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### Feminisation of Agriculture as an Effect of Male Out-migration: Unexpected Outcomes from Jhapa District, Eastern Nepal

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Abstract: In Nepal, male out-migration is an important factor to contribute to GDP through regular remittances. This paper looks at the effects of male out-migration on the women left behind in relation to labour participation and decision-making in agriculture. The literature speaks of feminisation of agriculture as a positive development for women's empowerment. A distinction is made between labour feminisation and managerial feminisation. As the two concepts indeed refer to two different roles, power positions and managerial practices, the paper separately explores these practices and actors involved. Data were collected for a doctoral study in Jhapa District, Eastern Nepal; a lowland area from where much male out-migration is taking place. The study shows a higher level of feminisation in a situation where de-facto autonomous female heads-of-household are decision makers and less in case of women who stay within the patrilineal household of their parents-in-law. Moreover; feminisation in the first case has the unexpected outcome that women seem to be moving away from agriculture. An interdisciplinary approach using anthropological in-depth interviews and demographic survey data shows that a concept like feminisation of agriculture needs to be considered and understood in the wider social and cultural context of an expanding rural space.

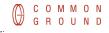
Keywords: Male Out-migration, Feminisation of Agriculture, Women's Empowerment, Agricultural Development, Nepal

#### Introduction

URRENTLY, ABOUT THREE percent Nepalese live abroad (CBS, 2001). Outmigration from Nepal is mostly transnational: 77 percent to India and 15 percent to the Gulf countries (CBS, 2001). While female halves the world's migrant population (Ramirez et al., 2005), in Nepal, about 90 percent are male (CBS, 2004). As more men migrate, women's responsibilities for the household, agriculture, marketing, and approaching organizations (e.g. village authorities, money transfer agencies, agricultural service providers) have increased.

Causes underlying feminisation of agriculture are reported to be male labour out-migration, the growing number of female-headed households, and the development of labour-intensive agriculture (Kelkar, 2010). Consequently, women broadened and intensified their involvement in agriculture as they increasingly shoulder the responsibility for household survival and respond to economic opportunities in agriculture (Lastarria-Cornhiel, 2008). Yet, empirical evidence for the process of 'feminisation' in agriculture is thin (Buvinic et al., 1996, cited in de Brauw, 2003) because women's involvement in agriculture is not a new phenomenon.

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Its contribution to women's empowerment is also debated. Notably, when many males are moving out of agriculture, it is important to study the reallocation of agricultural labour, which potentially leads to feminisation (Zhang et al., 2006).

Development organisations like the World Bank, Asian Development Bank, Food and Agriculture Organisation claim that there is an increased participation of women in agriculture. This phenomenon is considered to be a 'feminisation of agriculture'. The type and intensity of participation varies across the globe. In the past, women's involvement in agriculture was not so visible due to improper data collection methods and biased views on women's economic contribution. Recently, women's participation in agriculture has been recognised and put on the policy agenda, assuming a positive change for women's empowerment. However, whether feminisation of agriculture leads to women's empowerment is contested.

This paper examines the effects of male labour out-migration on feminisation of agriculture in rural Nepal for different domestic arrangements: female-headed households and households where migrants' wives stay with in-laws. The paper strives to answer the following questions:

- 1. To what extent does the male out-migration increase women's participation in agricultural labour?
- To what extent does the male out-migration increase women's role in agricultural decision-making?
- 3. How do they differ between female-headed households and households where the migrant's wife stays with in-laws?
- 4. Does feminisation lead to women's empowerment?
- 5. What are the consequences of feminisation for Nepalese agriculture?

#### Feminisation of Agriculture and Women's Empowerment

The term 'feminisation' refers to increased participation and authority of women in certain areas. In agriculture, it refers to women's increased labour participation *and* role in decision-making. Feminisation of labour means either an increase in the number of women involved or the time devoted by women, or both. Traditionally, feminisation of agriculture is viewed as a result of industrialisation where men leave the farm to seek industrial urban jobs (Boserup, 1970, cited in de Brauw, 2003). Referring to a FAO (1999) document, Lastarria-Cornhiel (2008) shows that despite a decline of labour force participation in agriculture during the 1990s, the proportion of women working in agriculture is increasing, particularly in developing countries.

Zuo (2004) reports that the Chinese transition towards a market economy from 1978 onwards drove rural men to seek off-farm urban jobs, leaving farms to the women. This led to a 'men work and women plough' ideology, which substantially altered the gender composition of agricultural labour in rural China. Women became the farm managers (Song, 1998). Likewise, land fragmentation and population growth in Syria led to reduced landholding size that forced rural men to seek employment in urban centres and abroad, while women were often left behind with increasing responsibilities in agriculture (Abdelali-Martini et al., 2003). Mtshali (2002) found that because of male out-migration in rural KwaZulu-Natal, South Africa, women have to clear the land before planting, which she calls feminisation of agriculture. Lastarria-Cornhiel (2008: 2) describes feminisation of agriculture as: "Women's increasing participation in agricultural labour force, whether as independent producers, as unremunerated family workers or as agricultural wage workers".

The review shows that feminisation of agriculture has two aspects: women's participation in agricultural labour (in terms of number of women and time spent on it) *and* decisionmaking. The former is called *labour feminisation*, the latter *managerial feminisation*. In this paper, both aspects will be discussed. Managerial feminisation could be considered an aspect of women's empowerment. The Canadian International Development Agency defines empowerment as, "a personal change in consciousness involving a movement towards control, self-confidence and the right to make decisions and determine choices" (CIDA, 1997: 60). The Guidelines on women's empowerment of the United Nations Population Fund list five components of women's empowerment: women's sense of self-worth; their right to have and to determine choices; their right to have access to opportunities and resources; their right to have the power to control their own lives, both within and outside the home; and their ability to influence the direction of social change to create a more just social and economic order, nationally and internationally (UNFPA, 1995).

Hence, the concept of women's empowerment comprises legal, economic, social, and political empowerment. For the position of Nepali rural women in male labour out-migration situation, we used the following indicators: land entitlement, women's participation level in social groups, control over their mobility and their voice in decision-making. We investigated whether increase in managerial feminisation leads to women's empowerment. In order to understand feminisation of Nepalese agriculture, it is also important to know the women's position in a cultural environment characterised by patrilinearity, virilocality and patriarchy.

#### Methodology

The fieldwork was conducted in Maharanijhoda Village Development Committee of Jhapa district. Jhapa district is located in the eastern *terai* among the three ecological regions of Nepal (High Mountain, Mid Hills and the *Terai*, extended from north to south). *Terai* is an extension of the flooding plain of Ganges River. Maharanijhoda has a population of 10,589 living in 1980 households (DDC, 2006). It is located at a distance of 56 kilometres to the district headquarters, Chandragadhi and 550 kilometres to the country's capital of Kathmandu. The in-migration to Maharanijhoda started in 1912-13, while out-migration in 1975. The former is permanent in nature, whereas the latter is temporary.

The data were collected using both qualitative and quantitative methods. Qualitative methods included key informant interviews, group interviews, focus group discussions, participant observation, transect walks, and in-depth interviews, whereas quantitative data were collected through a survey. Since the quantitative part of the study used a cross-sectional assessment (household survey), a rigid impact measurement was impossible. This problem was addressed by comparing households in terms of the independent variables of migration status and women's position in the domestic arrangement (see Table 1). In the qualitative part, changes due to male out-migration were discussed with the respondents, yielding a subjective picture of the effects.

The fieldwork started in June 2008 and consisted of three partly overlapping phases. The first phase mainly comprised a migration assessment survey among 1791 households. The main purpose of this survey was to prepare a sampling frame for the main household survey conducted in the second phase. Using this survey, we determined eight categories of house-

holds based on their migration status and selected only four categories: non-migrant, defacto female-headed, migrant's wife living with in-laws, and the return migrant (Table 1) for the main household survey that was conducted with 277 households. This survey formed the second phase (Feb-May 2009).

Household Categories	Number	Percentage
Non-migrant	118	42.6
De-facto female-headed	45	16.2
Wife living with in-laws	71	25.6
Returned migrant	23	8.3
Other type of migrant (family, mixed)	20	7.2
Total	277	100

#### **Table 1: Household Categories**

Although qualitative data were collected throughout the fieldwork period, in the third phase (Aug-Dec 2009) we conducted 26 in-depth interviews with the actors involved in and affected by out-migration and labour reallocation.

Excel and SPSS were used for quantitative data analysis, while the analysis of qualitative data was done manually. An independent analysis of variance (ANOVA) was performed to compare the mean differences between household categories. Several activity and decision indicators were used to measure women's labour participation and their role in decision-making.

The activity indicators were grouped into two categories: domestic activities and agricultural activities. The domestic activities include preparing daily meals, doing the dishes, fetching drinking water, firewood collection, child care, regular household shopping, going to mills, and washing clothes. The agricultural activities include ploughing, hoeing, uprooting, transplanting, sowing/broadcasting, weeding, harvesting, threshing and storage, carrying manure, milking cattle, cleaning livestock shed, feeding livestock, forage collection, and pulling hay from hay-stakes. Because of the predominance of rice farming, most agricultural activities were related to rice cultivation. The indicators were measured by a 5-point ordinal scale: activities performed 1) always by men, 2) usually by men, 3) equally by men and women, 4) usually by women, and 5) always by women. We then recoded the 5-point ordinal scale into a 0-1 dichotomy, where respondents scored 0 if they had chosen 1, 2 or 3 on the ordinal scale (activities predominantly not performed by women) and 1 if they had chosen 4 or 5 (activities predominantly performed by women). There were no missing values. Because the question was asked for 8 domestic activities and 14 agricultural activities, the procedure led to a 0-8 scale and 0-14 scale for domestic and agricultural activities respectively. A higher value in the scale implies higher women's labour participation.

The decision indicators were also grouped into two categories: household decisions and agricultural decisions. The household decisions include decision on regular purchase, occasional more expensive purchase, expenses on festivals/ceremonies, seeking group membership, selection of schools for children, migration, remittance use, selection of bridegroom for daughter, selection of bride for son, expenses on children's marriage, building a house, and

buying residential plot. The agricultural decisions include selection of crops, selection of farm implements, investing in technologies, selling grains, selling livestock products, mobilising income, buying livestock, and buying agricultural land. In both categories, they were ordered from operational to strategic decisions. The indicators were measured by a 5-point ordinal scale: decisions made 1) always by men, 2) usually by men, 3) equally by men and women, 4) usually by women, and 5) always by women. We then recoded the 5-point ordinal scale into a 0-1 dichotomy, where respondents scored 0 if they had chosen 1, 2 or 3 on the ordinal scale (decisions not predominantly made by women) and 1 if they had chosen 4 or 5 (decisions predominantly made by women). There were no missing values. Because the question was asked for 12 household decisions and 8 agricultural decisions, the procedure led to a 0-12 scale and 0-8 scale for domestic and agricultural decisions respectively. A higher value in the scale implies a stronger decision-making role of women.

#### **Results and Discussion**

#### Household and Occupation

The average household size is 5.7, with an average of one migrant member per household. Thirteen percent households are female-headed, while 87 percent are male-headed. The latter also includes 16 percent de-facto female-headed households. Over 80 percent respondents are farmers who reported agriculture as their main occupation. As alternative source of income, remittance (30%) surpasses the others like business, wage labour, service sector employment, and agriculture itself.

#### Land, Agriculture and Division of Labour

Seventy percent of households have land for both agriculture and residential purposes, while 24.5 percent have only residential land and 5.5 percent have no land at all. The average total landholding size is 0.80 ha per household, while average size of agricultural landholding is 0.94 ha and that of residential land is 0.09 ha per household.

Wetland rain-fed rice-based farming is the main farming system. There are no canal irrigation facilities. However, over 50 percent households own motor pumps for getting water from underground tube-wells. The rainy season (Jun-Aug) is the main season for rice cultivation. Apart from rain water, water is obtained from natural streams or the small irrigation channels developed by farmers. Underground water is used mainly for spring season rice (Apr-Jun) and winter crops like wheat, hybrid maize, mustard, potato, and green vegetables.

Most agricultural activities are done manually. Traditional wooden ploughs are driven by a pair of bullocks or male buffaloes. Almost every household has wooden ploughs. Only three households own a tractor for ploughing and operating a thresher. Tractors and threshers are used not only for people's own farms but are also rented out. In fact, tractors and threshers are replacing a considerable amount of manual labour. Even those people who keep bullocks prefer to hire a tractor due to its cost-effectiveness. Women are not the usual tractor drivers but they help during threshing to handle grains and straws, and prepare food for the workers.

Especially during the rice growing season, the men plough the land since early in the morning. Others follow; if they have not uprooted the rice seedlings already they will do so

until the field is ready for transplanting. Usually, the elderly women are left at home to prepare food and take care of children. If labourers are hired for transplanting, they join at 8-9 o'clock in the morning, if not, family members do the transplanting. After men have finished ploughing at noon, they will feed and hitch the bullocks. Their duty in the afternoon is maintaining the mud ridges to make sure that the water does not leak out. Other livestock would be taken care of during lunch break or by the people at home.

Traditionally, ploughing, hoeing, and threshing are the male jobs, while sowing, weeding, and harvesting are done by both men and women. Depending on the households, milking cattle, feeding livestock, cleaning sheds, pulling hay from hay-stakes, and carrying manure can also be done by both. However, uprooting, transplanting, and forage collection are entirely a woman's job. If there is lack of men, women can take on other jobs but they cannot replace men for ploughing; they need to find someone or a tractor. In the households of women staying with in-laws, these jobs are handled mostly by fathers-in-law. On contrary, in case of female-headed households, women have to manage these jobs by themselves.

#### Women's Labour Participation in Agriculture

From the qualitative data, an increased labour participation of women in agriculture is visible. In the absence of their husband, they have to take on agricultural work like pesticide application, milking cattle, feeding livestock, carrying loads, finding agricultural labours, etc. The subjective experience of women in different social positions (de-facto female household head or living with in-laws) shows that in the absence of their husband, their involvement in agricultural activities has increased:

"You can imagine the work done by two people now I am doing alone. [...] Running a household alone is like being pressed by a huge mass. The additional tasks are finding male labour especially during ploughing time, finding transplanting labour, etc. Sometimes, I do not get labour in time; I have to dig the land though I have not yet ploughed. (BMS, 34, de-facto female head, 2009.12.23)

"When he was here he used to spray pesticides. I did not know how to do it but nowadays I have to spray pesticides. Carrying grain sacs is another job I did not do before". (PGO, 24, living with in-laws, 2009.12.23)

"While he was here I did not have to milk the cow; I did not have to care much about livestock. I had to work only in the kitchen. Nowadays, I have to do everything. I have to work on the farm. My sister-in-law helps me but she does not know how to milk, so milking is either my job or that of my mother-in-law. [...] As I am from the city area I had never done livestock care but now I can milk the cow. Everything, I am learning; I have no choice". (SUD, living with in-laws, 2009.12.21)

The experiences of these women do not differ much, whether they are autonomous or living with in-laws. Thus, apart from doing many domestic responsibilities, they also need to be involved more in agricultural activities as a consequence of their husband's absence.

Yet, in quantitative terms, women's involvement in agricultural activities is lower than in domestic activities (Table 2). The households where the agricultural activities performed either 'usually by women' or 'always by women' are clustered at the lower end of the scale (mean 3.14). It means the women's share in agricultural activities may be increasing but not necessarily leading. However, women in de-facto female-headed households are more involved than women living with in-laws.

Household Categories	Domestic Activities		Agricultural Activities	
	Mean	SD	Mean	SD
Non migrant	4.71	1.94	2.44	1.86
De-facto female-headed	6.84	1.70	5.16	3.27
Wife living with in-laws	5.23	1.72	3.24	2.50
Returned migrant	5.00	1.54	3.04	2.96
Other type of migrant	4.40	2.56	2.55	2.84
Total	5.19	2.01	3.14	2.63
P-value	< 0.01		< 0.01	
F-ratio	11.64		10.16	
Scale	0-8		0-14	
Source: Household survey 200	9		1	

Table 2: Comparison of Women's Involvement in Different Activities between Household Categories (N = 277)

The quantitative results appear to contradict the qualitative picture but the latter reflects the feeling of women left behind, which burdens sometimes more than their actual involvement. It also shows their wellbeing of living away from the husband. Our study, therefore, confirms an increasing women's participation in agricultural labour. We conclude that women's share in agricultural activities, though not leading at present, is increasing and shows a trend towards labour feminisation in the future.

For lack of studies on feminisation of agricultural labour in Nepal, we compare our results with studies carried out in other countries. In China, Zhang et al. (2006) observe little evidence of feminisation of agricultural labour. They found that the number of hours worked by women on the farm declined compared to the number of hours worked by men. De Brauw (2003) similarly concludes that there is no evidence of feminisation of agricultural labour in China. Interestingly, these studies oppose those of Song (1998) and Zuo (2004) who argue a high level of feminisation of agriculture in China.

#### Women's Role in Agricultural Decision-making

Women living with in-laws have little voice in decision-making. The parents-in-law control the decisions. These daughters-in-law have to ask permission for almost everything, no matter whether it is related to personal or household matters. The two transcripts illustrate this:

"I do nothing without asking my in-laws and my husband. Sometimes, I do not ask my husband as he is not here but I ask with in-laws. For example, to go to a picnic last week, I asked my mother-in-law but not my husband. [...] I have no role on deciding

anything about agriculture. My parents-in-law do not consult me. [...] I have no idea how much they sell and how much income they get". (PGO, 24, living with in-laws, 2009.12.20)

"I have no voice at home. My father-in-law does not consult with other members, especially the daughters-in-law, for any decisions. We just do the work. I have to ask for permission with my mother-in-law even to go to the market and going to *maita* (maternal home); even to go to the neighbours. [...] I have no role in deciding which crops to grow. The father-in-law manages everything, including the shop at Gauradaha and the land business he is involved in. We are like 'working members' but not 'household members'". (SUD, 25, living with in-laws, 2009.12.21)

In comparison to the women living with in-laws, the de-facto female heads have a greater share in decision-making, notably for operational decisions. For strategic decisions, they have to consult with the husband through (mobile) phones or other senior members of the family (mostly fathers-in-law) living nearby.

"To make a decision on which crops to grow, I do not ask for piece of advice from anyone. I make a strategy which crops would grow better and from which crops I can get green vegetables, I decide accordingly. My husband never asks which crops I am growing and the income I get [she sometimes sells mustard seeds]". (DST, 36, de-facto female head, 2009.08.16)

"I always ask him first before doing something especially those things that require more money. For other things like going to the market, buying something for home use, which crops to grow, I do not ask him. Sometimes I ask my father-in-law who lives in the next house, especially for agricultural issues". (BMS, 34, de-facto female head, 2009.12.23)

"It is not possible to ask every detail out there. I just ask some main things and proceed without asking for the smaller ones like treating the guests, going to the meetings, allocation of income from crops, maintaining daily household expenses, and so on. My husband also does not ask for every details of the expenditure". (ANK, 36, de-facto female head, 2009.12.23)

These stories correspond to the results obtained from the quantitative analysis. Women's decision-making role is low, both in household and agricultural decision-making. Table 3 shows that the households where the agricultural decisions made either 'usually by women' or 'always by women' are clustered at the lower end of the scale (mean 0.92). However, the role of women in agricultural decision-making is higher in de-facto female-headed households than the households where migrants' wives live with in-laws. In fact, women's empowerment seems to come from the absence of their husbands. Through managing the household and the farm during their husband's absence, wives gain knowledge and self-confidence (Kaspar, 2005).

Household Categories	Household Decision-making		Agricultural Decision-making		
	Mean	SD	Mean	SD	
Non migrant	1.29	2.21	0.55	1.72	
De-facto female-headed	3.02	2.32	3.02	2.73	
Wife living with in-laws	1.17	1.59	0.53	1.54	
Returned migrant	0.91	1.31	0.43	1.50	
Other type of migrant	0.85	1.14	0.30	1.34	
Total	1.48	2.07	0.92	2.05	
<i>P</i> -value	< 0.01		<0.01		
F -ratio	8.67		17.56		
Scale	0-12		0-8		
Source: Household survey 2009					

Table 3: Comparison of Women's Role in Agricultural and Household Decision-making between Household Categories (N = 277)

Kaspar (2005) notes a differential response in exercise of power by migrants' wives during migration, depending on household type. "Women living in nuclear households decide about operational decisions and attend community meetings. [...] In extended households, male out-migration widens gender disparities for daughters-in-law" (Kaspar, 2005: 135-136). Likewise, Zheng (2001) concludes no significant impact on migrant-wives' social attitudes towards traditional gender roles (in Xiang, 2007).

#### Women's Empowerment and Consequences of Feminisation

As indicators of women's empowerment, we have described women's control over their mobility and their voice in decision-making. In this subsection, we present data on gender differences in land entitlement and women's participation in village groups.

Sixty-eight percent of the households have their land registered under men's name, while 20 percent is in women's name and the rest (12%) in the name of both (Table 4). Surprisingly, few women in de-facto female-headed households have title deeds. There is no obligation for a man to transfer his title deed to his wife when he migrates. However, when the couple buys a plot in husband's absence there is a possibility of registering it in the wife's name, as evident by the higher percent of women's title deeds in returned migrant households.

Household Categories	Land Entitlement (%)			
	Men	Women	Both	
Non migrant	72 (67.3)	22 (20.6)	13 (12.1)	
De-facto female-headed	33 (73.3)	8 (17.8)	4 (8.9)	
Wife living with in-laws	50 (72.5)	11 (15.9)	8 (11.6)	
Returned migrant	10 (47.6)	8 (38.1)	3 (14.3)	
Other type of migrant	14 (70.0)	3 (15.0)	3 (15.0)	
Total	179 (68.3)	52 (19.8)	31 (11.8)	
Source: Household survey 2009			1	

#### Table 4: Land Entitlement by Gender (N = 262)

In terms of group participation, women of 67 percent of the households are members of village groups. Among them, about 17 percent have a leadership position and 83 percent are just members. Despite their involvement in household and agricultural activities, they do not often miss group meetings. About 68 percent reported that they always attend the meetings and 32 percent attend the meetings every now and then. Their involvements in the groups and having regular interaction with other women have evidently helped them to feel confident in public. We observed that they can give a speech in public, calculate interests of the loans (from their group funds), and make strategic plan for their groups. However, this kind of 'empowerment' is visible only in a women's group. Their situation in the household is different.

The result shows that, with some variations, women's participation in agriculture is increasing. De-facto female household heads have higher share in agricultural decision-making. Given the situation, policy formulations are directed to women's control over agricultural sector to ascertain a long-term benefit from agriculture and realise poverty reduction, especially in the context of rapid male out-migration. It is assumed that women are main actors of agriculture and their empowerment would benefit the development of this sector.

Like in other developing areas, the village is an arena of practicing development. There are about 200 groups formed by the governmental and non-governmental organisations. Those organisations include District Agriculture Development Office, Village Development Program of the UNDP, Sahara Nepal Microcredit, Jeevan Bikash Microcredit, Nerude Microcredit, and Small Farmers Agriculture Development Cooperative (SFADC). Most groups (86%) are either entirely composed of or led by women; such as SFADC, comprising 120 groups with over 1,000 members, is entirely composed of and run by women. All organisations reported that one of their main objectives in forming the groups was women's empowerment. Their assumption is that once women are empowered they can take care of agriculture in the absence of men.

This can be taken as a contemporary vision of rural development. Kelker (2010) argues that women's unmediated control and ownership of land, new technologies, and irrigation and management skills give them and their household a livelihood with dignity. However, women's empowerment and agricultural feminisation do not guarantee agricultural development. We observed that women in female-headed households have more autonomy in de-

cision-making but - at the same time - seem to want to move out of agriculture. This can be illustrated by the following transcripts:

"[...] After his return, I am thinking to shift to the city area and get involved in the business like a grocery shop. However, it depends on how much money he can earn abroad". (BMS, 34, de-facto female head, 2009.12.23) "I do not want him to be a farmer because I have been doing agriculture and I know there is nothing that we can do from agriculture, just feeding the stomach. So, after his return, I would propose to do some business so that we could get rid of agriculture. (ANK, 36, de-facto female head, 2009.12.23)

For rural China, it is reported that agricultural development is hampered by the fact that due to young adults' labour migration to urban areas, agricultural extension services should now focus on the left-behind older women who are doing most of the agricultural work, but they are not doing so (Yuan, 2010). In case of Nepal, Gartaula et al. (2010) report a tension between the older and younger generation, notably because the latter (including women) wants to move out of agriculture. The younger generation's attitude towards agriculture as a 'dirty' job could cause food insecurity in the future. Hence, feminisation of agriculture in eastern Nepal shows an unexpected outcome, namely that women may decide to move away and avoid agriculture.

#### Conclusion

When comparing households according to migration status it can be concluded that indeed male labour out-migration does increase women's labour participation in agriculture, though more significantly so in those cases where the left-behind women are de-facto household heads than in cases where they live with their in-laws. The position of the migrant's spouse in the domestic arrangement also plays a significant role in the effect of male out-migration on women's role in decision-making. Women who in the absence of their husbands live with their in-laws, continue to remain under patriarchal control, not by their husbands but by their fathers-in-law. Contrariwise, women who are de-facto head of households can exercise more autonomy in decision-making and control over their mobility.

The research findings show that the effects of male out-migration on women's participation in agricultural work and decision-making are contingent upon the domestic arrangement in which they are part. Hence, the extent of feminisation of agriculture in both respects (labour and managerial) as a consequence of male out-migration relates to and is partly dependent on changes in other domains, notably domestic organisation and household headship. In this way, male out-migration triggers broader processes of social change in which feminisation of agriculture is a part. The extent to which this trend will continue or intensify in the future also depends on developments in the agricultural sector and on the relative importance of agriculture as a means of living and source of income.

Regarding the question of whether feminisation of agriculture leads to women's empowerment, as envisaged by development practitioners, the research findings do not provide definite answers. Also, women's empowerment has to be seen as a dimension of ongoing social change. There is increased women's participation in community groups and women in households of returned migrants have more entitlements to land (although the numbers are small). However, even if these developments are seen as indications of empowerment, they are not necessarily due to feminisation of agriculture. The last question we raised in this article is about the consequences agricultural feminisation in Nepal's agricultural sector. It would be premature to assume that development of agriculture and poverty reduction will always benefit from the feminisation of agriculture and women's empowerment. In the research area, particularly the younger women, who are de-facto household heads and have more decision-making power than other women, want to move out of agriculture. Hence, we conclude that a concept like feminisation of agriculture needs to be considered and understood in the wider social and cultural context of an expanding rural space.

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