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Government Schemes Promoting Tasar Host Plantation in India: An Odisha Perspective

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Tasar sericulture is a vital livelihood activity for tribal and rural communities in India, largely dependent on the availability and quality of host plants. In recent years, both central and state governments have introduced several schemes to promote tasar host plantation, enhance productivity, and ensure sustainable development. This study examines major initiatives such as Silk Samagra, Promotion of Sericulture Industries, and convergence with Mahatma Gandhi National Rural Employment Guarantee Act, with a special focus on Odisha. The findings indicate that these schemes have significantly expanded plantation areas, improved cocoon productivity, and strengthened tribal livelihoods. However, challenges such as low plantation survival rates and climate variability persist. The study suggests integrated approaches involving technological interventions, community participation, and policy convergence to ensure long-term sustainability.

Keywords: Tasar Sericulture; *Antheraea mylitta*; Host Plant Plantation; Silk Samagra; Promotion of Sericulture Industries; Tribal Livelihood; Agroforestry; Odisha

Introduction

India holds a unique position as the only country producing all major types of silk, with tasar silk being eco-friendly and forest-based. The tasar silkworm, *Antheraea mylitta*, depends entirely on host plants for survival and cocoon production. However, declining forest cover, poor plantation practices, and climate variability have adversely affected host plant availability. In response, government interventions have focused on expanding plantation areas, improving plant quality, and integrating sericulture into rural development programs.

Odisha is one of the leading states in tasar silk production, with sericulture deeply embedded in the livelihoods of tribal communities. The state provides an excellent model for understanding how government schemes have successfully promoted tasar host plantation and rural development. Tasar sericulture in Odisha is primarily practiced in districts like Mayurbhanj, Keonjhar, Sundargarh, and Koraput. It is a traditional activity of tribal communities and serves as a supplementary income source.

- Around 50,000 families are engaged in sericulture in the state
- Nearly 90% of beneficiaries belong to tribal communities
- Odisha ranks among the top tasar-producing states in India

The availability of host plants such as *Terminalia arjuna* and *Terminalia tomentosa* in forest and plantation areas has supported the growth of this sector.

Central Government Schemes

1. Silk Samagra Scheme:

The Silk Samagra is an integrated scheme aimed at holistic development of the silk sector.

Key Components:

- Financial support for host plantation
- Nursery development and supply of quality saplings

- Training and capacity building
- Technology transfer and extension services

Outcome:

Enhanced plantation coverage and improved productivity of tasar cocoons.

2. Integrated Scheme for Development of Silk Industry:

Implemented through the Central Silk Board, this umbrella scheme focuses on research, seed production, and capacity building.

It emphasizes interventions in critical areas like feed (host plants), breed, and post-cocoon technologies to improve silk productivity and reduce import dependency.

3. MGNREGA Convergence:

The Mahatma Gandhi National Rural Employment Guarantee Act supports plantation activities through wage employment.

Benefits:

- Creation of large-scale community plantations
- Soil and water conservation
- Employment generation in rural areas

Odisha State Government Schemes Promoting Host Plantation

1. POSI – Promotion of Sericulture Industries .

The Promotion of Sericulture Industries is a key state plan scheme aimed at strengthening sericulture in Odisha.

Key Features:

- Financial assistance for tasar host plantation
- Distribution of quality saplings to farmers
- Support for maintenance and protection of plantations
- Promotion of cluster-based sericulture development

Significance:

POSI focuses on expanding host plant areas and improving livelihood opportunities for rural and tribal communities. It recognizes sericulture as a means to reduce migration and enhance income generation.

2. OMBADC Supported Sericulture Programs

The Odisha Mineral Bearing Areas Development Corporation supports tasar host plantation in mining-affected districts.

Achievements:

- Plantation in backward and tribal regions
- Infrastructure development for sericulture clusters
- Livelihood support for marginalized communities

3. Mukhyamantri Resham Vikas Yojana (MRVY)

A recent initiative by Odisha government aims to boost sericulture through infrastructure and plantation support.

- Focus on tasar, eri, muga, and mulberry
- Significant financial investment over five years
- Targeted support for farmers and rural entrepreneurs

Table:Recent Trends in Tasar Sericulture and Host Plantation in Odisha (2019–2024)

Year	Tasar Host Plantation (ha)	DFL Production (lakh nos.)	Cocoon Production (lakh nos.)	Raw Silk Production (MT)	Farmers Covered (nos.)
2019–20	1812	23.13	1303.34	130.33	16,531
2020–21	1231	20.31	1002.12	100.50	13,745
2021–22	660	20.12	1003.29	101.58	14,884

2022– 23*	~800–1000 (est.)	~21	~1100	~105	~15,500
2023– 24*	~1000–1200 (est.)	~22	~1200	~110	~16,000

Source: Official data for 2019–2022 is taken from Odisha Economic Survey reports

Impact of Schemes

Government schemes have substantially contributed to the expansion and improvement of tasar host plantations in India. Increased plantation area has ensured a steady supply of quality leaves, leading to better growth and productivity of the tasar silkworm. Employment generation through plantation activities has strengthened rural livelihoods, particularly among tribal populations. Environmental benefits such as afforestation, soil conservation, and biodiversity enhancement further highlight the significance of these initiatives. Overall, the schemes have transformed tasar sericulture into a sustainable and income-generating activity.

Challenges in Implementation

Despite notable progress, several challenges hinder the effectiveness of these programs. Low survival rates of plantations, especially in drought-prone regions, remain a major concern. Limited technical knowledge among farmers and inadequate extension services affect proper plantation management. Climate variability, including irregular rainfall and temperature fluctuations, further impacts host plant growth and leaf quality. Institutional constraints such as delayed fund allocation and weak coordination among agencies also affect implementation efficiency.

Way Forward

To ensure long-term sustainability, it is essential to adopt climate-resilient host plant varieties and improve plantation techniques. Strengthening extension services and providing regular training to farmers can enhance productivity. Greater convergence among schemes and effective coordination among implementing agencies are required for optimal resource utilization. The integration of modern technologies such as GIS and remote sensing can improve monitoring and planning. Encouraging community participation, particularly among tribal women, will further enhance the sustainability and success of tasar host plantation programs.

Conclusion

Government schemes—both central and state-level, including POSI—have significantly contributed to the promotion of tasar host plantation in India. These initiatives have not only enhanced silk production but also improved the socio-economic conditions of tribal communities. With continued policy support and scientific interventions, tasar sericulture can emerge as a sustainable livelihood model for rural India.

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