

SILK STATE

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ERI REARING HOUSES THROUGH APART

Under the scheme, the Department of Sericulture will fund a total of 800 number of Eri rearing houses in the selected project districts, for better rearing and production of Eri silk in the state. Out of the total project target, 270 beneficiaries have been selected for the year 2018-19. The cost of the Eri rearing house is Rs 1 lakh out of which 80% or Rs 80000 is being funded under APART. The balance Rs 20000 will come in as a beneficiary contribution, as their share.

The construction of Eri rearing houses in 86 individual beneficiaries of two blocks i.e., Boko and Dimoria, under Kamrup district has been initiated with the financial



Foundation stone of construction of Eri rearing houses laid by the Nodal Officer, APART during the field visit to the beneficiaries under block Boko in Kamrup district

assistance from APART. The officials from the Department of Sericulture, visited these blocks to review and supervise the construction, they also ensured necessary guidance technical assistance from the Department, if required at any time.

FIELD VISIT TO ERI BENEFICIARIES BISWANATH AND LAKHIMPUR

The Department of Sericulture implementing the Assam Agribusiness and Transformation Project (APART), visited the project districts of Biswanath and Lakhimpur from 18th to 20th March 2019. The Nodal Officer and Eri Specialist visited the project districts and interacted with the beneficiaries. They also apprised the beneficiaries about the different steps of project implementation, including construction of rearing houses for which financial assistance has been released through the support of APART.



Kesseru plantation initiated at Biswanath



Meeting with beneficiaries at Biswanath



Meeting with beneficiaries at Narayanpur, Lakhimpur

SELECTION OF BENEFICIARIES FOR ERI REARING HOUSES IN THE PROJECT DISTRICT:

The first phase selection of beneficiaries in project districts covering 20 block clusters has been completed.

a. Muga = 1150 nos. in 1150 Acres plantation;

b. Eri = 800 nos. in 800 Acres plantation

District-wise Nos. of Beneficiaries (**MUGA**) selected for the Year 2018-19 under APART

Project target (2017-18 to 2023-24) for

Beneficiary selection at a glance

Project District	Name of Blocks (cluster)	Nos. of Beneficiaries Selected					
		Muga			Eri		
		Male	Female	Total	Male	Female	Total
1. Kamrup	Boko	31	10	41	08	14	22
	Chayani Borduar	-	-	-	10	06	16
	Dimoria	-	-	-	00	06	06
2. Lakhimpur	Dhakuakhana	23	07	30	-	-	-
	Ghilamaora	27	03	30			
	Narayanpur	-	-	-	35	18	53
3. Jorhat	Selenghat	21	01	22	04	09	13
	Kaliapani	03	01	04			
	Chipahikhola	20	02	22	01	02	03
	Bagchung	01	00	01	05	15	20
	Titabar				03	11	14
4. Majuli	Jengraimukh	-	-	-	02	02	04
	Garamur	-	-	-	01	05	06
5. Sivasagar	Demow	14	04	18	-	-	-
	Khelua	11	01	12			
6. Charaideo	Mahmora	-	-	-	12	17	29
	Sapekhati	-	-	-	29	13	42
7. Biswanath	Pub-Chaiduar				03	17	20
	Biswanath				05	15	20
	Sakumatha				00	02	02
Total	20 Blocks	151	29	180	118	152	270
	Male & Female %	83.89	16.11		43.70	56.30	

INSTITUTIONAL FARMERS TRAINING PROGRAMME IN PROJECT DISTRICTS

The 4-days Institutional Training Programme was organized in seven Project Districts viz. Jorhat, Charaideo, Sivasagar, Biswanath, Lakhimpur, Majuli and Kamrup as per the programme schedule mentioned below:

Sl. No.	District	Period
1	Jorhat	2nd May, 2019 to 5th May, 2019
2	Charaideo	4th May, 2019 to 7th May, 2019
3	Sivasagar	6th May, 2019 to 9th May, 2019
4	Biswanath	24th June, 2019 to 27th June, 2019
5	Lakhimpur	26th June, 2019 to 29th June, 2019
6	Majuli	28th June, 2019 to 1st July, 2019
7	Kamrup	1st July, 2019 to 4th July, 2019

During these training programmes, the Joint Director cum Nodal Officer- APART, Shri Ratan Phatowali presented the scenario of Eri & Muga in Sericulture in the State and its high potentiality to improve. He also motivated the Seri- farmers to enthusiastically take up this village Agro-based venture in commercial manner and in entrepreneurship mode. He also gave a detailed appraisal to the participants on the objectives of the present APART- and its various implementation modality towards fostering of market led and resilience production was also given.

The inaugural session was followed by an interactive session conducted by Sericulture specialist Dr. J. C. D. Phukan with the participant farmers on the importance of establishing a Systematic Plantation for rearing of Eri and Muga silkworm host plants to produce cocoons and silk in commercial basis.. He also gave a detail presentation on establishment of an ideal Eri host plant garden of **Kesseru, Castor and Tapioca** and its maintenance to support eri rearing of 600- 800 dfls in 6- 7 overlapping crops @ avg. 100 - 125 dfls per crop in a year. The maintenance schedule was given for Kesseru as the perennial standing crop and for castor as annual or biennial intercrop to kesseru ; while tapioca as the border fence crop for both leaf and tuber production in the same one acre plantation area or so. It was also suitably explained and worked out and presented to the farmers how to rear and produce up to maximum of 100 kg eri cut cocoons for production of 70-80 kg Raw silk from one acre plantation of Kesseru – Castor - Tapioca and its economics. The third deliberation of the day was on Diseases of food plants and Silkworms presented by the Project coordinator Sericulture - Miss Ankana M. Nath .

On the 2nd , 3rd and 4th day, the training programme was carried out by the assigned Resource persons on the given topics including work schedule to the farmers for new plantation from seedlings, necessary care to be taken during the gestation period, organic manuring, irrigation and other intercultural operations; suitable inter cropping practice during the gestation period for income generation; different types of pruning and other maintenance care for better growth and timely production of quality leaves to support the targeted quantum of silkworm rearing and cocoon production.

The second half of each day, the trainees were exposed to an ideal sericulture garden, demonstrated different types of pruning and manuring practices including control measures to different pest and disease attacks to the host plants.

The above schedule of the training programme was followed in each of respective district Training Centre and it was completed successfully.



Farmer participants in 4-days Institutional Training at State Ser. Farm, Titabar



Farmer Trainees Participated in Field Demonstration of Late-age Muga S.W. Rearing

Muga & Eri Culture: The pride of Assam

- **Dr. Jayanta Deva Sarma** Officer-in-Charge, Handloom Research & Designing Center Ambari, Guwahati-1

The State of Assam is known to the world for producing muga silk by silkworm *Antheraea assamensis*. Another elegant silk Eri is also one of the treasures for the rural people living in the State. Both are non-mulberry or Vanya silk. The worm *Philosamia ricini* of Eri silk necessarily does not get killed in the process of producing yarn from cocoon which known as non-violent silk.

The rearing and reeling of muga in Bhir and rearing and spinning of Eri silk in Takuri (drop spindle) are an age-old culture of the people of Assam. They weave their traditional clothes for their own use in handloom. The women folk easily can rear the silk caterpillars because the food plants for silk are available in the

due to favorable climatic condition of this region. It was also attributed in Kautilya's 'Arthashastra' that the king Chandragupta mentioned Kamrupa as the kingdom of cocoon rearers. In Arthashastra (350 to 275 B.C.), Kautilya mentioned that the ancient Kamrup (Assam) had produced three varieties of silk fabrics, viz.—Dakula, Khauma, and Patorna. Historian has identified Dakula as muga (*Antheraea assama*), Khauma as eri (*Philosamia ricini*) and Patorna aspat (Mulberry).

The available food plants for eri and muga Caterpillars are recorded as follows:

(i) For Eri -Castor (*Ricinus communis*), Bar-kesseru (*Ailanthus excelsa*), Barpat (*Ailanthus grandis*), Kesseru (*Heteropanax fragrans*), Payam (*Evodia flaxinifolia*),



Eri Silk

Gulancha (*Plumeria acutifolia*), Tapioca (*Manihotutilissima*), Bhotera (*Jatropha curcas*), etc. Eri rearing is done indoors
 (ii) For muga -- Som(*Perseabombycina*), Sualu (*Litseamonopetela*), *Mejangkori(*Listeacubeba*), Digloti (*Listeasalicifolia*), and Chopa (*Micheliachampaca*). Potihonda (*Actinodaphnaeobovata*), Gandhsarai (*Cinnamomumglanduliferum*), Bogori (*Zizyphus jujube*), Bajromani (*Xanthoxylumrhesta*), Bhmiloti (*Symphocousgrandifolia*), Gamari(*Gameliarbornea*), Pan chopa (*Mangoliasphenocarpa*), Tiyah (*Cucumber*), etc. are the host plants.

The name endi or eri derives from the castor leaves (*ricinuscommunis*) on which the worm feeds itself in indoor rearing. This silk has both smooth and rough variety and popular for its durability as well as good thermal property. Easy hand wash is another advantage of Eri silk and gives better sheen in every wash. The Eri yarn can dye with chemical and natural herbs. The Eri has a good affinity towards the natural dyes. The Eri cocoon generally exhibits brick red (Kokrajhar variety) and creamy white (Borduar Kamrup variety) color.

On the other hand, muga silk bears some unique properties like natural golden luster, glossy fine texture, resilient, humidity absorption quality, high longevity, UV resistance capacity (for which it is used for making umbrella), wash ability, highest tensile strength than other natural silk, etc. In recent time, apart from traditional items muga has been reportedly used as a potential suture biomaterial for swift wound healing, aircraft tires, bulletproof jackets and parachute ropes. Thus, the demand of muga silk is increasing day by day

and now it becomes most expensive silk in the world. According to the season muga produces katia, jarua, jethua, aherua and bhadiya. The muga silk of Assam already obtained GI registration in 2006.

Initially, though the muga and eri silk was not used for commercial purpose, but, it gives economic support to the rural people of this region. Now, as an eco-friendly product, this silk has an international acceptance. The muga and eri products, both wearing and non-wearing has high demand in global market.

Now, it has been observed that the silk sector of Assam has suffered due to an imbalance in the supply of raw materials. The indigenous people are reluctant for the rearing of muga and eri silk. They use varieties of silk yarn easily available in the market came from outside the State, where chances of adulteration are more. The muga cultivation is laborious and local people prefer to make a plantation of rubber and tea plants in place of muga. The matter should be seriously viewed for preserving this traditional old heritage as well as to protect the pride of muga and eri culture of the State.

The Government has taken several ambitious plans for the development of muga and Eri silk through the implementation of different schemes. But, the success of the implementation depends on the operational efficiency of the Government machinery and strong monitoring. There is a need for awareness and participation of common people in the execution of the schemes. A positive approach and extended hand of cooperation may contribute to the silk industry of the interest of employment generation and economic progress.



Muga Silk

TRAINING OF DEPARTMENTAL STAFF

Training programmes of Departmental Staff comprising technical and non-technical staffs from the five undivided project districts under Assam Agribusiness and Rural Transformation Project (APART) was conducted on 07-05-2019 and 08-05-2019, at the conference hall of ARTFED, Rehabari, Guwahati. The programme was inaugurated by Shri Anjan Kumar Sarma, ACS, Commissioner & Secretary to the Govt. of Assam in presence of Smt. Kabita Deka, ACS, Director-H&T Head-OPIU-H&T, Shri. Giren Sarkar, Dy. Director-H&T, Nodal Officer-H&T and other delegates. The main objective of the programme was to train and aware the departmental officers about the various activities undertaking under the project APART including Targets and deliverables, Beneficiary selection process, Formation of Groups, Financial Management and Procurement procedures under APART. A detailed explanation on Social and Environmental Sector was delivered by the members of the ARIAS Society. Shri Paban Dutta, Retired Joint Director of Sericulture, Assam and Shri Tanmai Das, Head of the Department, Department of Weaving, Assam Textile Institute, Guwahati attended the programme as a Resource Person in the technical session.



CROSS LEARNING WORKSHOP

Cross Learning Workshops under Assam Agribusiness and Rural Transformation Project (APART) was conducted on 31-05-2019 and 01-06-2019, at the conference hall of ARTFED, Rehabari, Guwahati and was attended by Officers, Entrepreneurs and Weavers from the project districts. The Workshop was inaugurated by Shri Ranjeet Dutta, Hon'ble Minister Handloom Textile & Sericulture, Govt. of Assam in presence of Smt. Kalyani Das Talukdar, ACS, Secretary to the Govt. of Assam Handloom Textile & Sericulture and Smt.

Kabita Deka, ACS, Director, Handloom & Textiles, Assam & Head, OPIU, Handloom & Textiles, Assam. The objective of the workshop was to share the knowledge, problems, understanding various weaving related issues through brainstorming sessions and Group activities. Shri Amar Jyoti Choudhury, Regional Coordinator, Entrepreneurship Development Institute of India, Guwahati, Shri Anupam Dutta, Senior Faculty, Skill Development, SIPRD, Assam, attended the workshop as Resource Persons.



EXECUTION OF CONTRACT AGREEMENT WITH IIT-GUWAHATI

A contract agreement was signed between Operational Project Implementation Unit-Handloom & Textile (OPIU-H&T) and Indian Institute of Technology, Guwahati (IIT-G) on 17th June, 2019 at the office of the Director Handloom & Textile, Assam, Ambari, Guwahati for “Conducting diagnostic study on weaver’s need in respect of Eri and Muga silk.” under World Bank financed Assam Agribusiness and Rural Transformation Project (APART).



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