

Changing gender dynamics through high-value agriculture: a case of Ilam district, Nepal

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ABSTRACT

*Contemporary literatures on gender and agriculture that demonstrate about the involvement of more women in agriculture do not mean that it is about women empowerment. In contrast to subsistence agriculture, high-value agriculture is considered as means to provide women more employment and income opportunities, and contribute in changing women's condition and position in family and in community. In this context, this paper compared changes in gender dynamics; and has analysed the role of high-value agriculture in bringing those changes. This research applied purposive sampling technique to select study area and the participants (91) for the qualitative information. Two household surveys were conducted in Rong Rural Municipality of Ilam district in 2015 and 2018. For the survey, out of 1,080 households (CBS, 2014) 513 households were selected in 2015; and 514 households in 2018. Data were analyzed and interpreted taking the domains of Women Empowerment in Agriculture Index for Value Chains (WEAI4VC). The findings of the study revealed that high-value agriculture, mainly the large cardamom (*Amomum ubulatum* Roxb.) had positive contribution in reducing the gender gap through employment creation, narrowed down income gap, increased participation of women in public sphere, increased role of women in decision making, improved household relations, and increased mobility of women. The study has concluded that high-value agriculture can be a means to empower women and contribute in reducing gender inequality in the context of agricultural transition in Nepal. However, there is visible influence of patriarchal mindset among men in sharing the traditional roles of women pave the smooth path for gender equality.*

Key words: Gender equality, High-value agriculture, Role recognition, Women empowerment,

INTRODUCTION

As in many other low-income countries, Nepal's men and women farmers have specific roles, especially in agricultural practices (Bhadra and Shah, 2007). Changing roles in society between men and women and the increasing intensification of agriculture have, however, led to more women taking part in decision-making, such as purchasing and applying fertilizers (Upreti et al., 2018; KC et al., 2016). Feminization is the shift in gender roles and sex roles in a society, group, or organization towards a focus upon the feminine (Bradshaw, Chant & Linneker, 2018). It can

also mean the incorporation of women into a group or a profession that was once dominated by men (Douglas, 1977). Contemporary literatures on gender and agriculture demonstrate involvement of more women in agriculture mainly in subsistence agriculture does not mean women are empowered (Malapit et al., 2017; Tamang et al., 2014; Duflo, 2012; Gartuala et al., 2010). In contrast to subsistence agriculture, high-value agriculture is considered as means to provide women more employment and income opportunities; and contribute in changing women's condition and position in family and society (KC & Upreti, 2017). Considering this reality, this paper aims to analyze changing gender dynamics through high-value agriculture in Nepal.

Although Nepal has made substantial progress in Human Development Index (HDI) in past 30 years - from 0.378 in 1991 to 0.578 in 2017, gender-based inequalities are deeply embedded in the social and political space (UNDP, 2018). Patriarchal institutions - family, community, larger society and the State play constrain women to take part and benefit from development outcomes (Bhadra and Shah, 2007). Agriculture in Nepal is in transition from subsistence to high-value agriculture (HVA) (KC, Upreti & Subedi, 2016; Adhikari, 2013). Production area and volume of high-value crops is in increasing trend over the years. Economic Survey 2017/18 by Ministry of Finance (MoF, 2019) estimates that production of vegetables will increase by 10 percent and production of high-value spices will grow by 5.7 percent in 2019. Similarly, production area of selected cash-crops increased by 24 percent, and production volume increased by 81 percent in 10 years between 2007/08 to 2017/18 (MoALD, 2019).

In one hand, women's participation on high-value agriculture is growing and on the other hand, researcher contest on role of women in agriculture like: women's contribution in agriculture is poorly recognized (World Bank, FAO and IFAD, 2009; Bhadra & Shah, 2007). More women came into agriculture because of male out-migration and increasing demand of agriculture produce in domestic and export market (Gartuala et al., 2010).

Despite women got better jobs and improved economic condition, status of women is still disadvantaged (Razavi et al., 2012). Women suffer from limited access to resources; tend to work in activities that have low entry barriers, low capital requirements (Dürr, 2018; Hills & Vigneri, 2011) which limit their contribution in agriculture. Similarly, researchers also claim that women possess less power and authority than men (Dongol, 2010); participation of more women in agriculture does not mean that women are empowered (Tamang et al., 2014). In such context it is necessary to compare the gender roles in agriculture, but there lacks gender specific disaggregated data to analyze gender role in agriculture in Nepal (Adhikari, 2013).

In this context, Feminization, Agricultural Transition and Rural Employment (FATE) project (www.fate.unibe.ch) has been doing research on how agricultural transition has influenced in gender dynamics and rural employment in four land-locked countries - Nepal, Laos, Rwanda and Bolivia. In Nepal, this research is conducted in Ilam district taking the case of large cardamom. Within the broad scope of FATE, this paper brings the changes in gender relation in the farms of Eastern hills of Nepal based on comparison of household survey results of 2015 and 2018 and the

factors that contributed in bringing the change. The analysis is based broadly on domains of Women Empowerment in Agriculture Index for Value Chains (WEAI4VC).

MATERIALS AND METHODS

This research applied purposive sampling technique to select study area, or clusters and used census method for household survey of the selected clusters and also used purposive sampling technique to select the study participants for the qualitative information. The Rong Rural Municipality – 6 of Ilam district, Province 1 of Nepal was selected (Figure 1). The rationale for selection for this site was that more than 95 percent farming households in the study site cultivate high-value crops like large cardamom and tea, potato, orange, honey, broom, beetle nut, and seasonal vegetables mostly for export.

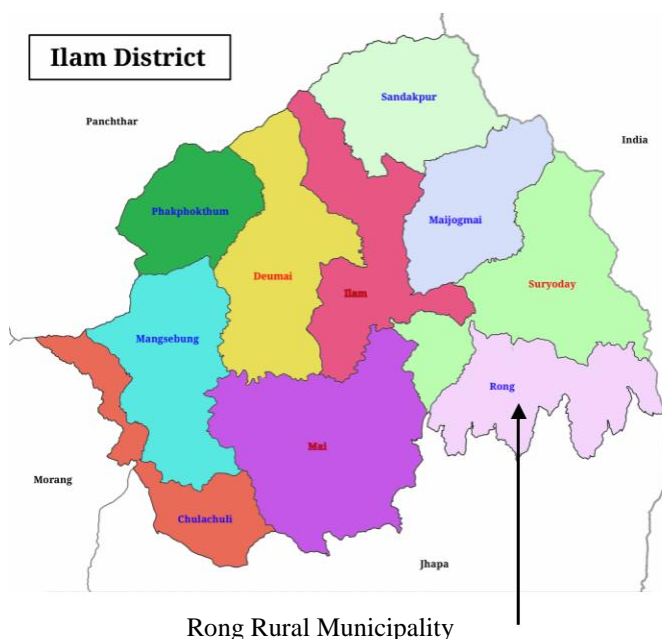


Figure 1: Map of Ilam district showing Rong Rural Municipality

Large cardamom is extensively cultivated in comparison to other crops in later years; and it is a sub-sector for rural employment and household income.

For the purpose of household survey, 513 households were selected out of 1,080 households (CBS, 2014) in 2015 and 514 households in 2018. Study area was clustered as Salakpur, Rambheng and Jirmale following stratified sampling technique; and then clustered as cardamom growers and non-growers (Fowler, 2009). Since cardamom was the main interest of research, survey aimed to include as many cardamom producers as the respondents. After selecting the

clusters, the census technique was adopted to collect the information from the households (see sampling strategy in Figure 2).

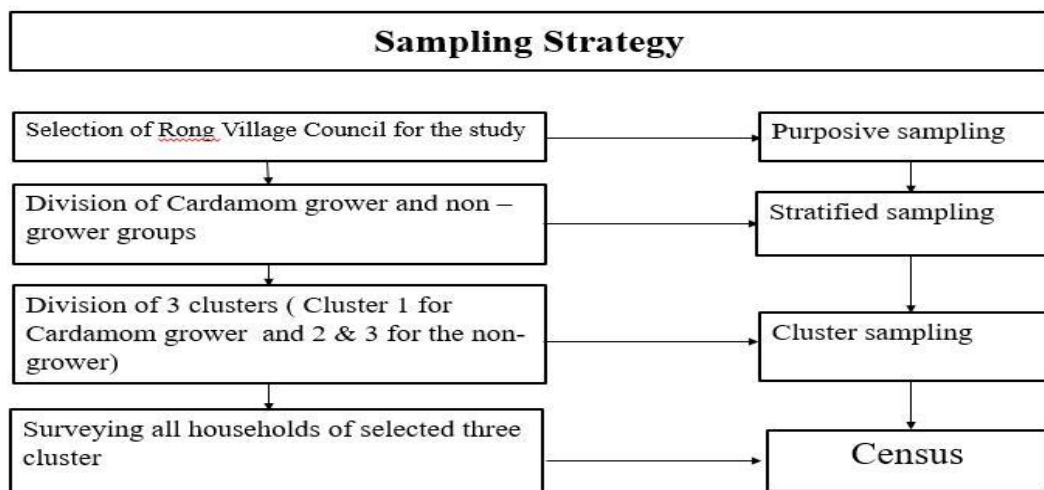


Figure 2: Detail of sampling strategy for household survey

While conducting second survey in 2018, optimum attempt was made to select the same households. Two sets of questionnaires were developed. For Part I, primary respondents could be male or female member of the household whereas for Part II, male and female both members (spouses as far as possible) from the same households were selected and filled the survey form separately. Table 1 shows the sample size of respondent households and gender disaggregation for the year 2015 and 2018.

Table 1: Population and sample size for survey 2015 and 2018 (Comparative)

Population and Sample	Households		Household Member by Gender				Total	
	2015	2018	Male		Female		2015	2018
			2015	2018	2015	2018		
Population	1069	1080	2376 (50.4)	2401 (50.2)	2342 (49.6)	2367 (49.8)	4718 (100.0)	4768 (100.0)
Sample	513	514	1024 (50.5)	1204 (51.2)	1023 (49.5)	1163 (48.8)	2068 (100.0)	2347 (100.0)

Source: CBS, 2012; Field Survey, 2015 & 2018

Note: Figures inside the parenthesis indicate percentage

The comparative results of household survey were interpreted with qualitative data collected at different time frame between 2015 and 2018. For the purpose of qualitative data collection, stratified purposive sampling technique was applied. The strata for qualitative data collection were based on size of production and ethnic background of the research participants. In-depth interview

with the participants, prolonged field observation and focused group discussions tools were applied to collect qualitative information.

The collected data were analyzed using Women Empowerment in Agriculture Index (WEAI) (Alkire, et al., 2013) with assumption that women empowerment directly corresponds to improved gender relation. WEAI analyses women empowerment in 5 domains: production, resources, income, leadership and time. This paper further attempted to analyse change in women empowerment using WEAI for Value Chains (WEAI4VC) framework developed by International Food and Policy Research Institute (IFPRI) and piloted in Bangladesh (Ahmed et al., 2018). WEAI4VC is an extension of WEAI which adds livelihoods, intra-household relations and role related mobility as additional units. This paper added intra-household relations and role related mobility from WEAI4VC framework.

RESULTS AND DISCUSSION

Changes in agricultural production

Over the past fifty years there is entire shift in agricultural production from subsistence cereal based crop livestock integrated to high-value cash crops (KC, 2019). Farmers in the study area produce and sell mainly large cardamom, ginger, orange, beetle nut, broom grass and tea. More recently, they are planting kiwi, coffee, Rudrakshya (*Eleocarpus species*) with an intension to make higher incomes. The comparison of survey results between 2015 and 2018 show slight differences in number of households in terms of crops volume produced. In 2015, almost 79 percent households had cultivated broom grass, followed by cardamom (63% households) and orange (21% households). However, in 2018, there was sharp decline in households producing broom grass and orange. Broom grass producing households dropped to 10 percent and orange producing households to 5.5 percent. In contrast to this, cardamom producing households increased from 63 percent to 70 percent.

As compared to 2015, more households had cultivated cardamom and thus the volume of production also increased in 2018. In 2015, 81 percent households had produced cardamom below 200 kg per annum while in 2018, only 70 percent households had produced below 200 kg. On the other hand, households producing cardamom between 200 kg to 500 kg increased from 14 percent in 2015 to 25 percent in 2018. However, there was almost no change in number of households producing 500 kg cardamom in both surveys. Table (2) provides detail information on this. Qualitative data revealed that number of orange farming households reduced because of mass drying of orange orchards in Salakpur area of study site. Households were attracted from good price of cardamom and sharply switched from the broom to cardamom. Broom can thrive on dry area, but cardamom needs regular irrigation in dry months. So, farmers were investing huge amount of money in managing irrigation.

Access to productive resources

Access to productive resources for the purpose of comparison between the genders considers ownership over the house, ownership on land and ownership over assets related to agricultural production.

Table 2: Major agricultural crops and its production (N = 513 for 2015 and N = 514 for 2018)

S.No.	Major crops	2015				2018			
		# HHs	Product quantity (Kg)			# HHs	Production quantity (Kg)		
			<200	200-500	>500		<200	200-500	>500
1	Cardamom	322	260	44	19	356	248	90	18
2	Beetle nut	78	21	25	32	52	9	15	28
3	Broom grass	404	105	167	132	50	19	17	18
4	Orange	104	12	32	60	18	2	1	15
5	Tea	5	2	1	2	9	4	2	3
6	Rice	1	1			3	1	-	2
7	Ginger	15	4	7	4	2	1	1	-
8	Others	55	-	-	-	24	5	-	3
Total		N=513				N=514			

Source: Field Survey, 2015, 2018

Regarding house ownership, survey findings of 2018 revealed that at least 44 percent men owned houses they lived in; and at maximum, 9 percent women owned the houses. Moreover, about one third households had joint ownership. In comparison to the survey data of 2015, the findings have been improved in 2018. Similarly, in the case of ownership over agricultural assets, about 3/5th of the households had joint ownership between the spouses whereas solo ownership for male and female was almost equal (Table 3).

Table 3: Situation on access over the resources (n= 351 Male; n=427 Female)

Assets/ Ownership	Household				Agri-assets			
	2015		2018		2015		2018	
	Male (%)	Female (%)	Male (%)	Female (%)	Male (%)	Female (%)	Male (%)	Female (%)
Male headed household	59	37	54	44	21	23	23	19
Female headed household	2	2	2	9	1	11	1.5	10
Joint ownership	27	25	30	32	55	56	63	62
Other members	12	34	14	15	23	20	12.5	13.5
Total	100	100	100	100	100	100	100	100

Source: Field Survey, 2015 & 2018

Findings from the in-depth interviews and discussion revealed that ownership over the parental land was mostly in the name of male. But, the land they purchased either in the village, or in the plains i.e. Jhapa, Sunsari and other parts of the country, was mostly in the names of male. Among the Lepcha community in Jirmale area, the formal ownership on parental property belongs to elder brother. But in practice, all brothers had divided the land almost equally; and were farming separately.

Employment and income generation

The survey data on employment created from one commodity – large cardamom revealed that about 3/5th and women were self-employed in 2015. Self-employment here considers working in own farm as well as work in neighbours farm on labor exchange basis. Regarding choice of gender in wage employment, about 1/5th households preferred men, 1/10th HHs preferred women, 1/3rd households employ equally, and about the similar proportion households employ based on availability. About 1/4th farmers go for wage-employment at other's farm. In 2015, average wage working days for men and women were 37 and 54 days, respectively.

Analysis of wage rate showed that about 3/5th employees received NRs between 200-400 per day, and about 1/3rd of them received NRs above 400 per day, and rest received below NPR 200 per day. As compared to non-farm sector wage rate in the study area, the rates wage labours received was considerably low. In non-farm sector, 1/3rd of them got wages between NRs 200-400 and 3/5th got above NRs 400 per day. Rest of the workers received below NRs 200 per day. Thus, in 2015, average earning for men and women was NRs 385 and 340 per day, respectively. The average earning for men and women as per the survey 2018 was NRs 395 and 360 per day, respectively.

Comparison of income between the partners

The comparison of income between spouses in 2015 revealed that about 1/2 of men believed they earn more income than their spouses and around 1/3rd men believed they earn almost equal. However, in 2018, about 1/4th men believed they earn more than their spouses and more than 1/2 men reported that both spouses earn almost equal. This suggests recognition of women's work and financial contribution to the family by male members. Table 3 provides detail information on comparison of income.

Table 4: Comparison of income between partners (n= Male: 439, Female: 475 in 2015; and n= Male: 351; Female: 427 in 2018)

Comparison	2015		2018	
	Male	Female	Male	Female
Earn more money than him/her	46.7%	8.4%	25.4%	6.3%
Earn less money than him/her	6.8%	50.1%	4.8%	19.4%
Earn about the same money as him/her	35.8%	31.4%	53.8%	49.5%
Others	10.7%	10.1%	16%	24.8%
Total	100%	100%	100%	100%

Source: Field Survey, 2015 & 2018

Participation in groups

Participation of women in groups indicates women stepping towards public sphere crossing the family territory. The comparison of survey results for 2015 and 2018 revealed visible increase in women's participation in groups such as women agriculture cooperative, mother's group, community forestry groups, drinking water groups and so on. In 2015, 1/2 of the women were involved in any of the groups mentioned earlier. This figure increased to 3/5th in 2018. As compared to women, participation of men in groups was significantly low. In 2015, less than 1/5th

men said they were members in local groups. This figure arouses to 1/4th of them in 2018 (Table 5).

Table 5: Participation in groups (N = 439 M, N =475 F-2015; N= 351F; N=427F-2018)

Participation	Male		Female	
	2015	2018	2015	2018
Cooperative	14%	15.0 %	26.0%	35.0%
Women's saving group	-	3.0%	18.0 %	19.0%
Others	3%	7.0%	9. 0%	8.0%
Do not participate in any group	83%	75.0%	47.0%	38.0%
Total	100%	100%	100%	100%

Source: Field Survey, 2015 & 2018

The qualitative data shows that mother's group, women agricultural cooperative, micro-credit organization provide membership only to the females. The objective of such groups is to create awareness and saving habit of women; solve immediate problems of women including violence. There was role of government institutions and Non-government Organizations in forming and strengthening the women groups.

Changes in household assets

With the increased family income, households have added different household assets over time. This is seen visible in field survey 2015 and 2018. In 2015 survey, households were also asked about their status in 2010. Thus, the Table 6 compares change in household assets. Starting with the households having motorbike, only 1/10th of households had motorbikes in 2010. This number increased to about 1/2 of the households in 2015 and close to 3/4th household in 2018. The number of tractor and pickup van owned households increased from 3 in 2010 to 14 in 2018. In 2015, only one third households used mobile phones but in 2018, above 4/5th households had at least one mobile set. Households having TV set also increased from 169 to 215 in during the period of 3 years, i.e. 2015 to 2018 (Table 6).

Table 6: Changes in household asset types in 2010, 2015 and 2018
(N = 513 for 2015 and N = 514 for 2018)

Asset types	Year		
	2010	2015	2018
Motorcycle	16	48	71
Tractor/Pick up	3	8	14
Mobile	196	391	542
TV set	73	169	215
Radio	219	262	245

Source: Field survey, 2015 & 2018

From in-depth interviews, it was revealed that around half of the households do not have access to electricity. Many low earning households do not have basic assets such as mobile, radio and television set. Households who do not have radio or television sets, go to neighbours' house to enjoy such facilities. Apart from the assets given in the table, households have added additional

rooms, furniture, kitchen utensils and more from the money earned from cardamom and other income.

Participation in decision making

Involvement and influence of women in family decision making was increased in 2018 as compared to 2015. Respondents were asked who holds family earning. Whether respondent keeps personal money and who takes decision on children's education? In 2015, more than 4/5th male and female respondents reported that they keep household earning together. Either spouse can access this money when required for family expenditure. Less than 15 percent spouses replied they keep money themselves. On an average, two-third of both spouses keeps personal money. In decisions related to children's education, men's influence was higher by 13 percent.

In 2018, as compared to 2015 data, there is slight decrease in money that spouse keep together. Moreover, there is increase in holding personal money between both spouses. Still, about 1/5th women and less than 1/10th men do not hold personal money. There is considerable increase in taking influencing decisions on education of children for both spouses. Sixty six percent men and 45 percent women play influencing role in education which was 39 percent for men and 25 percent for women in 2015.

Table 7: Participation in decision making (n= 439 M; 475 F in 2015; n= 351 M, 427 F in 2018)

Decision area		2015		2018	
		Male (%)	Female (%)	Male (%)	Female (%)
Holding earning	We put everything together	83.1	80.8	75.5	77.5
	I keep money I earn	10.7	14.3	14.8	10.6
	Keep some / give spouse some	6.1	4.8	-	-
Personal money	Yes	71.1	64.8	91.7	77.7
	No	28.9	35.2	8.3	22.3
Education of children	Limited influence	4.3	6.9	4.3	9.1
	Somehow influence	36.4	49.9	14.8	26.7
	Major influence	38.7	25.4	66.9	45.6

Source: Field survey, 2015 & 2018.

Intra-household relations

Intra-household relation between spouses and in-laws was improved over the years. Both male and female participants involved in in-depth interviews shared the fact that they help and respect each other's work. Female member's voice has been heard in the family. As cardamom and other crops demand more labour than subsistence crops, both the spouses engage in farms most of the time. The increasing stake of women in employment and income might have an influence on men to acknowledge women's role and co-operate in household works. This has created a kind of interdependence among family members. In addition, with increased awareness, income and exposure, women have developed their capacity and confidence i.e. reduced dependence over men.

The domestic violence against women has decreased over the years. One cardamom farmer from Rambheng said women in her village do not tolerate domestic violence. They respond case through women's group based on the nature of violence. Women are aware regarding domestic violence and if something wrong happened, women's group facilitates to resolve the issue. If the case is severe, they support to the victim to take the case to the police. Respondents also viewed that trend of divorce is increasing over the years.

Role related mobility

Role related to the mobility is important dimension of women empowerment in agriculture. It was learned that they do not have constraint in mobility from family reasons or due to social norms. While saying this, they also said, male members prefer to work outside, and women prefer to work inside. Moreover, women's mobility is constrained by skills to drive motorbikes (for household who have motorbikes) and less access to public transportation. Many women in the course of FGDs told that "*they do not like their spouses doing cooking, taking care of children and other household works*".

It was also observed that when women were out of house, men were taking the role of women. One female nursery entrepreneur in Salakpur said it would not be possible for her to participate in cardamom nursery training decade ago in district headquarter if her husband had not taken care of their small child, livestock and the farm. Field observation further shows that women sometime request to their husbands to participate in the events on behalf of them. For example, manager of local cooperative insisted her husband to participate in entrepreneurship training organized the rural municipality. This was not because of mobility constraint and family reasons, but due to venue of the training which was feasible to participate.

State of well-being

The respondents were asked about their satisfaction over life, separately for male and female. The data taken in 2015 shows about 3/5th male and females were satisfied with the life they were living. In three years' time in 2018, satisfaction level for male and female increased by 6% and percentage of not satisfied males and females decreased by 7 percent and 9 percent, respectively. This shows the positive trend for both male and female in achieving well-being in their life (Table 8).

Table 8: Well-being status of the respondents
(n= 439 M; 475 F in 2015; n= 351 M, 427 F in 2018)

Well-being status	2015		2018	
	Male (%)	Female (%)	Male (%)	Female (%)
Not very satisfied	34	38	27	29
Satisfied	62	59	66	66
Very satisfied	4	3	7	5

Source: Field Survey, 2015 & 2018

DISCUSSION

Key findings of the panel survey suggest women are behind men in almost all variables of comparison. In spite of this, trend shows positive facts that share of women is increasing over the

years. As compared to men in two consecutive surveys, women's proportion has increased in terms of getting employment, earning money, increased assets, increased role in decision making, participation in groups and satisfaction over life.

The contemporary researches on agriculture and out-migration claim feminization in agriculture (Tamang et al., 2014), which is only partly true in the context of high-value agriculture. In general context of labour market in Nepal, female employment-to-population rate is about 23 percent, i.e. around 25 percent lower than of male employment-to-population rate (Nepal Labour Force Survey 2017-18, CBS, 2019). In contrary to this, 56 percent men and 59 percent women are self-employed in high-value agriculture. Similarly, household earning from cardamom and other high-value crops ranged from NRs 70,000 to 90,000 per household per annum. In the context of more than 4 million youths are in abroad labour market (MoF, 2019), high-value agriculture in the eastern hills of Nepal has provided ample employment opportunities. Despite the findings of Farnworth et al. (2019) and Adhikari & Hobley (2015) in Southern and Western region of Nepal that increased women's mobility, participation in groups, goes for marketing is not as a consequence of women empowerment, but as a result of male outmigration. Village Profile of Rong Rural Municipality (2019) shows that below 5 percent of the total population were migrated from the rural municipality for job. The Labour and Employment Survey report of Nepal government also confirms this finding by stating that abroad migration is comparatively low in Eastern hill districts (MoLE, 2016).

Engagement of women in high-value crops co-relates with the paid employment and income generation opportunity for women. These have direct contribution in reducing the gender gap in household earning and mitigate the traditional belief- men as bread winners. Increased incomes correspond to added personal and household assets and build self-confidence. This suggests that high-value agriculture corresponds to empowerment of women in rural context. This claim is also supported by researches carried-out in Africa and Asian countries. In Uganda, women involved in cash crops have better ability in making family decisions (Bomuhangi, et al., 2011), and living better and get social recognition (Alam, 2012; Kabeer, 2012). Family recognition increases when contribution of women is visible in family food, health and educational investments (Duflo, 2012).

The findings of this research with regard to women's limited access to house, land and other productive assets have its roots to the patriarchal society of Nepal. In patriarchal society, ownership of parental property is first transferred to male members (UNDP, 2015; Bhadra and Shah, 2007; WB, FAO & IFAD, 2009). The increased land ownership of women in the case when they are buying new land might be because of Nepal government policy of granting 30% tax relief if registration is passed for women. Oxfam (2019) questions that despite increasing trend of women's access in valuable physical assets; women hardly have full control over this. In contrast to this, who owns land is less important in the context of rural Uganda. Women's access to assets in the study site does not differ significantly as outlined by FAO (2019).

Increased women membership in cooperatives and local groups indicates increased capacity in saving and credit. This finding is in line with the finding of Deere & Doss (2006), as the authors stated that membership in cooperatives is a good habit of women and this helps women not to be

limited at the household and household chores which can be considered as empowerment of women (Meizan-Dick et al., 2019). Women cooperative members can enjoy social and economic benefits (Upreti et al., 2018) which in the view of Farnworth et al. (2019) promote collective and individual agency of women (Farnworth et al., 2019). Despite saying this, participation in cooperatives can be questioned on the ground accessibility to all members and family conditions of mobility.

The high-value agriculture provides space for spouses to work together and bear the joint responsibility of earning bread for family jointly. This builds cooperation and trust between the spouses. This also provides environment for women for mobility, group membership, and control over assets and to earn more income (KIT, Agri-Pro Focus & IIRR, 2012; Meizen-Dick et al., 2019). The decisions related to investment on child education, can be important determinant for the child's well-being (Malapit et al., 2018). But in the case of women participation in other form of agriculture, women's role may not be visible and recognized (Adhikari, 2013; Bhadra & Shah, 2007), even when both the spouses have equal contribution (Urdinola & Wodon, 2010; Hill & Vigneri, 2011).

Though there was not visible constraint in mobility of women in the study site, the traditional belief on gender roles has constrained mobility of women in many ways. Though family members are being supportive than they were before, women's involvement in household work and care still left them behind. Me-Nsope & Larkins (2016) come up with the similar findings in the case of pigeon-pea value chain in Malawi. Women's workloads and domestic responsibilities are common factors that limit mobility and ability of women (Meizen-Dick et al., 2019).

CONCLUSION

From the comparison of data for two subsequent household surveys and analysis of qualitative information, it can be concluded that farmers have growing interest in high-value agriculture with the increased role and recognition of women on it. Unlike subsistence agriculture, high-value agriculture can contribute positively in improving gender relation and the family well-being. More specifically, the role of high-value agriculture is not only limited in retention of males from out-migration, but also have direct contribution in women empowerment. Through high-value agriculture, women can get better employment and income and could play significant role in household earning. Women have increased access to productive assets, contribution in decision making and participation in public sphere has created space for their role and recognition.

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