

Success Story: Empowerment through Fodder-Based Dairy Farming

Small Land, Big Impact: A Woman Dairy Farmer's Journey towards Fodder Self-Sufficiency

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ABSTRACT

Dairy farming is a vital component of rural livelihoods in India, contributing significantly to household income and nutritional security. Women play a central role in livestock management, undertaking most day-to-day dairy-related activities. Despite this, their contributions often remain undervalued due to limited access to resources, extension services, markets, and decision-making platforms. Among the key constraints faced by women dairy farmers, access to quality green fodder remains one of the most critical, directly affecting animal health, milk productivity, and farm profitability. This case study of Kalpana Jena, a woman dairy farmer from Banamalipur village in Niali, of Cuttack district in Odisha, illustrated how addressing a single but pivotal constraint i.e. fodder availability, can bring transformative outcomes. Through targeted training and improved access to knowledge on fodder cultivation, she was able to enhance milk yield, reduce dependence on external feed sources, lower production costs, and gain greater control over her dairy enterprise. The case highlights the potential of small-scale, women-focused interventions to improve productivity, reduce drudgery, and foster economic and social empowerment in dairying.

INTRODUCTION

In rural India, dairy farming plays a critical role in sustaining household livelihoods, ensuring nutritional security, and generating regular income (FAO, 2011; Government of India, 2019). Among the various actors involved in this sector, women form the backbone of livestock management (Vijayabhinandana *et al.*, 2019). They are actively engaged in feeding, milking, cleaning, healthcare, and day-to-day animal husbandry operations (FAO, 2011; NSSO, 2014). Despite their extensive involvement, women livestock farmers often remain invisible in decision-making processes, access to inputs, extension services, markets, and institutional support systems (FAO, 2011; Kumar *et al.*, 2011). Structural barriers such as limited land ownership, restricted mobility, male-dominated cooperatives, and inadequate access to quality feed and fodder continue to constrain women's productivity and income from livestock enterprises (FAO, 2011; Vijayabhinandana *et al.*, 2019).

One of the most persistent challenges faced by women dairy farmers is access to quality green fodder (FAO, 2018; Government of India, 2019). Green fodder is a crucial component of balanced feeding, directly influencing animal health, milk yield, and reproductive performance. However, small and marginal women farmers often lack awareness, resources, or confidence to adopt fodder cultivation. As a result, they depend heavily on poor-quality local feed resources, purchased concentrates, or depend on male family members for feed procurement. This dependency not only limits productivity but also increases women's workload, reduces their control over livestock-based income, and reinforces gender inequities in the dairy sector.

Against this backdrop, the story of Kalpana Jena, a middle-aged woman dairy farmer from Banamalipur village of Niali block in Cuttack

district of Odisha, offers a compelling example of how targeted training, access to knowledge, and small-scale interventions can transform women's livestock enterprises. Her journey illustrates how overcoming a single critical constraint i.e. fodder availability can lead to improved productivity, income enhancement, reduced drudgery, and social empowerment within a traditionally male-dominated system.

The Lady Farmer and Her Livestock Enterprise

Kalpana Jena belongs to a typical rural household where dairy farming has long been considered a supplementary activity rather than a primary enterprise. Her entry into dairying was not planned or institutional



but rather rooted in family tradition and circumstance. At the time of her marriage, she received a Jersey heifer as a gift from her uncle. What began as a symbolic asset gradually became the foundation of her independent journey in dairy farming. With dedication and experience, Kalpana nurtured the animal and, over time, expanded her small dairy unit to own two Jersey cows.

Like many women dairy farmers, Kalpana was responsible for most day-to-day livestock management activities, including feeding, milking, and cleaning. However, strategic decisions related to feed procurement and financial investments were largely dealt by her husband. Despite being a member of a dairy cooperative society, her access to quality inputs remained limited due to structural and social barriers.

Milk production from her two cows remained low, averaging only 7-8 litres per day. The income generated from dairying was modest and insufficient to significantly contribute to household savings or investment. Although she worked hard, the returns from her labour did not reflect her effort, leading to frustration and reduced motivation over time.

Challenges Faced: Feed and Fodder as a Major Constraint

Approximately three years ago, Kalpana's dairy enterprise faced serious challenges due to poor access to quality green fodder. Like many small dairy farmers in the region, she relied heavily on local feed available in market. The fodder obtained from nearby areas was of poor nutritional quality, seasonal, and inconsistent. Moreover, market access for quality fodder was weak, and transportation costs further increased the burden.

Although Kalpana was formally enrolled as a member of the dairy cooperative society, gender dynamics within the cooperative limited her effective participation. Male dominance in meetings and decision-making meant that women's specific needs particularly regular and affordable access to feed were often overlooked. Additionally, irregular demand from other members led to delayed or infrequent feed supply by the dairy cooperative, while transportation costs for individual women members like Kalpana were too high.

As a result, Kalpana spent nearly one hour every day collecting green grass from nearby fields, roadsides, and common lands. This activity not only increased her physical workload but also consumed valuable time that could have been used for household responsibilities. Over time, the scarcity of green fodder forced her to shift towards greater dependence on concentrate feeding. However, purchased concentrates were costly and often

of inconsistent quality, further affecting milk yield and profitability.

The combined impact of poor fodder availability, increased drudgery, low milk yield, and limited income placed Kalpana's dairy enterprise at a critical juncture. Without intervention, the sustainability of her livelihood from dairying was at risk.

The Turning Point: Exposure to Knowledge and Skill Development

A significant turning point in Kalpana's journey came when she attended a training programme on feeding management of dairy cattle conducted by the ICAR-Central Institute for Women in Agriculture (ICAR-CIWA). The programme was designed specifically to address the practical challenges faced by women livestock farmers and focused on improving awareness, skills, and confidence related to balanced feeding and fodder production.

During the training, Kalpana received hands-on demonstrations on fodder cultivation



practices, including selection of fodder varieties, land preparation, planting methods, harvesting cycles, and efficient utilization. Importantly, the training emphasized that fodder cultivation does not require large landholdings and can be successfully adopted even on small plots. This message was particularly empowering for women like Kalpana, who had limited control over land resources.

As part of the programme, she also received free fodder saplings, which reduced the initial investment barrier. For the first time, Kalpana began to view fodder not as a constraint but as an opportunity something she could produce herself rather than depend on external sources or male family members.

Addressing the Challenge: Adoption of Fodder Cultivation

Motivated by the training and demonstrations, Kalpana made a decisive move. She allocated just 0.05 acre of her land for fodder cultivation, an area that was previously underutilized. With the knowledge gained from ICAR-CIWA and regular follow-up support, she successfully established a fodder plot.

Within a short period, Kalpana began producing around 20 kg of green fodder daily from this small piece of land. Although this quantity was not sufficient to meet the green fodder requirements of her two Jersey cows, but availability of fresh, nutritious fodder brought immediate and visible improvements in animal health and feeding behaviour.

Kalpana proudly refers to her fodder crop as “green gold,” recognizing its value in sustaining her dairy enterprise. The shift from dependency on collected grass and purchased concentrates to self-produced green fodder marked a major transformation in her role from a passive consumer of inputs to an active producer and decision-maker.

Outcomes and Impact: Productivity, Income, and Empowerment

The introduction of regular green fodder feeding led to a 25% increase in milk yield. Daily milk production from her two cows increased from 7-8 litres to 10–12 litres. This improvement not only enhanced household milk availability but also resulted in an

additional income of approximately ₹2,000 per month from milk sales.

Beyond income, fodder cultivation significantly reduced Kalpana’s workload. The time spent earlier on daily grass collection was saved, allowing her to better manage household responsibilities and dairy operations. The reduction in drudgery had a positive impact on her physical well-being and overall quality of life.

Encouraged by her success, Kalpana took another entrepreneurial step by selling fodder saplings to other farmers in the village. She has now emerged as one of only three farmers practicing fodder cultivation locally. Her initiative has created a ripple effect, motivating other dairy farmers, especially women, to consider fodder farming as a viable option.

Apart from this, Kalpana’s growing confidence and technical knowledge have altered her social standing within the community. In the previously male-



dominated dairy cooperative, her opinions are now requested during meetings. She actively shares her experiences and provides suggestions on feeding and fodder management, reflecting her enhanced role and recognition as a knowledgeable farmer.

Conclusion: Lessons from Kalpana Jena’s Journey

Kalpana Jena’s story demonstrates that empowering women in livestock farming does not always require large investments or structural overhauls. Addressing a critical

constraint through targeted knowledge dissemination, skill development, and access to small inputs can unlock significant improvements in productivity, income, and social status. Her journey highlights the transformative power of fodder cultivation as a low-cost, high-impact intervention for smallholder women dairy farmers.

The case underscores the importance of women-centric extension approaches that recognize women as farmers, not merely helpers in livestock enterprises. Institutions like ICAR-CIWA play a crucial role in bridging knowledge gaps, building confidence, and enabling women to take control of key resources. Kalpana's transformation from a fodder-deficient dairy farmer to a self-reliant producer and local resource person reflects the broader potential of integrating gender-responsive strategies into livestock development programmes.

Ultimately, her success story is not just about increased milk yield or income, but about dignity, agency, and empowerment. Kalpana Jena's "green gold" has enriched not only her dairy enterprise but also her voice and position within the community, offering valuable lessons for scaling women-led, sustainable dairy development across rural India.

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