Success Story on Livelihood security through scientific method of eri silkworm rearing in Kokrajhar district of Assam

Rearing of Eri silkworm is almost a prerogative of tribal people of the Kokrajhar district and inherited from one generation to other as a tradition. It was believed that Ericulture is a poor's man job and a leisure time activity and is a secondary source of income for clothing and food. The rearing of Eri silk worm through traditional method was reported in decreasing trend and thus it was also noted that rural youth of the district are found migrated to other state in search of income avenues as eri silk rearing for livelihood strategy is unsure. Smti Krishna Narzary is a ST Bodo tribes farm woman belongs from Soraibil village of Kokrajhar district of Assam. She faced many hardships in her life from her childhood and belongs to BPL family. In terms of educational qualification, she is higher secondary passed and after that she got married. She learns the skill of eri silkworm rearing from her childhood itself as seeing her mother doing eri silkworm rearing through traditional method and rear 2-3crop annually. After her marriage, she again faces financial hardship and thus want to do something to contribute to her family income. Coincidently, she met KVK scientist in her residing village where training on scientific method of eri silkworm rearing was demonstrated. She attended the training and get motivated to do eri silkworm rearing through scientific method. Now she can rear 5-6 crop annually instead of 2-3 crop only and get a yield of 75 kg cocoon sold at a price of 800/- per kg and eri larvae/pupae 400/- per kg. She also prepares vermicompost from eri excreta and other in ingredients and sold at Rs.15/kg.

1. **Name, Address, Block, Village, Phone No. Adhar No.**

Name	Smti Krishna Narzary
Father's/ Mother's/ Husband's Name	Sri Mangal Narzary
Address	Soraibil, Kokrajhar District, Assam
Phone No.	7577922475
Adhaar No.	

2. **Category-agriculture, horticulture, animal husbandry, fishery, Sericulture etc.**

Scientific method of eri silkworm rearing and yarn production.

3. **The journey to success:**

a. Smti Krishna Narzary was a unemployed educated youth lived in Soraibil village under Kokrajhar district. She is 28 years old youth belongs to BPL family and practice traditional method of eri silkworm rearing. She is unaware of scientific method of rearing and do not know whom to approach and how to be self-employed.

b. The turning points was that she coincidently met one KVK scientist giving training on Scientific method of eri silkworm rearing in her village and she attended the training. Afterwards she approaches the KVK for availing the existing facility and technology. She was then enrolled under ARYA project and able to avail all rearing tools, equipment's and planting materials.

c. Activities and approaches – Availability of food plant round the year single handedly effects for eri silkworm rearing and thus she can rear 5-7 crops annually instead of 2-3 crops only. Moreover, rearing house also plays a vital role and hence a joint approach was also made with department of sericulture, Kokrajhar to get rearing house and vermicompost unit in convergence approach.

d. Her significant achievements in terms of productivity, income and socio-economic impacts was as follows;

She is involved in scientific method of eri silkworm rearing since last three years. Although she is practicing eri silkworm rearing from last 5 years in tradition method where she was able to rear 2-3 crops annually and get cocoon yield 0f 3-5 kg only which was sold at a price of Rs 800/- per kg and also yield eri pupae of 15-25 kg which was sold at a price of Rs 400/- per kg. For initiating scientific method of eri silkworm rearing KVK, Kokrajhar was provided eri eggs, foods plant seedlings, rearing tools and equipment's like tray, rack, mountage, net, black plastic, sprayer, spinning machine etc. Now she can rear 5-6 crop sometimes up to seven crops annually and able to harvest 15 kg cocoon per crop and annual pupae yield ranges from 375-625kg. She also able to sold vermicompost at a price of Rs.15/- per kg, tapioca tuber @ Rs 35/- per kg (as tapioca leaf can be feed to eri larvae as tertiary food plant). She is also able to spin yarn from solar cum pedal cum electric spinning machine which was provided by KVK, Kokrajhar under ARYA project and able to spun 10-12 kg yarn at a price of Rs. 4000/- to 5000/- per kg. A weaving fly shuttle loom was also provided by KVK, where she weaves different eri diversified products and sold at a price of Rs 3000/- to 12,000/- per fabric.

e. Third person accounts of neighbors or others in the knowledge of the success in their words giving different perspectives and/or dimension of the success.

f. Lessons learnt from the success**:**

- Eri culture is a profitable business.
- Rearer don't have to run to sale their goods as goods are sale at their door step.
- Eri cocoon are non-perishable and hence can be stored in any jute bag or bamboo tray.
- Eri larvae which is a proteinous food and are in high demand in local market.
- Eri cocoon can be treated with chemical and thus yarn can be easily spun in solar operated spinning machine where electricity is a main constrain in remote village areas.

Hence, rearing of eri silkworm is a traditional method of rearing. Scientific intervention in this field leads to more production without compromising cocoon quality and quantity. Product diversification and value addition of hand-woven fabric made out of eri yarn with traditional Bodo design will attract more community and thus cater more market.

4. Recognition:

Awards, felicitation etc. Nil

5. Future plan: To engage more youth toward scientific method of eri silkworm rearing, yarn production and weave diversified handwoven products.

6. **Recognition**: Yet to recognized.

7.

8. Photograph:

Eri food plant

Castor leaf bunching

Erisilkworm rearing

Erisilkworm feeding castor leaf

Eri cocoon harvesting

Eri egg production

Contributor of the story: Smti Porna Sarmah, SMS, Community Science, KVK, Kokrajhar

2. Success Story

Rearing of Eri silk worm is almost a prerogative of tribal people of the district and inherited from one generation to other as a tradition. It was believed that Ericulture is a poor's man job and a leisure time activity and is a secondary source of income for clothing and food. The rearing of Eri silk worm through traditional method was reported in decreasing trend by many authors and thus it was also noted that rural youth of the district are found migrated to other state in search of income avenues as eri silk rearing for livelihood strategy is unsure .The contributing factors of decreasing trend in eri silk rearing are due to lack of awareness of scientific method of rearing, availability and knowledge of secondary and tertiary food plants, lack of knowledge on intercropping of agricultural crop with sericulture crops, post cocoon technologies, poor management of infected larvae and mortality and morbidity of eri pupae in different temperature, relative humidity and environmental factors. Hence, scientific intervention of Ericulture over traditional method was found utmost important to save this old age tradition by attracting rural youth towards Ericulture.

Title : Lab to land- A systematic and scientific approach to eri silkworm rearing in Kokrajhar district of Assam.

1. **Name, Address, Block, Village, Phone No. Adhar No.**

Name	Smti Suboni Narzary
Father's/ Mother's/ Husband's Name	Sri Paneshwar Narzary
Address	Pakrirguri Forest Village. Block-Kachugoan, Kokrajhar
Phone No.	6002962755
Adhaar No.	

2. **Category-agriculture, horticulture, animal husbandry, fishery, Sericulture etc.**

Scientific method of eri silkworm rearing in Kokrajhar district.

Eri silkworm rearing was initially done castor leaves and rearing was limited to 2-3 crops annually but feeding with secondary food plant as Kesseru *(Heteropanas frangrans Roxb)*, tapioca (*Manihot Esculenta)* and *gamari (Gmelina Arborea)* leaves not only enhance the rearing up to 6-7 cycle annually but also able to get yield from tapioca in the form of tubers.

3. The journey to success:

Suboni Narzary belongs to remote area of Kokrajhar district named Pakrirguri forest village. She is an unemployed rural youth was born and brought up in the forest land of tribal district of Kokrajhar. He belongs to a very poor family, experience many hardships in his childhood and somehow complete his education with very limited resources and ultimately able to get his BA degree. Further, since from adolescent she is skilled in silkworm rearing. They usually rear eri pupae primary for silkworm larvae/ pupae and secondary for cocoon production because eri pupae is the food of delicacy among Bodo people of the Kokrajhar-District. But as years passed by the old aged tradition of eri silkworm rearing was in decreasing trends and young youth were found least interested and reluctant to take up eri silkworm rearing professionally. Changing life style, improved socio-economic conditions etc may be some of the influencing factors.

As she is an educated unemployed youth and want to support her family financially and old age tradition, she started eri silkworm rearing with minimum resources. He collected castor leafs from road side areas and jungles/ river side area by riding a bi-cycle and able to rear only 2-3 crops annually due to shortage of food plants and able to get 6-7 kg cocoon yield yearly. The cocoon was sold at a price of 800/- per kg and pupae at the rate of Rs 400/- per kg and able to get very little earning.

Henceforth, he visited KVK, Kokrajhar to know the scientific technologies of Ericulture and different interventions for higher cocoon yield. He applies the updated technologies and started systematic way of eri food plantation in his under-utilized agricultural land. He planted primary food plant- Castor, secondary and perennial food plant - Kesseru and Tapioca- tertiary food plant in 2 bighas of land area. Intercropping of sericulture with horticulture/ tubers was also incorporated.

At present she is not only able to save his aged old tradition of eri silkworm rearing but also contributes in maintaining agro-forestry in the region. She applies the actual concept of "lab to land" practically and able to get increased yield and qualitative production. He is also able to attract youths especially the rural women tribal folks of the district towards ericulture and motivate them to take up silkworm rearing with scientific intervention with traditional amalgamation. She got a rearing house and vermicompost unit from Department of Sericulture, Kokrajhar. KVK Kokrajhar provide the scientific interventions along with overall input support for rearing, yarn and fabric production through ARYA project. All these contributing factors are responsible to grow her entreprise and able to support her family.

4. Recognition:

1.	Best youth club award 2020	Nehru Yuva Kendra, Kokrajhar BTAD under Ministry of youth affairs and sports. Govt. of India.
2.	Outstanding Progressive Farmers award in the field of ericulture	Provided by KVK. Kokrajhar in the year 2022.

5. Future plan: She want to expand the existing set up and will establish a whole set up of eri silkworm rearing unit, yarn production unit and handloom unit of eri.

6. Recognition: Best progressive farmers award for "Best practicing of eri silkworm rearing in Kokrajhar district in 15th August 2021.

7. Photograph:

Eri silkworm rearing **Eri cocoon**

8. Contributor of the story:

Smti Porna Sarmah, SMS, Community Science, KVK, Kokrajhar, AAU Jorhat, Assam.