



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

No 5  
October 2010



# Newsletter

South Asia Regional Office (SARO)

## Contents

<b>In this issue...</b>	1
<b>News</b>	
♦ The first DG of INBAR honoured on World Bamboo Day	2
♦ World Bamboo Day and International Seminar	3
<b>Announcement</b>	
♦ Vacancies in INBAR	4
<b>News from the B&amp;R World</b>	
♦ Bamboo withstands strong winds	5
♦ Bangladesh goes for first ever bamboo shoot export	5
♦ Bamboo to die en masse again	6
♦ National Bamboo Mission launched in Kashmir	6
♦ Bamboo houses could help alleviate poverty	6
♦ Bamboo biomass gasification plant	6
♦ Development of bamboo industry pushed	6
♦ Rattan companies learn about sustainable farming	7
♦ Did the Romans build their aqueduct with bamboo?	7
♦ A bamboo curtain for superfund site	7
♦ Bamboo blades for windmills	8
<b>Box</b>	
INBAR Annual Report 2009	8

## In this issue...

Welcome, friends, to the latest edition of the regional Newsletter from INBAR's South Asia Regional Office (SARO).

One of the recent highlights in the world of bamboo has been the celebration of the World Bamboo Day. During the 8th World Bamboo Congress in 2009 in Bangkok, September 18 was declared as the World Bamboo Day, as part of efforts to increase the awareness about bamboo globally. The 'World Bamboo Day 2010' was celebrated in many parts around the world, including the state of Nagaland in India. The event in Nagaland was organized by the state government in association with the World Bamboo Organization (WBO) at the Kisama Heritage Village in Kohima. Leading to the World Bamboo Day was a two-day international seminar on 'Bamboo for livelihood and community development' on 16th and 17th, and an international bamboo festival.

Dr. Cherla Sastry, the first Director-General of INBAR, was among the pioneers awarded by the WBO for his outstanding contribution to the bamboo sector. Others awarded were (Late) Mr. Vinoo Kaley, a bamboo idealist, Mr. Sampuran Singh and Mr. Rajib Goswami, both bamboo entrepreneurs, and Mr. Richard Belho, a bamboo architect. We bring you a report.

As an intergovernmental organization dedicated to reducing poverty, conserving the environment and creating fairer trade using bamboo and rattan, INBAR works with its partners to help thousands of people develop better livelihoods, contributing to achieving the Millennium Development Goals. Find out more about our recent work in the 2009 INBAR Annual Report at the website <http://www.inbar.int/publication/txt/ar2009.pdf>

Here is an opportunity to work with us! In this issue, we bring to you some positions available at INBAR.

We are eager to hear from you. Do send to us your comments and suggestions on this Newsletter, and information on activities related to bamboo and rattan.

*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](mailto: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



# The first DG of INBAR honoured on World Bamboo Day

**World Bamboo Organization awards bamboo veterans**

The World Bamboo Organization (WBO) celebrates World Bamboo Day by honouring those who have made outstanding contributions to the World's bamboo sector. This year, one of the award recipients was INBAR's first and founding Director General, Dr. Cherla Sastry. The WBO award was presented by Dr. Mohammad Hamid Ansari, the Vice President of India, at a ceremony in Nagaland, India, on 18 September 2010. Mr. T.P. Subramony, INBAR's Regional Coordinator (South Asia), received the award on behalf of Dr. Cherla Sastry, who could not attend the function owing to prior commitments.



*Dr. Cherla Sastry, the first Director General of INBAR, with Dr. Coosje Hoogendoorn, the current Director General of INBAR, during INBAR's 10th anniversary celebrations (November 2007)*

Dr. Cherla Sastry joined IDRC's regional office in Singapore as Programme Officer (Forestry) in 1983 working in South Asia and the Pacific. Having been born and brought up in the region, he knew of the importance of bamboo and rattan and set about making the development of the bamboo and rattan sectors a key point of IDRC's forestry programme. At this, he was extremely successful. As he mentioned years later, "My routine approach should have been to liaise with research institutions, solicit research proposals, assess them and recommend them for funding. But I felt that the situation called for different handling.....two and two had to make five. I recognized networking to be the means that would achieve such a booster effect." More than a decade later, his efforts culminated in the establishment of INBAR.

As INBAR's first Director General, he was responsible for getting INBAR settled in its new headquarters in Beijing, inspiring the projects and



*Mr. T.P. Subramony, INBAR's Regional Coordinator (South Asia), receives WBO Award on behalf of Dr. Cherla Sastry from Dr. Mohammad Hamid Ansari, India's Vice President*

programmes that have enabled INBAR to help improve the lives of many thousands of poor producers of bamboo and rattan, and developing awareness, partnerships and support needed to ensure that the producers don't slip back into poverty.

Writing to WBO on the occasion, Dr. Sastry said: "What we envisaged in the 1970s and 1980s has come true for bamboo and rattan – from million dollar enterprises to a multi-billion dollar global activity. The world and the consumers have accepted bamboo and rattan, especially bamboo products, as a main stream product more or less at par with timber. INBAR has become recognized and respected the world over as a unique organization".

"Bamboo and rattan will continue to contribute significantly to the conservation of forestry resources and provide economic opportunities for the development of countries and regions where these two resources are found and/or cultivated. INBAR will be a key player in this process," he remarked.

Other stalwarts awarded were (Late) Mr. Vinoo Kaley, a bamboo idealist, Mr. Sampuran Singh and Mr. Rajib Goswami, both bamboo entrepreneurs, and Mr. Richard Belho, bamboo architect.

The World Bamboo Day 2010 was organized at Kohima, Nagaland state, by the Government of Nagaland in association with WBO. The event included a two-day international seminar on Bamboo, a Bamboo Investors Meet, a Bamboo Run, Bamboo Music and Food Festival, an Essay and Painting Competition, bamboo planting, a bamboo crafts exhibition, and cultural programmes.





## World Bamboo Day and International Seminar

The Nagaland state, India, played host to the first World Bamboo Day on 18 September 2010. The event was organized by the Government of Nagaland in association with the World Bamboo Organization (WBO) at the Kisama Heritage Village in Kohima, Nagaland. Coinciding with the World Bamboo Day, there was a 2-day international seminar on 'Bamboo for livelihood and community development' organized on 16th and 17th with presentations of technical papers.

The seminar was followed by the World Bamboo Day celebrations on 18th in which the Vice President of India, Dr. Mohammad Hamid Ansari, was the Chief Guest. The Governor of Nagaland, Mr Nikhil Kumar, was the Guest of Honor and the Chief Minister of Nagaland, Mr Neiphui Rio, the Chief Host. Also present on the occasion were ministers, senior officials, dignitaries and participants from India and other parts of the world.

Addressing at the World Bamboo Day function, Dr. Ansari said that the importance of Bamboo is enhanced in the backdrop of global concerns of ecology and environment and the looming threat of global warming and climate change. Bamboo is emerging as the most viable wood substitute. To realise the full potential of bamboo, various technical, financial and entrepreneurial interventions are needed in the fields of forestry, land use, propagation technology for its cultivation and sustainable use, and in the areas of industry and finance, he added.

The two-day technical seminar was inaugurated by Mr. Neiphui Rio, Nagaland Chief Minister and Honorary Council Member of WBO. "The main objective to observe the World Bamboo Day and to organise the bamboo festival is to promote the knowledge of traditional uses of bamboo in various parts of the world and to showcase the local methods of use of bamboo to the other parts of the globe," Mr. Rio said in his address at the seminar.

Dr. Ansari pointed out that the raw stock of bamboo in the North East region is conservatively valued at Rs. 50 billion. Even with a modest target of two-fold value addition to the stock through suitable methodologies, an annual turnover of approximately Rs. 100 billion can be generated in the region, he remarked. In the context of India's economy, the market size of Bamboo is expected to touch a figure



*Dignitaries at the World Bamboo Day ceremonies*

of Rs. 420 billion in the coming two decades. This enormous potential for wealth creation in rural areas, if exploited properly, can truly benefit the people of the region and change their day-to-day lives for the better, Dr. Ansari reminded the gathering.

At the occasion on 18th, the WBO honoured five bamboo pioneers from India for their outstanding contribution to the bamboo sector development. The other highlights of the event included a Bamboo Run, a Bamboo Music and Food Festival, an Essay & Painting Competition and a Bamboo Crafts Exhibition. The events were organized as part of the North East India International Bamboo Festival, which was held on 16th and 17th September.

The events had the support of several organizations such as India's National Bamboo Mission (NBM), Nagaland Bamboo Development Agency (NBDA), Cane and Bamboo Technology Centre (CBTC), United Nations Industrial Development Organization (UNIDO), and International Network for Bamboo and Rattan (INBAR).

*A function on the World Bamboo Day*





# Vacancies in INBAR

## *Brief announcements on current vacancies in INBAR*

### **1. Director, Environmental Sustainability Programme (ESP)**

Responsibilities include:

- ♦ Contribute to the implementation of the INBAR Strategy by providing leadership to the ESP;
- ♦ Provide specific expertise in the fields of sustainable forest management, biodiversity and ecosystem services to the organization and ensure that this expertise stays up to date;
- ♦ Carry out activities within INBAR projects as appropriate, both as project leader and project team member; and
- ♦ Contribute to the strategic management of the organization, including membership development.

Experience and qualifications required include:

- ♦ At least 5 years relevant international project or programme management experience at senior level;
- ♦ Demonstrated record of accomplishments and intellectual leadership in sustainable forest management and ecology as it relates to ecosystem services, experience with bamboo and/or rattan will be an asset;
- ♦ Demonstrated ability to raise funds for research and/or development projects; and
- ♦ Excellent oral and written communication skills in English and proven drafting ability, as well as working level knowledge of at least one of the other languages of INBAR (French, Spanish, Chinese).

A competitive international salary and benefits package will be provided. The successful candidate will be appointed for an initial period of one year, renewable/extendable based on performance and availability of funds.

### **2. Expert on forest and climate change, in particular, forest carbon modelling**

Responsibilities include:

- ♦ Provide technical and substantive activities towards the roles of bamboo forests and plantations in mitigation of and adaptation to climate change;
- ♦ Conduct substantive research activities and provide support on issues relating to

methodologies for bamboo's biomass, carbon sequestration capacity and adaptation to climate change;

- ♦ Assist towards the implementation of activities relating to bamboo application for mitigation of and adaptation to climate change in the organization;
- ♦ Liaise with UN and other international bodies, Parties, IGOs and NGOs as well as the private sector on issues and activities relating to the forest and climate change in the area of specialization; and
- ♦ Develop project proposals for targeted donor agencies for project development.

Required qualifications include:

- ♦ University degree in agriculture, forestry, plant growth modelling, environmental economics, or a relevant discipline.
- ♦ At least five years of relevant work experience. Working experience in the area of project-based mechanisms, particularly in the area of specialization – forest, modelling and climate change, is essential.

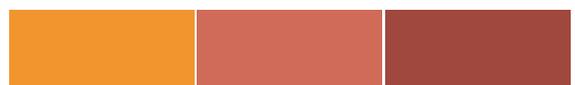
Duty station is Beijing, China. A competitive international salary and benefits package will be provided. The successful candidate will be appointed for an initial period of two years, renewable/extendable based on performance and availability of funds.

### **3. Programme Coordinator, Global Bamboo Housing Programme (GBHP)**

INBAR's GBHP currently focuses on market research, business plan development, preparation of national codes and standards for bamboo housing and commercialization of the bamboo housing technology through partnerships with the private sector. The Global Bamboo Housing Programme Coordinator is expected to work closely with the business sector to fulfil its mission of commercialization of the technology in order to make bamboo housing a common housing product in the housing market.

Responsibilities of Programme Coordinator include:

- ♦ Work closely with the public and private sector to develop business strategies and mechanisms to commercialize bamboo housing technology;
- ♦ Work closely with universities, research institutions and national and international standardisation bodies (such as ISO) to prepare and approve national and international bamboo housing codes and standards;





- ♦ Provide programme support to housing projects;
- ♦ Implement, monitor and evaluate the bamboo housing projects;
- ♦ Develop new bamboo housing projects focusing on codes, standards, business and climate change perspectives;
- ♦ Develop relationships with donors, development agencies and public and private investors and prepare project proposals for bamboo housing projects; and
- ♦ Work with bamboo housing partners for awareness raising and capacity building activities through the media, conferences, workshops, training and publications.

Requirements include:

- ♦ Master's degree in business development or related field, preferably with engineering , architecture or urban development background;
- ♦ Fluent in written and spoken English, and at least a working knowledge of Spanish, French and/or Chinese;
- ♦ At least 3 years experiences in construction management, programme management and/or business development; and
- ♦ Experience with fund raising and living and working in developing countries would be assets.

Duty station is Beijing, China. A competitive international salary and benefits package will be provided. The successful candidate will be appointed for an initial period of one year, renewable/extendable based on performance and availability of funds.

### **Application Process**

Applications will be accepted until 15 November 2010. All applications will be acknowledged, however, only short-listed candidates will be contacted.

Please send a cover letter with your curriculum vitae to:

Human Resources Department, INBAR  
Attention: Ms. Helen He, [lhe@inbar.int](mailto:lhe@inbar.int)

Please indicate the position to which you are applying in the email subject line.

To learn more about INBAR, you may visit our web site at: [www.inbar.int](http://www.inbar.int)

No phone enquiries please. More information can be obtained from INBAR website at:

<http://www.inbar.int/Board.asp?Boardid=72>

## News from the B&R World

BANGLADESH

### ***Bamboo withstands strong winds***

On 13 April, a severe tropical storm that hit Bangladesh and neighbouring eastern Indian states. Striking with a walloping 100 km/hour with tornadoes developing within the storm. Half a million people were affected and all of this in a region still struggling to recover from Cyclone Aliya that hit in May 2009.

An estimated 100,000 homes were destroyed and the confirmed death toll reached 136 with 29 of those deaths being children. There were lucky ones whose houses survived the storm and not surprisingly, their houses contained the strong element of bamboo.

The answer could be in the use of the bamboo that survived the storm.

Bamboo is an incredible building material that combines flexibility with amazing tensile strength. Roughly one billion people around the world live in bamboo houses and buildings made from bamboo are excellent at withstanding natural disasters. While the bamboo house may bend with the wind, the structure will hold.

*(Green Earth News, 19 April 2010)*

### ***Bangladesh goes for first ever bamboo shoot export***

Bangladesh is going to first ever export of bamboo shoot, especially in the South East Asian countries from the first week of August 2010.

The export of bamboo shoot was on the card as successful trial production had started since 1 June following setting up a Treatment and Scientific Processing Plant (TSPL), near Karnaphuli Tea Estate in Fatikchari upazila.

Project director Mohammad Jashim Uddin said that nearly 450 acres of land was brought under bamboo shoot cultivation this year in Fatikchari and three other hill districts. The production is expected to be in full swing from July 2010. Nearly 5 tonnes of bamboo shoot will be processed by the TSPL in first three months and the production will be increased after expanding the processing centers in December next, Mr. Jashim said.

An agreement was signed between the Forest Research Institute (FRI) in Chittagong and the International Centre for Bamboo and Rattan (ICBR) of China in September 2008. Under the agreement ICBR transferred the technology in bamboo shoot production, processing and marketing from China to Bangladesh



free of cost. The ICBR has also set up a TSPL over three acres of land in Fatikchhari beside the tea estate of Bangladesh Rural Advancement Committee (BRAC), according to the agreement.

A total of Taka 13.7 billion was received from Common Fund for Commodity (CFC) by Bangladesh for the bamboo shoot project. The International Network for Bamboo and Rattan (INBAR), an organization promoting bamboo and rattan worldwide, supervises the project. The project tenure is three years up to December 2010.

(Source: *The New Nation*, 01 July 2010)

## INDIA

### ***Bamboo to die en masse again***

It happened in 1960 and it is happening now. The once in 50 years phenomenon of mass flowering of "thorny big bamboo" (*Bambusa bambos*) species is happening in Karnataka state this year.

The mass flowering will clear off the particular species from 250,000 hectares of land [spreading from North-West Kerala to North-West Karnataka, mainly the Western Ghats], as the plants die after flowering, said Mr. N S Adkoli, Chairman, Bamboo Society of India.

Mr. Adkoli said that 40 per cent of the land came under protected and national parks, which includes the Western Ghats.

*B. bambos* is the best of the two most common species found in the state, where six species of bamboo grow. Thorny big bamboo species is in much demand and is used for various purposes, from domestic uses as in baskets, ladders and fencing of paddy and sugarcane fields. It is used most in paper making.

(Source: *Express Buzz*, 06 April 2010)

### ***National Bamboo Mission launched in Kashmir***

Budgam is the third place after Teetwal and Uri in the Kashmir Division where bamboo cultivation under National Bamboo Mission has been formally launched by planting bamboo sapling procured from the Institute of Himalyan Bio-Research Technology Plampur, Himachal Pradesh.

The Minister for Agriculture Mr. Gh. Hassan Mir accompanied by Minister of State for Agriculture and Health, Mr. Javid Ahmad Dar, planted a sapling in a nursery at Kariparoo Budgam in presence of large number of farmers and other agriculture activists.

(Source: *Greater Kashmir*, 21 June 2010)

## NEPAL

### ***Bamboo houses could help alleviate poverty***

Along with providing low-cost and environment-friendly houses, construction of houses made of bamboos might even lead to poverty reduction and employment generation in Nepal.

Agro Enterprise Centre (AEC), affiliated to Federation of Nepalese Chambers of Commerce and Industries (FNCCI), has entered into an agreement with China's International Centre for Bamboo and Rattan (ICBR) for the promotion of bamboo house construction in Nepal. These projects will be undertaken with the financial aid of Common Fund for Commodities (CFC), administered by the International Network for Bamboo and Rattan (INBAR), and ICBR will provide technical assistance.

These pre-fabricated bamboo houses are affordable, quick to construct and durable. They can also provide cheap shelter to the relatively poor population of Nepal. Bamboo houses require minimum technology.

Most of the bamboo houses are based on exiting local technology, which doesn't require high-tech tools for construction. Similarly, these houses are supposed to help in generating employment opportunities as a greater number of local manpower can be engaged in the production of these houses – right from the plantation of bamboo to the construction of houses.

(Source: *The Himalayan Times*, 18 April 2010)

## THE PHILIPPINES

### ***Bamboo biomass gasification plant***

Clenergen Philippines Corporation has commenced installation of its first 2 MW/e gasification biomass power plant on the island of Romblon under an agreement with the Philippine National Power Corporation (NPC).

In tandem, the company has signed a Memorandum of Agreement with Romblon University to supply up to 400 acres of land to cultivate Beema bamboo (a *Bambusa balcooa* clone) as the energy crop to provide fuel (wood chips) for the gasification power plant, along with the use of its facilities for nursery and tissue culture production of Beema bamboo plants to supply surrounding islands with saplings for similar installations.

The company is targeting up to 50 similar installations over three years. Romblon Island, with a population of 250,000 people, experiences up to 8 hours a day of blackouts, due to the acute shortage of electricity.

([www.marketwatch.com](http://www.marketwatch.com), 15 June 2010)

### ***Development of bamboo industry pushed***

The Philippine Bamboo Industry Development Council (PBIDC) has been created by Executive Order No. 879 to help strengthen the bamboo industry in the country.





PBIDC will “promote the bamboo industry development project and direct the use of bamboo for at least 25 percent of the desk and other furniture requirements of public elementary and secondary schools.”

The agency is also mandated to promote the use of bamboo in furniture, fixtures and other construction requirements of government facilities.

PBIDC will be composed of the secretaries of various government agencies, including the Department of Trade and Industry (DTI), which will serve as the chair; and the Departments of Environment and Natural Resources, Agriculture, Education, Science and Technology, Labour and Employment, League of Municipalities of the Philippines, as well as two representatives from non-government organizations, and one representative each from two private industry associations.

PBIDC will receive an initial funding of P20 million from the Department of Budget and Management.

The Philippines has committed to reforest at least 500, 000 hectares with bamboo as part of the one million hectares of designated areas as its contribution to the Association of Southeast Asian Nations (ASEAN) commitment of 20 million hectares of new forest by 2020.

*(Source: The Philippine Star, 30 May 2010)*

#### VIETNAM

### **Rattan companies learn about sustainable farming**

Nine rattan companies from Vietnam, where rattan availability has fallen dramatically due to high demand and unsustainable exploitation, visited the Sustainable Rattan Management Area in Laos in early May 2010.

The area is maintained by the Agriculture and Forestry Office (DAFO), at Khamkeut District in Borikhamxay Province, and the World Wild Fund for Nature (WWF).

The sustainable rattan model has proved such a success that DAFO plans to replicate it in other areas to improve local livelihoods, support poverty elimination, and achieve sustainable rattan management. WWF plans to have this area certified by the end of 2011 and will share its successes and achievements with partners in the rattan industry around the world.

Vietnam imports more than 40 percent of its needs from Laos and also sources significant

amounts from Cambodia. It has a significant shortage of commercially valuable rattan species like the ones available in Laos, particularly those in the rattan project areas.

WWF's Viet Nam Rattan Project Manager, Vu Que Anh, said: “The important species of rattan are now rare and often bought from Laos. Rattan processors in the south of Viet Nam have now started to subcontract to northern processors, or stop operations altogether.”

*(Source: Vietnam News, 29 May 2010)*

#### INTERNATIONAL

### **Did the Romans build their aqueduct with bamboo?**

The Romans built a 50km aqueduct from Uzès to Nîmes in France with an overall fall of about 17 metres and an average gradient of 1/3000. How did they determine the fall, and maintain the gradient during building?

In one word, the answer is probably . . . bamboo! A length of bamboo about 10-20 cm diameter would make an accurate, jumbo-sized spirit level-come-theodolite. Half-filled with water, it could be laid horizontally on trestles and used to lay out a levelling survey, all the way from Uzès to Nîmes. Using it like a telescope, they could use little buoys floating in the water at each end to sight a point a short way off. Stakes hammered into the ground would record the level at a given point, before the bamboo is moved to sight the next section.

Before doing this, the Romans would have had no way of knowing whether the planned route would be uphill or downhill. A team would have set out from both Uzès and Nîmes, each using a bamboo tube to sight a reasonably accurate contour along the sides of the valleys. When the teams met up they would see the elevation difference. Then the operation would be repeated, this time allowing a gradient deduced from the horizontal distance and the fall.

*(Source: The Guardian, 14 July 2010)*

### **A bamboo curtain for superfund site**

The United States Environmental Protection Agency (EPA) is considering planting a bamboo fence around the AMCO Chemical Superfund site to help protect the neighbours from dust and the other nasty stuff coming out of the ground during the cleanup. Later, the entire site could be planted with bamboo to make an urban forest in a polluted corner of West Oakland.

The idea comes from Brent Bucknum, who lives near the superfund site and makes a living building things like living roofs and gray-water systems. His firm is the cleverly named Hyphae Design Laboratory, a reference to both Oakland's hyphy hip-hop movement and the part of fungus that branches underground, called hyphae.





“We started looking at mitigating these blights with biological solutions to remediation,” said Bucknum. “Bamboo grows really fast and as screen to odours and noise it’s a really amazing solution.”

Although the EPA was initially skeptical, the agency has since asked Bucknum to come up with a bamboo proposal as it prepares to excavate the site over the next few years, he said. Bucknum estimates that the bamboo project would cost around \$200,000.

The site, which right now is a gated concrete lot, was an old AMCO chemical distribution facility. The ground is full of cancer-causing contaminants like vinyl chloride.

In a report issued earlier this month, the EPA noted that technical expertise could be used to explore other potential benefits of planting bamboo, like cleaning the groundwater at the site and blocking the pollution from nearby Interstate 880. The report also said that the bamboo forest could serve as a demonstration project for the rest of Oakland.

(Source: *The Bay Citizen*, 23 August 2010)

### ***Bamboo blades for windmills***

Bamboo is a versatile material with very good mechanical properties. Bamboo has been used for thousands of years as building material and for craft products.

The income of tribal craftsmen in India from weaving bamboo products, is decreasing because of the competition from cheaper materials. The products (mainly baskets) that they currently make from bamboo slivers are of a relatively low value. It is a challenge to find new and high value applications of handwoven bamboo.

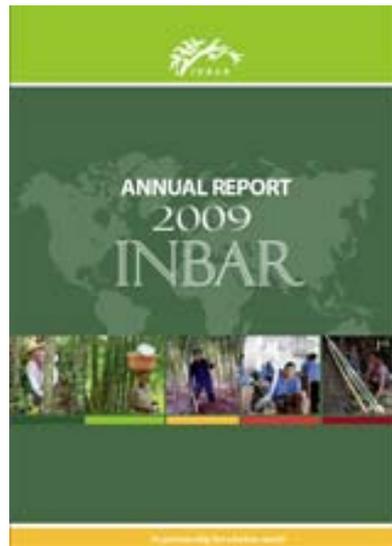
Blades for a simple windmill are such an application. The steel blades of the Bosman windmill – of which the original design dates from 1929 – are replaced by bamboo blades, being lighter in weight and several times cheaper. The bamboo blades improve the efficiency of the windmill and lowers the cost price. Besides that, it gives this renewable energy generator even more a green image!

The work is the subject of a Master's degree project at Technology University Delft, the Netherlands, carried out in cooperation with EvenDimmen, INBAR, Bosman Watermanagement and INHolland ComposietenLab Delft.

The blades can be produced by tribal craftsmen in India, using a hand lay-up moulding production technique. The blades are currently in testing phase in the Netherlands.

(Source: <http://gijbertkoren.nl/bamboowings.html>)

## **INBAR Annual Report 2009**



INBAR has published its 2009 Annual report. Some of the highlights of the year are given below:

- Won the World Bank Development Marketplace Competition with our project on "Elevated Bamboo Houses designed to lift communities above flood zones" in Ecuador.
- Completed our first dedicated rattan project, in Ghana, and ran a regional workshop on bamboo and rattan based development for West and Central Africa in Cameroon.
- Published two impact studies of our projects in India that showed just how bamboo provides effective poverty alleviation, helps reduce social inequality and helps reduce emigration to cities.
- Helped develop five public-private partnerships in Ecuador, India, the Philippines and in a range of Latin American nations that are ensuring better commercial and market linkages for participants.
- Participated in COP 15, and launched two new publications on bamboo and climate change.
- Developed the world's first certification standard for monopodial bamboo stands in our project sites in China, and recommended it to the Chinese authorities for adoption.
- Analysed trade using the newly adopted customs codes that INBAR has promoted to give us a more accurate picture of the state of world trade in bamboo and rattan.
- Started a new project with our partners in Ghana and Ethiopia to demonstrate bamboo charcoal as a substitute for timber charcoal.
- Opened our regional office for East Africa in Addis Ababa.
- Launched Newsletter of South Asia Regional Office.

