

Gender Difference in Decision Making and Workload Analysis Regarding Agriculture Operations in Chitwan District of Nepal

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Abstract- A study was carried out to examine the gender difference in decision making and workload analysis regarding agriculture operations in Chitwan district of Nepal. Random sampling technique was used to select the household and interview with the structured questionnaire was carried out. Descriptive statistics were employed to analyze the data collected and results were obtained. The results revealed that majority of financial decision, purchase/sale of land (78%), land preparation (61%), Irrigation(65%), Application of chemical fertilizer(51%) and pesticides(55%), marketing(64%) and utilization of farm income(70%) were made by men while women decision making were limited in sowing/transplanting(47%), application of FYM(54%), weeding(65%) and post-harvest handling of crops(48%). A joint decision was taken by the involvement of both men and women in activities like land allocation(67%), selection of crops and varieties(71%) hiring farm labor (49%), harvesting of crops(67%) and storage(58%). This study also revealed that on average women spent 5hrs per day on agriculture operations while men spent 2hrs per day. The workload of Women in different activities was found to be 6hrs more per day on average than their men counterparts

Keywords: Decision; Workload; Women; Agriculture

1 INTRODUCTION

In gender relation, there is defined role and responsibilities for men and women that have been socially accepted and practiced. The decision refers to the power to control whether and how a resource is used or to decide right thing at the right time. In fact, decision making and control are synonymous with each other. In reality, the person possessing decision-making power have control over resources such as management, buying, selling, etc. Therefore sustainability in agriculture production depends largely on decision-makers. Decisions are also dependent on the characteristics of the household, for example, age and gender, health status, farming experience, knowledge and skills, and relationships among members[1].

Household attributes such as family size and dependency ratio also influence household decision-making, as well as land, livestock, assets and capital, education and personal capabilities (for example, knowledge and types of skills), are major factors influencing decision making but is always dominated by men whatever may be the cases[2]. Although women's labor inputs to agriculture are often greater than men's, they rarely have access to extension services, institutional credit, or production inputs [3]. Despite women's important role in agriculture, traditional social norms and customary laws, they are generally biased in favor of men and are barriers to women's equitable access to productive resources [4]. In accordance with the other norms of patriarchal society, women also tend to lag behind men in access to almost all available opportunities and resources [5]. Majority of decisions regarding plowing the field, leveling of field and marketing activities were male-dominated. In the activities like raising nursery for seedling and seed treatment before sowing, the majority of decisions were taken by women [6]. Sustainability in agriculture production depends largely on decision-makers. Multiple factors are responsible for gender variation in participation in decision making regarding agriculture activities within each region and socio-cultural parameters in Nepal. Nepalese agriculture is being feminized, and a strategy with a clear vision is needed to bring it into a function, addressing the

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recurrent problems, particularly gender inequality in agriculture workload. The existing understanding is inadequate and misleading, unfairly penalizing women groups and the importance of gender-based decision making in addressing agricultural sustainability issues have not been sufficiently considered [7]. Women contribute 12.6% more than men in agriculture. Women spend an average of 9 hours per day while men spend only 5 hours per day which makes women a major supporter of agriculture. Of the total time spent in agriculture women donate 60.8% of her time while men only 39.2%. Of the total, 52% of agricultural operations are done by women [8]. Therefore the present study intends for deeper analysis of social and structural issues of gender role in agriculture-related decision making needed to better inform the policy processes. The Nepalese decision-making pattern clearly indicates that when major decisions areas involved money, those decisions domains were men's when money was not involved, such as farm activities and food sharing, decisions were made entirely by women or jointly with men. The male members of the family solely do the financial activities. Women play the catalyst role in the family and household decision-making. But as far as the matter of decision making beyond family is concerned the participation was seen very low [9].

Objectives of the Study

The broad objective of the study was to analyze gender difference in decision making and workload analysis regarding agriculture operations in Chitwan district of Nepal whereas Specific objectives of the study was as follows:-

- To study the socio-economic characteristics of the study area
- To investigate farm decision-making pattern
- To find out the workload of gender in agriculture operations
- To find out the workload of gender in different activities per day

2 METHODOLOGY

The survey was purposively conducted in Chitwan district of Nepal beginning from January 2018 till March 2018. Due to the availability of fertile and bare land, most of the people are engaged in agriculture especially women. Data were collected using the semi-structured questionnaire through a household survey by purposive sampling technique where respondents took were from different ethnic groups, education level, occupation, etc. Collected data were checked, reviewed and organized for completeness and accuracy and minimizing errors which were then stored safely.

Data were then analyzed, edited and categorized on the basis of the objectives of the survey and entered as per requirement in MS Excel. Simple frequency counts, Average, and percentage were calculated using descriptive statistics and tables bar diagrams and pie charts were prepared.

3 RESULTS AND DISCUSSION

3.1 Socio-Economic Characters

Fig 1: Ethnicity of Respondent in the Study Area

The ethnicity of the household was analyzed. The result showed that the majority of the household were Brahmin/Chettri (64%) which is higher than the National survey (2011) i.e. 28.78%. It means that most of the Brahmins from all over Nepal have migrated here. The household survey shows that Janajati (30%) in the study area was slightly lower than the National survey i.e. 30.25%. It also showed that Dalit in the study area was only 5% which was lower in comparison to a national survey (7.94%). Only 1% of Muslim reside in this area of the total (4.39%) according to a national survey.

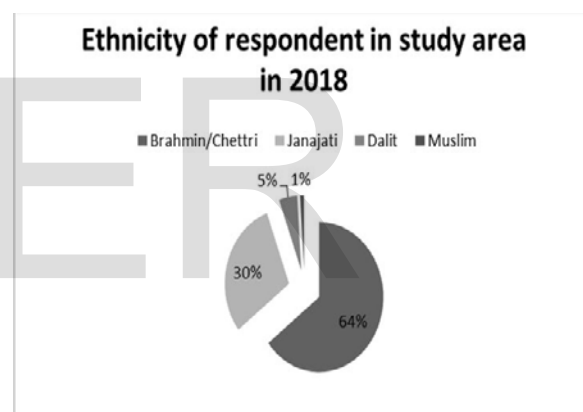


Fig 2: Education Level of Respondent in the Study Area

Result revealed that most of the women in Bharatpur Metropolitan City involved in agriculture were literate. Only 8% of women involved in agriculture were illiterate. Women of Brahmin/Chettri had attained higher education and take part in most of the decision-making activities followed by women of Janajati whereas women's of Dalit and Muslim could hardly take part in any decision-making activities. Educated women tend to be aware of their rights and responsibilities than uneducated ones. Education also enhances the skill, awareness level and capacity for making the right decision at right time.

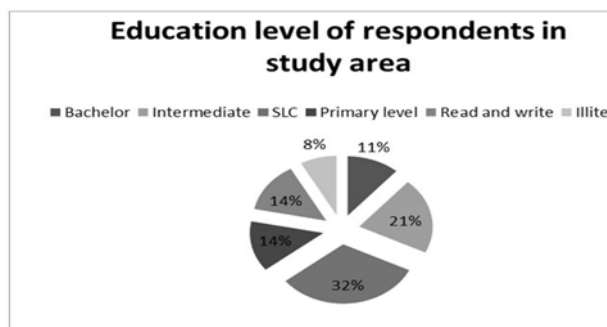
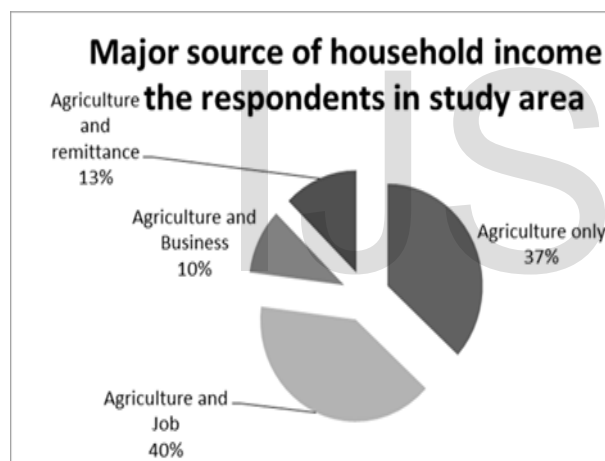


Fig 3: Major Source of Household Income of Respondent in the Study Area

The study showed that major source of income in the study area was found to be government and a private job as literacy percentage was higher followed by remittance and agriculture. Most of the men of Brahmin/chettri dominated Job while Gurung/Magar was involved in foreign employment.



Gender-based characterization:

Table 1 revealed that male-dominated over female in case of mass media exposure, training, off-farm employment, literacy rate, and extension participation. However, women were found to be highly involved in social groups i.e. women's groups, farmers groups, co-operatives, etc. in comparison to men.

Table 1: Gender based characterization of socio-economic characteristics

Characteristics	Male(%)	Female(%)	Average(%)
Mass media exposure	73.3	70	71.65
Involvement in social group	55	70	62.5

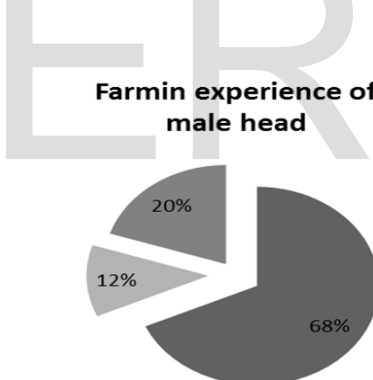
Training received	28.3	23.3	25.8
Off farm employment	53.3	18.3	35.8
The average age of household head	50.8	47.6	49.2
Literacy rate	90	65	77.5
Extension participation	25	10	17.5

(Source: Household Survey, 2018)

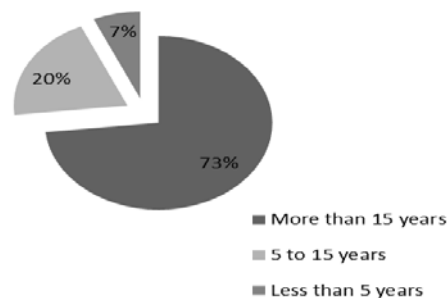
Farming experience of household heads

As shown in figure 3, a number of the female household heads of the study location had higher experience in farming related activities in comparison to the male household heads. As an agrarian-based society, women were more restricted to the daily household chores and subsistence agricultural activities in comparison to men who had more participation in extra-firm activities and also had the responsibility of earning for maintaining a livelihood.

Figure 4: Pie charts showing farming experience of male and female household heads of farm families of the study area



Farming experience of female head



(Source: Household survey, 2018)

3.2 Farm Decision Making:

The study proved that in the family having agriculture as a major source of income decision making regarding each and every activity of agriculture is solely controlled by men. In most of the cases, decision regarding financial activities, purchase/sale of land (78%), land preparation (61%), irrigation (65%), application of chemical fertilizer (51%) and pesticides (55%), marketing made by men. In those family, where men have migrated abroad almost all decision related to agriculture was taken by women if not then women were involved only in decision making regarding simple but time-consuming activities. Women decision making was limited in sowing/transplanting (47%), application of FYM (54%), weeding (65%) and post-harvest handling of crops (48%). A joint decision was taken by the involvement of both men and women in activities like land allocation (67%), selection of crops and varieties (71%) hiring farm labor (49%), harvesting of crops (67%) and storage (58%).

Table 1: Farm Decision Making among gender

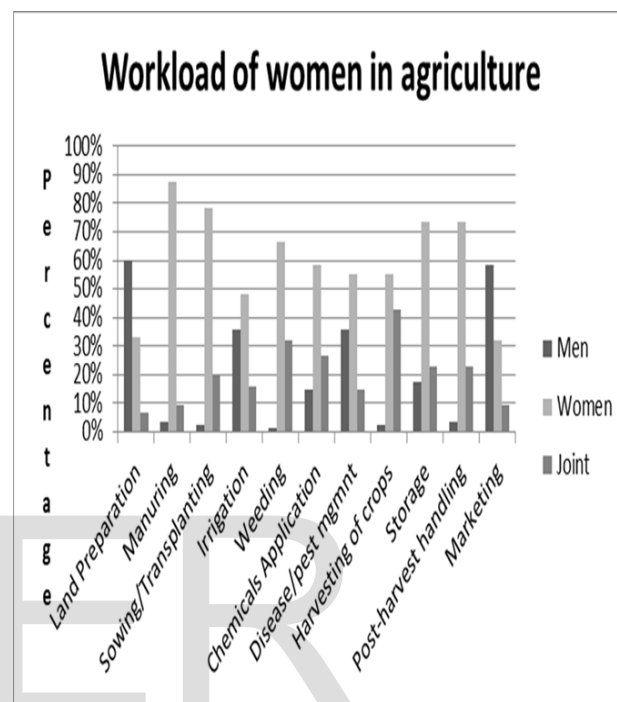
Activities	Men	Women	Joint
Land allocation	33%	10%	57%
Selection of crops and varieties	18%	11%	71%
Purchase/sale of land	78%	5%	17%
Hiring farm labour	7%	44%	49%
Land Preparation	61%	36%	9%
Application of FYM	41%	54%	5%
Sowing/Transplanting	43%	47%	10%
Irrigation	65%	29%	6%
Weeding	24%	65%	11%
Chemical fertilizer application	51%	41%	8%
Disease pest management(pesticides application)	55%	34%	11%
Harvesting of crops	21%	22%	67%
Storage	22%	20%	58%
Post-harvest handling	8%	48%	44%
Marketing	64%	32%	4%
Utilization of farm Income	70%	28%	2%

(Source: Household survey, 2018)

3.6 Workload in Agriculture:

Though most of the decision in agriculture is taken by men, women spent more hours in the field than men. Except for land preparation (60%), and marketing (59%) workload of women is much higher in comparison to men. Involvement of men in different off-farm occupation and foreign migration increased the workload of women. Workload of Women in different agriculture activities were found to be manure application (87%), Sowing/Transplanting

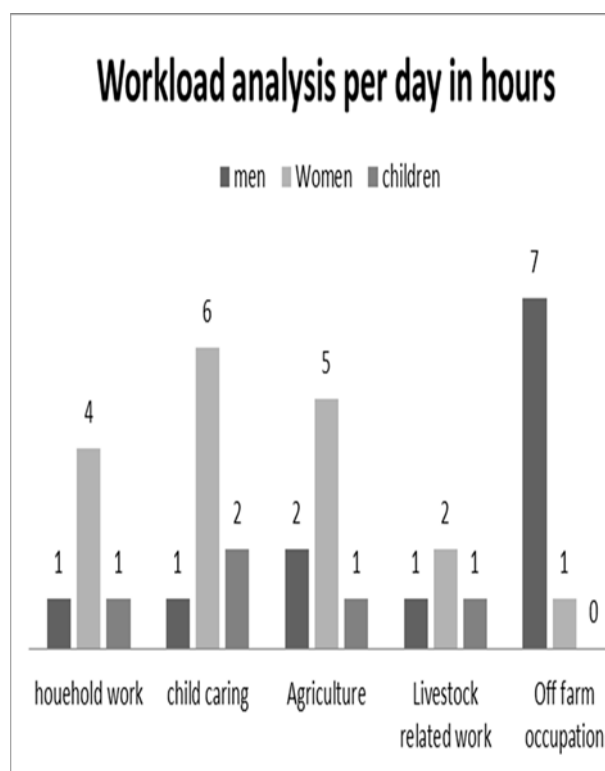
(78%), weeding (67%), Chemical application (59%), disease/pest management (55%), Harvesting (55%), Storage (74%) and post-harvest handling (74%). Gurung [11] in his study also proved that, except field plowing almost all agricultural operations like seeding, transplanting, weeding, harvesting, processing, storage are performed by women making workload of women in agriculture 3 hours higher per day than men.



(Source: Household survey, 2018)

3.7 Workload analysis of Women per day:

From household works to agriculture and livestock, each and every activity must be completed by women. Men so-called superior of the society are involved mostly in off-farm activities, if not men usually passed their time drinking and playing cards which ultimately increased the workload of women. On an average woman spends 4 hrs/D in household activities, 6 hrs/D in child care. Though men and elder children help her that help seems negligible. In agriculture, women work 5 hrs/D while men work for only 2 hrs/D whereas in livestock-related activities women spend 2 hrs/D while men spend only 1 hr/D. Subedi ([12] in his study also showed that women work about one and half times more than men per day as women generally play a triple role (i.e. productive, reproductive, socioeconomic) whereas male generally focuses on the single productive role.



(Source: Household survey, 2018)

4 CONCLUSION:

Gender inequality is prevailing in our society since pre-historic time which root still couldn't be eradicated. Biasing women from the reach of every infrastructures and service hinder their capability to compete with their men counterparts.

The study was carried during January 2018 till March 2018 which was selected by random sampling among farming communities. Primary and secondary data sources were collected and used to obtain required information, entered in MS-EXCEL and using descriptive statistics pie-charts and bar-diagrams were prepared in order to understand the participation of gender in decision making and workload regarding agriculture operations.

In household having agriculture as the main source of household income, men took every decision. The results revealed that majority of financial decision, purchase/sale of land, land preparation, irrigation, application of chemical fertilizers and pesticides, marketing and utilization of farm income were taken by men while women decision making were limited in sowing/transplanting, application of FYM, weeding and post-harvest handling of crops. In a household where men had migrated abroad and the female was head of the family, every decision regarding farming was taken by a female.

Generally, the decision of simple activities such as sowing/transplanting, application of FYM, weeding and post-harvest handling of crops. In a household where men were involved in any kind of job and lives in the same house, joint decisions were made by the involvement of both men and women equally. A decision on land allocation for farming, selection of crops and varieties, hiring farm labor, harvesting of crops and storage were taken jointly. This study also revealed that on average women spent 5hrs per day on agriculture operations while men spent 2hrs per day. The workload of Women in different activities was found to be 6hrs more per day on average than their men counterparts.

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