

COMMERCIALIZING CULTURE : A SWOT ANALYSIS OF GOLDEN SILK INDUSTRY OF DHAKUAKHANA, ASSAM

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Abstract:

The silk industry with its rural based and enormous employment generation potential has attracted the attention of the policy makers and planners to recognize the industry as one of the most appropriate avenues for socio-economic development to agrarian economic state like Assam. The muga culture of has been in existence since time immemorial in Assam. Muga culture is like Indigenous Technical Knowledge (ITK) which involves lot of traditional practices and beliefs over the time and many of time these traditional practices have proved to be successful and sustainable. Dhakuakhana of Lakhimpur district in upper Assam is also known as 'Golden silk focus area' of Assam. Golden silk production is not only considered as a tradition but also a living culture of Dhakuakhana as almost in every household of the villages of Dhakuakhana use to produce golden silk. Owing to the lack of proper specifications and initiatives to safeguard the authenticity of the fabric, muga silk is on the verge of losing its original charm. After Muga Silk of Assam was protected as a Geographical Indication (GI) in 2007, opportunities of muga silk to go for value-addition and access to the international market will be much easier than before. Som and Sualu are the primary Muga host plant extensively used in Upper and Lower Assam respectively. People of Dhakuakhana mainly use som and soalu tree as host plant. By analyzing landuse landcover map of Dhakuakhana, fallow land is more than agricultural land. As Dhakuakhana is having a favourable condition for som cultivation, these fallow lands which are not use for agricultural purposes can be used for som plant cultivation.

Keywords: *Potential, Indigenous, Landuse, Landcover, Favourable*

Introduction

Silk has been intermingled with the culture and life of the people of Assam.. Assam encompasses an upscale and sophisticated history in silk production and enjoys irrefutable reputation for its exquisite silk product. Assam mainly comprises the culture of *eri*, *muga*, and *mulberry* silk. Golden silk popularly known as '*Muga silk*' of Assam is one of the rarest and expensive silks in the world. The word '*Muga*' derived from the Assamese word which means yellowish therefore its known as muga silk. The Muga Silkworm exists from Mesozoic Era and cannot tolerate even the minimum pollution levels as it is very sensitive in nature. Golden silk is prepared from the semi-cultivated silkworm

named '*Antheraea Assamensis*'. The muga silk attire which is closely associated with the socio-economic and cultural life of Assamese people is considered as the queen of all natural fabric due to its durability and elegant lustrous natural colour.

Golden silk is one of the rarest silk because it is only produced in Assam and some parts of Garo hills and parts of West Bengal all over the world. Assam produces more than 95 % of the total golden silk production of the world. The fact that sets this Silk apart from all other versions of silk is that it is totally golden yellow in colour. The production of golden silk are mainly concentrated in the districts of Kamrup, Goalpara, Udalguri, Kokrajhar, Tinsukia, Dibrugarh, Sibsagar, Jorhat,

Golaghat, Lakhimpur and Dhemaji. Dhakuakhana of Lakhimpur district in upper Assam is also known as 'Golden silk focus area' of Assam. Activities like cultivating muga worm and weaving high quality muga silk products are intimately linked with the culture and tradition of the people of Dhakuakhana since long past.

Objectives

1. To examine the strength, weakness, opportunities and threats with regard to golden silk of Dhakuakhana.
2. To access the land use change to identify the potential sites for host plants of muga silk in Dhakuakhana.

Study area:The 'Golden silk focus area of Assam', Dhakuakhana of Lakhimpur district in upper Assam is chosen as the study area. Dhakuakhana is one of largest producer of golden silk of Assam and high quality golden silk in Assam boasts here. Dhakuakhana is also having one of the largest muga farms of Assam to produce basic muga seed cocoons to cater to the need of commercial rearers. The agro climatic condition of Dhakuakhana is very suitable to increase productivity, quality and profitability of muga culture. Government of Assam established a *Research Sub Station* at Dhakuakhana conducting research work related to 'Muga Culture'. Golden silk production is not only considered as a tradition but also a living culture of Dhakuakhana as almost in every household of the villages of Dhakuakhana use to produce golden silk.

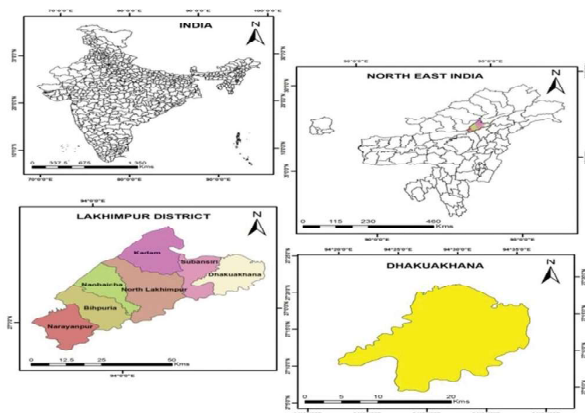


Fig 1: Location of study area

Database and methodology

The study is based on both primary and secondary data. Primary data acquisition is done through schedule interview and field visit to the various muga farms owned by individual and household survey to interact with the weavers. Survey was conducted with the muga farmers and villages who are having long association in muga culture. Secondary information is collected from government publications/ records, Research substation and Departmental officials of Muga farm, periodicals, reports and related plan documents. Land use land cover map is being prepared with the help of GIS within the cultivable wasteland sites of Dhakuakhana.

Silk Production in Assam and Dhakuakhana special reference to Muga silk : Sericulture also known as "Industry of the Poor" is an agro-based industry, the end product of which is silk, "the queen of fabrics". Assam enjoys a place of pride for its rich heritage of artistic handloom products. The beautiful hand woven products of the tribal and non-tribal of this region not only reflect the skills of individual weavers and artisans, but the creative capacity and deep perception of beauty in colour and design of the people as a whole. Assam, has a tradition of sericulture and weaving, particularly among the rural folk. Along with agricultural activities, rural people of Assam use sericulture and weaving for earning their livelihood and to fulfill their own requirement of cloth. It is old and a rich tradition of Assam. There are four major varieties of silk, each of which is produced by a distinct variety of silkworm feeding on a specific host plant. Assam is the third largest silk producing state in the country, having potential for production of varieties of silk (mulberry, eri, tussar and muga), sharing around 15% of country's total raw silk production. Assam produces around 95 % of the total golden silk production of the world. Dhakuakhana produces around 40 % of the total golden silk production of the Assam. At present, there are around 1,957 hectares of som farms in the State as per official figures which means the State has around 14,680 bighas of land under som cultivation. In Lakhimpur district alone, there are around 1,385 hectares of som plantations. One bigha of som cultivation needs 1,000 seeds per crop to produce 300 laying. The State

requires 1,46,80,658 seeds per crop. Som plants are the main host plants of muga silk worm and other varieties of muga silk worm host plants are Dighalati, Suwalos, etc. Muga Seed Farm in Dhakuakhana was established to produce Basic muga seed cocoons to cater to the need of commercial rearers in Dhakuakhana in 1961. There are 44153 som plant in Dhakuakhana under 122 hectar of land both government and private sector. It was found during a survey in Dhakuakhana area in 2017-18 that 350 muga farmers of 10 Gaon Panchayats comprising 35 villages could produce ~ 5,033 cocoons per head per bigha by rearing Jethuwa and Katiya. Farmers can produce only one kg of muga yarn or raw muga per bigha per year. The very socio-cultural life of the communities is revealed significantly in their textiles. The traditional handloom fabrics of Assam unfold the creative genius of the local weavers.

Strength, Weakness, Opportunities and Threat of Golden Silk of Dhakuakhana

Strength : Dhakuakhana is the place for Pure and Original Golden Silk The agro climatic condition of Dhakuakhana is very suitable to increase productivity, quality and profitability of muga culture. Government of Assam has established a Research Sub Station at Dhakuakhana conducting research work related to Muga culture. Golden silk can be produced two times a year here in Dhakuakhana. Availability of host plants for muga cultivation. Golden silk production is not only considered as a tradition but also a living culture of Dhakuakhana as almost in every household of the villages of Dhakuakhana use to produce golden silk. Weaving looms are found in almost in every house and women use to weave varieties of muga clothes (mekhela chadar, riha, kurta, pyjamas etc) which are in great demand in the silk market all over the world.

Weakness : One of the major weaknesses of golden silk industry of Dhakuakhana is the use of traditional methods during. People are not aware of the benefits of GI and are not known to many people. Insignificant marketing infrastructure, non-existence of a regulatory framework for enforcement of GI. There are hardly any registered GI users though there are plenty of traditional Muga silkworm farmers, fabric

manufacturers and weavers in Dhakuakhana. There is also lack of technology infusion for enhancement of productivity and quality of golden sill along with insignificant organizational support. New technology or knowledge, which can boost their earnings, has not reached them yet. Government is supplying one-third of the required seeds to the farmers. Owing to the lack of proper specifications and initiatives to safeguard the authenticity of the fabric, muga silk is on the verge of losing its original charm. It is difficult to survive climate challenges such as increase in temperature without new scientific knowledge for muga cultivation as muga worm are very much sensitive and cannot tolerate the minimum pollution level.

Opportunities : There is an emerging discourse on the economic significance of muga culture in Assam. Muga Culture, with its vast potential for employment generation in rural areas, can play a vital role in poverty alleviation. Sericulture, as an age-old agro-based industry, bears vast potential for employment generation and income and thereby, capable of lifting people out of acute poverty. There are lots of socio economic opportunities for the people of Dhakuakhana based on muga silk. After Muga Silk of Assam was protected as a Geographical Indication (GI) in 2007, opportunities of muga silk to go for value-addition and access to the international market will be much easier than before. There are lots of employment opportunities with its vast potential for employment generation in rural areas of Dhakuakhana and plays a vital role in poverty alleviation. Muga clothes prepared by the weavers of Dhakuakhana are preferred a lot all over the world. Women play a key role in sericulture industry and women are considered as the major activist in muga culture. The muga culture can play a very important role of empowering women for the sustainability of socio-economic growth.

Threat : Present muga silk worm-related scenario in the Dhakuakhana is very grim as the fecundity of the muga silk worm has now come down to around 120 eggs from around 270 eggs per female worm before 1980s according to muga researcher Jitul Saikia. The muga worms' fecundity-related development may be attributed to global warming, environmental pollution,

etc which is an indicator of the decline in the reproductive capacity of muga silk worms, which is scientifically called 'extinction debt'. Shortage of raw muga silk leads to the use of tussar which discourages weavers who extract original Muga yarn from silk cocoons to weave the authentic fabric. Declining in the production of the organic golden silk in turn is affecting the commercial production of the silk. Uses of pesticides in nearby tea gardens killed Muga worms while they were feeding on Som trees considered as great threats. The decline in cocoon production is posing as a threat to the millions of people who are dependent on the Muga silk industry in the state as farmers are not able to produce cocoons like they used to before. Muga is a unique and exclusive golden silk textiles produced in Assam larva and worm rearing is outdoor activity and polluted air affects it easily.

Host plants of Muga : Som (*Machilus bombycina*) and Sualu (*Litsaea polyantha*) are the primary Muga host plant extensively used in Upper and Lower Assam respectively. People Dhakuakhana mainly use som and soalu tree as host plant because of its abundance there. The host plants are generally available in a natural state, but plantation and maintenance of host plant is important for better gaining. Different host plants produce silk of different colour. The size and volume of cocoon are also varying. There are different varieties of both of these trees and the taste of these are varies. Locally the leaf of the som tree named as azarpatia, Jampatia, Naharpatia etc. Naharpatia considered as the best variety for muga silkworm rearing because of its sweet taste. Plantation of som trees in 4 meters apart and soalu tree at 5 meters in square system is ideal, which will accommodate 625 and 400 plants per hectare respectively. One full-grown tree of 12 months to 2 years growth can support the rearing of 5 to 10 laying and yields 500 cocoons in one season. However, som trees become suitable for rearing after 5 years of plants. One tree may be easily utilizes for two rearing in a year alternately during spring and autumn. Thus, one tree can yield 1000 cocoons in a year and 5 trees are required to produce 5000 cocoons which yields one kg. of muga silk (Thanagavallu et al,1988). In 1 K.G. of silk 8 numbers of mekhela (traditional lower garment of Assamese women) can

be weaved which price in present day market is 12000.00. Sometimes, the maximum production of muga silk has been close to one lakh raw cocoon of one rearer. Manuring and pruning are necessary for a systematic plantation and these have to done in an appropriate time. Inorganic fertilizer may be applying every year. To gain smooth, big, and healthy leaf, the host plants should pruned and give a desirable shape of the plant. The field of host plant for muga is call as somani in local language and the rearer called as somania or sungia. They considered the muga culture as the gift of supernatural being locally called as deo (male deity). They believe the spirit guard their rearing and his blessing affects the cultivation.

Host plants of *Antheraea assamanes*

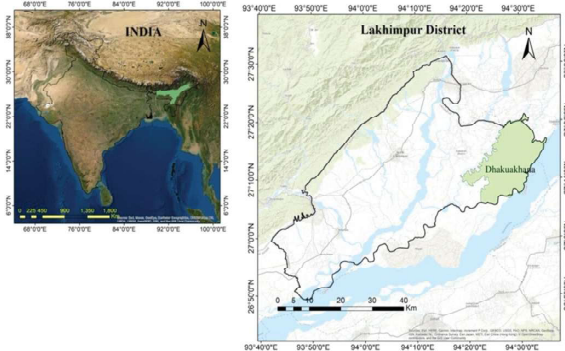
Family	Genus	Species	Popular Name	Distr Ibution	Remarks
PRIMARY Lauraceae	<i>Machilus</i>	<i>Odoratissima bombycina</i>	Som	Natural distribution also cultivated, farmer in hills and latter in plains	Principal host plant in Upper Assam
PRIMARY Lauraceae	<i>Litsaea</i>	<i>Polyantha Monopetala</i>	Sualu	Common in plains, also in hills	Principal host plant in Lower Assam

Source: *Handbook of Muga culture*

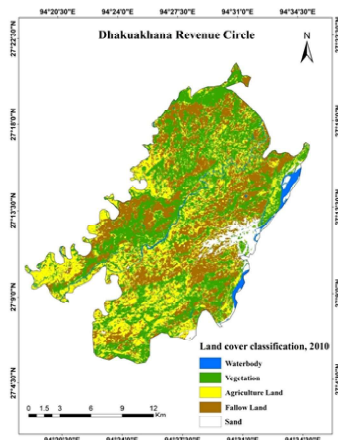
Land cover and muga host plants of Dhakuakhana : There are more than 50000 som plant in Dhakuakhana under more than 120 hectar of land both government and private sector. It was found during a survey in Dhakuakhana area in 2017-18 that 350 muga farmers of 10 Gaon Panchayats comprising 35 villages could produce more than 5,033 cocoons per head per bigha by rearing Jethuwa and Katiya. Farmers can produce only one kg of muga yarn or raw muga per bigha per year. As the host plant som plays a major role in muga culture, extension of som cultivation is needed. With the help of GIS land use land cover map of 2010, 2015 and 2020 is being prepared to see the fallow land of Dhakuakhana. From the above table it is seen that fallow land is 103 sq. km in 2010 than fallow land increased to 117 sq.km in 2015. In 2020 the fallow land is 113sq.km. If we analyse the above table it is found that fallow land is more than agricultural land. As Dhakuakhana is having a favourable condition for som

cultivation, these fallow lands which are not use for agricultural purposes can be used for som plant cultivation.

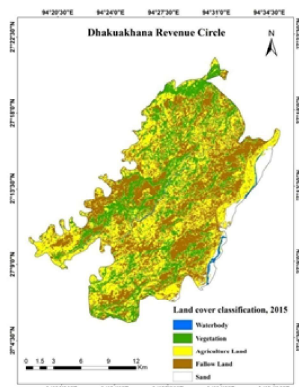
Physical Map of Dhakuakhana :



Land use Land cover Map of Dhakuakhana 2010



Land use Land cover Map of Dhakuakhana 2015



Land use Land cover Map of Dhakuakhana 2020

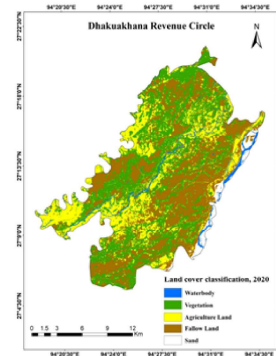


Table: Category wise area of Dhakuakhana Revenue circle, Lakhimpur

Sl. No	Land Cover class	2010 Area in sq.km	2015 Area in sq.km	2020 Area in sq.km
1	Waterbody	7	6	8
2	Vegetation	111	71	116
3	Agriculture Land	81	110	70
4	Fallow Land	103	117	113
5	Sand	11	9	6
6	Total Area	313	313	313

Conclusion : One of the rarest Silks in the world is the Muga silk from Assam. Assam produces 95 % of the total golden silk production of the world and Dhakuakhana produces almost 40 % of the total golden silk production of the Assam. Muga Silk of Assam was protected as a Geographical Indication (GI) from Assam in 2007. Dhakuakhana is one of focus area of golden silk and more than 10000 families are engaged in this traditional rearing and production of Muga silkworm. Muga silk production is not considered as a living culture of Dhakuakhana and also a part of the social and economic life of the people. Muga production with its vast potential for employment generation in rural areas of Dhakuakhana which plays a vital role in poverty alleviation. The activities related to muga production can play a very important role of empowering women for the sustainability of socio-economic growth as women are the major activist in muga culture. Owing to the lack of proper specifications and initiatives to safeguard the authenticity of the fabric, Muga silk is on the verge of losing its original charm. Therefore muga worms are now in the path of 'extinction debt'. Uses of pesticides in nearby tea garden considered as a great threats. The decline in cocoon production is posing as a threat to the millions of people who are dependent on the Muga silk industry in Dhakuakhana as farmers are not able to produce cocoons like they used to before.

The Central Silk Board of India has been granted the authority to inspect muga silk products, certify their authenticity and allow producers to use the GI logo. Awareness program of GI should be organized to let people know about the benefits of GI. Technology infusion for enhancement of productivity and quality of golden silk along with insignificant organizational support is also needed. As Dhakuakhana is having a favourable condition for som cultivation, fallow lands which are not use for agricultural purposes can be used for som plant cultivation to increase muga culture in Dhakuakhana.

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