



**MINISTRY OF FORESTRY
FOREST DEPARTMENT, MYANMAR
AND**



INTERNATIONAL TROPICAL TIMBER ORGANIZATION

ITTO Project PD 146/02 Rev.1 (I)

"Promoting Sustainable Utilization of Bamboo through Community Participation in Sustainable Forest Management"

Report on International Training Workshop on Bamboo and Rattan Sustainable Management in Developing Countries



Haikou and Guangzhou, People's Republic of China

June 12-22, 2006

(3 Jul '07
No. 957 (DR))

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1. Introduction

Bamboo and rattan are two important non-timber forest products (NTFPs) that can be substitute of timber. Bamboo is fast-growing, easy to regenerate and versatile in utilization, bamboo is considered to have great potential in rural poverty alleviation, reduce deforestation, protect environment and develop local industry. As is commonly known, rattan or cane is a ready source for the cane furniture industry. As rattan resources are exhausting, sustainable management of the resources becomes especially important for its producing countries. Rattan is increasing in popularity because it is easy to work with and requires only simple tools and low cost machines. It lends itself to un complicated labor-intensive processing and thus generates diverse employment, and its manufacturing costs are minimal. Its social significance is no less. It provides sustainable income to some of the most disadvantaged segments of people living in and on the fringes of forests. It is environmentally friendly and biodegradable. Ecologically, rattan is very important. It grows in degraded forests and on marginal soils. It can be introduced artificially in natural forests without disturbing the existing structure and balance.

Two participants of Myanmar were sponsored by the International Tropical Timber Organization (ITTO) to attend the International Workshop organized by the International Network for Bamboo and Rattan (INBAR) and Hainan Bamboo and Rattan Association (HBRA). We attended to International Training Workshop on bamboo and rattan sustainable management in developing countries at Haikou, Hainan Province and Guangzhou, Guangdong Province, China in June 12-22,2006.

2. Objectives

To strengthen the development of bamboo and rattan (B&R) sector in the world with special emphasis on bamboo and rattan cultivation, propagation and plantation management technologies.

To develop and strengthen local capacity in use- oriented bamboo and rattan resource development .To provide participants with some of the technical and practical skill needed to design, implement and conduct training workshops on bamboo and rattan cultivation, e.g. " Train the Trainer".

To improve international exchange and cooperation through technology and knowledge transfer.

Provide practical experiences- including techniques, policies, and models of universal participation of the local community (local authorities, research institutes, poor farmers, etc.)- in initiating bamboo and rattan development strategies in certain regions.

3. Participants

5 participants from 3 countries, namely, Buhtan, Nepal and Myanmar attended the training workshop.

4. Duration

The training workshop started on 12th of June 2006 and finished on 22nd of June, 2006. It covers duration of 11 days.

5. Location

The training workshop was held at Haikou, Hainan Province and Guangzhou, Guangdong Province, China.

6. Workshop Organizers

The training workshop was jointly organized by the International Network for Bamboo and rattan (INBAR) and Hainan Bamboo and Rattan Association (HBRA).

7. Contents and Discussion of Workshop

7.1. Lecture on Main Experience of Sustainable Development of China's Bamboo Industry by Prof. Zhu Zhaohua

In this lecture, Prof. Zhu Zhaohua explained about the China's bamboo industry, factors contribute to the success of China's bamboo industry, products and main processing technologies, impact and cases for Anji County of Zhejiang Province, Lin'an County of Zhejiang Province, Muchuan County of the Sichuan Province and Xinyi County of Guangdong Province.

7.2. Lecture on the Supply Chain of China's Bamboo Industry and the Full Utilization of Bamboo, Prof. Zhu Zhaohua

The lecture focused on detail utilization of bamboo for different parts.

7.3. Lecture on The Propagation and Cultivation of Rattan by Prof. Dr. Li Rong Sheng

This lecture contented establishment of nursery, the selection of nursery land, management factors, sowing and transplanting, planting operation, maintenance and management technique.

7.4. Lecture on GTZ/INBAR Hainan Bamboo and Rattan Project, Prof Zhu Zhaohua

This lecture gave information on the short overview, activities, finance and impacts of GTZ/INBAR Hainan Bamboo and Rattan Project.

7.5. Lecture on Introduction to the Bamboo Sector in Qingyuan County by Mr. Chan

This lecture expressed *Dendrocalamus latiflorus* ; plantation management for shoot purpose- A Case Study of Qingyuan County, Guangdong Province, China.

7.6. Lecture on Suggestion on the Bamboo Industry Development Strategies, Prof. Zhu Zhaohua

The lecture concentrated on inventory of bamboo resources, rational policies encouraging individuals and enterprises to participate bamboo development, development of bamboo resources, bamboo processing industry, demonstration sites, comprehensive utilization of the bamboo resources, develop multi-lateral participated bamboo industry, personal training and scientific researches.

8. Field trips

8.1. Yi Tang Zhu She Co., Danzhou

In this company, Miss Chan, the owner of Co. explained the development of her company.

8.2. *Dendrocalamus latiflorus* Plantation, Baisia

Project director Mr. Shiw explained on the management of *Dendrocalamus latiflorus* Plantation for shoot purpose.

8.3. Bamboo and Rattan nursery , Baisia

Observed bamboo and rattan seedling and their propagation methods.

8.4. Bamboo and wood factory, Guanging

Observed bamboo board making processing and its benefit.

8.5. *Bambusa textiles* plantation and instinct factory, Guanging

Observed *Bambusa textiles* plantation and instinct processing.

8.6. Bamboo Museum, Guanging

Observed different kind of bamboo products from China.

8.7. Bamboo Garden, Quingyan

Observed different bamboo species of China.

9. Observation

The participants are now quite well acquainted with the technology on the utilization of bamboo for different parts. And also knew the technology for establishment of nursery, the selection of nursery land, management factors, sowing and transplanting, planting operation, maintenance and management of bamboo and rattan. It was generally gained the management of *Dendrocalamus latiflorus* plantation for shoot purpose. Different kind of bamboo products and different species were also observed at Bamboo Museum and Bamboo garden.

10. Recommendations

Myanmar has round about 15 commercial bamboo species which are good for weaving, furniture, construction, agricultural implements, industries and food.

- mean and way of effective utilization of bamboo products production with our own bamboo species should be tried.
- Bamboo shoot processing technologies should be improved based on our own bamboo species, such as *Dendrocalamus latiflorus*, *Dendrocalamus asper*, *Dendrocalamus brandisii*, *Dendrocalamus hemiltonii* and *dendrocalamus stritus*.
- more research on bamboo and rattan propagation, management, utilization and marketing should be carried out.
- selection of bamboo species for plantation should be selected by our own species.
- linkage with International bamboo market should be made all the time.

11. Conclusions

Myanmar needs to substitute the traditional production processing of bamboo products to high quality and quantity bamboo products production processing by using machines. Much knowledge on sustainable management on bamboo and rattan were gained. Opportunities for the observation of different new design bamboo and rattan products and different China's bamboo species were also got.

We would like to extend my appreciation to the International Network for Bamboo and Rattan (INBAR) and Hainan Bamboo and Rattan Association (HBRA). We also want to thank ITTO Project for supporting fund for us to participate in this training workshop.

Workshop photographs



Opening ceremony of training workshop



Participants of the workshops



Study for the Propagation and Cultivation of Bamboo and Rattan
at Baisha bamboo and rattan nurseries



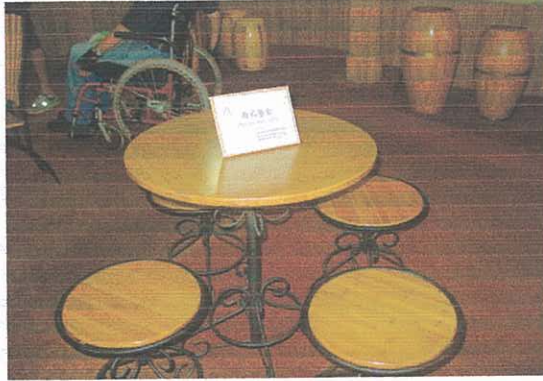
Instant stick making factory



Bamboo furniture factory



Changrong Bamboo and Wood Handicraft Products Co. Ltd.



New design bamboo furniture



Some bamboo products of Changrong Bamboo and Wood Handicraft Products Co. Ltd.



Guangning Bamboo Museum



Demonstration for fire proved bamboo mat ply board at Changrong Bamboo and Wood Handicraft Products Co. Ltd.



Introduction to the bamboo shoot development in Qingyuan County



Explained for *Dendrocalamus latiflorus* shoot harvesting



Rattan seedling



Baisha Rattan Plantation



Baisha Rattan nursery



Rattan furniture



Certificate awarded



Agenda

International Training Workshop on Sustainable Bamboo and Rattan Management in Developing Countries

June 12-22, 2006, Hainan & Guangdong, China

June 11 (Sunday)

Participant arrival and registration

Stay in Haikou

June 12 (Monday)

8:00-9:00 Opening Ceremony
9:00-9:15 Tea break
9:15-10:30 Presentation: Main Experiences of the Sustainable Development of
China's Bamboo Industry, Prof. Zhu Zhaohua
10:30-10:40 Tea break
10:40-12:00 Presentation: The Supply Chain of China's Bamboo Industry and the
Full Utilization of Bamboo
12:00-14:30 Lunch break
14:30-15:30 Presentation: Forestry Development and Tropical Forest Protection
in Hainan, Ms. Zhou Yanhua
15:30-15:45 Tea break
15:45-17:30 Presentation: The Propagation and Cultivation of Rattan, Prof. Yin
Guangtian

Stay in Haikou

June 13 (Tuesday)

8:00-9:30 Presentation: Introduction to the GTZ/INBAR Hainan Project, Prof.
Zhu Zhaohua
9:30-9:45 Tea break

9:45-12:00 Presentation: The Propagation and Cultivation of Sympodial
Bamboo, Prof. Zhang Guangchu
12:00-14:30 Lunch break
14:30-18:00 Visit to Ding'an Bamboo Garden

Stay in Haikou

June 14 (Wednesday)

7:30-12:00 Travel from Haikou to Danzhou, visit to the rattan factory of Yi Teng
Zhu She Company on the way
12:00-15:00 Lunch break
15:00-17:00 Visit to the plantation of *Dendrocalamus asper*. for shoot purpose
19:00-20:00 Dinner

Stay in Danzhou

June 15 (Thursday)

7:00-7:30 Breakfast
7:30-8:30 Danzhou – Baisha
8:30-11:30 Visit to Baisha bamboo and rattan nurseries
11:30-13:50 Lunch break
13:50-16:00 Visit to rattan plantation under secondary forest
16:00-17:30 Baisha - Danzhou
19:00-20:00 Dinner

Stay in Danzhou

June 16 (Friday)

Danzhou – Haikou – Guangzhou – Guangning

Visit to Guangdong Nanteng Cooperation (Rattan Processing Factories)

Stay in Guangning

June 17 (Saturday)

7:30-8:00 Breakfast
8:00-8:40 Introduction to the bamboo sector in Guangning County
8:40-12:00 Visit to the plantation of *Bambusa textiles* in Hengshan Town
12:00-14:00 Lunch break
14:00-15:00 Visit to Tianlong Company

- 15:00-16:30 Visit to Changrong Bamboo and Wood Handicraft Products Co. Ltd.
- 16:30-17:30 Visit to Dingfeng Pulp and Paper Co., Ltd.
- 19:00-20:00 Dinner

Stay in Guangning

June 18 (Sunday)

- 7:30-8:00 Breakfast
- 8:00-9:30 Visit to the plantation of *Phyllostachys amabilis*
- 9:30-10:30 Visit to Huazi Bamboo Co., Ltd.
- 10:30-11:30 Visit to Jiameng Bamboo Products Co., Ltd.
- 11:30-13:00 Lunch break
- 13:00-14:00 Visit to Fustar Bamboo Products Co., Ltd.
- 14:00-15:30 Visit to Xinfu Bamboo Art Factory
- 15:30-18:00 Visit to Xinyi Bamboo Machinery Factory and Yaba Bamboo Charcoal Products Co., Ltd.
- 19:00-20:00 Dinner

Stay in Guangning

June 19 (Monday)

- 7:30-8:00 Breakfast
- 8:00-9:00 Visit to Guangning Bamboo Museum
- 9:00-11:00 Visit to Guangning Bamboo Garden □□□□□□□□
- 11:30-13:30 Lunch break
- 14:00-16:30 Guangning - Qingyuan
- 17:00-18:00 Introduction to the bamboo shoot development in Qingyuan County
- 19:00-20:00 Dinner

Stay in Qingyuan

June 20 (Tuesday)

- 8:00-12:00 Visit to the plantation of *Dendrocalamus latiflorus* for shoot purpose and study cultivation and management technologies
- 12:00-14:00 Lunch break
- 14:00-17:00 Visit to bamboo shoot processing factory □□□□□□□□
- 18:00-19:00 Dinner

Stay in Qiangyuan

June 21 (Wednesday)

7:00-8:00 Breakfast
8:00-10:00 Presentations by participants
10:00-10:15 Tea break
10:15-11:00 Presentation: Suggestions for the bamboo development in developing
countries, Prof. Zhu Zhaohua
11:00-12:00 Lunch
13:30-16:30 Qingyuan - Guangzhou
18:00-19:00 Dinner

Stay in Guangzhou

June 22 (Thursday)

Free activities

Stay in Guangzhou

June 23 (Friday)

Departure of participants



List of Participants

International Training Workshop on Bamboo and Rattan Sustainable Management in Developing Countries, June 12-22, 2006, Hainan & Guangdong, P. R. China

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CERTIFICATE OF ACHIEVEMENT

June 21, 2006

This Certificate is issued in appreciation that **Khin May Lwin** has successfully completed the *International Training Workshop on Bamboo and Rattan Sustainable Management in Developing Countries*, June 12-22, 2006, Hainan and Guangdong provinces, P. R. China, Organized by:

International Network for Bamboo and Rattan
(INBAR)

Hainan Bamboo and Rattan Association
(HBRA)

Dr. Jacoba C. Hoogendoorn
Director Général





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Dr. Jacoba C. Hoogendoorn
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