



RESEARCH ARTICLE

GENDER PARTICIPATION IN ACTIVITIES AND DECISIONS OF VEGETABLE CULTIVATION IN SURKHET, NEPAL

Bishal Bista^{a*}, Pankaj Raj Dhital^b, Suraj Acharya^a, Sagar Dahal^a, Bibek Dahal^a, Shikshit Parajuli^a

^a *Agriculture and Forestry University, Rampur, Chitwan, Nepal.*

^b *Department of Agricultural Extension and Rural Sociology, Agriculture and Forestry University, Rampur, Chitwan, Nepal.*

*Corresponding author email: Bista.afu30@gmail.com

This is an open access article distributed under the Creative Commons Attribution License CC BY 4.0, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

ARTICLE DETAILS

Article History:

Received 29 September 2020

Accepted 30 October 2020

Available online 18 November 2020

ABSTRACT

A study was conducted in Surkhet, Nepal in 2020 to identify and assess the gender participation in various activities and decisions of vegetable cultivation. A total of 120 vegetable farmers were selected; 30 farmers from four different municipality. The results revealed that most of the vegetable farming activities are done jointly, whereas, laborious and taxing activities like ploughing and spraying pesticides were exclusively done by male, and sowing/ raising nursery, picking/harvesting, and marketing of farm produce were predominantly done by female. Regarding the decisions related to vegetable cultivation, majority of the decision were joint decision; consent of both male and female. However, male had greater authoritative power, and female performed supportive role. Gender sensitization, awareness in society, education for women, and extension services should be provided for empowerment and capacity development of women by government and related organizations. This will help to widen the parochial outlook of women, which will ultimately enhance their participation in decision-making process.

KEYWORDS

Gender, roles, activities, decisions

1. INTRODUCTION

Socially constructed relationship between men and women in a society is referred as 'Gender' (Eagly, 1987). It is social characterization of biological sex differences (Kalauni et al., 2020). Gender roles refers to the way male and female should perceive, think, and act accordingly to the norms and traditions of a particular society (Devkota and Pyakuryal, 2017; Groverman and Gurung, 2001). They are responsibilities assigned to male and female, determined by socioeconomic and cultural environment, and not by biological factors (Molle and Mtenga, 2000). Gender roles are highly influenced by the interactions between individuals and their social, historical, political and economic environments (West and Zimmerman, 1987). Gender roles are characterized in the tasks and responsibilities; anticipation from men and women, and characteristics associated with being male or female in a certain society, based on sex, societal values and beliefs (Sanders, 1977; Yorburg, 1973; Devkota and Pyakuryal, 2017).

The differences in the duties and responsibilities of men and women in the society are because of gender norms; ultimately causing bias in distribution of resources, activities, wealth, as well as enjoyment of entitlements and rights within family and in public life (Welch et al., 2000). Those norms also influence the development of individual skills, interests, power relations, and decision-making processes at individual, family, community, and institutional levels. Furthermore, these gender norms direct men and women to perform different tasks and roles based on their sex, as expected by society. The progress and development of a nation is contingent equally on both men and women. There is a strong relationship between gender and agricultural activities among Nepalese rural households too (Devkota and Pyakuryal, 2006). Women are major stakeholder in agriculture production globally; significant proportion of

employed women are involved in agriculture activities. Women are involved in production of more than 50% of the food grown worldwide. It is revealed through micro-studies and special surveys, that women's contribution in agriculture has been severely underestimated, and that in fact, women's contribution is quite significant, especially when unpaid labor is taken into consideration (FAO, 1995). Despite significant contribution, women are poor than men, attributed to deprived opportunities and rights within family and society, lower access to financial responsibilities, and higher involvement in household chores. Apart from that, women face severe holdbacks in multiple activities they initiate because of many reasons such as, less land ownership, less advantage in decision making, lower access to credit, extension and other services, and ability to hire labor. Men are also active participants in agricultural activities; greater inclination towards cash crops and commercial vegetable production.

In case of Nepal, men are granted reservation over physical and economic assets, and decision making, as a right by birth. Both men and women participate equally in field and household chores, yet the role of women in decision making is secondary. But recently, changes have been observed in Nepalese society; regarding decisions involving greater financial risks and uncertainty, even women are having equitable role in decision making. A study was conducted in Surkhet, Nepal with an attempt to analyze socio-demographic characteristics of vegetable farmers and explore the gender involvement in various activities and decision-making process of vegetable farming. Thus, this study aims to compare and analyze the women's participation, access to resources, and decision-making during vegetable cultivation. This study employs both quantitative and qualitative approaches for data collection.

Quick Response Code



Access this article online

Website:
www.fabm.org.my

DOI:
10.26480/fabm.01.2021.10.13

2. METHODOLOGY

The study was conducted in Surkhet district of Nepal which is also the capital of Karnali province. The study area includes Bheriganga, Birendranagar and Panchpuri Municipality and Chaukune Rural Municipality, major pockets for vegetable production. A total of 120 farmers were selected for study; disproportionate stratified random sampling (30 farmers from each four municipalities selected for study) was used to select respondent households. The study was based on both primary and secondary data. Primary source of data was Household interviews, Focus Group Discussions (FGDs), and Key Informant Interviews (KIIs). Secondary data were collected from various publications of Ministry of Agriculture and Livestock Development (MoALD), various NGOs & INGOs, and journal articles of universities.

3. RESULTS AND DISCUSSION

3.1 Demography and socio-economic status

Out of 120 households surveyed, 70 percent were male respondents and 30 percent were female respondents. Similarly, 93.3 percent of HHH were male and 6.7 percent were female. The average age of the household head was 39.84 years whereas the average age of respondent was 37.19 years. The average years of schooling was 8.64 ± 4.80 . The average household size was 5.48 which was higher than district average household size (4.82) (CBS, 2011). The average economically active population (Individuals between 15-60 years) per household was 3.52 (ILO, 2010). The average experience of the vegetable farmers in vegetable farming was 7.08 ± 5.173 with the range of 1-24 years.

Table 1: Demography and socio-economic status households

Variables	Minimum	Maximum	Mean \pm S.D.
Age of Household Head	24	70	39.84 ± 9.346
Age of Respondent	19	70	37.19 ± 9.816
Years of Schooling	0	16	8.64 ± 4.800
Total family size	2	13	5.48 ± 1.847
Individuals up to 15 years	0	6	1.54 ± 1.263
Individuals between 15-59 years	1	9	3.52 ± 1.396
Individuals above 59 years	0	2	0.47 ± 0.685
Experience of Vegetable production (years)	1	24	7.08 ± 5.173

3.2 Land ownership

Land ownership is rendered as a factor of social prestige and superiority of individuals in typical Nepalese society. Majority of land ownership was of male (71.7%), followed by joint ownership (16.7%), and female (11.7%). There are several direct and indirect benefits of having ownership and control over physical assets like land, housing etc.

3.3 Gender roles in different activities of vegetable farming

Agriculture is backbone of the livelihood system in the study area. The main source of labor was family. Both men and women were involved in the activities related to vegetable production. The degree, level, and stage of gender participation in different activities related to vegetable cultivation, however, varied from one activity to other. Some activities were predominantly done by male, some by female and some of them were done jointly. Field preparation are exclusively done by male; especially ploughing and taxing part of the job. Similar results were reported by (Devkota et al., 2018; FAO, 2011; Fartyal and Rathore, 2013; Zewdu et al., 2016). Farmers doing vegetable farming in large areas use hand driven tractor to plough land, whereas, those with small landholding use ox driven local plough (halo).

Females are also involved in final field preparation i.e. secondary tillage to make smooth bed for sowing. Females use light equipment (spade, kuto etc.) for tillage and avoid use of heavy equipment. Male involvement in chemical application is also found to be higher as it is assumed laborious and demanding task. Our findings are in line with the results obtained by (Baba et al., 2010; Keller, 2004; Weinberger and Msuya, 2004). It is also because females are generally less educated than male in a household and they are presumed to not understand the complex procedure of calculating the right amount of pesticide and spraying it in scientific manner.

Female participation was found to be higher in sowing/raising nursery. Our result is consistent with result observed by (Fartyal and Rathore,

2013; Fischer et al., 2017; Kalauni et al., 2020). However, contrasting results were obtained from household surveys in Ghana; nursery management of vegetable crops was male domain, occasionally assisted by women and children for watering (Cornish et al., 2001). A group researcher also reported greater involvement of male in sowing/raising of nursery for vegetable crops (Baba et al., 2010). Picking/harvesting of the vegetable produce were also predominantly done by female. Similar results were observed by (Baba et al., 2010; Devkota et al., 2018; Fischer et al., 2017; Kalauni et al., 2020; Khachaturyan and Peterson, 2018; Mofeke et al., 2003). In situations, when picking/harvesting is done jointly, it involves even the participation of children and aged people of the family. Furthermore, female responsibilities were greater for on farm and market sale of the vegetable produce. This conforms the result obtained by (Mofeke et al., 2003; Olowa and Olowa, 2015). Since, sowing/raising nursery, picking/harvesting, and sale of vegetable are assumed less taxing and demanding less skill, male are reluctant to do these tasks.

Other activities (uprooting and transplanting seedlings, intercultural operations, irrigating fields, manuring and fertilization) were done jointly. Since, there is a general practice of uprooting and transplanting of seedlings in a single day, all family members are involved to complete the task in a limited time frame. Intercultural operations, irrigating field are general tasks that do not require skill and are neither tasking. Hence, these tasks are done jointly; in some cases, involving children and aged people also.

Table 2: Gender roles in different field activities of vegetable farming

Variables	Frequency	Percent
Field preparation		
Male	92	76.7
Female	1	0.8
Joint	27	22.5
Sowing/raising of nursery		
Male	22	18.3
Female	50	41.7
Joint	48	40.0
Uprooting and transplanting of seedlings		
Male	7	5.8
Female	37	30.8
Joint	76	63.3
Intercultural operations (Earthing up, weeding etc.)		
Male	9	7.5
Female	32	26.7
Joint	79	65.8
Irrigating fields		
Male	26	21.7
Female	34	28.3
Joint	60	50.0
Manuring and fertilization		
Male	33	27.5
Female	21	17.5
Joint	66	55.0
Chemical application		
Male	90	75.0
Female	5	4.2
Joint	25	20.8
Picking/harvesting		
Male	6	5.0
Female	73	60.8
Joint	41	34.2

In Nepalese context, men are generally out of their home either for their jobs or other managerial works for their farms. Thus, female had to take the responsibility for the on-farm sale of vegetables. Large landholding farmers sell their produces in bulk to wholesale vegetable traders to be transported to birendranagar (capital city of Surkhet). In case of small holding farmers, females carry the produced vegetables in a locally made bamboo baskets and sell over in the local markets and 'Haatbazar' (local market which run every Saturday there). In overall, the female participation is higher than male in the study area. Some of researchers also observed greater involvement of female in selling of the farm produce (Baba et al., 2010; Kalauni et al., 2020; Olowa and Olowa, 2015). A group researcher also observed the similar results. A contrasting result was reported by in which male involvement was much higher than female in marketing and related activities (Keller, 2004; Fartyal and Rathore, 2013). Whilst, females are more involved in the sale activities, male generally keep records of the financial transaction and are responsible for money

related activities. Generally, males are forthcoming to develop relation and contacts with extension workers but they are not present at their house most of the times either because of their jobs, business or other tasks. So, when extension workers are at the farms for field visits and awareness programs, females also build rapport and contact with extension workers for technical assistance. Hence, there was greater joint involvement in contact with extension worker.

Table 3: Gender roles in marketing of produce and contact with extension worker

Variables	Frequency	Percent
On-farm sale of produce		
Male	19	15.8
Female	59	49.2
Joint	42	35.0
Market sale		
Male	43	35.8
Female	44	36.7
Joint	33	27.5
Contact with Extension worker		
Male	31	25.8
Female	10	8.3
Joint	79	65.8

3.4 Gender roles in decision making of different activities in vegetable farming

In vegetable cultivation, the decision process was joint, involving both male and female in decision making of various activities (Ashby, 1989; Devkota et al., 2018; Due, 1982; Due, 1985). Both male and female interacted each other before performing any activities. The joint decisions varied from one activity to other ranging from 78.3% (maximum) in consumption/sale of vegetables and 40.0% (minimum) in arrangement of inputs. It is evident from (Table 4) that greater percentage of joint decisions were made in the activities involving major cash inflow or outflow (purchase or sale farm implements/machinery, purchasing or sale of cultivable land, leasing in and out of farm land, consumption/sale of vegetable produce, investment on farm capital). Joint operations are made if the activities are felt to have higher associated risks.

In case of activities like choice of vegetable crops, arrangements of inputs, adoption of improved cultivars, and adoption of fertilizers, pesticides relatively lower percentage of joint decisions were made. As these activities are must to do activities and had lower monetary risks, low percentage of joint decisions are made. The role of male was more prominent than female in all the activities. This conforms the result observed in Kashmir valley (Baba et al., 2010). Male were dominant over female, 46.7% (maximum) in arrangement of inputs and 12.5% (minimum) in consumption/sale of vegetable produce. The role of female was generally secondary in nature and dominant role were performed by male. The relatively lower role of female in decision making could be attributed to their lack of knowledge and lower exposure to outside world.

4. CONCLUSION

Agriculture is major source of income for most of the farmers and comprised large share in the income. Majority of the household head are male and resources like land and capital are under their grip. The findings of the study revealed greater involvement of male in laborious and taxing activities like ploughing and spraying pesticides, whereas, sowing/raising nursery, picking/harvesting and marketing of farm produce are predominantly done by female.

Apart from these, majority of the activities are done by joint participation of both male and female. Female are exclusively involved in domestic and household chores. Gender sensitization is needed to involve male in domestic and household activities at the same time providing education opportunities to female which can expand their outlook towards society.

Decision on most of the aspects of vegetable production are by far joint. Although the decision-making is joint, by consent of both male and female, male contribution is higher and female have supportive role. Female are lagging behind and are deprived ones. Thus, government programs should develop conducive environment to address both genders equally and run various programs aiming towards capacity development of women and increasing their access to resources.

Table 4: Gender roles in decision making of different activities in vegetable farming

Variables	Frequency	Percent
Choice of vegetable crops		
Male	39	32.5
Female	21	17.5
Joint	60	50.0
Arrangements of inputs		
Male	56	46.7
Female	16	13.3
Joint	48	40.0
Adoption of improved cultivars		
Male	46	38.3
Female	14	11.7
Joint	60	50.0
Adoption of fertilizers, Pesticides		
Male	41	34.2
Female	12	10.0
Joint	67	55.8
Purchase or sale farm implements/machinery		
Male	31	25.8
Female	7	5.8
Joint	82	68.3
Purchasing or sale of cultivable land		
Male	25	20.8
Female	6	5.0
Joint	89	74.2
Leasing in and out of farm land		
Male	24	20.0
Female	7	5.8
Joint	89	74.2
Consumption/Sale of vegetable produce		
Male	15	12.5
Female	11	9.2
Joint	94	78.3
Investment on farm capital		
Male	24	20.0
Female	5	4.2
Joint	91	75.8

REFERENCES

- Ashby, J., 1989. Production and consumption aspects of technology testing in Pescador. . Working together: gender analysis in agriculture, 1.
- Baba, S., Zargar, B., Ganaie, S., Shoaib, Y., Huma, S., 2010. Gender participation in vegetable cultivation in Kashmir Valley. Indian Research Journal of Extension Education, 10 (2), Pp. 66-69.
- CBS. 2011. National population and housing census.
- Cornish, G., Aidoo, J., Ayamby, I., 2001. Informal irrigation in the peri-urban zone of Kumasi, Ghana-an analysis of farmer activity and productivity.
- Devkota, D., Pyakuryal, K., 2006. Changing gender roles and Nepalese agriculture system. Proceedings Of the SASON.
- Devkota, D., Pyakuryal, K., 2017. Changed gender roles and rural agricultural system. Journal of Agriculture and Forestry University.
- Devkota, D., Kadariya, I., Khatri-Chhetri, A., NR, D., 2018. Assessment of gender involvement and decisions in agriculture activities of rural Nepal. Journal of Agriculture and Forestry University, 2, Pp. 45-52.

- Due, J., 1982. Women and productivity in two contrasting farming areas of Tanzania.
- Due, J., 1985. Women's contributions to farming systems and household income in Zambia. Working paper/Women in International Development, Michigan State University (USA).
- Eagly, A., 1987. Sex Differences in Social Behaviour: A Social Role Interpretation. Hillsdale, NS.
- FAO. 1995. Women Agriculture and Rural Development in the Near East, A Synthesis Report of Near East Region, Beijing, China.
- FAO. 2011. The State of Food and Agriculture 2010-11: Women in Agriculture. Food and Agriculture Organization of the United Nations. Rome, Italy.
- Fartyal, S., Rathore, S., 2013. Vegetable cultivation in Uttarakhand hills: viewing through a gender lens.
- Fischer, G., Gramzow, A., Laizer, A., 2017. Gender, vegetable value chains, income distribution and access to resources: insights from surveys in Tanzania. *European Journal of Horticultural Science*, 82 (6), Pp. 319-327.
- Groverman, V., Gurung, J., 2001. Gender and organizational change training manual. International Centre for Integrated Mountain Development.
- ILO. 2010. Labour and social trends in Nepal.
- Kalauni, D., Joshi, A., Devkota, D., 2020. Gender role in rural farming system: a case from Kanchanpur. *Nepalese Journal of Agricultural Sciences*.
- Keller, G., 2004. African nightshade, eggplant, spiderflower et al.-production and consumption of traditional vegetables in Tanzania from the farmers point of view. Masterarbeit im wissenschaftlichen Studiengang Agrarwissenschaften an der Georg-August Un.
- Khachatryan, M., Peterson, E., 2018. Does Gender Really Matter in Agriculture?
- Mofeke, A., Ahmada, A., Mudiane, O., 2003. Relationship between yield and seasonal water use for tomatoes, onions, and potatoes grown under fadama irrigation. *Asset Series A*, 3, Pp. 35-46.
- Mollel, N., Mtenga, N., 2000. Gender Roles in the Household and Farming Systems of Techenzema, Morogoro-Tanzania. *South African Journal of Agricultural Extension*, 29, Pp. 73-88.
- Olowa, O., Olowa, O., 2015. Gender Issues of Labour Participation in Vegetable Production in Ikorodu Local Government Area of Lagos State. *Current Research in Agricultural Sciences*, 2 (4), Pp. 114-122.
- Sanders, I., 1977. Rural society. Prentice-Hall Foundations of Modern Sociology Series.
- Weinberger, K., Msuya, J., 2004. Indigenous vegetables in Tanzania: significance and prospects. Technical Bulletin 31 (Shanhua, Taiwan: AVRDC).
- Welch, C., Alemu, B., Msaki, T., Sengendo, M., Kigutha, H., Wolff, A., 2000. Improving Household Food Security: Institutions, Gender, and Integrated Approaches. U.S.A.: BASIS Management Entity.
- West, C., Zimmerman, D.H., 1987. Doing Gender. *Gend Soc*.
- Yorburg, B., 1973. The Changing Family. Columbia University Press.
- Zewdu, A., Zenebe, G., Abraha, B., Abadi, T., Gidey, N., 2016. Assessment of the Gender Role in Agricultural Activities at Damota Kebele of Haramaya District, Eastern Hararghe Zone, Ethiopia. *Assessment*, 26.

