

**The effects of migration in Nepal:  
Household food security status and women's intra-household decision-making roles**

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## ABSTRACT

International organizations have been promoting migration as a tool for global development, and recently rallied for a concerted effort to harness the developmental potential of migration. Yet, the evidence on the effects of migration on households, and, in particular, women who stay behind, remains limited and inconclusive. With these gaps in mind, this mixed methods dissertation investigates the effects of migration on household food security status and women's decision-making roles in Nepal.

Between October 2016 and February 2017, in-depth interviews and focus group discussions were conducted with over 150 respondents in the mountains of Far West Nepal. Based on these interviews and focus groups, **Chapter 2** examines the effects of migration on the three core cross-cultural domains of household food insecurity experience. Migration, a central livelihood strategy in households' efforts to realize food security, does not contribute sustainable or substantial improvements to household food insecurity through the traditionally examined domains, namely *quantity* and *quality*. It does, however, provide much – albeit short-lived - relief to households' *worry* and *anxiety* about having enough to eat and balancing the demands for food with other basic needs.

Drawing from the same interviews and focus groups, **Chapter 3** explores the effects of male out-migration on women's intra-household decision-making roles. In Far West Nepal, the patriarchal intra-household decision-making roles are largely preserved despite men's extended absence and women's *de facto* headship in nuclear households. Women experience a slight expansion in their authority and are able to make decisions about “small” tasks such as market purchases in their husbands' absence. However, these effects bypass women who live with their in-laws and are reversed upon the migrants' return. In fact, migration appears to maintain, and at times reinforce, the very social, material and human conditions which limit women's ability to expand their intra-household decision-making authority in men's absence.

In **Chapter 4**, the dissertation investigates the relationship between migration remittance income and household food security status using a nationally representative panel data. Households with migrant members who are sending back remittances have higher odds of being food secure compared to households without migrants, conditional on household-level fixed effects ( $n=981$ ,  $p<0.1$ ). However, once analyses are stratified by region, there are significant positive effects in the hills but not in the mountains or the terai. Household migration effects are also larger for higher caste households, holding constant asset-based wealth. Moreover, the remittance amounts received by households from their migrant members is not associated with household food security at the national and regional levels and by caste (OR~1), *ceteris paribus* and conditional on household-level fixed effects. These findings are statistically significant at the one percent level at the national level, for the hills, and for both higher and lower caste households.

To date, this is the first nationally representative effort to quantitatively assess migration's effect on household food security in Nepal and the only qualitative exploration of the effects of male out-migration in the mountains of Far West Nepal. In an agrarian context such as Nepal, where an unprecedented number of men are migrating while food insecurity remains widespread, the limited evidence-base on the effects of migration is a major knowledge and policy gap. While this dissertation provides insight on the challenges and opportunities migration may create for households and the women who stay behind, there remains an urgent need to further investigate the ways in which the development potential of migration may be better harnessed for at-origin households and individuals in Nepal.

**ACRONYMS**

FGD	Focus group discussion
GDP	Gross Domestic Product
HAZ	Height-for-age z-score
HFIAS	Household Food Insecurity Access Scale
IDI	In-depth interviews
IME	International Monetary Exchange
INR	Indian rupees
IPC	Integrated Phase Classification
IV	Instrumental variable
NPR	Nepali rupees
OR	Odds ratio
PAHAL	Promoting Agriculture, Health, and Alternative Livelihoods Initiative
PoSHAN	Policy and Science of Health, Agriculture and Nutrition Study
UN-INSTRAW	United Nations International Research and Training Institute for the Advancement of Women
VDC	Village Development Committee

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## CHAPTER 1

### Introduction

#### 1. Background

##### 1.1. Labor migration in Nepal

Dating back three centuries, labor migration – defined as movement of individuals within and across countries for employment – has a deep-rooted history in Nepal (Government of Nepal 2014). The Government of Nepal issued over 2.72 million labor permits for Nepalese migrants to work abroad during the six-year period between 2008/2009 and 2014/2015, representing about eight percent of the Nepalese population and a 137 percent increase during this period alone (Government of Nepal 2016). In 2010-2011, about 20 percent of the population was absent from their households (Central Bureau of Statistics 2012a; Sharma et al. 2014).

Destination of labor migrants vary by seasonality and migrants' level of skill and educational attainment. Those who are highly skilled often migrate to higher income countries, whereas low and semi-skilled migrants often migrate to Gulf countries and South East Asia, including India (Maharjan, Bauer, and Knerr 2012). While India remains the most popular destination among the absent population, the share of those migrating there has steadily fallen since the 1980s (Central Bureau of Statistics 2012b). Citizens can move freely cross the border from either side to migrate to and from India, or through India to other final destinations without formal registrations. These migrants remain unaccounted for by the Government of Nepal.

International migration remains a highly gendered phenomenon in Nepal. Compared to global figures where women make up about half of the world's migrant population, over 90 percent of Nepalese migrants are men (Gartaula, Niehof, and Visser 2012).<sup>1</sup> Many of

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<sup>1</sup> While men dominate *international* migration, *domestic* migration is becoming increasingly feminized in Nepal. In 2011, for every 100 women moving from one ecological zone to another (ex. hills to terai) only 84 men were doing the same. Just a decade earlier, it was near parity. This is a significant shift for women who traditionally migrated within Nepal for marriage; women are now increasingly engaging in labor-related activities and becoming breadwinners due to their husbands' out-migration and/or inadequate and infrequent remittances (Clewett 2015).

these men migrate alone, while their families stay behind as they earn wages abroad. In 2010, it was estimated that 30 percent of the total male population were absent and among the absentee population, males outnumbered females by a ratio of nearly three to one (Central Bureau of Statistics 2012a; Sharma et al. 2014).<sup>2</sup> In many parts of Nepal, it is also considered culturally inappropriate for women to migrate on their own (Field Work 2016). While sex-disaggregated information was not systematically collected by the Government until 2005/2006, it is estimated that between 1985 and 2001 only 161 official permits for foreign employment were granted to women (Government of Nepal 2014). According to data on the labor permits issued by the Department of Foreign Employment over the past seven years, men accounted for 95.7 percent of the migrants (Government of Nepal 2016). Official figures likely underestimate the number of women as they migrate to or via India without formal documentations. These numbers nonetheless demonstrate the clear gendered nature of international migration in Nepal (International Labour Office et al. 2015).<sup>3</sup> The limited gender migration information in Nepal is also reflective of the gaps in the theoretical and empirical literature.<sup>4</sup>

Migration in Nepal is also shaped by caste and ethnicity. Despite legal revisions to remove caste and ethnic divisions and discrimination, there remain deeply rooted practices that exclude Dalits and Janajatis from social and political participation which in turn deny them access to resources and opportunities (Gurung 2012). Socially dominant groups engage in migration and tend to migrate longer distances where there are greater opportunities whereas socially excluded groups are more likely to travel to India or internally where opportunities are relatively limited (Gurung 2012). Dalit households are also less mobile

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<sup>2</sup> The Nepal Living Standards Survey 2010-2011 defines an absentee “as someone who, at the time of enumeration, was temporarily away from the household for more than six months or was not expected to return for at least six months, and hence, includes both internal and external migrants” (Sharma et al. 2014, 10).

<sup>3</sup> Similar to other countries in Asia, Nepal has also invoked bans on women migrating for employment. In 1999, the Foreign Employment Promotion Board introduced a ban on women under 30 years of age from migrating to Arab States as a domestic worker with the intent of protecting women from the risks of long hours, sexual violence, physical abuse and economic exploitation (International Labour Office et al. 2015). The ban was lifted in 2010 amidst heavy criticism of its ineffectiveness and inadvertently forcing women to migrate via irregular channels without the protection offered under formalized channels. In 2012, the ban was reinstated with a lowered minimum age of 24 (International Labour Office et al. 2015).

<sup>4</sup> An overview and a discussion of the literature and its limitations are described in greater detail in Sections 1.2 and 2.

compared to Brahmin and Chettri households (Adhikari and Hobley 2011). Terai Dalits have the lowest degree of internal mobility and very limited international presence (Sharma et al. 2014). Moreover, terai Dalits and terai Janajatis also receive the lowest per capita remittances while Newars receive the highest (Sharma et al. 2014).

## 1.2. Theories of migration: A review and their limitations

Research on migration spans many fields of study. While there is a vast body of theoretical literature on labor migration, the focus remains largely on *who* migrates and *why* migration occurs. These theories can be organized into three broad groups: individualistic, structural, and integrative approaches (Gartaula 2009).

Derived from classical and neoclassical economic theories, *individualistic* approaches posit that individuals are the primary decision-maker in the migration process and these theories focus on *why* people migrate. The emphasis is on migrants' individual decision, weighing the 'pull' and 'push' factors of migration such as wage differences, labor opportunities, and income maximization (Spaan 1999; Gross and Lindquist 1995). Critics of the individualistic approaches to migration note the failure to take into account the underlying structural forces which also affect the migration process (Massey et al. 1993; Shrestha 1988; Taylor 1999).

*Structural* approaches are derived from (neo-) Marxist theories, Dependency Theory, and World Systems Approach and hold the view that internal and international migration (or return) are not isolated phenomena but instead the result of a historical socioeconomic transformation and are fueled by capitalistic development of the 'Center' (and subordination of the periphery) (Massey et al. 1993, 1993; Shrestha 1988; Spaan 1999). Migration is not seen as a positive process but is instead an instrument to undermine rural communities and economies, by binding migrants to the cash economy and reinforcing the underdevelopment of low income countries.

*Integrative* approaches move away from individual and structural forces and focus on the household as the unit of analysis for decision-making and analysis (de Haas and van Rooij 2010; Gartaula 2009). The New Economics of Labor Migration approach, for example, notes that migration is not the result of an individual motivated to maximize his or her income but instead driven by a desire to minimize the risks faced by the household (Stark 1991). Labor migration, according to Stark (1991) is an economic strategy undertaken by a household to diversify its income and livelihoods to improve its standards of living. Such a perspective is conceptually aligned to the livelihood approaches that recognize migration as a rural household's strategy to diversify, secure, and improve its livelihood (McDowell and Haan 1997).

While these theoretical approaches consider migration from varying perspectives, they all focus on the migrants and the motivations for migration. In these approaches and their related literature on migration impacts, the emphasis has been on *economic* impacts and in particular, the impact of remittances. Comparatively, limited attention has been paid to the *non-economic* impact of ties between the migrants and their origin households and communities (Gartaula 2009; Tamang, Paudel, and Shrestha 2014).<sup>5</sup> Some have dubbed the ideas, behaviors, identities, and social capital that flow from destination (where migrants now reside) to origin communities as “social remittances” (Levitt 2001). The social and cultural ties between the migrants and their origin households and the effect of *social* remittances remain underexplored (Levitt 2001). Moreover, the people who stay behind are “often invisible, and their role, experience, wellbeing and interconnectedness with the practice of migration are not well understood” (Gartaula, Visser, and Niehof 2012, 402). When the experience of the those who stay behind are examined, studies often focus on the household as an analysis unit, masking the intra-household dynamics (de Haas and van Rooij 2010). Such an approach reinforces the misconceived assumption that

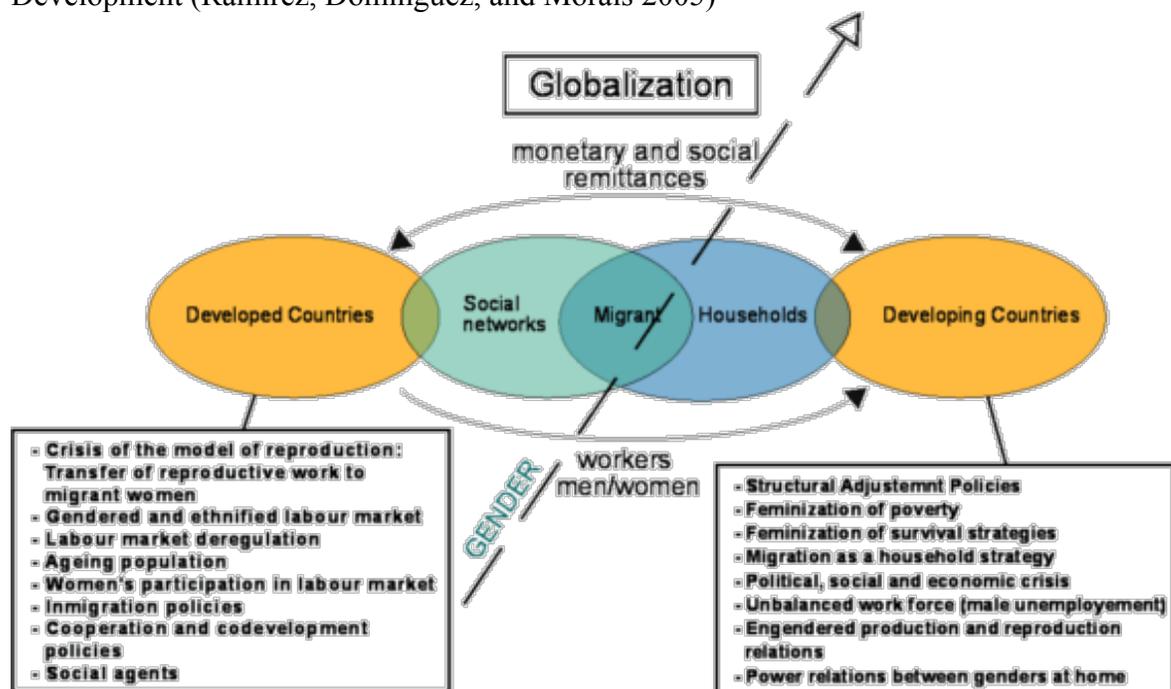
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<sup>5</sup> In order to highlight the relatively limited research on the non-monetary effect of migration, *monetary* and *social* remittances are presented here as separate areas of inquiry. However, as it is illustrated in UN-INSTRAW framework (**Figure 1**), such a division is artificial. Monetary remittances are inherently social. Social, cultural, and political contexts shape the behavioral patterns of both receiver and senders of remittances (Robert 2015).

households act as unified unit where decisions are made unanimously in a context devoid of sociocultural inequalities (Alderman et al. 1995; Quisumbing 2003; Handa 1994).

Furthermore, the gender dimensions of migration are largely absent from the theoretical literature on labor migration. There has been increasing attention paid to female migrants, however the focus once again remains on the migrants themselves and monetary effects of migration while “migrants’ wives exist in the shadow... in the shadow of their husbands, in the shadow of the mountains, and in the shadow of the academic discourse on migration” (Shrestha and Conway 2001 as cited in Maharjan, Bauer, and Knerr 2012, 101). In 2005, based on case studies conducted in ten sites across Europe, North Africa, and South Asia, United Nations International Research and Training Institute for the Advancement of Women (UN-INSTRAW) published the first conceptual framework on gender, remittances and development (**Figure 1**).

**Figure 1:** UN-INSTRAW Analytic Framework for Gender, Remittances, and Development (Ramírez, Domínguez, and Morais 2005)



The framework recognizes that migration is inherently gendered, shaping the behavioral patterns behind the economic and non-economic remittances for both the sender and receiver (Robert 2015). Moreover, it emphasizes that migration is dynamic and reciprocal, taking place in a political, social, and economic context. It considers both the destination and origin countries, through both monetary and social remittances.<sup>6</sup> The framework identifies the following key elements to guide research on migration from a gender perspective which informed this dissertation's design (Robert 2015). First, while the household is often used as the unit of analysis when examining the phenomena of migration and remittances, researchers must recognize the power and gender relations that affect the decision to migrate, which member migrates, how remittances are used, and which members benefit from monetary and social remittances. Second, the outmigration of one or more member(s) of a household is an economic strategy which can change “intra-household power dynamics, family and social dynamics, hierarchies, expectations and roles assigned to men and women within the households” (Robert 2015, 19). Third, studies should look beyond the *monetary* aspects of migration and also take into account the *non-monetary* effects as these may have important implications for the intra-household relationships and potentially help transform the traditional gender norms and roles.

## **2. Exploring the impact of migration: A review and their limitations**

Most empirical studies assessing the effect of migration focus on the *monetary* impact of migration. At the *macroeconomic* level, remittances constitute over one third of Nepal's Gross Domestic Product (GDP) and in 2016, Nepal ranked first globally for the remittances it received as a percentage of its GDP at 31.3 percent, equivalent to more than 6.6 billion USD (World Bank n.d.). These figures are likely vast underestimations as they only account for remittances transferred through official financial institutions, which miss the monies transported outside the formal channels (Central Bureau of Statistics 2012a). In

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<sup>6</sup> UN-INSTRAW represents ‘developed’ and ‘developing’ countries as destination and origin communities, respectively. However, migration also occurs internally (often rural to urban) *within* a country and internationally from a ‘developing’ to another ‘developing’ country. In fact, a recent World Bank study found that nearly half of migration occurs regionally between ‘developing’ countries (Ahmed, Go, and Willenbockel 2016). As aforementioned, India remains one of the destinations of choice for labor migrants in Nepal.

2010-2011, majority of the remittances were sent by male migrants (75.8 percent compared to 24.2 percent of remittances sent by female migrants) and by migrants between the ages of 15-44 (72 percent) (Sharma et al. 2014). The contribution of remittances to poverty alleviation in Nepal is well-noted, however, many commentators have also critiqued the country's increasing dependence on remittances which encourage (continued) migration and discourage national and/or foreign investments due to its waning labor force (Dhungana 2012).

Similarly, at the *microeconomic* level, studies focus on the monetary impact of migration and have thus far yielded mixed results. Remittances can relax household budgetary constraints and help meet daily needs; one study set in Nepal reported that nearly 80 percent of total remittances at the household level are spent on daily consumption needs (Dhungana 2012). The remaining amounts are used to repay loans (taken out to finance foreign employment), improve living conditions, purchase property, savings and investments in education and caregiving of children.<sup>7</sup> International remittances in Mexico, for example, have been linked to a reduction in infant mortality as a result of amelioration to housing conditions (e.g. tap water in the house, acquisition of refrigerator) and improving mothers' ability to stay at home (Duryea, Lopez-Cordova, and Olmedo 2005). In the Dhanusha district of Central Nepal, remittance-receiving households were more likely to invest in children's education and spend on households members' health care (Nepal Rastra Bank 2012).

However, migration can also confer negative effects on those who stay behind. For example, in Mexico, out-migration of a caregiver-parent was negatively associated with children's academic, behavioral, and emotional issues (Antman 2013). Moreover, remittance-related educational benefits may not be allocated *equitably* to children. For example, remittances spent on children's education was disproportionately allocated to boys' schooling, "bypassing the girls" in Nepal (Vogel and Korinek 2012, 61). Girls appear

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<sup>7</sup> The gender differences in the use of remittances is an under-explored area. The dominant discourse is that women spend on the daily need of the household, health and education whereas men typically spend money on consumer items and investments (van Naerssen 2015).

to benefit from remittance-related expenditures on their education only when they are members of higher-income households (Vogel and Korinek 2012). Similar disproportionate allocation of educational investments in boys' schooling were found in a study set in rural China (Antman 2013).

Out-migration of a family member can also be economically detrimental for those who stay behind. Migration has been negatively linked to agricultural yield in Nepal -- even when households receive remittances -- due to labor shortages (given loss of migrant's labor) and lack of investments in productivity-enhancing agricultural inputs (Tuladhar, Sapkota, and Adhikari 2014). In Indonesia, fees required by middlemen and recruiters to migrate put a negative strain on families as many have to go into debt in order to finance migration; remittances are often inadequate to break out of this cycle of debt (Dwiyanto and Keban 1997).

The absence of the economically active family member also places a heavy burden on the household members who stay behind (Démurger 2015). In Nepal, women noted that remittances were insufficient and shared that they had to take on a heavier workload while being unable to obtain health care and acquire adequate amounts of food (Smith-Estelle and Gruskin 2003). Moreover, since households with migrant members are considered to be 'rich,' there may be familial obligations to make contributions for ceremonies and social events (e.g. *fiestas* in Mexico, funerals in Ghana) (van Naerssen 2015).

## 2.1. Food security and nutritional outcomes

Notably absent from the development-migration literature are discussions of food and nutrition security.<sup>8</sup> Conceptually, there are numerous pathways to consider which have positive or negative implications for food security and nutrition outcomes. First, remittances can have a positive income effect on food consumption and nutrition services

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<sup>8</sup> The 1996 World Food Summit defines food security at the individual, household, national, regional and global levels and considers it to be achieved when "all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (Food and Agriculture Organization of the United Nations 1996).

(and a few studies have noted these impacts) (Thow, Fanzo, and Negin 2016). Income via remittances could also reduce the loan-constraints and thereby allow households to invest in agricultural technologies and improve their own production (Zezza et al. 2011). Second, migration can also alter women's time-use and decision-making roles. If women's time become more constrained, less time might be spent on breastfeeding and child care in general. As well, if women who stay behind control resources in their husbands' absence, there may be important positive implication for children's nutrition and health outcomes (Panter-Brick 1992; Quisumbing 2003; Thomas 1990). Third, migration can confer negative influences on food security and nutrition status by drastically affecting household labor allocation and altering the time spent on and reducing the quality of childcare and home production (Zezza et al. 2011). Women who stay behind face compounded burden of agricultural responsibilities in addition to their house and child care chores and often have to manage this burden without supportive rights and system (Gartaula, Niehof, and Visser 2010; Tamang, Paudel, and Shrestha 2014). Some have also noted that this feminization of agriculture in rural Nepal has led to a reduction in local availability of food (Tamang, Paudel, and Shrestha 2014).

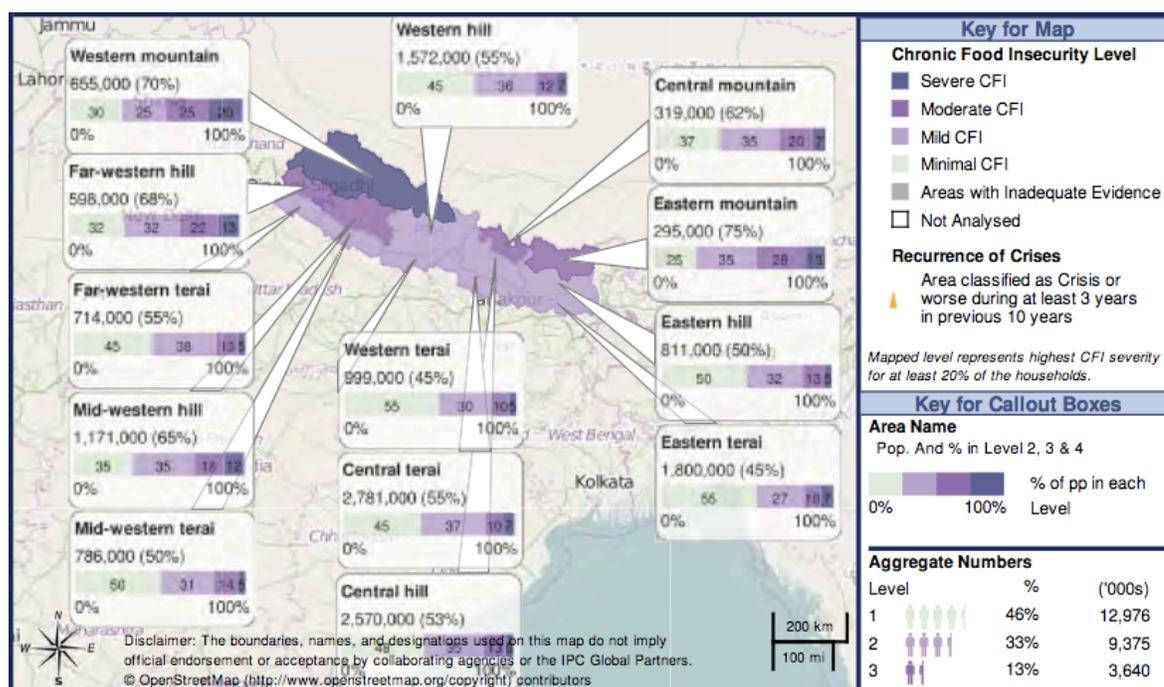
Despite these conceptual relationships, there remains a dearth of studies that empirically examine the connections between migration on the one hand, and food security and nutrition on the other, resulting in "a singular failure to understand, and manage, the crucial ... relationship between food security and migration" (Crush 2012, 63). And given the multiple pathways through which migration may impact household food security and nutritional status of those who stay behind, unpacking these different channels of impact remains a major challenge. Labor out-migration is a critical food security strategy for rural households but can have competing effects. In addition to cash, migrants also send back food as part of their remittance packages. For example, in Mozambique 60 percent of households reported receiving food from their migrant household member and in Zimbabwe 45 percent reported the same (Crush 2012). While studies have noted that up to 80 percent of remittances were spent by migrant households for daily consumption in Nepal – of which food was a large component – it is a major challenge to assess the use of remittances to evaluate the impact on household consumption given remittances'

fungibility (Dhungana 2012). As well, migration's effect on food consumption pattern may not always be positive (Lacroix 2011; Thow, Fanzo, and Negin 2016): In Ghana, male out-migration was positively associated with the consumption of less nutritious categories of food such as sugar, beverages, and meals consumed outside of the home (Karamba, Quiñones, and Winters 2011). Similarly, in rural China, older children (ages 12-17) consumed more calories but the quality of food did not increase (de Brauw and Mu 2011).

In Tajikistan, international migration was found to have a positive effect on children's nutritional status; all else equal, living in a migrant household increased the child height-for-age z-score (HAZ) by 0.2 (among children with low HAZ). These improvements were likely due to increased amount of kilocalories consumed and improved breastfeeding practices (Azzarri and Zezza 2011). Similarly, children in rural Guatemala who had a migrant in the United States had HAZ scores which were 0.5 standard deviations higher and prevalence of stunting was six percentage points lower (Carletto, Covarrubias, and Maluccio 2011). A study examining children from Tonga found opposite results: children who migrated with their family to New Zealand experienced improvements in weight-for-age and height-for-age but these decreased for children who remained behind while other household members migrated (Gibson, McKenzie, and Stillman 2011). And in rural China, parental migration was positively associated with underweight status in children age seven to 12 years; the authors suggest that these associations may be due to the reduction in amount of time migrant household members spent cooking and buying food and the additional time children in migrant homes spent on house chores (de Brauw and Mu 2011).

In Nepal, no studies so far have examined the impact of migration on household food security using a nationally representative sample. According to the Integrated Phase Classification (IPC) chronic food insecurity analysis in 2015, over half of the population in Nepal is chronically food insecure, with 20 percent facing moderate or chronic food insecurity (in Phases 3 or 4, respectively) (IPC National Partners in Nepal 2015) (**Figure 2**).

**Figure 2:** IPC Chronic Food Insecurity Situation in Nepal (December 2014) (IPC National Partners in Nepal 2015)



In a context of extreme poverty, political instability and vulnerability to natural disasters, national rates of stunting and wasting among children under five also remain high at 36 and 10 percent, respectively (Ministry of Health, New ERA, and ICF 2017). In such a context where unprecedented numbers of the population also migrate for labor opportunities, the absence of research on the relationship between migration and food and nutrition security is a major knowledge gap.

## 2.2. Women's role in intra-household decision-making processes

The limited number of studies on the impact of migration on women's intra-household decision-making processes have thus far yielded mixed findings. In Bangladesh, male out-migration was positively associated with both women's decision-making capacity and the education of girls of the migrant-household (Hadi 2001). Similarly, in southern Mozambique, men's labor out-migration was positively associated with women's autonomy which persisted even after men's return (Yabiku, Agadjanian, and Sevoyan 2010).

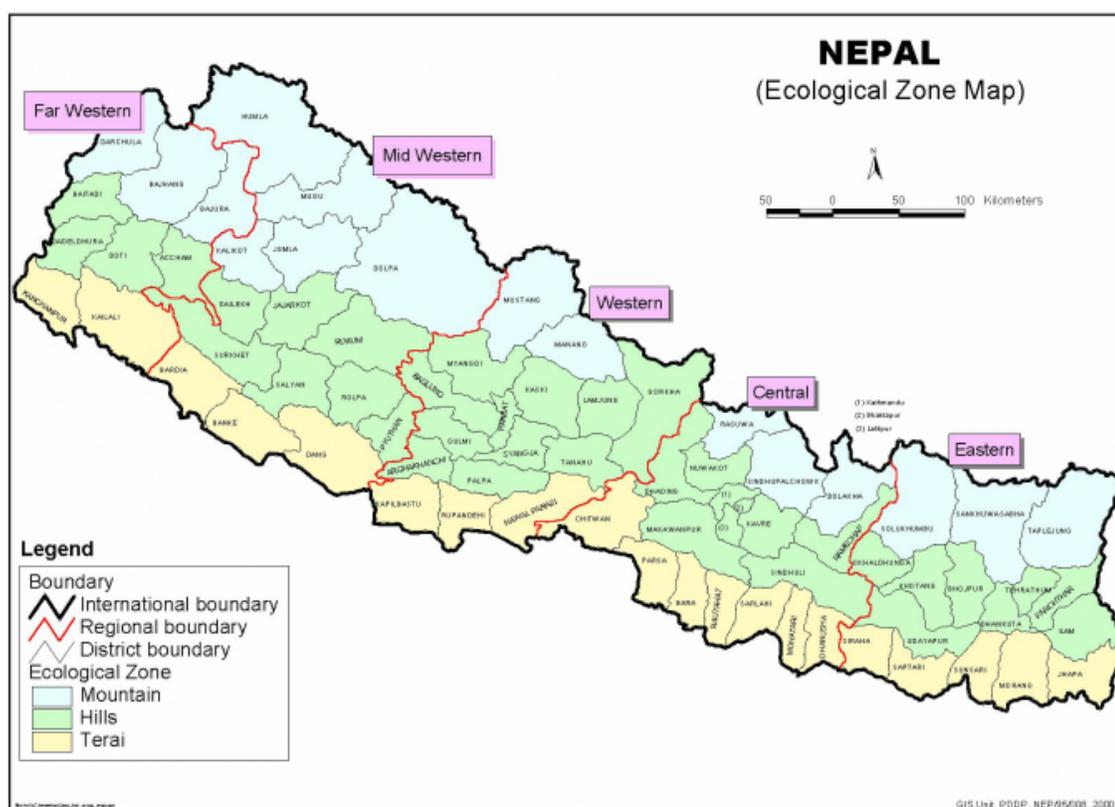
On the other hand, in rural Morocco—a patriarchal context where men traditionally dominate household decision-making—out-migration of the male spouse had negative effects on the autonomy of the women but only if they continued to live with the in-laws in an extended household (de Haas and van Rooij 2010). While women maintained child rearing, housekeeping and agricultural responsibilities in their husbands' absence, they were expected to defer to their in-laws and remittances were sent directly to the husbands' parents (de Haas and van Rooij 2010). Conversely, in rural China, no change in women's empowerment was reported with male out-migration (Mu and Van de Walle 2009).

In the hills of Nepal (**Figure 3**), male labor out-migration was associated with women's increased role in agriculture-related decision-making processes in nuclear migrant-households but not if they lived with their in-laws (Gartaula, Niehof, and Visser 2010). In these extended households, similar to the Morocco case study, remittances were sent directly to the in-laws and the women were not consulted (and often not even aware) of how these funds were being spent, indicating an important shift of decision-making power from the husband to the in-laws that entirely bypassed the women (Gartaula, Visser, and Niehof 2012; de Haas and van Rooij 2010). While another study also set in the hills of Nepal found that male out-migration was associated with women's increased decision-making responsibilities, their roles were limited to operational (day to day) activities rather than in strategic affairs (Maharjan, Bauer, and Knerr 2012).

In Nepal, women have limited control and decision-making power and their social discrimination is enhanced by legal discrimination. Women's access to land and property is derived through marriage and their access to property and resources (e.g. farmland, houses, livestock) are mediated by men (Gurung, Tulachan, and Gauchan 2005). There are also geographical variations to note. Compared to women of similar socio-demographic characteristics living in the hill ecological zone, women living in the mountainous ecological zone were less likely to participate in decisions about their own health care, major household purchases, daily household purchases, and visiting families and/or relatives (Acharya et al. 2010). Women from the terai region were also more likely to be

autonomous in decision-making compared to women from the mountainous region (but these results were not statistically significant) (Acharya et al. 2010).

**Figure 3:** Agro-ecological zones and development regions of Nepal (Government of Nepal 2000)



In Nepal, studies examining the effect of male out-migration on women in Nepal have been limited in scope and have thus far been only in the hills and the terai ecological zones (Gartaula, Visser, and Niehof 2012; Maharjan, Bauer, and Knerr 2012; Cortes 2008). The relationship between migration and women’s decision-making roles has yet to be explored in the mountainous ecological zone. In a context where nearly one third of the male population have migrated, domestically or internationally, to earn wages while their families stay behind, the limited research on the relationship between male out-migration and women’s decision-making role in Nepal is a major knowledge gap.

### 3. Research aims & questions

Collectively, the brief overview of the body of theoretical and empirical research in Section 2 show that there is a limited understanding of the effects of migration on household food security and the intra-household decision-making roles. In Nepal, labor migration is a key livelihood strategy for households to realize food security. Yet no studies have so far examined the effects of migration on household food security using a nationally representative sample or explored the migration-food security relationship in the mountainous ecological zones of Nepal. Moreover, international labor migration in Nepal remains a highly male-dominated phenomenon but there remains a limited understanding of the effects of male out-migration on the women who stay behind. And so far, no studies have explored the effects of migration on women's intra-household decision-making role in the mountains of Nepal.

With these gaps in mind, this dissertation investigates the effects of migration on household food security status and women's decision-making roles in Nepal.<sup>9</sup> It considers both the economic and non-economic effects of migration and places the experiences and perspectives of the people who stay behind at the center of the analyses. The dissertation employs a triangulation study design, where qualitative and quantitative data collection and analyses are conducted separately to examine the three research aims (Creswell 2014). Such a design allows researchers to bring together the differing strengths and weaknesses of qualitative and quantitative approaches, and to compare, contrast, and corroborate the findings with a purpose to produce “valid and well-substantiated conclusions about a single phenomenon” (Creswell 2014, 65).

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<sup>9</sup> This dissertation focuses largely on the effects of *international* labor migration given the historical migration patterns to India from our qualitative case study site. The quantitative analyses are unable to discern the destination of household migrant members given data set limitations and instead provide a general discussion on the effects of the migration phenomenon.

Through iterative in-depth interviews and focus group discussions, the dissertation *qualitatively* explores the effects of migration in the mountains of Far West Nepal for Research Aims 1 and 2.<sup>10</sup>

**Research Aim 1:** To examine the relationship between male out-migration and household food security status in Far West Nepal

**Research Questions:**

- What are the effects of male out-migration on household food security?
- What factors facilitate and/or hinder these effects?
- How do men and women perceive such effects?

**Research Aim 2:** To explore the effects of male out-migration on women's intra-household decision-making roles in Far West Nepal

**Research Questions:**

- What are the effects of male out-migration on women's decision-making roles?
- What factors facilitate and/or hinder these effects?
- How do men and women perceive such effects?

Using a nationally representative panel data set, the dissertation *quantitatively* examines the relationship between migration remittance income and household food security status for Research Aim 3.<sup>11</sup>

**Research Aim 3:** To assess the effect of remittance income from migration on household food security status in Nepal

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<sup>10</sup> Tufts University's Social, Behavioral & Educational Research Institutional Review Board approved the dissertation's qualitative component (IRB Study No. 1607003). Currently, only research relating specifically to health requires ethical review in Nepal. The proposed research on migration issues fall within social sciences for which there currently is no ethical review process in Nepal.

<sup>11</sup> Johns Hopkins School of Public Health's Institutional Review Board added JJK as a Student Investigator to the Policy and Science of Health, Agriculture and Nutrition (PoSHAN) Study application (IRB Study No. 00004937). No identifiable information is included in the PoSHAN data set.

**Research Questions:**

- What are the associations between remittance income from migration and household food security status?
- How do these associations vary by region and caste?

The main body of this dissertation is comprised of **Chapters 2, 3, and 4** which correspond to the respective research aims and questions noted above. **Chapter 5** offers a brief discussion on the conclusions gleaned from this mixed methods exploration of the effects of migration and the implications the methods and findings may have for future migration studies in Nepal and beyond.

This dissertation is in part motivated by the rally of a number of international organizations that have called for a concerted effort to harness the “development potential of migration” (Food and Agriculture Organization of the United Nations 2016, 3). The findings contribute to the limited evidence-base on the effects of migration on at-origin households and the women who stay behind, and to contribute to a more nuanced understanding of the intra-household dynamics of labor migration in Nepal.

Collectively, Chapters 2, 3, and 4 highlight that migration confers both opportunities *and* challenges for household experience of food insecurity and women’s intra-household decision-making roles in Nepal. It also underscores the importance of looking beyond the *monetary* aspects, oft the centerpiece of many studies, when examining the effects of migration on at-origin households. Methodologically, it illustrates the complementary power of a mixed methods approach and underlines the importance of putting the perspectives, experiences, and aspirations of those affected by the migration experience at the center of analyses. While this dissertation provides insight on the challenges and opportunities migration may create for households and the women who stay behind, there remains an urgent need to further investigate the ways in which the “development potential of migration” may be harnessed for at-origin households and individuals in Nepal and beyond (Food and Agriculture Organization of the United Nations 2016).

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## CHAPTER 2

### The effects of male out-migration on household food security in Far West Nepal

**Abstract:**

In Nepal, international migration is a highly gendered phenomenon. Compared to global figures, where women make up about half of the world's migrant population, 90 percent of Nepalese migrants are men. Many of these men migrate alone to earn wages abroad while their families stay behind. This level of male out-migration in Nepal occurs in a context characterized by widespread food insecurity. This paper examines the effects of male out-migration on household food security, especially on the women who stay behind, in the mountains of Far West Nepal. Our findings from iterative in-depth interviews and focus group discussions suggest that male out-migration both alleviates *and* exacerbates households' experiences of *insufficient quantity* and *inadequate quality* of food, and *uncertainty and worry* about food. Migration can benefit households through remittances that cover basic expenses, making it easier to access loans and credit, and by alleviating anxiety about having to eat. However, it comes at high costs. Men report undignified, unsafe, and difficult working conditions in India. Women bear additional childcare, fieldwork, and housework responsibilities. Limited male agricultural labor also hampers agricultural productivity and increases households' reliance on markets to meet basic needs. Our study highlights the importance of looking beyond the monetary aspects of migration when examining its effects on food security.

**Keywords:**

Migration; food security; gender; Nepal

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## 1. Introduction

Labor migration – defined as movement of individuals within and across countries for employment – has a history dating back 300 years in Nepal (Government of Nepal 2014). Recently, the number of migrants has reached unprecedented levels; in 2010-2011, about a fifth of the population was absent from their households – whether overseas or engaged in work elsewhere within the country (Central Bureau of Statistics 2012; Sharma et al. 2014). In Nepal, international migration is a highly gendered phenomenon. Compared to global figures where women make up about half of the world’s migrant population, 90 percent of Nepalese migrants are men (Gartaula, Niehof, and Visser 2012).<sup>12</sup> The destination of labor migrants tends to reflect their level of skill, education, and seasonality. Those who are highly skilled often migrate to higher income countries, whereas low/semi-skilled migrants typically migrate to Gulf countries and South East Asia, including India (Maharjan, Bauer, and Knerr 2012). Many of these men migrate alone to earn wages abroad while their families stay behind. In 2010, it was estimated that 30 percent of the total male population were among the absentee population (Central Bureau of Statistics 2012; Sharma et al. 2014).<sup>13</sup>

In Nepal, this level of male out-migration occurs in a context characterized by widespread food insecurity. The Nepal Living Standard Survey 2011 found that 38 percent of the population do not meet the minimum daily requirement for calorie consumption (National Nutrition and Food Security Secretariat, Central Bureau of Statistics 2015). Food insecurity and undernutrition vary widely by ecological zones and development regions in Nepal; the hills and mountains of the mid- and far-western development regions fare worse in terms of food insecurity compared to the terai (lowland) and eastern regions. Compared to national average of 28 percent, 41 percent of households in mid- and far-western mountains

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<sup>12</sup> While men dominate *international* migration, *domestic* migration is increasingly feminized in Nepal. In 2011, for every 100 women moving from one ecological zone to another (ex. Hills to Terai) only 84 men were doing the same. Just a decade earlier, it was near parity. This is a significant shift for women who traditionally migrated within Nepal for marriage; women are now increasingly engaging in labor-related activities and becoming bread winners due to their husbands’ out-migration and/or inadequate and infrequent remittances (Clewett 2015).

<sup>13</sup> The Nepal Living Standards Survey 2010-2011 defines an absentee “as someone who, at the time of enumeration, was temporarily away from the household for more than six months or was not expected to return for at least six months, and hence, includes both internal and external migrants” (Sharma et al. 2014, 10).

consumed an inadequate diet in June 2017 (Ministry of Agricultural Development and World Food Programme 2017).<sup>14</sup> In June 2017, 30 percent of households in the mid- and far-western mountains reported that they did not have enough food or money to buy food in the previous 30 days and resorted to coping strategies such as borrowing money or food from lenders, friends, or relatives (Ministry of Agricultural Development and World Food Programme 2017).

The majority of the empirical studies assessing the effects of migration focus on the *monetary* aspects of migration, in particular on remittances. These are, of course, important to consider. In 2016, Nepal ranked first globally for the remittances received as a percentage of its GDP at 31.3 percent, equivalent to more than 6.6 billion USD (World Bank n.d.; Government of Nepal 2016). These figures likely underestimate the true scale, since they only account for remittances transferred through official financial institutions (missing monies transported in person) (Central Bureau of Statistics 2012). Similarly, at the *microeconomic* level, there is a focus on the monetary impact of migration via remittances. Remittances can help households meet their daily needs; one study reported that nearly 80 percent of total remittances at the household level are spent on daily consumption needs (Dhungana 2012). The remaining amounts are used to pay back loans (taken out to finance foreign employment), improve living conditions, purchase property, savings and investments in education and caregiving of children (Dhungana 2012).

Comparatively, less attention has been paid to *non-monetary* effects of migration and on the empirical relationship between migration and household food security.<sup>15</sup> Where there have been efforts to assess this relationship, household food security is frequently equated only to its *economic* and *physical* access to food. By not reflecting the multi-dimensional

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<sup>14</sup> Based on the Food Consumption Score, which is a composite indicator that measures food, dietary diversity, and nutritional importance of food groups. (Ministry of Agricultural Development and World Food Programme 2017).

<sup>15</sup> For example, the definition put forth during the 1996 World food Summit states that “food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meet their dietary needs and food preferences for an active and healthy life” (Food and Agriculture Organization of the United Nations 1996). The definition highlights food availability, food access, food use, and the stability of these three aforementioned domains which must be fulfilled simultaneously in order for food security to be realized.

nature of food security in assessments of the effects of migration, there is “a singular failure to understand, and manage, the crucial reciprocal relationship between migration and food security” (Crush 2012, 63). With these gaps in mind, we draw linkages between our study results — the effects of male out-migration — to three core cross-cultural domains of household food insecurity experience: 1. *insufficient food quantity*, 2. *inadequate food quality*, and 3. *uncertainty and worry about food* as common cross-cultural experiential domains of household food insecurity (Coates et al. 2006; Cafiero, Viviani, and Nord 2018). **Table 1** summarizes these three experiential domains and their subdomains which result from a mixed methods exploration of cross-cultural commonalities of household food insecurity experiences in 15 countries (Coates et al. 2006).

**Table 1:** Core cross-cultural household food insecurity experiential domains and subdomains (adapted from Coates et al. 2006)

<b>Domain</b>			
	Insufficient food quantity	Inadequate food quality	Uncertainty and worry
<b>Subdomain</b>	<ul style="list-style-type: none"> <li>- Reports of food running out</li> <li>- Perception that quantity of food consumed was not enough</li> <li>- Had to eat less or not at all</li> <li>- Had to disrupt typical meal patterns</li> </ul>	<ul style="list-style-type: none"> <li>- Not eating balanced meal/not eating healthy and nutritious diet/not eating properly</li> <li>- Limited within or between meal variety</li> <li>- Eating less preferred foods/less expensive, luxurious, or socially preferred foods</li> <li>- Unsafe or not fresh food</li> </ul>	<ul style="list-style-type: none"> <li>- Worry about food in near term</li> <li>- Long-term uncertainty</li> </ul>

In this paper, we qualitatively examine the effects of male out-migration on household food security in the mountains of Far West Nepal. We first describe Maulali, the study site, and our methods. We then present our findings on the effects of male out-migration and draw linkages to the household experiential domains of food insecurity. To conclude, we offer a discussion on the importance of adapting a more holistic approach when examining the effects of migration on household experience of food security. To our knowledge, this is the first study to examine the effects of male out-migration on household food security in the mountainous ecological zone of Nepal.

## 2. Methods

Maulali is an isolated Village Development Committee (VDC) in the Bajhang District of Far West Nepal.<sup>16</sup> The study site was selected by the Feinstein International Center, as part of its independent research project for Mercy Corps' Promoting Agriculture, Health, and Alternative Livelihoods (PAHAL) initiative. The objective of the research was to examine household food security resilience to environmental, economic, and health shocks in rural Nepal. The qualitative efforts described in this paper constituted a part of this larger study. Maulali was selected given its history of food insecurity, vulnerability to various environmental shocks, isolation, and high rate of migration.

In Maulali, nearly all households are engaged in agriculture. But due to unproductive agricultural activity and limited non-agricultural opportunities in the area, male labor out-migration is a major livelihood strategy in Maulali. Men migrate, largely to India, in search of unskilled labor opportunities while many women stay behind to take care of children and the homestead. In turn, *transnational* migration is a common experience for many households in Maulali with nearly 23 percent of the population away from the VDC and sending remittances in 2016 (Dahal et al. 2016).

Maulali is split into nine wards (**Figure 1**). The larger study focused on eight of these wards. We excluded ward 4 because it is isolated from other wards, nearer to the local market; households in ward 4 also had higher incomes than in other wards due to their proximity to tarmac roads and local markets. The nearest local markets are two to three hours walk from Maulali, depending on the exact location of the household within the VDC (excluding ward 4). Times to major market towns (Dadeldhura and Chainpur) are by vehicle and vary greatly by season; flooding of the roads during the monsoon season and makes the roads largely impassable. The majority of households (87.7 percent) are upper caste (Brahmin, Chhetri, or Takhuri) while the remaining (12.3 percent) are of the Dalit

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<sup>16</sup> In March 2017, the Ministry of Federal Affairs and Local Development announced the dissolution of Village Development Committee as an administrative unit in Nepal (Himalayan News Service 2017). VDCs were replaced by *gaunpalika* (rural municipalities). As the study was conducted prior to the dissolution, we maintain the reference to VDCs in this paper.

castes (Kami and Damai) (Dahal et al. 2016). Wards are segregated by caste: wards 1, 2, and 9 are exclusively Chhetri, wards 3, 5, and 7 are almost entirely Brahmin, and the Dalit castes live in ward 6. Ward 8 is mixed. The qualitative study purposively sampled interview and focus group respondents from these eight wards. Respondents from seven wards were included in the qualitative sample; we were not able to recruit respondents from ward 5 given its distant location.

**Figure 1:** Aerial image of the valley in which Maulali VDC in Far West Nepal lies, with approximate locations of wards (Dahal et al. 2016)



In February 2016, we conducted a scoping trip to familiarize ourselves with the context, meet with larger study enumerators, and explore household food security, livelihood opportunities, and gender dynamics in Maulali. Such information helped to inform the qualitative study design and instruments. Two subsequent field trips in October 2016 and February 2017, respectively, were scheduled to first, facilitate both men's and women's participation in focus groups discussions, and second, interview the same woman twice to build rapport and allow for iterative analysis. As many able-bodied men migrate to India

for extended periods of time, there are a limited number of men available in Maulali for discussions. The first data collection visit was scheduled for October – November 2016, during the *Dashain* and *Tihar* festivals, when some migrant men return from India. The second field visit was scheduled approximately four months later for February – March 2017, between harvest and plantation periods, to conduct interviews and discussions at a time when women’s participation in our study was not an undue burden and to conduct a second interview with women who were interviewed during the first visit. Between October 2016 and March 2017, we conducted 47 in-depth interviews and 23 focus group discussions with over 150 respondents in Maulali.

### 2.1. Iterative in-depth interviews

Iterative in-depth interviews (IDIs) were conducted with 25 women, of whom 22 were interviewed twice, for a total of 47 interviews.<sup>17</sup> Interview respondents were purposively sampled by household migration status (those with and without current male migrants) and caste (**Table 2a & b**).<sup>18</sup> Respondent’s household structures (ex. nuclear vs. extended) were also taken into account during recruitment. Nearly all women had at least one male member of the household currently or previously in India. Between the two field visits, there was a change in household migration status (meaning someone had migrated or returned) for four women. These migration dynamics and extent of the households’ migration status reflect the near universal reach of male out-migration in Maulali.

**Table 2a:** Distribution of in-depth interview #1 by respondent categories

IDI #1	High caste	Low caste	Total by migrant status
<b>Migrant</b>	9	3	12
<b>No migrant</b>	6	7	13
<b>Total by caste</b>	15	10	25

<sup>17</sup> Of the three of the women who we were not able to interview twice, one respondent had moved to India between field visits and two respondents were unavailable for interviews.

<sup>18</sup> In order to reflect the caste demographic in the eight wards included within the study, we sampled a proportionally fewer respondents from the Dalit castes for both the interviews and focus group discussions.

**Table 2b:** Distribution of in-depth interview #2 by respondent categories

<b>IDI #2</b>	<b>High caste</b>	<b>Low caste</b>	<b>Total by migrant status</b>
<b>Migrant</b>	7	4	11
<b>No migrant</b>	6	5	11
<b>Total by caste</b>	13	9	22

The iterative design, where we interviewed the same respondent twice, helped to build trust between the interviewer, translator, and the respondents (Spradley 1979). For many of the women, our study was their first encounter with a researcher; the iterative design was key to facilitating a more in-depth dialogue.<sup>19</sup> The first interview focused on the household migration history (if any) and the respondent's opinions and feelings about male out-migration and its effects on household food security. The second interview, conducted approximately three months later, built on the first interview and focused on the effects of male out-migration on intra-household dynamics, women's workload, and the sociocultural factors shaping these effects. Each interview lasted about 45 minutes to an hour.

## 2.2. Focus group discussions

To complement information from the iterative in-depth interviews, focus group discussions (FGDs) focused on history of male out-migration in Maulali, prevailing social norms about intra-household roles and responsibilities, and male out-migration's effects on those who stayed behind. We also inquired about the respondents' experiences and perception of these effects, including their implications for household food security. Focus groups were conducted during both field visits, in parallel with the iterative interviews. Similar to interview respondents, nearly all men reported being a current or a former migrant and

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<sup>19</sup> The iterative study design proved crucial to eliciting rich, personal, and intimate narratives. Women who were initially reticent on the first interview enthusiastically shared their experiences during the second visit. They volunteered information about their family dynamics, their aspirations and challenges, and their experiences with the migration process. Some women even corrected the information they provided during the first interview, acknowledging that they had not initially trusted us to keep things secret. One woman shared with us: *"First time I felt shy with you. Now we think you are our friends. We see you again and again so I have no hesitation with you"* (Interview with high caste woman with migrant husband in Boreli, February 22, 2017).

nearly all women shared having a current or former male migrant household member. In total, 23 FGDs were conducted with 127 respondents. Focus group respondents were purposively sampled by caste and gender (**Table 3**). Each discussion group generally had between four to nine participants and lasted about an hour to minutes to 75 minutes.

**Table 3:** Distribution of focus group discussions by respondent categories

	High caste	Low caste	Total by gender
<b>Male</b>	9	3	12
<b>Female</b>	7	4	11
<b>Total by gender</b>	16	7	23

All interviews and focus group discussions were conducted in Nepali by the lead researcher with a female translator. The translator spoke fluent Nepali and English and was trained in qualitative research methods, study design and research questions, and ethical considerations. Interview and focus group guides were developed to guide the discussion and facilitate probing on topics of interest. At the beginning of each field visit, field guides were tested in Maulali to ensure their cultural appropriateness and translatability.

### 2.3. Data analysis

The study employed an iterative data analysis approach using memos and categorizing strategies (Maxwell 2005). Memos were developed to capture conceptual categories and themes to track emerging insights and interpretations *during, between, and after* field visits (Patton 2002). During each interview and focus group, detailed field notes were taken, noting phrases and terminologies used by respondents in Nepali to ensure that we captured their narrative. Following each day of data collection, the lead researcher and the translator held debriefing sessions to review field notes to ensure their accuracy and to discuss emerging themes.

Following the first field visit, field notes were (re-)reviewed and annotated to identify additional areas for follow-up and clarification during the second field visit. For women who were interviewed twice, we summarized our first discussion and asked that they

correct or clarify the information during the second interview. We then supplemented the memos for each respondent with key themes that emerged over the course of both interviews and identified areas for follow-up and clarification with other interview and discussion respondents. Similarly, we developed memos for focus group field notes to identify emerging themes and areas for further inquiry, noting similarities and differences by gender and caste categories.

The interview and focus group field notes were coded using NVivo. *A priori* codes were developed based on the research questions and study guides. These *a priori* codes were then supplemented by additional codes that reflected the themes and concepts that emerged from the data. A codebook was developed for these different concepts to facilitate consistency in the coding process. The coded data were organized into a hierarchy of themes which were then meaningfully linked to each other to show patterns, relationships, and explanations (Maxwell 2005). Additionally, the coded data were organized by household experiential domains of food insecurity to develop conclusions on the effects of male out-migration on household food (in)security.

Validation in qualitative research is an “attempt to assess the accuracy of findings as best described by researchers and participants” (Creswell 2012, 249). In order to ensure that the descriptions, explanations, and conclusions which emerge from their qualitative endeavor are credible and trustworthy, we employed the following strategies.<sup>20</sup> First, we had a prolonged period of engagement in Maulali.<sup>21</sup> Longer-term involvement and persistent observation in the field have been noted to build trust with qualitative respondents and to help provide more complete data about concepts under study. We conducted two interviews with the same respondents to facilitate a rapport and to check for misinformation which may emerge (Maxwell 2005; Creswell 2012). Second, the qualitative component presented in this paper was conducted as part of a larger study. In turn, we were able to corroborate

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<sup>20</sup> For brevity, we do not provide an account of the controversy surrounding the terminologies of “validity” and “reliability.” Some qualitative researchers outright reject these positivist concepts and their application to qualitative research (Golafshani 2003; Maxwell 2005; Creswell 2012; Patton 2002).

<sup>21</sup> The larger study had a longer engagement in Maulali. Since late 2015, a dedicated team of local enumerators and a study coordinator who made frequent trips to Maulali were in Maulali to introduce and garner support for the research.

the information and themes that emerged from the interviews and discussions with information from census-level household surveys conducted concurrently in Maulali. The use of multiple and different sources to collect and corroborate findings help reduce the risk of chance associations and systematic bias of relying solely on one approach. Third, we solicited respondents' views on the credibility of preliminary findings and interpretations using field notes and iterative memos described above. Member-checking is an important way of identifying researcher's own biases and misunderstandings (Maxwell 2005).

While our findings are a result of an in-depth qualitative study which employed aforementioned strategies to ensure that credible and trustworthy results, there are some limitations to note. First, all interviews were conducted with live translation between Nepali and English. While we verified our field notes during, between, and after field visits with the translator and the larger study personnel, member-checked and triangulated our findings, it is possible that some meaning was lost in translation. Second, in an effort to capture men's perspectives on the migration process and its effects, we scheduled our first field visit to coincide with the holiday season when men returned. However, through this approach, we may have focused our sample towards men who are willing and able to return (likely those with the means and job security make such a trip). Relatedly, our interviews and focus group discussions were conducted with those who have returned, temporarily or permanently, to Maulali. In turn, we are missing the perspectives of migrants whose families have moved to India with them.

### **3. Results**

#### **3.1. Male out-migration in Maulali**

##### **3.1.1. Migration as "livelihood strategy"**

In Maulali, men have been migrating since their "*grandfather's father's time*" to make ends meet.<sup>22</sup> In the past 10-15 years, there has been an increase in the number of men migrating

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<sup>22</sup> Focus group discussion with high caste men, October 25, 2016

to India due to the limited (productive) land and lack of livelihood opportunities, which made it not possible to meet the needs of a growing population. Unanimously, respondents—men and women of lower and higher castes—shared that going to India was necessity, never a choice.<sup>23</sup> It was the lack of livelihood opportunities and their limited education that pushed men to migrate to work in India as security guards, domestic workers, and cooks. It is thus difficult to refer to migration as a livelihood *strategy*, which implies careful planning and weighing amongst livelihood options to decide to migrate. Men relied on informal information from their social contacts about job opportunities, but often migrated without concrete knowledge about salary expectations or work conditions. If there were opportunities, these men all noted that they would prefer to stay in Maulali, their birthplace.

### 3.1.2. Migrating alone versus as a family

Migration from Maulali is highly gendered, with the many men migrating alone and families staying behind. It is considered socially inappropriate for women to migrate and earn, even if a few female respondents noted their desires to do so:

*I wish I could go abroad and earn lots of money. There should be a tailoring shop in the village for women so that they could work there... But it is not possible for me to go, I have small children... [Women] have to take care of land, animals. If our husbands would take care of children and land, we would go. If we did this, people would say it is bad. If any woman leaves her husband and children [to earn], she is characterless. They'll say she is like a prostitute. We don't think so but society does. There is no woman here who has left home and children at home to work.*<sup>24</sup>

Some women do accompany their husbands to India, bringing along young children or starting a family while living in India. It appears that lower caste families migrate more often as a family unit compared to their higher caste counterparts. Respondents shared that higher castes have more property, livestock, and assets to take care of and in turn, women stay behind to tend to the field and home while men earned wages in India. Lower caste respondents, on the other hand, noted that they had limited land and property (if any at all)

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<sup>23</sup> While respondents referred to migration as a compulsion, labor migration to India appears to be an important part of fulfilling men's identity as a "breadwinner" (Sharma 2008).

<sup>24</sup> Focus group discussion with high caste women, February 21, 2017

and did not have the same obligations to stay back in Maulali. Survival is difficult in rural Nepal without land and livestock, and hence lower caste families without such an asset base are more likely to migrate. In contrast, women from higher caste households could rely on these assets for support once their men had migrated.

### 3.1.3. Migrants' frequency of return

Migrants return to Maulali with varying frequency, ranging from once every few months to never. Most migrants stay away for extended periods of time. While rare, respondents shared that men sometimes abandon their family after migrating. Their wives and children were left to their own devices and often relied on handouts and loans to survive, at least until any sons are old enough to migrate on their own. Some of these men reportedly started second families in India. Others may have died and word never delivered to their families back home. A few respondents' husbands and sons died under suspicious circumstances, often on trains, but there was little recourse for these families to find out more or seek reprisals. While our interviews and discussions with men were limited to those who had gone to India and returned, there is an overwhelming sense that migration to India—even if it is for 20 years—is temporary. There is a strong pull for migrants and their family to return to Maulali, despite its lack of employment, productive land, and basic facilities.

### 3.2. Effects of male out-migration on household food insecurity

Transnational male out-migration is central to household food security in Maulali. Migration is offering a temporary reprieve to household food insecurity through remittances, increased access to loans and credits, and alleviates anxiety and worry about having enough to eat. However, given the unstable and infrequent remittance flows, additional burden on women's workload, and hampered agricultural productivity, it does not contribute to sustainable or substantial improvements to household food insecurity. Below, we describe these results.

### 3.2.1. Income via remittances and improved access to credit and loans

In Maulali, households rely heavily on money from migrants in India to make ends meet. Similar to national level analyses and studies conducted in central Nepal, we find that households use remittances to meet daily consumption needs including food, school fees, purchase of clothing, and loan repayments (Nepal Rastra Bank 2012; Dhungana 2012). Remittances from migrants allow households to preempt negative coping behaviors by providing additional income to spend on necessities and in turn, improving their economic access to the market and helping to relieve the perception that there is not enough.

*When money is sent back people spend on food, clothes. Everything we need in our belly. We don't have anything else. It's all money from India. We depend 100 percent on money from India. We don't have employment here. People who have migrated have taken loans.<sup>25</sup>*

However, while remittances from India help households meet their *immediate* needs, the balance between food security and insecurity appears to be precarious. Remittance flows are infrequent, unreliable, and insufficient. It is also not uncommon to hear of migrants not remitting for years at a time or at all. Remittances are often sent infrequently and in small amounts and are reflective of the migrants' earning abilities and not the situation back home (i.e. the remitted amount did not fluctuate depending on household need, shocks and stresses). Many respondents also noted that remittances are often not enough to cover all expenses. In turn, the remittance amount appears insufficient to contribute to longer-term productivity through savings or investments in assets. A woman in Maulali explained her reliance on the limited remittances sent by her migrant husband:

*Every year he would send 5-6000 Indian rupees (INR<sup>26</sup>)... If we had money, we would eat twice. If we had no money, we would eat just one time. With this money, I would buy clothes, slippers, things to eat.<sup>27</sup>*

Most of the remittances are carried back by hand (by the migrant himself, or by friends or family members). However, respondents reported that migrants are increasingly using the international monetary exchange (IME) services to avoid paying bribes at the border

<sup>25</sup> Focus group discussion with high caste men, October 29, 2016

<sup>26</sup> 5000-6000 INR is equivalent to approximately 75-89 USD (on date of interview, October 28, 2016)

<sup>27</sup> Interview with a widowed low caste woman, October 28, 2016

crossing or being accosted in transit. While IME offers a more secure option to transfer remittances back to Maulali, some respondents shared that it is challenging for women – who are usually (financially) illiterate and inexperienced in navigating such a system – to collect the remittances on their own. Women describe relying on the IME staff to fill out the paperwork on their behalf to collect the remittances. Moreover, there is a small fee for migrants to remit via IME, which diminishes the already limited amount migrants are able to send back home.

When remittances are insufficient, many respondents take up casual labor opportunities to make ends meet. In Maulali, both men and women transport goods from the nearby small market of Mauribagar. Both men and women work as casual construction workers. These opportunities are *ad hoc* and not formally advertised. Dalit respondents shared that they are often not informed of these opportunities. Women, regardless of caste, noted that they are paid about sixty per cent of men’s wages for the construction job (e.g. carrying stones); they did not find this to be problematic as they felt that men are more physically capable and should be compensated accordingly. Payment from these types of work, whether in cash or kind, are still often not enough to make ends meet. Older respondents, many of whom depend heavily on their adult children’s remittances to make ends meet, are often physically unable to take up such labor opportunities. Without alternate sources of income, the elderly rely on handouts or good will of their relatives and neighbors when their children failed to send remittances or it was inadequate to make ends meet.

Loans fill these gaps and almost all respondents report taking out loans with regularity. Households with a migrant member who regularly remit have an easier time acquiring loans and store credit as the promise of future remittances act as insurance for the lenders of the households’ ability to pay back. Women reported that they have an easier time taking loans if they have a male migrant in India:

*When my husband was away, he would send money every 3-5 months after 1 year away. 2000, 3000, 5000 (INR<sup>28</sup>) each time. This was not enough but we could use it. If he would send late, we would get loans. It was easier to get loans when he was in*

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<sup>28</sup> 2000, 3000, 5000 INR are equivalent to approximately 30, 45, 75 USD (on date of interview, October 26, 2016).

*India. Husband can send money to pay back quickly... People feel hesitant to give loans to us, they worry we cannot pay them back. I feel easier to get loan when he is in India. I feel more secure. I would ask to take loan, he would give me permission. I feel obviously more at ease when he is in India.*<sup>29</sup>

When there was not enough food or money to make ends meet, respondents noted that they first reduced their expenses on (in order) clothing, grass for feeding livestock, and children's education. However, they did not change their food consumption practices *before* acquiring loans and/or purchasing food on credit. It is only *after* acquiring a loan and/or store credit that households change their food consumption behavior (e.g. cutting down portion sizes, not purchasing vegetables, not using ghee to fry rotis etc.). Most felt that their diets were already so limited that cutting back on meals or amounts consumed would be detrimental to their well-being. A group of women explained that the foods they ate were already limited:

*We eat bhat (rice), roti, daal (lentils), soybeans. We eat 3-4 times. We have roti for breakfast. We have bhat for lunch, the remaining bhat as snack. Then we have roti for dinner. We have this with radishes, potatoes, and peppers. Before taking out loan, we don't change anything about what we eat. Should we stop eating? If we don't eat, how can we work?*<sup>30</sup>

### 3.2.2. Labor supply and agricultural productivity

Agriculture remains the main productive activity in Maulali. Majority of the men who migrate are able-bodied young men. Their mass out-migration is creating a large void in the availability of agricultural labor force in Maulali and contributing to what some have referred to as a “feminization” of agriculture, whereby women taken on more significant role in agricultural activities (Tamang, Paudel, and Shrestha 2014; Maharjan, Bauer, and Knerr 2013). However, despite women's increased role in agriculture, division of labor in Maulali remains highly gendered.<sup>31</sup> For example, respondents all noted that it remains taboo for women to plow with oxen, even though ox plows are widely used in preparing

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<sup>29</sup> Interview with high caste woman with former migrant husband, October 26, 2016

<sup>30</sup> Focus group with high caste women, October 30, 2016

<sup>31</sup> There are some exceptions. For example, women noted taking over traditionally male responsibilities like fetching firewood from the forest and going to the mill in men's absence.

fields for planting. If women plow with oxen, it is believed that she will curse the land and bring drought to the area.<sup>32</sup> Women are permitted to plow only with their hands and tools. While strict social norms prevent women from engaging in socially unacceptable agricultural tasks (e.g. plowing with oxen), they still bear the additional burden of finding willing and able male agricultural laborers in men's absence in Maulali and much of rural Nepal (Adhikari and Hobley 2015; Tamang, Paudel, and Shrestha 2014; Gartaula, Niehof, and Visser 2010). Women who have migrant husbands but have other adult male family members (such as sons or other relatives) still residing in Maulali are often able to get help to plow their fields.

Those without male relatives have to rely on other unrelated male neighbors. For many of these women without male relatives, it is a challenge to request help (often, multiple times) and having to find someone to plow is an additional task to their already over-burdened day. It appears that men plow with ox in exchange for future help (such as weeding or carrying manure). However, given the limited number of men available in Maulali, respondents shared that some men are now expecting a fee of 1500 Nepali rupees (NPR)<sup>33</sup> for a day's work.<sup>34</sup> In turn, women must dedicate a large proportion of their remittances from India to hire help in the planting season and face *uncertainty* about making ends meet and *worry* about balancing this demand with other basic needs. A high caste woman whose husband was in India explained:

*We have to ask people to plow for pay. It is difficult to find people to help. They are all in India. 500 for ox, 500 for labor, 500 for plow. 1500<sup>35</sup> a day. This is not enough to get things done. It takes five days to finish. We are using a lot of the money husband sends back.<sup>36</sup>*

Women also shared that the men who are hired to plow fields only did so after finishing their own work and often complete the task carelessly. In some instances, these delays and careless plowing led to decreased production. Mass male out-migration and the depleted

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<sup>32</sup> Respondents also shared that it was believed that women would get leprosy on the part of their hand that touched the plow and if they were to jump over the plow, they would get a moustache.

<sup>33</sup> 1500 NPR is equivalent to approximately 14 USD (on date of interview, October 27, 2016)

<sup>34</sup> While respondents noted that some men were now expecting to be paid for their agricultural labor, majority of the respondents reported that labor was exchanged for future labor (in lieu of payment).

<sup>35</sup> 1500 NPR is equivalent to approximately 14 USD (on date of interview, October 27, 2016)

<sup>36</sup> Interview with high caste woman with migrant husband in Tamil-Nadu, October 27, 2016

male labor supply may be exacerbating households' experience of *insufficient quantity* of foods by hampering agricultural productivity and increasing households' reliance on the market. Men discussed the problem in a focus group:

*Of course, production is affected (all agree, everyone nods). If we are here, we care about our field. If we just send money, others don't care. They don't do work carefully. They just do the work they're paid to do. Production goes down. We have to give more to produce less.*<sup>37</sup>

Moreover, households report being forced to consume less preferred foods, such as maize, as a result of reduced production of a more preferred food such as paddy. While the effects of male out-migration on agricultural yield remain inconclusive in Nepal, these qualitative results echo the findings in a few other studies; a nationally representative analysis in Nepal, for example, also found that migration significantly and adversely affected paddy production (Tuladhar, Sapkota, and Adhikari 2014).

With many lower caste men migrating to India, Dalit women who stay behind have very few men they could turn to for help. Higher caste men are unwilling to do work, given social norms, for a lower caste household. Dalit women explained that they must either plow by hand on their own or get help from other lower caste women who are willing and able to help. A group of Dalit men discussed the changes in production caused by migration and the role of caste:

*Yes [everyone agrees], production changes when men go to India. If husband is not here, women plow field by hand. It gives less production. No one (men) is here to plow. Higher caste will not plow our field [everyone laughs] There is long discrimination. Generations between higher caste and us. They don't even let low caste touch their land. Now there is less discrimination, but still happens. [Another respondent:] Dalits, we are treated worse than dogs. We are not even allowed in their homes.*<sup>38</sup>

However, lower caste households have less land to plow (and sometimes no land at all), the work burden is not as substantial as for their higher caste female counterparts.

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<sup>37</sup> Focus group with high caste men, October 25, 2016

<sup>38</sup> Focus group with lower caste men, November 2, 2016

### 3.2.3. Women's workload

With male out-migration, women are facing enormous psychological and physical burden given additional childcare, agricultural and housework responsibilities. As a high caste man in a focus group discussion put it: “*When we leave, everything comes on the head of women.*”<sup>39</sup> Men used to help carry goods from the market, take care of children, and manage all aspects of household-decisions (such as taking loans and selling livestock). Men also normally took the lead in market interactions due to their greater financial literacy. All household responsibilities fall to women in their husbands' absence. Women reported that once their husbands departed, they are forced to work early morning until late in the evening, with little time for child care and food preparation. They explained that these added burdens are both physically and mentally taxing. One woman described the extent of her new workload:

*Workload is more now. My husband used to help with fetching firewood and water but now I have to do everything myself. I have to go to the mill on my own; before my husband used to go. It is too much work for me. I don't have time for myself. I have more work now. I don't have time for sanitation. I don't even have time to comb my hair, take a bath.*<sup>40</sup>

Some studies show that male out-migration may actually decrease women's workload (de Haas and van Rooij 2010; Maharjan, Bauer, and Knerr 2012). However, a woman's workload is largely dependent on her ability to hire labor using remittances. Where remittances are inadequate or infrequent, as is the case in Maulali, male out-migration is associated with additional child rearing, housekeeping, and agricultural responsibilities for women (de Haas and van Rooij 2010).

There are large seasonal effects on women's workload, with women feeling especially spread thin during harvest and planting time. During these work-intensive periods, women shared that they would wake up before sunrise and work until 9 or 10 p.m. and reported being unable to eat all day; typical meal patterns were disrupted. Households often eat leftovers and remaining foods from earlier meals. During these times, women expressed

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<sup>39</sup> Focus group with high caste men, October 27, 2016

<sup>40</sup> Interview with high caste woman with migrant husband in Mangalore, October 24, 2016

feeling exhausted, and also worried and guilty about not being able to cook and feed the children. The emotional toll of the workload is apparent in the narrative of a woman, below:

*My father-in-law helps me to plow with ox. Other work I have to do myself. No one helps me. I don't have anybody to help me with the house work. I myself cry, no one is there to console me. Sometimes I become so tired, I am unable to cook and eat. There isn't anybody who can help me. I have small children, how can they help me. I tell my husband that our children don't have clothes, food, slippers. He'll say, okay I'm sending 1500 buy some slippers for them. In winter season, we have some vegetable and I go to sell them, I can earn little to buy rice. Now it is dry, so what should I do? I have no money.<sup>41</sup>*

Women rely heavily on their daughters, neighbors, and relatives to help with household and fieldwork. Those who did not have these social connections felt especially burdened by their husbands' absence. A high caste woman with a migrant husband in Uttar Pradesh notes the importance of her social network in alleviating her house and fieldwork:

*I do not have difficulty doing field work, our relatives are our neighbors. Our fields are attached to theirs. They work in our field and I help out in theirs, they don't work in our field for money. If relatives are here, there are no problems. But otherwise, it is a challenge to find help. People want to finish their own work, it is then too late to work elsewhere. Relatives do our fieldwork at the same time as theirs since fields are connected to each other. ... My sister in law (husband's sister) helps me with the household work. When it is working season, my husband's elder sister also helps with the fieldwork. I don't have to work too much because many people, my relatives – neighbors – help me.<sup>42</sup>*

#### 3.2.4. Uncertainty and worry about food

Many respondents – both men and women of both lower and higher castes – shared that they worry or feel anxious about having enough food to eat. Their concerns about having enough to eat are heightened during March and April and monsoon season. Some women talked about lying awake at night, worried about what to feed the children. A respondent said: “*Our flesh has gone due to our worry. We never get flesh on our body. We're skinny because we're worried. We worry about what should we eat. What should our children eat. What should our cows eat.*”<sup>43</sup>

<sup>41</sup> Interview with high caste woman with migrant husband in Bangalore, February 24, 2017

<sup>42</sup> Interview with high caste woman with migrant husband in Uttar Pradesh, October 25, 2016

<sup>43</sup> Focus group with high caste women, October 30, 2016

Having a migrant in India appears to significantly alleviate women's uncertainty and worry about having enough to eat. Female respondents repeatedly referred to a sense of "hope" and "expectation" they have from having a migrant household member who might be able to send money home. One woman explained, "*Having someone in India reduces my worry about having enough to eat. I hope that when he is in India, he will send money for us. I live in hope.*"<sup>44</sup> Men in a focus group discussion reported that these expectations from their families to send regular remittances put a great deal of pressure on them:

*People worry less if there is a migrant. There is a psychological effect. Wife feels more at ease. Husband can take care of loans. It doesn't matter if husband is earning or not, just the expectation. The hope. If there is a need, they can take out loans more easily, they say 'my husband is in India and will send money.' This puts a lot of pressure on us. [Other men all agree, nod and laugh.] Men worry about their family. Worry about them getting enough food.*<sup>45</sup>

Women noted that they worry again about having enough to eat once their husbands or sons return to Maulali. A high caste woman whose husband had returned from Bangalore a year ago shared: "*When my husband was in India, I worried less about having enough to eat. Now I worry. I worry about other things too like clothes, children.*"<sup>46</sup> This is likely due both to the discontinuation of remittances and the presence of an extra mouth to feed. As such, migration helps to alleviate the *uncertainty and worry* about having enough to eat and meeting other basic needs, but the reprieve appears to be temporary.

#### 4. Discussion

In Maulali, male out-migration is central to households' efforts to realize food security. Our study indicates that it provides *both* positive and negative effects on the three core domains of household experience of food insecurity; male out-migration alleviates *and* exacerbates households' experiences of *insufficient quantity* and *inadequate quality* of food, and *uncertainty and worry* about food. **Table 4** summarizes the effects of male out-migration on the three core household food insecurity experiential domains.

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<sup>44</sup> Interview with high caste woman with migrant husband in Bangalore, October 31, 2016

<sup>45</sup> Focus group with high caste men, October 24, 2016

<sup>46</sup> Interview with high caste woman with former migrant husband, October 26, 2016

**Table 4:** Effects of male-out migration by core household food insecurity experiential domains in Maulali, Far West Nepal

<b>EFFECTS OF MALE OUT-MIGRATION</b>			
<b>Core household food insecurity experiential domains</b>	Income via remittances and improved access to credit and loans	Labor supply and agricultural productivity <sup>c,g</sup>	Women's workload <sup>c,g</sup>
<b>Insufficient quantity</b>	<ul style="list-style-type: none"> <li>- Improve economic access to market<sup>g</sup></li> <li>- Improve ability to meet <i>immediate</i> consumption needs</li> <li>- Help avoid having to eat less<sup>g</sup></li> <li>- Help relieve perception that there is not enough food</li> </ul>	<ul style="list-style-type: none"> <li>- (Perceived) reduction in agricultural output, reports of grains running out earlier</li> <li>- Increased reliance on foods purchase from market</li> </ul>	Given additional work burden (seasonal): <ul style="list-style-type: none"> <li>- Women forced to eat less/not at all</li> <li>- Typical meal patterns are disrupted</li> </ul>
<b>Inadequate quality</b>	<ul style="list-style-type: none"> <li>- Little change to limited variety within and between meals (but some respondents report being able to purchase meat and additional fruits and vegetables), largely due to market unavailability</li> </ul>	<ul style="list-style-type: none"> <li>- Consumption of less preferred foods (maize) given reduction in agricultural productivity</li> </ul>	Given additional work burden (seasonal): <ul style="list-style-type: none"> <li>- Women unable to cook and are forced to consume leftovers/old foods from earlier in the day</li> </ul>
<b>Uncertainty and worry</b>	<ul style="list-style-type: none"> <li>- Help reduce short-term worry about having enough to eat</li> <li>- Help alleviate psychological distress/insomnia about having enough to eat</li> <li>- Help reduce worry about trade-off between health, education, clothing and food</li> <li>- Alleviate <i>short-term</i> uncertainty and worry about having enough to eat</li> <li>- Does not reduce <i>long-term</i> uncertainty and worry</li> </ul>	<ul style="list-style-type: none"> <li>- Divest income via remittances to hire male agricultural labor, worry about “having to spend more to produce less”</li> </ul>	Given additional work burden (seasonal): <ul style="list-style-type: none"> <li>- Women unable to feed children and note feeling worried and guilty</li> </ul>

<sup>a</sup> Refers to observation(s) with age differences; <sup>c</sup> Refers to observation(s) with caste differences; <sup>g</sup> Refers to observation(s) with gender differences

First, income via remittances along with improved access to loans and credit alleviates households' experience of *insufficient quantity* of foods by improving households' economic access to purchase foods at the market and their ability to meet their immediate consumption needs, helping relieve the perception that there is not enough food to eat. However, remittances and improved access to loans and credit do not change the limited variety within and between meals and do not improve the *inadequate quality* of household diets. For example, many respondents shared that fruit was still too expensive and not readily available to purchase at the market. Moreover, given the infrequent and often insufficient remittance flows from migrants, those who stay behind – namely women – are forced to take up casual labor opportunities to make ends meet, adding to their already heavy workload. Migrant households are also highly dependent on loans and credit given the unreliable income from migration. Migration and in turn, households' improved access to loans and credit, may actually be worsening their debt burden.

Second, the limited male agricultural labor due to out-migration is exacerbating households' experience of *insufficient quantity* of foods. Given the gendered division of agricultural labor, women who stay behind are forced to find male relatives or neighbors who are willing and able to plow their fields with oxen. Respondents share that there is a reduction in agricultural productivity, as these men often do not plow in a timely nor careful manner. Grains run out sooner (than when migrant men were at home and plowing on their own fields) and there is an increased reliance on foods purchased from the market. Moreover, some respondents shared that there is a reduction in paddy production, a preferred grain, and they have to consume maize, a less preferred grain, more often; in turn, the limited male labor and the (perceived) reduction in agricultural productivity does not appear to improve households' experience of *inadequate quality* of the foods consumed.

Third, women's increased workload does not ameliorate household's experience of *insufficient quantity* and *inadequate quality* of foods. Given their additional work burden, women are forced to eat less, if at all, during the day while they are working in the field or away from home. Typical meal patterns are disrupted with several respondents noting that they were only able to eat very early in the morning and very late in the evening. Relatedly,

women noted that they were unable to cook given their time burden and were forced to eat and feed their children old foods from earlier on in the day. Workload burden is especially heightened for higher caste women whose household often have more land and livestock to look after (compared to lower caste households) and those without social connections.

Fourth, male out-migration provides significant relief to households' experience of *uncertainty* and *worry* about food. Income from migrants' remittances and households' improved access to credit and loans help reduce worry about having enough to eat. It also allows households to avoid making trade-offs between their basic immediate needs (ex. health care, education, clothing, and food). Having a migrant household member who might be able to send money home gave a sense of hope. However, given the infrequent and limited remittance flows, such reprieve from worry and anxiety about food is often precarious. Households are increasingly forced to divest a significant portion of their remittances to hire male agricultural labor; in turn, respondents felt worried about having to "give more to produce less."<sup>47</sup> Moreover, given their additional work burden, women shared feeling guilty and worried about not being able to feed and take care of their children properly. The psychological reprieve is also short-lived and contingent on households' migration status; upon a migrant's return, households noted that they worried yet again about having enough to eat.

#### 4.1. Conclusions

In rural Nepal, low-skilled labor migration is a key household livelihood strategy to realize food security. Yet, the evidence base on migration's effects on household food security remains limited. Majority of studies examining the effects of migration focus on the *monetary* aspects of migration and fail to reflect the multi-dimensional nature of food security. In this paper, we draw linkages between the effects of male out-migration and the three core cross-cultural domains of household food insecurity experience. Our study highlights the importance of looking beyond the monetary aspects of migration when examining its effects on food security. In Maulali, remittances from migrants help

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<sup>47</sup> Focus group with high caste men, October 25, 2016

households meet their basic immediate needs and their experience of *insufficient quantity* of food. However, improvements to households' experience of food security via income from remittances and improved access to loans and credit are limited and precarious. It also does not improve the *inadequate quality* of foods consumed by the households.

This limited monetary benefit from migration comes at a high cost. Men report undignified, unsafe, and difficult working conditions in India and the women who stay behind bear additional childcare, fieldwork, and housework responsibilities. Increasingly, households also face economic drawbacks by having to pay for male agricultural labor with hampered production and increasing reliance on market to meet basic needs. Migration in Maulali – a central livelihood strategy in households' efforts to realize food security – does not result in sustainable nor substantial improvements to household experience of food insecurity through the traditionally examined domains, namely *quantity* and *quality*. However, it provides much – albeit short-lived - relief to household's *worry* and *anxiety* about having enough to eat and balancing the demands for food with other basic needs; migration is allowing households to “live in hope.”<sup>48</sup>

Additional quantitative and qualitative studies are needed to further establish the linkages between migration and food security. Such efforts should move beyond focusing solely on the *monetary* effects of migration, which are of course important to consider, and encompass a more holistic understanding of both the effects of migration and food security. Migration may improve the domains of household food insecurity oft under-explored in studies examining these linkages. In these efforts to examine the migration-food security nexus, feedback from the migrants themselves, those who remain in the rural areas, and households who have migrated together are key. *How do households conceptualize a “successful” migration experience? How can programs facilitate this experience? In what ways do those who stay behind wish to be supported?* Given the unprecedented level of *male* out-migration in contemporary Nepal - a context characterized by widespread food insecurity - a nuanced understanding of the effects of mass male out-migration on household food insecurity is critical to harnessing the development potential of migration.

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<sup>48</sup> Interview with high caste woman with migrant husband in Bangalore, October 31, 2016

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### CHAPTER 3

#### The effects of male out-migration on women's household decision-making roles in Far West Nepal

**Abstract:**

In this paper, we examine the effects of male out-migration on the women who stay behind in Far West Nepal. Using qualitative research methods, we test the commonly held – but unsubstantiated – assumption that male out-migration emancipates and empowers the women who stay behind. In Far West Nepal, the patriarchal intra-household decision-making roles are largely preserved despite men's extended physical absence and women's *de facto* headship in nuclear households. In fact, male out-migration appears to maintain and at times, reinforce, the very conditions which hinder women's ability to take on additional decision-making roles in the household.

**Keywords:**

Migration; gender; women's decision-making roles; women's empowerment; Nepal

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## 1. Introduction

In this paper, we examine the effects of male out-migration on the women who stay behind in the mountains of Far West Nepal.<sup>49</sup> Using qualitative research methods, we explore the following research questions: *In what ways, is male out-migration affecting women's intra-household decision-making roles? What factors facilitate them? How do men and women perceive such effects?* In so doing, we test the commonly held - but unsubstantiated - assumption that male out-migration empowers women who stay behind. Furthermore, in evaluating this assumption, we make the case for putting the current and future priorities of women and men at the center of any efforts that examine the effects of migration on women's empowerment.

The empirical evidence of the effects of migration on the positions and roles of women who stay behind is limited and has thus far yielded mixed findings. Some studies show that migration has had a positive effect on women, and that male out-migration itself may be part of an empowering strategy for the women who stay behind. For example, in northeastern Tanzania, male out-migration gave women access to land and control over productive resources; in recognition of these opportunities, many of these women *chose* to remain behind (Archambault 2010). In Bangladesh, male out-migration was positively associated with both women's decision-making capacity and the education of girls of the migrant household (Hadi 2001). Similarly, in southern Mozambique, men's labor out-migration was positively associated with women's autonomy which persisted even after men's return (Yabiku, Agadjanian, and Sevoyan 2010).<sup>50</sup>

Other studies suggest that migration has no, or limited, impacts on gender roles, and indeed may actually serve to reinforce them. In rural Morocco, for instance, where men traditionally dominate household decision-making, out-migration of the male spouse had

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<sup>49</sup> There is a tendency in literature to present rural women whose husbands have migrated as being *left* behind, a label which implies that women are passive actors who lack agency in the migration process (Archambault 2010). In recognition of the more nuanced reality in which some women are involved in migration and migration decisions, we refer to those women who remain in the origin community as having *stayed* behind.

<sup>50</sup> Other studies dispute the permanence of these gains made on women's autonomy in men's absence. In Nepal, for example, the positive gains made by women in their migrant husband's absence were quickly reversed upon men's return (Kaspar 2005).

negative effects on the autonomy of women who continued to live with in-laws in an extended household (de Haas and van Rooij 2010). While women maintained child rearing, housekeeping and agricultural responsibilities in their husbands' absence, they were expected to defer to their in-laws and remittances were sent directly to the husbands' parents (de Haas and van Rooij 2010).

Indeed, some studies show that male out-migration can *adversely* affect gender roles. In Yemen and Egypt, Taylor (1984) and Myntti (1984) suggest that returning male migrants were influenced by conservative interpretations of Islam in rural Egypt and Sudan which further limited women's positions in the household and communities. Moreover, male migrants' absence may increase scrutiny over women's behavior in public spheres and they may be more vulnerable to harassment from other men (Adhikari and Hobley 2011). In many instances, women who stay behind remain economically dependent on their husbands which restricts their (actual and perceived) autonomy. Additionally, many women experience increased workload and report feeling stressed and anxious in men's absence (Kaspar 2005; Maharjan, Bauer, and Knerr 2012).

In Nepal, nearly one third of the male population have migrated to earn wages while their families have stayed behind (Central Bureau of Statistics 2012). Yet, the empirical evidence on the effect of male out-migration on women who stayed behind remains limited. In the hills of central Nepal, male labor out-migration was associated with women's increased roles in agriculture-related decision-making processes in nuclear migrant households but not if the women lived with their in-laws (Gartaula, Niehof, and Visser 2010). In these extended households, similar to the aforementioned Morocco case study, remittances were sent directly to the in-laws and the women were not consulted (and often not even aware) of how these funds were being spent, indicating an important shift of decision-making power from the husband to the in-laws that entirely bypassed the women (Gartaula, Visser, and Niehof 2012; de Haas and van Rooij 2010). Another study also set in the same context in Nepal found that male out-migration was associated with women's increased decision-making responsibilities, but women's roles were again limited to

operational (day to day) activities rather than strategic affairs (Maharjan, Bauer, and Knerr 2012; Kaspar 2005).

Women and marginalized groups, such as those from historically discriminated caste and ethnic groups, have limited control and decision-making power in Nepal. These *social* discriminations are often enhanced by *legal* discrimination. Women's access to land and property is derived through their marriage relationships and their access to property and resources (e.g. farmland, houses, livestock) are mediated by men (Gurung, Tulachan, and Gauchan 2005). For women, their positions *within* the household (i.e. mother-in-law, daughter, older/younger daughter-in-law) affect their roles, responsibilities, and decision-making opportunities (Gurung, Tulachan, and Gauchan 2005).

There are also important geographical variations (Figure 3 in Chapter 1). Compared to women of similar socio-demographic characteristics living in the hill ecological zone, women living in the mountainous ecological zone were less likely to participate in decisions about their own health care, major household purchases, daily household purchases, and visiting families and/or relatives (Acharya et al. 2010). Women from the *terai* (lowland) region were also more likely to be autonomous in decision-making compared to women from the mountainous region (but these results were not statistically significant) (Acharya et al. 2010). Studies examining the effects of male out-migration on women who stay behind in Nepal, however, have thus far been conducted only in the hills and *terai* ecological zones (Gartaula, Visser, and Niehof 2012; Maharjan, Bauer, and Knerr 2012; Cortes 2008).

Below, we briefly describe the study site and our methods. We then present our results on the effects of male out-migration on the intra-household decision-making roles of the women who stay behind in Maulali, an isolated village in the mountains of Far West Nepal. We then highlight the ways in which migration may be maintaining and reinforcing the very conditions which hinder women's capacity to take on additional decision-making responsibilities in their households. In conclusion, we note the implications our findings may have for future efforts that examine the effects of migration on women's

empowerment. To our knowledge, this is the first study to examine the effects of male out-migration on women's decision-making roles in the mountainous ecological zone of Nepal.

## 2. Study site and methods<sup>51</sup>

Maulali is located in the mountain ecological zone of Far West Nepal, in the Bajhang district. Nearly all households are engaged in agriculture. Market access is a major challenge for farmers as a single tarmac road links Maulali to nearby market towns. During monsoon season, the road becomes flooded and largely impassable. Due to unproductive agricultural activity and limited non-agricultural opportunities in the area, male labor out-migration is a major livelihood strategy in Maulali.

Gender discrimination is widespread in Maulali and throughout Far West Nepal (Asian Development Bank 2016). Only four percent of households in Bajhang have women with title over land or housing — despite the fact that 25 percent of households are headed by women. *Chhaupadi* is widely practiced in the region, where women must stay in isolation, often in a separate house or an animal shed, for the first five days of the menstrual cycle (United Nations Resident and Humanitarian Coordinator's Office 2011). Eighty-three percent of women in Bajhang are married before age 19, with 18 percent married before age 15 (Dahal et al. 2016).

In Maulali, we conducted iterative in-depth interviews and focus group discussions with over 150 respondents between October 2016 and March 2017. Respondents were purposively sampled by migration status (those with or without current migrants) and caste. To the extent possible, we recruited respondents by their household structures (eg. nuclear vs. extended). In interviews, we inquired about the following topics: woman's household information and (if applicable) migration history, her perceptions of migration, its general effect on the household and her responsibilities, effects of male out-migration, and her perception of such effects. The focus group complemented the interviews and focused on

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<sup>51</sup> We offer a brief overview of our study site and methods in this paper as a full description of our approach is presented in **Chapter 2**.

history of migration in Maulali, effect of migration on those who stayed behind, intra-household roles and responsibilities. Focus group discussions were purposively sampled by gender and caste.

All focus group discussions and interviews were conducted by the lead researcher with a translator who spoke Nepali and English fluently and was trained in qualitative research methods, our research questions and ethical considerations. For many respondents, our study was their first interaction with a researcher - especially for women whose observations and perspectives are traditionally not elicited. To familiarize respondents with this study, interviews and focus groups were conducted on two field trips between October 2016 and March 2017. Interviews were conducted with the same woman, approximately four months apart. In total, we conducted 47 interviews with 25 women, of whom 22 were interviewed twice, and 23 focus groups with over 125 respondents.<sup>52</sup>

The iterative study design, where we interview the same women twice, proved crucial to eliciting rich, personal, and intimate narratives (Spradley 1979). Women who were initially reticent on the first interview enthusiastically shared their experiences with us during the second visit. They volunteered information about their family dynamics, their aspirations and challenges, and their experiences with the migration process. Some women even corrected the information they provided during the first interview, acknowledging that they had not initially trusted us to keep things secret. As one woman shared with us: *“First time we talked, I felt shy with you. Now we think you are our friends. We see you again and again so I have no hesitation with you.”*<sup>53</sup>

Despite the rich narratives, there are some limitations to note. First, while we verified our field notes with the translator and the respondents themselves, it is possible that some content was lost in translation. Secondly, we observed social policing during the focus group discussions, especially amongst the female respondents. While we tried our best to

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<sup>52</sup> Of the three of the women who we were not able to interview twice, one respondent had moved to India between field visits and two respondents were unavailable for interviews.

<sup>53</sup> Interview with high caste woman with migrant husband in Boreli, February 22, 2017

recruit respondents in discussions who did not know one another, majority of the respondents knew one another and were neighbours or at times, even related. As we discussed dynamics between husbands, wives, and their in-laws, and their perspectives on the effects of migration, it became clear that women felt that they were not free to share their opinions openly in front of the others. A low caste woman told us in private following a focus group discussion:

*Last time we talked, my villagers were there. They asked me, what are you doing? ... They said that they don't say the torture that they're facing. They don't share the torture they are getting from their husbands... Please keep this between us. Please don't share. I am confiding in you.*<sup>54</sup>

While it is possible that the fear of social repercussions may have discouraged some women from sharing as openly, we noticed that respondents' familiarity with the study, the lead researcher, and the translator helped to relax the discussions during the second visit. We also triangulated information across different methods, our general observations, and member-checked findings to corroborate the emergent themes (Maxwell 2005). Third, while we purposively sampled interviews and discussions by caste, the limited number of focus group discussions and interviews with lower caste respondents do not allow us to confidently draw caste-comparison conclusions.<sup>55</sup> Fourth, previous studies have noted the importance of migration patterns and migrants' destinations in examining the linkages between migration and women's decision-making roles (Maharjan, Bauer, and Knerr 2012). However, given that almost all men in Maulali migrate to India, we were unable to take these factors into account in our study. Lastly, our interviews and focus groups were conducted with those who have returned temporarily or permanently to Maulali. In turn, we are missing the perspectives of those who migrated as a family to India.

### 3. Results

#### 3.1. "It is men who migrate"<sup>56</sup>: Male out-migration in Maulali

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<sup>54</sup> Interview with low caste woman whose husband lives in Maulali, February 20, 2017

<sup>55</sup> In total, we conducted interviews with 15 and ten high and low caste women, respectively. Sixteen and seven focus group discussions were conducted with respondents from high and low castes, respectively. We purposively recruited fewer number of low caste respondents to reflect the caste demographic of the study site.

<sup>56</sup> Focus group discussion with high caste men, October 29, 2016

In Maulali, labor out-migration remains a *male* domain.<sup>57</sup> In 2016, it was estimated that nearly a quarter of Maulali's male population was living away from home (Dahal et al. 2016). Men migrate to India, mainly to Bangalore and Delhi, in search of low-skilled labor opportunities, as security and bazaar guards, chefs, and drivers. Many men migrate alone to India while the women, children, and the elderly stay behind. To be a man, is to “*earn money*” whereas a woman's role in the household is to “*cook food, cut grass, take care of the children, and do all the house work.*”<sup>58</sup> Migration offers men an opportunity to fulfill an important aspect of their male identity, as the financial provider and the breadwinner (Sharma 2008; Maycock 2017). It is considered socially inappropriate for women to migrate and earn, even if a few female respondents noted their desires to do so:

*Men's work is to plough field with ox and to earn. They just work outside and send money. We carry food by buying from Chaudari [a neighbouring area]. Women should also earn but we should also take care of home and children. We cannot earn like a man. I wish I could go abroad and earn lots of money. There should be a tailoring shop in the village for women so that they could work there... But it is not possible for me to go, I have small children. If we both go, we cannot do it. We have children, we have to take care of land, animals. If our husband would take care of children and land, we would go. If we did this, people would say it is bad. If any woman leaves her husband and children [to earn], she is characterless. They'll say she is like a prostitute. We don't think so but society does. There is no woman here who has left home and children at home to work.*<sup>59</sup>

Male respondents also acknowledged these gender norms, highlighting women's limited education and lack of confidence to migrate on their own:

*It is men who migrate. Men from 15 and up. Sometimes families go. If they have small children, they sometimes take with them. Women cannot migrate on their own. What will they do there alone? They don't have capacity. They are not educated. Men are also not educated, but they have more confidence. Women are insecure if they migrate on their own.*<sup>60</sup>

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<sup>57</sup> This is similar to the *international* migration at the national-level in Nepal. Compared to global figures where women make up about half of the world's migrant population, 90 percent of Nepalese migrants are men (Gartaula, Visser, and Niehof 2012). While men dominate *international* migration, *domestic* migration is becoming increasingly feminized in Nepal. In 2011, for every 100 women moving from one ecological zone to another (ex. hills to *terai*) only 84 men were doing the same. Just a decade earlier, it was near parity. This is a significant shift for women who traditionally migrated within Nepal for marriage; women are now increasingly engaging in labor-related activities and becoming breadwinners due to their husbands' out-migration and/or inadequate and infrequent remittances (Clewett 2015).

<sup>58</sup> Focus group discussion with low caste men, February 20, 2017

<sup>59</sup> Focus group discussion with high caste women, February 21, 2017

<sup>60</sup> Focus group discussion with high caste men, October 29, 2016

In turn, male out-migration also serves to reinforce the gender normative ideals of women's roles in the household, as an economically dependent caretaker and homemaker. Some women accompany their husbands to India, bringing along young children or starting a family while living abroad; however, many respondents noted that it was very costly to support a family in India with a limited income. Frequency of men's return varies widely, with many staying away for extended periods of time. While some migrants return every six months or so, others do not return for years at a time. In rare cases, men sometimes take on a second family while in India and abandon those who stayed behind in Maulali. Although it is much more socially taboo, there are also instances when women elope in their husbands' extended absence.

In Maulali, intra-household decision making roles remain highly patriarchal. Women decide on their own about "small work," such as taking care of children and animals, and housework. While women are consulted about their views, all other "big" decisions are deferred to men. A high caste woman explained the gendered division of intra-household decision-making in a focus group:

*[Women] decide ourselves how we do household work. Cutting grass, fetching firewood. Husband decides about fieldwork, ploughing field, earning. Husband decides about marriage and social function. Husbands have to decide about fieldwork, ploughing field, fetching firewood from forest. These are his tasks. Husband tells us after making decisions, we do not disagree with him – what would we say? He decides everything. Going to the mill – where we make flour... He does whatever he wants to do. We don't even know what our children are doing, how can I tell my husband what to do? He knows more about children's education. We have very small children. We ask him, where should we send them to school?<sup>61</sup>*

In extended households, where women live with their in-laws and husbands' families, the women's decision-making roles are further restricted.<sup>62</sup> The more senior members (or *tulo manche* of the household - usually the parents-in-law), retain final authority on all household decisions. In such households, daughters-in-law are expected to defer completely to their authority. In turn, these women are often denied even the limited

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<sup>61</sup> Focus group discussion with high caste women, February 18, 2017

<sup>62</sup> In Maulali and much of Nepal, patrilocality is commonly practiced, where a newly married woman moves with her husband to live with or close to his family (Kaspar 2005).

decision-making authority over the “small works” available to their counterparts in nuclear households.

With male out-migration, migrants continue to retain their decision-making authority. In nuclear households, women who stay behind share that they are able to decide on their own about how to spend on day to day expenditures (eg. market purchases using remittances) and other minor decisions such as household work and childcare. A high caste woman shared in a focus group:

*If [our husbands] are far, we have to call. It costs money so we have to manage things on our own. But we ask big things as we have told you. We don't ask about food, cutting grass, children etc. Otherwise we ask. We would have asked if he was here... I'm going to cut grass, you get water. We have to ask permission to go to our parent's house. Yes, we have to ask by phone ... if he is in India. We have to ask if I have to admit the children to government or English Medium school. To go visit parent's home. To buy cows/buffalos. "What order they give us, we do."*<sup>63</sup>

Women noted, however, that they are expected to report back to their migrant husbands on exactly how much they spent on which items. Moreover, for many of these women, their additional authority to purchase grains, oils, and vegetables on their own did not feel much like a decision, but rather an obvious choice given the lack of options at the market and their limited budget.

Women whose husbands have not migrated (or who have returned from India) often shared that they consult their husbands even on “small” work such as market purchases. In turn, male out-migration in Maulali facilitates a slight expansion of women’s decision-making domain for those who become *de facto* head of households. However, more substantial decisions such as taking loans and credit, marriages of children, and selling or buying livestock continue to be men’s domain regardless of whether or not they are physically present in Maulali. Some women noted that their husbands would consult them to solicit their views on these more substantial matters but the final decisions were made by men. In a focus group discussion, a high caste woman describes how the maintenance of the gendered decision-making of “big” and “small” works with male out-migration:

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<sup>63</sup> Focus group discussion with high caste women, February 23, 2017

*If our husbands are in India, we have to decide but we call about fieldwork, for big works like ploughing field. [Women] don't do without asking. We don't do any work without asking our husbands. Small work like child care, taking care of animals is our work. We don't have to ask our husband even if he is home. But major work like ploughing the field, we have to ask. These things stay the same even if husband goes to India. If it is difficult work, we have to ask our husband, he is the head of the household. If we have to make decisions and do ourselves, it is very difficult. We cannot do labor work ourselves. We have to ask how to spend money when they send. Everything we have to buy from the market. We don't know how to spend on big things like marriage, home making, giving money to plough the field.<sup>64</sup>*

This is similar to the findings of studies in the mid-hills of Nepal where male out-migration did not increase women's roles in more "strategic" domains such as major household purchases, marriages, and acquiring or giving loans but was associated with their increased roles in the "operational" decision-making domains (Maharjan, Bauer, and Knerr 2012; Kaspar 2005). In turn, the patriarchal intra-household decision-making roles are largely preserved with male out-migration in Maulali.

Yet, men and women of higher and lower castes shared that they aspire for women to take on additional decision-making roles in their households. A low caste woman described her wanting desire to have more decision-making "power":

*We believe that women should have power to make decisions, they should make major decisions. But we cannot do it. We don't earn money; we don't have employment. We need to earn and have money to have decision-making power. Earning money and having employment gives confidence. It gives power to women. Then they can do these things. Look at the first female prime minister of India, she is educated and earning. If we can have power like her, we can do many things. I don't know about others but if I have a job and have employment then I can do many more things. I don't have money so I depend completely on my husband.<sup>65</sup>*

Many migrant men also noted that they found it stressful to have to make decisions from afar and wanted women to take on some of the burden in their absence. A low caste man shared in a focus group:

*Yes, we think women should take more decisions, this is good we like this. We want our women to be educated, to be developed and manage everything in a home. It is good for women to be independent. Women also think the same. Everyone wants*

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<sup>64</sup> Focus group discussion with high caste women, February 18, 2017

<sup>65</sup> Focus group discussion with low caste women, February 19, 2017

*women to be developed, they also want that. There are some women who buy medicine for herself and husbands too. These are women here who want to make more decisions too.*<sup>66</sup>

However, men and women do not believe that women are *currently* capable of making “major” household decisions despite women’s desire to take on additional decision-making roles in the household in Maulali. While some men do advocate for women to expand their roles in decision-making processes, others disagree and there are real social and physical repercussions for the women who push against the *status quo*. Male out-migration in Maulali is also not significantly shifting the intra-household decision-making roles. Women continue to be economically dependent upon men and their workloads increase when men migrate. These effects of migration, together with the availability of cellphones and the persisting normative gender roles in Maulali, hinder women’s ability to expand their household decision making roles in men’s absence.

### 3.2. “Here, no man means no work”<sup>67</sup>: Women’s (continued) economic dependence on men

Households rely heavily on the remittances sent back by male migrants to make ends meet. While men earn wages in India, women who stay behind in Maulali are expected to “*wash pots, take care of cows, go to jungle to collect firewood, carry manure and ... take care of the children.*”<sup>68</sup> Despite women’s heavy work burden and their child care, field and house work duties, their (unpaid) responsibilities are considered – by both men and women – to be “unimportant” and “small.” On the other hand, a man’s position as a wage-earner grants him a “godlike” status in the household. A high caste woman described women’s status and economic dependence in a focus group:

*Husband is more important than us from every side. Women are lower on every side. Men do the big work. They do the construction work. We do the small work, so we are small. Husbands do the earning work... It is not in our hand whether we can make decision. We cannot earn. If they bring rice for us, then we cook it. Can any work be done without money? We need more work. From where will we earn? ... We cannot even write our name. Yes, he earns, he gives us. He earns for us. He earns not for just himself. He should decide.*<sup>68</sup>

<sup>66</sup> Focus group discussion with low caste men, February 20, 2017

<sup>67</sup> Focus group discussion with high caste women, February 21, 2017

<sup>68</sup> Focus group discussion with high caste women, February 24, 2017

For women in Maulali, a man's wage-earning capacity is central to his decision-making authority and in turn, women's inability to earn is determinant of their limited roles in more "strategic" domains of decision-making. Many women noted that if they were able to earn wages on their own, they could take on additional decision-making roles in the household. A low caste woman described the centrality of women's economic dependence in their limited role in intra-household decision-making processes in a focus group discussion:

*We believe that women should have power to make decisions. Women should make major decisions. But we cannot do it. We don't earn money; we don't have employment. We need to earn and have money to have decision-making power. Earning money and having employment gives confidence. It gives power to women. Then we can do these things... I don't know about others but if I have a job and have employment then I can do many more things. I don't have money so I depend completely on my husband... We believe husbands are powerful and like Gods because they are employed and earn money. We are not equal only because we are not educated and not earning.*<sup>69</sup>

Women's economic dependence is compounded by their limited education. Majority of the female respondents shared that their illiteracy restricted their ability to earn wages. A low caste woman whose migrant husband is in Bangalore noted:

*We are not educated. What earning can we do? We cannot even write our names, what work could we get? We cannot carry load. Our work is to work in the field, we cut grass. In Nepal, some women who are employed are educated and they think women should have power. But we are village women, we have no land, we cannot earn – how can we think about these things. If I had employment, if I had money, if I had education, I would think I can do these things. I don't think any of these things now.*<sup>70</sup>

In turn, male out-migration in Maulali perpetuates women's economic dependence upon men and reinforces men's decision-making authority and women's limited roles. While remittances sent back by migrants help households meet their immediate needs, they do not contribute towards more long-term productive investments or help offset women's additional workload.<sup>71</sup>

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<sup>69</sup> Focus group discussion with low caste women, February 19, 2017

<sup>70</sup> Interview with low caste woman with migrant husband in Bangalore, February 22, 2017

<sup>71</sup> A study in rural Morocco found that women who received sufficient remittances from their international migrants husbands were able to hire labor and offset their additional work burden (de Haas and van Rooij 2010). In Maulali, women do not hire laborers for household work. Remittances are at times not enough to meet households' most basic needs. Given the gendered division of labor, however, some women are beginning to pay male agricultural laborers to plough the field with ox.

### 3.3. “When we leave, everything comes on the head of women”<sup>72</sup>: Women’s additional work burden

Unanimously, respondents in both focus groups and interviews reported that women’s workload increases when their husbands migrate. With male out-migration, women face enormous psychological and physical burden given additional childcare, agricultural and housework responsibilities. Men used to help carry goods from the market, take care of children, and manage all aspects of household-decisions (such as taking loans and selling livestock). Men also normally took the lead in market interactions due to their greater financial literacy. All household responsibilities fall to women in their husbands’ absence. Women reported that once their husbands departed, they worked from dawn until dusk, especially during the work-intensive harvest and planting season, with little to no time for leisure, rest, or sanitation. Many women feel overwhelmed and stressed by their additional workload. A high caste woman with a migrant husband in Mangalore shared:

*I’m alone. Everything I have to do myself except ploughing... If he would be here, I could share my life with him. We can we do, we have children. We have to provide for them. I wish he was here... When husband is here, he helps with half the work. He gets firewood, gets water, ploughs the field and does other fieldwork*<sup>73</sup>

Given their additional workload, women who stay behind do not want to be further burdened with decision-making responsibilities. With male out-migration, women’s physical and mental capacity to take on additional decision-making responsibilities are further curtailed. For many, the prospect of taking on yet another task was onerous: “*We do not want more decision-making role. Our work is to take care of children, animals, clean pots, cook. Our day is spent doing things like this. If our husbands make every decision then we are happy. We do not want more decisions.*”<sup>74</sup>

However, women who stay behind still face the added burden of carrying out their husbands’ decisions. Migrant men make decisions *in absentia* and women are tasked with carrying out these decisions. For example, a woman may be instructed to repay loans or sell livestock to neighbours at prices already agreed upon by her husband. For many

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<sup>72</sup> Focus group discussion with high caste men, October 27, 2016

<sup>73</sup> Interview with high caste woman with migrant husband in Bangalore, February 18, 2017

<sup>74</sup> Focus group discussion with high caste women, February 18, 2017

women, these additional tasks were taxing, as they feel uncomfortable with handling financial matters on their own (even if terms were already decided upon by their husbands) and see it as yet another task to add to their already overburdened schedule.

### 3.4. “*We make decisions by phone*”<sup>75</sup>: Communication by cellphones

Communication by cellphones play a large role in allowing migrant men to retain their decision-making authority *in absentia*. Previously, women communicated with their migrant husbands by hand-written letters. Months could elapse between sending a letter and receiving a reply. Women therefore often felt compelled to make time-sensitive decisions without their husbands (such as selling livestock), often with the help of other men in the family or village. However, for many women who were inexperienced with making such substantial decisions, this newly found decision-making authority was vexing and unwelcome. An older higher caste woman whose husband formerly migrated to Bangalore recalled the stress of having to make decisions on her own:

*When my husband was away, I had to take loans and buy and sell buffalos and goats myself. I would ask my husband by letter but he took a long time to respond. By the time he wrote back, I had already finished the task. I would take loans by myself. It was not easy... I would ask neighbours and shop keepers. I would say please give me, I'll give interest. I did not know the rates, I just gave whatever they said. It was very difficult to make these decisions without my husband. I worried about what I should do. It is difficult to make decisions without communication with him. I would ask neighbours – men, women, whoever who would know.*<sup>76</sup>

With the introduction of cellphones and relatively affordable services, women are now able to readily communicate with their husbands and defer decision-making to their physically absent husbands.<sup>77</sup> A group of men explained how decision-making has changed with the introduction of the technology:

*Before women wrote letters to husband and it would take seven days to reach. He'd write back then she'd wait and do accordingly. If women want to sell cattle, they can't sell nowadays on her own. Before buyer wouldn't wait for decision by letter so she had to act. Women couldn't wait for letters to arrive, they had to take*

<sup>75</sup> Focus group discussion with high caste men, March 2, 2017

<sup>76</sup> Interview with high caste woman with former migrant husband in Bangalore, October 24, 2016

<sup>77</sup> For some, cellphone services remain unaffordable. These respondents could not ‘top up’ their cellphone minutes and felt cut-off from their husbands. These women shared the stresses of having to rely on others’ good will to use their phones to contact their husbands.

*decisions. They would ask male neighbours and relatives. And then she'd sell. Before, with immediate decisions she could not wait for her husband. Now, she calls her husband. Women do not ask other people as much anymore since they can just call.*<sup>78</sup>

The availability of cellphones and women's ability to communicate more easily with their migrant husbands help households maintain the traditional decision-making arrangement. Some women shared that they would even call their migrant husbands for the "small" decisions, such as buying food at the market. In turn, cellphones may be potentially eroding the limited decision-making authority women may have previously gained in their husbands' absence. Many women, however, welcomed the return to the *status quo* decision-making roles. Many shared that they preferred that men make and carry out major decisions. The ability to communicate freely by cellphone about household decisions provided women much relief.

### 3.5. "Daughter-in-law, she is told about the decision but doesn't have rights to decide"<sup>79</sup>: Household structures

As aforementioned, a woman's household structure is critical in determining the extent of her decision-making role. When women become *de facto* heads of household when their husbands migrate, they gain some – albeit minimal – decision-making authority over day-to-day expenditures and retain their autonomy over child care, and other "operational" domains. Conversely, in an extended household where a woman lives with her husbands' family, male out-migration does not change her limited or non-existent decision-making authority. In such a living arrangement, household level decisions are often made by the parents-in-law, the *tulo manche* or the more senior members of the household, sometimes entirely bypassing the daughter-in-law.

One high caste woman in a focus group who lives in an extended household noted: "*Our parents-in-law are living with us, we do all the work. We have no decisions.*"<sup>80</sup> Without decision-making authority in the household, the daughters-in-law are informed of decisions

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<sup>78</sup> Focus group discussion with high caste men, March 2, 2017

<sup>79</sup> Focus group discussion with low caste men, February 20, 2017

<sup>80</sup> Focus group discussion with high caste women, February 18, 2017

and are expected to simply take care of the children and perform household and fieldwork. For women residing in such extended households, their husbands' migration does not affect their household decision-making role. This is similar to findings from other studies conducted in Nepal (Gartaula, Niehof, and Visser 2010; Kaspar 2005; Maharjan, Bauer, and Knerr 2012).

#### 4. Discussion and conclusions

In Maulali, men have been migrating to India since their “*grandfather's father's time*”, while women stay behind to take care of the children and the homestead.<sup>81</sup> Similar to other studies conducted in Nepal, our findings suggest that male out-migration is not significantly expanding the intra-household decision-making roles of women who stay behind (Gartaula, Visser, and Niehof 2012; Gurung, Tulachan, and Gauchan 2005; Kaspar 2005; Maharjan, Bauer, and Knerr 2012; Acharya et al. 2010). Despite men's extended physical absence and women's *de facto* headship in nuclear households, the patriarchal intra-household decision-making roles are largely preserved with migration in Maulali. Women experience a slight expansion in their authority and are able make decisions about “small” works such as market purchases in their husbands' absence. However, these effects bypass women who live with their in-laws and husbands' families and are reversed upon the migrants' return.

In fact, migration maintains, and at times reinforces, the social, material and human conditions which limit women's ability to expand their intra-household decision-making authority. Male out-migration in Maulali perpetuates women's economic dependence upon men and reinforces men's decision-making authority. Women also face enormous psychological and physical burden given the additional childcare, agricultural, and housework responsibilities that fall to them in men's absence. Moreover, while there have been some improvements with time, gender discrimination remains widespread in Maulali. Both men and women spoke of the power differential between wives and their husbands and other more senior members of the household, and the physical and social risk women

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<sup>81</sup> Focus group discussion with high caste men, October 25, 2016

may face when they push for more decision-making authority. In turn, women's deferential roles in the households, their limited educational attainment, and fear of domestic violence (by both women's in-laws and husbands) influence not only who migrates, but also buffer the effects migration may have on the women who stay behind.<sup>82</sup>

In Maulali, migration and men's extended absence do not appear to foster women's sense of agency or their "power within" (Kabeer 1999, 438). Given their continued economic dependence, additional work burden, lack of experience, and fear of potential social and physical repercussions, women repeatedly highlighted that they currently lacked the agency to expand their roles in household-level decision-making in their husbands' absence. Previously, when women were forced to make time-sensitive substantial decisions such as selling livestock or taking a loan in her migrant husband's absence, women noted feeling overwhelmed, anxious, and burdened by the responsibility. Many were also afraid of making mistakes, such as selling livestock for the wrong price, and the potential repercussion that might follow, such as beatings by their husbands. For many women, the opportunity to take on increased decision-making roles only highlighted their lack of agency. The introduction of cellphones, and women's ability to communicate more easily with their migrant husbands, helped households revert back to the traditional decision-making arrangement where men retained authority and provided women much relief.

In the women's empowerment discourse, of which women's decision-making authority is a prominent component, there is an increasingly contested but prevailing assumption that women *want* to take on additional responsibilities and authority (de Haas and van Rooij 2010). There is an "intuitive expectation" that women would enjoy and want to take on more powerful positions in the household after their husbands migrate (de Haas and van Rooij 2010; 59). *All* women want to be empowered, and in turn, have greater decision-making roles in the household. Such narratives assume that *we* – often Western researchers, program implementers, and policy-makers – know what women want and "sideline the

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<sup>82</sup> For example, as aforementioned, the decision-making roles of women who live in extended households, are largely non-existent. Women who live with their in-laws are socially expected to defer to the senior members of the household and their deferential roles remain largely unaffected by their husbands' migration.

need to understand their preferences and priorities” (Doss et al. 2017, 5). In Maulali, women repeatedly shared that, given their *current* circumstances and limited agency, they preferred that men maintain their authority in household decision-making roles and the ‘erosion’ of their decision-making roles with the introduction of the cellphones was a relief.

Given the prevailing gender norms in Maulali, few women who push to make “big” decisions in their husbands’ absence face potential social and even physical repercussions. Yet, both men and women expressed interest in women taking on greater roles in household decision-making processes in the future. But women must first feel prepared to take on these additional responsibilities. (e.g., through financial literacy training, alternative livelihood opportunities) and be able to do so without the fear of potential repercussions. In contexts such as Maulali, where male out-migration is a central livelihood strategy, efforts that seek to “empower” women but fail to take into account the social context and women’s current *and* future priorities may further burden, and even endanger and *disempower* them.

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## CHAPTER 4

### The effects of remittance income from migration on household food security status in Nepal

**Abstract:**

In this paper, we use a nationally representative panel data set to assess the effects of remittance income from migrants on at-origin household food security status in Nepal. Overall, we find that households with migrant members who are sending remittances home have higher odds of being food secure compared to non-remittance receiving households in Nepal. These conclusions are consistent for both thresholds we apply for food security outcomes in our analyses. However, when we estimate the effect of households' migrant remittance income on food security status, we find that the amount of remittance sent back by migrant household members has no effect on households' food security outcomes nationally, regionally, and by caste. Given the unprecedented levels of migration and the continuing food insecurity conditions in the country, the nationally representative finding that there are positive associations between migration and food security is insightful. In a context such as Nepal, where migration is a major livelihood strategy and food insecure conditions persist, it is critical to better understand the monetary *and* non-monetary effects of migration on at-origin household food security status.

**Keywords:**

Migration; remittances; food security; Nepal

## 1. Introduction

In Nepal, labor migration - the movement of individuals within and across countries to earn wages - is a key livelihood strategy (Government of Nepal 2014). Recently, the number of migrants has reached unprecedented levels; in 2010-2011, about a fifth of the population was absent from their households – whether overseas or engaged in work elsewhere within the country (Central Bureau of Statistics 2012; Sharma et al. 2014). The destination of labor migrants tends to vary by season and reflect migrants' level of skill and education. Those who are highly skilled often migrate to higher income countries, whereas low/semi-skilled migrants typically migrate to Gulf countries and South East Asia, including India (Maharjan, Bauer, and Knerr 2012). In Nepal, *international* migration is a highly gendered phenomenon. Compared to global figures where women make up about half of the world's migrant population, 90 percent of Nepalese international migrants are men (Gartaula, Niehof, and Visser 2012). In 2010, it was estimated that 30 percent of the total male population were among the absentee population (Central Bureau of Statistics 2012; Sharma et al. 2014).<sup>83</sup> Remittances sent back by migrants accounted for over 31 percent of Nepal's Gross Domestic Product in 2016<sup>84</sup> (World Bank n.d.). Many attribute the reduction in the incidence of poverty in Nepal to the increase in personal remittances – especially for the rural population (Government of Nepal 2014; Lokshin and Glinskaya 2009).

This level of migration in Nepal occurs in a context characterized by widespread food insecurity. According to the Integrated Phase Classification chronic food insecurity analysis in 2015, over half of the population in Nepal is chronically food insecure, with 20 percent facing moderate or chronic food insecurity (in Phases 3 or 4, respectively) (IPC National Partners in Nepal 2015). Food insecurity and undernutrition vary widely by ecological zones in Nepal; the hills and mountains of the mid- and far-western development

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<sup>83</sup> The Nepal Living Standards Survey 2010-2011 defines an absentee “as someone who, at the time of enumeration, was temporarily away from the household for more than six months or was not expected to return for at least six months, and hence, includes both internal and external migrants” (Sharma et al. 2014, 10).

<sup>84</sup> While related, migration and remittances are different phenomena (Adams 2011). In fact, it is estimated that only half of all international migrants remit (however, these ‘official’ remittance figures do not account for monies sent via informal channels and are likely underestimations) (de la Briere et al. 2002; Gubert 2002). As well, households who do not have any migrant members may also receive remittances from non-household members.

regions fare worse in terms of food insecurity compared to the terai (lowland) and eastern regions. Compared to a national average of 28 percent, 41 percent of households in mid- and far-western mountains consumed an inadequate diet in June 2017 (Ministry of Agricultural Development and World Food Programme 2017).<sup>85</sup> In June 2017, 30 percent of households in the mid- and far-western mountains reported that they did not have enough food or money to buy food in the previous 30 days and resorted to coping strategies such as borrowing money or food from lenders, friends, or relatives (Ministry of Agricultural Development and World Food Programme 2017).

In Nepal, no studies have yet to examine the effect of migration on at-origin household food security using a nationally representative sample. In a context where unprecedented numbers migrate for labor opportunities, the absence of research on the relationship between migration and food security is a major knowledge gap. Conceptually, there are numerous pathways to consider which may have positive and/or negative implications for food security outcomes. First, remittances can have a positive income effect on food consumption in the place of origin (Thow, Fanzo, and Negin 2016). Income via remittances could reduce the loan-constraints and allow households to invest in agricultural technologies and improve their own production (Zezza et al. 2011). A study in Nepal reported that nearly 80 percent of total remittances at the household level are spent on daily consumption needs (Dhungana 2012). The remaining amounts are used to pay back loans (often taken out to finance foreign employment), improve living conditions, purchase property, supplement savings and investments in education and caregiving of children (Dhungana 2012). In addition to cash, migrants also send back food as part of their remittance packages. For example, in Mozambique, 60 percent of households reported receiving food from their migrant household member and in Zimbabwe, 45 percent reported the same (Crush 2012). Migration's income effect on food consumption pattern may not always be positive (Lacroix 2011; Thow, Fanzo, and Negin 2016). In Ghana, male out-migration was positively associated with the consumption of less nutritious categories

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<sup>85</sup> Based on the Food Consumption Score, which is a composite indicator that measures food, dietary diversity, and nutritional importance of food groups (Ministry of Agricultural Development and World Food Programme 2017).

of food such as sugar, beverages, and meals consumed outside of the home (Karamba, Quiñones, and Winters 2011). Similarly in rural China, older children (ages 12-17) consumed more calories but the quality of their food did not increase (de Brauw and Mu 2011).

Second, migration can alter women's time-use and decision-making roles.<sup>86</sup> If women's time becomes constrained, less time might be spent on breastfeeding and child care in general. Furthermore, if women control resources in their husbands' absence there can be important positive implication for children's nutrition and health outcomes (Panter-Brick 1992; Quisumbing 2003; Thomas 1990). Third and in contrast, migration may confer negative influences on food security by affecting household labor allocation. In agrarian contexts, male out-migration can deplete the agricultural labor force and negatively affect household production and the local availability of foods (Thomas-Hope 2017; Gartaula, Niehof, and Visser 2010; Craven and Gartaula 2015; Atuoye et al. 2017; Tamang, Paudel, and Shrestha 2014). Increased work burden for household members who stay behind can potentially reduce the time spent on childcare and home production (Zezza et al. 2011). Women who stay behind face compounded burden of agricultural responsibilities in addition to their house and child care chores without supportive rights and system (Gartaula, Niehof, and Visser 2010; Tamang, Paudel, and Shrestha 2014).

In this paper, we use a nationally representative panel data set to assess the effects of remittance income from migrants on at-origin household food security status in Nepal, using the *Household Food Insecurity Access Scale* (HFIAS).<sup>87</sup> Below, we first describe the data set from the *Policy and Science of Health, Agriculture and Nutrition* study and our econometric strategy. We then present our national, regional, and caste-stratified results which show that migration remittance receipt status is positively associated with household food security status in Nepal, conditional on household-level fixed effects. We also provide our estimations on the null effect of migration remittance income amounts on households'

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<sup>86</sup> The evidence-base on migration on women's decision-making role remains inconclusive. Migration may, in fact, maintain and at times, reinforce, the very conditions which hinder women's ability to take on additional decision-making roles in the household (q.v. **Chapter 3**).

<sup>87</sup> In this paper, we focus on the effects of cash remittance income from migrant household members.

odds of being food secure, *ceteris paribus*. Throughout the paper, we highlight the conceptual and methodological challenges of assessing migration's effect on household food security status. And in conclusion, we offer a discussion on the potential implications of our findings for future studies.

## 2. Methods

### 2.1. Data Source

The *Policy and Science of Health, Agriculture and Nutrition* (PoSHAN) study is an ongoing *Feed the Future Innovation Lab for Collaborate Research on Nutrition* research activity funded by the United States Agency for International Development (Manohar et al. 2014). As part of its efforts, it is collecting a series of nationally representative annual surveys across the three ecological zones of Nepal: Mountains, hills and the terai to assess food security, diet, health and nutritional status of preschool aged children and mothers or other caretakers and link these aspects of well-being to local agricultural practices, markets and outreach programs" (Manohar et al. 2014, 15). In our paper, we use the first two rounds of survey data collected in 2013 and 2014 which were merged and transformed to create a panel data set (q.v. Mulmi 2017).

The survey used a multi-stage stratified cluster sampling informed by Nepal's 2011 census (Manohar et al. 2014). From each agro-ecological zone, seven Village Development Committee (VDC) were selected using systematic random sampling. From each VDC, three out of nine wards (the smallest administrative unit within a VDC) were selected using a probability proportional to size method. In turn, a total of 63 wards (21 per agro-ecological zone) were selected for the panel survey in 2013 and revisited in 2014. Within each ward, data were collected from multiple levels: individuals, households, and community/market. The survey included a sample of 4,287 and 4,947 households in 2013 and 2014, respectively; 3,725 households were surveyed in both years.<sup>88</sup>

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<sup>88</sup> Households were eligible for the survey according to the PoSHAN survey criteria of either a child under five years of age and/or a newly married woman resided in the household. If neither lived in the household, the household was excluded from the survey (Manohar et al. 2014).

## 2.2. Econometric Strategy

In this paper, we use conditional logistic regressions with household fixed-effects and cluster robust standard errors to estimate the effect of remittance income from migrant members on household food security (Allison 2009). The outcome variable is the household's binary food security status. As a large majority of households report being food secure, we code household food security status as binary categories based on the HFIA (Coates, Swindale, and Bilinsky 2007). We operationalize household food security in two ways:

- **Model #1:** *food\_secure* is coded as 1 if households are assigned according to the HFIA category “food secure” and 0 if “mildly” or “moderately” or “severely food insecure.”
- **Model #2:** *food\_secure2* is coded as 1 if households are assigned according to the HFIA categories “food secure” or “mildly food insecure” and 0 if “moderately” or “severely food insecure”

We include two alternative specification of the outcome variable as a robustness check and to ensure that the results persist for both the restrictive (*food\_secure*) and the more inclusive (*food\_secure2*) operationalization of the household food security status.

We also operationalize the explanatory variable for remittance income from household migrant members in two ways. The main explanatory variable *migrant* is the binary remittance receipt status from household migrant members. In our analyses, we consider a household to have a migrant remittance receipt status (that is *migrant* is coded as 1) if a household reports having any member (the head, spouse, son or daughter) who has left home and sent back remittances in the past year. In both Years 1 and 2, 30 households (60 total observations) in our analytical sample reported having “other” individuals remitting. As we are interested in assessing the effect of household migration-related remittance receipt rather than the effect of remittance receipt in general (and we are unable to discern these individuals' membership in the household), we code these instances as non-migrant remittance receiving households (*migrant* coded as 0).

The secondary explanatory variable *hhtremr1000\_migrant* is the continuous amount of remittances that households reported receiving from migrant household members (NPR/1000) in the past survey year. We include this explanatory variable in our analyses to assess the way in which remittance *amounts* sent back by migrants affect household food security. We are unable to account for *both* the migration-remittance receipt status and the remittance amounts in a single model given collinearity concerns. Similar to our approach to the binary explanatory variable, we do not include remittances received by the households from “other” individuals as we are unable to discern their household membership and code *hhtremr1000\_migrant* as 0 in these instances for the 30 households in our analytical sample.

Although the PoSHAN survey is a rich data set to study changes in food security, diet, health and nutritional status over time, it was not originally designed for migration analyses. Migration information was only collected as part of a module on household remittances (in/out). Given the information available in the data set, we are unable to account for households who have migrant members who could or did not remit in the past year. As a result, we may be underestimating the migration rate and its effect on household food security status.

**Table 1** describes the outcome and explanatory variables by model. We run conditional logistic regression with the outcomes *food\_secure* and *food\_secure2*, respectively to estimate the migration remittance-food security relationship. In Models #1a and #2a, we use the binary explanatory variable *migrant*, the receipt of remittance from household migrants. Then, in Models #1b and #2b, we use the continuous explanatory variable *hhtremr1000\_migrant*, the amount of remittance income households received from migrant members in the past survey year (NPR/1000). For all models, we include a dummy variable *year* to account for time effects from Year 1 (2013) to Year 2 (2014).<sup>89</sup> We also include time-variant household-level characteristics such as household experience of negative

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<sup>89</sup> We initially included an interaction term between household migrant remittance receipt status and time, to account for differential time effect. However, the estimates did not compute and did not allow for interpretation.

**Table 1:** Econometric strategy, variables and analyses by model

Outcome variables	Explanatory variable	Control variables	Analyses
<b>HH food security (1)<sup>bin</sup></b>  <i>food_secure</i>	<b>Model #1a</b> HH migrant remittance receipt status <sup>bin</sup>  <i>migrant</i>	Time ○ <i>year</i> <sup>bin</sup>  HH experience of negative economic shock ○ <i>negev</i> <sup>bin</sup>  Household coping strategies ○ HH exercised one or more coping strategies <i>hh_copingdummy</i> <sup>bin</sup> ○ HH has one or more families it can turn to for help with food, money, or other kind of assistance in times of need <i>famsst_dummy</i> <sup>bin</sup>	I. National  II. Region ○ Mountains ○ Hills ○ Terai  III. Caste ○ Traditionally excluded <sup>bin</sup>
	<b>Model #1b</b> HH migrant remittance receipt amount <sup>cont</sup> (NPR/1000)  <i>hhtremr1000_migrant</i>	Household demographic information ○ Female-headed HH <i>hhh_female</i> <sup>bin</sup> ○ Total # of HH member <i>hhcount</i> <sup>cont</sup> ○ Estimation sample-specific wealth quintile <i>wealth_all</i> <sup>quint</sup>	
<b>HH food Security (2)<sup>bin</sup></b>  <i>food_secure2</i>	<b>Model #2a</b> HH migrant remittance receipt status <sup>bin</sup>  <i>migrant</i>	Household production information ○ Land ownership <i>hh_landown</i> <sup>bin</sup> ○ Food (crop/livestock)-producing household <i>farmhh</i> <sup>bin</sup>  Household participation in micro-credit/cooperatives and/or ag groups ○ Ag groups <i>hh_aggrp</i> <sup>bin</sup> ○ Co-op/micro-finance <i>hh_cmj</i> <sup>bin</sup>	
	<b>Model #2b</b> HH migrant remittance receipt amount <sup>cont</sup> (NPR/1000)  <i>hhtremr1000_migrant</i>	Remittance information (Model #1b and #2b only) ○ Amount sent <i>hhtremst_calc</i> <sup>cont</sup>	

N.B.: Superscript notes refer to the types of variables (ex. *bin* are binary variables; *cont* are continuous variables; *quint* are quintiles)

economic shocks, coping strategies, demographic and production information, and participation in community groups. Household wealth indices are constructed using a pre-coded list of self-reported durable assets owned by households using Principal Component Analysis, an approach which has previously been used by other nationally representative surveys such as the Demographic and Health Survey (Rutstein 2016). Separate wealth indices are created for Year 1 and Year 2 to account for changes in asset ownership. For each model and stratified analyses, wealth index quintiles are generated for the analytical sample.

All models are analyzed at the national level and then by caste and region.<sup>90</sup> For caste analysis, households who identified their head as traditionally excluded caste member, Dalit, Janajati, or other terai caste groups, are coded as 1; those who identified as Brahmin, Chhettri, or Newar caste groups are coded as 0.<sup>91</sup> Standard errors for the national and caste analyses are clustered at VDC level. In order to allow for nationally representative interpretations, all estimates are also weighted according to the 2011 census information (**Table 2**). For regional estimations, we stratify the sample for the mountains, the hills, and the terai and cluster standard errors at the ward-level. All analyses are conducted in Stata/SE v. 14.2.

**Table 2:** Proportional weighting of the PoSHAN Year 1 and Year 2 balanced sample using 2011 census (Adapted from Mulmi 2017)

	PoSHAN		Census		Sampling Weight
	VDC	HH	VDC	HH	HH
<b>Mountains</b>	7	165	7	364,120	0.399
<b>Hills</b>	7	246	7	2,534,430	1.862
<b>Terai</b>	7	570	7	2,528,752	0.802
<b>Total</b>	21	981	21	5,427,302	

<sup>90</sup> We omit the findings of household religion sub-analyses given inconclusive estimations and limited observations where there are changes between Year 1 and 2 in the key variables of interests (Wald Chi2 > 0).

<sup>91</sup> Migration in Nepal is shaped by caste and ethnicity. Despite legal revisions to remove caste and ethnic divisions and discrimination, there remain deeply rooted practices that exclude Dalits and Janajatis from social and political participation which in turn deny them access to resources and opportunities (Gurung 2012).

### 2.2.1. A note on methodological constraints

There are a few methodological challenges to consider when quantitatively measuring the causal impact of migration on outcomes of interest. While household surveys provide information about internal and international migration flows, it is not possible to adapt the standard research approach of simply comparing the outcomes of interest for migrant and non-migrant households (McKenzie and Sasin 2007). The major challenge is that individuals or households who migrate are not random, they *self-select* into migration. Migrants can be fundamentally different than non-migrants. In turn, it is not appropriate to compare the outcomes of interest between migrants and non-migrants to assess the impact of migration since it is not possible to know what would happen to non-migrants if they were to migrate (Démurger 2015).

The *omitted variables* which are correlated with both the migration decision and its outcomes for those who stay behind may also cause endogeneity problems and bias the estimates of the impact of migration. For example, characteristics of a household which ‘explain’ the decision to migrate (e.g. “ability” or risk aversion) may also influence its expenditure patterns, education and healthcare choices (McKenzie and Sasin 2007). Moreover, the factors which influence both the decision to migrate and other household characteristics are often unobserved making it difficult to establish causality and to have unbiased results from typical regression approaches.

Endogeneity may also be the result of *simultaneous causality bias* or the reverse causality between the outcomes of interest and migration. For example, some studies have noted that those with parents who are in poor health are less likely to migrate (Démurger 2015). If researchers are interested in what impact migration may have on the parental health, the possible reverse causality will need to be carefully considered.

Several approaches have been employed to correct for these challenges. While it is not possible to randomize migration, studies have taken advantage of natural experiments in form of a visa lottery system in New Zealand for applicants from Samoa and Tonga (Gibson, McKenzie, and Stillman 2011). Such a program created a ‘control’ group of

individuals who have the same profile as migrants (who have self-selected into migrating) but have not yet migrated. It is possible then to compare the outcome of interest of the two groups – migrants and non-migrants – to assess the causal effect of migration (McKenzie and Sasin 2007). However, these instances are rare and researchers instead have to rely on non-experimental econometrics strategies to address the aforementioned challenges: use of matching methods, instrumental variables, and panel data.

It is possible to construct a counterfactual through a propensity score matching technique by comparing migrant households with a non-migrant household with the ‘same’ observed characteristics. However, this approach does not take into account the self-selection issue and assume that only observed characteristics influence the decision to migrate; this strategy is in turn considered methodologically subpar in the field of migration studies (Démurger 2015; McKenzie and Sasin 2007; Adams 2011).

The most common solution in migration literature is the use of instrumental variables (IVs) – variables that are correlated with the decision to migrate but not correlated with the outcomes of interest. IVs can help eliminate the problems of endogeneity, omitted variables, and measurement error and allow for a counterfactual analysis of an impact (e.g. migration) on a welfare outcome (e.g. child’s nutritional status) (White 2006). A good instrument variable must be relevant (correlated with the explanatory variable) and exogenous (not correlated with outcome variable other than through the explanatory variable); however, it is a major challenge to identify a strong instrument variable (Lokshin and Glinskaya 2009; McKenzie and Sasin 2007).

A number of studies, for example, have used household migration network (e.g. the number of household head’s extended family members and friends who have migrated) as an instrument in models to estimate the effects of migration on household food and nutrition security (McKenzie and Sasin 2007; Regmi and Paudel 2016; Hu 2013; Brown and Leeves 2011). However, households’ migrant network may not be a suitable instrument for such analyses, given that it may not be exogenous to the outcome of interest.

First, migrants are highly dependent on their networks to identify and acquire jobs (Thieme 2006; Poertner, Junginger, and Müller-Böker 2011). Particular type of jobs, such as watchman or security guards, which pay a higher salary than other low-skilled labor opportunities are often ‘sold’ within migrant networks (Thieme 2006). In turn, migrant networks are an important determinant of the types of positions migrants are able to acquire but also the amount of remittances migrants are able to send back to their households, which is an important determinant of their expenditure on food, shelter, and other basic needs. Second, migrants – especially those who have migrated domestically – send in-kind remittances, such as food, which will have direct effect on the outcome of interest, households’ food security (Crush and Tawodzera 2017). Third, in an agrarian context such as Nepal, migrant households rely heavily on their social network, especially their male neighbors and relatives, to assist with fieldwork (Maharjan, Bauer, and Knerr 2012; Tamang, Paudel, and Shrestha 2014). In turn, a household’s migrant networks also reflect its network of labor supply for agricultural activities on their smallholder plots, which in turn may have direct implications for their production, consumption and food security (Craven and Gartaula 2015; Atuoye et al. 2017; Thomas-Hope 2017). For these reasons, we do not employ an instrumental variable in our estimations.

Panel data sets, such as the PoSHAN surveys, include repeat observations on the same households and allow researchers to control for time-constant unobservable characteristics. When the panel includes information on both migrant and non-migrant households a double difference (difference-in-differences) estimator can approximate the effect of migration (McKenzie and Sasin 2007). By taking differences, we can address many biases that may arise due to omitted variables (including the unobservable characteristics), self-selection, or endogeneity (Adams 2011; McKenzie and Sasin 2007). In this paper, we take advantage of the PoSHAN surveys, a rich nationally representative panel data set. While fixed effects models allow us to control for time-*invariant* household-level characteristics, there may be time-*variant* unobservable factors which affect both the outcome of interest, food security, and the explanatory variable, household migration status. As a result, we refrain from inferring causality in our regression interpretations and instead present the results as *conditional associations* (de Brauw and Mu 2011).

### 3. Results

In **Appendix 1** and **2**, we summarize household characteristics by migrant remittance receipt status for our analytical sample of 981 households in Year 1 (2013) and Year 2 (2014). In 2013, 347 households (35.6 percent) reported having at least one household member who was living away from home and sending back remittances. In 2014, this number increased to 425 households (43.3 percent). The majority of households (>80 percent) reported having no change in their migration remittance receipt status between the two years. Regionally, there were fewer remittance receiving households from the mountains compared to non-remittance receiving households. The majority of the households that reported having received remittances from their migrant members (59.9 percent and 57.2 percent in 2013 and 2014, respectively) dwell in the terai. At 60.5 percent and 59.3 percent in 2013 and 2014, respectively, many remittance-receiving households reported having a female head of household, corroborating the highly gendered nature of the international migration phenomenon in Nepal.

In both years, at 76.1 percent and 72.5 percent, respectively, a large number of migrant remittance-receiving households identified as members of the traditionally excluded castes, Dalit, Janajati, or other terai caste groups. Regardless of households' migration status, the vast majority of the head of household identified as Hindu, and reported owning land and producing food (crop/livestock) in both years. In 2013 and 2014, many migrant remittance receiving and non-receiving households (>60 percent) shared that they did *not* participate in either agriculture programs, co-operatives or micro-finance groups. They also reported similar mean number of household members (5.9 and 5.6 in 2013, respectively) which remained largely the same in the following year.

Among the households who reported having at least one migrant member who sent back remittances in the analytical sample for Year 1 (n 347), the median remittance amount was 50,000 NPR (equivalent to around 540 USD as of June 2013). In Year 2, the median remittance amounts reported by households in the analytical sample with a migrant

member (n 425) increased to 60,000 NPR (equivalent to around 570 USD as of June 2014).<sup>92</sup>

In **Appendix 3**, we present the distribution of household food security status of the analytical sample by remittance receipt status for both years. In Year 1, 28.4 percent of the households were categorized as food secure, according to the HFIAS, and those categorized as mildly, moderately, and severely food insecure were at 37.5 percent, 26.6 percent, and 7.4 percent, respectively. Amongst the households who reported receiving remittances from migrant members, 24.5 percent were food secure compared to 30.6 percent of non-migrant households who were categorized as the same in 2013. In Year 2, a vast majority of the households were food secure at 71.6 percent, and those categorized as mildly, moderately, and severely food insecure were at approximately 16 percent, 10 percent, and 2 percent, respectively. In contrast to Year 1, around 77 percent of remittance-receiving households were classified as food secure compared to 67.5 percent of non-migrant households in Year 2. Between 2013 and 2014, there were improvements in household food security outcomes for 262 (75.5 percent) and 440 (69.4 percent) of remittance-receiving and non-receiving households, respectively, underscoring the importance of accounting for the time effect in our analyses.

### 3.1. Estimating the effects of remittance income from migration on food security status

#### 3.1.1. Models #1a & #2a: Household migrant remittance receipt status

We initially estimate the effect of household migrant remittance receipt status on its food security status with household-level fixed effects at the national level. In Model #1a (**Appendix 4**) which uses the more restrictive *food\_secure* as the outcome variable, we find that, all else equal, households who have a migrant household member who is sending back remittances have approximately 1.4 times higher odds of being food secure, conditional on household-level fixed effects, compared to those without migrants. In Model

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<sup>92</sup> As PoSHAN Year 1 and 2 surveys were conducted between May to July 2013 and 2014, respectively, we use the mid-point of the data collection period to estimate the NPR conversion rate (Manohar et al. 2014; Karmacharya et al. 2017).

#2a which uses the more inclusive *food\_secure2* as the outcome variable, we similarly find that having a remitting migrant household member is conditionally associated with approximately 1.9 times higher odds of being food secure, *ceteris paribus*. For both models, which use *migrant* as the explanatory variable, the coefficients are statistically significant at the 10 percent level. As anticipated, there is a strong positive time effect (OR 2.1 and 2.3, for Model #1a and #2a, respectively), significant at the one percent level. Other covariates of significance include, whether or not a household exercised a coping strategy to meet food needs in the past 30 days, a household's access to at least one friend or family member they could go to in times of need (only for Model #1), and asset-based wealth quintiles.<sup>93</sup>

We next estimate the effect of household migration on food security outcomes by region, given the regional differences in food security conditions (**Appendix 5**). For both Models #1a (OR 1.8) and #2a (OR 2.8), only the estimates for the hills are statistically significant at the 5 percent and 10 percent level, respectively. The magnitudes of these conditional associations are also the highest for the hills, compared to the mountains or the terai. For Model #1a, coping strategies (OR 0.4,  $p < 0.01$ ) and households' participations in co-operatives or micro-finance groups (OR 0.5,  $p < 0.05$ ) are both negatively associated with a households' odds of being food secure. For Model #2a, time effect (OR 3.0,  $p < 0.01$ ) and wealth quintiles are significantly positively associated with the odds of being food secure while exercising coping strategies in the past 30 days is negatively associated (OR 0.3,  $p < 0.05$ ).

Finally, we stratify the sample by caste. We first run conditional logistic regressions for the traditionally excluded castes (Dalits, Janajatis, or other terai castes) and those that were not (Brahmins or Chhetris) (**Appendix 6**). We find that for both Models #1a and #2a, the

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<sup>93</sup> In PoSHAN, households are asked if they exercised any of the following coping strategy in the past 30 days to meet food needs: take cash loan; take an in-kind loan; collect wild food; consume seeds; sell assets; and/or sell livestock. If a household reports exercising any of the coping strategies, the binary variable *hh\_copingdummy* is coded as 1. Households are also asked to report the number of families they can go to for help with food, money, or other kinds of assistance in times of need. If a household reports having at least one family they can turn to, the binary variable *famsst\_dummy* is coded as 1. These variables are outlined in **Table 1**.

magnitude of the effects of household migration remittance receipt status on food security are larger for the non-excluded caste group analyses. In Model #2a, migrant remittance-receiving households with Brahmin or Chhetri heads have approximately 2.6 times the odds of being food secure ( $p < 0.05$ ) compared to non-migrant remittance receiving higher caste households. Comparatively, using the same *food\_secure2* outcome, migrant households that received remittances with Dalit, Janajati, or other terai caste household heads have about 2.1 times the odds of being food secure. This conditional association is also statistically significant at the 5 percent level compared to other lower caste non-migrant remittance receiving households, conditional on household-level fixed effects. When we use *food\_secure* as the outcome in Model #1a, we see that traditionally non-excluded caste households with a remitting migrant member have about 2.1 times the odds of being food secure compared to higher caste households who did not receive remittances from migrants ( $p < 0.05$ ). For traditionally excluded caste households, households with a remitting migrant member only have around 1.1 times the odds of being food secure compared to their non-remittance receiving counterparts; however, this conditional association is not significant. Again, similar to the national and regional estimations, there is a large positive time effect in the caste sub-analyses ( $OR > 2$ ,  $p < 0.01$ ).

### 3.1.2. Models #1b & #2b: Household migrant remittance amounts

We next run Models #1b and #2b to estimate the effects of household migrant remittance income amounts on food security status, using the secondary *continuous* explanatory variable *hhtremr1000\_migrant*. In all estimations at the national and regional levels and by caste, we find that - all else equal - the self-reported remittances income received by households in the past survey year from migrant member(s) has a null effect on household food security ( $OR \sim 1$ ) (**Appendices 7-9**). That is to say, *ceteris paribus*, there is no benefit conferred to household food security status with every additional 1000 NPR of remittance income received from migrant members. These results are persistent for both the more restrictive (Model #1b) and more inclusive (Model #2b) food security outcome variables and statistically significant at the one percent level at the national level (**Appendix 7**), for

the hills (**Appendix 8**), and both excluded and non-excluded caste households (**Appendix 9**, Model #2b only).

Similar to estimations that used the binary migrant remittance-receipt status as the explanatory variable (Models #1a and #2a), there is a statistically significant positive time effect across all analyses with the continuous migrant remittance income explanatory variable (Models #1b and #2b). Household exercise of coping strategies to meet food needs is also negatively associated with odds of being food secure, *ceteris paribus*, for national and regional analyses ( $p < 0.01$ ).

#### **4. Discussion**

In this study, we examined the effect of household migrant remittance income, both receipt and amount, on household food status in Nepal. Overall, we find that households with migrant members who are sending remittances home have higher odds of being food secure compared to households without remitting migrants in Nepal. These conclusions are consistent for both thresholds we apply for food security outcomes in our analyses: the more conservative *food\_secure* (Model #1a) and the more inclusive *food\_secure2* (Model #2a). All the estimated fixed effects odds ratio coefficients for the migration remittance receipt variable are greater than one for Models #1a and 2a, though not all statistically significant. To our knowledge, this is the first study to assess the effect of migration on at-origin household food security using a nationally representative sample in Nepal. Given the unprecedented levels of migration and the continuing food insecurity conditions in the country, the nationally representative finding that there are positive associations between migration and food security is insightful. Once we stratify by region, however, we see significant positive effects in the hills but not in the mountains or the terai. Household migration effects also appear to be larger for higher caste households, even if we account for asset-based wealth; this may reflect the persistent cultural, economic, and political caste-based discrimination.

When we estimate the effect of households' remittance income from migrant members on food security status, we find that the amount of remittance sent back by migrant household members exerts no effect on households' food security outcomes nationally, regionally, and by caste. Again, we only see statistically significant effects in the hills (for both Models #1b and #2b). But in contrast to *binary* remittance receipt status analyses, the *continuous* remittance income estimations do not show different effects by caste; for *both* traditionally excluded and higher castes, the additional income from migrant remittance does not confer higher odds of being food secure, *ceteris paribus* (for Models #2b only). Given the literature's tendency to focus on migration's income effect on household welfare outcomes, our statistically significant null estimates are informative. The finding that households' migrant remittance receipt status is positively associated with food security outcomes while the amount of remittance is not, suggest that households' migration status may be exerting an effect on food security status beyond via the income effect. This result, once again, underscores the need for studies to look beyond remittances when examining the effects of migration on at-origin households.

In all models, we find that time effect is strongly positively associated with household food security; the most important factor driving the improvements in food security could simply be time. Whether a household exercised at least one coping strategy is also consistently negatively associated with food security outcomes. The effect of households' asset-based wealth is inconsistent across models and analyses, as are that of experience of negative economic shock, household size, female headship, social support, land ownership, household food production, and participation in agricultural groups, co-operatives and microfinance groups.

There are several limitations to note. They exemplify the challenges we faced when assessing the migration effects on household food security in our analyses but can apply more to the general exploration of the relationship. First, our results which show that migration status has a limited, albeit positive, association with at-origin household food security mask the multiple pathways *through* which migration may be affecting food security outcomes. Indeed, migration may be exacerbating *and* alleviating households'

experience of food security through a variety of conceptual channels. While our estimations provide insight, and is the first study to establish such an association using a nationally representative data set in Nepal, further work must be done to establish causal links. It is only once we identify these concrete links that policies and programs could effectively target their support of the migration experience.

Second, limited data availability remains a major constraint in researchers' efforts to analyze the effects of migration and the pathways *through* which migration impacts development outcomes (Zezza et al. 2011; Crush 2012). While a rich source of information to examine changes in food security, diet, health and nutritional status over time, limited information about migration in the PoSHAN data set precludes an in-depth exploration of the migration-food security relationship. Perhaps most importantly, there is a limited focus on cash remittances in PoSHAN. In operationalizing household migration status as its receipt of remittances from household members, our analyses are limited to the *monetary* effects of migration on food security. Moreover, we cannot reflect on the effects of migration for those households with migrant members who are unable to send back remittances, who may be the worst off.

It may also be the details of the migration experience (e.g. duration, occupation, destination etc.) which impart important effects on household food security; however, given the limitations of the data set and the fixed effects analytical approach, we are unable to account for these characteristics. Given the operationalization of our explanatory variables, our analyses pool together international and domestic migration and in turn, we cannot discern the potentially differential effects on household food security by migrant destination. Furthermore, we are unable to include some key demographic information in our estimations, such as migrants' gender, market access, and household dependency ratios, given our econometric approach and missing data.<sup>94</sup>

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<sup>94</sup> Fixed-effects estimations require data for *both* years. In PoSHAN, market access information was only collected in Year 2 and in turn, could not be included in our analyses. The survey also collected household demographic information for members who were caretakers, mothers, and/or heads of households. In turn, we are unable to reconstruct a dependency ratio or discern the structure (ex. extended versus nuclear) which previous studies have noted as being important factors in migration-food security analysis (Gartaula, Niehof, and Visser 2012; Zezza et al. 2011; Tamang, Paudel, and Shrestha 2014). We instead use household count

Third, we use the HFIAS to operationalize our food security outcomes. A study which compared household food security outcomes using different validated indicators in northern Ethiopia showed that the HFIAS produced relatively higher estimates of food insecurity than other indicators (Maxwell, Coates, and Vaitla 2013). Future studies should assess the migration-food security relationship in Nepal with other validated indicators to cross-check our findings.

Fourth, there is a tendency to equate household food security to its *economic* and *physical* access to food in the migration-food security literature. While there are varying conceptualizations and measurements of a household's food security status, the general consensus is that it is multi-dimensional in nature (Webb et al. 2006). Yet, studies that assess the effect of migration on household food security often fail to reflect this multi-dimensionality and use measures that only capture a portion of food security as a concept. For example, several studies operationalized food security as caloric consumption (e.g. de Brauw and Mu 2011; Azzarri and Zezza 2011a; Akçay and Karasoy 2017). Others have assessed food expenditure pattern (e.g. Karamba, Quiñones, and Winters 2011; Nguyen and Winters 2011). There have been some efforts to take into account the “subjective” elements of food security, by analyzing a person's agency and perceptions of food security (e.g. Craven and Gartaula 2015). However, such efforts are exceptions to the literature's tendency to focus narrowly on a household's physical and economic access to food as measure of its food security status.

In a mixed methods study conducted in 15 diverse countries, Coates et al. (2006) identified 1. *insufficient food quantity*, 2. *inadequate food quality*, and 3. *uncertainty and worry about food* as common cross-cultural experiential domains of household food insecurity. Some studies measured migration's effects on food security by using common indicators such as Coping Strategies Index, Food Consumption Score, and Household Food Insecurity Access Scale, which by design take into account the concept's multi-dimensionality (e.g. Regmi and Paudel 2017). Qualitatively, we found that migration may be affecting these three core

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information which documents the total number of the number of members reported to be inhabiting the home (Personal communication with PoSHAN data manager, December 28, 2016).

domains of household food insecurity differently in Nepal (q.v. **Chapter 3**). In Far West Nepal, remittances from migrants help households meet their basic immediate needs and their experience of insufficient quantity of food. However, improvements to households' experience of food security via income from remittances and improved access to loans and credit are limited and precarious. It is also does not improve the inadequate quality of foods consumed by the households. Yet, to our knowledge, no studies have thus far *quantitatively* examined and compared the effects of migration on these cross-cultural domains of household food insecurity experience individually.<sup>95</sup>

## 5. Conclusions

In this study, we explore the relationship between household migrant remittance income and food security status, using a nationally representative panel data set from Nepal. Overall, we find a positive association between migration remittance receipt and household food security, conditional on household-level fixed effects. While we refrain from making causal inferences from our analyses, the results from this study contribute to the limited literature on the migration-food security nexus in Nepal. In a context such as Nepal, where migration is a major livelihood strategy and food insecure conditions persist, it is critical to better understand the effects of migration on at-origin household food security status. While our estimations suggest evidence for remittance income from migrants' positive effect on household food security, the effects of migration – both positive and negative – *through* which migration is exerting its effects on at-origin household welfare remain hidden. We also find no statistically significant association between the amount of remittance income sent back by migrant household members and household food security status. Collectively, these results indicate an urgent need to further investigate the migration-food security linkages in Nepal and to take account of both monetary *and* non-monetary factors in such analyses. A nationally representative panel survey designed to understand the effects of migration on development outcomes, including and beyond food

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<sup>95</sup> The initial intent of this paper was to conduct analyses using the HFIA categories as binary outcome (Models #1a/b and #2a/b) and then to separately assess the effect of migration on the individual food security domain of 1. *insufficient food quantity*, 2. *inadequate food quality*, and 3. *uncertainty and worry about food*. However, given the distribution of the data and limited change over time in observations (largely for the quantity domain), our fixed effects models, with binary domain outcomes, failed to compute.

security, may be a worthwhile investment for policy makers and programs in order to harness the development potential of migration (Food and Agriculture Organization of the United Nations 2016).

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## 7. Appendices

**Appendix 1:** Summary household characteristics for analytic sample by migration remittance receipt status (Year 1)

	<b>Non-migrant remittance receiving HH</b>		<b>Migrant remittance receiving HH</b>		<b>TOTAL</b>	
	<b>(n 634)</b>		<b>(n 347)</b>		<b>(n 981)</b>	
	<b>%</b>	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>	<b>No.</b>
<b>Agro-ecological region</b>						
Mountains	23.66%	150	4.32%	15	16.82%	165
Hills	19.24%	122	35.73%	124	25.08%	246
Terai	57.10%	362	59.94%	208	58.10%	570
<b>Gender of head of HH</b>						
Male	87.70%	556	39.48%	137	70.64%	693
Female	12.30%	78	60.52%	210	29.36%	288
<b>Caste of head of HH</b>						
Brahmin/Chhetri	26.50%	168	18.16%	63	23.55%	231
Dalit/Janajati	35.65%	226	46.40%	161	39.45%	387
Others	37.85%	240	35.45%	123	37.00%	363
<b>Religion of head of HH</b>						
Hinduism	87.54%	555	89.05%	309	88.07%	864
Buddhism	5.52%	35	4.03%	14	4.99%	49
Islam	4.89%	31	5.48%	19	5.10%	50
Christianity	0.79%	5	0.58%	2	0.71%	7

Others	1.26%	8	0.86%	3	1.12%	11
<b>Wealth quintile</b>						
Lowest	28.86%	183	37.46%	130	31.91%	313
Second	28.55%	181	36.89%	128	31.50%	309
Third	23.03%	146	17.58%	61	21.10%	207
Fourth	9.62%	61	3.46%	12	7.44%	73
Highest	9.94%	63	4.61%	16	8.05%	79
<b>HH owns land</b>						
Does not own land	20.19%	128	14.12%	49	18.04%	177
Owens land	79.81%	506	85.88%	298	81.96%	804
<b>HH produces food (crop/livestock)</b>						
Non food-producing HH	18.30%	116	8.93%	31	14.98%	147
Food-producing HH	81.70%	518	91.07%	316	85.02%	834
<b>Agricultural Programs</b>						
Does not participate	83.28%	528	81.27%	282	82.57%	810
Participates	16.72%	106	18.73%	65	17.43%	171
<b>Co-op/Microfinance Groups</b>						
Does not participate	63.56%	403	69.45%	241	65.65%	644
Participates	36.44%	231	30.55%	106	34.35%	337
<b>Household Size</b>						
Total no. of HH members	Mean	SD	Mean	SD	Mean	SD
	5.87	2.23	5.59	2.51	5.77	2.33

**Appendix 2:** Summary household characteristics for analytic sample by migration remittance receipt status (Year 2)

	<b>Non-migrant remittance receiving HH</b>		<b>Migrant remittance receiving HH</b>		<b>TOTAL</b>	
	(n 556)		(n 425)		(n 981)	
	%	No.	%	No.	%	No.
<b>Agro-ecological region</b>						
Mountains	25.18%	140	5.88%	25	16.82%	165
Hills	16.01%	89	36.94%	157	25.08%	246
Terai	58.81%	327	57.18%	243	58.10%	570
<b>Gender of head of HH</b>						
Male	86.33%	480	40.71%	173	66.56%	653
Female	13.67%	76	59.29%	252	33.44%	328
<b>Caste of head of HH</b>						
Brahmin/Chhetri	24.64%	137	22.12%	94	23.55%	231
Dalit/Janajati	35.79%	199	44.24%	188	39.45%	387
Others	39.57%	220	33.65%	143	37.00%	363
<b>Religion of head of HH</b>						
Hinduism	85.97%	478	90.82%	386	88.07%	864
Buddhism	6.29%	35	3.29%	14	4.99%	49
Islam	5.22%	29	4.94%	21	5.10%	50
Christianity	1.08%	6	0.24%	1	0.71%	7
Others	1.44%	8	0.71%	3	1.12%	11

<b>Wealth quintile</b>						
Lowest	10.97%	61	4.47%	19	8.15%	80
Second	10.97%	61	5.18%	22	8.46%	83
Third	21.40%	119	15.76%	67	18.96%	186
Fourth	27.16%	151	39.53%	168	32.52%	319
Highest	29.50%	164	35.06%	149	31.91%	313
<b>HH owns land</b>						
Does not own land	28.96%	161	20.94%	89	25.48%	250
Owns land	71.04%	395	79.06%	336	74.52%	731
<b>HH produces food (crop/livestock)</b>						
Non food-producing HH	16.91%	94	9.18%	39	13.56%	133
Food-producing HH	83.09%	462	90.82%	386	86.44%	848
<b>Agricultural Programs</b>						
Does not participate	77.70%	432	84.71%	360	80.73%	792
Participates	22.30%	124	15.29%	65	19.27%	189
<b>Co-op/Microfinance Groups</b>						
Does not participate	56.65%	315	65.88%	280	60.65%	595
Participates	43.35%	241	34.12%	145	39.35%	386
<b>Household Size</b>						
Total no. of HH members	Mean	SD	Mean	SD	Mean	SD
	5.89	2.25	5.58	2.37	5.76	2.31

**Appendix 3:** Household food security categories (HFIA) of analytical sample by migration status

	<b>YEAR 1</b>						<b>YEAR 2</b>					
	<b>Non-Migrant Remittance receiving HH</b>		<b>Migrant Remittance receiving HH</b>		<b>Total</b>		<b>Non-Migrant Remittance receiving HH</b>		<b>Migrant Remittance receiving HH</b>		<b>Total</b>	
	(n 634)		(n 347)		(n 981)		(n 556)		(n 425)		(n 981)	
	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
<i>Food Secure</i>	30.60%	194	24.50%	85	28.44%	279	67.45%	375	76.94%	327	71.56%	702
<i>Mildly Food Insecure</i>	37.07%	235	38.33%	133	37.51%	368	17.81%	99	15.53%	66	16.82%	165
<i>Moderately Food Insecure</i>	24.13%	153	31.12%	108	26.61%	261	11.69%	65	6.82%	29	9.58%	94
<i>Severely Food Insecure</i>	8.20%	52	6.05%	21	7.44%	73	3.06%	17	0.71%	3	2.04%	20

**Appendix 4:** National Analyses: Estimating the conditional association between household migrant remittance receipt status and food security status

	<b>Model #1a</b> Food Secure Only	<b>Model #2a</b> Food Secure + Mildly Food Insecure
HH migrant remittance receipt status (ref: no migrant remittance receipt)	1.404* (0.28)	1.885* (0.63)
Year (ref: Year 1)	2.125*** (0.48)	2.321*** (0.47)
Experience of negative economic shock	0.870 (0.13)	0.965 (0.11)
Exercised coping strategy	0.256*** (0.08)	0.196*** (0.08)
Social support	0.535** (0.15)	0.789 (0.49)
No. of HH members	0.948 (0.07)	0.932 (0.06)
Female H of HH	1.222 (0.54)	1.001 (0.66)
Land ownership	1.043 (0.25)	0.810 (0.16)
Food-producing HH	0.903 (0.17)	1.302 (0.31)

Ag. group participation	0.782 (0.28)	0.793 (0.29)
Co-op/microfinance participation	0.721 (0.17)	0.738 (0.26)
Estimation sample wealth quintiles (ref: poorest)		
Wealth quintile 2	1.694** (0.40)	2.088*** (0.31)
Wealth quintile 3	1.827* (0.56)	2.304*** (0.51)
Wealth quintile 4	1.644** (0.39)	1.468** (0.28)
Wealth quintile 5 (richest)	1.413 (0.31)	1.736* (0.58)
Observations	1,962	1,392
Wald chi2 (15/17)	2782	869.7
Prob > chi2	0	0

Source: PoSHAN, 2013-2014

Note: Odds ratios. Robust standard errors in parentheses, clustered at VDC-level. All regressions include fixed effects for households. Survey weights are used for households in the balanced panel. The weights are 0.399 for Mountains, 1.862 for Hills, and 0.802 for Terai.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Appendix 5:** Regional Analyses: Estimating the conditional association between household migrant remittance receipt status and food security status

	<b>Model #1a</b> Food Secure Only			<b>Model #2a</b> Food Secure + Mildly Food Insecure		
	M	H	T	M	H	T
HH migrant remittance receipt status (ref: no migrant remittance receipt)	1.115 (0.61)	1.826** (0.55)	1.641 (0.52)	1.870 (1.51)	2.774* (1.58)	1.392 (0.51)
Year (ref: Year 1)	1.947*** (0.41)	1.973 (0.82)	2.122*** (0.45)	1.812* (0.60)	2.977*** (1.04)	3.357*** (0.95)
Experience of negative economic shock	1.015 (0.54)	0.874 (0.37)	0.824 (0.15)	0.736 (0.20)	0.961 (0.44)	1.068 (0.31)
Exercised coping strategy	0.325*** (0.08)	0.436*** (0.12)	0.119*** (0.03)	0.375*** (0.13)	0.331** (0.15)	0.090*** (0.03)
Social support	0.483 (0.37)	0.359 (0.29)	1.756 (0.87)	0.184** (0.13)	1.588 (2.28)	0.718 (0.58)
No. of HH members	0.821* (0.10)	0.863 (0.10)	1.011 (0.08)	1.059 (0.20)	0.889 (0.17)	0.938 (0.09)
Female H of HH	1.002 (1.16)	1.361 (1.06)	0.532 (0.25)	0.538 (0.66)	1.049 (0.98)	0.705 (0.47)
Land ownership	1.034	0.847	1.502	0.858	0.859	1.074

	(0.46)	(0.33)	(0.46)	(0.39)	(0.34)	(0.32)
Food-producing HH	0.478**	1.506	0.706	0.840	1.410	1.397
	(0.15)	(0.85)	(0.16)	(0.43)	(0.94)	(0.58)
Ag. group participation	0.668	0.886	1.160	0.615	0.980	1.044
	(0.22)	(0.34)	(0.63)	(0.22)	(0.48)	(0.80)
Co-op/microfinance participation	0.758	0.492**	1.103	0.907	0.541	0.916
	(0.21)	(0.17)	(0.27)	(0.30)	(0.28)	(0.47)
Estimation sample wealth quintiles (ref: poorest)						
Wealth quintile 2	0.615	1.422	1.677*	0.958	3.129**	2.089
	(0.30)	(1.40)	(0.45)	(0.61)	(1.55)	(1.02)
Wealth quintile 3	0.650	1.701	1.746*	0.541	4.265**	1.444
	(0.30)	(1.42)	(0.53)	(0.29)	(2.61)	(0.61)
Wealth quintile 4	0.663	2.237	2.087***	1.793	1.908	1.072
	(0.39)	(1.73)	(0.51)	(0.78)	(1.11)	(0.42)
Wealth quintile 5 (richest)	0.634	1.303	1.320	1.100	2.234**	0.832
	(0.19)	(0.84)	(0.39)	(0.34)	(0.76)	(0.41)
Observations	330	468	1,140	304	370	704
Wald chi2 (15)	475	173.8	303.6	2493	762.3	1389
Prob > chi2	0	0	0	0	0	0

M: Mountains; H: Hills; T: Terai

Note: Odds ratios. Robust standard errors in parentheses, clustered at ward-level. All regressions include fixed effects for households.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: PoSHAN, 2013-2014

**Appendix 6:** Caste Analyses: Estimating the conditional association between household migrant remittance receipt status and food security status

	<b>Model #1a</b> Food Secure Only		<b>Model #2a</b> Food Secure + Mildly Food Insecure	
	Excluded Caste	Non-excluded Caste	Excluded Caste	Non-excluded Caste
HH migrant remittance receipt status (ref: no migrant remittance receipt)	1.140 (0.26)	2.060** (0.68)	2.091** (0.69)	2.558** (1.00)
Year (ref: Year 1)	2.198*** (0.60)	2.177*** (0.46)	2.301*** (0.48)	3.041*** (1.10)
Experience of negative economic shock	0.857 (0.11)	0.744 (0.25)	1.044 (0.24)	0.783 (0.27)
Exercised coping strategy	0.170*** (0.05)	0.471* (0.19)	0.088*** (0.02)	0.516 (0.31)
Social support	1.268 (0.54)	0.355*** (0.12)	1.495 (0.83)	0.856 (0.82)
No. of HH members	0.932 (0.10)	0.934 (0.06)	0.837 (0.09)	1.070 (0.10)
Female H of HH	0.855 (0.39)	2.038 (0.89)	0.807 (0.77)	1.573 (1.52)
Land ownership	0.764 (0.22)	1.572** (0.29)	0.613* (0.15)	1.539 (0.42)
Food-producing HH	0.954	0.895	1.604	0.881

	(0.23)	(0.26)	(0.58)	(0.34)
Ag. group participation	0.688	1.003	0.475**	1.976*
	(0.27)	(0.46)	(0.18)	(0.72)
Co-op/microfinance participation	0.718	0.623	1.222	0.402*
	(0.22)	(0.19)	(0.44)	(0.20)
Estimation sample wealth quintiles (ref: poorest)				
Wealth quintile 2	2.317***	0.865	2.497***	2.483**
	(0.51)	(0.34)	(0.61)	(1.10)
Wealth quintile 3	3.266***	0.566	2.958***	2.779**
	(1.19)	(0.20)	(1.19)	(1.20)
Wealth quintile 4	1.827**	1.206	1.688	1.596
	(0.54)	(0.27)	(0.67)	(0.59)
Wealth quintile 5 (richest)	1.714	1.118	1.562	1.447
	(0.57)	(0.20)	(0.65)	(0.61)
Observations	1,372	590	974	418
Wald chi2 (15)	1159	4138	1501	29533
Prob > chi2	0	0	0	0

Source: PoSHAN, 2013-2014

Note: Odds ratios. Robust standard errors in parentheses, clustered at VDC-level. All regressions include fixed effects for households. Survey weights are used for households in the balanced panel. The weights are 0.399 for Mountains, 1.862 for Hills, and 0.802 for Terai.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Appendix 7:** National Analyses: Estimating the conditional association between household migrant remittance income and food security status

	<b>Model #1b</b> Food Secure Only	<b>Model #2b</b> Food Secure + Mildly Food Insecure
HH migrant remittance received (NPR/1000)	1.007*** (0.00)	1.006*** (0.00)
Year (ref: Year 1)	2.261*** (0.60)	2.385*** (0.49)
Experience of negative economic shock	0.643 (0.18)	0.906 (0.12)
Exercised coping strategy	0.129*** (0.06)	0.193*** (0.07)
Social support	0.233 (0.24)	0.768 (0.47)
No. of HH members	0.848 (0.10)	0.918 (0.06)
Female H of HH	1.714 (1.41)	1.140 (0.69)
Land ownership	0.784 (0.29)	0.836 (0.16)
Food-producing HH	1.636 (0.74)	1.368 (0.36)
Ag. group participation	0.279* (0.18)	0.769 (0.30)

Co-op/microfinance participation	0.739 (0.25)	0.672 (0.26)
HH remittance sent (NPR/1000)	0.999 (0.00)	0.997 (0.00)
Estimation sample wealth quintiles (ref: poorest)		
Wealth quintile 2	2.217*** (0.44)	1.914*** (0.26)
Wealth quintile 3	2.520** (1.18)	2.134*** (0.54)
Wealth quintile 4	1.749* (0.58)	1.368 (0.26)
Wealth quintile 5 (richest)	1.344 (0.65)	1.510 (0.47)
Observations	896	1,390
Wald chi2 (16)	2342	972.6
Prob > chi2	0	0

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Source: PoSHAN, 2013-2014

Note: Odds ratios. Robust standard errors in parentheses, clustered at VDC-level. All regressions include fixed effects for households. Survey weights are used for households in the balanced panel. The weights are 0.399 for Mountains, 1.862 for Hills, and 0.802 for Terai.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Appendix 8:** Regional Analyses: Estimating the conditional association between household migrant remittance income and food security status

	<b>Model #1b</b> Food Secure Only			<b>Model #2b</b> Food Secure + Mildly Food Insecure		
	M	H	T	M	H	T
HH migrant remittance received (NPR/1000)	1.011*	1.005***	1.000	1.002	1.008***	1.006**
	(0.01)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)
Year (ref: Year 1)	1.791***	1.742	2.188***	1.898*	3.078***	3.257***
	(0.39)	(0.72)	(0.47)	(0.65)	(1.01)	(0.90)
Experience of negative economic shock	0.949	0.743	0.827	0.822	0.847	1.066
	(0.52)	(0.31)	(0.16)	(0.19)	(0.36)	(0.31)
Exercised coping strategy	0.315***	0.434***	0.117***	0.331***	0.308**	0.094***
	(0.09)	(0.11)	(0.03)	(0.12)	(0.14)	(0.03)
Social support	0.436	0.293**	1.690	0.222**	1.430	0.684
	(0.34)	(0.16)	(0.88)	(0.13)	(2.06)	(0.54)
No. of HH members	0.831	0.817*	1.029	1.036	0.889	0.915
	(0.11)	(0.09)	(0.08)	(0.18)	(0.15)	(0.09)
Female H of HH	1.021	1.377	0.661	0.609	1.338	0.703
	(1.13)	(1.06)	(0.32)	(0.77)	(1.04)	(0.45)
Land ownership	1.078	0.898	1.501	0.845	0.943	1.069
	(0.45)	(0.40)	(0.45)	(0.39)	(0.34)	(0.33)
Food-producing HH	0.473***	1.144	0.719	0.826	1.602	1.341

	(0.12)	(0.90)	(0.15)	(0.41)	(1.12)	(0.54)
Ag. group participation	0.732	0.847	0.973	0.614	0.903	1.009
	(0.22)	(0.34)	(0.44)	(0.23)	(0.43)	(0.81)
Co-op/microfinance participation	0.791	0.408***	1.110	0.924	0.465	0.953
	(0.22)	(0.13)	(0.26)	(0.30)	(0.24)	(0.46)
HH remittance sent (NPR/1000)	0.998	1.016	0.952***	0.995***	0.999	0.965
	(0.00)	(0.01)	(0.01)	(0.00)	(0.01)	(0.03)
Estimation sample wealth quintiles (ref: poorest)						
Wealth quintile 2	0.599	1.348	1.767**	1.003	2.776**	2.001
	(0.28)	(1.36)	(0.47)	(0.74)	(1.28)	(1.10)
Wealth quintile 3	0.747	1.864	1.847**	0.586	3.444**	1.445
	(0.34)	(1.56)	(0.54)	(0.32)	(2.01)	(0.66)
Wealth quintile 4	0.694	2.538	2.118***	2.141*	1.774	1.067
	(0.40)	(2.04)	(0.55)	(0.92)	(0.96)	(0.43)
Wealth quintile 5 (richest)	0.588*	1.399	1.291	0.920	1.840*	0.786
	(0.17)	(0.90)	(0.39)	(0.31)	(0.62)	(0.39)
Observations	328	468	1,140	302	370	704
Wald chi2 (16)	1200	361.5	577	67909	1464	510.1
Prob > chi2	0	0	0	0	0	0

Source: PoSHAN, 2013-2014

M: Mountains; H: Hills; T: Terai

Note: Odds ratios. Robust standard errors in parentheses, clustered at ward-level. All regressions include fixed effects for households.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Appendix 9:** Caste Analyses: Estimating the conditional association between household migrant remittance income and food security status

	<b>Model #1b</b> Food Secure Only		<b>Model #2b</b> Food Secure + Mildly Food Insecure	
	Excluded Caste	Non-excluded	Excluded Caste	Non-excluded
HH migrant remittance received (NPR/1000)	1.001 (0.00)	1.004** (0.00)	1.005*** (0.00)	1.011*** (0.00)
Year (ref: Year 1)	2.139*** (0.57)	2.132*** (0.43)	2.255*** (0.49)	3.583*** (1.30)
Experience of negative economic shock	0.842 (0.11)	0.758 (0.21)	0.946 (0.29)	0.733 (0.21)
Exercised coping strategy	0.169*** (0.05)	0.481* (0.19)	0.087*** (0.03)	0.493 (0.30)
Social support	1.251 (0.54)	0.328*** (0.12)	1.755 (0.99)	0.722 (0.69)
No. of HH members	0.925 (0.11)	0.914 (0.06)	0.824 (0.10)	1.070 (0.09)
Female H of HH	0.870 (0.39)	2.453** (1.00)	0.873 (0.78)	2.038 (1.76)
Land ownership	0.764 (0.22)	1.692*** (0.33)	0.638* (0.16)	1.659* (0.43)
Food-producing HH	0.955	0.952	1.658	1.084

	(0.23)	(0.30)	(0.61)	(0.49)
Ag. group participation	0.682	0.925	0.498*	1.829
	(0.27)	(0.46)	(0.21)	(0.73)
Co-op/microfinance participation	0.699	0.571*	1.044	0.337**
	(0.22)	(0.17)	(0.40)	(0.18)
HH remittance sent (NPR/1000)	0.999	1.004	0.986	0.996**
	(0.01)	(0.00)	(0.01)	(0.00)
Estimation sample wealth quintiles (ref: poorest)				
Wealth quintile 2	2.335***	0.842	2.315***	2.027
	(0.51)	(0.31)	(0.54)	(1.03)
Wealth quintile 3	3.350***	0.600	2.921**	2.335*
	(1.22)	(0.20)	(1.28)	(1.14)
Wealth quintile 4	1.887**	1.275	1.732	1.287
	(0.56)	(0.26)	(0.70)	(0.51)
Wealth quintile 5 (richest)	1.735	1.102	1.392	1.054
	(0.60)	(0.20)	(0.56)	(0.45)
Observations	1,372	588	974	416
Wald chi2 (16)	3049	1158	7716	142053
Prob > chi2	0	0	0	0

Source: PoSHAN, 2013-2014

Note: Odds ratios. Robust standard errors in parentheses, clustered at VDC-level. All regressions include fixed effects for households. Survey weights are used for households in the balanced panel. The weights are 0.399 for Mountains, 1.862 for Hills, and 0.802 for Terai.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Chapter 5 Conclusions & Implications

### 1. Summary of findings

This dissertation contributes to the growing, yet limited, literature on the effects of migration on at-origin households and the women who stay behind. It employs a triangulation study design, where quantitative and qualitative data collection and analyses are conducted separately to explore the same phenomenon (Creswell 2014). Such a design allows researchers to compare, contrast, and corroborate qualitative results with quantitative findings with a purpose to produce “valid and well-substantiated conclusions about a single phenomenon” (Creswell 2014, 65).

Between October 2016 and February 2017, a qualitative case study was carried out in Maulali, an isolated village in the mountains of Far West Nepal. Iterative in-depth interviews and focus group discussions were conducted with over 150 women and men of lower and higher castes to better understand their experiences and perceptions about male out-migration and its effects on household food security and women’s decision-making roles.

Based on these interviews and focus group discussions, **Chapter 2** examines the relationship between male out-migration and household food security and highlighted the effects of migration on the three core cross-cultural domains of household food insecurity experience: *insufficient quantity* and *inadequate quality of food*, and *anxiety and worry* about food. In Maulali, remittances from migrants help households meet their basic immediate needs and their experience of *insufficient quantity* of food. However, the improvements to households’ experience of food security via income from remittances and access to loans and credit are limited and precarious. The improvements to the *inadequate quality* of foods consumed by the households are also minimal, if any.

Moreover, these monetary benefits from migration come at a high cost. Men report undignified, unsafe, and difficult working conditions in India and the women who stay behind bear additional childcare, fieldwork, and housework responsibilities. Increasingly,

households also face economic drawbacks by having to pay for male agricultural labor. Households report hampered production due to men's extended absence and note their increasing reliance on markets to meet basic needs. Migration in Far West Nepal is a central livelihood strategy in households' efforts to realize food security. However, it does not appear to contribute to *sustainable* or *substantial* improvements of household experience of food insecurity through the traditionally examined domains, namely *quantity* and *quality*. Yet, migration provides much – albeit short-lived - relief to household's *worry* and *anxiety* about having enough to eat and balancing the demands for food with other basic needs; migration is allowing households to “live in hope.”<sup>96</sup>

Drawing from the same interviews and focus group discussions, **Chapter 3** explores the effects of male out-migration on women's intra-household decision-making roles in Maulali. The study tests the commonly held – but unsubstantiated – assumption that male out-migration emancipates and empowers the women who stay behind. In Far West Nepal, the patriarchal intra-household decision-making roles are largely preserved despite men's extended physical absence and women's *de facto* headship in nuclear households. Women experience a slight expansion in their authority and are able make decisions about “small” works such as market purchases in their husbands' absence. However, these effects bypass women who live with their in-laws and husbands' families and are reversed upon the migrants' return.

In fact, migration maintains, and at times reinforces, the social, material and human conditions which limit women's ability to expand their intra-household decision-making authority. Male out-migration in Maulali perpetuates women's economic dependence upon men and reinforces men's decision-making authority. As aforementioned, women face enormous psychological and physical burdens given the additional homestead and childcare responsibilities that fall to them in men's absence. Moreover, while there have been some improvements in recent decades, gender discrimination remains widespread in Maulali. Both men and women spoke of the power differential between wives and their

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<sup>96</sup> Interview with high caste woman with migrant husband in Bangalore, October 31, 2016

husbands and other more senior members of the household, and the physical and social risk women may face when they push for more decision-making authority. In turn, women's deferential roles in the households, their limited educational attainment, and fear of domestic violence (by both women's in-laws and husbands) influence not only who migrates, but also buffer the effects migration may have on the women who stay behind.<sup>97</sup>

In **Chapter 4**, the dissertation investigates the relationship between migration remittance income and household food security status using a nationally representative panel data set. Households with migrant members who are sending back remittances have higher odds of being food secure compared to households without remittance-sending migrants, conditional on household-level fixed effects and all else equal. This conclusion is consistent at both thresholds set for food security outcomes and statistically significant ( $p < 0.1$ ). However, once analyses are stratified by region, there are significant positive effects in the hills but not in the mountains or the terai. Household migration effects also appear to be larger for higher caste households, holding constant asset-based wealth. Moreover, remittance *amounts* sent back by migrants have no effect on households' odds of being food secure, *ceteris paribus* and conditional on household food security status. Every additional 1000 NPR (approximately 10 USD) received by households from migrant members in the past year confers no benefit to households' odds of being food secure. This result is consistent for both food security thresholds, at the national and regional levels and for lower and higher castes.

## 2. Implications of findings

Together, the three chapters highlight the opportunities *and* challenges migration may create for household experience of food insecurity and women's intra-household decision-making roles in Nepal. Qualitatively, male out-migration appears to improve households' economic access to markets and alleviate anxiety and worry about having enough to eat. The nationally representative quantitative analyses show households that receive

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<sup>97</sup> For example, the decision-making roles of women who live in extended households, are largely non-existent. Women who live with their in-laws are socially expected to defer to the senior members of the household and their deferential roles remain largely unaffected by their husbands' migration.

remittance from migrant members have higher odds of being food secure, conditional on household fixed effects. Men's extended absence also expands women's intra-household decision-making roles, albeit in a limited and short-term way.

On the other hand, the research also shows that migration can maintain or reinforce the very social, material, and economic conditions that impede household food security and hinder women's ability to take on additional decision-making roles. With male out-migration, women bear additional childcare and homestead responsibilities, which not only restrict their ability to expand their decision-making role but also their capacity to cook and feed themselves and their children. Moreover, the limited male labor supply, and gender normative divisions of labor, can hamper agricultural productivity and increase households' reliance on markets with negative implications for both the quantity and quality of foods consumed. Furthermore, migration perpetuates men's breadwinner identity and women's economic dependence upon men. These effects of migration - in conjunction with the availability of cellphones, women's limited educational attainment, fear of domestic violence, and enduring gender discriminatory practices - help maintain the traditional patriarchal decision-making roles in the migrant households.

Both qualitative and quantitative results also show that remittances have only a limited effect on household food security. In the qualitative case study set in Far West Nepal, respondents report that while monies sent back by migrants help improve households' economic access to markets, remittances are often insufficient, unreliable, and too infrequent to help make ends meet. In the national-level quantitative assessment of the migration-food security relationship, households' remittance receipt status<sup>98</sup> (i.e. whether or not households had at least one migrant member remitting in the past year) is positively associated with households' odds of being food secure. Yet, the remittance *amounts* received by households in the past year appear to have no statistical significant associations with the odds of households being food secure, conditional on household-level fixed

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<sup>98</sup> As described in greater detail in **Chapter 4**, the quantitative effort in this dissertation was limited by data availability. The explanatory variable of interest, the migration status of a household, was operationalized based on its remittance receipt status. In turn, the analysis cannot take into account the experience of households who have migrant members who are unable and/or unwilling to send back remittances.

effects. There is something about having a remitting household migrant member that is helping to improve households' odds of being food secure regardless of the remittance *amount*. Collectively, these findings stress the importance of looking *beyond* the monetary aspects, oft the centerpiece of many studies, when examining the effects of migration on at-origin households.

Methodologically, this dissertation illustrates the complementary power of a mixed methods approach. The use of qualitative and quantitative methods to examine the effects of migration in Nepal, help “obtain different but complementary data on the same topic” (Morse 1991, 122). The triangulation design help bring together the differing strengths and weaknesses of qualitative (small sample size, rich in-depth narratives) and quantitative (large sample size, generalizability) approaches. The different results are then brought together for an overall interpretation by weaving together the quantitative and qualitative findings. Moreover, the in-depth interviews and focus group discussions put the perspectives, aspirations, and experiences of those affected by the migration experience at the center of the analyses. For many respondents, especially the women whose observations and viewpoints are traditionally not elicited, their participation in the interviews and focus group discussion was their first interaction with a researcher.

The dissertation results also draw cautions against the use of pre-defined frameworks and measures of women's empowerment. Often, there is an “intuitive expectation” that *all* women would enjoy and want to take on more powerful positions in the household after their husbands migrate (de Haas and van Rooij 2010, 59). Such preconceived notions assume what women want and need, and “sideline the need to understand women's preferences and priorities” (Doss et al. 2017, 5). Such presumptions also run the risk of *disempowering* women, by imposing upon them responsibilities and roles that they may not want or do not feel ready to take. In interviews and focus group discussions in Far West Nepal, for example, both men and women noted that while they aspire for women to have greater decision-making roles, women *currently* feel socially and economically unequipped to take on these roles. Imposing greater decision-making roles for women who stay behind in this context, not only sidelines their preferences and needs, but also

encumbers women who already feel psychologically and physically burdened in their husbands' absence.

Moreover, there is a tendency in the women's empowerment discourse and programming to narrowly focus on the women, without contextualizing their relationships with their families, communities, and institutions. While respondents in Maulali noted that there have been progress in curbing gender discriminatory practices and norms in the past few decades, women who push against the *status quo* still face potential social and physical repercussions. Efforts that do not consider these contextual factors run the risk of contributing to conflict and backlash against the very women they seek to "empower." Taken together, these findings indicate the critical need to ground-truth and contextualize women's empowerment frameworks and measures, and to dismantle normative assumptions of gender relations and roles. Women's *and* men's needs, preferences, and aspirations as well as the underlying social context must be central to programmatic and policy efforts. Otherwise, such endeavors face the risk of *disempowering* and even endangering women in an uninformed effort to "empower" them.

Finally, the collective findings from this dissertation further highlight the limitations of the *individialistic*, *structural*, and *integrative* theoretical approaches to labor migration, which focus largely on the migrants, their motivations for migration, and the *monetary* aspects of migration. The results also showcase the analytical insight of the UN-INSTRAW Framework for Gender, Remittances, and Development (described in **Chapter 1**) (Ramírez, Domínguez, and Morais 2005). As emphasized by the framework, the dissertation shows that migration is inherently gendered, dynamic and reciprocal (Robert 2015). Indeed, migration occurs in a political, social, and economic context, which determine not only who migrates but also how those who remain behind benefit from the monetary and social remittances. Moreover, as noted in the framework, both qualitative and quantitative results also stress the importance of looking beyond the *monetary* aspects of migration and the need to consider *non-monetary* effects which may have implications for intra-household roles and relationships.

### 3. Directions for future research

Given the unprecedented levels of migration in Nepal and a limited understanding of its effects on at-origin households and those who stay behind, additional quantitative and qualitative studies are needed to further elucidate these effects. The quantitative results suggest evidence for migration's positive effect on household food security, using a nationally representative data set. However, as illustrated by the qualitative findings, the multitude of migration's effects – both positive and negative – may be hidden and demand further examination. A nationally representative panel survey designed to understand the effects of migration on development outcomes, including and beyond food security and women's status, is a worthwhile investment. Understanding and establishing the causal pathways *through* which migration affects household food security and women's status are key to evidence-based policies and programs. In such efforts, it is critical to move beyond focusing solely on the monetary effects of migration and include the social and cultural ties between the migrants and their origin households in efforts to understand the effects of migration.

Additional qualitative research is critical to complement these quantitative efforts. Feedback from the migrants themselves, those who remain in the rural areas, and the households who have migrated together are key. *How do migrants conceptualize a "successful" migration experience? How can programs facilitate and support this experience? In what ways do household members who stay behind wish to be supported?* Such respondent-led approach can also member-check conclusions and help safeguard against potentially harmful normative assumptions (Maxwell 2005). In both quantitative and qualitative efforts, stratification by and inclusion of lower and higher castes, regions, ethnicity/religion, gender, and migration patterns and destinations in analyses are imperative.

Moreover, in assessments of the migration-food security relationship, food security is usually narrowly defined as economic and physical access to food. In turn, studies often fail to reflect the multi-dimensional nature of the food security experience. Qualitatively,

the findings show that migration may be exerting different effects on the three core cross-cultural domains of household experience of food insecurity. The initial intent of the quantitative analysis was to build on these qualitative results and to conduct domain-specific assessments using the panel data set. However, given the distribution of the data (with most households reporting no experience of insufficient food quantity nor inadequate food quality in both years) and limited variation over time, the econometric models with household fixed effects did not allow for such assessments. It may be, as suggested by the qualitative results, that migration affects the domains of household food security experience differently. In the future, studies examining the effect of migration should reflect the *multi*-dimensionality of the food security experience in their analyses and explore domain-specific effects of migration in order to highlight the potential causal links and avenues for targeted interventions and policy measures.

Lastly, previous studies have noted the importance of migration patterns and migrants' destinations in examining the effects of migration on at-origin households and their members. This dissertation focuses on the effects of *international* labor migration given the historical patterns to India in the qualitative study site in Far West Nepal. The quantitative analyses include both domestic and international migration but the operationalization of the variables and the econometrics approach did not allow for destination-related interpretations. Future studies in Nepal should explore the differential effects of international versus domestic migration. Given the increasing number of women who migrate domestically (in contrast with international labor migration which remains highly male-dominated), a better understanding of the domestic migration experience and its impact are critical for gaining additional insight on the gendered nature of migration in Nepal.

#### **4. Conclusions**

International organizations have been increasingly promoting migration as a tool for global development (Food and Agriculture Organization of the United Nations 2016; World Bank 2006). The Food and Agriculture Organization of the United Nations recently rallied for a

concerted effort to harness the “developmental potential of migration, especially in terms of food security” (Food and Agriculture Organization of the United Nations 2016, 3). In fact, migration and human mobility are central to the 17 Sustainable Development Goal targets (International Organization for Migration 2015). Yet, the evidence on the effects of migration remains limited and the development potential of migration is largely untapped.

Concurrently, there remains a disconnect at the policy-level between the agriculture and migration agendas in Nepal. Nearly 70 percent of the Nepalese population is engaged in the agricultural and forestry sector which account for over one third of the country’s GDP in 2016 (World Bank n.d.). Agriculture plays a central role in Nepal’s conventional development discourse and its pursuit of food and nutrition security. The Agricultural Perspective Plan (1998) envisions Nepal’s development as a product of increased agricultural production and largely neglects the significance of labor out-migration as part of the Nepalese livelihoods.<sup>99</sup>

On the other hand, the Foreign Employment Act (2007) actively encourages labor out-migration and recognizes it as a key livelihood strategy with important implication for livelihood generation and food security. However, it does not account for migration’s potential negative impact on Nepal’s agricultural production (Gartaula, Niehof, and Visser 2012). In turn, the policy agendas for agriculture and migration, and their respective implications for food security, remain largely disconnected in Nepal. However, as exemplified by this dissertation, migration brings both opportunities *and* challenges for food security and the agricultural sector in general. In an agrarian context such as Nepal, where an unprecedented number of men migrate to earn wages abroad while food insecurity remains widespread, the limited dialogue between the migration and agriculture agendas is a major policy gap.

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<sup>99</sup> However, many of these activities became undermined by a decade-long Maoist Insurgency which incentivized out-migration and contributed to the devaluation of agriculture as a valuable and rewarding profession (Gartaula, Niehof, and Visser 2012).

Using qualitative and quantitative methods, this dissertation contributes to the limited evidence base on the effects of migration on household food security and women's intra-household decision-making in Nepal. To date, this is the first nationally representative effort to quantitatively assess migration's effect on household food security in Nepal and the only qualitative exploration of the effects of male out-migration in the mountains of Far West Nepal. While the findings of this dissertation provide insight on the challenges and opportunities migration may create for households and the women who stay behind, there remains an urgent need to further investigate the ways in which the development potential of migration may be better harnessed for at-origin households and individuals in Nepal.

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