



Golden threads of empowerment: Women, muga silk and gender equality in Assam

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Abstract: Assam's Muga silk, renowned for its golden hue and cultural significance is intricately linked to women's empowerment in the region. Women have been central to Muga silk production, engaging in sericulture, weaving and textile design. The intersection of women's engagement in the Muga industry and gender equality highlights the importance of sustainable development goal 5(SDG 5). Women weavers serve as custodians of heritage, yet structural barriers such as limited access to credit, unequal wages, middlemen exploitation and declining youth participation constrain their agency. Global demands for sustainable and ethical textiles provides unprecedented opportunities for Muga silk. Women-led cooperatives, digital platforms and skill-development initiatives strengthen agency, visibility and income. Empowering women in the Muga sector sustains an ancient heritage while fostering inclusive growth and gender justice. Policy initiatives emphasizing skill training, cooperative strengthening, global branding and financial inclusion transform the industry into a women led model of sustainability. Recognizing women as innovators and cultural leaders allows Muga silk to emerge as a symbol of Assamese identity and a pathway toward gender equality.

Key Words: Muga silk heritage, women empowerment, Handloom, Gender equality, Assam, Sustainable cultural industries, Socio-economic development.

1. INTRODUCTION:

Assam, situated in the north eastern part of India, is renowned for its vibrant culture, rich traditions and skilled artisans. Among its many cultural treasures, Muga silk stands out as a symbol of heritage, craftsmanship and identity. Known for its natural golden sheen, exceptional durability and intricate weaving patterns, Muga silk is derived from the *Antheraea assamensis* silkworm, which is endemic to Assam. Its production has been recorded for centuries, historically patronized by the Ahom dynasty and it has remained an integral part of Assamese social, economic and cultural life. Traditionally, Muga silk garments were worn by royalty, aristocrats and community leaders, while rural households gradually adopted the craft, embedding it deeply into customs, rituals and daily life.

Women have always been central to the Muga silk industry. Their involvement spans multiple stages of production, including sericulture, silkworm rearing, spinning, dyeing, and weaving. These skills are traditionally transmitted through matrilineal knowledge systems, ensuring continuity across generations. Beyond technical labour, women participate in cooperative management, design innovation and marketing activities, highlighting their dual role in preserving cultural heritage while contributing to household and community economies. In many rural areas, women's contributions determine not only the financial stability of families but also the intergenerational transfer of skills, social cohesion and the maintenance of Assamese identity. Despite their significant contributions, women face numerous challenges. Limited access to formal credit, restrictive mobility and inadequate exposure to modern weaving technologies constrain economic growth. Social norms sometimes limit women's decision-making power and participation in public spheres. Environmental factors, including unpredictable rainfall, temperature fluctuations and silkworm diseases, pose additional challenges to production and quality. Addressing these issues is critical for promoting sustainable development, preserving cultural heritage, and enhancing women's empowerment. The United Nations Sustainable Development Goal 5 (SDG 5) emphasizes the importance of achieving gender equality and empowering women. Engagement in the Muga silk industry directly contributes to this goal by fostering financial independence, skill development, leadership and decision-making power. Women involved in cooperatives or government-supported



initiatives gain exposure to modern business practices, digital marketing and global trade, enabling them to expand their influence beyond traditional household roles. Through such participation, rural women transform not only their own economic conditions but also the broader social and cultural landscape of their communities. The socio-cultural significance of Muga silk is profound. Festivals such as Bihu and Rongali Bihu feature women wearing handwoven silk garments, showcasing both skill and cultural identity. Women weavers are often regarded as custodians of these traditions, ensuring that weaving techniques, patterns and natural dyeing methods survive modernization pressures. Beyond aesthetics, Muga silk production emphasizes environmental sustainability, as women typically employ organic rearing techniques, natural dyes and low-impact weaving methods that minimize ecological footprints.

Chandraprabha Saikiani, a pioneering Assamese social reformer, once observed: “The loom is not just a tool; it is the thread that binds our culture, our identity, and our future.” This insight highlights that women’s labour in Muga silk production is not merely economic; it is a cultural, social and symbolic act. Through weaving, women safeguard cultural heritage while promoting economic empowerment and social recognition. Their work exemplifies the intersection of tradition, modernity and gender equity, demonstrating how local craftsmanship can become a platform for sustainable development.

In rural Assam, cooperative societies have further amplified women’s agency. Villages such as Sualkuchi, often called the “Manchester of Assam,” showcase women-led cooperatives that organize production, ensure quality control and facilitate market access. These cooperatives provide women with leadership roles, decision-making authority and financial literacy opportunities. Government initiatives, including the National Handloom Development Programme, Weaver Service Centres and Skill Development programs, complement grassroots efforts by providing training, loans and marketing support. By participating in these initiatives, women gain autonomy, expand their socio-economic reach and inspire younger generations to preserve and innovate traditional weaving practices.

Assam’s Muga silk industry exemplifies the interconnection between cultural heritage, economic empowerment, and gender equality. Women’s involvement in this sector ensures the continuity of traditional practices while fostering financial independence, leadership and community development. Their contributions highlight the potential of local industries to support sustainable development goals, preserve cultural identity and promote gender equity. By understanding and supporting women’s roles in Muga silk, policymakers, researchers and society at large can appreciate the profound impact of traditional crafts on both cultural preservation and social transformation.

2. OBJECTIVES OF THE STUDY:

- To explore the historical and cultural role of women in Assam’s Muga silk industry.
- To examine the socio-economic contributions and challenges faced by women weavers.
- To identify opportunities for empowerment through cooperatives, sustainable fashion and global markets.
- To recommend strategies for enhancing women’s agency, leadership and gender equality in the sector.

3. METHODOLOGY:

This study adopts a qualitative, descriptive approach based on secondary research. Data were collected from academic journals, government and NGO reports, policy documents and credible online sources related to Assam’s Muga silk industry and women empowerment. Case studies of women led cooperatives, historical records and cultural literature were analysed to understand socio-economic contributions, challenges and opportunities for women weavers. The methodology emphasizes synthesizing historical, cultural and contemporary insights to provide a comprehensive overview. Limitations include reliance on secondary sources and potential gaps in district level data, which future primary research can address for deeper insights.

4. HISTORICAL AND CULTURAL CONTEXT:

The origins of Muga silk production in Assam extend several centuries, with significant patronage from the Ahom dynasty. Historically, Muga silk garments were symbols of social status and cultural identity, used in weddings, festivals, and religious ceremonies. The craft has been sustained through generations, with women at the center of its production. Women artisans are involved in every stage of production, beginning with sericulture. They rear silkworms, monitor temperature and humidity and ensure the optimal growth of larvae. Following this, they extract silk threads, dye them using natural colours and weave intricate textiles on handlooms. Techniques are transmitted through matrilineal knowledge systems, ensuring continuity of design patterns, dyeing methods and weaving intricacies. Folk songs and oral histories celebrate the diligence and skill of female weavers, highlighting their socio-cultural importance.



Cooperative societies have been instrumental in organizing women's labour and providing a structured framework for production, marketing and pricing. For instance, in Sualkuchi, known as the "Manchester of Assam," women-led cooperatives manage entire production cycles, ensuring quality control and fair compensation. Membership in cooperatives empowers women to make collective decisions, negotiate prices and engage with external markets. Beyond economic benefits, these cooperatives promote leadership development, financial literacy and social recognition for women. The cultural significance of Muga silk extends beyond economic value. Festivals such as Bihu and Rongali Bihu showcase women's artistry in handwoven attire, preserving tradition and community identity. The textiles also serve as heirlooms, passed down through generations, reinforcing intergenerational bonds and cultural continuity. Muga silk is thus not merely a product but a medium of cultural expression, with women at its core. Environmental sustainability is embedded in traditional Muga silk practices. Women artisans utilize organic silkworm rearing techniques, natural dyes, and low-impact weaving methods, minimizing ecological footprints. Despite industrial pressures and competition from synthetic fabrics, women's dedication ensures the survival of traditional practices. As Gandhi observed, "The handloom is the instrument of our freedom, and the woman who wields it, our nation's strength." This underscores the critical role of women in sustaining both culture and community resilience. Modern challenges, including mechanization, market fluctuations and climate variability, threaten traditional practices. However, women's continued engagement ensures that Muga silk remains a cultural emblem and source of livelihood, demonstrating the interdependence of heritage, economy, and empowerment.

5. SOCIO-ECONOMIC IMPACT OF WOMEN WEAVERS:

The Muga silk industry has profound socio-economic implications for women in Assam. Beyond preserving cultural heritage, women's labour provides direct income and enhances household welfare. Earnings from weaving, sericulture and marketing allow women to contribute to family expenses, children's education and community development. The economic role of women weavers also shifts household dynamics, increasing their decision-making power and social status. Sualkuchi provides illustrative case studies. Women-led cooperatives in the region enhance income security, often increasing household earnings by 20–30%. Cooperative structures facilitate resource sharing, collective bargaining and mentorship. Women artisans in these cooperatives gain exposure to national and international markets, enabling entrepreneurship and expanding their socio-economic footprint. Government interventions complement cooperative efforts. The National Handloom Development Programme, MUDRA loans, and Skill Development for Rural Women initiatives provide training, financial support and market access. Women trained through these programs acquire skills in production management, quality control and marketing strategies. Access to microfinance allows them to invest in materials, expand production and improve product quality. Despite these gains, women face persistent challenges. Limited access to modern tools, socio-cultural restrictions, market volatility and environmental pressures hinder productivity. Competition from industrially produced synthetic textiles also threatens the economic viability of traditional Muga silk. Women must navigate these obstacles while maintaining cultural authenticity. Digital platforms have emerged as transformative opportunities. Women artisans can now sell products directly to consumers, bypassing intermediaries and enhancing profits. E-commerce platforms, social media marketing and online craft fairs allow women to reach national and international buyers. These avenues not only increase income but also raise awareness about Assam's cultural heritage. Branding Muga silk as an eco-friendly, premium and culturally rich textile enhances competitiveness, ensuring that traditional skills are economically viable in contemporary markets. The socio-economic impact of women's work extends beyond income. Engagement in cooperative management fosters leadership, negotiation and entrepreneurial skills. Women participating in training programs acquire financial literacy, marketing knowledge and technological competence, which contribute to greater autonomy. Their role in sustaining cultural practices while adapting to modern market demands exemplifies the dual benefits of cultural preservation and empowerment. Household benefits are significant. Women's earnings improve nutrition, healthcare access, and children's education, contributing to intergenerational development. Empowered women also influence decision-making in family and community matters, promoting gender equity at the micro-level. Studies indicate that communities with active women weavers experience higher household welfare and social cohesion, demonstrating the broader societal impact of their labour. Case studies from villages across Assam reveal innovative strategies women employ. Some artisans have developed niche products combining traditional Muga motifs with contemporary designs, appealing to younger consumers and global markets. Others participate in cultural exhibitions and trade fairs, showcasing skill and enhancing social visibility. These activities reflect not only economic initiative but also cultural advocacy, as women act as custodians of Assamese heritage. Women's participation in Muga silk production strengthens rural economies, enhances household welfare and promotes gender equality. By combining traditional craftsmanship with modern



marketing, technology and cooperative structures, women weavers contribute to sustainable development while asserting their agency and leadership within society.

6. GENDER EQUALITY AND SUSTAINABLE DEVELOPMENT (SDG 5):

Participation in the Muga silk industry advances gender equality in multiple dimensions, directly aligning with SDG 5. Economic empowerment through weaving allows women to gain financial independence, increasing their decision-making power within households and communities. Beyond monetary benefits, involvement in cooperatives and training programs fosters leadership, negotiation, and managerial skills, providing platforms for personal and professional growth. Women's engagement in sustainable silk production also intersects with environmental stewardship. The use of natural dyes, organic silkworm cultivation and eco-friendly weaving techniques exemplifies a model of sustainable entrepreneurship. By integrating these practices, women contribute to environmentally responsible production while simultaneously advancing economic and social goals. Government programs have been pivotal in promoting gender equality. Initiatives such as the National Handloom Development Programme, the Weaver Service Centre, and MUDRA loans provide women with financial support, skill development and market linkages. Training workshops teach modern design techniques, quality control and business management, enhancing women's capacity to compete in domestic and global markets. These programs not only increase income but also validate women's role as cultural entrepreneurs and community leaders. The intersection of cultural preservation and gender equality is evident in the handloom ecosystem. Women artisans sustain traditional weaving techniques, ensuring that cultural heritage is not lost to mechanization or market pressures. Their leadership in cooperative societies fosters social recognition and empowers other community members, creating a ripple effect of empowerment.

Women who actively participate in training, marketing and cooperative governance become role models, inspiring younger generations to pursue weaving as both cultural practice and livelihood. Challenges to gender equality persist. Socio-cultural norms may limit women's mobility or access to formal education. Climate variability threatens silkworm production and market fluctuations affect income stability. Despite these barriers, evidence suggests that women who engage in Muga silk production gain greater autonomy, resilience and social standing. The combination of economic participation, skill development and cultural stewardship strengthens the overall empowerment framework, demonstrating the alignment of traditional industries with global development goals. Incorporating Mahatma Gandhi's perspective reinforces the significance of women's labour: "The handloom is the soul of India and the woman who weaves it is the mother of her community." This statement underscores the multifaceted value of women's engagement—not only as economic contributors but also as cultural custodians and community leaders. Their work exemplifies the broader objectives of SDG 5, highlighting how local, traditional industries can serve as platforms for global gender equality initiatives.

7. CHALLENGES AND OPPORTUNITIES:

Despite their central role, women in Assam's Muga silk industry face numerous challenges:

1. **Technological Limitations:** Traditional looms limit production capacity, and lack of access to modern tools hinders efficiency and quality. Women often rely on manual techniques that require long hours and physical labour.
2. **Market Competition:** Synthetic textiles and mechanized fabrics create price and quality competition, threatening the sustainability of traditional handloom products.
3. **Environmental Risks:** Climate change, including erratic rainfall, temperature fluctuations, and pest infestations, impacts silkworm health and silk yield.
4. **Socio-Cultural Constraints:** Gender norms restrict women's mobility and limit participation in formal training, marketing, and leadership activities.
5. **Financial Barriers:** Access to credit, loans, and capital for scaling production remains limited, constraining entrepreneurial opportunities.

Opportunities for empowerment and growth are equally significant:

1. **Digital Marketing and E-Commerce:** Online platforms allow women to access national and international markets, bypassing middlemen and ensuring better pricing. Social media campaigns, virtual exhibitions, and online marketplaces expand visibility.
2. **Skill Development and Training:** Programs in design innovation, quality control, and business management enhance competitiveness. Exposure to contemporary market trends allows women to innovate while preserving traditional techniques.



3. Cooperatives and NGOs: Collective organization strengthens bargaining power, facilitates resource sharing, and provides mentoring opportunities. Women in cooperatives gain leadership experience and a platform for peer learning.
4. Government Policy Support: Handloom promotion schemes, financial assistance, and entrepreneurship programs create structural support for women artisans. Programs like the Weaver Service Centre and National Handloom Development Programme offer resources for training, market linkage, and financial aid.
5. Sustainable Practices and Branding: Emphasizing eco-friendly dyes, organic silk production, and ethical craftsmanship positions Muga silk as a premium, sustainable product in domestic and global markets. This aligns cultural preservation with economic viability.

Success stories from villages such as Sualkuchi demonstrate the transformative potential of these opportunities. Women artisans have established niche markets by combining traditional Muga motifs with contemporary designs, appealing to younger generations and international consumers. Participation in trade fairs and cultural exhibitions provides social recognition and income, reinforcing their economic and cultural contributions.

The balance between preserving tradition and embracing modern opportunities is crucial. By leveraging digital marketing, skill development, cooperative structures, and policy support, women can attain financial autonomy, leadership roles, and global recognition. These strategies ensure the sustainability of the Muga silk industry and advance gender equality in rural Assam.

8. POLICY RECOMMENDATIONS:

1. To empower women in the Muga silk industry and align with SDG 5, the following policy measures are recommended:
2. Access to Credit: Establishing microfinance institutions and providing low-interest loans to women weavers.
3. Market Linkages: Creating platforms for direct selling, both online and offline, to eliminate middlemen.
4. Skill Enhancement: Offering training programs in advanced weaving techniques, design innovation, and business management.
5. Infrastructure Development: Building common facilities for dyeing, reeling, and other processes to improve efficiency and reduce costs.
6. Legal Recognition: Recognizing women's work in the Muga silk industry as formal employment, ensuring labour rights and social security benefits.
7. Gender Sensitization: Conducting awareness programs to challenge gender biases and promote women's participation in decision-making processes.
8. Environmental Sustainability: Promoting organic sericulture and sustainable farming practices to protect the environment and ensure the long-term viability of Muga silk production.
9. Cultural Preservation: Supporting initiatives that document and promote traditional weaving techniques and designs.

9. FINDINGS AND DISCUSSION:

The Muga silk industry in Assam exemplifies the intersection of tradition, culture, and gender dynamics. Women have been central to its production, yet their contributions have often been marginalized. Empowering women in this sector not only enhances their socio-economic status but also contributes to the preservation of cultural heritage and regional identity.

By participating in cooperatives and engaging with broader markets, women increase their income and gain visibility. Evidence suggests that women-led cooperatives have improved income levels by 20–30% in certain districts, demonstrating the tangible impact of empowerment initiatives. Linking empowerment to SDG 5, it becomes clear that addressing gender disparities in the Muga silk industry can have multiplier effects: enhancing household income, improving education for children, and fostering community resilience. Women's economic participation challenges traditional gender roles, promotes leadership skills and ensures that cultural knowledge is preserved for future generations.

Furthermore, integrating digital technologies-such as e-commerce platforms and mobile-based marketing-has enabled women artisans to reach global consumers. Social media campaigns highlighting the ethical and cultural value of Muga silk increase recognition and demand. Partnerships with designers, NGOs and fair-trade organizations have also opened opportunities for branding Muga silk as a premium, sustainable textile in international fashion markets.



10. LIMITATIONS:

While this paper provides a comprehensive overview, certain limitations must be acknowledged:

1. **Dependence on Secondary Sources:** The research relies heavily on existing literature, reports, and case studies. Primary data from field surveys or interviews could provide richer, localized insights.
2. **Regional Variation:** Assam has multiple Muga-producing districts. Limited data may not capture all variations in practices, income levels, and cooperative participation.
3. **Quantitative Data Gaps:** Exact figures on income, production volume, and wages are not always available, making precise statistical analysis challenging.
4. **Cultural Interpretation:** Understanding traditional practices and oral histories depends on translation and interpretation, which may introduce minor inaccuracies.
5. **Climate Impact Uncertainty:** The long-term effects of climate change on Muga silk production remain partially speculative, based on secondary climate reports.

Future research could involve fieldwork, surveys, and interviews to better understand women's lived experiences, challenges, and successes in the Muga silk sector.

11. CONCLUSION:

Muga silk is not just a fabric; it is a symbol of Assamese culture, women's creativity, and economic potential. Women's engagement in every stage of the Muga silk industry—from sericulture to weaving and marketing—demonstrates their pivotal role in sustaining both culture and livelihoods. Despite structural challenges such as market restrictions, limited credit, and social undervaluation, opportunities abound through cooperative models, policy support, and sustainable fashion integration. Empowering women in this sector aligns with SDG 5, ensuring gender equality, leadership, and economic independence. By integrating traditional knowledge with modern marketing strategies, sustainable practices and policy interventions, women enhance income, social recognition, and leadership capabilities. As Lakshminath Bezbarua observed, "In every warp and weft of Assamese handloom lies the rhythm of our civilization." Women's labour in Muga silk embodies this philosophy, linking cultural continuity with socio-economic development. Empowering women ensures that the Muga silk industry remains a source of livelihoods, preserves heritage, and contributes to SDG 5 objectives, including gender equality, leadership opportunities and economic participation. Policy support, cooperative organization and digital platforms are critical for sustaining growth and empowerment. Encouraging innovation in design, improving market access and enhancing skill development can further elevate women's agency. By strengthening women's roles in this sector, Assam provides a model for how traditional industries can promote sustainable development, gender equity and cultural preservation.

REFERENCES:

1. Sarkar, B. (2024). Women empowerment through handloom and handicraft: Unveiling the weaving cultural identities of Assam. *GAP Bodhi Taru International Journal of Multidisciplinary Research*, 8(1), 74–79
2. Baruah, S. (2019). Muga silk of Assam: Tradition, challenges, and prospects. *Journal of Textile Studies*.
3. Gogoi, M. (2020). Women weavers of Assam: Agents of culture and economy. *Assam Economic Review*.
4. Government of Assam. (2021). Sericulture and weaving policy report. Department of Handloom & Textiles.
5. Medhi, D. (2017). Handloom and women empowerment in Assam. *Indian Journal of Social Development*.
6. Nath, R. (2015). History of Assamese weaving. Guwahati University Press.
7. Sharma, P. (2018). Women in sericulture: An untold story. Concept Publishing.
8. United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. United Nations.
9. World Bank. (2019). Empowering women through handloom industries in South Asia. World Bank Publications.
10. Baruah, P. (2021). Digital platforms and women artisans in Northeast India. *Journal of Rural Innovation*.
11. Deka, R. (2019). Assamese handloom and cultural identity. Gauhati University.
12. Indian Ministry of Textiles. (2020). Annual report 2020. Government of India.
13. Saikia, A. (2021). Global branding of Muga silk: Opportunities and challenges. *Indian Journal of Marketing*.
14. Kalita, H. (2018). Women's cooperatives in Assam: A case of weaving. *Social Science Review*.
15. Borthakur, A. (2022). Youth and handloom decline in Assam. *Economic & Political Weekly*.
16. Das, S., & Hazarika, P. (2022). Women-led cooperatives in Assam: Empowerment and sustainability. *Journal of Gender Studies*.
17. Barua, T. (2023). Digital marketing in Northeast India handlooms. *Asian Journal of Business and Technology*.



18. Choudhury, R. (2022). Socio-economic status of women in rural Assam. *Indian Journal of Rural Development*.
19. Dutta, M. (2023). Climate resilience in sericulture: A Northeast India perspective. *Environmental Sustainability Journal*.
20. Pathak, S. (2022). Traditional textile preservation and women's agency. *Textile History Review*.
21. Hazarika, L. (2023). Sustainable fashion and indigenous textiles: Opportunities for women. *International Journal of Fashion Studies*.
22. Ahmed, F. (2022). Policy interventions in handloom sectors of Northeast India. *Journal of Development Policy*.
23. Singha, R., & Singha, S. (2020). Women's empowerment through the silk industry of Assam, India, and its underlying economy. *Journal of International Women's Studies*, 21(5), 9–31.
24. Rani, M. (2024). Muga culture: A notable approach for sustainable development. *Just Agriculture*, 4(11), 135–140.
25. Bhagabati, S., & Jena, S. K. (2023). Sustainable women entrepreneurship: A study on Muga silk entrepreneurs in Sualkuchi village of Assam. *Srotaswini Journal*, 6, 1–15.
26. <https://www.google.com>