

## Socio-Economic Effect of Vegetable Farming on Women

Chandra Prasad Dhakal, PhD

Assist. Professor of Economics in Tribhuvan University

Received 03-05-2025

Revised 12-05-2025

Accepted 01-06-2025

Published 06-06-2025



Copyright: ©2025 The Authors. This is an open access article under the CC BY-NC-ND license

<https://creativecommons.org/licenses/by-nc-nd/4.0/>

### Abstract:

The study analyzes the socio-economic impact of vegetable farming among women living in Kalika municipalities ward number 8 Newreni. Main objective of the study is to analyze how are the socio-economic impacts of commercial vegetable farming in the women living in study area. The study followed the mixed method of research design. Numerical data were presented in table and non-numerical data were interpreted through paragraph description. Both primary and secondary source of data were used in this study. Findings of and conclusion of this study is based on primary data. From the data analysis it is found that majority of the respondents feel their socio-economic improvement through vegetable farming, however, the market price of the green vegetable is very low and it is difficult to return the cost of vegetable farming.

**Keywords:** Farming, socio-economic, vegetable and Chitwan

### Introduction:

The study focuses on the socio-economic impacts of vegetable farming in the context of Kalika municipality ward 8 Neureni. There is not so long history of commercial farming of green vegetable. Systematic research and development of vegetable cultivation started with the establishment of government horticulture farms during the 1960s in Nepal. In 1972, the Vegetable Development Division was formed under the National Agriculture Research Council (NARC) to oversee research initiatives, seed production, and the enhancement of vegetable crops. NARC had assumed responsibility for all agricultural research, including that pertaining to vegetables. Currently, the land designated for vegetable cultivation in Nepal spans 165,638 hectares. Over the last ten years, vegetable yield has risen from 8 metric tons per hectare to 10.85 metric tons per

hectare (MOA 2012). Nonetheless, the distribution of vegetable production is uneven throughout the country, with a significant concentration in major urban centers. Vegetables serve as a crucial source of nutrition, rich in vitamins and minerals. Health recommendations advocate for a minimum vegetable consumption of 300 grams per individual. Additionally, vegetables supply dietary fibers such as cellulose, hemicellulose, and lignin, which are essential for maintaining proper intestinal health. In Nepal, there is an urgent necessity to promote and improve vegetable production, as the current minimum intake level remains considerably low (MOA, 2012).

This research examines the conditions of Nepalese women participating in commercial vegetable farming. There has been a significant increase in

awareness and enthusiasm among farmers regarding the cultivation of cash crops and economic activities. A considerable number of farmers have transitioned from subsistence farming to commercial vegetable production, enabling rural women to utilize local resources and generate supplementary income. Therefore, it is essential to evaluate whether this shift has improved women's social and economic standing. Farmers in urban fringe areas are responding to market demands by transitioning to higher-value vegetable crops. For instance, in previously studied regions, potatoes and cucumbers were primarily grown for personal consumption, but their production has now expanded for commercial sale. Additionally, the cultivation of tomatoes, cauliflower, cabbage, radishes, and leafy greens is on the rise. Concurrently, the workload for women has also increased significantly. The Nepalese economy is predominantly characterized by hidden unemployment and subsistence farming, with limited opportunities for modernization and commercialization. The country's entry into the WTO in 2004 represented a pivotal moment, likely accelerating these changes. In Ward No. 8 of Kalaika Municipality, residents rely on commercial vegetable farming as their primary source of livelihood. Both seasonal and off-season vegetable farming are practiced in the area for commercial purposes. This study focuses on how vegetable farming has brought about socioeconomic changes in the region and the positive impacts that respondents have experienced in their lives since engaging in vegetable farming. The analysis highlights the situation of women involved in this sector. In the study area, women's livelihoods are predominantly based on vegetable farming. Following the initiation of vegetable farming programs by non-governmental organizations, the circumstances have improved, allowing them to escape extreme poverty. Vegetable farming has now become established as a key cash crop in the region.

Vegetable farming represents a significant cash crop sector in Nepal, particularly in the Terai

region. The government has designated specific areas within this region as key zones for cash crop production. Vegetables are primarily cultivated in both the inner Terai and Terai regions, with Chitwan district being a notable area for agricultural products. Historically, commercial vegetable farming was not a common practice among the local population. In previous years, there was little tradition of producing vegetables for sale, as residents did not typically buy green vegetables from markets. However, the municipality has recognized these areas as vital for vegetable cultivation and has extended various forms of support to the community. (Food and Agriculture Organization Report ,2018) Notably, women play a significant role in vegetable farming. Additionally, the municipality offers incentives to youth returning from employment in Gulf countries. According to municipal reports, 130 individuals were engaged in vegetable farming, and by 2021, this number had increased to 150 households participating in commercial vegetable production. This trend indicates a growing interest in vegetable farming within the community. Commercial vegetable brings socio economic changes among people; however, there is lack of study on the impact of commercial vegetable farming. In the context of women commercial vegetable farming brings various changes, however, there has not been studied on the subject. Some of the local newspaper highlights the issue. Chitwan post highlights the issue “Women involved in commercial vegetable farming” (2077, Kartik 10). There have been very few studies in the process of feminization of agriculture and socio-economic impact of vegetable farming in Nepal. The overall purpose of this study was to analyze the changing role of women in high-value agriculture with vegetable farming specially, by women in the post conflict context of Nepal.

### **Literature Reviews:**

Basneyat (2018) conducted a study on vegetable agriculture in Siddhiganesh, Sanothimi, which is situated in the Bhaktapur District of Nepal. The research underscores the essential role women

play in the cultivation of food grains, vegetables, and fruits, as well as in the raising of livestock and poultry. This underscores the significant influence women have on vegetable farming. Their contributions are particularly notable among many Jyapu families in Thimi, a community located in the Kathmandu valley.

Rahman (2017) authored a thesis titled "Agricultural Productivity Growth and the Role of Capital in South Asia," which assessed agricultural sustainability in Bangladesh, Pakistan, India, and Nepal. The research calculated multi-lateral Total Factor Productivity (TFP) indices and identified key factors affecting TFP growth over 34 years. The results showed varying productivity growth rates, with Bangladesh at 1.05% annually, India at 0.52%, Pakistan at 0.38%, and Nepal at 0.06%. The study highlighted natural, human, and technological capital as primary drivers of TFP growth, while financial capital and crop diversification negatively impacted it.

Nepal (2015) highlights the essential importance of financing in relation to the agricultural sector and its economic development. In the last decade, the agricultural industry in Nepal has not met the expected growth objectives. To explore the current dynamics of this sector, the study proposes a hypothesis indicating that the sluggish growth is mainly attributable to insufficient and ineffective financing (Paudel, 2016).

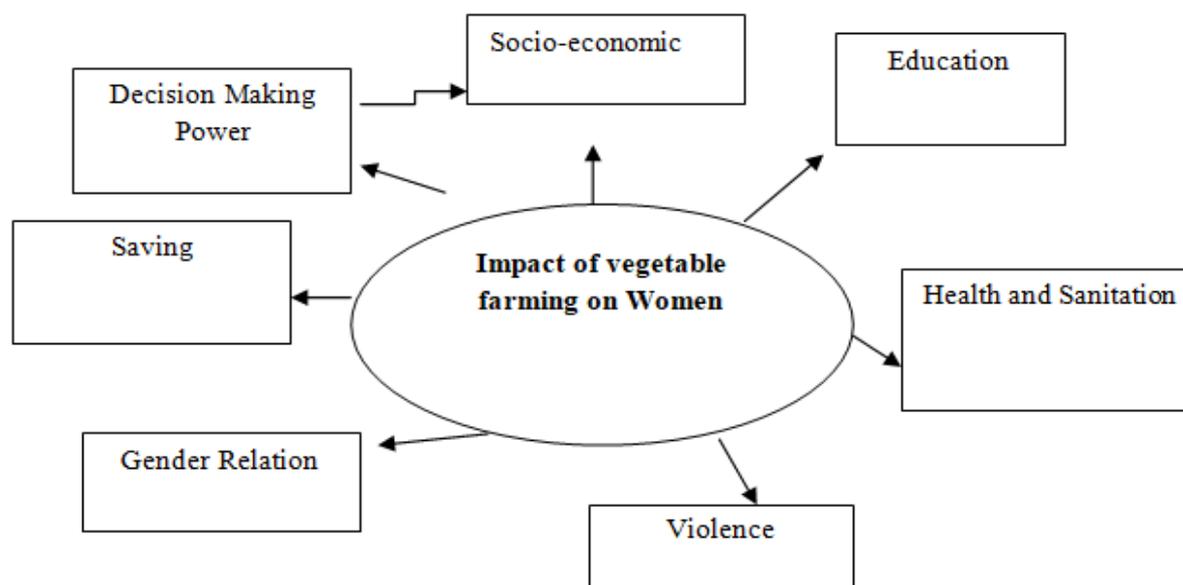
Maduekwe and Obansa (2013) published a paper titled "Agriculture Financing and Economic Growth in Nigeria." This research employed secondary data and various econometric techniques, such as Ordinary Least Squares (OLS), the Augmented Dickey-Fuller (ADF) unit root test, and the Granger Causality test,

Thapa (2009) emphasizes that women constitute a considerably smaller proportion of wage workers within the non-agricultural sector when analyzing the distribution of wage and non-wage labor across key industry categories. The findings reveal a considerable number of women working as unpaid family laborers. Regarding employment types, a significant segment of the economically active population, including both men and women, is self-employed, which encompasses unpaid family work as well (Gautam & Dhakal, 2022).

**Conceptual Framework:**

Key factors such as irrigation, land size, and family support play a crucial role in determining the productivity of vegetable farming. The income derived from vegetable cultivation results in various transformations for the peasant women in the study area. The following figure depicts the relationship between the effects of vegetable farming and the related variables.

**Impact of vegetable farming on Women**



Vegetable farming has a profound impact on socio-economic aspects, such as boosting income, transforming gender roles, modifying savings habits, and altering decision-making power. The revenue generated from vegetable farming plays a crucial role in enhancing children's educational opportunities. Additionally, engaging in vegetable farming helps reduce gender discrimination. This agricultural activity fosters significant positive changes in the lives of women.

**Methodology and Study Area:**

The study followed both qualitative and quantitative research methodology. Numerical data were analyzed by using quantitative research design and qualitative data were presented by using interpretive paradigm. Both primary and secondary sources of data were used in this study. Primary data were gathered through interview and questionnaires. 50 respondents were selected for

this study by using convenience sampling method and asked questions to the respondents about economic impacts of commercial vegetable farming. Secondary data were gathered from library and internet search. Books, articles, journals, government reports were used as the secondary source of data. Collected data were presented in table and graph. Kalika municipality ward no 8 was selected as study area for this study. The study area is 156 kilometers far from the capital city of Nepal Kathmandu (Kalika Municipality Report, 2022).

**Socio Status of the Respondents:**

Fifty women from different socioeconomic background were involved in this study. The following table shows the age, caste and ethnic composition, education and religious status of the respondents.

**Table 1 Age, Caste/ ethnic, Education and Religious Statuses of the Respondents**

S.N.	Age	Religions		Education		Caste/ Ethnic Status						
		No	%	No	%	No	%					
1	18 to 28 years	11	22	Hindu	26	52	Illiterate	2	4	Brahmin / Chhetri	12	24
2	28 to 38 years	15	30	Christian	8	16	Literate (primary)	12	24	Magar	9	18
3	38 to 48 years	12	24	Buddhist	10	20	Secondary	25	50	Tamang	10	20
4	48 to 58 years	7	14	Animism	4	8	+2	8	16	Chepang	9	18
5	Above 58 years	5	10	Other	2	4	Bachelor and above	2	4	Gurung	5	10
6	Total	50	100	Total	50	100	Total	50	100	Sanyashi	2	4
7	-	-	-	-	-	-	-	-	-	Tharu	2	4
8	-	-	-	-	-	-	-	-	-	Dalit	1	2
9	-	-	-	-	-	-	-	-	-	Total	50	100

Source: Field Survey 2024

This table presents the age, religion, education, and caste/ethnicity characteristics of the participants. The data indicates that 22% of the respondents fall within the 18 to 28-year age range, 30% belong to the 28 to 38-year age group,

and 24% are in the 38 to 48-year age group. In the same way 14% are 48 to 58 years age group and only 10% are above 58 years. Most of the respondents are 18 to 48 years age group. 52% are Hindu and 16% are Christian. Like that 20% are

Buddhist and 8% follow animism and worship nature. Only 4% followed other religion it is showed that majority of the respondents are belong to Hindu religion. In my study area most of the respondents claimed Hindu; however, they follow their own ritual and tradition which is not like Brahmin. Similarly, 4% are illiterate, 24% are studied only primary level or literate. In the same way, 50% passed secondary level, 16% passed+2level. Similarly, 4% pass bachelor and above that. Majority of the respondents studied below secondary level so they are semi skill manpower of the nation. None of the respondents have education qualification reacted to agriculture and commercial. In the same way 24% respondents are belonging to Brahmin/ Chhetri community, 18% are Magar and 20% respondents are Tamang. Like that 18% are Chepang, 10% are Gurung and 4% are Sannyashi. In the same way,

4% are Tharu and only 2% are belong to Dalit. Data shows that the study area is one of the mosaic lands where none of the community are in majority, however, ethnic people are in majority in study area.

### Economic Status of the Respondents

In this study, respondents from various economic backgrounds were involved. Farming is main occupation of this people living in study area and they cultivate seasonal and off-season vegetable. However, some of the respondents follow other occupation also as side job. Some have vegetable shops others animals like goat, cows, buffalo. Husbands of some women are in abroad for job and some males are working inside the nation in various sectors. The following table shows the land holding size, income and saving of the respondents.

**Table 2 Land Holing Size, Income and Saving**

S.N.	Land size	No	%	Annual income in 000	No	%	Saving (000)	No	%
1	Up to 10 katha	22	44	Up to 100	10	20	0	10	20
2	10 to 1 bigha	21	42	100 to 200	15	30	Up to 100	15	30
3	1 bigha to 2 bigha	2	4	200 to 400	10	20	100 to 200	16	32
4	Total	46	92	400 to 600	10	20	200 to 400	4	8
5	-	-	-	More than 600	5	10	More than 400	5	10
6	-	-	-	Total	50	100	Total	50	100

Source: Field Survey, 2024

This table shows the land holding size, annual income and saving of the respondent. Data indicates that 44% have up to 10 *Katha* (400 square meter) 42% have 10to 1 *bigha* (20 *katha*) and 4% have 1 to 2 *bigha*. It shows that most of the respondents have less than 1 *bigha* land for vegetable farming. Like that 20% earn up to 100 thousand, 30% earn 100 to 200 thousand and 20% earn 200 to 400 thousand. Like that 20% earn 400 to 600 thousand and only 10% earn more than 600 thousand. In the same way, 20% have no saving and 30% save up to 100. Likewise 32% save 100 to 200 and 8% save 200 to 400. Only 10% save more than 400.

### Socio Economic Changes:

There are no time bounds changes that bring y the commercial vegetable farming, however respondents feel certain changes in their livelihoods after began commercial vegetable in their field. Before and after Vegetable Farming respondents feel different situation that mentioned in the following table.

### Changes in Education:

Education status of the respondents reflects the social status of the respondents. After began the commercial vegetable farming in study area respondents feel certain positive changes in education that presents in the following table.

**Table 3 Changes in Education**

S.N.	After	No	%	Before	No	%
1	Children regular go to school	50	100	Children did not go to school due to poverty	40	80
3	Easy to send children with stationary	50	100	Didn't have money to purchase stationary	35	70

Source: Field Survey, 2024

Table 3 shows the respondents opinions about the changes that occurred in education after and before begins commercial vegetable farming in study area. After started commercial vegetable farming all the respondents sent their children in school but before began vegetable farming only 80% respondents had sent their children in school. Before started commercial vegetable farming 35% respondents had faced difficulties to send their children to school but now all the respondents easily manage the school dress, stationery and send all the students into school.

**Change in Health and Sanitation**

Commercial vegetable farming enhances the education and income status of the respondents so that they easily manage money for treatment, however, some of the respondents do not feel changes. The following table shows the respondents' opinions on the change in the situation of drinking water.

**Table 4 Change in Health and Sanitation**

S.N.	Feel any Change	No	%
1	Yes	45	90
2	No	5	10
3	Total	50	100

Source: Field Survey, 2024

This table indicates the respondents feeling on the changes in health due to causes of vegetable farming. Data shows that 90% of the respondents feel changes and 10%do not feel any changes in

health and sanitation before and after start vegetable farming.

**Changes Dressing Pattern**

After increased the income of the respondents' certain changes occurred in dressing patter of them. Some respondents also feel changes in dressing pattern before and after begin vegetable farming. The following table shows the situation.

**Table 5 Changes Dressing Pattern**

S.N.	Feel any Change	No	%
1	Yes	35	70
2	No	15	30
3	Total	50	100

Source: Field Survey, 2024

Table 5 indicates the respondents' opinion on changing in dressing pattern of the respondents due to commercial vegetable farming. Data indicates that 70% feel changes and 30%do not feel any changes in dressing pattern. In study area, the money they save from vegetable farming invests mostly in dress so that majority of the respondents feel changes in dressing pattern.

**Change in Festival Celebrating and Leisure time:**

After getting money from vegetable farming, some sort of changes realized by the respondents about pattern of celebrating festivals. The following table shows the situation

**Table 6 Change in Festival Celebrating and Leisure time**

S.N.	Feel any Change	No	%	After	No	%	Before	No	%
1	Yes	45	90	We celebrate festival easily	50	100	Difficult to celebrate	50	100
2	No	5	10	We have limited leisure time	30	60	We have lot of leisure time	40	80
3	Total	50	100	We use leisure time in farming	40	80	We spend leisure time for enjoyment	45	90

Source: Field Survey, 2024

Table 6 shows the effect of commercial vegetable farming in festival celebrating pattern and leisure time using situation. Data indicates that 90% respondents feel changes and 10% do not feel any changes. After started vegetable farming all the respondents easily celebrate festivals but before began vegetable farming, they had faced problems to manage money for the festival celebration. Like that now 60% have limited time to celebrate festival because they are busy in farming activities but in previous time 80% have enough time celebrate festival, before started vegetable farming 80% had used leisure time for enjoyment but now 80% respondents use it in farming.

**Changes in Economic Status:**

After began vegetable farming in study area respondents feel changes in economic improvement. They improve in income, saving, access in household gadgets and expenditure etc.

**Change in per Yearly Income:**

After began the commercial vegetable farming respondents their annual income is increased. The following table shows the response of the respondents.

**Table 7 Change in per Year (000)**

S.N.	Change in come	No	%	After	No	%	Before	No	%
1	Yes	48	96	100 to 200	10	20	50 to 100	20	40
2	No	2	4	200 to 400	15	30	100 to 200	10	20
3	Total	50	100	More than 300	25	50	More than 200	20	40
				Total	50	100	Total	50	100

Source: Field Survey, 2024

Table shows the changes in income reported by respondents after they began Vegetable Farming. The data reveals that 96% of the respondents have noticed a change in their income since starting Vegetable Farming, whereas 45 individuals indicate that they have not experienced any significant changes in their income. Like that 20% of individuals now earn between 100 to 200 (000) after starting

vegetable farming, a decrease from the 40% who previously earned between 50 to 100 (000). In addition, 30% of individuals earn 200 (000) after beginning vegetable farming, up from 20% who earned between 100 to 200 (000) before. Furthermore, 50% of individuals currently earn

more than 300 compared to 40% who earned 200 (000) prior to their involvement in vegetable farming. This data shows a significant shift in income status following the adoption of vegetable farming in my study area.

**Changes in Saving:**

**Table 8 Changes in Annual Saving (000)**

S.N.	Change in saving	No	%	After	No	%	Before	No	%
1	Yes	45	90	100 to 200	20	40	No saving	35	70
2	No	5	10	200 to 300	13	26	50 to 100	10	20
3	Total	50	100	More than 300	7	14	More than 100	5	10
				Total	50	100	Total	50	

Source: Field Survey, 2024

Table 8 notes the changes of saving of the respondents after began commercial vegetable farming. Data indicates that 90% feel changes and 10% do not feel any changes. Like that before started vegetable farming 60% respondents did not save any money now 40% respondents save 100 to 200 (000), 26% save 200 to 300 (000) and 14% save more than 300 (000) whereas before started commercial vegetable farming 20% had saved 50 to 100(000) and only 10% had saved more than100 (000). Before began commercial vegetable farming respondents had no capacity to save like now.

**Changes in Expenditure:**

After began the vegetable farming expenditure of the respondents also increased because respondents become ready to spend their earning. The following table shows the opinions of the respondents

**Table 9 Changes in Expenditure**

S.N.	Change in come	No	%
1	Yes	49	98
2	No	1	2
3	Total	50	100

Source: Field Survey, 2024

After involved respondents in commercial vegetable farming they feel changes in saving status. The following table shows the changes in saving after began vegetable farming by the respondents.

This table indicates the respondents' opinion of the respondents on changes of the expenditure of the respondents due to commercial vegetable farming. Data notes that 98% feel changes and only 2% do not feel changes. Almost all the respondents are feeling changes in expenditure most of the cases they spend in their income household gadgets, children education, festivals and ceremonies celebration.

**Findings and Conclusion:**

Vegetable is one of the important cash crops of Nepal so that farmers can have earned cash from vegetable selling. In study area vegetable farming bring positive changes in the life of women. After began vegetable farming they feel economically secure. From the income of vegetables, they also improve their saving. Their saving generally they used to run household activities like to spend in children education, purchase medicine and pay hospital charge. All the respondents of this study are satisfied with the income so that they feel positive changes in their life. From the vegetable farming they are succeeded to enhance their socio-economic status like improve children education, improve income and saving. Almost all the respondents feel worry with the increasing ratio of the expenditure; however, they add various household gadgets in their home. There are various huddles they also faced while cultivation

and marketing green vegetable. Government policy is not about vegetable marketing so that they are compelled to sell vegetable in low price; however, respondents can success to earn money to maintain their basic need.

### References:

1. Basneyat, G. (2018). *The Socio-economic Condition of the Vegetable Farmers of Bhaktpur District*. Unpublished Thesis Degree of Master of Sociology Anthropology, T.U
2. Chitwan Post ( 2077 BS Kartik 10 ). Tarkari Kheti Le Badaleko JiwanFOA. (2018). *FOA Report*, FOA Office
3. Gautam, S., & Dhakal, S.C. (2022). Share of agriculture on employment, income and trade. *Food and Agri Economics Review (FAER)* 2(2), 88-91. <http://doi.org/10.26480/faer.02.2022.88.91>
4. Government of Nepal. (2017). *Ministry of Agriculture Development Report*. Ministry of Agriculture
5. Kalika Municipality. (2022) Kalika Municipality Report. Kalika Municipality
6. Nepal, B. (2015). *Changing Livelihood Patterns of Vegetable Farmers: A Case Study of Charghare Settlement of Kirtipur Municipality*, unpublished Thesis, Central Department of Geography, T.U., Kirtipur, Kathmandu
7. Obansa S. A. J., & Maduekwe, I. M. (2013). Agriculture financing and economic growth in Nigeria. *European Scientific Journal*, 9(1), 168-204.
8. Paudel, M.N., 2016. Prospects and Limitations of Agriculture Industrialization in Nepal. *Agronomy Journal of Nepal*, (4), 38–63. <https://doi.org/10.3126/AJN.V4I0.15515>
9. Rahman, F. (2017). *Women's Participation in Rural Development*, New Delhi: Abhijeet Publication.
10. Thapa, C. (2009). *Vegetable Farming as a Base of Livelihood in Chitwan District*. Unpublished Thesis, Submitted to Central Department of Geography: T.U., Kirtipur, Kathmandu.