

Economic Role of Vegetable Farming in Tharu Women's Livelihoods in Chitwan, Nepal

Tantrika Raj Khanal (Principal Author)

Assistant Professor, Department of Health, & Physical Education
Tribhuvan University, Mahendraratna Campus Tahachal, Kathmandu
tantrikaraj.khanal@mrc.tu.edu.np
ORCID iD: 0000-0002-106-5737

Rekha Raut (Co-Author)

Assistant Professor, Department of Health, Physical and Population Education
Tribhuvan University, Sanothimi Campus, Sanothimi, Bhaktapur
rekha.raut@sac.tu.edu.np
ORCID iD: 0009-0003-5072-7072

Khadga Bahadur Katuwal (Correspondance Author)

PhD Scholar, Liverpool John Moores University
khadgakuwal3@gmail.com
ORCID iD: 0009-0001-9816-1691

Abstract

This study investigates how Tharu women make a decision-making basis with regard to vegetable economy in Chitwan District, Nepal. It brings out the point that they are hard workers in agriculture, but they do not have significant access to the economy. Their ability to regulate their income, their economic condition in general, and the part they play in selling and raising vegetables are the aspects that the study examines. It utilizes quantitative and qualitative information. Surveying 267 Tharu women farmers and discussing the issue with the community leaders allowed for obtaining more in-depth information. Multilinear regression was one of the techniques that the data using basic statistics. As the findings indicate, even though the Tharu women contribute so much in farming activities such as weeding (85.4%) and harvesting (78%), they do not have a big say in the distribution of farming income. There are only 11.6 percent who own the land to cultivate, and only about 15 percent market the crops or manage financial affairs. Nevertheless, agriculture provides about NPR 195,400 to a family in a year on average. It can be analysed that having a larger piece of land (0.45) and whether someone is trained when it comes to farming (0.28) play an important role in increasing household income. In sum, the research shows that, despite the importance of farming to their lives, Tharu women do not enjoy the decisional power because of the structural factors. The substantial change is possible only in the case of agricultural work improved; women have to be able to sell their crops, have control over land, and make financial decisions.

Keywords: *community, economic, farming, livelihood*

Introduction

Global shift toward commercial farming, which is seen as a key way to improve food supply and reduce poverty, especially for small-scale farmers. This shift is especially crucial to countries like Nepal, where small farms and a growing population make traditional farming of staple crops increasingly difficult to sustain (CBS, 2021). In this evolving farming environment, a significant change is taking place called the "feminization of agriculture." This is mainly because many men are leaving farming to fit into other jobs, so women are now leading agricultural work, including growing vegetables for expanding cities (Khanal & Dhungana, 2022). This introduction reviews recent studies on this change, highlights areas needing more research, and explains how this paper will focus on supporting Tharu women through economic growth in the vegetable farming industry.

In Nepal, more women are now involved in managing farms and making important decisions, which is a big shift. However, this doesn't always mean they are more empowered (Maharjan et al., 2017). Many studies show that this change has two sides. On one hand, women have more opportunities to be independent. On the other hand, they often end up with more work and more responsibility, which some experts call the "feminization of agrarian distress" (Lamichhane et al., 2022). Women are usually in charge of both the farm and the home with not enough help or resources, and they carry out three types of work: productive, reproductive, and community-related. Recent research shows that even though women are doing more, their work in farming is often not recognized or paid, leading to a lot of hard, unpaid labour (Ghale & Gurung, 2020, as cited in Khanal & Dhungana, 2022).

The main problem preventing women farmers in Nepal from becoming economically stronger is the strong patriarchal system that creates unfair treatment based on gender. One big sign of this is the unequal ownership of land. Land is the most important thing for farming, but it is mostly owned by men because of traditions that pass it down through male family lines (K.C. et al., 2015). Without legal proof of ownership, women have a hard time getting help from the government, important farming supplies, and loans (FAO, 2019; LI-BIRD, 2021). Research shows that even when women are the ones running the farm, they are often not involved in important choices like what crops to grow, and they don't get a fair share of the money from the crops they produce (Adhikari & Karki, 2020; Balayar & Mazur, 2021). This problem is made worse by the fact that women in farming usually get paid less than men for the same work (Khanal & Dhungana, 2022).

This lack of power is especially strong for women from marginalized indigenous groups, like the Tharu, who have a deep historical link to the farmlands in the Terai region (Guneratne, 2012). Although some reports show that Tharu women have been successful in starting commercial vegetable farming and becoming more independent, a closer look shows a more complicated story. While turning farming into a business might bring some economic rewards, it can also make existing differences worse. Tharu women who go into the market often face being treated unfairly and pushed to the side, and their work is usually not valued enough (Chaudhary et al., 2022). New research highlights the importance of looking at how different factors like gender, caste, ethnicity, and social class all play a role in shaping the experiences of women farmers (Nightingale, 2016; Subedi, 2021).

Although there is more research on how women are playing a bigger role in agriculture in Nepal, there's still not enough focus on the particular experiences of Tharu women who are growing vegetables for sale. Some studies have looked at general patterns (Tamang et al., 2014), but there are not many detailed studies that look closely at whether their involvement in this area

is really helping them gain more control over their money, assets, and decisions. It's not clear if the money they make from farming is giving them more independence. Existing research sometimes talks about successful stories (Shrestha, 2022) and other times highlights big challenges (Khanal, 2021), but there's not much focused attention on the specific outcomes for indigenous women in this changing farming environment.

This paper tries to fill a gap by looking closely at the economic situation of Tharu women who grow vegetables in the village of Jyamire, located in the Chitwan district of Nepal. The study looks at their work, the challenges they face, and the actual benefits they get from their farming. It raises an important question: Are these women, who are key to the vegetable farming business, becoming more economically independent because of this change in agriculture? By focusing on this issue, the paper helps us better understand how farming for sale, gender roles, and economic power are connected in an indigenous community in Nepal.

Methodology

Understanding how the Tharu women are increasingly emancipating economically by using commercial vegetable cultivation involved a mixed-method approach in this research that employed both figures and elaborative stories to give an in-depth idea of the issue. Field research was done in Jyamire village planned well in the Tarai region of Chitwan district since there was a considerable number of Tharu families growing vegetables to be sold. The village is a fine example of larger social, economic and environmental situations in the region: which is provided by the research. In the statistics part, we have taken an arrangement in which we have taken out every 5th woman out of a list of all 1,335 women who grew vegetables in the village. We began by selecting a random number then selected every 5th person, which made us powerful 267 participants. For the numbers we gathered data by interviewing direct and with regard to the stories we had in-depth talks and interviews with key people. The data was analysed with SPSS, and we considered such basic statistics as the frequency of occurrence, the averages, and the distribution of the numbers. To make comparisons between groups, we employed tests as well, and a special model was used to establish what factors influence yearly income the most. The stories had been analysed by placing the similar ideas into the groups in order to support and explain the numbers. The research uses a model that blends feminist economics with a model of sustainable living that allows us to think of empowerment in numerous forms beyond simply being able to make money but also being in control of resources, decision making and navigating in a complex environment the traditional systems of power.

Results and Discussion

The findings of our field research are provided in the subsequent section, and they paint a verbal but pictorial account of how those women lead their lives, what and how they work, and what the economic implications of their activities are from the respondents of the traditional and formal institutions, particularly the banks and markets.

Table 1:

Demographic data of the respondents (n=267)

Characteristic	Category	Frequency	Percent (%)
Age Group (Years)	20-30	58	21.7
	31-40	115	43.1
	41-50	76	28.5

	>50	18	6.7
Education Level	Illiterate	71	26.6
	Primary (1-5)	105	39.3
	Secondary (6-12)	82	30.7
	Above Secondary	9	3.4
Family Size	1-4 Members	98	36.7
	5-7 Members	141	52.8
	>7 Members	28	10.5

The short outline of the primary group under investigation could be given in the form of a table, the example of which is given in Table 1. The majority (71.6 of these women are in the age range of 31 to 50 years, which places them at the centre of their reproductive and producing years. The number of people being served per head, in terms of the average number of people that live in a household, is approximately five people and seven people, with great responsibility being shown daily. Nonetheless, education offers a large gap, which stands out in the same database. More than a quarter (26.6 percent) of respondents are illiterate, and another 2/3 of them have at most attained primary school. This emerges that formal education restricts them to the exposure in the present data, besides their keenness to have a wide scope of connections.

Table 2:

Profile of Land and Asset Ownership (N=267)

Characteristic	Category	Frequency	Percent (%)
Landholding for Vegetables (ha)	< 0.5	148	55.4
	0.5 - 1.0	89	33.3
	> 1.0	30	11.2
Land Tenure Status	Solely Owned by a Woman	31	11.6
	Jointly Owned (with husband)	45	16.9
	Owned by Husband/Family	191	71.5
Access to Agricultural Credit	Yes	55	20.6
	No	212	79.4

Empowerment is most hindered by access to assets (Table 2). These women are the primary farmers, though surprisingly, 71.5 percent of them cultivate the land that is owned either by their husbands or other male family members. The percentage of individuals with the title in their name is extremely low (11.6%). The fact that only one of these characters is brought to life is indicative of desperate helplessness, except that a massive majority of these women work in territories that technically and legally are not theirs. Consequently, nearly 80 percent of them answered that they do not receive formal credit due to a lack of any security that is demanded by the banks.

Table 3:

The Role of Women in Vegetable Agricultural Activity (N=267)

Activity Stage	Primary Responsibility of Women (%)
Production Phase	
Land Preparation (Manual)	35.2%
Planting / Sowing	65.9%
Weeding / Inter-culture	85.4%
Irrigation (Manual)	58.1%
Pest/Fertilizer Application	45.3%
Harvesting	78.3%
Post-Harvest & Marketing Phase	
Sorting and Grading	61.4%
Taking produce to market	15.7%
Negotiating price with traders	9.7%
Financial Management	
Deciding on which crops to grow	35.6%
Controlling income from sales	22.1%

Table 3 reveals the journey of a vegetable passing through stages of revenue, market, and it reveals when it is the turn of a woman to call the shots, and this is much more crucial when the power typically ends up in her hands. She is largely and importantly overpowering in the production part. She engages in heavy work on weeding (85.4 percent), gathering (78.3 percent), and sowing (65.9 percent). As the product goes to the market, her role deteriorates dramatically. The women are also involved in engaging the market, with only 15.7 percent taking the produce, but the percentage that is involved in the price negotiation is also less than 10 percent. When it comes to final income, women have a share of about 22.1 percent, which can be considered as having primary control of the money her labour has earned.

Table 4:

Annual Profile of Income and Expenditure caused by Vegetable Farming

Economic Indicator	Mean Value (NPR)	Standard Deviation
Gross Annual Income from Vegetables	195,400	65,200
Annual Cost of Production	68,500	15,400
Net Annual Income from Vegetables	126,900	51,800
Proportion of Veg. Income to Total HH Income	65%	12%

Primary Areas of Expenditure (Top 3)		
1. Household Food & Groceries	45% of net income	-
2. Children's Education	25% of net income	-
3. Health Care	15% of net income	-

This is with these deep-rooted sources of inequality; the economic input of the kind produced by their interactions cannot be ruled out. Table 4 indicates that the average gross income of their households averagely at NPR 195,400 annually because of vegetable farming, nearly two-thirds of their overall family income. This is not a theorized sum of money; it is the school fee of the child, the medicine of a sick parent, and food on the table. The matter of fact given by the information is that the income women earn is thus directly invested in the welfare and the future of their families.

Table 5:
Analysis of Multiple Regression Used to Predict Annual Gross Income

Variable	Unstandardized B	Std. Error	Standardized Beta (β)	t-value	p-value
(Constant)	85,430	12,350		6.92	<.001
Landholding Size (in ha)	78,500	9,880	.45	7.95	<.001
Access to Agri. Training (Yes=1)	45,210	14,120	.28	3.20	.002
Years of Farming Experience	2,150	950	.21	2.26	.025
Education Level (Years of schooling)	1,250	1,890	.05	0.66	.510 (ns)

R² = (.371). ns = not significant.

Why did some women end up earning more money than others women do? Our analysis shows a certain list of factors. Training had a great impact on the difference in income: on average, the income of women who received any agricultural training was NPR 248,300 per year, and the income of women who did not receive training was only NPR 179,600 ($t(265) = 4.88, p < .001$). The multiple linear regression model supports this and other important aspects (Table 5). It discloses that the size of land holding is the one variable that has the most significant impact on income. Experience is the other critical factor that contributes to both an increase in earnings as well as avenues of practical training opportunities that are availed after years. Such findings show that sound wealth and utilitarian abilities turn out to be the quickest path towards high income.

Table 6:
Limitations of Tharu women Farmers (N=267)

Rank	Problem	Percent of Respondents Citing as a Major Issue
1	Lack of access to affordable credit	79.4%
2	Price fluctuation / Unstable market prices	75.3%
3	Insufficient irrigation facilities	68.2%

4	High cost and limited availability of quality inputs (seeds, fertilizer)	61.8%
5	Pest and disease infestation	55.1%
6	Lack of cold storage / High post-harvest losses	48.7%
7	Lack of access to technical support	45.0%

Finally, the women also told how they are suppressed day by day. The problems are interdependent on one another, and the scenario has formed a vicious cycle, as Table 6 shows. Lack of credit also fails to enable them to invest in better irrigation or a better chance of quality seed. This makes their crops subject to bad irrigation and also the prices of their crops in the market unreliable, leading to the fact that a good harvest does not necessarily lead to sufficient payment.

Discussion

This research shows a big gap between the huge work that Jyamire Tharu women do in agriculture and the little money they get from it. It challenges the usual ideas about how development works. The main impression is that these women are the driving force behind the local vegetable economy, but they are not given control or the benefits. These propositions bring forth a lot of studies about how gender affects work and money in poor countries. Our findings back up Adhikari & Karki (2020), who found that the way men and women divide work leads to unfairness. Our study shows that women do most of the farming, while men handle selling and getting the money. The reason for this is that old social and cultural rules keep women away from public places like the market.

Our interviews support this. These rules stop women from moving around and being part of the marketplace. This idea is supported by other studies on how male power works in South Asia, showing that these rules not only split tasks but also power. The effect on women's lives is serious: being away from the market means they don't get important information, friends, or the ability to talk about fair prices. Farming then becomes a place where they are treated unfairly, and their work doesn't help them be equal in society or get a fair share of the benefits. A big part of this study is looking closely at how empowerment works. Following the old economic idea from Theodore Schultz (2013), which says we should "invest in the farmer," our research shows that giving women training helps increase their income. It has a clear, positive, and strong effect. But our study also finds something important.

This idea has a key exception that depends on gender. The success of training is limited by a bigger problem: women not owning land or assets. In our study, the strongest sign of making a lot of money wasn't training, but owning land. The reason behind this outcome is simple: without resources like land, women don't have the security needed to borrow money, try new methods, or fully use the skills they learn. This leads to a harmful cycle where they can't improve or grow, even if they have training. This shows that development efforts focusing only on teaching skills aren't enough for real empowerment. The bigger point is that women can't make the most of their knowledge without having basic assets and rights. Their jobs and lives stay uncertain because they're given skills but not the tools or rights to use them properly.

Conclusion

Farming is the most important part of how Tharu women support their families and live their daily lives. It's not just about growing food; it's deeply connected to their social, economic,

and cultural lives. Economically, farming is their main way to make money and connect with the bigger economy. But the study shows that this same work also makes them vulnerable. They do a lot of hard labour, but much of the value they create ends up going to men instead of them. Socially, farming helps organize their routines and keeps them connected to their community. But it also keeps them in traditional roles that limit them. They are expected to work in the home and fields, not in the market or other public arena, which keeps them away from opportunities and makes them even more excluded. Culturally, being a farmer is a big part of who they are. They are seen as the key agents who take care of their families and feed the community. On a small scale, they are the ones who support the nation through their work. This study uses the experience of Tharu women as a small example of a larger issue. It shows that just because farming gets better doesn't mean women's lives get better. The study also portrays that improving farming through things like better seeds or more water alone won't fix the bigger problems. Real change needs to happen by making the system fairer and more just, especially for women who are at the heart of farming.

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