

ร
ท
ท
ท
ท
ท



PD 24/00 Rev. 1(I): Promotion of Sustainable Utilization of Rattan from Plantations in Thailand



Background:

Rattan is one of non-wood forest products uniquely found in the tropical forests. Products of rattan have generated employment and extra subsisting income for people, particularly for those who live in the rural areas. Rattan supply, which used to be adequate in the past, is currently being shortage due to deforestation and over harvesting. The shortage of rattan raw materials has caused Thailand to spend a great amount of money for cane importation, approximately USD 2.5 million yearly from 1995 to 1997.



At present, banning of the exportation of raw rattan canes from neighboring countries has brought great difficulties for rattan industries in Thailand. Many rattan trades are prone to breakdown because of the lack of sustainable raw materials. As the demands on rattan raw materials in Thailand are still extensive, an urgent consideration to promote the establishment of both commercial and small-scale rattan plantations is necessary. Sustainable utilization of rattan will never be possible unless supply of cultivated rattan reaches the demand. In the last decade, numbers of public and private enterprises who are interested in establishing rattan plantations on their own land have substantially increasing. However, most farmers are lack of expertise on cultivating and managing of rattan farms. They are also lacking of methodology to develop rattan products in a value-added way.



For cane production, the information on basic properties of important Thai rattan species, particularly in relation to their industrial application, is limited. There are difficulties in processing and mechanically fabricating rattans due to their physical characteristics. Since many rattan species have not been efficiently utilized, and some still unutilized, research efforts to determine the properties of such species and to develop the appropriate utilization technology are needed.

Besides the canes, rattan shoots also increase farmers' incentive to establish rattan plantation. Instead of waiting for cane production for 6-7 years, farmers can harvest rattan shoots within the second year of cultivation. As rattan shoots are becoming strongly in demand; it is a good potential to sell the products in both national and international markets. Therefore, suitable methods for preserving and packaging of rattan shoots should be developed.

Main Activities:

The project emphasizes on the production and sustainable utilization of 6 economically important rattan species. Experimental trials to increase the shoot productions of 3 edible rattans, *Calamus siamensis*, *C. viminalis* and *C. tenuis*, have been established at Non-wood Forest Products Experimental Station, Sakon Nakhon province. Research studies on yield assessment and fertilization of *C. latifolius* and *C. longisetus* are set up in Krabi province, whereas those on growth rate and harvesting ratio of *C. caesius* are being conducted in Narathiwat province. A research work on "rattan shoot processing and chemical properties of rattan shoot products" is also available. Technology developed and lessons learned from the project are transferred through the Training Workshops on "Processing and Packaging of Rattan Shoots" and "Processing of Rattan Furniture and Weaving".

Training course on Processing and Packaging of Rattan Shoots and the products



1-year-old *Calamus siamensis* plantation

Objective

The objective of this project is to develop and disseminate appropriate technology concerning management of rattan plantation to gain sustainable productivity. The project also considers the effective utilization and proper marketing of rattan products as a contribution to the socio-economic development of the rural communities in Thailand.

Specific objectives 1:

To study and develop techniques for managing rattan plantations for sustainable production with an aim to develop and disseminate guidelines and technology on plantation management and rattan harvesting.

Output 1.1 : To establish demonstration plots for studying management of rattan plantation on a sustainable basis.

Output 1.2 : To develop guidelines for sustainable management of rattan including plantation, silviculture, and harvesting to obtain good quality and sufficient amount of rattan shoots.

Output 1.3 : To develop guidelines on management and harvesting for sustainable productivity of rattan canes.

Output 1.4 : To organize a national conference on plantation management and utilization of rattan.

Specific objectives 2:

To promote an effective utilization of rattan shoots and canes for value-added products by developing guidelines for utilization of rattan and transferring technology to support socio-economic development as well as establishment of community owned enterprises.

Output 2.1: Study on physical and wood working properties of selected rattan species.

Output 2.2: To develop techniques for primary protection and processing including bending and bleaching of rattan canes.

Output 2.3: To develop rattan shoot processing techniques and establishment of a cottage scale industry together with small cooperatives for the production of rattan shoot.

Output 2.4: To organize a short training course on processing and packaging of rattan shoot products.

Output 2.5: To establish a cottage scale industry for the production of rattan furniture parts and weaving to make value-added rattan products.

Output 2.6: To organize a training courses on rattan furniture and weaving technique including primary protection.



Executing Agency:

1. Forest Economics and Forest Products Research Office, Royal Forest Department.
2. Silviculture Research and Botany Section, National Park, Wildlife and Plant Conservation Department
61 Phaholyothin Road, Chatuchak, Bangkok 10900, THAILAND

Phone: 66-2-561-4292 to 3 ext.: 495, 405

Fax: 66-2-579-9177 and 66-2-579-9576

E-mail: pannee@forest.go.th; rungnapar@forest.go.th

Website: www.forest.go.th/rattan-itto/intro.html

Supporting Agency:

International Tropical Timber Organization (ITTO)

E-mail: fi@itto.or.jp; okmah@hotmail.com

Duration:

3 years (July 2001 - June 2004)