



# 2000

## Annual Report

INTERNATIONAL NETWORK FOR BAMBOO AND RATTAN

## Message from the Chair and Co-Chair

Supported by its four major donors - the International Development Research Centre (IDRC) of Canada, the host country - China, the Dutch Government (DGIS), and the International Fund for Agricultural Development (IFAD) - and with active co-operation from its member countries, INBAR has smoothly completed its initial period of establishment in Beijing.

In January 2000, the Second Session of the INBAR Council Conference and the Fourth Session of the INBAR Board Meeting were held in Beijing. The course of development of INBAR in the previous two years was carefully reviewed at these sessions and an INBAR Development Plan formulated. After approval by the INBAR Board and Council, Dr Ian Hunter was formally appointed as the second Director General of INBAR. In June 2000, Prof. Chen Xuhe, seconded by the Chinese Government, assumed the position of Deputy Director General. INBAR project management processes, personnel structures and administrative and financial systems have been improved. Now that the smooth transition between the new and the old management team is complete, allow us to extend our whole-hearted gratitude and respect to Dr. Cherla Sastry, the former Director General, Prof. Zhu Zhaohua, the former Deputy Director General, and Mr James Pfeifer, the former Secretary of the Board of Trustees, as well as to all of those who have made important contributions to INBAR. We would also like to express our firm confidence in the capability of the new leadership of the INBAR Secretariat.

Both the international community and the Chinese Government have been paying close attention to the growth and development of INBAR. IDRC, DGIS and IFAD continued their funding support to INBAR and the host government gave full attention to INBAR's development. Without the generous support of these donors, INBAR could not have established and set itself on the path to an independent existence. We are attracting other organizations interested in our services - the German aid organization GTZ, UNIDO and ADB are having ongoing negotiations with INBAR for project funding. The host government launched the construction project of the new headquarters building in late January, and on 6 November 2000, when INBAR celebrated its Third Birthday, member nations were pleasantly surprised to find that the building was almost finished. The new building will be a showplace for bamboo and rattan products and a major attraction for visitors.

The year 2000 sees a maturing and transforming INBAR. With its new leadership, INBAR launched into its middle-term development stage. INBAR's emphasis during this stage is on programme and network development, focusing on the four key areas of Ecological Security, Livelihood Development, Economic Development and Outreach. Priorities are given to international development and R&D projects. Africa, Asia, Latin America and the Caribbean are listed as the key areas. The affiliation scheme of INBAR was started recently and has been developing surprisingly fast; a strong network for partners around the world is taking place. Recognized by the Common Fund for Commodities (CFC), INBAR has become the International Commodity Body for Bamboo and Rattan. INBAR is thus getting increasingly better placed to assist in stimulating development through the use of bamboo and rattan.

Finally, we would like to thank the staff of INBAR for their contribution to the continuous growth and strengthening the Network and bringing it into a new development era. We welcome the new staff members and wish the new team every success in fulfilling the missions of INBAR. We are looking forward to an entirely new profile for INBAR in the new century.



*Dr Gordon Smith*  
Chair



*Professor Jiang Zehui*  
Co-Chair

# Director General's Overview

## INBAR as an International Commodity Body of the Common Fund for Commodities

INBAR's poverty alleviation mandate biases it towards micro-enterprises, market development and trade. Thus it was a natural development that INBAR should seek to become the ICB for bamboo and rattan under the CFC and a matter of quiet achievement that this recognition was granted.

### Greater Emphasis on Development

After 15 years as a research association, INBAR has built up considerable intellectual capital. As one of INBAR's recent reviewers said "it is now time to harvest the hope". During 2000, INBAR has begun to link itself with development projects around the world, providing technical advice and training. During 2000 it formed strong links with the GTZ-funded project on Hainan Island, providing training and advice; it took part in the evolution of the Bamboo Development Plan in Mizoram and as the year ended was formulating close links with the UNDP-UNIDO project in NE India. IFAD expects to link INBAR more closely with its development projects during Phase II funding. DfID has signalled its intention to use INBAR in its own projects.

INBAR is enthusiastic about these developments. Its impact is greatly increased by engaging in this manner. Moreover, the justification for new knowledge generation is tested and adjusted in the crucible of real need.

### Matters Financial

By the middle of 2000, INBAR had concluded its establishment phase. Financial and administrative systems had been developed under the guidance of Mr James Pfeifer, capital investment in this phase declined and the cost of governance and administration as a percentage of total cost began likewise to decline.

During the year 2000, Phase I funding from both IFAD and DGIS concluded. Thus, during 2000, it was necessary to conclude and report on the projects funded under Phase I before commencing Phase II. As a consequence, the funds accumulated in past years under these two grants, were utilized. INBAR is very pleased to be able to report that DGIS and IFAD have agreed to fund a second phase of activity planning for the years 2000 to 2003. Additionally, during 2000, INBAR had very close negotiations with other potential donors and hopes to be able to report significant major additions to its funding base next year.

INBAR, as a networking organization, leveraging activities in many countries, naturally receives considerable in-kind contributions to its on-going projects. In 2000, for the first time, INBAR systematically recorded these. They totaled \$418,415 or 18% of our budget. Moreover, this total is known to be an underestimate. When INBAR brings new knowledge from one of its collaborators into the international spotlight, the cost of so doing is small in relation to the knowledge generation process which it caps.



*Dr Ian Hunter*

## Table of Contents

<b>MESSAGE FROM THE CHAIR AND CO-CHAIR</b>	
<b>DIRECTOR GENERAL'S OVERVIEW</b>	1
<b>PROGRAMME ACTIVITY</b>	
<b>Programme I: Ecological Security</b>	2
<b>Programme II: Livelihood Development</b>	3
<b>Programme III: Economic Development</b>	4
<b>Programme IV: Outreach</b>	5
<b>Cross-Cutting Themes</b>	6
<b>PUBLICATIONS</b>	11
<b>Appendix I: The Council and Council Representatives</b>	12
<b>Appendix II: Board of Trustees</b>	13
<b>Appendix III: Secretariat and Administration</b>	13
<b>Appendix IV: Auditors' Report and Financial Statements</b>	14

# Programme I: Ecological Security



Lou Yiping

The programme aims at improving knowledge of bamboo and rattan resources and their contribution to rural development, environmental benefits and disaster avoidance.

## Staff:

Mr Lou Yiping, Programme Manager

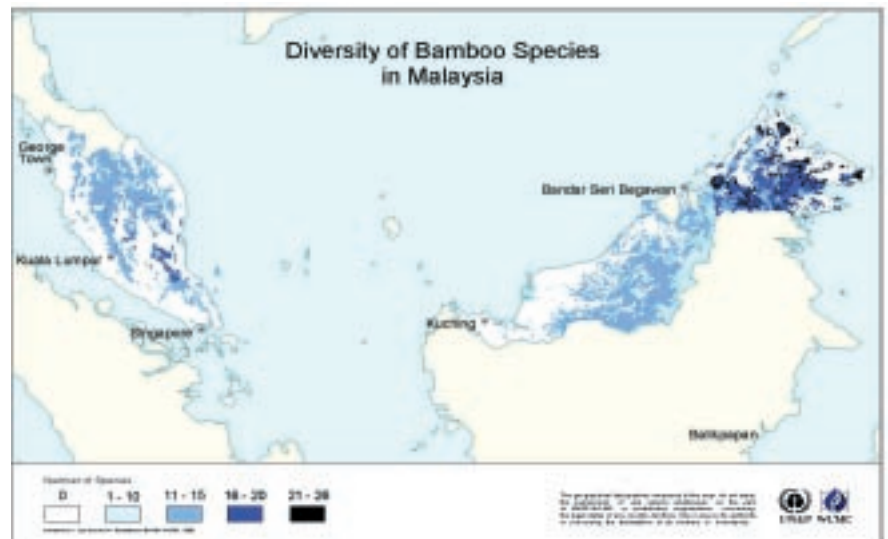
## INBAR Project Collaborators:

- Dr Eric Boa (United Kingdom)
- Mr Pradeepmani Dixit (Nepal)
- Dr John Dransfield (United Kingdom)
- Eng. Miguel Alvaraz Gonzalez (Cuba)
- Prof. Zhang Guangchu (China)
- Dr D. N. Tewari (India)
- Prof. Alfinetta B. Zamora (Philippines)
- Dr Val Kapos (United Kingdom)



## Project Highlights:

The distribution of bamboo species in the world is not adequately mapped. Hotspots of biodiversity are not recorded. Moreover, as interest grows in bamboo species, reliable information about their site requirements is requested. As a first step in improving information INBAR joined with WCMC-UNEP to produce a database for 550 bamboo species recording their native location. From this database a series of maps were produced linking the recorded location to forest type. The map below is one example. From these maps one can calculate the approximate area of land likely to contain bamboo species. One can also identify areas with high concentrations of species. (However, it should be noted that such geographical variations can sometimes also be the result of differing levels of activity by taxonomists). One can also begin to infer species:site requirements from general knowledge about the environments in which they are found naturally.



# Programme II: Livelihood Development

---

The livelihood development programme is the largest of INBAR's programmes. The focus is on utilizing bamboo and rattan resources to fuel sustainable rural development for poverty alleviation via the promotion of appropriate community-led development programmes. The aim is to promote income-generating opportunities within rural communities using bamboo and rattan. These projects are supported by the transfer of relevant technologies from countries with relevant expertise.

## Staff:

Dr I. V. Ramanuja Rao, Senior Programme Manager

Ms Arienne Henkemans

Mr Herwig Cleuren

Mr Andrew Benton



*I.V.Ramanuja Rao*

## INBAR Project Collaborators (short list)

Mr Edwin Margerinos (Bolivia)

Mr Javier Cuellar Olhagaray (Bolivia)

Mr Marcelo da Fonseca e Silva (Brazil)

Mr Raphael Moras de Vasconcellos (Brazil)

Dr Noughou Ndam (Cameroon)

Prof. Tang Yongyu (China)

Mr Carlos Kahler Gonzalez (Chile)

Dr Ximena Londoño (Colombia)

Mr Gabriel German Londono (Colombia)

Mr Agosta (Cuba)

Mr Jorge Moran (Ecuador)

Mr Marcelo Burneo (Ecuador)

Prof. Walter Liese (Germany)

Dr Andrew Oteng Amoako (Ghana)

Mr A. K. Bansal (India)

Mr V. N. Gore (India)

Mr Kamesh Salam (India)

Prof. A.G. Rao (India)

Ms Jeanette Calder (Jamaica)

Dr Bernard Kigomo (Kenya)

Mr Paul Onugo (Kenya)

Dr Emilia L. C. van Egmond (Netherlands)

Dr Magdalena Giron (Philippines)

Ms Magdalena Araneta Singh (Philippines)

Mr Alex Chihongo (Tanzania)

INBAR's main development emphasis is broad-based and inclusive, and recognizes that the success of many development programmes is influenced by many factors outside the bamboo or rattan sectors. The programme works at understanding the constraints and opportunities in the bamboo and rattan sectors in the partner country, and implementing pilot development or action research projects in partnership with local and provincial administrations to validate the proposed development options. These are then expanded into larger rural development projects by working with international or bilateral donors or development banks.

National level diagnostic studies have been commissioned in six countries in South America, discussed at a regional workshop in Colombia, and further actions have been initiated in these countries to develop the bamboo sector. The diagnostic studies in Africa and Asia were discussed at an international workshop on bamboo and rattan technologies for livelihood development in Nairobi. Proposals for pilot projects to validate the benefits identified during the meeting have been prepared.

The programme has also worked with the government of the Indian State of Mizoram, and two GTZ projects in the Hainan and Yunnan provinces of China for identifying and developing economic opportunities with bamboo and rattan. The programme is also providing technical assistance to the Cane and Bamboo Technology Centre being established by UNIDO in the north-eastern part of India.

# Programme III: Economic Development



*Maxim Lobovikov*



*Ms Wu Junqi*

The programme aims to enhance the role of bamboo and rattan as materials for industrial development and economic growth to promote sustainable development.

## Staff:

Dr Maxim Lobovikov, Programme Manager

Ms Wu Junqi

## INBAR Project Collaborators:

Prof. S.L. Chan (Hong Kong)

Mr V.N. Gore (India)

Dr Jorge Gutiérrez (Costa Rica)

Dr Jules Janssen (The Netherlands)

Ms Ximena Londoño (Colombia)

Mr K.S. Subba Rao (India)

Dr K.J. Rawat (India)

Mr Zhang Minxin (China)

Prof. Lu Feng (China)

Mr Philip Wardle (UK)

Dr Bruce Michie (USA)

Dr Isabeilita Pabuayon (The Philippines)

## Project Highlights:

Bamboo scaffolding is used all around the world. It has many advantages - it is light to handle and it is cheap, but it has to be admitted it has some disadvantages too. We have been collaborating with the Hong Kong Polytechnic University to improve the safety of bamboo scaffolding. Considerable work has been done on improving the ties linking the bamboo structure together. Hong Kong Polytechnic University

has also developed innovative computer software which is being used to improve the design of scaffolding and predict when catastrophic failure might occur. Additionally, in partnership with one of the largest scaffolding contractors, Wui Loong Scaffolding Works Co. Ltd, a hybrid steel-bamboo scaffolding system has been developed.

Hybrid scaffolding combines the strengths of both systems. It typically uses one steel member for every two bamboo members. The steel provides the strength, durability and openness. The bamboo reduces the cost and weight but provides the necessary extra density of the scaffolding net to prevent workers from falling out.



*hybrid bamboo-steel scaffolding*

# Programme IV: Outreach

The programme aims to promote information flow in bamboo and rattan sectors as an efficient approach to improving income generation at both community and industrial levels.

## Staff:

Mr Cai Mantang - Acting Programme Manager - (up to July 2000)

Dr Huang Shineng - Programme Manager (from September 2000)

Dr Ralf Kwaschik

Mr Francisco Perez - Network Advisor

Ms Nadia Bystriakova

Ms Liu Qian

Mr T.P. Subramony (India)

Mr Wang Dun

Ms Zhang Yihua

## INBAR Project Collaborators:

Mr Arun Kumar (India)

Mr Fu Maoyi (China)

Dr K.K.S. Nair (India)

Mr Shankara Pillai (India)

Dr K.K. Seethalakshmi (India)

Mr Zhang Qisheng (China)

Ms Zhang Xinping (China)

Dr Peter Scott (United Kingdom)

Ms Jutta Niemann (Germany)

Frhr C-G von Hahn (Germany)

## Project Highlights:

We joined with CABI and used the Forestry Compendium as a vehicle to disseminate existing knowledge about bamboo and rattan species. The Forestry Compendium is a management reference tool which provides both the knowledge and means to select potential woody species for trials in plantation, agroforestry and natural forest systems. It is a dynamic multimedia encyclopaedia, very recently published by CAB International in the form of a CD-ROM. It is the result of a collaboration between 11 global organizations, of which INBAR is one.



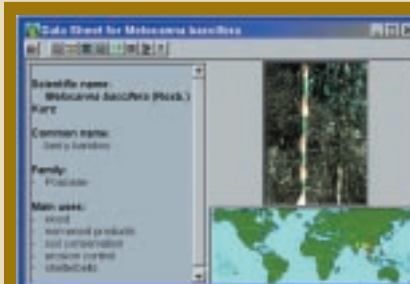
*Huang Shineng*



*Ralf Kwaschik*



Users of the Forestry Compendium will immediately notice that one of the ten buttons on the first page is labelled "INBAR".



Clicking on that button will take the user into a world of bamboo and rattan species. The INBAR page contains the full text of four key INBAR Publications.

The bottom button leads the users to the species database, where they will have the choice of accessing nearly 500 entries leading to data sheets on bamboo and rattan. The data sheets contain text, illustrations and maps, covering taxonomy, distribution, climate, soil, management characteristics, management practices, pests/diseases and uses of several important bamboo and rattan species. The soft-linking of text to all these feature enables the Compendium to follow the user's train of thought.

$\frac{1}{2}$  3

# Need Identification

In order to ensure that its scarce resources are targeted to the most productive purposes, we spend a considerable part of our efforts on identification of needs. Perspectives on need vary across stakeholders and we must be aware of all such views. During 2000, we mounted several significant initiatives targeted at different stakeholders.

With the April 2000 Newsmagazine we sent out a questionnaire in which we asked respondents to identify their interests in INBAR's programmes. Respondents listed as their key interests (in order of popularity):

- Resource quantification;
- Technology transfer;
- Biodiversity and genetic studies;
- New technologies for processing;
- Case studies of socio-economic systems;
- New industrial uses;
- Economics of bamboo plantations;
- Information systems and services;
- Species identification; and
- Analysis of market trends.

In order to ensure that we are interacting with people and organizations who have a strong interest in our mission, we started the fee-paying Affiliate Scheme in September 2000 and by the end of 2000 had attracted 63 affiliates.

In August 2000, Prof. Zhu led a joint INBAR-Chinese Government mission to Chile, Ecuador and Peru. In meetings with stakeholders from all levels of society the team were able to identify key needs, of which technology transfer and information were amongst the most important.



The delegation found the "*Guadua*" in a natural forest in Peru.



The Chinese scientists showed great interest in the solid bamboo "*Chusquea*".

We have analysed the production -to- consumption chain of bamboo and rattan from farmer's field to market through a series of national studies and from those identified several points for action: management of the raw resource; farm to industry links; access to new technology and access to high price markets.

We maintain strong and close links with several grassroots NGOs (e.g. In-Hand Abra in the Philippines) which enable us to enhance our identification of needs, e.g. the need for training, for simple tools and for good design of products.

# Technology Development

---

For many years INBAR has been promoting the industrialized utilization of bamboo in Africa in collaboration with other international agencies and national governments, such as FAO, CIFOR, and the Government of China. Several expert consultations and training workshops have been held to transfer developed and advanced technologies from Asia to Africa.

The increasing use of bamboo in industrialized applications necessitates a large increase in the supply of bamboo raw materials from high-productivity bamboo forests. The establishment of large-scale plantations is highly desirable in Africa to meet this demand from industrial processing and utilization businesses, and also to protect the natural bamboo forests for ecological purposes.

From 8 to 26 May 2000, INBAR and the Institute of Plant Breeding, College of Agriculture, University of the Philippines, jointly held an intensive training workshop on “Bamboo Propagation: Technology, Utilization and Programme Development”, with an emphasis on tissue culture propagation. Participants from the bamboo-rich African countries (Ghana, Tanzania, Kenya and Cameroon) and some Asian countries learned advanced technologies from scientists in the Philippines. Manuals on vegetative and tissue culture propagation are being prepared for similar training workshops in the future. An informal network was initiated via the workshop to focus the attention of member countries on the benefits of using this propagation technology and of using improved genotypes.



The INBAR matchstick-making technology project is nearing completion. This project is in collaboration with the Indian Plywood Industries Research and Training Institute (IPIRTI) in Bangalore, India. Suitable bamboo species have been identified, fire retardant treatments have been evaluated and the efficacy of different bleaching techniques has been investigated. The final report is presently being prepared.

Bamboo is widely used for low-cost housing. The house developed by Hogar de Cristo in Ecuador, for example, costs only US \$300. A factor limiting the acceptance of bamboo in higher-cost housing has been the absence of codes that engineers and architects could use when designing. Jules Janssen has been leading our effort to get the International Organization for Standardization (ISO) to accept the standards we have drafted. During 2000 he made continued progress. We expect ratification in two to three years time.

# Networking and Information Development



During 2000, we launched the Affiliates Scheme. During 2001 we intend to further develop this scheme into the central part of our network of contacts.

Transfer of Technology Models (TOTEMs) are highly focussed educational tools providing relevant information and distance training on one specific area of bamboo/rattan management, processing or utilization. They are a means of technology transfer between similar regions throughout the world, with the emphasis on South-South technology transfer for livelihood development. They are primarily intended as practical information resources and teaching aids for those at the local extension level in their communities, who can utilize them to assist local community development through the establishment of appropriate rural enterprises. Each TOTEM consists of a detailed written report of the technology, a PowerPoint presentation, a video, a poster and, where relevant, a set of technical photographs. It also includes information on target users, financial analyses of sample set-ups from the partner country preparing the report, and information on where to source particular technologies (such as equipment). The TOTEM thus provides all the information required for establishing similar technologies within interested countries and regions.

TOTEMs cover technologies in three main areas: production, processing and utilization. Production of bamboo and rattan raw materials in an environmentally sustainable way is the first stage, upon which all subsequent processing and utilization activities depend. TOTEMs are being readied on different types of bamboo plantations (medium and large scale, smallholder, homestead, bamboo shoot plantation), community rattan nurseries and techniques for interplanting rattan with other forest trees. The processing TOTEMs concentrate on preservation and preparation of the bamboo or rattan raw material prior to utilization. Three of these are being prepared on: (1) Village bamboo preservation unit; (2) Bamboo splitting and slivering unit; and (3) Rattan oil curing, bleaching and preservation unit.



Most of the TOTEMs deal with techniques related to utilization. There are TOTEMs on producing woven products and on furniture manufacturing from both bamboo and rattan. There are TOTEMs on steam-bending methods for rattan poles and on using bamboo poles as waterpipes. There is also a selection of other relevant TOTEMs on manufacturing bamboo products such as handmade paper, mat board, corrugated roofing sheets, flooring, low-cost housing, toothpicks and water pumps.

The TOTEM programme commenced in 1999 with a batch of 24 TOTEMs produced by 16 partners in nine countries and most of these were available with INBAR at the beginning of 2000. During this year

we have edited and produced films for most of the TOTEMs, prepared powerpoint presentations and edited the reports and are presently requesting feedback from the partners prior to finalizing the TOTEMs. We expect six TOTEMs to be ready in January/February 2001, the majority to be ready in the later Spring with the few remaining TOTEMs produced by mid-late 2001. The TOTEM programme will be further developed in 2001 with the commissioning of a new batch of TOTEMs.

We collaborated with GTZ to utilize their IKON software to develop a people/institutions/projects database which our network affiliates can update and use as a prime reference for ongoing bamboo and rattan projects.

We published two technical reports during the year, including reports on the Structural Adequacy of Traditional Bamboo Housing in Latin America and Designing and Building with Bamboo. All old publications including technical reports, working papers, proceedings, general publications and newsmagazines were put online in two format .pdf and .txt. People who are interested in INBAR publications can just click on INBAR Website and find the books they want in the format .txt. Affiliates have been given the privilege to download the files saved in .pdf format. New Working Papers will be published on-line soon.



This picture of a bamboo building appeared in the book  
"Structural Adequacy of Traditional Bamboo Housing in Latin America"

We made an agreement with CABI whereby we could utilize their abstract of bamboo and rattan publications as a bibliography and offer that on our Website. We make a good start on improving the statistics about bamboo and rattan resources and production. We collaborated with UNEP-WCMC to produce a database on the distribution of bamboo and rattan species and with Beijing University to produce statistics on trade in bamboo.

## Training and Capacity Building

---



In October 2000, we held a training and capacity building workshop in Hangzhou, China. 60 participants came from 25 countries (mostly from INBAR member countries in the South). Some participants received support from UNIDO, some from FAO and some from the Chinese Ministry of Science and Technology. The participants were taken to successful enterprises making bamboo panels, bamboo flooring, bamboo weaving and chopsticks. The workshop accelerated the existing trend of increased interest, very particularly amongst Latin America delegates. Requests for return visits are greater than our resources allow.

In April 2000 and in November 2000 we held training and capacity building workshops in Africa for its NAR-colleagues undertaking Production-to-Consumption studies. We try to carry out as much as possible of its work through local collaborators.

## Poverty Alleviation and Assistance to Development Projects

---

From our case studies, we know that there are many areas where poor farmers with small landholdings have been able to at least double their incomes from bamboo and rattan manufactures and thereby lift themselves out of extreme poverty.

In 2000, we began a contractual relationship with the GTZ-funded development project in Hainan. The project aims to stabilise the remaining forest edge in Hainan hills and looked to us to facilitate the development of alternative incomes for forest margin dwellers. Hainan, being tropical, can grow rattan and bamboo, but its technologies and skills are not as advanced as in other parts of China. We mobilized our network of collaborators to begin demonstration, training and exchange exercises. It is expected that this relationship will grow and develop in 2001.

During 2000, we were contracted by the Government of Mizoram in NE India, to assist with a plan for bamboo-based development. Mizoram and the other NE states of India collectively have 65% of India's bamboo resources and sustainable utilization of these resources is one of better routes to development. We assembled a team from amongst our colleagues in China, the Philippines and Malaysia to assist with the plan. We were able to suggest to the Government of Mizoram a range of options for starting such development. We expect a widening relationship with other NE states in 2001.

# Publications

INBAR issues several publications each year. Apart from the Newsmagazine, corporate documents (such as Annual Reports) and occasional publications, INBAR publications fall into four categories: Technical Reports, Working Papers, Proceedings and the new Journal.

## A. Technical Report

Technical Reports (TRs) are publications that bridge an identified knowledge gap or address a specific issue raised by INBAR stakeholders or Working Groups. TRs contain significant and conclusive statements on areas of wide interest. Invariably, a TR is written by a renowned scientist or team of scientists who have conducted recognized work in relevant fields.

Published in 2000:

- TR 19. Structural Adequacy of Traditional Bamboo Housing in Latin America
- TR 20. Designing and Building with Bamboo

## B. Working Paper

Working Papers (WPs) are final reports covering work done under INBAR projects (there may be more than one Working Paper resulting from one project) or discussion papers written by scientists on topics related to INBAR programmes.

Published on-line in 2000:

- WP 24-27 Production-to-Consumption Case Studies in Uganda, Kenya, Tanzania and the Philippines

## C. Proceedings

Reports of the workshops (including collection of papers presented), seminars, meetings, etc. are grouped under the series "Proceedings".

Published in 2000:

- PR 7. Proceedings of GTZ/INBAR Workshop (two versions: English and Chinese; Chinese Version is in print)

## D. INBAR Newsmagazine

The INBAR Newsmagazine is published twice a year. It is the only publication that regularly reports on INBAR activities and hence, is the means with which INBAR reaches out to its constituencies. The NM is prepared in four editions - English, Chinese, Spanish and French.

Published in 2000:

- INBAR Newsmagazine (Volume 7, Issue 1)
- INBAR Newsmagazine (Volume 7, Issue 2)

## E. Bamboo and Rattan Journal

INBAR will join with Brill Publishing of The Netherlands to commence a Bamboo and Rattan Journal. The first issue is expected in 2001.



# Appendix I: The Council

---

The Council is responsible for giving guidance to the Board of Trustees on general policy and strategy, and comprises all Member States that are parties to the Agreement on the Establishment of the International Network for Bamboo and Rattan. All sovereign states, which are members of the United Nations, are eligible to accede to this Treaty, which remained open for signature until 6 November 1999. After 6 November 1999, the Agreement is open for accession by any state with the approval of the Council. No contribution is required nor are any additional stipulations made other than those that are in agreement with the purposes and aims of INBAR. The Second Session of the Council Conference was held in Beijing on 26 January 2000. The Council membership as of December 2000 included:

Country	Official Name	Country	Official Name
Bangladesh	The People's Republic of Bangladesh	India	The Republic of India
Benin	The Republic of Benin	Indonesia	The Republic of Indonesia
Bolivia	The Republic of Bolivia	Malaysia	Malaysia
Canada	Canada	Myanmar	The Union of Myanmar
Chile	The Republic of Chile	Nepal	The Kingdom of Nepal
China	The People's Republic of China	Peru	The Republic of Peru
Colombia	The Republic of Colombia	The Philippines	The Republic of the Philippines
Cuba	The Republic of Cuba	Sri Lanka	The Democratic Socialist Republic of Sri Lanka
Ecuador	The Republic of Ecuador	Tanzania	The United Republic of Tanzania
Ghana	The Republic of Ghana	Togo	The Republic of Togo
		Vietnam	The Socialist Republic of Vietnam

## Council Representatives

---

Organizations and individuals who act as formal technical representatives for Member Countries are as listed below:

Country	Individual	Organization
Bangladesh	Anwarul Huq	Ministry of Environment and Forests
Benin	Jean Malie	Ministère des Affaires Etrangères et de la Coopération
Canada	Marilyn Collette	Embassy of Canada in China
Chile	Jorge Campos	INTEC-CHILE
China	Qu Guilin	State Forestry Administration
Cuba	Eng. Miguel Alvarez González	Forest Research Institute
Ecuador	Cecilia Calderón de Castro,	Econo Asociación para el Desarrollo Sostenible del Bambú
Ghana	A. A. Oteng-Amoako	Forestry Research Institute of Ghana (FORIG)
India	D.C. Khanduri	Ministry of Environment and Forests
Indonesia		Ministry of Forestry
Malaysia	Secretary General	Ministry of Primary Industry
Myanmar	U Win Kyi	Ministry of Land Rehabilitation and Social Forestry
Nepal	R.B. Joshi	Ministry of Forestry and Soil Conservation
Peru	Antonio Morizaki	Instituto Nacional de Recursos Naturales
The Philippines	Celso P. Diaz	Ecosystem Research Development Bureau
Tanzania	Permanent Secretary	Ministry of Natural Resources & Tourism
Togo		Ministère Togolais de l'Environnement et de la Protection Forestière
Vietnam		Ministry of Agriculture and Rural Development

## Appendix II: Board of Trustees

---

The Fourth Session of the Board meeting was held on 25 January 2000, in conjunction with the Second Session of the INBAR Council of Member States on 26 January 2000.

Name	Board Position
Gordon Smith, Canada	Chair
Jiang Zehui, P.R. China	Co-Chair
Keith Bezanson, Canada	Convener, Corporate Development Task Force
Seewant Bhoojdhur, Mauritius	Chair, Programme Committee
Ana Cecilia Chaves, Costa Rica	
Rodney Cooke, United Kingdom	
David Hopper, Canada	Chair, Finance Committee
Ian R. Hunter, United Kingdom,	Director General

The Board awarded Dr Cherla Sastry, the former Director General and Prof. Zhu Zhaohua, the former Deputy Director General the title of Fellow of INBAR in June 1999.

## Appendix III: Secretariat and Administration

---

INBAR secretariat staffing as at 31st December 2000 includes:

Ian R. Hunter	Director General
Zhu Zhaohua	Deputy Director General (up to 4 June 2000)
Chen Xuhe	Deputy Director General (from 5 June 2000)
James Pfeifer	Director of Administration and Finance (up to September 2000)
Roger Finan	Treasurer (up to August 2000)
Judy Zhu	Treasurer and Financial Officer
Hao Ying	DDG's Assistant
Jin Wei	Programme Assistant
Ren Hong	Office Manager
Tang Xiaoli	Events Organiser
Yang Feng'e	Publications
Yang Jianwei	Assistant Accountant
Elsie Yang	External Relations
He Jun	Driver
Ren Ping	Driver
Sun Shaohui	Driver



*Prof. Chen Xuhe*

# Appendix IV: Auditors' Report and Financial Statements



**Mailing Address:**  
18th Floor Beijing Kerry Centre 1  
Guang Hua Lu  
Chao Yang District  
Beijing 100020  
People's Republic of China  
Telephone +86 (10) 6561 2233  
Facsimile +86 (10) 8529 9000

## AUDITORS' REPORT

To the Board of Trustees of the International Network for Bamboo and Rattan

We have audited the accompanying balance sheet of the International Network for Bamboo and Rattan ('INBAR') as of December 31, 2000, and the related statements of activities, net funds and cash flow for the year then ended. These financial statements are the responsibility of INBAR's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with International Standards on Auditing. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements present fairly, in all material respects, the financial position of INBAR as of December 31, 2000 and of the results of its operations and its cash flows for the year then ended in accordance with International Accounting Standards.

  
PricewaterhouseCoopers

January 21, 2001

# International Network for Bamboo And Rattan

## Balance Sheet

As at December 31, 2000

(in US dollars)

	2000	1999
<b>ASSETS</b>		
Non-current assets		
Fixed assets (note 3):		
Motor vehicles	71,936	71,936
Computer equipment	101,888	87,050
Office Furniture and equipment	140,897	130,013
	<u>314,721</u>	<u>288,999</u>
Less: Accumulated depreciation	143,368	89,600
	<u>171,353</u>	<u>199,399</u>
Recoverable deposits	8,026	11,862
Current assets		
Prepaid expenses	-	15,425
Other receivables (note 4)	8,201	270,046
Cash and cash equivalents (note 5)	772,362	557,708
	<u>780,563</u>	<u>843,179</u>
	<u>959,942</u>	<u>1,054,440</u>
<b>NET FUNDS AND LIABILITIES</b>		
Net funds		
Restricted (note 6)	433,353	488,426
Unrestricted	270,371	335,678
	<u>703,724</u>	<u>824,104</u>
Current liabilities		
Accounts payable and accrued liabilities	256,218	230,336
	<u>256,218</u>	<u>230,336</u>
	<u>959,942</u>	<u>1,054,440</u>

The accompanying notes form an integral part of the financial statements.

Approved on behalf of the Board:

  
Director General

  
Treasurer

# International Network for Bamboo And Rattan

## Statement of Activities

For the year ended December 31, 2000

(in US dollars)

	PRC Government	IDRC	DGIS	IFAD	Others	2000	1999
Revenue							
Grants:							
Restricted (note 7)	-	-	816,516	-	84,369	900,885	1,167,486
Unrestricted	464,357	807,487	-	-	-	1,271,844	1,553,002
Interest income	-	-	9,893	-	3,779	13,672	17,933
Publication sales	-	-	-	-	7,892	7,892	3,548
Others	-	-	-	-	2,971	2,971	-
	464,357	807,487	826,409	-	99,011	2,197,264	2,741,969
Programme activities (note 8)							
Ecological Security	3,548	16,989	21,532	23,637	-	65,706	
Economic Development	1,221	27,438	54,175	69,252	-	152,086	
Livelihood Development	-	1,900	35,498	113,876	81,862	233,136	
Outreach	63,674	122,188	549,155	4,300	6,231	745,548	
	68,443	168,515	660,360	211,065	88,093	1,196,476	1,250,325
Management and administration							
Secretariat expenses (note 9)	61,692	604,617	-	-	-	666,309	986,463
Board of trustees expenses (note 10)	-	75,583	-	-	-	75,583	(4,768)
	61,692	680,200	-	-	-	741,892	981,695
Expenses covered by in-kind contribution (note 11)	379,276	-	-	-	-	379,276	445,306
Excess of (expenditures over revenue)/ revenue over expenditures	(45,054)	(41,228)	166,049	(211,065)	10,918	(120,380)	64,643

The accompanying notes form an integral part of the financial statements.

## Statement of Net Funds

For the year ended December 31, 2000

(in US dollars)

	2000	1999
Opening balance of net funds	\$ 824,104	759,461
Excess of (expenditures over revenue) /revenue over expenditures for the period	(120,380)	64,643
Closing balance of net funds	\$ 703,724	824,104

The accompanying notes form an integral part of the financial statements.

# International Network for Bamboo And Rattan

## Statement of Cash Flow For the Year Ended December 31, 2000 (in US dollars)

	2000	1999
Cash flows from operating activities		
Excess of (expenditure over revenue)/ revenue over expenditure	\$ (120,380)	64,643
Adjustments to reconcile excess of (expenditure over revenue )/ revenue over expenditure to net cash provided by operating activities:		
Depreciation	58,433	56,159
Losses on disposals of fixed assets	1,659	-
Interest income	(13,672)	(17,933)
Decrease/(increase) in other receivable	261,845	(162,856)
Decrease/(increase) in prepaid expenses	15,425	34,188
Decrease/(increase) in recoverable deposits	3,836	(12)
Increase/(decrease) in accounts payable and liabilities	25,882	160,915
Increase/(decrease) in payable to donor	-	(478,714)
	353,408	(408,253)
Net cash provided by operating activities	233,028	(343,610)
Cash flows from investing activities		
Purchases of fixed assets	(32,046)	30,378
Net cash used in investing activities	(32,046)	(30,380)
Cash flows from financing activities		
Interest received	13,672	17,933
Net cash provided by financing activities	13,672	17,933
Increase/(Decrease) in cash and cash equivalents	214,654	(356,055)
Opening balance of cash and cash equivalents	557,708	913,763
Closing balance of cash and cash equivalents	\$ 772,362	557,708

The accompanying notes form an integral part of the financial statements.

# International Network for Bamboo And Rattan

---

## Notes to Financial Statements For the year ended December 31, 2000 (in US dollars)

---

### 1. PRINCIPAL ACTIVITIES

The International Network for Bamboo and Rattan ("INBAR") was created in Beijing, the People's Republic of China ("PRC") on November 6, 1997, by international agreement signed by nine sovereign nations. Subsequently, the Head Office of INBAR was established in China under the terms of Headquarters Agreement between the Government of the people's Republic of China and International Network for Bamboo and Rattan. Up to December 31, 2000, twenty-one nations have acceded to the treaty establishing INBAR.

The mission of INBAR is to improve the social, economic and environmental benefits of bamboo and rattan. It supports and coordinates core programmes in scientific research, technology generation and sustainable development programmes, providing bamboo and rattan solutions for people and the environment.

INBAR is currently funded through support received from the government of the People's Republic of China ("PRC government") and by grants and contract support from International Development Research Centre ("IDRC") of Canada, Directorate General of International Cooperation ("DGIS") of Netherlands and United Nations' International Fund for Agricultural Development ("IFAD").

### 2. ACCOUNTING POLICIES

The principal accounting policies adopted in the preparation of these financial statements are set out below:

#### Basis of preparation

The financial statements are prepared in accordance with and comply with International Accounting Standards. The financial statements are prepared under the historical cost convention.

#### Reporting currency

The financial statements are prepared in US dollars as INBAR is an international organization and its clients and donors prefer the use of US dollars in the financial statements as US dollars is a global currency.

#### Foreign currencies

Foreign currency transactions are accounted for at the average exchange rates that closely approximate the exchange rates prevailing at the date of the transactions; monetary assets and liabilities expressed in foreign currencies are translated into US dollars at the exchange rate stipulated by People's Bank of China at the balance sheet date. Exchange difference arising from these cases are recognized in the statement of activities.

#### Fixed assets

Fixed assets are stated at cost less accumulated depreciation.

Depreciation is calculated on the straight line method to write off the cost of each asset, taking into account zero residual values over their estimated useful lives as follows:

---

Motor vehicle	5 years
Computer equipment	3 years
Office furniture and equipment	10 years

---

#### Other receivable

Other receivable are carried at anticipated realisable value.

#### Cash and cash equivalents

Cash and cash equivalents comprise of cash and short-term deposits with original maturity of three months or less.

# International Network for Bamboo And Rattan

## Net funds and grants

Net funds comprise of unrestricted and restricted contributions from donors. Grants which can be used at the discretion of INBAR is classified as unrestricted net funds. Grants which are restricted by the donors for specific purposes or periods are classified as restricted net funds.

Grants are recorded using the accrual method. All grants are included in unrestricted net funds unless specifically restricted by the donor or the terms of the grants. If the restrictions are met in the same reporting period, the amount is recorded in unrestricted net funds.

## Taxation

INBAR enjoys the same exemptions and facilities as are accorded to diplomatic missions in PRC according to the Headquarters Agreement between the Government of the People's Republic of China and the International Network for Bamboo Rattan. As such, INBAR is exempted from taxation in PRC.

## 3. FIXED ASSETS

	Motor vehicles	Computer equipment	Office furniture and equipment	2000	1999
Opening net book value	\$ 49,551	\$ 43,290	\$ 106,558	\$ 199,399	225,180
Additions	-	21,162	10,884	32,046	30,378
Disposals	-	1,659	-	1,659	-
Depreciation charge	14,387	30,795	13,251	58,433	56,159
Closing net book value	\$ 35,164	\$ 31,998	\$ 104,191	\$ 171,353	199,399
As at December 31 2000					
Cost	\$ 71,936	\$ 101,888	\$ 140,897	\$ 314,721	288,999
Accumulated depreciation	36,772	69,890	36,706	143,368	89,600
Net book value	35,164	\$ 31,998	\$ 104,191	\$ 171,353	199,399

## 4. OTHER RECEIVABLES

Other receivables include the following:

	2000	1999
IDRC	\$ -	259,372
Advance to Suppliers	2,703	-
Advances to employees	5,498	10,674
	\$ 8,201	270,046

## 5. CASH AND CASH EQUIVALENTS

Cash and cash equivalents include the following:

	2000	1999
Petty cash	\$ 1,953	4,051
Cash in Bank of China	7 70,409	357,920
Cash in Bank of Montreal	-	195,737
	\$ 772,362	557,708

## 6. RESTRICTED NET FUNDS

Restricted net funds are only used for specific programme activities designated by the donors.

# International Network for Bamboo And Rattan

## 7. RESTRICTED GRANTS

Restricted grants provided by donors other than PRC government, IDRC, DGIS and IFAD are as follows:

	2000	1999
UNESCO- United Nations Educational, Scientific and Cultural Organization	\$ 6,000	3,000
GTZ- Deutsche Gesellschaft für Technische Zusammenarbeit, Germany	59,605	-
Government of Mizoram, India	13,000	-
FAO- Food and Agriculture Organization of the United Nations	5,764	-
Mitch Disaster Solidarity	-	445
	\$ 84,369	3,445

## 8. PROGRAMME ACTIVITIES

Being aware of the benefit of a simplified and concentrated organizational structure, in November 1999, INBAR had begun to re-structure its original seven programmes into four programme areas to facilitate effective programming in relation to available resources without change in priority or loss of content. The four new programme areas were approved at the Board Meeting in January 2000.

The restructuring of the original seven programmes into four programme areas is set out below:

New programme areas	Former programme areas
ES: Ecological Security	NR: Natural Resource and Plantations Development EA: Environmental Applications GC: Genetic Resources Conservation and Use
LD: Livelihood Development	AS: Majority of Accelerating Socio-economic Development UE: Relevant portions of Utilization and Engineering
ED: Economic Development	UE: Majority of Utilisation and Engineering AS: Relevant portion of Accelerating Socio-economic Development
OR: Outreach	ND: Network Development IT: Information Dissemination and Technology Transfer

Due to the restructuring, no comparative figures for expenditures of each programme activities in 1999 are provided.

## 9. SECRETARIAT EXPENSES

Breakdown of secretariat expenses is as follows:

	PRC Government	IDRC	2000	1999
Motor vehicle expenses	\$ -	\$ 16,865	\$ 16,865	15,564
Training	-	7,902	7,902	765
Conference and seminars	-	-	-	143
Miscellaneous	-	-	-	11,096
Office	-	55,891	55,891	34,344
Depreciation	45,054	13,379	58,433	56,159
Printing and reproduction	-	19,253	19,253	15,197
Communication	8,682	13,955	22,637	60,203
Professional services	-	53,343	53,343	163,115
Financial expenses	-	280	280	(23,545)
Travel	-	69,865	69,865	64,582
Employee salaries and benefits	7,956	338,896	346,852	581,549
Rent and utilities	-	14,988	14,988	7,291
	\$ 61,692	\$ 604,617	\$ 666,309	986,463

## 10. BOARD OF TRUSTEES EXPENSES

Breakdown of Board of Trustees expenses is as follows:

	2000	1999
Conference and seminars	\$ 26,861	226
Allowances for Board of trustees	13,000	7,572
Foreign exchange loss	-	(25,742)
Professional services	10,047	-
Travel	25,675	13,176
	\$ 75,583	(4,768)

## 11. CONTRIBUTIONS IN-KIND

Contributions in-kind are from PRC Government and details are as follows:

	2000	1999
Expenses covered by contributions in-kind from PRC government:		
Local staff benefits	\$ 31,320	49,500
Rent and utilities	347,956	395,806
Subtotal	379,276	445,306
Fixed assets contributed by PRC government:	-	16,460
Total contributions in-kind from PRC government	\$ 379,276	461,766

## 12. CONTRIBUTIONS FROM PROJECT PARTNERS FOR INBAR PROJECTS

Some of the programme activities recorded in INBAR's statement of activities for the year ended December 31, 2000 are jointly carried out by INBAR and its project partners. Besides INBAR's funding, such programme activities are also funded by project partners. According to signed contract, project partners' committed contribution to those programme activities are set out below:

	2000
In-Hand Abra Foundation, Philippines	\$ 1,494
Colombian Bamboo Society	17,457
Ecosystems Research and Development Bureau	4,400
Kerala Forest Research Institute	2,000
Research Institute of Sub-tropical Forestry, China	4,458
Ministry of Science and Technology of China	38,600
Indian Plywood Industries Research & Training Institute	5,000
Ogun State University, Nigeria	2,251
Instituto Nacional de Recursos Naturales, Peru	18,824
Kenya Forestry Research Institute	10,583
Addis Ababa University, Ethiopia	8,205
Forestry Research Institute of Ghana	5,656
Tanzanian Forestry Research Institute	2,686
Forestry Research Institute, Uganda	3,537
Fundación de la Universidad de Costa Rica para la Investigación	16,400
Forest Research Institute, India	4,000
Nanjing Forestry University, China	12,089
Hong Kong Polytechnic University	109,806
Peking University, China Center of Economic Research	4,441
Bamboo Society of India	1,410
Crafts Society of Manipur	1,020
Zhang Guangchu	6,000
Andrew Benton	6,750
Royal Botanic Gardens, KEW, UK	45,750
University of the Philippines at Los Banos	6,263
National Laboratory for Material and Structural Models, University of Costa Rica	20,130
China National Bamboo Research Center	1,205
Food and Agriculture Organization of the United Nations	40,000
Housing & Urban Development Corporation, India	18,000
	\$ 418,415



Anyuan Building No. 10, Anhui Beili, Asian Games Village,  
Chaoyang District, Beijing, P. R. China

Tel: 86-10-6495 6961/64/78/82

Fax: 86-10-6495 6983/62

Email: [info@inbar.int](mailto:info@inbar.int)

Homepage: <http://www.inbar.int>

Mailing Address: Beijing 100101-80, P. R. China