

(Source: Manila Bulletin, 19 Apr 2011)

Philippines to implement national standards for engineered bamboo



All products made from engineered bamboo will soon have standardized quality once the Department of Trade and Industry (DTI), through its Bureau of Product Standards (BPS), completes its development of a national standards for everything made of this resilient and sustainable material. The standards will also cover school furniture made of engineered bamboo: chairs, tablet arm chairs, tables, and desks.

BPS invited technical experts from the Forest Products Research and Development Institute (FPRDI) and the Cottage Industry Technology Centre (CITC) in order to ensure the development of a relevant and realistic Philippine National Standards for bamboo products. Engineered bamboo products refer to wood substitute products made of processed bamboo slats.

Engineered bamboo is one of the priority projects of the government that is intended to alleviate poverty on the pilot areas by generating jobs through entrepreneurship. In its implementation, the project adopts the scheme of public-private partnership. DTI is the lead implementing government agency of the engineered bamboo project.

The project adopts the industry clustering strategy using value chain as a tool for industry development where institutional markets are tapped. Currently, desks made of engineered bamboo are used to replace the dilapidated desks of public elementary schools in some pilots areas.

(Source: Philippine Information Agency, 23 June 2011)

SRI LANKA

Bamboo processing industry to be set up

The United Nation's Industrial Development Organisation (UNIDO), in cooperation with Sri Lanka's Ministry of Industry and Commerce, has initiated a new project to set up bamboo industries in the country. As part of this project, Indian experts will share their expertise to start Sri Lanka's bamboo processing industry.

With a total value of US\$15.9 million, the project will aim at developing a bamboo supply chain and product industry in the country, according to Nawaz Rajabdeen, National Director, UNIDO-Sri Lanka. "UNIDO envisages that its industry development thrust will occur on three fronts; engineered bamboo materials for structural applications such as roofing sheets and panelling, bamboo pellets for local energy use, and bamboo sprouts as food exports," Rajabdeen said.

"A well-developed bamboo industry will also help us overcome shortcomings in our wood industry and wood supplies" said Rajabdeen. "The bamboo industry-focused cultivations in Sri Lanka will be restricted to degraded lands only," he revealed. Research on Sri Lankan bamboos has revealed that there could be 10-14 varieties of bamboo in the country. They grow across all climatic zones of Sri Lanka with Kalutara noted as the region with highest bamboo growth. The mostly used variety among the local bamboo species is *Ochlandra stridula*. Most people who use bamboo as raw material use it to produce crafts. The Sri Lanka Forestry Master Plan of 1995 identified that protection of bamboos of the country to be a priority.

(Source: Daily Mirror, 09 Aug 2011)

