Role of Women in Agricultural Production

A Case Study of Changunarayan Municipality-5, Chhaling, Bhaktapur Nepal

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By

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Recommendation Letter

It is my pleasure that I recommend the approval of the thesis paper entitled as

'ROLE OF WOMEN IN AGRICULTURAL PRODUCTION: A CASE STUDY OF

CHANGUNARAYAN MUNICIPALITY-5, CHHALING, BHAKTAPUR, NEPAL'

completed by Mrs. Sarita Pudasaini under my supervision for the partial fulfillment of the

requirements for Master of Arts in Rural Development, Tribhuvan University. Therefore,

this thesis is recommended for its evaluation.

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Approval Sheet

This is to certify that this thesis paper submitted by Mrs. Sarita Pudasaini entitled as 'ROLE OF WOMEN IN AGRICULTURAL PRODUCTION' has been approved by this department in the prescribed format of the Faculty of Humanities and Social Sciences. This Thesis is forwarded for the evaluation.

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Declaration

I hereby declare that the thesis entitled 'Role of Women in Agricultural

Production: A Case Study of Changunarayan Municipality-5, Chhaling, Bhaktapur

Nepal' submitted to the Central Department of Rural Development, Faculty of

Humanities and Social Sciences, Tribhuvan University, is utterly and only my original

work prepared under the guidance and supervision of my supervisor. I have made due

acknowledgement to all ideas and information borrowed from different sources in the

course of preparing this thesis. The results of this thesis have not been presented or

submitted anywhere else for the award of any degree or for any other purposes. I assure

that no part of the content of this thesis has been published in any form before.

......

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January 5, 2018

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Abbreviations

AO Agricultural Office

CBS Central Bureau of Statistics

CMISP Community Managed Irrigation Organization

FAO Food Agriculture Organization

GDP Gross Domestic Production

HHS Households

MT Metric Ton

No. Number

SLC School Leaving Certificate

UNICEF United Nations International Children's Emergency Fund

VDC Village Development Community

WDRPC Women Development Research Publication Centre

WFDD Women Farmer Development Division

Chapter- I: Introduction

1.1 Background of the Study

Nepal, a small nation of this world covering 147181 sq. km is bounded by China on the north and by India on other three sides. According to population census 2011, the total population of Nepal is 2, 66, 20,809 out of which 1, 29, 27,431 (48.56%) are men and 1, 36, 93,378 (51.44%) are female. The population of female is slightly higher than male's. Nepal is predominantly an agricultural country as the country's economy largely depends on agriculture. More than 65% of people still depend on agriculture. Agriculture employs more than 80% of the labour force and makes a significant contribution of the country's export earnings. The share of agriculture in GDP in 36.8% of total GDP. The agriculture sector has been a major source of production, income and employment opportunities in Nepal. Keeping this in mind, the government of Nepal is giving continuously high priority to development of agriculture sector, but Nepalese agriculture is still very much primitive, traditional and subsistence in nature. In general, the method of cultivation is purely manual and labour intensive and farm holdings are small.

Use of modern agricultural implements is low. Nepalese agriculture is largely dependent on rainfall and agricultural production is mainly influenced by monsoon situation. In the end of F/Y 2069/70, 1311000 hector land was provided with irrigation facilities (13th periodic plan Document). Despite abundant water resources, only 49.64% of total cultivated land has access to irrigation facilities and rest depend on vagaries of monsoon.

Food grains and livestock are the major components of agricultural production with the share of fishery, cash crops and forestry are 9, 8 and 1% respectively. The remaining share of 19% is from other crops (CMISP). Overall there has been little diversification with contribution from the various subsectors remaining virtually unchanged. Cereal cropping occurs as 80% of Nepal's cultivated land. Crops comprise paddy, maize, wheat and barley. The main food grain of Nepal is paddy, maize, wheat, millet and barley upon which majority of population depend, of which paddy takes the prime position as it covers 46.3% of total cropped area, followed maize (24.6%), wheat (19.9%), millet and barley. While accounting the production it covers 57.5%, 21.6%, 15.8%, 4.5% and 0.6% respectively.

Nepal is divide into three ecological regions: Terai, hills and mountains. Because of the snow coverage the mountain area has less agricultural importance, only Terai belt and hilly region are contributing in agriculture. The major portion of land of Terai is covered by cereal crops. The hilly region has potentiality of horticulture development and mountainous region is suitable for the livestock farming. Because of the variation in topographical and climatic factors, wide variations exist in farming systems.

1.2 Status of Women in Nepal

The population of female in Nepal is slightly higher than the population of male. The overall development of the nation cannot be achieved without the active participation of women as more than half population are female. Active participation of women in all kinds of development activities is essential for the overall development of the nation. Through various studies about the status of women we find that the situation of women in developing countries like Nepal is different from that of the other developed nations. In Nepal, due to illiteracy, ignorance, conservative perception, poverty and superstition women are treated as second class citizen and they are not given opportunities to make contribution in development and economy. The legal, social and economic status of women is also not uniform throughout the country. Their position differs from place to place and community to community depending upon the socio-economic condition, geographical location and a number of variables imposed by the wider national society in terms of legal framework. The census 2011 has recognized about 11220697 people as being economically active of which 44.96% are women. According to the census, only 36.84% of women in Nepal are economically active and their employment is also not uniform in all sectors. More than 90% of economically active female population are in agricultural sectors and other low level and less paid jobs. Less than 1% of those women are professionals and technicians.

1.3 Role of Women in Agriculture

Agriculture is major sector of employment in Nepal, comprising more than 65.6% of all workers (CBS 2001). Agriculture provided 24.1% of total employment in urban areas and 85.5% in rural areas in 1991. In that year, 92.8% of all economically active rural women in contrast to 80.4% of economically active rural women were engaged in this sector (Women of Nepal 1996). Workers in Nepalese agriculture can be classified roughly into

two categories: unpaid family worker (who enjoy right society. Over what they earn, the system called as Parma labour system) and paid workers.

In rural Nepal, women play multiple roles in the They integrate their responsibility of domestic affairs with that of farming works together with their male counterparts. Several studies over the years have clearly indicated that the labour contribution of women in Nepalese agriculture appears to be higher than that of men and most of the agriculture work is done by women. In additional works, they also have to perform many other household works like caring children, food preparation, shopping, housekeeping, family-health-care and so on. They are active in farming preparations, compost preparation, land sowing, hoeing, storing, transplanting, weeding, harvesting and storing. Their involvement in farming system is affected by interplay of socio cultural, economic and environment factors.

The participation of women in agriculture is distinctive due to the variety of activities that they perform in a long stretch of time. Rural women's agricultural activities are highly influenced by external forces such as temporary out margin of village men and men's involvement in the civil services and other non-agricultural occupations. Women's participation and contribution to farm production system in Nepal is becoming more and more important due to the fact that male members of the family are seasonally or temporarily moving to urban areas for job, and increasing number of males are being absorbed into non-agricultural sectors. Thus, rural women make up the majority of food producers.

Nepalese farm women can play a very crucial role in determining the future development of agriculture. Many recent studies have revealed that farm women are strong force not only in various agriculture activities but also in agriculture decision-making process. It is mostly the women, decision about the type of crops to be planted, use of improved seeds, use of manure and fertilizers etc. Thus, women can play active roles both as participation and as decision maker in works related to agriculture, particularly in food crop production.

1. Statement of the Problem

Agriculture is the backbone of Nepalese economy. It contributes to the supply of food, raw materials and exportable product. Any discrepancy in the production process of agriculture may lead to disequilibrium in the national economy. Due to this reason the development planner in Nepal have put much emphasis on agriculture development

programs for the provision of better agriculture inputs, land reforms, land resettlement, agricultural credit: agricultural extension services, irrigation etc. In spite of their planned efforts, improvement in the agriculture sector is rather disappointing. This requires better understanding of its existing farm system. Productivity is decreasing and pressure on land is increasing. Farmer's effort to increase agricultural production to meet their survival requirements have led to future deterioration of soil fertility and more step land in hill area.

Nepalese agriculture is largely subsistent or oriented, food based and relatively undiversified. A food crop has great importance in Nepalese agriculture production system. Since the growing population of Nepal needs increasing supply of food products, it has exerted heavy pressure in agricultural production. Population is increasing however government's effort have not been able to meet the food requirement of the fast growing population. Women are the best heart of agriculture development Nepal because of the multiple role of women. It is also the acceptable fact that women are the critical forces in the society. Development is not possible without the involvement of the women in the developmental activities. Various studies have shown that women constitute a large portion of agricultural labour. They are often unpaid or paid very low for their effort in it as their effort is regarded as voluntary support. Generally, the target group to receive the modern technology in agriculture has been male.

In spite of the fact that the contribution of the women in agricultural sector appears to be higher than that of male, discrimination against the women is disheartening. So for as the land rights, decision making and ownership of the property are concerned men still have dominating power over women. In the rural area women are considered as the housewives within the boundary of four walls i.e. our tradition oriented society while men are perceived to participate in developmental activities. Women are always deprived of equal opportunities and facilities.

Past planning efforts failed to recognize and utilize women's equal and full contribution to agricultural development. In Nepal, many development strategies have so for by passed the primary needs and interests of the rural women. Rural women are not in a position to increase their agricultural product and income through the use of different support service provided by the concerned instructions as there are still a number of socio-culture and traditional values which are less supportive to the advancement of women. Our agriculture largely relies women labour force. In food crop farming women are involved

from sowing of seed up the family consumption. They are performing these activities with the limited technical ideas of crop production.

In view of the significant roles women play in Nepalese agriculture, it is useful to conduct a study on this aspect which will help recognize the role and status of women.

2. Objectives of the Study

The general objective of the study is to ascertain the role of rural women in agricultural production.

The specific objectives of the study are as per listed below:

- i. To analyse the extent and contribution of Chhaling women in agriculture
- ii. To ascertain the women's role in agriculture.
- iii. To find out their role in marketing of the agricultural products.
- iv. To access the social and economic status of women engaged in agriculture

3. Significance of the Study

The economy of Nepal is larger contingent in agriculture where women's plays a major role by participating actively in various forms. It is important because women shouldn't be just limited within the four walls but they should also be involved in each and every aspect which will help the women to gain various technical, practical ideas. The study made an attempt to study gender discrimination which is one of the major issue in the context of agricultural development.

Rural women's vital work in the Nepalese agriculture sector can't be ignored. The proposed study aims to highlight the contribution of women in food crop production. To assess the actual contribution of the women in food crop it is necessary to identify and analyse the farm activities and other voluntary activities of rural women. So far, limited studies have been conducted which directly focus on the analysis of women involvement in food crop production.

The study aims to generate information and understanding about the women's role and factor affecting the women in food crop production. Hence, this study will help the planners and policy makers in formulating and implementing realistic and suitable program to improve rural women's productivity employment and income for development.

4. Limitation and Scope of the Study

Each and every study work has its own constrains and limitation. The study is not the

exception. The topic is very vague and it requires various aspects of gender

discrimination at national level including different development regions, ecological

zones, rural/ urban residence or other sectors. It was not possible to include all the aspects

in this study.

This study is based on Chhaling municipality-5 however; currently it has been turned to a

municipality. But, because of lack of proper structural offices and documentation, I have

used the contemporary information of Chhaling municipality-5.

Besides, this is the micro level study. It is conducted only in the Chhaling municipality-5

of Bhaktapur district and it is limited to rural women in agricultural production activities.

In Nepal, rural women face many problems. Due to the constrains of time and resources,

this study intends to cover only some problem of rural women as agricultural production.

The field survey is based on memory recall of respondents and availability of data and

information has determined its scope. This study may have various weakness and data

gap because of lack of time, finance and other methodological limitations.

5. Organization of the Study

This thesis has been organized in various chapters. It includes five chapters, and their

organizations are as below:

Chapter I: Introduction

Chapter II: Review of Literature

Chapter III: Research Methodology

Chapter IV: Analysis of Socio-economic Characteristics

Chapter V: Summary, Conclusion and Recommendation

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Chapter- II: Review of the Literature

2.1 Conceptual Overview

Various studies have been conducted on different issues related to women and agriculture from different perspective. This study focuses on rural involvement in food crop farming. Therefore, here an attempt has been mace to review some available which are pertinent to our study area.

2.2 History

Agricultural sector were regarded as one of the oldest people have chosen as a profession. Since the production from this area was the only medium to solve the problem of hunger among the human entity. In Asia women account for approximately 50 percent of the overall food production in the region with considerable variation in the country. For example, women comprise 47% of the agricultural labour force in Philippines, 35 percent in Malaysia, 54 percent in Indonesia and over 60 percent in Thailand. In Southeast Asia women play a major role in rice production particularly in sowing, transplanting, harvesting and processing (Marliee, 1996).

UN decade for women (1995) pointed out that of all hour worked throughout the world, women contributed about two third. Much of the work is done by living in rural areas. But women receive one tenth of world income and own less than one percent of world income.

According to FAO (1995) women produce more than 50 percent food grown by worldwide. The gender disaggregated data, together with field studies, participation rural appraisal and gender analysis, make it possible to draw a number of conclusion about the extent nature of women's contribution to farming, foresting, fishing may be underestimated as many surveys and census count only paid labour. Women are active in both the cash and subsistence agricultural sector and much of their work in producing food for household and community consumption (FAO, 1998).

Farming women in the third world are often invisible or best have low visibility in census figures an employment figures and statistics. Because their work is unpaid and takes place within a traditionally and concerned family framework. It is usually classified as "family labour" and the women themselves as "housewives" or "economically not active". This is a disability which many farming women feel the least but which diminishes

awareness of them and their work at planning, policy making and legislative level e.g. in the budget of development programs.

Due to the general handicap of the widespread illiteracy or low education level, a farming woman in the third world lacks information about the cooperative and the relevance of such organization to their problems. In this way, the women remain unaware or only imperfectly aware of the possibility of meeting their needs as farmer thought cooperative or even of the way and means of joining or farming cooperatives (Lamming, 1983).

Men and women not only have separate roles for household, food production and cash crops but also differential managerial and financial control over the production, storage and sells of the surplus. Sub-Saharan Africa, women have crucial role in all these aspects of crops production. Men often do the physically demanding work of land clearing, burning and ploughing, planting and fertilizer as well. In some countries the sexual division of labour is according to the type of crops. The agricultural activities of the women and men vary according to the region, the structure of household and productive resources available (FAO, 1996).

2.3 National Scenario

A pioneering study of the status of women in Nepal revealed that 86% of all domestic works and 57% of subsistence agriculture activities were undertaken by women. Women's contribution to the household income is estimated at 50% compared to 44% for men and 6% for children (Acharya, 1979). 90% of Nepalese rural women work full time in agriculture and most of the others 10% work in shop, trekkers, lodgers or in trading and only a handful of well to of women don't work .

Agriculture is becoming progressively feminized. Many women engaged in family farms are still reported as economically not active. Nevertheless, even according to the census figure, the production of female labour force in agriculture has increased between 1971 and 1991. In 1971, women constituted 30.4% of agriculture force, employment is increasing in the non-agriculture sector, and comparatively a large percent of agriculture labour force is increasing (Acharya, 1994).

Vidya et al (1990) suggested that the women contribution range between 50 and 80 percent of total agriculture labour depending on both different geographical and socioeconomic variation MOA-HMGs. Women Farmers Development Division (1993) state that the higher level of full time employment of women in farming was due to their

lesser opportunity to search for the jobs except in the farms due to being constrain by low level of education, pregnancy and social insecurity during early and late hour movements.

A search study conducted by the Women Development Research Publication Centre (WDRPC) state "Of the total population age 10 years and above, the population of inactive population was 22% and almost two third of this population was make indicating that more women are in labour force.

It was found that women spent working about 11 hours a day. About 75% of their work time is spend on household chores (including cattle rearing, collection of fuel and folder, fetching water, cooking etc.). 20 percent in farming, 5 percent in income generating activities. Hill women were found contributing more than Terai women who may be due to socio cultural difference of population constrains imposed by topography and different districts. The study provided information on decision making too. Most of the decision concerning to farm works were done by men. About 58% of decision were made by men, 11% jointly and 31% by women (FDEPC, 1992). Integrated development system (1985) has completed a study on women development in Nepal. This study highlights the fact that in legal, social, health and educational as well as economic dimension women have stood a very low status. They are the main victims of social and economic rigidities prevailed in society.

Since the dawn of history, women in Nepal have been engaging in different aspects of agricultural activities. Their labour involvement in agricultural activities is not less than that of men. Except ploughing, women perform almost all the agricultural activities and their daily labour input is 9 hours as against 5 hours by men. But the degree of involvement varies considerably across ethnic groups and social classes in Nepal. In fact, in Nepal, women are far more involved in farming activities than men.

While certain types of labour are usually performed by women in all communities like farm maintenance, plantation, weeding, seed selection, water collection and food processing and other types of work done by men (including ploughing and house construction). There is considerable variation between and within the communities. Women are particularly heavily involved in seed se, application of selection of organic manure and harvesting operation (Aacharya and Bennect, 1982)

Bajracharya (1994) revealed that women share about 50% of total farm work and they work mainly on subsistence crops and men mostly in cash crops. Women work is relatively more important in subsistence economics if the hills and mountains where there is less capitalist development; commercialization and markets (Bajracharya, 1984). Regarding the women's physical labour contribution in agricultural activities a workshop proceeding in women in farming concluded that on the average women labour contribution ranges from 50 to 80 percent of the total labour involved is contributed in crop farming depending on ecological region.

In Nepal, Bista (1976) observed that women did more than 50% of the farm work in the hill district. Women agricultural labour either self-employed or hired perform various operation such as sowing, weeding, transplantation, levelling and alike (Bista 1976).

An in-depth from Nepal gives an unusually detail picture of the labour contribution by gender for rice and other staples. It reports the women perform 66 percent of labour involved in plantation, 75 percent of that required for weeding and all of the cleaning and storage of rice. In the production of wheat, they contribute 66 percent of work, 94 percent of labour for maize production. They make 42 percent of the agricultural production decisions and more influential about seed selection and fertilizer use (Aacharya and Benet 1981).

With the exception of ploughing in land preparation tasks (cold breaking, removing plant debris etc.) 53 percentage of the total labour required is by women. Similarly, from planting to maturity activities such as sowing, applying mature, weeding, hoeing, (except the application of pesticides) about 52% of labour's contributed by women whilst in harvesting and post-harvest operation such as cleaning, grading and packing for sales, there is an even greater involvement (62%) of women than men (30%) (Vaidhya et.al 1990).

The result of efforts that have been made to measure women's contribution to agriculture labour force suggest: (a) women's contribution to agriculture are likely to be greater than has been recognized where women are active in agriculture (b) in government efforts to reach development goals may be jeopardized by not taking this more info in account (Spring A, 1982, cited in FAO, 1984).

Stephens (1992) argues that continuing and valuating women's work is necessary not only for the sake of women who are overburdened and under compensated but also for the development of the agriculture itself.

The economic value of women labour can be viewed in two perceptions.

- i. Direct involvement engaged in farm operation, especially in the field or as hired labour and
- ii. Indirect involvement engaged in farm operation inside the house, livestock operation and household operation indirect involvement of women can play an important role in adding household incoming because it cannot be substituted by hired labour.

A baseline study conducted by Women Farming Development in Jhapa, Chitwan and Tanahu district of Nepal revealed that women have a crucial role in food crop production of Nepal. Most of the women's labour in main food cultivation is hired labour but common phenomenon existing in Nepal is "Parma" system. Parma system is the exchange of labour at household level performing agricultural activities. Almost all rice growing household of all area relies on Parma system for planting weed, harvesting major crops. For the highly labour intensive agricultural work, when own labour force is inadequate, this exchange of labour plays an important role on agricultural production (MAO/WFDD, 1993).

2.4 Review of Past Studies

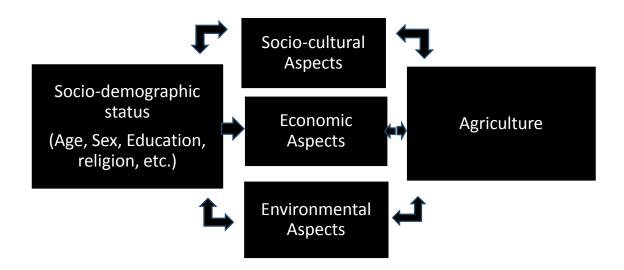
Schroder, Robert and clinic (1973) analyse the importance of the female labour in the agricultural production of Nepal. Women's role's agriculturists are increasingly affected by external forces such as temporary out migration of village men and man's involvement in the civil service and non-agricultural occupations. Agricultural extension workers have, so far, ignored the female contribution to agriculture in Nepal and hence have failed to teach women farmers in Nepal. They criticize the policy of giving agricultural training only to boys who tend to go ultimately for non-agricultural occupations and point out the possible changes that may come from extension programs designed to reach women agriculture. The authors suggest that already existing informal labour exchange groups (Parma) might be a good starting point for agricultural extension workers.

Although, the fact that play a crucial role in many areas of agriculture is now documented, the issues relating to their involvement have been satisfactory addressed by national agricultural plans, development projects, extension services or researchers. While the contribution made by men to agriculture and production has always received due to the attention in research and planning, the role women has tended to go unnoticed. Despite the large number of extension approaches currently in use, none has given adequate attention to reaching women and understanding their needs. This is mainly due to the belief that women produce subsistence crops which are perceived as being of negligible contribution to raising national levels of agricultural productivity. Farm women are not recognized as individual farmer but are referred as farmer's wives, sisters and daughters etc. Rural women are one of the last groups in society to benefit from modernization and the introduction of new technology.

2.5 Conceptual Framework

The conceptual frame work for this study is presented in the figure below:

Conceptual Framework of the Study



Independent Variable - Dependent Variable - Output

Chapter- III: Research Methodology

This section put up an attempt to study the methodology aspects in brief. In other words, in general approach to the research progression is offered in this section. The methodology includes the primary as well as secondary data collection and their analysis.

3.1 Selection of the Study Area

The most important part of any research depends on the selection of the study area which appropriately matches the area according to the research type. So, with the same concept the study area was selected at the Chhaling district where a number of family incomes are based on the agricultural production. Chhaling as one of the agro based village of Bhaktapur district is highly influenced with the agricultural family living.

3.2 Research Design

Research Design refers to the planned sequence of the entire process involved in conducting a research activity. It implies how the research objectives will be reached and how the problems encountered in the research will be tackled. The study is designed in an exploratory as well as descriptive framework to analyse the rural women's in agricultural production in the study area. It is exploratory because the study attempts to explore and investigate the socio-economic and agricultural issues of the study area with the special emphasis as the participation of women in farming as compared to men. It is also descriptive because all the socio economic and agricultural activities of the study area have been described and then inferred.

3.3 Sample Size

Chhaling is a ward in Changunarayan municipality in Bhaktapur district, Bagmati zone, Central Region. According to the data collected in the census 2011, the population of this ward was 8,129 with 1817 households. In the purpose of my study, 3.3% of the total households, which comes to be 60 households, were taken as sample households for the research project. The selection of the households was keenly considered and it was random selection as well. Chhaling was a village, however it has recently been declared as a municipality by the government of Nepal which is 20 kilometre away from the city centre of the capital city Kathmandu.

3.4 Nature of Data

For this research/thesis, various data natures are to be considered namely, Primary data, Secondary data. Primary and secondary data is used in this case study.

3.4.1 Primary Data Collection

The primary Data Collection, in general, shall comprise the collection of information and facts through questionnaires. Formal and informal discussions are completed with a selection of persons.

3.4.2 Secondary Data Collection

This step mainly includes second hand data collection from related organizations/ clubs and NGOs. In the process, the concerned journals, book, correlate publication, research paper, etc. were reviewed.

3.5 Tools and Techniques of Data Collection

3.5.1 Techniques of Data Collection:

The various techniques for the research purpose are as presented below:

a. Interview

The researcher visited the study and fill up the questionnaire from the respondent. Married female members of each sample household are the respondent of this survey. Through interview a number of primary data was acquired from respondent. To get such primary data the researcher conducted door to door visit with the community member.

b. Check List

It is another interview research instrument which helps a researcher to remember the information s/he has to collect to verity of items to be studied or investigated during the information collection. Various checklists were prepared during the conduction period from preliminary stage to the termination of thesis including field visit, data collection, its analysis, report compilation, etc.

c. Key Informant Interview

To have a reliable data and also for triangulation of the information the researcher met the prominent community people.

d. Field Observation

Field observation was done by way of direct participation or observance in non-participant manner. Eye contact, verbal fluency, body movement, etc. should be taken into account during this step.

3.5.2 Tools for Primary Data Collection

a. Structured Questionnaire

For the household survey, the structured questionnaire is important where the respondents or researcher filled up the answer with given questions. The related questions should be printed on questionnaire.

b. Unstructured Questionnaire

Unstructured questionnaire can be asked to the respondent to fulfil the researcher's problems. This is not necessary to write on the paper.

3.6 Analysis of Data

Surveyed primary as well as secondary data was then be compiled systematically. The data is presented in the form of table, graph, chart or diagrams. Questionnaires filled by various respondents, secondary data obtained are studied in depth.

This section put up an attempt to study the methodology aspects in brief. In other words, in general approach to the research progression is offered in this section.

3.7 Limitation of Study

Each and every work has its own limitation and constrains. The study is not the exception. The topic is very vague and it requires various aspects of gender discrimination at national level including different development regions, ecological zones, rural/urban residence or other sectors. It was not possible to include all of the three aspects in this study. Therefore, this study has some limitations.

This is micro level study. It is conducted only in Chhaling municipality of Bhaktapur and it is limited only to the rural women in the agricultural production activities. In Nepal, rural women face many problems. Due to constraint of time and resources, this study intends to cover only some problems of rural women as agricultural production. This study may have various weakness and data gap because of lack of time and lack of finance and other methodological limitations.

Chapter- IV: Analysis of Socio Economic Characteristics

4.1 Analysis of Socio-Economic Characteristics of Respondents

The study area is Chhaling municipality of Bhaktapur district of Central Development Region. The population of Chhaling was 8129, among them 4052 were male and 4214 were females. This area is dominated by Chhetri and other castes as Newar, Brahmin, Tamang, Dalit etc. (VDC profile 2063)

This chapter deals with the socio-economic as well as demographic aspects of respondents of the study area. Out of total 1349 households 60 households were taken as sample and structured questionnaire were asked to the respondents for both male and female. The characteristics taken into considerations included religion, caste, ethnicity, age, sex, family structure, education, occupation, land holding and food sufficiency. These characteristics of the sample household size describe and interpreted in terms of frequency and percentage distribution.

4.2 Family Structure

Family is the basic unit of the society and it is an institute which plays important role in building society. Most of the activities of an individual revolve around his/her family. Young and old members of the family depend on other member of family. The family structure reveals many things about the individuals. Family size and family type determine the women's involvement on various aspects of agricultural and household activities. In a large joint family some women perform the household activity reality to agricultural farming but in a small/nuclear family, some women have to take the responsibility of doing the household and agricultural work in limited range. So, size and type of the family have been taken into consideration. Distribution of sample households by the family size and family type are presented in table 1 and 2.

Figure 1. Distribution of HH by Family Size

Distribution of HH by Family Size					
Types of Family	No. of households	Percentage			
1-4	24	40			
5-8	30	50			
9-12	6	10			
Total	60	100			

As revealed by table no.1, a large (50%) of the sample households were from medium sized family (5-8 members), while the small size family (1-4 members) constituted 40 and large size family (9-12 members) constituted 10% of the sample proportion.

Figure 2. Distribution of HH by Family Type

Distribution of HH by Family Type						
Types of Family	No. of Households	Percentage				
Extended Family	26	43.33				
Neuclear Family	34	56.66				
Total	60	100				

Source: Field Survey 2018

As given in the table, about 43% of households are found to be joint family and about 57% of household had nuclear family.

4.3 Sex Composition of Population of Sample Household

Sex is the basic demographic characteristic. Sex refers to the biological differences that are universal and unchanging. The sex is different also refers to the gender roles. The people of rural community taken the sexual division of labour as traditionally granted and make gender specific distribution between what man and women should do. Thus, sex is one of the most important personal characteristics. In the view of this, sex composition of the population of the sample household has been taken into consideration.

Sex Composition of Population 350 300 250 200 138 150 00 80.23 100 5.48 50 0 Male Female Total Sex Ratio **■** Population N Population

Figure 3. Sex Composition of Sample Household

Source: Field Survey 2018

Figure no. 1 illustrates that among total of 310 populations from 60 households nearly half that is 44.52 percent are male population and remaining 55.48 percent were females. The sex ratio was 80.23%.

4.4 Occupation and Source of Income

Occupation and source of income represent the economic status of the people. The given table represents 4.4 represent the occupation and source of income of the respondent.

Distribution of HH by Occupation and Source of Income 100 100 90 75 80 70 60 60 45 50 40 30 13.33 20 6.67 3 10 0 Agriculture and **Business** Services Wages earning Total livestock farming No. of Households **■** percentage

Figure 4. Distribution of HH by Occupation and Source of Income

The above figure clearly demonstrates that most of the respondents were involved in agricultural and livestock farming that was 75 percent. Further it is followed by wages earning which is just above 13 percent of the total respondent are dependent on it. In addition, less percent of the respondents was involved in business and services.

4.5 Prominent Household Worker

In Nepal, most of the females are engaged in household works and agricultural activities. Most of the respondents were found to have lower educational qualification which made them away to work in other economic earning sector. Due to the reason most of the females are found to be stuck in the household activities.

Distribution of Household by Prominent H.H. Worker

Male
3
Others %

Females
47
78%

Figure 5. Distribution of Households by Prominent H.H Worker

According the figure no. 4, more than three fourth of the female population (78.33) of housewives are involved in household work whereas only 5 percent of male are engaged in household activities. In addition, 10 percent of both husband and wife showed combined participation in household stuffs.

4.6 Decision Making in Household Work

The figure below clearly illustrates that highest percent of the male or husbands i.e. 37 percent are found to take major role in household decision making. In contrast only 16 percent of female from total respondent seems to have active participation in decision making. Although certain percent i.e. 5 percent from total respondent are found to have decision with mutual understanding and very low percent of other member from family take decision.

Distribution of Household by Decision Making

120
100
80
60
40
20
0
1 2 3 4 5 6

Figure 6. Distribution of Household by Decision Making in Household Work

4.7 Personal Characteristics of the Women Respondents

This section of the research report describes about the personal characteristics of the women who were selected for personal interview to inquire into their views and perception on their status and roles in the family. The personal characteristics of the women include age, education, and occupation and material status. Out of 60 women respondents selected for interview 35 percent were among the age group from 21 to 30 years of age, 43.33 percent were from 32 to 45 years and remaining 21.67 were from 46years and above. Majority of women respondent were illiterate which represents about 58.33 percent and out of the remaining respondent i.e. 41.67 percent or 25 respondents 12 were just literate, 5 had primary education next 5 had had secondary education and remaining 3 had acquired SLC certificated. All the women respondent were housewives besides most of them were engaged in agriculture activities as and when required.

4.8 Agricultural Activities and Pattern

4.8.1 Agricultural land

Land is one of the main factors of production. In measuring the land holding size all types such as agricultural form land, homestead land, pasture etc. Of land owned by family

were included. The land was measured in unites of Ropani and then household were classified on the basis of the size of the sample household is presented in figure no 6.

Land Owner Status 70 120 60 60 100 50 80 40 60 30 40 20 15 20 10 3 0 0 5 to 10 Ropani 10 to 15 Ropani 15 to 25 Ropani No land Less than 5 Total Ropani Number of H.H.s percentage

Figure 7. Distribution of Sample HH by Land Possession

Source: Field Survey 2018

Figure no. 6 shows that 5% household are landless. They don't own any land of any type.60 percent of household owned less than 5 ropani and 25% owned 5 to 10 ropani of land. Similarly, 6.67% household have 10 to 15 ropani and 3.33% have 15 to 25 ropani of land.

4.8.2 Cropping Pattern

The main crops grown in the study area were paddy, wheat, maize etc. Maize and paddy were grown in summer season and wheat was grown in winter season. According to the respondent, existing cropping pattern was largely determined by the type of land. The crop cycle involved paddy followed by wheat and then maize. Number of crop growing households is presented in figure no 7.

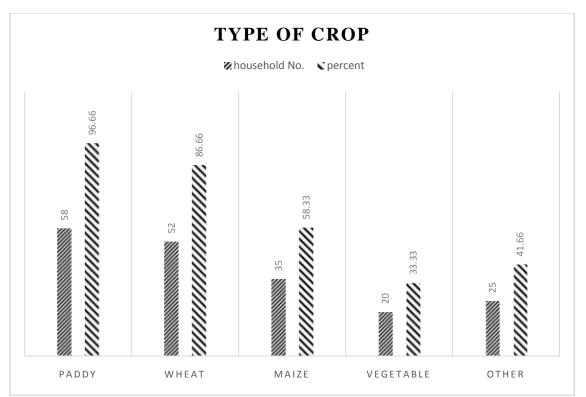


Figure 8. Distribution of Number of Households by Type of Crop

Figure no 7 shows, in terms of the number of crop growing households; paddy (96.66%) was the most commonly grown crops, followed by wheat (86.66%), maize (58.33%), other (41.66%) and vegetable (33.33%).

4.8.3 Agricultural Inputs

In the present study, agricultural inputs have been analysed in term of seed management use of manure, use of pesticides and use of wage labour. Seed management is one of the most important activities in agricultural production. Distribution of sample household by made of seed management of various crop is presented in table no 3.

Table 1. Distribution of Household Mode of Seed Management and Type of Crop

crop	Household Mode of Seed Management (HH)						
	Growing Crop(H)	Own Production		From market		Agricultural Office	
		No.	%	No	%	No.	%
Paddy	58	54	93.10%	3	5.18	1	1.7
Wheat	52	48	92.31%	4	7.96	-	-
Maize	35	33	94.28	2	5.72	-	-
Vegetable	20	12	60	5	25	3	15

Table no. 3 shows that most of the sample households used seed from their own production. A few of them used to purchase the seeds from market and agricultural office in addition to seed their own farm.

Table 2. Distribution of HH by Use of Manure & Chemical Fertilizer

	Crops	Manure Using HH			
Crops	Growing HH	Compost		Urea/Chemical	
		No.	Percent	No.	Percent
Paddy	58	58	100	58	100
Wheat	52	52	100	52	100
Maize	35	35	100	35	100
Vegetable	20	20	100	20	100

From the data presented in table no 4, it is clear that all of the farmers use chemical as well as compost manure for every type of agricultural production.

Table 3. Distribution of Household by Use of Insecticide and Pesticide

Crops	Crops growing	HH Using Insecticides or Pesticides	
	НН	Number	Percent
Paddy	58	32	55.17
Wheat	52	15	28.85
Maize	35	10	28.57
Vegetable	20	17	85.00

Source: Field Survey 2018

As shown in the table above, the population of farmers using insecticides and pesticides were highest among the vegetables producers. In contrast, less percent of the insecticides and pesticides were used by the farmer involved in maize production.

Agricultural labour is the most important agricultural output. The most common form of agricultural labour in the study area was reported to be "Parma" system. "Parma" is the reciprocal of exchange of family labour. The farmer particularly women, work in the field through exchange of labour in the form of "Parma". However, some of the sample

household, out of 600 female 11.67 % reported to have use labour in addition to family labour and Parma labour. These household also reported that they needed wage labour more or for almost all the agricultural activities such as digging, ploughing, transplanting, weeding, threshing etc. The wedge labour included both men and women while women labour were generally high for transplanting, weeding, applying manure and harvesting. Male labours were mainly for ploughing, digging and threshing.

4.9 Food Self-Sufficiency

Food, shelter and clothes are the basic needs of an individual. Food sufficiency is in itself a great problem for the low income groups. If a family enjoys sufficient surplus food, its members may fell secured, be confident and have access to other needs of their lives. On the other hand, if a family faces food deficit, its member may feel insecure and their entire activities revolves around the struggle for two meals a day.

In this study, food self-sufficiency was operationally defined as the sufficiency of food grains produced by the household from its own land to meet a particular period of time in a year. In view of the agricultural production described above, it would be quite revealing to look into the food self-sufficiency status and source of amount required for the purchase of deficit food are source of amount for the purchase of deficit food are presented in figure no 8 and 9.

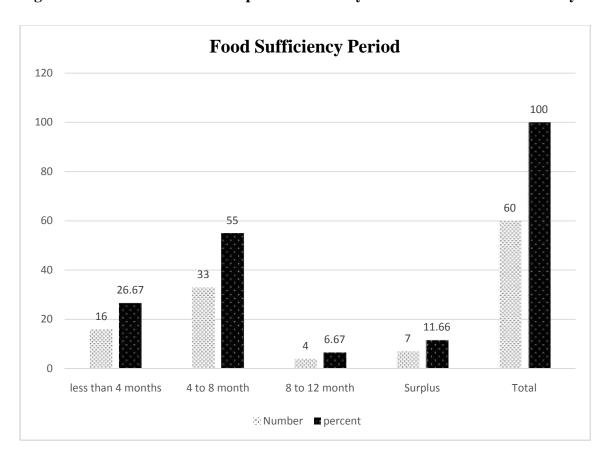
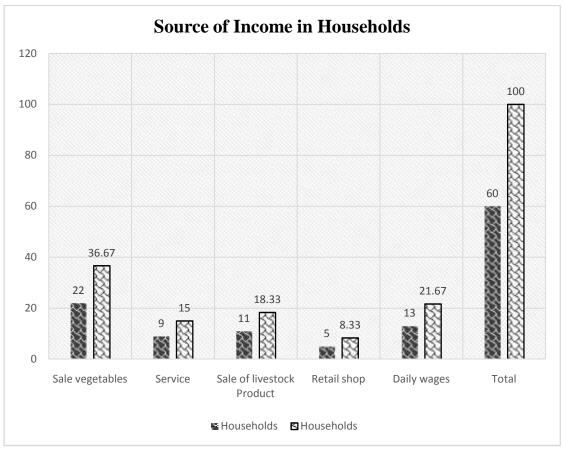


Figure 1. Distribution of the Sample Household by Period of Food Self-sufficiency

The distribution presented in table no. 8 shows that households reporting the production of food gains sufficient to meet the household requirement of less than 4 month constitute 26.67 percent. Those producing gains sufficient for 4 to 8 month were 55 percent. Another 6.67 percent reported that they product the food grains which were only sufficient to meet the requirement of 8 to 12 months. Similarly, only 11.66 percent of household reported that their production exceeded the food requirements of the household.

4.10 Income

Figure 2. Distribution Source for Managing Food Deficits



Source: Field Survey 2018

As table no 9 shows of the households reporting food deficit, 36.67 percent managed the deficit by vegetable sale. About 15 percent spent their income which they earned by salary and own self production. other Source of amount required for managing of food deficit were reported as income from sale of livestock products(18.33 %), retail shows (8.33%), and from Daily wages (21.67%).

4.11 Agricultural Process

The agricultural production also depends upon the process of agriculture and use of agricultural instrument, seeds fertilizer etc. By applying the modern technology of agriculture, the farmer can increase the production rate. The distribution of sample households by the use of technology in agriculture and use of agricultural instruments in agriculture and role of women in buying agricultural inputs are shown in figure no 10.

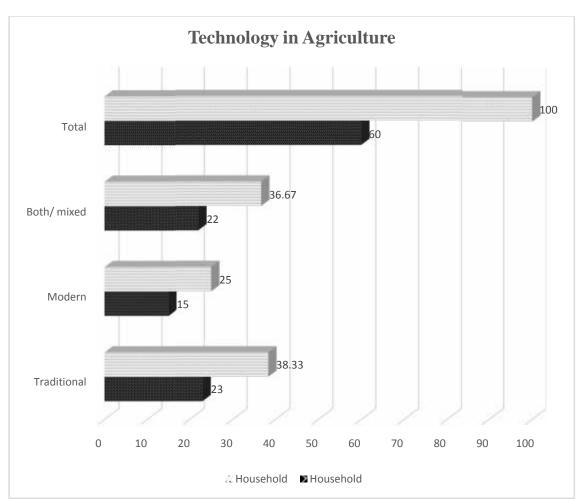


Figure 3. Use of Different Technology in Agriculture

Figure no 10 shows that the 38.33 percent households used Traditional Technology of agriculture, 25 percent used modern technology. Both technologies are mixed by 36.67 percent of households to increase their products.

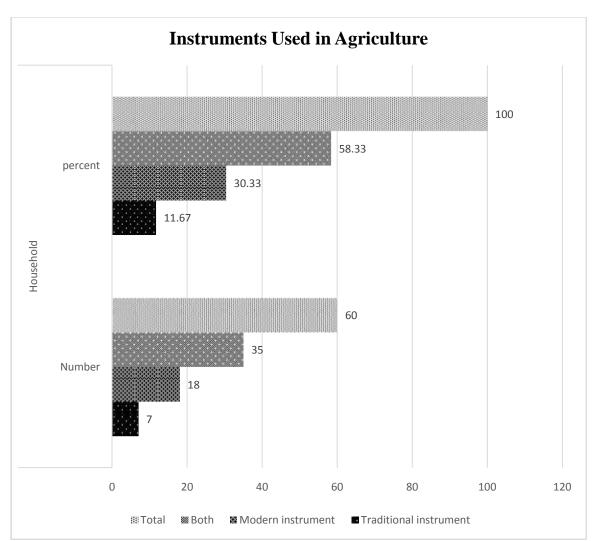


Figure 4. Use of Different Agricultural Instruments

The above figure shows that 58.33 percent of sample households used a both type of instruments, traditional and modern as well. Only 30 percent household used modern instruments due to lack of money. Lastly 11.67 percent of household are remaining using traditional instruments.

4.12 Role of Women in Agriculture

4.12.1 Role of Women to Purchase Required Instruments, Seed, and Fertilizers etc.

Figure 13. Distribution of HH Sex in Purchasing Agricultural Goods.



Source: Field Survey 2018

Above figure 12 shows, in about half of households (46.67%) the male play main role in purchasing required instruments, seeds, fertilizer etc. for agricultural production. Only 33.33 percent households had female role in purchasing required agricultural inputs. Male and female were equally responsible in purchasing required agricultural inputs in 20 percent households. It also clears the one aspect the role of women agricultural production.

4.12.2 Various Works in Farming

The farmers have varieties of work to do in the agricultural farm during crop production. Out of them some main work to be performed and its prominent workers are given in the table below.

Table 4. Distribution of Table by Prominent Worker

Various activities	Prominent workers			
	Female	Percent	Male	Percent
Transplanting	60	100	-	-
Harvesting	55	92	5	8
Ploughing	8	13	55	92
Irrigation	15	25	45	75

The above table 6 clearly demonstrate that almost all the transplantation and harvesting activities are performed by the female population of the household. Whereas ploughing and irrigation activities are mostly carried out by the male population of the sample households.

4.12.3 Role of Women in Worker's Management

The family members are only not enough for the completion of all the agricultural activities. Hence an individual household requires other human resource to complete the task on time. In regard to it the findings can be observed in the following figure.

ROLE OF WOMEN IN WORK
MANAGEMENT

Number II Percent

70

118

MALE FEMALE BOTH

Figure 14. Distribution of HH by Sex Role in Work Management

Figure no. 13 illustrates that the role of women is very high in case of worker management. While in some households both male and female participate to manage the worker to complete the task on time.

4.12.4 Budget Management for Agricultural Activities

Money is required matter to complete the different agriculture activities. According to the figure below it can be easily evaluated that half percent of the total respondent from female population takes the responsibility of budget management. On the other side 30 percent of the respondents says that both male and female manages the budget but only 20 percent claim that the male population manages the budget for agricultural activities.

ROLE OF WOMEN IN BUDGET **MANAGEMENT** ■ Number ■ Percent 50 50 45 40 30 35 30 30 20 25 18 20 12 15 Percent 10 5 Number 0 Male Female Both

Figure 5 Role of Women in Budget Management in Agricultural Activity

4.12.5 Storage of Agricultural Products

After harvesting the agricultural products some of the household sell it in the market whereas some of them store it in their residence for their own use in future. In regard to this the question was asked to the respondent about the responsibility of the storage of the products. In response to it, the given table clearly elaborate that more than half percent of the respondents agree that the responsibility of products storage is of females rather than that of male. Also participation of both male and female is even lesser than that of male participation in storing activities.

INVOLVEMENT IN STORING AGRICULTURAL PRODUCT

Percent Number

100

Female

12

132

Male

0 20 40 60 80 100 120

Figure 16. Distribution of HH for Storage of Agricultural Product

4.12.6 Marketing on Agricultural Products.

The people of the sample households used to sell the excess amount of agricultural production like as crops, vegetables etc. to the nearest market. Out of 60 households only 35 (58.33%) could produce excess amount of agricultural product to sell in the market whereas 25 (41.67%) couldn't produce sufficient amount to sell it.

4.13 Distance of the Market

The distance between the production field and the market also define the price if the agricultural product. If the market is near then the price is low in opposite if the market is in far distance than it would cost high. The distance between the field and the nearest market area of the sample household are given below.

Table 5. Distribution of HH by the Distance of Field from the Market Area

Distance between the field	Households	
and Market	Number	Percent
0-3	3	5.00
3-5	49	81.67
5-10	8	13.33
Total	60	100

The above table shows that the study area was near to the market area. Highest percent of the household are in the distance of 3-5 km from the market area. Only 13.33 percent of the respondent are little bit far from the market.

4.14 Means of Transportation

The transportation of the agricultural production up to the nearest market is not so easy task for some of the respondent household. Due to poor economic condition and lack of road facilities some of the farmers are still in the problem. The related survey data is enlisted in the table below.

Table 6. Uses of Different Transportation

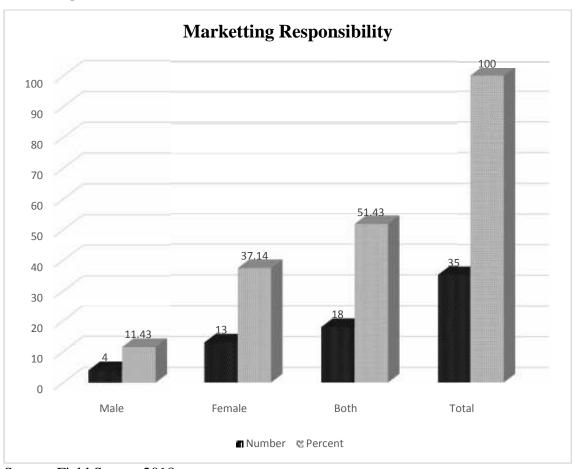
Means of Transportation	НН		
	Number	Percent	
Carrying	7	20	
Vehicle	28	80	
Total	35	100	

Source: Field Survey 2018

Among the total households, only 20 percent have to carry the product themselves up to the market. But highest percent of them transport the agricultural production via vehicles.

4.15 Responsibility of Marketing.

Figure 6. Distribution of Sample Household by the Responsible Member for Marketing



Source: Field Survey 2018

The male member from the family seems to have less responsible in selling the agricultural products. Instead female is found to be more participated in the marketing activities too. But mostly respondent from the household seems to be engaged cooperatively in the marketing purpose whose family whole income is dependent on agriculture. Also usually those agriculture products sold in the market include vegetables, fruits, food grains etc.

4.16 Miscellaneous

Respondents were asked to know their views towards the property fight for women, education for women, status of family life, cause of family backwardness and view towards women's power in decision making.

The Nepalese society is traditional and most of the traditional and cultural aspects play effective role to enhance the status of women in the society. Females have no property

rights and how to access to education and economic activity. They are considered as the supporter to the male and have to follow the male counter parts. Husband is considered as good for wife and she has to respect in every step of her life. Indeed, it is ridiculous in the modern society where both male and females are equal having equal rights and responsibilities. Though males and females are considered equal, even today females are away from the education right to power and property as well they have low status in the society too. There is still the evidence of gender discrimination in socio economic status and also in decision making power in the modern society.

4.16.1 Education for Female

Views of respondents towards education for female had been recorded. Most of the respondents realized that education is the main factor which keeps the females to raise their status in the society. They are in favour of women's education. Few are against it.

Table 7. View of Women on Education

Respondents view	Number of respondent	Percent
Yes	48	80
No	12	20
Total	60	100

Source: Field Survey 2018

Out of 60 respondents, 80 percent of the respondent felt the importance of education for women in the competitive world whereas remaining percent shared their negative view on female education. The reason behind the positive and negative comments on female education is as follows.

Reasons for favouring female education

Knowledge and awareness building

Employment opportunity

Improve socio economic status

Easy way of living

Gender equality

Better future of female and children

- Demand of time
- Reasons for not favouring education
-) Property of others
- Less time for household work
- Culture and tradition

4.16.2 Reasons for Female Backwardness

In the study area, females are found deprived from their rights and responsibilities. They have low access to education, employment and decision making. They are dominant by males in each and every step of life. The following are the main reason for the backward condition of women.

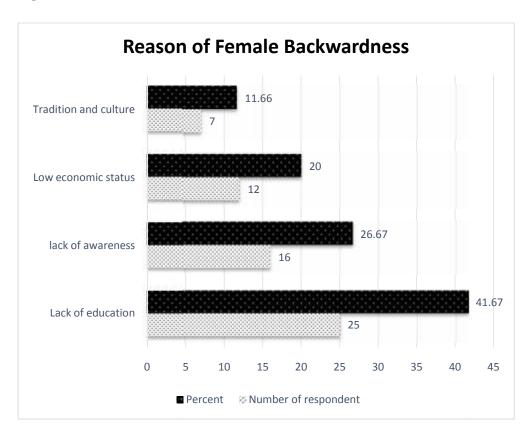


Figure 7. Reason of Female Backwardness

Source: Field Survey 2018

According the information given in the figure, most of female respondents agree that the backward status of the female in the society is due to lack of education. It is followed by lack of awareness to the females. And the third reason behind the status of women in society is because of the low economic status. In addition, tradition and culture also create the problem of female backward state in the society.

Chapter – V: Summary, Conclusion and Recommendation

5.1 Summary

The present study entitled "Role of women in agricultural production: A case study of Chhaling municipality-5, Bhaktapur District" is based upon 60 sample household and out of total population of 1349 household in 3, 4, 5 wards of municipality.

The total population of this municipality according to municipality profile 2070 is recorded at 8266. Out of total population 4052 were male and 4214 were females. To carry out the study efficiently questionnaire related to agricultural production were implemented. By adopting the purposive sampling method questionnaire was administered to 60 respondents assessing the women's role in agricultural production. Out of 60 households, 32 were Nuclear family and 28 were from joint family. Most of the respondents were found not to be totally dependent on the single income source. Agriculture and livestock, business, service, wages etc. were the source of income of the respondents. About 75 percent of the households were found to have agriculture and livestock as their main source of income.

All the respondents were females and were housewives. Among them only 60 percent of them were literate while other had no any educational background. Most of them got married at the age of 15-21 years. In addition, 5 percent of the respondent doesn't owe their own land. Further in case of production, paddy was found to be the highly grown crop in that areas almost 90% of them produce it which was followed by wheat, maize, fruits and vegetables. Moreover, the seeds required for the production were mostly produced by themselves but only few of the farmers buy the seeds from the market.

The most common form of agriculture labour in the study was reported as the "parma" system. "Parma is the reciprocal of exchange of family labour. The farmers particularly women work in their farm through exchange of labour in the farm. In addition, 38 percent of the respondents were found to use the traditional technology in the agricultural activities whereas 25 percent of the respondents are used to with the modern technologies and remaining percent use mixed technologies.

There are different aspects to analyse the role of women in agricultural development. Most of the works in the farming like plantation, harvesting, irrigation etc. are done by female. Also female play major role in purchasing seeds, fertilizer, seeds and other required instruments. In contrast most of the male population are found to be engaged in the business and other services for income generation. Cereal crop production and livestock rearing are the main source of household income. The annual household income of about one half of the sample household is balanced with the household expenditure, while rest are in surplus (i.e. income exceeding the expenditure) and deficit (i.e. expenditure exceeding the income). The deficit is managed mainly by borrowing. The surplus is used mainly for unproductive purpose, such as festivals, ceremonies etc.

The specific objective of this study was to assess the status of women in the basis of socioeconomic condition and to identify the role of women in agricultural production focusing on autonomy at Chhaling municipality-5 of Bhaktapur district.

5.2 Conclusion

This study highlights the involvement of rural women in the agricultural production of major crops in Chhaling municipality-5. Agriculture is the predominant economic activity of the village people. So, the development of the village is dependent on the agricultural sector. According to the field survey, out of total economically active population more than half are engaged in agriculture. The proportions of the female engaged in farming are higher than the male population. Rural women's role in crop production is influenced by many factors such as family structure, caste system, educational status, age of farmer, crop type, level technology etc. Women are consulted for every activity by final decision is mostly made by males.

The present study shows that the rural women actively participate in the various activities of food crop production. But their participation varies in activities. Ploughing is the only one activity female is not actively participated. Female mostly involve in plantation, harvesting, irrigation etc. Also female play major role in purchasing seeds, fertilizer, seeds and other required instruments. Besides farm activities rural women are involved in different livestock rearing, grazing, milking cow and buffalo, cleaning shed etc. They also have to do household activities and child rearing with little or no assistance. Household activities are done by male but it depends on situation. It happens only n the difficult situation.

Moreover the study also clarifies that not only the culture and religion the education is also playing major role towards involvement of females group towards the agricultural activities. Without education female are not capable to get any kinds of job opportunities either than those household works. So they are compelled to take part in the household work and agriculture. Also from the final the final table it is clear that due to lack of education and the cultural beliefs females are backward in our country. The reason behind it is due to the lack of participation in modern technologies. And also they are just limited within the four wall of the society where they live. So some of the suggestion to uplift those women status is also included in this study.

The conclusion derived from the analysis and women role in agricultural production are as follows.

- All the respondents are females.
 Majority of the respondents are Chhetri, Newar, Brahmin and Dalit.
 With regard family structure, 53.33 percent household have nuclear family and 46.67 percent household have extended family.
 Among the total 310 members from 60 sample households, 44.52 percent were male and 55.48 percent were females. The sex ratio was 80.23 percent.
 Most of the respondents are involving in agriculture and livestock farming (75%), wages earning (13.33%), Services (6.67%) and Business (5%).
 About 60 percent decision for household works was taken by males.
 Out of 60 respondents, 58.33% are illiterate, only 41.67 % are literate.
 Regarding landholding size of respondents, 60 % households have less than 5 ropani. The average landholding size was 4.87 percent.
- J In about half of the sample household (46.67%), the males play main role in purchasing required instruments, seeds, fertilizer etc.
- In about the entire sample household, the females are as prominent workers for transplanting and harvesting but males are as prominent workers for ploughing and irrigation.
- About 70 percent sample households reported that females are responsible to manage the workers for agricultural activities.

5.3 Recommendation

Women who constitute one half of the total population play an important role in every society. Women's involvement in agricultural production, sharing the agriculture benefits and decision making is very important in each and every sector by the present women

participation is for behind as they are not given the equal opportunities as men. Hence, gender discrimination is the main issue for development in Nepal. So, a few recommendations have been listed for taking steps towards raining the women's involvement in every sector like agricultural and other activities and sharing the agricultural benefits:

- There is low socio-economic status of women in Chhaling municipality-5. Different type of programs like non-formal education, adult education etc. should be introduced within the village for importing basic education to women. The education institution contributes to bring about quick change in the attitude of society for raising their condition.
- In addition to agricultural activities, rural women have to perform their regular household activities. They have to work hard within inefficient and traditional tools and household facilities. Therefore, new ideas technologies (labour saving devices like smokeless stove in kitchen. etc.) that increase women working efficiency and the same time reduce their drudgeries are to be introduced in the rural area.
- In rural areas, loans and credits are not directly available to women because of the institutional bureaucratic system, as well as the socio-economic traditions. Provision of credits group liability should be made in order to motivate the women farmer towards income generating activities.
- Now it is realized that the common framework of development strategy does not fully safe guard the needs and interests of rural women. So, rural women should be treated as a separate group.
- Since women's participation in agricultural development activities is presently very poor, the concerned agricultural development office should focus on increasing women's participation in training, group visits demonstration and exhibition etc.
- To make the agricultural extension programs more effective in reaching female farmers, female extension workers should be recruited to service the female farmer.
- The study found wage differential should be eliminated in order to improve the status of women. Similarly gender gap in education should be close.

- The mobility and freedom of women in economic, social and public life should be enhanced.
- A system of joint decision making process with the involvement of men and women should be popularized during informal education program.
- Priority to women in training for agricultural income generating activities and income holding activities should be given.

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Annex I

QUESTIONNAIRE FOR RESPONDENTS

1.	Personal Profile
	Name of Respondents:
	Address:
	Sex: a. M () b. F ()
	Cast/ Ethnicity: Number of Family Members:
	Marital Status: a. Married () b. Unmarried ()
2.	What is your main source of income?
	a. Agriculture b. Business c. Service d. Other
3.]	How do you produce agriculture products?
	a. Scientific b. conventional method c. both
4.	Who play the main role in agricultural production?
	a. Male b. Female c. Both
5.	What about the wages in agricultural work for male and female?
	a. Equal b. Unequal c. Other
6.	What types of agricultural instrument do you use?
	a. Morden b. Conventional c. Both
7.	Did you take any counselling from source?
	a. Yes b. No
8.	If you took, from whom?
	a. Agricultural specialist b. Family c. Neighbour d. Other
9.	How do you manage the required seed?
	a. Own production b. From market c. Agriculture Office d. Other
10.	. Who buy the necessary things like as agricultural instrument, seeds and fertilizer
	a. Male b. Female c. Both
11.	. How you store agricultural products?
	a. Morden method b. Convention method c. Other
12.	. Averagely, who spent much time for agricultural work?
	a. Male b. Female c. Both d. Other
13.	. For how much time, the produced crop sufficient for your family?
	a. 4 month b. 4-8 month c. 8-12 month
14.	. Do you sell the agricultural products in the market?

a. Yes b. No			
15. What do you sell in the market?			
a. Vegetable b. Cereal crops c. Other			
16. Who sell the agricultural products?			
a. Femaleb. Male c. Both			
17. How much far is the market from your Field?			
a. 0-3km b.3-5 km c.5-10km d. much far			
18. How do you bring the agricultural products up to the market?			
a. By carrying b. By vehicle			
19. Except agriculture, do you do other work?			
b. Livestock b. Business c. Service			
20. What types of crop and production produce in your field?			
a. Paddy b. Maize c. Other			
21. Who do the household work?			
a. Femaleb. Male c. Both			
22 Who is the ownership of land and house?			

a. Female b. Male c. Both

Annex II

Focused Group Discussion

- 1. What are the main agro-products?
- 2. Which agro product provides higher income?
- 3. Do you produce off-season products?
- 4. Which fertilizer do you use in your farming?
- 5. Do you use chemical fertilizer?
- 6. Do you use pesticides?
- 7. Is their equal wage for both genders?
- 8. Are their different work situations for male and female?
- 9. What are the problems faced by the farmers while in farming?
- 10. What are the other sources of income?

Annex III

Key Informant Interview

- 1. What are the major problems faced by the farmers?
- 2. Do you think the situation of agriculture in this particular region satisfactory? Why?
- 3. What can be done to promote females in agriculture?
- 4. Do you think the present agricultural activities can sustain family needs?
- 5. Do you think there is gender discrimination in agricultural scenario?
- 6. Are people being helped by any organization? If yes, what are the organizations and what they are helping for?
- 7. Are farmers involved in off-season farming? If yes, what sort of off-season is being practiced in this area?
- 8. What about the irrigation facilities while in farming?
- 9. What difficulties are facing by the farmers to sell their goods in the market?
- 10. Is agriculture sufficient to sustain the family? Or there is a dire need of any substitution or option?

Annex IV

Pictures

Picture no. 1



A picture of a woman involved in animal husbandry taken during the interview.



A women involved in agro farming.



A permanent resident of Chhaling involved in vegetable growing.



A picture of cabbage-lettuce mixed farming owing by the local farmer.



A view of wheat farming in Chhaling, Changunarayan Municipality.