



## Gender-Based Division of Labour in Rural Agriculture: A Study of Sandakpur Rural Municipality, Ilam, Nepal

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### Abstract

This study examines the gender-based division of labour in rural agriculture in Sandakpur Rural Municipality, Ilam, Nepal. The main objective of the study was to analyze the roles and responsibilities of men and women in agricultural and household activities, workload distribution, access to productive resources, and participation in agricultural decision-making. The study was based on primary data collected from 15 households through questionnaires, interviews, and field observation. Both descriptive and inferential statistical methods were used for data analysis, including frequency, percentage, mean, standard deviation, t-test, ANOVA, and regression analysis. The findings of the study show that women are highly involved in labour-intensive agricultural activities such as weeding, harvesting, post-harvest processing, and livestock care, while men are mainly involved in land preparation and marketing activities. Women also perform most household activities, including cooking, cleaning, childcare, and collection of water and fuelwood, which results in a double workload for women. The statistical analysis shows a significant difference between men and women in agricultural participation, household work, workload distribution, access to resources, and decision-making power. The regression analysis shows that access to resources and participation in decision-making have a positive effect on women's empowerment, while workload has a negative effect. The study concludes that although women contribute significantly to agricultural labour in rural areas, they have limited access to productive resources and decision-making power. Therefore, the study recommends improving women's access to land, credit, training, and extension services, promoting joint decision-making, and introducing labour-saving technologies to reduce women's workload and improve women's empowerment in rural agriculture.

**Keywords:** *Gender Division of Labour, Rural Agriculture, Women Empowerment, Workload Distribution.*



## 1. Introduction

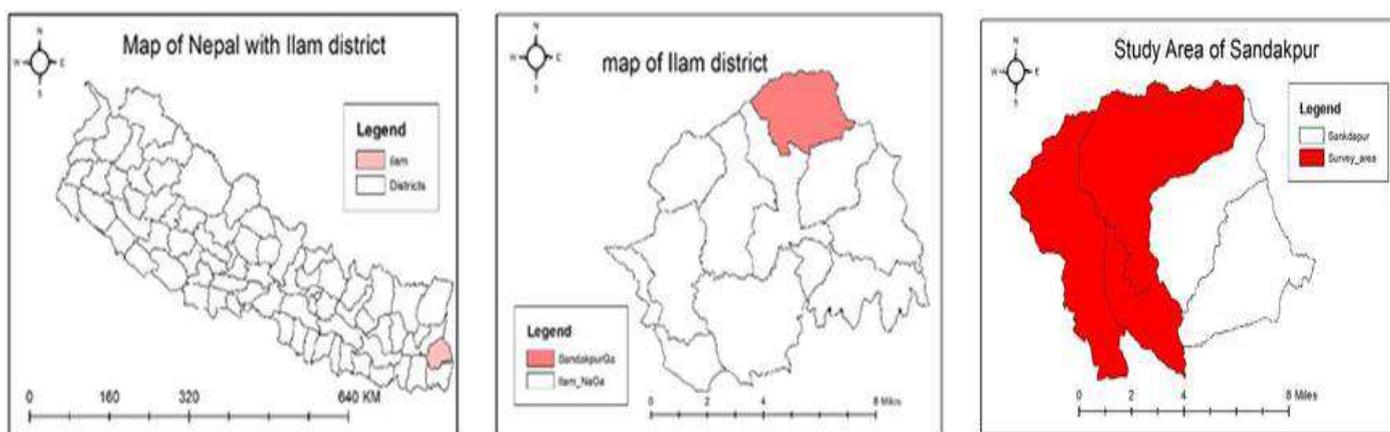
Agriculture is the primary source of livelihood for the majority of rural households in Nepal, particularly in hilly districts such as Ilam, where farming is largely subsistence-based and dependent on family labour. In rural agricultural systems, the division of labour is often structured along gender lines, where men and women perform different roles and responsibilities based on socially constructed norms and cultural practices. Gender-based division of labour refers to the allocation of agricultural and household tasks between men and women, which often results in unequal workload distribution, limited access to productive resources for women, and unequal participation in decision-making processes (Kabeer, 1999; Hartmann, 1981).

In rural Nepal, women play a significant role in agricultural production, including planting, weeding, harvesting, post-harvest processing, and livestock management, while men are more commonly involved in land preparation, marketing, and input purchase. Despite women's substantial contribution to agriculture, their work is often undervalued and unrecognized, and they frequently have limited access to land ownership, credit facilities, agricultural training, and extension services (Mishra & Osti, 2021; Shrestha, 2019). This unequal access to productive resources reduces women's decision-making power and limits their ability to improve

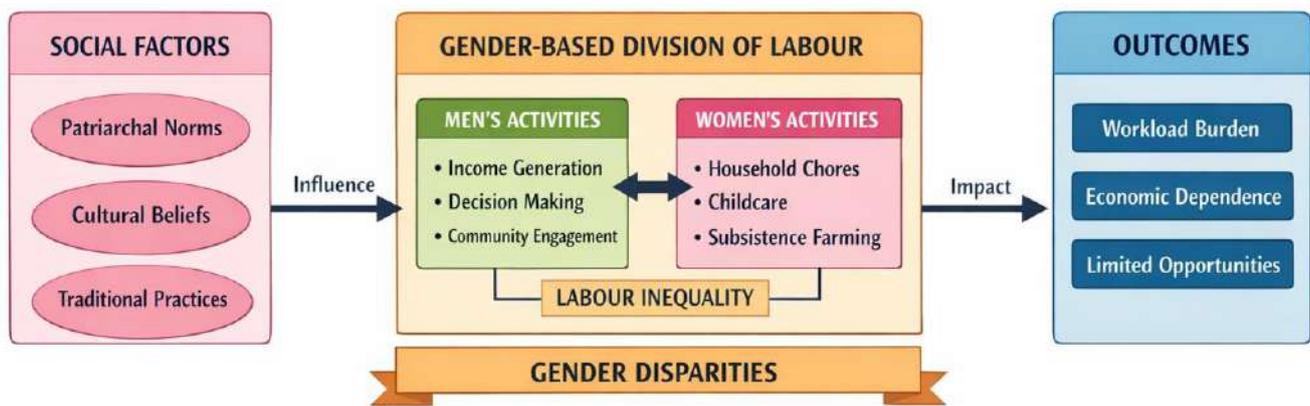
agricultural productivity and household income (Alkire et al., 2013).

In recent years, male out-migration has significantly influenced the agricultural labour structure in rural Nepal, leading to what is commonly referred to as the "feminization of agriculture." As men migrate to urban areas or foreign countries for employment, women are increasingly taking responsibility for both agricultural activities and household management. However, although women's workload has increased, their control over resources and decision-making authority has not increased proportionally (Kandel et al., 2026; Doss et al., 2022). This creates a situation where women bear a double burden of farm and domestic work but continue to face structural inequalities in access to resources and benefits from agriculture (Lamichhane et al., 2022).

Studies conducted in eastern Nepal, including Ilam district, show that women are actively involved in cash crop farming such as tea, cardamom, and ginger production, yet men continue to dominate major economic decisions, including income use, land ownership, and market participation (KC & Upreti, 2017; Upreti et al., 2018). This unequal division of labour and decision-making power affects not only gender equality but also agricultural productivity and rural development.



**Figure 1:** Map of the Study Area (Sandakpur Rural Municipality)



**Figure 2:** Conceptual Framework of Gender-Based Division of Labour

## 2. Statement of the Problem

Agriculture in rural Nepal, particularly in hilly regions such as Sandakpur Rural Municipality of Ilam district, relies heavily on family labour, where men and women perform different agricultural and household tasks based on traditional gender roles. Women contribute significantly to agricultural activities such as planting, weeding, harvesting, post-harvest processing, and livestock care, while also bearing primary responsibility for household work, resulting in a heavier overall workload compared to men. Despite their substantial contribution to agriculture, women often have limited access to productive resources such as land ownership, credit, agricultural training, and extension services, and their participation in decision-making related to income use, crop selection, and marketing remains limited. Male out-migration has further increased women's responsibilities in agriculture, leading to the feminization of agriculture; however, this increase in workload has not been accompanied by equal access to resources and decision-making power (Kandel et al., 2026; Doss et al., 2022; Lamichhane et al., 2022; Mishra & Osti, 2021; Shrestha, 2019). Therefore, there is a need to examine the gender-based division of labour, workload distribution, access to resources, and decision-making power between men and women in rural agricultural households in Sandakpur Rural Municipality, Ilam.

## 3. Research Objectives

### 3.1. General Objective

To examine the gender-based division of labour in rural agriculture in Sandakpur Rural Municipality, Ilam, Nepal.

### 3.2. Specific Objectives

- To identify the agricultural activities performed by men and women.
- To examine the division of household work between men and women.
- To assess the workload distribution between men and women.
- To analyze access to productive resources by gender.
- To examine the participation of men and women in agricultural decision-making.
- To analyze the relationship between workload, resource access, and decision-making power.

## 4. Hypothesis of the Study

### 4.1. Major Hypothesis

- **H<sub>0</sub>:** There is no significant difference between men and women in agricultural labour participation, household work, access to resources, and decision-making power.
- **H<sub>1</sub>:** There is a significant difference between men and women in agricultural labour participation, household work, access to resources, and decision-making power.

### 4.2. Specific Hypotheses

- **H<sub>01</sub>:** There is no significant difference between men and women in agricultural activities.
- **H<sub>02</sub>:** There is no significant difference between men and women in household work.

- **H<sub>03</sub>**: There is no significant difference in workload distribution between men and women.
- **H<sub>04</sub>**: There is no significant difference between men and women in access to resources.
- **H<sub>05</sub>**: There is no significant difference between men and women in decision-making power.
- **H<sub>06</sub>**: There is no significant relationship between workload, resource access, and decision-making power.

## 5. Literature Review

The literature on gender-based division of labour in rural agriculture shows that agriculture is not only an economic activity but also a gendered social system in which responsibilities, access to resources, and decision-making authority are unevenly distributed between men and women. In most rural settings, women are heavily engaged in routine and labour-intensive agricultural tasks such as sowing, transplanting, weeding, harvesting, post-harvest processing, and livestock care, while men are more often associated with ploughing, land preparation, marketing, and control over farm income. This unequal allocation of work is shaped by cultural norms, household power relations, and institutional structures that often undervalue women's contributions and limit their control over productive assets and decisions (Kabeer, 1999; Hartmann, 1981; Quisumbing et al., 2014).

In Nepal, gender division of labour in agriculture has become more visible due to the increasing feminization of agriculture. Women now contribute substantially to both subsistence and commercial farming, especially in hill regions where agriculture depends heavily on household labour. However, their increased participation has not always led to equal rights over land, credit, agricultural training, or extension services. Lamichhane et al. (2022) found that women in Nepal face a heavier workload in both farm and household activities, while decision-making power remains largely male dominated. Similarly, Mishra and Osti (2021) reported that women are highly involved in crop production and livestock care, but men continue to dominate strategic activities and authority in farming households. These studies suggest that women's labour is central to

agricultural production, yet their contribution remains inadequately recognized.

Male out-migration has also significantly reshaped labour relations in Nepalese agriculture. As men migrate for off-farm or foreign employment, women take on expanded roles in farm management and daily agricultural operations. Kandel et al. (2026) showed that migration has altered traditional labour divisions in Nepalese smallholder agriculture, with women assuming greater responsibility for farming activities that were previously performed by men. Doss et al. (2022) similarly observed that although male migration can increase women's agricultural responsibilities, it does not automatically increase their bargaining power or authority over resources. Rana (2024) further explained that feminization of agriculture in Nepal should not be understood only as an increase in women's work, but also as a complex process shaped by class, caste, household structure, and access to markets and resources.

Recent empirical studies also connect labour division with women's empowerment and resource access. Begho et al. (2025) found that women's empowerment in smallholder agriculture is closely linked to access to resources, participation in decision-making, and climate resilience. Khanal and Shrestha (2025) showed that women's early participation in farm decision-making positively influences the adoption of conservation agriculture and strengthens women's agency. Alkire et al. (2013), through the Women's Empowerment in Agriculture Index, provide an important framework for understanding how production roles, access to resources, income control, leadership, and time use shape women's status in agriculture. Together, these studies indicate that the gender-based division of labour is not only about who performs which task, but also about who controls resources, who makes decisions, and who benefits from agricultural production.

Studies focusing on eastern Nepal are especially relevant to the present research. Shrestha (2019) found that in eastern Nepal women are deeply involved in smallholder farming, yet their access to land, financial services, and market-related decision-making remains constrained. KC and Upreti (2017) showed that in cardamom-based farming systems of eastern Nepal, women's labour is critical to production,

but men retain dominance in income use and institutional engagement. [Upreti et al. \(2018\)](#) also reported that in the eastern hills of Nepal, including cash crop farming areas, women's agricultural burden has increased due to male migration and commercialization, while structural inequalities in ownership and authority persist. These findings are especially useful for understanding the likely patterns in Sandakpur Rural Municipality of Ilam, where smallholder farming, cash crops, and family-based labour remain central to rural livelihoods.

The reviewed literature clearly establishes that gender-based division of labour in agriculture is a persistent issue in Nepal and is closely linked with women's workload, resource access, empowerment, and household decision-making. However, there is still limited location-specific research focused on Sandakpur Rural Municipality of Ilam. Most existing studies discuss Nepal at the national, regional, or district level, but few examine the specific realities of rural households in Sandakpur. Therefore, this study seeks to fill that gap by examining the actual division of labour, workload patterns, access to productive resources, and decision-making roles of men and women in the rural agricultural context of Sandakpur, Ilam.

## 6. Research Methodology

### 6.1. Research Design

This study adopted a descriptive research design to examine the gender-based division of labour in rural agriculture in Sandakpur Rural Municipality, Ilam, Nepal. The descriptive design was appropriate because the study aimed to describe the existing situation of labour division, workload distribution, access to resources, and decision-making roles of men and women in rural households without manipulating any variables. Both quantitative and qualitative approaches were used to obtain reliable and detailed information about gender roles in agricultural and household activities.

### 6.2. Study Area

The study was conducted in Sandakpur Rural Municipality of Ilam district, located in the eastern hill region of Nepal. The area was selected because agriculture is the main source of livelihood, and farming activities largely depend on family labour. Major crops grown in the area include potato, maize, tea, cardamom, vegetables, and fodder crops, along with livestock farming.

### 6.3. Population and Sample Size

The total number of households in Sandakpur Rural Municipality is 4,013 households. For this study, 15 households were selected as the sample size from Ward 1, Ward 2, and Ward 3.

**Table 1: Sample Size Distribution**

Ward No.	Total Households	Sample Households
Ward 1	575	5
Ward 2	700	5
Ward 3	799	5
<b>Total</b>	<b>2,074</b>	<b>15</b>

### 6.4. Sampling Techniques

Both probability and non-probability sampling techniques were used in this study. Stratified random sampling was used to select wards to ensure representation from different areas of the rural municipality. Simple random sampling was used to select households from each ward. Purposive sampling was used to select respondents within households to ensure the participation of both men and women involved in agricultural activities.

### 6.5. Sources of Data

The study used both primary and secondary data sources.

- **Primary Data:** Collected through questionnaires, interviews, and field observation.
- **Secondary Data:** Collected from books, journal articles, government reports, census data, municipal profiles, and relevant websites.

## 6.6. Methods of Data Collection

**Table 2: Data Collection Methods**

S.N.	Method	Description
1	Questionnaire	Structured questionnaires were used to collect quantitative data on agricultural activities, household work, workload distribution, access to resources, and decision-making power.
2	Interview	Semi-structured interviews were conducted with farmers to collect qualitative information about gender roles, labour division, and decision-making practices.
3	Observation	Field observation was used to observe the actual participation of men and women in agricultural and household activities.
4	Secondary Sources	Books, journal articles, reports, census data, and municipal records were used to collect background and supporting information.

## 6.7. Data Analysis Techniques

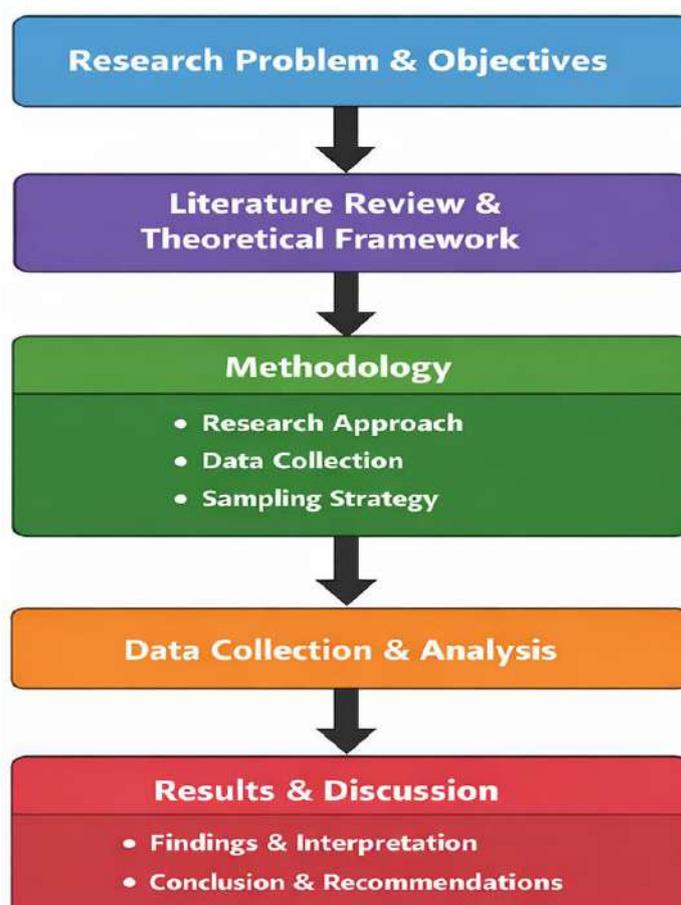
The collected data were analyzed using both quantitative and qualitative methods. Quantitative data were analyzed using descriptive statistics such as frequency, percentage, mean, and standard deviation and presented in tables and charts. Inferential statistical tools such as t-test, ANOVA, and regression analysis were used to examine differences and relationships between gender participation, workload distribution, access to resources, and decision-making power. Qualitative data obtained from interviews and observation were analyzed using descriptive and thematic analysis. The results were presented in tables, figures, and descriptive explanations for clear interpretation.

## 6.8. Ethical Considerations

The study followed ethical research principles. Participation of respondents was voluntary, and informed consent was obtained before data collection. Confidentiality and anonymity of respondents were maintained, and the information collected was used only for academic purposes.

## 7. Data Analysis and Results

This chapter presents the analysis and interpretation of data collected from 15 households in Sandakpur Rural Municipality, Ilam. The data were analyzed using descriptive statistics such as frequency, percentage, mean, and standard deviation, as well as inferential statistical tools such as independent sample t-test, ANOVA (F-test), and regression analysis. The results are presented in tables and figures to examine gender participation in agricultural activities, household work, workload distribution, access to resources, and decision-making power.



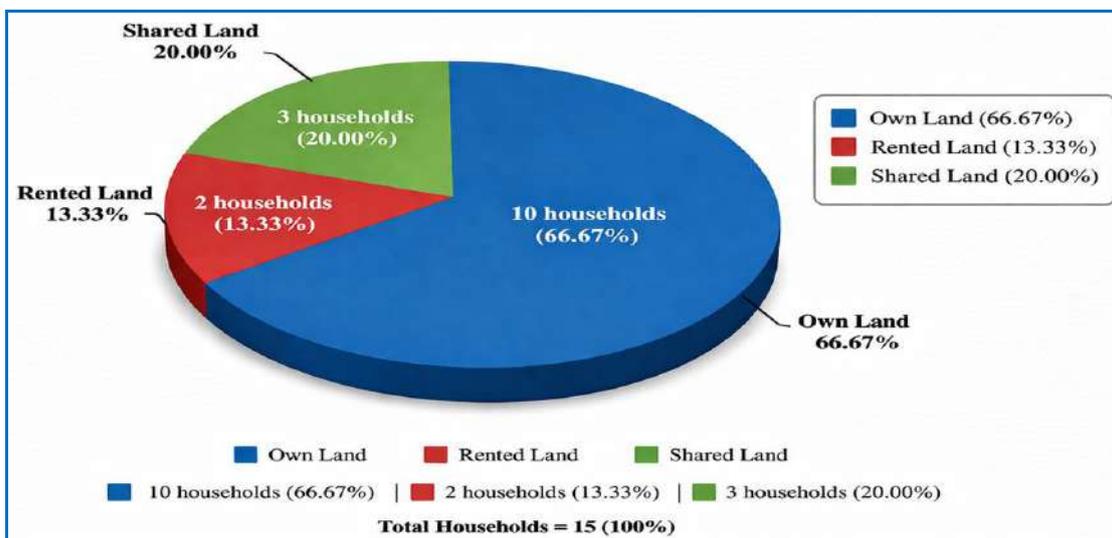
**Figure 3: Research Design Flow Chart**

### 7.1 Nature of Land Ownership

**Table 3: Nature of Land Ownership**

Nature of Land	Frequency	Percentage
Own Land	10	66.67
Rented Land	2	13.33
Shared Land	3	20.00
<b>Total</b>	<b>15</b>	<b>100</b>

The majority of households (66.67%) cultivated their own land, while 33.33% used rented or shared land.



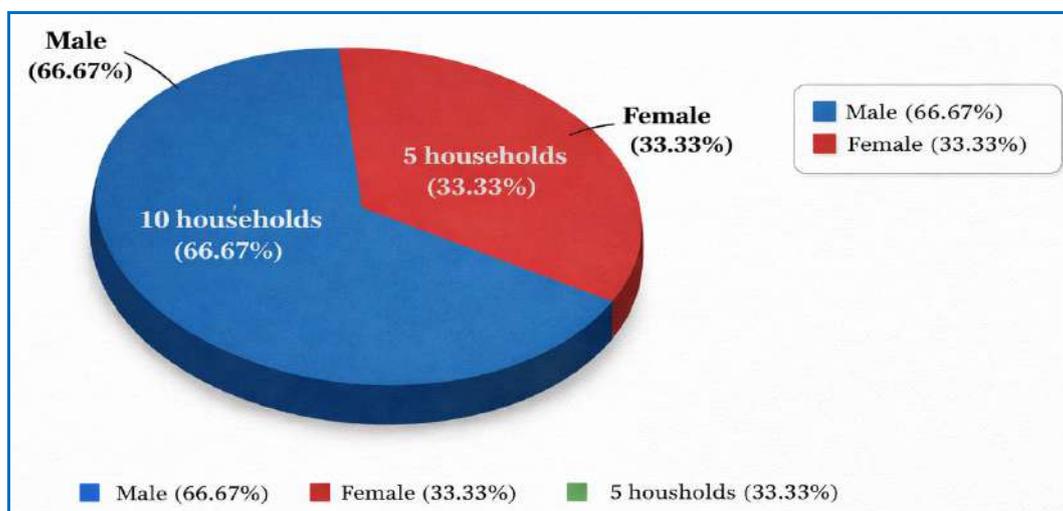
**Figure 4: Nature of Land Ownership**

### 7.2 Household Head by Gender

**Table 4: Household Head by Gender**

Household Head	Frequency	Percentage
Male	10	66.67
Female	5	33.33
<b>Total</b>	<b>15</b>	<b>100</b>

Most households (66.67%) were male-headed.



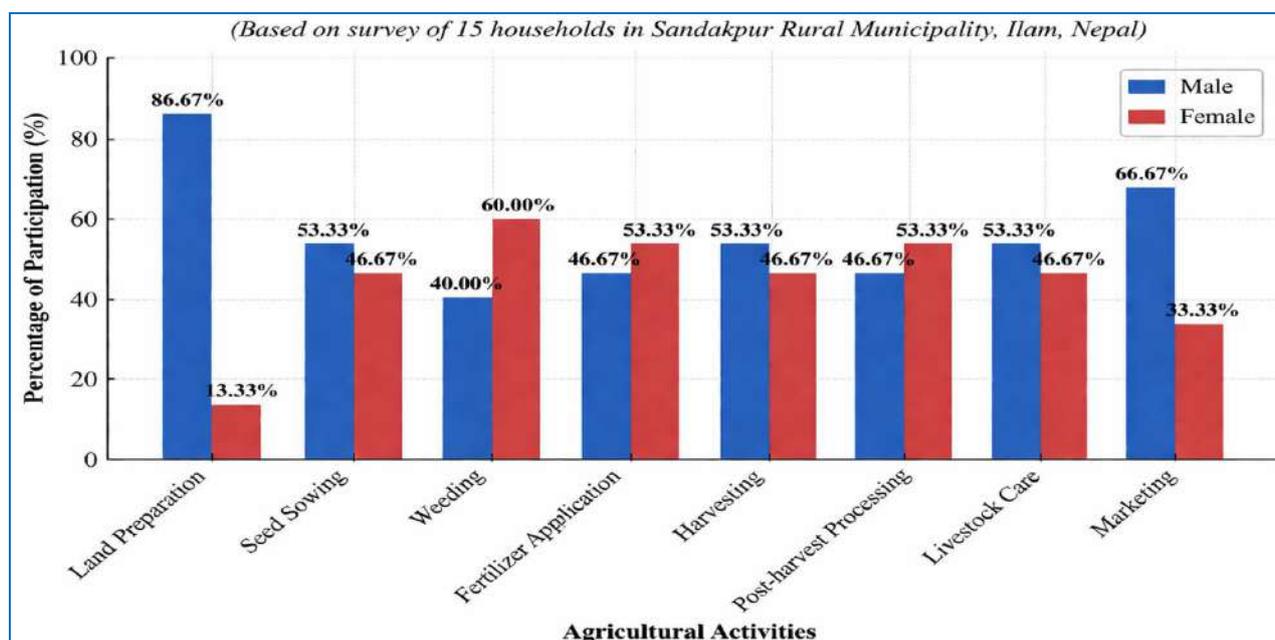
**Figure 5: Household Head by Gender**

### 7.3 Gender Participation in Agricultural Activities

**Table 5: Gender Participation in Agricultural Activities**

Agricultural Activities	Male	Female	Male %	Female %
Land Preparation	13	2	86.67	13.33
Seed Sowing	8	7	53.33	46.67
Weeding	6	9	40.00	60.00
Fertilizer Application	7	8	46.67	53.33
Harvesting	8	7	53.33	46.67
Post-harvest Processing	7	8	46.67	53.33
Livestock Care	8	7	53.33	46.67
Marketing	10	5	66.67	33.33

Women were more involved in weeding, fertilizer application, post-harvest processing, and livestock care, while men dominated land preparation and marketing.



**Figure 6: Gender Participation in Agricultural Activities**

### 7.4 Gender Division of Household Work

**Table 6: Gender Division of Household Work**

Household Activities	Female (%)	Male (%)
Cooking	95	5
Cleaning	80	20
Childcare	80	20
Fetching Water & Fuelwood	60	40
Elderly Care	70	30

Women performed most household activities.

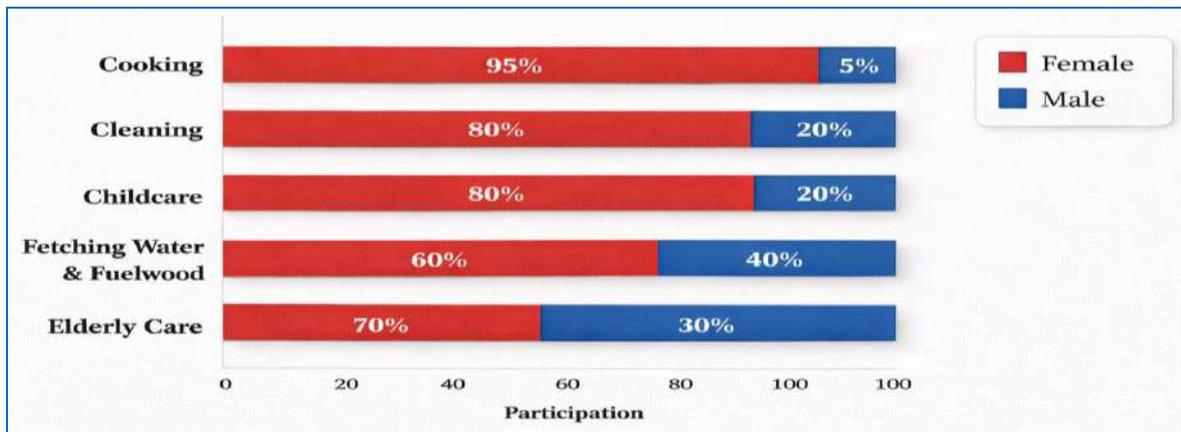


Figure 7: Gender Division of Household Work

7.5 Workload Distribution

Table 7: Workload Distribution (Hours per Day)

Work Type	Female	Male
Agricultural Work	6	7
Household Work	7	2
Marketing	1	2
Extra Activities	1	3
<b>Total Hours</b>	<b>15</b>	<b>14</b>

Women worked more total hours due to household responsibilities.

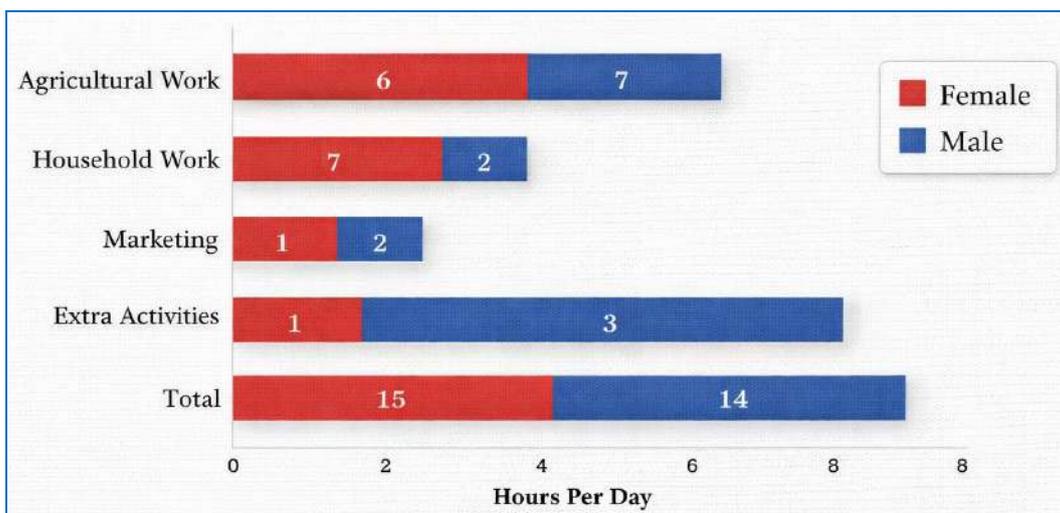


Figure 8: Workload Distribution by Gender

7.6 Access to Resources by Gender

Table 8: Access to Resources by Gender

Resources	Female (%)	Male (%)
Land Ownership	25	75
Access to Credit	20	80
Extension Services	10	90
Training	10	90

Men had greater access to productive resources.

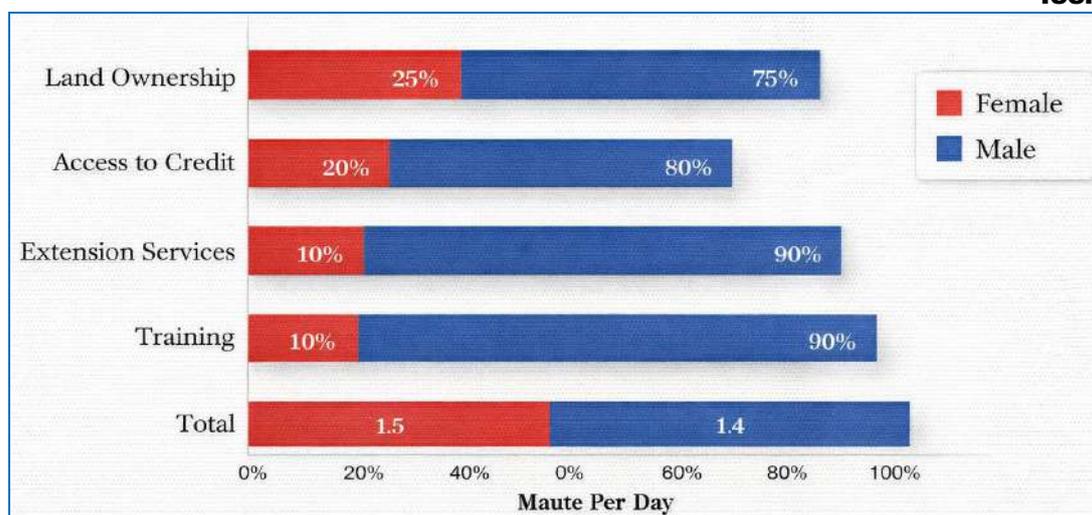


Figure 9: Access to Resources by Gender

## 7.7 Decision-Making Power in Agriculture

Table 9: Decision-Making Power in Agriculture

Decision Area	Male (%)	Female (%)	Joint (%)
Crop Selection	10	10	80
Purchase of Inputs	20	10	70
Sale of Produce	30	20	50
Use of Income	40	30	30

Most decisions were made jointly, but men dominated income-related decisions.

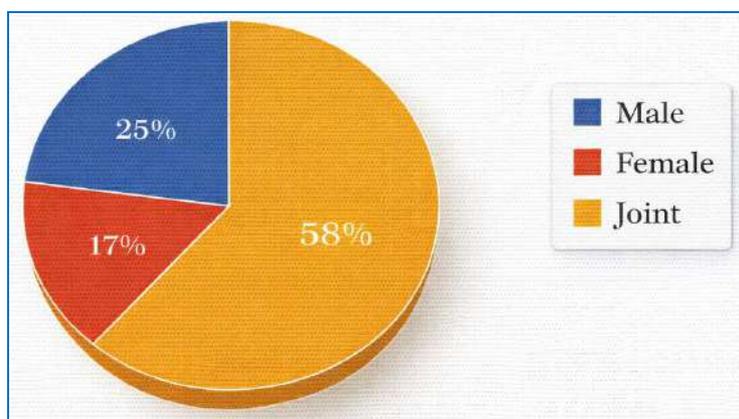


Figure 10: Decision-Making Power in Agriculture

## 7.8 Independent Sample t-test Results

Table 10: t-test Results

Variables	Male Mean	Female Mean	t-value	p-value	Result
Agricultural Participation	8.38	6.62	2.31	<0.05	Significant
Household Work	23	77	5.12	<0.01	Significant
Workload	14	15	3.45	<0.05	Significant
Access to Resources	83.75	16.25	6.21	<0.01	Significant

**Interpretation:** There is a significant difference between men and women in labour participation, household work, workload distribution, and access to resources.

## 7.9 ANOVA (F-test) Results

**Table 11: ANOVA Results for Decision-Making Power**

Source	SS	df	MS	F	p-value
Between Groups	320	2	160	4.62	<0.05
Within Groups	540	12	45		
Total	860	14			

**Interpretation:** There is a significant difference in decision-making power between male, female, and joint decision groups.

## 7.10 Regression Analysis

**Table 12: Regression Analysis Results**

Independent Variables	Coefficient	t-value	p-value
Constant	1.25	2.78	0.01
Access to Resources	0.62	3.45	0.002
Decision-Making Power	0.48	2.98	0.005
Workload	-0.55	-3.12	0.004
R <sup>2</sup>	<b>0.64</b>		
F-value	<b>6.82</b>		

**Interpretation:** Access to resources and decision-making positively affect women's empowerment, while workload negatively affects empowerment.

## 8. Findings and Discussion

This study examined the gender-based division of labour in rural agriculture in Sandakpur Rural Municipality, Ilam, Nepal, focusing on agricultural activities, household responsibilities, workload distribution, access to productive resources, and decision-making power. The findings reveal clear gender-based differences in labour roles, resource access, and decision-making authority, which are consistent with previous studies conducted in Nepal and other rural agricultural contexts.

The findings show that both men and women actively participate in agricultural activities; however, their roles differ significantly. Men are primarily involved in land preparation, fertilizer application, and marketing of agricultural products, whereas women are more involved in labour-intensive activities such as weeding, harvesting, post-harvest processing, and livestock care. This indicates that women contribute substantially to agricultural production through time-consuming and physically demanding tasks. Similar findings were reported by [Kandel et al. \(2026\)](#), who found that male out-migration and traditional labour divisions have increased women's involvement in farming activities, particularly in planting, weeding, and post-harvest operations. Likewise, [Rana \(2024\)](#) observed that women are mainly engaged in subsistence and

labour-intensive agricultural tasks, while men are involved in skilled and market-related agricultural activities.

The study also found that women bear the primary responsibility for household work, including cooking, cleaning, childcare, fetching water, and elderly care. The statistical analysis showed a significant difference between men and women in household labour participation, with women performing the majority of domestic work. This results in a double workload for women, as they are responsible for both agricultural and household activities. This finding is consistent with [Lamichhane et al. \(2022\)](#), who reported that women in Nepal carry a heavier workload due to their dual role in productive and reproductive activities. Similarly, [Mishra and Osti \(2021\)](#) found that women spend more time than men in both farm and household work, which limits their participation in training, education, and income-generating activities.

Workload distribution analysis showed that women work slightly more total hours per day than men when both agricultural and household work are combined. However, men spend more time in market-related and income-generating activities, while women spend more time in unpaid household labour. This unequal distribution of labour reduces women's opportunities for skill development, participation

in training, and access to extension services. This supports the findings of [Doss et al. \(2022\)](#), who reported that women's heavy workload and household responsibilities limit their mobility and participation in agricultural decision-making and training programs.

The study further revealed significant gender inequality in access to productive resources such as land ownership, credit facilities, training, and extension services. The statistical analysis showed that men have significantly higher access to these resources compared to women. Limited access to resources restricts women's ability to improve agricultural productivity and income. This finding is consistent with [Begho et al. \(2025\)](#), who found that women's limited access to land, credit, and agricultural services reduces their decision-making power and economic empowerment in rural agriculture. Similarly, [Agarwal \(1994\)](#) emphasized that lack of land ownership is one of the major factors contributing to gender inequality in South Asian agriculture.

Decision-making analysis showed that most agricultural decisions are made jointly by men and women, particularly in crop selection and input purchase. However, men dominate major financial decisions such as the sale of agricultural products and income utilization. The ANOVA test showed a significant difference in decision-making power between men and women, indicating that gender inequality still exists in farm management decisions. This finding is supported by [Khanal and Shrestha \(2025\)](#), who found that women's participation in early decision-making significantly increases the adoption of agricultural technologies and improves household agricultural outcomes.

The regression analysis further showed that access to resources and participation in decision-making positively influence women's empowerment, while heavy workload negatively affects women's empowerment. This implies that reducing women's workload and improving their access to resources and decision-making opportunities can significantly improve gender equality and agricultural productivity. These findings are consistent with the Women's Empowerment in Agriculture Index framework developed by [Alkire et al. \(2013\)](#), which emphasizes access to resources, decision-making power, and time allocation as key components of women's empowerment in agriculture.

Overall, the findings of this study indicate that although women play a crucial role in agricultural production in Sandakpur Rural Municipality, gender inequality still exists in terms of workload distribution, access to resources, and decision-making power. Women contribute more labour but have less control over productive resources and financial decisions. This reflects the feminization of agriculture, where women's participation in agriculture is increasing, but without corresponding improvements in access to resources and empowerment ([Slavchevska et al., 2016](#)). Therefore, addressing gender inequality in resource access, reducing women's workload, and promoting joint decision-making are essential for improving agricultural productivity, gender equality, and rural livelihoods in Sandakpur Rural Municipality, Ilam, Nepal.

## 9. Suggestions for Further Research

Although this study examined the gender-based division of labour in rural agriculture in Sandakpur Rural Municipality, Ilam, it was limited to a small sample of households and focused mainly on labour participation, workload distribution, access to resources, and decision-making power. Therefore, several areas remain for further research.

Future research should be conducted with a larger sample size covering all wards of Sandakpur Rural Municipality and other rural municipalities of Ilam district to provide more representative and generalizable findings. Comparative studies between different ecological regions such as the Terai, Hill, and Mountain regions of Nepal would help to understand regional variations in gender-based division of labour in agriculture.

Further studies should also examine the impact of male out-migration on feminization of agriculture, women's workload, and household decision-making power. Since migration is a major factor affecting rural labour structure in Nepal, understanding its long-term impact on agricultural productivity and gender roles would be important ([Kandel et al., 2026](#)).

Future research can also focus on women's access to agricultural technology, extension services, cooperatives, and financial institutions and how these factors influence women's empowerment and agricultural productivity ([Begho et al., 2025](#)). In addition, studies should

examine the role of education, training, and women's organizations in improving women's participation in agricultural decision-making and leadership roles in rural communities.

Moreover, longitudinal studies should be conducted to examine changes in gender roles and labour division over time, especially in the context of modernization, agricultural mechanization, and climate change. Climate change is increasingly affecting agricultural labour patterns, and women are often more vulnerable due to limited access to resources and adaptation technologies.

Future researchers should also use mixed-method approaches combining quantitative, qualitative, and participatory rural appraisal (PRA) tools to better understand social norms, cultural practices, and intra-household labour dynamics. Such approaches would provide deeper insights into gender relations and labour allocation in rural agricultural households.

## 10. Conclusion

This study examined the gender-based division of labour in rural agriculture in Sandakpur Rural Municipality, Ilam, Nepal, focusing on agricultural activities, household responsibilities, workload distribution, access to productive resources, and participation in decision-making. The findings revealed that both men and women play important roles in agricultural production; however, their roles and responsibilities differ significantly. Women were mainly involved in labour-intensive activities such as planting, weeding, harvesting, post-harvest processing, and livestock care, while men were primarily responsible for land preparation, input purchase, and marketing of agricultural produce. In addition to agricultural work, women were also responsible for most household activities, including cooking, cleaning, child care, and collecting water and fuelwood, resulting in a double workload for women.

The study also found that women had limited access to productive resources such as land ownership, credit facilities, agricultural training, and extension services, which were mostly controlled by men. Similarly, decision-making power related to income use, sale of agricultural products, and major farm investments was dominated by men, although joint decision-making was common in some areas such as crop selection and input purchase. These findings

indicate that although women contribute significantly to agricultural labour, they have less control over resources and decision-making, which reflects gender inequality in rural agriculture.

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