

Impact of Technological Support on Weaving Efficiency in Mudumlagurthy Village, Kodumur Mandal, Andhra Pradesh: A Case Study Supported by APARD, Kurnool District

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Introduction

Mudumlagurthy village, located in Kodumuru mandal of Andhra Pradesh, is home to 60 households where the primary occupation revolves around the traditional craft of weaving sarees. This craft has been passed down through generations and serves as the main source of livelihood for the residents, with 55 women and 67 men actively involved in the weaving process. Despite the long-standing tradition of weaving, the community has faced significant challenges due to outdated equipment and low productivity, limiting the income potential for these weavers.

Challenges Faced by Weavers

Prior to the support received from APARD NGO, Kurnool, the weavers of Mudumlagurthy were working with manual methods and traditional looms, producing only 2 sarees in 14 days. This low production rate made it difficult for the artisans to earn a sustainable income and improve their standard of living. The cumbersome nature of the process, combined with physical exhaustion, was also a barrier for women in particular, who spent a large portion of their day on the looms, often at the expense of other household responsibilities.

Support from APARD NGO: Financial Assistance for Up-Lifting Machines (50% Subsidy)

The **Up-Lifting Machine** was already in use in some weaving areas; however, due to financial constraints, the weavers of **Mudumlagurthy village** were unable to purchase and adopt this technology. Recognizing this challenge, **APARD NGO, Kurnool**, extended **50% financial subsidy support** to 40 women from **Self-Help Groups (SHGs)** weavers to help them acquire the machines.

This financial assistance enabled the weavers to access modern equipment that reduces manual effort, minimizes physical strain, and enhances weaving efficiency. As a result, the artisans can now produce more sarees in less time, improving both their productivity and income levels while promoting sustainable livelihood development in the village.

Impact on Productivity

Since the introduction of the up-Lifting Machine, the weavers have experienced a marked increase in their productivity. While they were previously able to produce only 2 sarees over a span of 14 days, the use of the up-Lifting Machine has enabled them to double their output, weaving 3 sarees in the same period. This increase in productivity not only improves the financial stability of these households but also enhances the overall quality of the sarees produced, as the weavers can now focus more on the intricate aspects of design and craftsmanship rather than struggling with the physical demands of the process.

Economic and Social Benefits

The improved productivity has had several positive effects on the community:

1. **Increased Income:** With the ability to produce more sarees in less time, the weavers have been able to earn higher wages. This has contributed to a better standard of living for the families, with women in particular benefiting from an increased sense of financial independence.
2. **Time Efficiency:** The Up-Lifting Machine has significantly reduced the time spent on manual tasks, allowing the weavers to balance their work with household responsibilities more effectively. This has empowered the women, as they are able to contribute more to family income without compromising their other roles.
3. **Strengthened SHGs:** The women involved in the Self-Help Groups (SHGs) have also seen a strengthening of their collective efforts. By working together, the SHG members share knowledge, skills, and resources, fostering a sense of community solidarity and mutual support.

Challenges and Areas for Improvement

Although **APARD NGO** provided **50% financial support** for the purchase of Up-Lifting Machines, the weavers of Mudumulagurthy still face significant challenges. The main issue is **marketing and sales**: the artisans currently sell their sarees through **middlemen**, receiving lower prices while intermediaries capture most of the profit. This limits the financial benefits of the machines and prevents the weavers from fully capitalizing on their increased productivity.

To address this, the community needs to develop **direct market access** through **Business-to-Consumer (B2C)** channels, such as exhibitions, retail outlets, and online platforms. Direct selling would allow the weavers to earn **fair prices**, improve income, and strengthen the overall economic sustainability of the village's weaving sector.

Table 1: Impact of Up Lifting Machine on Saree Production and Earnings (with Material Cost)

Saree Type	Production Before (Days/Saree)	Production After (Days/Saree)	No. of Sarees Produced (Before)	No. of Sarees Produced (After)	Selling Price (Per Saree)	Material Cost (Per Saree)	Net Earnings (Per Saree)	Total Earnings (Before)	Total Earnings (After)
Gadwal Sieko Saree	14 days (2 sarees)	14 days (3 sarees)	2 sarees	3 sarees	₹ 7,000	₹ 3,500	₹ 3,500	₹ 7,000	₹ 10,500
Cotton & Silk Saree	10 days (2 sarees)	10 days (3 sarees)	2 sarees	3 sarees	₹ 3,400	₹ 1,400	₹ 2,000	₹ 4,000	₹ 6,000

Explanation:

- **Material Cost:** This represents the cost of raw materials (yarn and dyes) needed to weave a saree. For Gadwal Sieko sarees, the material cost is ₹3,500, and for Cotton & Silk sarees, the material cost is ₹1,400.
- **Net Earnings (Per Saree):** The net earnings are calculated as Selling Price - Material Cost.

Table 2: Impact of Up Lifting Machine on Saree Production and Earnings

Saree Type	Before Up Lifting Machine	After Up Lifting Machine	Productivity Increase	Earnings Increase
Gadwal Cheko Saree	Production: 2 sarees in 14 days	Production: 3 sarees in 14 days	50% Increase	50% Increase
	Selling Price: ₹7,000 per saree	Selling Price: ₹7,000 per saree		
	Material Cost: ₹3,500 per saree	Material Cost: ₹3,500 per saree		
	Net Earnings (Per Saree): ₹3,500	Net Earnings (Per Saree): ₹3,500		
Cotton & Silk Saree	Production: 2 sarees in 10 days	Production: 3 sarees in 10 days	50% Increase	50% Increase
	Selling Price: ₹3,400 per saree	Selling Price: ₹3,400 per saree		
	Material Cost: ₹1,400 per saree	Material Cost: ₹1,400 per saree		
	Net Earnings (Per Saree): ₹2,000	Net Earnings (Per Saree): ₹2,000		
	Total Earnings (Before): ₹4,000 (for 2 sarees)	Total Earnings (After): ₹6,000 (for 3 sarees)		

Summary of Key Findings:

- Gadwal Sieko Saree:**

Productivity increased by 50%, from 2 sarees in 14 days to 3 sarees in 14 days.

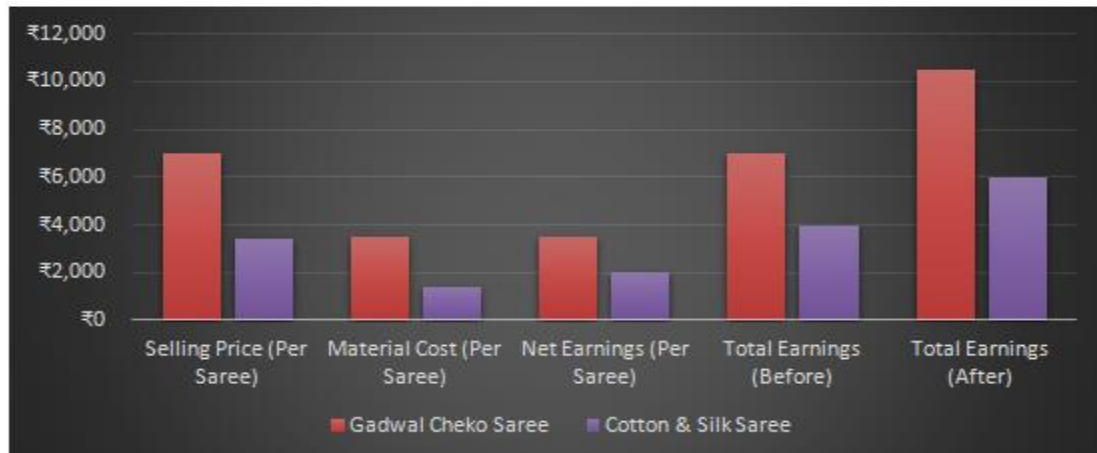
Earnings increased by 50%, from ₹7,000 to ₹10,500.

- Cotton & Silk Saree:**

Productivity increased by 50%, from 2 sarees in 10 days to 3 sarees in 10 days.

Earnings increased by 50%, from ₹4,000 to ₹6,000.

- Net Earnings: After deducting the material cost, the weavers' net earnings have increased by 50% after the introduction of the up-Lifting Machine.
- Productivity Improvement: Both Gadwal Sieko and Cotton & Silk saree production increased by 50%, leading to a significant increase in overall earnings.
- The net earnings per saree remain consistent, but the overall increase in the number of sarees woven has boosted the total income for the artisans in Mudumulagurthy village.



Comparison of Saree Production Before and After Up Lifting Machine

Visual Documents: -



Conclusion

The introduction of the Up-Lifting Machine in Mudumulgurthy village, supported by APARD with a 50% subsidy, has brought remarkable improvements in weaving efficiency, productivity, and livelihood outcomes for the local artisan community. The intervention enabled weavers—especially women—to increase their production capacity from two to three sarees within the same time frame, resulting in a 50% rise in total earnings. The machines have reduced physical

strain, improved time management, and strengthened women's participation in Self-Help Groups (SHGs), fostering empowerment and collective growth.

However, the major challenge that remains is limited market access. At present, the weavers operate mainly under a Business-to-Business (B2B) model, selling their sarees to middlemen and wholesalers at lower profit margins. Transitioning to a Business-to-Consumer (B2C) model—by directly marketing their sarees through exhibitions, local outlets, and online platforms—will enable them to earn better returns, establish brand identity, and ensure sustainable income growth. Strengthening market linkages, digital marketing skills, and cooperative branding initiatives will be essential to fully realize the long-term benefits of this technological advancement in the weaving sector of Mudumulgurthy village.