



THE UNION OF MYANMAR  
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 Participants  
in Sustainable Forest Management"

A report on

"Workshop-cum-Seminar on Poverty Alleviation through Bamboo-based  
Development: Policies, Strategies and Stakeholders"

by

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April 18 to 27, 2005

Seminar Rep. (DB)  
(18 Dec. '06  
No. 1735

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## **1. Introduction**

With ever increasing population, so is the rising demand for food, clothing, and accommodation for the population everyday. The scientist and policy makers are finding new things, goods and modifying old ones to fulfill the need for the population. The goods should be eco-friendly while fulfilling the demand within a short time. To find such thing may be difficult and time consuming. Bamboo is a fast growing and regenerating plant. Shortly after planting it, the species gives revenue without negative environmental effects. Bamboo's physical properties are equal or superior to wood-timber. Again, its products are in various forms- from shoot as food, timber as construction materials, leaves extract as beverage to leaves as medicinal us. Bamboo is thus the only plant, not one of the plants, which best meet the requirements for all of us. It provides food, clothing and building-materials for all of us within a short time while the plant grows environmentally friendly.

The species is worth to be classified as poor man's timber as it help meet daily requirement of poor man, the bulk of the population in our world. Today, trade value for bamboo across the world is more than 7 billions.

## **2. Objective**

To study the strategies and policy laid down for sustainable development of bamboo forest management, of poverty alleviation and to study advanced bamboo industry in China.

## **3. Participants**

27 participants from 11 countries of Colombia, Ethiopia, Ghana, India, Indonesia, Malaysia, Myanmar, Mexico, Tanzania, The Philippines and Uganda were present to the workshop. One participant from UNIDO (United Nations Industrial Development Organization) also attended at the workshop.

## **4. Location and duration**

The workshop was held at Li-an and Anji cities of Zhejiang province during the period between 18-27 April, 2005.

## **5. Workshop organizer**

The workshop was jointly organized by Bamboo Industry Association of Lin-an and Anji counties of Zhejiang province and INBAR (International Network for Bamboo and Rattan).

## **6. Contents and workshop discussion**

The workshop essentially contains two parts- lecture and field trip. In former part, the following lectures were included in the morning session.

"Introduction to China's bamboo sector and its development", "The impact of bamboo industry on rural development of Anji county" discussed by Professor Zhu on April 19, 2006. This was followed by Mr. Wang Anguo's lecture of Forestry "Sustainable

In the afternoon and second day session, the following presentation were made by respective researchers-

1. How to improve bamboo utilization rate during processing by Mr. Chen Jianyin
2. Impact assessment of bamboo shoot on poverty alleviation reduction in Lin-an county by Professor Zhu
3. The driven power of Anji bamboo industry for other local industries by Mr. Chen Jianyin
4. The bamboo society linking enterprise, the government and the farmers by Mr. Wang Anguo.

Pertaining to field visit, which was started on 20 April, 2006, the participants had chance to study food, flooring factories, bamboo shoot markets, bamboo plantations, handicraft workshops, bamboo museum, bamboo arboretum, bamboo furniture, panel, charcoal and fiber manufacturing factories in Lin-an and Anji's area where they had chance to enquire information on policy and strategy for bamboo development with the areas' mayors and administrators. On the final day, the participants made presentations and the workshop was over on 26 April, 2006.

Our presentation on bamboo propagation made at the workshop was attached at the end of this report.

## **7. Observation**

We observed that China has started its bamboo development since Qin dynasty (221—207 BC). During the reign, bamboo planting was initiated. It is not unreasonable to conclude that bamboo utilization at that time would also be in existence. Bamboo utilization might have been included in Chinese' culture. It also plays as spiritual symbol for Chinese people.

According to the lectures, China has 39 bamboo genera and 500 species. Since 1950, the government of China has paid attention on bamboo planting and in 1980, a total of 3.2

million ha of bamboo plantation has already been established forming annual area of 50,000 ha since then. It therefore has a total of 4.5 million ha of bamboo plantation now.

Regarding to bamboo pole production, annual production of bamboo pole in 1980 was at 96 million pieces. But in 2003, the annual production rose up to 600 million pieces (See Figure 1).

Meanwhile, the government encouraged its people to produce bamboo handicrafts and utensils. Necessary provision for the establishment of bamboo industry- right land-use policy, financial policy, research finding extension, and etc, were also provided by the government. During the workshop, we came to know that though administrators have been changed, but no critical change in policy laid down.

In accordance with quick bamboo industry development in China, the total production value has also multiplied from hundreds of million in 1980 to thousand of million in 2003. The value was at 3,500 million US\$ in 2003 and exports earning was at 700 in 2003 (See Figures 2 and 3).

We realized that the government has paid priority on bamboo industry development.

Priority given on bamboo research

China started research on bamboo in 1930. The main research activity included in its initial stage was **Bamboo Taxonomy**. Thus a very complete publication on bamboo taxonomy could be published in 1980. Then the research works focused on pathology, bamboo ecology, plantation technique, and utilization. When raw material supply was ensure, the government gave priority on machine development for bamboo product production.

The government also established a stable policy for the bamboo industry development. For example, it laid down a land-use policy which allows farmers use state-owned land for 30 years lease. The farmers have access for financial resources as they can borrow money (US\$ 290 per hectare) with very low interest rate. Financial assistance can be classified in 3 steps- financial assistance was first given for plantation establishment and this was followed by financial assistance for bamboo processing in the second step and for marketing in the third step.

All the research findings were not stored in publications, but distributed by establishing **Extension Stations** across bamboo areas to its people, especially to rural communities. The bamboo industry developers invited not only the farmers, but also respective area's policy makers as well as brokers. This shows that the government knew well the importance of extension activity for the development of bamboo industry.

The system the government employed in the first stage was "Farmers + Company". This has been now changed to "Farmers + semi-product maker + company". The farmers

have no worry to dispose their raw materials (bamboos). In vice visa, company has no concern on raw material supply. This system does work very well.

The involvement of NGOs to bamboo industry was also noticed and this will also strengthen further development of bamboo industry in China.

The bamboo industry development has really improved the life of bamboo related farmers and rural poor. We have seen that bamboo growing farmers have new and modernized luxury vehicles of their own. The industry created 3-4 million job opportunities for the rural poor. Income form bamboo plantation was as high as 1,870 US\$ per hectare. The farmers earn 5,625 US\$ per hectare from shoot producing plantation. This income is actually 2.8 times higher than that of rice growing, it was learnt.

During the workshop, we came to know that bamboo is 1.5 times higher than pine species and 1.3 times higher than Chinese fir in soil conservation.

## **8. Recommendation**

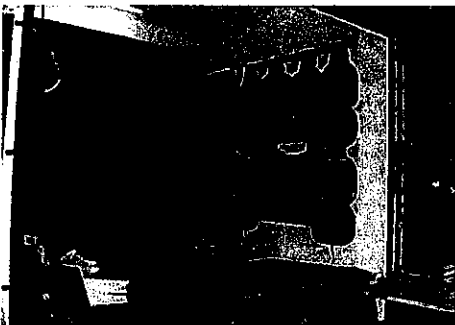
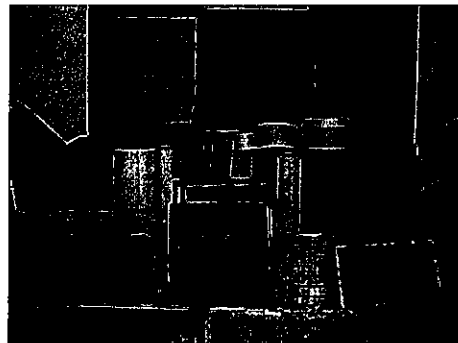
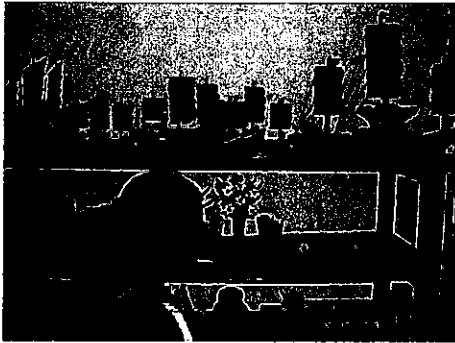
To develop bamboo industry in a country needs STABLE POLICY, and ALL LAYERS OF PEOPLE SHOULD SIT ON THE SAME TABLE WITH GOOD TRANSPARENCY. PRIORITY ON RESEARCH DEVELOPMENT SHOULD AT ANY RATE BE FORGETTEN.

To develop bamboo industry in Myanmar, activities for species identification, bamboo inventory, and encouragement to both companies and rural communities must be done without fail.

## Study on bamboo Plantations and management

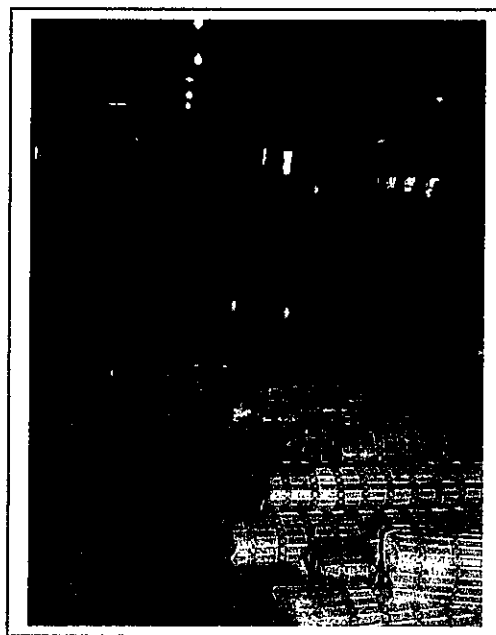
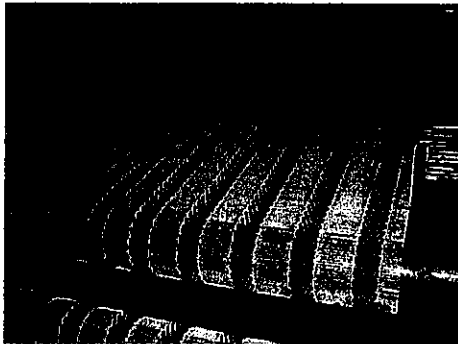
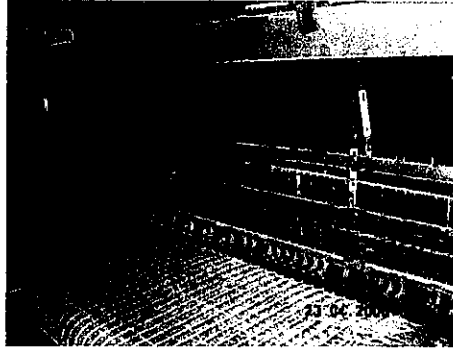
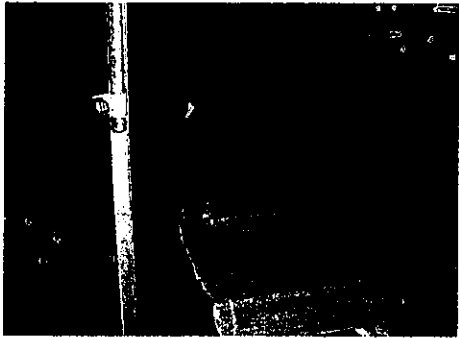


## Study on Bamboo products

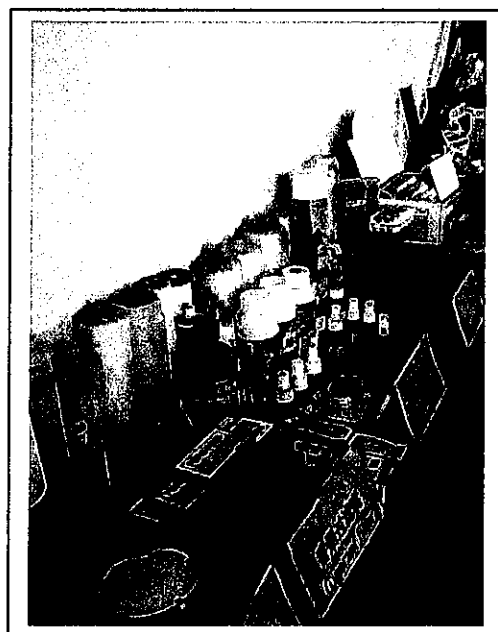




## Study on the production of Bamboo curtains



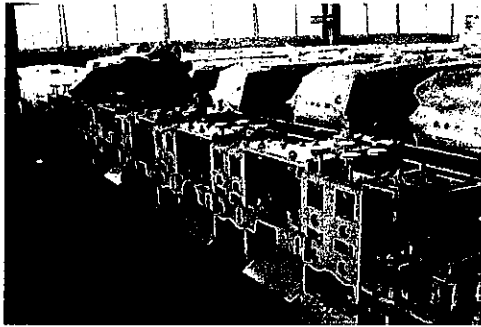
# Study on bamboo charcoal products



## Study on bamboo eco-tourism sites



## Study on manufacturing of machines



# Study of treatment on raw bamboo

