

# Outline of Indonesia Wild Silkworm Development Project

(Practical use of golden cocoon and the worlds biggest moth)



## PT.YARSILK GORA MAHOTTAMA

(YOGYAKARTA ROYAL SILK TOKYO REPRESENTATIVE OFFICE)

Director: Fitriani KURODA

4-4-7 Higashi Jujo Kitaku Tokyo 114-0001 Japan

Phone: 81-3-3911-7540 Fax: 81-3-3911-6009

Mail to : fitriani@hotmai.com

**Abstract.** Wild silkworm development in The Republic of Indonesia was started by the Yogyakarta royal family in 1994.

The royal family planned to improve the income of the low-income farmer by creating a wild silkworm industry to promote Yogyakarta.

At the same time it was planned to make the best use of the product of the wild silk for the traditional crafts of Batik and Ikat.

The project was started as a small-scale local industry, not to promote an existing-industry but as an entirely new business, which would also promote related local industries.

However, development of the wild silkworm business gradually became successful and has been very effective in helping development of local industries.

I will present an outline of the project.

**Key words:** small-scale local industry, Attacus, Cricula

### 1. Wild silkworm in Indonesia

The wild silkworms, which are now advancing development in Indonesia, are Attacus-Atlas and Cricula Triphenestrata.

The development of these two species was begun by the cooperation ship with Dr.Hiromu Akai (President of International Society for Wild Silkmths) and Dr.Situmorang (Insect Phatologist and Biological control) Gajahmada- University of Yogyakarta, in 1995.

The capture of Attacus and Cricula were explained to Her Highness Gusti Kanjeng Ratu Hemas the Queen of Yogyakarta, also the possibility of using them to begin a silk industry.

**ATTACUS**

**CRICULA**



**Attacus  
( The world's biggest moth )**

**Cricula**



**Egg of Attacus**

**Egg of Cricula.**



**Caterpillar**

**Caterpillar**



**Cocoon of Attacus**

**Cocoon of Cricula  
( Golden cocoon )**

## **2. Purpose of the wild silkworm development plan**

The plan aims to breed *Attacus* and *Cricula* and other wild silkworm insects in Indonesia, is to produce silk products in the locales where they are raised.

Expected result;

Advancement of local wild silk industry.

Improvement of income of low-income farmers.

Expansion of green moors and sands condition's promotions.

Contribution to the protection of earth 's environment by being an ecology industry.

Improvement of regional industry using wild silkworm to make traditional handicrafts such as Batik and Ikat.

## **3. Organization and role of those involved**

Each organization has a role to play in advancing the wild silkworm development plan smoothly.

**Yogyakarta royal family:**

Protection of wild silkworm in Indonesia and enlightenment of the public on this project.

**National Gajahmada University (Biology Section):**

Technological research of pests to stabilize productivity of wild silkworm.

**BK3S (commonweal group):**

Training seminars on wild silkworm and method of making pongee to establish a farmer's organization interest individual farmers.

**PT.YARSILK (YOGYAKARTA ROYAL SILK):**

Development, quality control, and sales promotion of wild silkworm products.

## **4. Support and technical cooperation**

Support of grass roots activity( NGO) by Japanese embassy in Indonesia.

Technical cooperation by volunteers of Japanese wild silkworm academy and international wild silkworm academy.

Guidance on method of spinning handwork by Mrs. Masako Saijou of the Tsumugi Processing Technology Society.

## **5. Activity record to the present**

**Research activity**

Participates in The Second International Conference of the International Society for Wild Silkworms in Hotaka Japan in 1994.

Lecture and research guidance on the wild silkworm presented by President of International Society for Wild Silkworms, Dr. Hiromu Akai at Gajahmada University in 1995.

Promotion of the wild silkworm and research on pests started in the biology laboratory of Gajahmada University.

Dr.Jestmandt Situmorang from the Gajahmada University participated in 1996 in the The Second conference of the Japanese Wild Silkworm society, and lectured on the wild silkworm development plan in Indonesia

The fodder host plant tree was selected, and an outdoor field for wild silkworm is prepared

Research on artificial diet was started at the Gajahmada University.

**Training Activity -- technology from Japan--**

Research on the method of refining the cocoon and spinning process is explained by Mrs.Saijou by using the tsumugi spinning machine

Teacher Saijou was invited to Indonesia in 1996, and the method of spinning wild silkworm was demonstrated to 21 Indonesian people.

Thereafter, these 21 people have regularly received supplemental help and information by mail from teacher Saijou.

Yarn has been turned into fabric.

**Establishment of production base activity**

Advice/Information concerning the wild silkworm development started for farmers.

Cocoon production by farmers began, and cultivation of the fodder host plant started at the same time.

The purchase of cocoons produced farmers began.

## Photographs of Activity



Explaining wild silkworm development plan to farmers by the Queen of YOGYAKARTA



Explaining wild silkworm development plan to farmers by Gajahmada University Professor Situmorang.



Farmers who are producing wild silkworm cocoons (The fodder tree is planted in front of the house)



Making wild silk yarn by spinning by hand



Sericulture of wild silkworm cocoons by farmers



Hand-span product of wild silk yarn from *Attacus* and *Cricula*

### Public relations Exhibitions and lecture activity

Participation in the Fifth Conference of the Japan Wild Silkmoths society held in April 1999 and "Development of *Attacus* and *Cricula* in Indonesia" special exhibits and lecture.

Exhibition of "A gentle silk to the body" held at Ginza Matsuzakaya in May 1999.

The wild silkworm development of Indonesia is introduced by NHK on "Good Morning Japan" on Thursday, June 3, 1999.

The wild silkworm development of Indonesia is introduced by NHK on "Toast to the Earth" on Thursday, June 3, 1999.







Special exhibition of the wild silkworm development plan of Indonesia at Hankyu Department Store Osaka Senri in June 1999.

The wild silkworm development of Indonesia is introduced to all of Asia by NHK international broadcasting "Special NHK" on Sunday, June 13, 1999.

Special exhibition of the wild silkworm development plan of Indonesia held at "Silk Fair" in Tokyu Department Store Sibuya in September, 1999.

The request of a special lecture and a special exhibition of "Wild silkworm development of Indonesia" are received at the Kyoto Conference of The Japan wild silkworm society held in Kyoto in September 1999.

The request of a special lecture and a special exhibition of "Wild silkworm development of Indonesia" are received at the fifth Asia Textile Conference of The Soc. of Fiber Science and Technology Japan held in Kyoto in September 1999.

| PRODUCT   |  |
|---|--|
|    |    |
| Textile of Attacus and yarn   | Textile of Cricula and yarn  |
|   |   |
| Textile (Attacus and Cricula)   | OBI (Japanese Kimono Belt )  |
|  |  |
| Stole (Attacus and Cricula)   | Box  |

## 6. Activities and future plans

The production supply system of the egg will be established. The ecosystem will be prevented from being destroyed by excessive cocoon deprivation from nature.

Quality control and distribution stabilization of the products will be targeted

Research on pests.

Research on an artificial diet.

Research on a hybrid silk moth.

Research on another kind of cocoon.

Further development of products.