

Project : PD 56/99 Rev. 1 (I)
Promotion of the Utilization of Bamboo
from Sustainable Sources in Thailand

The Training Course on Sustainable Management and Utilization of Bamboo



**Non Wood Forest Products Research Experimental Station
Nakhon Ratchasima Province
28th – 30th of March 2004**



Royal Forest Department, Bangkok, Thailand

and

International Tropical Timber Organization (ITTO)





Proceeding No. 7

The Training Course on Sustainable Management and Utilization of Bamboo

Wanida Subansenee

Project Leader

Nuchanart Nilkamhaeng

Prachoen Sroithongkham

Suthep Chiablaem

Staff

Webpage: <http://www.forest.go.th/bamboo>

e-mail : Bamboo-ITTO@forest.go.th

Preface

A training course on the “Sustainable Management and Utilization of Bamboo” was organized by the Promotion of the Utilization of Bamboo from Sustainable Sources in Thailand [Project PD 56/99 Rev. 1 (I)] with the logistical support of the International Tropical Timber Organization (ITTO).

The objectives of this training course were to provide the trainees with on-the-job training in the theory and practices of bamboo management. Another purpose was to help equip the trainees to generate new income and to communicate their experiences with their neighbors. It is hoped that this kind of training will help promote the value, culture and understanding of sustainable management of bamboo in the country for the future.

This training course was conducted on the 28th – 30th of March 2004 at Non Wood Forest Products Research Experimental Station, Nakhon Ratchasima province. The 30 trainees are representatives from various provinces such as Chiangmai, Nakhon Ratchasima, Chaiyapoom, Surin, Buriram and Prachinburi. The 8 extra trainees from Khonkaen, Nakhon Ratchasima, Nan, Sukothai, Lumpang, Sakaeo and Bangkok joined the training course as observers. Some of the trainees had a background in bamboo management and utilization.

All the 30 trainees passed the evaluation standard after 3 days of intensive training. The criteria for evaluation included a standardized test table, degree of interest and the outcomes of their practical work. All the necessary equipment and materials for bamboo management and utilization technique were supplied by the course in the project.

The opening ceremony was presided over by Mrs. Wanida Subamsenee the project leader, and reported by Mrs. Nuchanart Nilkhamheang who is on the organizing committee and is the senior project staff member.

The closing ceremony was presided over by Mr. Suchart Thaipetch the project director, and reported by Mr. Prachoen Sroithongkham who is the head of Non Wood Forest Products Research Experimental Station, Nakhon Ratchasima province and was a staff member of this training course.

ACKNOWLEDGEMENTS

This training course would not have been possible without the generous support of our project sponsors: the governments of Japan and the United States of America through ITTO. Special thanks is owed to Dr. Hwan Ok Ma, who supported and helped the organizers with all means at his disposal. The resource personnel from the Royal Forest Department demonstrated great dedication in making this training a success and we are very grateful. Recognition should also be given to the participants for their high level of interest and participation during the course which afforded the training course to achieve its objectives.

The kind hospitality of Mr. Prachoern Sroithongkham, head of Non Wood Forest Products Research Experimental Station, Nakhon Ratchasima province, was sincerely appreciated by all visitors involved and he too should receive our sincere thanks.

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Opening Report

Nuchanart Nilkhamheang

Chairperson, honors guests and participants,

The Royal Forest Department was supported by ITTO to generate Project PD 56/ 99 Rev. 1 (I) : Promotion of the Utilization of Bamboo from Sustainable Sources in Thailand. The purpose of this project was to promote and train people for the management and utilization of bamboo. Subjects covered by this project were cultivation, utilization efficiency and bamboo value. The Project organized a training course called the "Sustainable Management and Utilization of Bamboo".

This training course had 2 objectives:

1. To promote and transfer technology in managing and utilizing bamboo sustainability to farmers and enterprises.
2. To help farmers and bamboo enterprises to develop bamboo business sustainability.

At this time I would like to ask Mrs. Wanida Subansanee, who is the project leader and chairperson of the opening ceremony, to come forward and deliver her opening address and declare the training course open.

Opening Address

Wanida Subansenee

Director of the training course, resource personnel, and participants,

It is a great honor for me to be invited, on behalf of the Royal Forest Department, to open the training course on "Sustainable Management and Utilization of Bamboo" today.

Probably all of you are very familiar with what bamboo looks like and its many uses in one way or another. The Project PD 56/99 Rev.1 (I) : Promotion of the Utilization of Bamboo from Sustainable Sources in Thailand is kindly organizing this course. Its purpose is to train people in a proper understanding of the bamboo plantation. By using techniques in utilization it will promote its protection while at the same time generate more income for families dependant upon it.

I feel that this kind of training is very useful to the local people in helping them to upgrade and diversify their skills as well as open new economic opportunities for them.

I would now like to declare the training course officially open and I would like to thank to the project staff and concerned organizations for making this a success. Thank you.

Training Procedure

Curriculum

The training course consists of lecture and a practical on "Sustainable Management and Utilization of Bamboo". The practical work was divided into 4 parts: bamboo propagation and management, bamboo protection, bamboo board and bamboo charcoal and vinegar production techniques.

Cultivation and Sustainable Management of Bamboo

The curriculum content covers Cultivation and Sustainable Management of Bamboo conducted by the project staff member, Mr. Prachoen Sroithongkham and Mr. Suthep Chiablaem. The training period was 3 hours.

Bamboo Protection

The curriculum content covered the technique of bamboo protection from experts in this field. It was conducted by Ms. Paiwan Lek-u-thai, Mrs. Mayuree Jitkeaw and Mrs. Arunee Veenin from the Royal Forest Department and the Wood Protection Group respectively. The training period was 3 hours.

Bamboo Board

The curriculum content covered the technique of bamboo board making conducted by an expert from the Royal Forest Department, Mr. Valayut Fueangvivat. The training period was 3 hours.

Bamboo Charcoal and Vinegar Production Technique

The curriculum content covered teaching a charcoal and vinegar making technique. The expert from Royal Forest Department, Mr. Chirapong Kuhakanchana, conducted the training. The lectures and demonstrations were 3 hours.

Programs of the Training Course
Time Table of Training Course
on
“Sustainable Management and Utilization of Bamboo”
28 – 30 March, 2004
Non Wood Forest Products Research Experimental Station,
Nakhon Ratchasima province

28 March 2004

1300 - 1700 p.m. Register

29 March 2004

0800 - 0830 a.m. Register (cont.)

0830 - 0900 a.m. Open Ceremony
Orientation

0900 - 1200 a.m. Lecture on Cultivation and Sustainable
Management of Bamboo
Mr. Prachoen Sroithongkham
Mr. Suthep Chiablaem

1200 a.m. - 1300 p.m. Lunch

1300 - 1630 p.m. Lecture and Demonstration on Bamboo
Protection
Ms. Paiwan Lek-u-thai
Mrs. Mayuree Jitkeaw
Mrs. Arunee Veenin

30 March 2004

0830 - 1200 a.m. Lecture and Demonstration on Bamboo
Board
Mr. Valayut Fueangvivat

1200 a.m. - 1300 p.m. Lunch

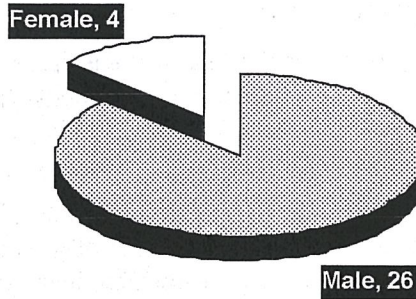
1300 - 1630 p.m. Lecture and Demonstration on Bamboo
Charcoal and Vinegar Production Technique
Mr. Jirapong Kuhakanchana

1630 p.m. Award Certificates and Closing Ceremony

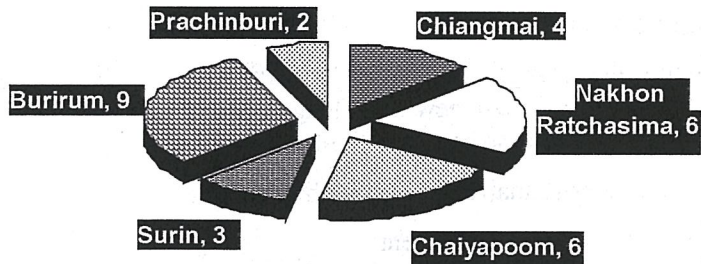
Summary of the Training Course

Data on trainees

Classification of trainees by sex



Classification of trainees by provinces



Expectations and Commitments from the Training Course

The trainee's expectation and commitment could be summarized as follows:

Expectation	Commitment
<ul style="list-style-type: none"> • Knowledge, experience, occupation 	<ul style="list-style-type: none"> • Full satisfaction
<ul style="list-style-type: none"> • Gain new knowledge and experience 	<ul style="list-style-type: none"> • Interested in training
<ul style="list-style-type: none"> • Bring back knowledge to the village 	<ul style="list-style-type: none"> • Commitment to train others
<ul style="list-style-type: none"> • Transfer experience and expertise offered by the course 	<ul style="list-style-type: none"> • Pay attention to all programs for the best possible outcome
<ul style="list-style-type: none"> • Knowledge of the application of skills for practical work 	<ul style="list-style-type: none"> • The willingness to exchange knowledge and experience
<ul style="list-style-type: none"> • To generate new ideas for future bamboo management and utilization development. 	<ul style="list-style-type: none"> • Exchange resource personnel and bring experiences back home
<ul style="list-style-type: none"> • The knowledge learned will be useful for present and future generations 	<ul style="list-style-type: none"> • Complete all the training program with the commitment of future application

Training Course Evaluation

Pre Training Bamboo Knowledge

Before the training course began trainees were tested concerning their knowledge in 5 categories: bamboo management, propagation, utilization, shoot and harvestable age.

Their scores revealed that they knew some information concerning bamboo, method of propagation, utilization and methods of management. However, their knowledge concerning harvestable age, new bamboo charcoal and vinegar utilization was faulty.

All trainees were encouraged to gain more knowledge and practice by themselves following the training. The areas of greatest interest during the course were those of cultivation and sustainable management of bamboo, bamboo charcoal, bamboo vinegar, bamboo board and bamboo protection techniques.

Post Training Evaluation

Upon the completion of the training course, the trainees were questioned concerning their new knowledge of bamboo and interviewed on their opinions of the course by a questionnaire.

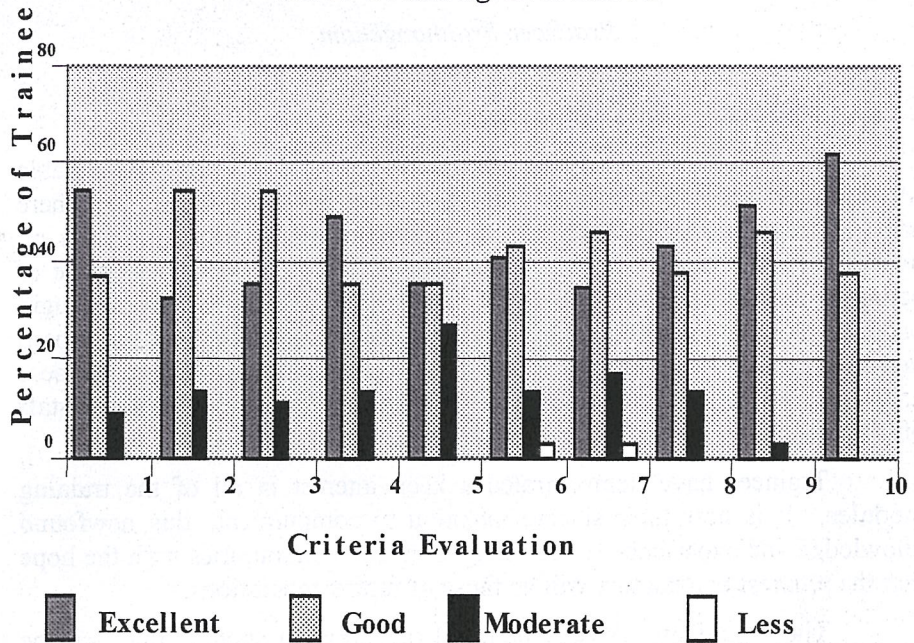
The evaluation questionnaire covered such topics as:

1. Suitability of course content
2. Knowledge of the bamboo plantation
3. Knowledge of bamboo propagation
4. Knowledge of bamboo protection
5. Knowledge of bamboo cultivation and management
6. Knowledge of bamboo wood
7. Knowledge of bamboo charcoal and vinegar production technique
8. Satisfaction of resource personnel and course coordination
9. Course satisfaction of the trainees
10. Services and other information supplied

Trainee's suggestions:

1. Some items in the course should offer examples e.g.
 - a. Shoot processing
 - b. Bamboo marketing
2. More time should be given for bamboo cultivation and management
3. Less technical terms should be used in training course.

After Training Evaluation



Conclusion and Suggestion

Training course on “Sustainable Management and Utilization of Bamboo” was organized by Project PD 56/99 Rev. 1 (I) : Promotion of the Utilization of Bamboo from Sustainable Sources in Thailand with the logistical support of International Tropical Timber Organization (ITTO).

The 30 participants were selected from various provinces of Thailand such as Chiangmai, Nakhon Ratchasima, Chaiyapoom, Surin, Buriram and Prachinburi. The other 8 trainees from Khonkaen, Nakhon Ratchasima, Nan, Sukothai, Lumpang, Sakao and Bangkok joined the training course as observers. All of participants were trained concerning the management and sustainable utilization of bamboo. All participants passed the training course and received information concerning the proper management and utilization of bamboo. The participants found the course very helpful and have recommended that the ITTO and the Royal Forest Department (RFD) organize another training course on “Sustainable Management and Utilization of Bamboo”. In addition, the participants thought that it would be helpful if the two organizations could arrange other courses specifically on bamboo. It was thought that such a course offered two or three times per year, in different localities would be instrumental in the transfer of this knowledge and techniques to people all across Thailand.

Closing Report

Prachoen Sroithongkham

.....

Chairperson, honor guests and trainees,

On behalf of the organizers of the training course on "Sustainable Management and Utilization of Bamboo" I am happy to report that there were 30 trainees and 7 observer's representative from various localities all over Thailand. They have been trained on both the theory and practice of bamboo management and utilization. In addition, the trainees were taught bamboo propagation and management, bamboo protection, bamboo board making and bamboo charcoal and vinegar production techniques. These additional subjects were demonstrated by both the RFD and the official staff of this project.

Trainees have demonstrated a keen interest in all of the training modules. It is now their sincere intention to communicate this newfound knowledge and experience to their neighbors and communities with the hope that the greatest benefactors will be those of future generations.

The organizers strongly believed that training such as this, will be instrumental as part of the local development programs in the country. The outcome from this training may help generate more incomes in the communities while at the same time promote the utilization of bamboo from sustainable sources in the country.

May I invite the Chairperson to deliver the certificates to the successful trainees and give a closing remark of the training course.

Thank you very much.

Closing Remark

Suchart Thaipetch

.....

Staff of the training course, trainees, ladies and gentlemen,

It has been my pleasure to act as chairperson of this training course on the "Sustainable Management and Utilization of Bamboo". I would like to congratulate all the participants on their success in the course and most of all as the beneficiaries of new knowledge concerning one of our greatest natural resources.

In the present declining economy, the government sector have several projects and grants such as village fund, temporary delay debt on farmers, 30 baht health care etc. But these projects alone are incapable of doing everything possible in order to build a strong economy in every community and village. It should start from a secure occupation with sufficient revenues for life. So a training course such as this on the "Management and Sustainable Utilization of Bamboo" will help solve some of the problems these communities face and allow people to generate better incomes.

It has been my observation that all the participants have shown great interest in every training activity and have been very satisfied with the training program. The trainees have demonstrated a sincere eagerness to share their new knowledge and we are convinced that they are now equipped to pass it on to their neighbors and the next generation. If for what ever reason you may experience some problems which bamboo management and utilization, we would encourage you to contact our staff or resource personnel. By working together we can ensure an efficient resolution.

I do hope that all of you have a save journey back home to join your beloved families.

Thank you.

List of trainees

No	Name	Province
1	Mr. Udom Aomyim	Chiangmai
2	Mr. Choudate Khunprakham	Chiangmai
3	Mr. Sathaphon Prachaming	Chiangmai
4	Mr. Dumneon Khunprakham	Chiangmai
5	Mr. Jaroon Chatsanoy	Nakhon Ratchasima
6	Mr. Paithoon Thoakungthod	Nakhon Ratchasima
7	Mr. Boonchon Saengrach	Nakhon Ratchasima
8	Mr. Pichit Chosongnoen	Nakhon Ratchasima
9	Ms. Chonlada Narkarach	Nakhon Ratchasima
10	Mr. Omsin Amphan	Nakhon Ratchasima
11	Mr. Boonchan Sukchumlong	Chaiyapoom
12	Mr. Boonthom Khumhueybong	Chaiyapoom
13	Mr. Sawas Phumkoodtum	Chaiyapoom
14	Mr. Prapas Phonchai	Chaiyapoom
15	Mr. Wasan Khongnawang	Chaiyapoom
16	Mr. Samas Keowjirapun	Chaiyapoom
17	Mr. Pradermsak Chumsirikul	Surin
18	Mr. San Cheiwdee	Surin
19	Mr. Wong Suknaen	Surin
20	Mr. Suthas Chumnijisin	Burirum
21	Mr. Kharom Rungpong	Burirum
22	Mr. Somsak Rodjakkhen	Burirum
23	Mr. Sakarin Pasi	Burirum
24	Mr. Sakol Pasi	Burirum
25	Mr. Pithak Praserttrum	Burirum
26	Mrs. Napis Patitang	Burirum
27	Mrs. Suwalee Pasi	Burirum
28	Mrs. Katonchali Khoapim	Burirum
29	Mr. Charas Somboon	Prachinburi
30	Mr. Udom Masiri	Prachinburi

List of Observers

No	Name	Province
1	Mr. Bungyong Boonyago	Nakhon Ratchasima
2	Mr. Khoenchai Suntisaengthong	Khonkaen
3	Mr. Chaiya Chansawang	Sakaeo
4	Mr. Veerawut Songboonkeow	Sukothai
5	Mr. Theerayuth Malathong	Lumpang
6	Mr. Thavee Thongyoubab	Lumpang
7	Mr. Veerachat Chaichan	Nan
8	Ms. Jurairas Lapong	Bangkok

**Photographs of Training Course
on
“Sustainable Management and Utilization of Bamboo”**

Opening Ceremony



Introduction of the Trainees and Registration



Cultivation and Sustainable Management of Bamboo



Bamboo Protection



Bamboo Cement Board Making



Bamboo Charcoal and Vinegar Production Technique



Delivering Certificates and Closing Remark

