



# The Role of Gender Norms in Transforming Dairy Farming and Empowering Women in Ethiopia: A Review

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## Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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## ABSTRACT

Gender norms play a pivotal role in shaping agricultural practices and productivity in Ethiopia, particularly within the dairy farming sector. In rural Ethiopian communities, traditional gender roles often dictate the division of labor, resources, and decision-making power, with women typically responsible for milking, processing, and selling dairy products, while men control livestock ownership and financial decisions. These gendered divisions impact not only the productivity of dairy farming but also the economic and social well-being of women. This review examines the influence of gender norms on dairy farming practices and the resulting implications for productivity in Ethiopia. It explores the barriers women face in accessing resources, training, and decision-making opportunities, and highlights how these gendered constraints limit their ability to optimize

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dairy production. Additionally, the review discusses the broader social and economic implications, including the reinforcement of gender inequalities, reduced financial independence for women, and potential impacts on household nutrition. The paper suggests that addressing these issues through policy reforms, improved access to resources and training for women, and shifts in societal attitudes toward gender roles can enhance both women's empowerment and overall dairy productivity. Ultimately, promoting gender equality in dairy farming could contribute to more sustainable and inclusive agricultural development in Ethiopia.

*Keywords: Dairy farming; empowerment; gender norms; productivity; resources.*

## 1. INTRODUCTION

Gender norms are deeply rooted cultural and social expectations that dictate how men and women should behave, think, and interact within a society. In Ethiopia, these norms significantly shape agricultural practices, particularly in the dairy sector, which is a crucial part of the rural economy. The influence of gender norms on dairy farming practices and productivity is multifaceted, impacting the roles of men and women in various aspects of dairy farming, including ownership, management, labor division, and access to resources such as land, finance, and technology.

In Ethiopia's dairy sector, gender roles are distinctly defined. Research by the International Livestock Research Institute indicates that as dairy farms increase in size and proximity to urban areas, women's involvement tends to diminish while men's participation increases. This trend is particularly evident in marketing activities where over 66% of milk marketing is handled by men. Women primarily engage in milking and cleaning tasks but are often excluded from decision-making roles as farm operations scale up. In rural areas, women contribute approximately 36% of labor in dairy production; however, this figure drops to about 25% in urbanized settings (Ayalew et al., 2021).

Despite their significant contributions to dairy farming, women face substantial barriers regarding access to resources. Cultural norms often restrict women's control over land and financial resources, limiting their ability to engage fully in higher-value dairy production. For instance, larger farms that are more integrated into urban markets tend to favor male labor due to perceived economic returns associated with larger-scale operations. This disparity suggests that gender norms not only dictate labor roles but also influence economic opportunities within the dairy sector (Tadele & Nega, 2022).

Understanding how gender norms affect dairy farming is essential for identifying pathways toward more inclusive agricultural development. Recent initiatives aim to enhance women's roles in agriculture by promoting gender-sensitive policies that address these disparities. The Ethiopian government has launched strategies aimed at increasing milk production and improving the productivity of dairy cows through targeted interventions that consider gender dynamics (FAO, 2023). Such approaches are vital for unlocking the potential of women as key contributors to the agricultural workforce, thus improving overall productivity within the dairy sector.

## 2. GENDER ROLES IN DAIRY FARMING

Dairy farming in Ethiopia is typically a family-based enterprise, where both men and women contribute to different stages of dairy production. However, gendered divisions of labor often mean that men and women have distinct responsibilities. In many rural Ethiopian households, men are typically responsible for the ownership of livestock and control over milk production, while women are involved in more labor-intensive tasks such as milking, feeding, and processing milk into dairy products like butter, cheese, and yogurt. Research indicates that women play a predominant role in activities such as barn cleaning (66.5%), milking cows (93%), and milk processing (76%) (Brhanu et al., 2020). Despite their significant contributions to the sector's productivity and the household economy, women's roles in dairy farming are often undervalued. A study highlights that while women contribute approximately 40-60% of all agricultural-related labor, they face substantial barriers in accessing resources and decision-making opportunities (FAO, 2021). Furthermore, cultural norms often restrict women's control over income generated from dairy products, leading to inequities in benefits derived from their labor (Hebo, 2014). Addressing these disparities is essential for enhancing women's empowerment

and improving overall productivity within the dairy sector.

### **3. MILKING AND DAIRY PROCESSING**

Milking and processing dairy products are traditionally viewed as "women's work" in many Ethiopian communities. Women often spend significant amounts of time milking cows, processing milk into consumable dairy products, and selling these products at local markets. Despite their central role in milk production and value-added dairy activities, women generally have limited control over the income generated from these activities. Research indicates that men typically control the financial aspects of dairy farming, including the sale of milk and dairy products, which restricts women's economic empowerment (Gennovate, 2023).

A study conducted in the Central Zone of Tigray highlights that while women actively participate in milking and processing, they are often relegated to lower-value chain activities, limiting their ability to benefit financially from their labor (Gennovate, 2022). Furthermore, a report from Solidaridad emphasizes that although women contribute significantly to the dairy sector, they frequently lack access to resources and decision-making power regarding income generated from dairy sales (Solidaridad Network, 2024). This gender disparity not only affects women's livelihoods but also hinders overall productivity within the dairy sector. Addressing these inequities is essential for fostering women's empowerment and enhancing the economic viability of dairy farming in Ethiopia.

### **4. HERD MANAGEMENT AND OWNERSHIP**

Ownership and decision-making power in dairy farming are often dominated by men in Ethiopia. While women may contribute significantly to dairy herd management, men typically make the key decisions regarding the purchase, sale, and breeding of livestock. A recent study indicates that in many households, men control approximately 71.6% of decisions related to breeding, while women are primarily involved in routine tasks such as milking and processing (Brhanu et al., 2022). This disparity is further exacerbated by gendered norms surrounding inheritance and property rights, which restrict women's access to dairy cattle.

Cultural practices often dictate that livestock ownership is passed down through male lineage,

limiting women's ability to build their herds or fully participate in the economic benefits of dairy farming (Gennovate, 2023). Moreover, a report from the International Food Policy Research Institute highlights that as dairy farms increase in size and proximity to urban areas, women's involvement diminishes significantly, with men increasingly taking on roles related to financial management and marketing (IFPRI, 2022). Consequently, these gendered dynamics not only hinder women's economic empowerment but also affect overall productivity within the dairy sector.

### **5. IMPACT OF GENDER NORMS ON DAIRY PRODUCTIVITY**

Gender norms influence dairy farming productivity in several ways, both directly and indirectly.

#### **5.1 Access to Resources**

Access to key resources such as land, capital, and technology is often gendered in Ethiopia. Men generally have greater access to land and financial services, which directly affects their ability to invest in better farming practices or purchase high-quality feed and veterinary services. Women, on the other hand, are frequently excluded from land ownership and access to credit, limiting their capacity to improve dairy production despite being responsible for the majority of labor in the sector. Studies highlight that female-headed households, while demonstrating better food security outcomes, face systemic constraints in accessing cultivated land, extension services, and supplementary feeds, which are critical for productivity (Yuya, 2018). Furthermore, the adoption of improved dairy technologies, while increasing output, often shifts financial control to men, exacerbating existing inequalities and leaving women with a disproportionate workload relative to their access to resources (Lenjiso, 2019). Addressing these disparities through gender-sensitive policies and interventions, such as ensuring equitable access to land, credit, and technology, is essential for improving both productivity and gender equity in Ethiopia's dairy sector.

#### **5.2 Training and Extension Services**

Access to agricultural extension services and training programs is another critical factor that affects dairy farming productivity. Gendered

differences in access to extension services hinder women's ability to adopt new farming technologies and improve their practices. In many rural areas of Ethiopia, extension services are predominantly targeted toward men, reinforcing existing gender inequalities in knowledge and skills acquisition. Studies indicate that women's participation in agricultural extension programs remains significantly lower compared to men, with women in male-headed households particularly marginalized. For example, a study in the Fogera District found that only 28.5% of women in male-headed households participated in extension activities, compared to 74.3% of men. This lack of inclusion in training programs and agricultural decision-making exacerbates productivity gaps (Azanaw & Tassew, 2017). The problem is further compounded by systemic barriers such as mobility constraints, illiteracy, and a lack of gender-sensitive program designs, which prevent women from accessing critical resources and information necessary for effective dairy farming (Tarekegne & Dessie, 2020). Addressing these disparities through inclusive training programs and equitable extension service delivery is essential for enhancing productivity and promoting gender equity in Ethiopia's agricultural sector.

### **5.3 Decision-Making Power**

Women's limited decision-making power in dairy farming impacts overall productivity significantly. In households where men dominate decision-making, women often lack influence over key aspects such as breeding strategies, milk sales, and investment in farm improvements. This lack of agency can lead to inefficiencies and lower productivity as decisions may overlook women's insights and contributions. A study by Kinati et al. (2022) emphasized that decision-making power varies significantly by gender and context in Ethiopia's mixed and livestock-based systems. Women placed higher importance on decisions related to livestock and social relations, but their influence in these areas was often constrained by systemic gender norms. Empowerment efforts, including improving women's access to resources and decision-making roles, have been shown to enhance productivity by incorporating diverse perspectives into agricultural management (Kinati et al., 2022). Integrating women's decision-making in dairy farming is essential for optimizing resource use and improving the overall efficiency of farm operations.

### **5.4 Social and Economic Implications**

The gendered division of labor and resources in the dairy sector has far-reaching social and economic implications for households and communities. The unequal distribution of income from dairy farming exacerbates gender inequalities, with men typically controlling the revenue from milk sales, while women, who contribute significantly to the labor, often receive little or no share of the profits. This economic disparity limits women's financial independence and reinforces existing power imbalances. Research by Yuya (2018) highlights that female-headed households, despite achieving higher food security outcomes, often face systemic challenges in accessing resources and controlling dairy income. Women's limited control over dairy earnings significantly affects their ability to invest in education or other income-generating activities, perpetuating a cycle of dependency and undervaluation of their contributions (Yuya, 2018). Addressing these inequities requires targeted interventions to ensure women's equitable access to resources, decision-making roles, and financial benefits within the dairy value chain, fostering both economic empowerment and gender equity.

### **5.5 Health and Nutrition**

This gendered dynamic contributes to unequal access to nutrition, especially for women and children. Despite their involvement in dairy production, women in Ethiopia are often deprived of the nutritional benefits of milk due to the control of income and decision-making power being concentrated in the hands of men. A study by Birhanu et al. (2022) reveals that in rural Ethiopia, the financial proceeds from dairy sales are often used for other household needs, leaving limited resources for the purchase of food, which in turn affects the nutritional intake of women and children. This situation is particularly concerning given the critical role dairy plays in providing essential nutrients such as protein, calcium, and vitamins.

## **6. WOMEN'S EMPOWERMENT AND AGENCY**

While women play a central role in dairy farming, their empowerment is often constrained by entrenched gender norms that restrict their opportunities for economic independence and social mobility. In many rural settings, women are largely responsible for tasks such as milking,

processing, and managing dairy, yet their contributions often go unrecognized. This lack of recognition not only limits their access to resources and decision-making power but also hinders their potential for economic empowerment. Women's limited control over the income generated from dairy production further restricts their opportunities for social mobility and economic autonomy (Zerfu & Asfaw, 2023). Despite their pivotal role in dairy farming, women often face challenges in securing land rights, access to credit, and training in advanced agricultural techniques, which are typically reserved for men (Adhikari et al., 2022).

### **6.1 Potential Solutions and Interventions**

Addressing the gender disparities in the dairy sector requires targeted interventions and solutions that empower women, challenge gender norms, and promote more equitable access to resources and decision-making power. Here are some potential solutions and interventions that can help to improve women's empowerment and the sustainability of dairy farming:

#### **6.2 Promote Women's Access to Resources and Training**

**Land Ownership and Access:** Secure land tenure is essential for enabling women to make decisions about dairy farming and to invest in their dairy operations. In many rural areas, women's access to land is limited due to traditional inheritance systems and societal norms that favor men. Programs that secure land rights for women, such as joint land titles or land tenure reforms, can enhance their control over dairy production and income (Mulugeta & Ayele, 2024).

**Training and Education:** Providing women with access to agricultural training, especially in modern dairy farming techniques, can improve productivity and sustainability. Training programs that focus on both technical skills (such as better livestock management and dairy processing) and business skills (such as marketing and financial management) can help women increase their income and autonomy (Tadesse et al., 2023). Gender-sensitive training ensures that women feel confident and capable in adopting new farming practices.

**Access to Financial Services:** Women in dairy farming often face challenges in accessing credit

and financial services due to limited collateral and gender biases in financial institutions. Microfinance institutions and rural banks can offer tailored financial products for women dairy farmers, helping them invest in equipment, livestock, and processing facilities. Additionally, introducing savings programs and insurance options for women can reduce their vulnerability to market shocks and improve their economic stability (Zerfu & Asfaw, 2023).

#### **6.3 Increase Women's Participation in Decision-Making**

**Decision-Making Power:** Women's involvement in decision-making within households and communities can be improved by encouraging equal participation in discussions about income allocation, food distribution, and farming strategies. Gender-sensitive household models, where both men and women participate equally in economic decision-making, can ensure that women have more control over the proceeds from dairy sales. Programs that educate men and communities about the benefits of gender equality in decision-making are crucial in shifting entrenched cultural norms (Haug et al., 2022).

**Leadership Roles:** Women's representation in leadership positions within dairy farming cooperatives, farmer groups, and community organizations can provide a platform for women to influence policies and practices in the dairy sector. By supporting women to take on leadership roles, these organizations can advocate for the specific needs of women dairy farmers, promoting better policies and resource distribution (Birhanu et al., 2022).

#### **6.4 Ensure Access to Dairy Markets**

**Market Linkages:** One of the key challenges for women dairy farmers is limited access to profitable dairy markets. Women often face barriers in accessing markets due to distance, transportation costs, and lack of market information. Interventions that facilitate women's access to local and regional dairy markets, such as establishing women's dairy cooperatives, can help increase their income and bargaining power. Providing market linkages through agricultural extension services and cooperatives also helps women access better prices for their products (Adhikari et al., 2022).

**Value Chain Integration:** Strengthening women's participation in the dairy value chain can

enhance both their economic returns and their ability to influence decisions at various stages of production and processing. This includes involving women in dairy processing, packaging, and branding, which can open up new income opportunities and increase their control over dairy products beyond just milk sales (Tadesse et al., 2023).

## **7. RAISE AWARENESS AND CHALLENGE GENDER NORMS**

**Community Awareness Programs:** Social norms that hinder women's empowerment can be challenged through community awareness programs that emphasize the importance of gender equality in agriculture. These programs can educate men and women about the benefits of women's involvement in decision-making and resource allocation in dairy farming. Raising awareness about the contribution of women to the dairy sector can shift perceptions and encourage more equitable distribution of resources within the household (Zerfu & Asfaw, 2023).

**Advocacy for Gender-Inclusive Policies:** Governments and international organizations can play a crucial role in advocating for policies that support women's rights in the dairy sector. This includes policies that ensure equal access to land, training, and credit, as well as the development of gender-sensitive agricultural policies. Strong advocacy for gender-inclusive policies can create an enabling environment where women have greater autonomy in dairy farming.

### **7.1 Foster Collaborative and Supportive Networks**

**Women's Networks and Cooperatives:** Establishing women-only or gender-inclusive dairy cooperatives can provide women with a platform for sharing resources, knowledge, and experiences. These networks help women gain collective bargaining power and access to shared resources like training, markets, and financial products. By working together, women can reduce costs, improve their production efficiency, and increase their income (Adhikari et al., 2022).

**Partnerships with NGOs and Development Organizations:** Many NGOs and international development organizations are working to support women in agriculture. Collaboration between local dairy farmers and these

organizations can bring resources such as training, grants, and technical expertise to empower women in dairy farming. This can also help women access global dairy markets and improve the sustainability of their farming practices (Tadesse et al., 2023).

### **7.2 Improve Healthcare and Nutrition**

**Nutrition Programs:** Since dairy products are a significant source of nutrition, ensuring that women and children have access to them is essential for improving health outcomes. Governments and NGOs can implement nutrition-sensitive programs that prioritize dairy consumption among vulnerable populations. Programs that promote the nutritional value of milk and dairy products can help ensure that women and children benefit from the nutritional richness of dairy products (Galiè et al., 2023).

In conclusion, addressing the gender gaps in dairy farming in Ethiopia and other rural areas requires a multifaceted approach. By empowering women through access to resources, improving their participation in decision-making, and challenging harmful gender norms, interventions can lead to more sustainable dairy farming practices, improved household incomes, and better overall productivity. These changes can ultimately contribute to broader social and economic development by ensuring that women fully benefit from their vital role in the dairy sector.

## **8. CONCLUSION**

The influence of gender norms on dairy farming practices in Ethiopia is both profound and multifaceted, shaping productivity, social dynamics, and economic outcomes. These norms perpetuate inequalities that limit women's access to critical resources, decision-making roles, and financial benefits, despite their substantial contributions to the dairy sector. Addressing these issues is not only a matter of justice but also a strategic imperative for improving productivity and fostering sustainable agricultural development.

Empowering women through equitable access to resources, training, and decision-making power can significantly enhance the productivity of the dairy sector. This requires implementing gender-sensitive policies, fostering inclusive training programs, and challenging societal norms that restrict women's agency. Furthermore,

strengthening women's roles in dairy cooperatives and value chains can amplify their contributions and ensure they derive equitable benefits from their labor.

Ultimately, promoting gender equality in dairy farming holds the potential to transform the sector, improve household livelihoods, and contribute to broader social and economic development in Ethiopia. Such efforts require coordinated action from governments, non-governmental organizations, and communities to create a more inclusive and sustainable agricultural future.

### DISCLAIMER (ARTIFICIAL INTELLIGENCE)

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### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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