

# Socio-Economic Status and Structural Constraints of Tharu Women Farmers in Chitwan, Nepal

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## Abstract

This study aims to examine the role that the Tharu women play in the decision-making vegetable economy in the District of Chitwan. The study employed a mixed-method approach where quantitative data were taken from systematically sampled 267 Tharu women farmers. Similarly, qualitative data were taken from the interviews with community leaders. The descriptive statistics and a multilinear regression model were used to analyse quantitative data. The findings have shown that there are a lot of mismatches between the input of women to the workforce and the strength of women in determining the economy. Tharu women undertake the more physically exhausting tasks of weeding (85.4 percent) and harvesting (78.3 percent). However, the share of value that they control is negligible, with only 11.6 per cent owning the land in which they worked outright, and few of them (15.7 per cent and 22.1 per cent) were engaged in activities of higher value, like marketing, and finance management. The most influential positive factors of income determined by the regression analysis to be the size of the landholding ( $\beta=0.45$ ) and access to agricultural training ( $\beta=0.28$ ). In sum, the paper has indicated that even though vegetable farming is an important livelihood system, it does not empower Tharu women because the structural imbalance is very deep rooted. The vegetable economy of Chitwan, where Tharu women form the workforce, supplies most manual labour, including weeding (85.4) and harvesting (78.3) the products, and earn 65 per cent of household income. They are however restricted in a labour only form; a mere 11.6% owning land and less than 10% negotiating in the markets they do not have the structural capacity to dictate on the financial decisions or even the value chain as a whole.

**Keywords:** *Tharu Women, Vegetable, Farming, Economic, Livelihood, Agriculture*

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## Introduction

The worldwide movement to common agriculture has been extensively taken as a helpful tool in enhancing food security and minimizing poverty, especially among the smallholder farmers. The need to make this shift is even more desperate in regions such as the fertile plains of Nepal, where small land resources and increasing population growth have rendered the age-old cereal cultivation unsustainable (CBS, 2021; Timsina et al.,

2016). In this agricultural world that is changing, Tharu women are the main producers of the vegetables that feed the growing urban population of this country. Nevertheless, feminization of agriculture is among such problems that are shaping up and transforming the agricultural sector in Nepal. Because of the extended migration of men to work in industries, women now effectively take the major decision-making role in their households and farms (CBS, 2019; Gartaula et

al., 2010). On taking part in economic empowerment, women often have little to nothing to show for their hard work in farming and domestic activities. Land, the most significant farm input, tends to belong to men because of the strongly held patriarchal cultural tradition, which establishes structural gender inequality (K.C. et al., 2015). Without land titles, women usually miss out on government assistance, farm inputs, and credit. In circumstances where they are the main farmers, they are usually not allowed to participate in the process of crop selection and do not also get a substantial share of the income that their produce collects (Adhikari & Karki, 2020). This disempowerment is particularly easy among Tharu women who are an indigenous community and have long family attachment with Terai lands (Guneratne, 2002). When they attempt to join the market of commercialization, they might easily end up being marginalized and their labour used at poor pay.

This situation raises a simple question: Does it hold that it is those Tharu women who are of the lower caste, and who are really in charge of producing vegetables commercially, that are becoming more powerful, as a direct result of this agricultural change? This paper will adopt the micro approach to analyse the economic situation of Tharu women vegetable farmers of village Jyamire of Chitwan district in Nepal. It emphasizes their work, outlines the structural platforms on which they have to work, and examines the obvious gap between their labour and the economy of delegation.

## Methods

The research design used in this work was mixed methods, as both a quantitative survey and qualitative information were applied. The study area was used in Jyamire village, situated in the Terai of Chitwan district. The site was selected purposefully, and the area

**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

has a high density of Tharu families involved in the commercial production of vegetables; thus, the site was representative of the social and environmental factors that play a role in having an impact on the participation of women in the sector. In the quantitative part, the participants of the survey were identified through an approach known as systematic sampling technique. A list containing all the Tharu women in commercial vegetable farming in the village was made, which formed a sampling frame of the total population (N=1,335). A large sample interval of 5 was set, and a random initial starting position between 1 and 5 was set. The sample selection was then done by picking every fifth woman in the list until they reach the final sample size of 267 was reached. This sample was gathered through the means of face-to-face structured interviews as primary data. SPSS was used in the analysis of quantitative data. The frequencies, means, and standard deviations were computed as descriptive statistics of the socio-economic nature of respondents. The independent t-tests were applied to the comparison of the income levels in the different groups, and the multiple linear regression model was developed to determine the most important determinants of the annual income. Thematic analysis was conducted on qualitative data collected through the KIIs to validate and describe results obtained at the quantitative level.

## Results

The findings of our field research are provided in the subsequent section, and it paints 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 with the responders of the traditional and formal institutions, particularly the banks and markets.

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 age distribution shows that the population of the study is mainly middle aged with the majority (n=115, 43.1%) in the 31-40 years age group, followed by the 41-50 years age group (n=76, 28.5%). A small proportion of respondents were 50 years and older (6.7%). When it comes to educational background, the findings suggest a relatively low educational background in the sample; 65.9% of respondents were either illiterate (n=71, 26.6%) or had attained primary education (n=105, 39.3%). By contrast, very few

(3.4%) had completed education beyond the secondary level. When considering family structure, most participants are their family size to be moderate (5-7 members are 52.8%) with 36.7% living in small families (1-4 members). These results indicate that the study's population is mainly comprised of middle-aged adults with low educational attainment and an average to large number of family dependents, which can have implications for the socio-economic analysis of the current study.

**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

Table 2 show a dominance of small-scale farming, with over half of the sample (n=148, 55.4%) growing vegetables on landholdings less than 0.5 hectare. The total area under cultivation is less than 1.0 hectare for 88.7% of the sample, suggesting that vegetable farming in the region is dominated by marginal and small-scale production. The land tenure status reveals gender inequalities in asset ownership. The majority of the land is owned by the husbands 71.5% and only 11.6% of the sample owns the land exclusively and spouses co-owned 16.9% of the land. This uneven

distribution implies a patriarchal land governance system, which could potentially hinder women's autonomy in decision-making and resource control of agricultural production. Similarly, institutional assistance through financial inclusion is seemingly limited, a large proportion of the sample (79.4%) did not have access to agricultural credit, while 20.6% had obtained credit. The combination of small landholdings, low ownership of land for women and limited credit facilities indicates socio-economic constraints that may limit agricultural productivity and investment in the study area.

**Table 3** *The Role of Women in Vegetable Agricultural Activity (N=267)*

Activity Stage	Primary Responsibility of Women (%)
<b>Production Phase</b>	
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
<b>Post-Harvest &amp; Marketing Phase</b>	
Sorting and Grading	61.4
Taking produce to market	15.7
Negotiating price with traders	9.7
<b>Financial Management</b>	
Deciding on which crops to grow	35.6
Controlling income from sales	22.1

Table 3 shows a gendered division of labor, where women play a prominent role in manual labor in production but have a limited role in commerce and finance. Women represent the main source of labor for intensive farming tasks, particularly in weeding (85.4%), harvesting (78.3%) and planting (65.9%). But this does not extend to the market; women's participation rates decline dramatically in the marketing stage, with only 15.7% contributing to transportation and a negligible 9.7% in price

negotiations. This imbalance is reflected in household finance, with only 22.1% of women managing the income generated from their crops despite their high level of participation. This observation seems to reflect a "participation-autonomy gap" whereby women are heavily involved in crop production and post-harvest preparation (61.4% in sorting), but remain largely excluded from the strategic and financial decision-making that is central to the agricultural value chain.

**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	-

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)

R<sup>2</sup> = (.371). ns = not significant.

Above table shows that 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 a 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

The empirical evidence of the study highlights the fact that the absence of financial activity and leadership are two key paradoxes in Tharu women in Jyamire as they are the key players in the local vegetable economy. Such lack of

arrangement between labour input and economic empowerment is in line with the feminization of agriculture and no feminization of rights. This leads to a strict gendered division of labour that exists in Nepal, with women stuck in labour intensive stages of production and men in the high value marketing and negotiating sectors (Adhikari and Karki 2020). Recent studies assure that, farming process are more modernizations and commercialization, women are also using technologies while men are using regularly (Poudel et al., 2020). This study indicating that mostly because of socio-cultural norms, which inhibit female movement and their involvement in open business areas. This means that women are excluded in price-setting processes and networks in the market therefore they lose bargaining power in the products that they produce (Sharma, 2018). The study also analyzes these results in terms of the human capital theory. Theodore Schultz (1964) argued that agricultural transformation requires direct investment in the farmer but in this research, it is postulated that this needs to be gender-sensitive to work. The regression analysis established that although agricultural training has a significant effect on gross income, ownership of assets curtails the effect of such human capital. The size of landholding became the strongest predictor of economic success but the overwhelming percentage of the respondents (71.5) do not have the legal land (Ghimire et al., 2018). This institutional obstacle gives a ceiling effect on empowerment since women cannot gain access to formal credit to expand their operations and invest in modern irrigation and technology unless they have land rights. After all, the findings also imply that technical training should not be considered an adequate source of the actual economic transformation. Although skills enhance productivity, the means of production and the terminus of the value chain are determining the economic status. Consequently, the human capital through specific training and the structural inequalities that have their

roots in land tenure and access to the market are the two facets that need to be improved in order to empower Tharu women. In the absence of these systemic changes, Tharu women will remain as the engines that drive the economy but will never get into the front seat of the economy.

## Conclusion

Tharu women vegetable farmers could be regarded as a micro case of a Nepal's problem. It establishes a fact shows that, economic growth and female empowerment are certainly not the same thing. This research topic has established that the solution towards the actual and sustainable transformation in agriculture is not only by better seeds and more water, but by justice, equity, and empowerment of women, since they are the ones feeding the world. Role and responsibility of women in agriculture production playing vital role but recognition of Tharu women is not acceptable indeed.

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