



INTERNATIONAL  
FOOD POLICY  
RESEARCH  
INSTITUTE

**IFPRI**

**IFPRI Discussion Paper 01458**

**August 2015**

## **Migration, Gender, and Farming Systems in Asia**

Evidence, Data, and Knowledge Gaps

**Valerie Mueller**

**Chiara Kovarik**

**Kathryn Sproule**

**Agnes Quisumbing**

**Development Strategy and Governance Division**

**Poverty, Health, and Nutrition Division**

## **INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE**

The International Food Policy Research Institute (IFPRI), established in 1975, provides evidence-based policy solutions to sustainably end hunger and malnutrition and reduce poverty. The Institute conducts research, communicates results, optimizes partnerships, and builds capacity to ensure sustainable food production, promote healthy food systems, improve markets and trade, transform agriculture, build resilience, and strengthen institutions and governance. Gender is considered in all of the Institute's work. IFPRI collaborates with partners around the world, including development implementers, public institutions, the private sector, and farmers' organizations, to ensure that local, national, regional, and global food policies are based on evidence. IFPRI is a member of the CGIAR Consortium.

### **AUTHORS**

**Valerie Mueller** ([v.mueller@cgiar.org](mailto:v.mueller@cgiar.org)) is a senior research fellow in the Development Strategy and Governance Division of the International Food Policy Research Institute (IFPRI), Washington, DC.

**Chiara Kovarik** is a research analyst in the Poverty, Health, and Nutrition Division of IFPRI, Washington, DC.

**Kathryn Sproule** is a research analyst in the Poverty, Health, and Nutrition Division of IFPRI, Washington, DC.

**Agnes Quisumbing** ([a.quisumbing@cgiar.org](mailto:a.quisumbing@cgiar.org)) is a senior research fellow in the Poverty, Health, and Nutrition Division of IFPRI, Washington, DC.

### **Notices**

<sup>1</sup> IFPRI Discussion Papers contain preliminary material and research results and are circulated in order to stimulate discussion and critical comment. They have not been subject to a formal external review via IFPRI's Publications Review Committee. Any opinions stated herein are those of the author(s) and are not necessarily representative of or endorsed by the International Food Policy Research Institute.

<sup>2</sup> The boundaries and names shown and the designations used on the map(s) herein do not imply official endorsement or acceptance by the International Food Policy Research Institute (IFPRI) or its partners and contributors.

Copyright 2015 International Food Policy Research Institute. All rights reserved. Sections of this material may be reproduced for personal and not-for-profit use without the express written permission of but with acknowledgment to IFPRI. To reproduce the material contained herein for profit or commercial use requires express written permission. To obtain permission, contact [ifpri-copyright@cgiar.org](mailto:ifpri-copyright@cgiar.org).

## Contents

Abstract	v
Acknowledgments	vi
1. Introduction	1
2. Evidence on International and Internal Migration	2
3. Gendered Determinants of Migration, Employment, and Remittances: A Review of the Literature	8
4. Gains and Losses	15
5. Conclusions, Policy Implications, and Areas for Future Research	19
References	21

## **Tables**

2.1 International migrant stock at midyear, 2013	2
2.2 Moved from another city or area within this country in the past five years	4

## **Figures**

2.1 Female international migration trends, by region of origin	6
3.1 Map of Asia with breakdown of studies	9

## ABSTRACT

Limited statistics on internal migration, international migration, and remittances worldwide prohibit understanding of migration's role in the agricultural transformation process. Insights from the qualitative literature suggest the migrant's gender and household decisionmaking dynamics may influence future investments in agriculture. This paper reviews the literature on migration in Asia, with specific attention given to how gendered migration may influence future agricultural productivity. The first section examines the current body of evidence on the state of international and internal migration, using large-scale datasets that cover several Asian countries. The second section summarizes the findings of an extensive literature review on gendered determinants of migration, employment, and remittances. The third section lays out the gains and losses of migration and discusses the evidence on possible changes in gender roles owing to migration. Global statistics and evidence from the qualitative literature challenge the traditional narrative of male migrants as breadwinners. Even among studies that focus on male employment migration, women have an increasing role in the investment of remittances. What remains unclear is whether women who are migrant breadwinners, decisionmakers, or both regarding the end use of remittances favor investments in agriculture. Adding migration questions to existing nationally representative surveys would shed light on the significance of gendered migration patterns in Asia and its associated consequences on rural livelihoods.

**Keywords:** migration, gender, agriculture, Asia

## **ACKNOWLEDGMENTS**

We appreciate the feedback from participants of the eighth Asian Society of Agricultural Economists Conference 2014, held in Dhaka, Bangladesh. This work was undertaken as part of, and funded by, the CGIAR Research Program on Policies, Institutions, and Markets (PIM) led by the International Food Policy Research Institute (IFPRI). PIM is in turn supported by the CGIAR Fund donors. The opinions expressed here belong to the authors and do not necessarily reflect those of IFPRI, PIM, or CGIAR

# 1. INTRODUCTION

Few studies demonstrate how agriculture evolves as migration changes decisionmaking, the intrahousehold allocation of labor, and physical and human capital investments. In the short term, those left behind adjust to modifications in responsibilities owing to the absence of a family member. In the long term, remittances sent back create new opportunities for human and physical asset accumulation by those left behind. These changes will depend on the decisionmaking dynamics of households and the gender of the migrant.

In this respect, migration has the potential to change gender norms in origin communities, which in turn can influence the promotion and targeting of agricultural interventions. Women's and men's preferences regarding which investments take precedence in the household may vary. As breadwinners, women have the potential to raise their status and empowerment in the household and therefore affect investments. As heads of households with access to additional income, women whose husbands migrate have unprecedented power over in-house expenditures.

These dynamics have been underexplored, and their importance for the transformation of agriculture resonates in statistics provided by the International Organization for Migration (2013): 13 of the 20 top international migration corridors originate in Asia. The major destinations for these migrants include some of the wealthiest countries in the world: the United States (28 percent), Pakistan (16 percent), Bhutan (14 percent), Russia (11 percent), Iran (9 percent), Saudi Arabia (6 percent), India (6 percent), Malaysia (6 percent), and United Arab Emirates (5 percent). Statistics from global datasets show Asian men and women carry the weight of earning income for the families they leave behind. Men are more likely to migrate to the Middle East from Nepal and the Philippines, while women from those countries are more apt to migrate to East Asia or the United States/Canada (see Asis 2005; Belanger and Tran 2011; Hugo 2005; Lukasiewicz 2011; Rahman 2009; and Rahman and Fee 2009).

Unfortunately, the proactive roles of both men and women as sources of migrant income and agricultural investors in Asia are rarely quantified. The few studies that broach the topic rely on sampling frames that draw from communities with high historical rates of male migration. These studies can present a view skewed toward the feminization of agriculture. Furthermore, the majority of studies fail to monitor migrants and those they leave behind simultaneously over time; consequently, only a snapshot of the welfare of migrants or their relatives is captured.

This paper takes a gendered perspective in reviewing the literature on migration in Asia, covering motivations to migrate, migrant characteristics, the costs and benefits of migration, and possible long-term consequences in terms of changes in gender roles and agriculture. Section 2 examines the current body of evidence on international and internal migration, using large-scale datasets that cover several Asian countries. Section 3 summarizes the findings of an extensive literature review on gendered determinants of migration, employment, and remittances. Section 4 lays out the gains and losses of migration and discusses the evidence on possible changes in gender roles owing to migration. Section 5 provides conclusions, policy recommendations, and areas for future research.

## 2. EVIDENCE ON INTERNATIONAL AND INTERNAL MIGRATION

We begin by providing a big picture of international and internal migration using data that are comparable in terms of methodology and coverage across several Asian countries. We present international migration statistics from the United Nations Population Statistics division and internal migration statistics from the Gallup World Poll data as they are the most recent and comprehensive numbers available. However, we do not compare the international and internal migration rates within countries due to the differing definitions and time periods of migration in the datasets; these data limitations are discussed in greater detail at the end of this section.

### International Migration

Of the approximately 232 million people living outside their countries of birth in 2013, about 72.5 million are from Europe. The remaining international migrants come from Asia (71 million), North America (53 million), Africa (18.5 million), and Latin America, the Caribbean, and Oceania (16.5 million) (United Nations, Department of Economic and Social Affairs 2013). Thus, Asians constitute a significant portion of international migrants.

Table 2.1 presents international migration statistics by region of origin in Asia. While Western Asia is included in Tables 2.1 and 2.2 per the United Nations definition of world regions (United Nations, Department of Economic and Social Affairs 2013), we exclude it from our analysis due to the major historical and cultural differences between Western Asia<sup>1</sup> (more commonly referred to as the Middle East) and the rest of Asia (Central, South, East, and Southeast regions). Thus, excluding Western Asia, approximately 38 million Asians resided outside of their birth countries in 2013, with the majority coming from South Asia (40 percent). In relative terms, Central Asia has the greatest international migration rate of all regions in Asia, with 8.5 percent of its population currently living abroad.<sup>2</sup>

International migrants hail from a minority of countries within Asia. In Southern Asia, almost two-thirds of international migrants originate from India or Pakistan and the remaining third primarily from Bangladesh and Iran. Ninety percent of Southeastern Asian migrants moved from Thailand, Malaysia, and Singapore. Eighty-five percent of the international migrants from Eastern Asia come from Hong Kong, Japan, and South Korea. Finally, within Central Asia, Kazakhstan alone makes up more than 60 percent of international migrants.

**Table 2.1 International migrant stock at midyear, 2013**

Region/country of origin	Total population	Total number of men	Total number of women	% male migrants	% female migrants	Migrant stock as percentage of the total population
<b>Central Asia</b>	5,471,533	2,629,129	2,842,404	48.1	51.9	8.5
Kazakhstan	3,476,233	1,715,290	1,760,943	49.3	50.7	21.1
Kyrgyzstan	226,960	102,802	124,158	45.3	54.7	4.1
Tajikistan	275,735	118,811	156,924	43.1	<b>56.9</b>	3.4
Turkmenistan	226,327	104,955	121,372	46.4	53.6	4.3
Uzbekistan	1,266,278	587,271	679,007	46.4	53.6	4.4

<sup>1</sup> The United Nations definition of Western Asia includes the following countries: Armenia, Azerbaijan, Bahrain, Cyprus, Georgia, Iraq, Israel, Jordan, Kuwait, Lebanon, State of Palestine, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Turkey, United Arab Emirates, and Yemen (United Nations Statistics Division 2013).

<sup>2</sup> This may be due to the fact that after the breakup of the Soviet Union in 1991 people living in one of the newly independent countries who were born in another were classified as international migrants (World Bank 2015b).

**Table 2.1 Continued**

<b>Region/country of origin</b>	<b>Total population</b>	<b>Total number of men</b>	<b>Total number of women</b>	<b>% male migrants</b>	<b>% female migrants</b>	<b>Migrant stock as percentage of the total population</b>
<b>Eastern Asia</b>	7,719,960	3,562,553	4,157,407	46.1	53.9	0.5
China	848,511	440,482	408,029	51.9	48.1	0.1
Democratic People's Republic of Korea	46,813	23,233	23,580	49.6	50.4	0.2
Hong Kong (China)	2,804,753	1,145,181	1,659,572	40.8	<b>59.2</b>	38.9
Japan	2,437,169	1,090,382	1,346,787	44.7	55.3	1.9
Macao (China)	333,269	162,081	171,188	48.6	51.4	58.8
Mongolia	17,225	12,616	4,609	73.2	<b>26.8</b>	0.6
Republic of Korea	1,232,220	688,578	543,642	55.9	44.1	2.5
<b>Southeastern Asia</b>	9,509,259	4,916,479	4,592,780	51.7	48.3	1.5
Brunei	206,173	116,582	89,591	56.5	43.5	49.3
Cambodia	75,566	40,560	35,006	53.7	46.3	0.5
Indonesia	295,433	183,002	112,431	61.9	<b>38.1</b>	0.1
Lao	21,801	11,848	9,953	54.3	45.7	0.3
Malaysia	2,469,173	1,449,163	1,020,010	58.7	<b>41.3</b>	<b>8.3</b>
Myanmar	103,117	54,902	48,215	53.2	46.8	0.2
Philippines	213,150	110,421	102,729	51.8	48.2	0.2
Singapore	2,323,252	1,026,171	1,297,081	44.2	55.8	<b>42.9</b>
Thailand	3,721,735	1,877,391	1,844,344	50.4	49.6	<b>5.6</b>
Timor-Leste	11,569	6,803	4,766	58.8	41.2	1.0
Vietnam	68,290	39,636	28,654	58.0	42.0	0.1
<b>Southern Asia</b>	15,001,688	8,483,825	6,517,863	56.6	43.4	0.9
Afghanistan	105,090	59,343	45,747	56.5	43.5	0.3
Bangladesh	1,396,514	1,209,928	186,586	86.6	13.4	<b>0.9</b>
Bhutan	50,862	41,245	9,617	81.1	18.9	6.7
India	5,338,486	2,736,253	2,602,233	51.3	48.7	<b>0.4</b>
Iran	2,649,516	1,612,034	1,037,482	60.8	39.2	<b>3.4</b>
Maldives	84,230	46,655	37,575	55.4	44.6	24.4
Nepal	971,247	307,922	663,325	31.7	68.3	3.5
Pakistan	4,080,766	2,307,164	1,773,602	56.5	43.5	<b>2.2</b>
Sri Lanka	324,977	163,281	161,696	50.2	49.8	1.5

**Table 2.1 Continued**

Region/country of origin	Total population	Total number of men	Total number of women	% male migrants	% female migrants	Migrant stock as percentage of the total population
<b>Western Asia</b>	33,144,331	21,780,626	11,363,705	65.7	34.3	13.5
Armenia	317,001	145,170	171,831	45.8	54.2	10.6
Azerbaijan	323,843	153,703	170,140	47.5	52.5	3.4
Bahrain	729,357	526,814	202,543	72.2	27.8	54.7
Cyprus	207,313	90,292	117,021	43.6	56.4	18.2
Georgia	189,893	90,191	99,702	47.5	52.5	4.4
Iraq	95,780	67,282	28,498	70.2	29.8	0.3
Israel	2,046,873	928,084	1,118,789	45.3	54.7	26.5
Jordan	2,925,780	1,483,048	1,442,732	50.7	49.3	40.2
Kuwait	2,028,053	1,419,354	608,699	70.0	30.0	60.2
Lebanon	849,721	445,077	404,644	52.4	47.6	17.6
State of Palestine	256,517	113,817	142,700	44.4	55.6	5.9
Oman	1,112,032	900,972	211,060	81.0	19.0	30.6
Qatar	1,600,955	1,267,783	333,172	79.2	20.8	73.8
Saudi Arabia	9,060,433	6,437,270	2,623,163	71.0	29.0	31.4
Syrian Arab Republic	1,394,227	712,219	682,008	51.1	48.9	6.4
Turkey	1,864,889	962,759	902,130	51.6	48.4	2.5
United Arab Emirates	7,826,981	5,850,180	1,976,801	74.7	25.3	83.7
Yemen	314,683	186,611	128,072	59.3	40.7	1.3

Source: United Nations, Department of Economics and Social Affairs (2013).

Note: The United Nations data contain age- and sex-disaggregated data on the population stock and international migration stock numbers for all 32 Asian countries. Data used to produce the estimates come from a number of sources including the foreign-born population, foreign citizens, and statistical imputation when no data exist. Numbers of refugees from the United Nations High Commissioner for Refugees were added to the migrant total for 12 of the 31 countries listed. These countries are, in alphabetical order, Bangladesh, India, Indonesia, Iran, Lao, Malaysia, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, and Vietnam.

**Table 2.2 Moved from another city or area within this country in the past five years**

Region/country	Male (%)	Female (%)	Total (%)	Sample size
<b>Central Asia</b>				
Kazakhstan	8.8	8.2	8.5	3,000
Kyrgyzstan	4.2	9.2	6.8	3,000
Tajikistan	2.4	3.0	2.7	3,000
Turkmenistan	2.4	3.2	2.8	3,000
Uzbekistan	2.2	4.3	3.3	3,000
<b>Eastern Asia</b>				
China	3.9	4.8	4.3	15,303
Hong Kong	4.0	5.3	4.7	1,006
Japan	8.7	11.2	10.0	3,001
Mongolia	10.5	12.9	11.8	3,000
South Korea	11.9	12.5	12.2	2,000
Taiwan	5.2	6.0	5.6	2,000

**Table 2.2 Continued**

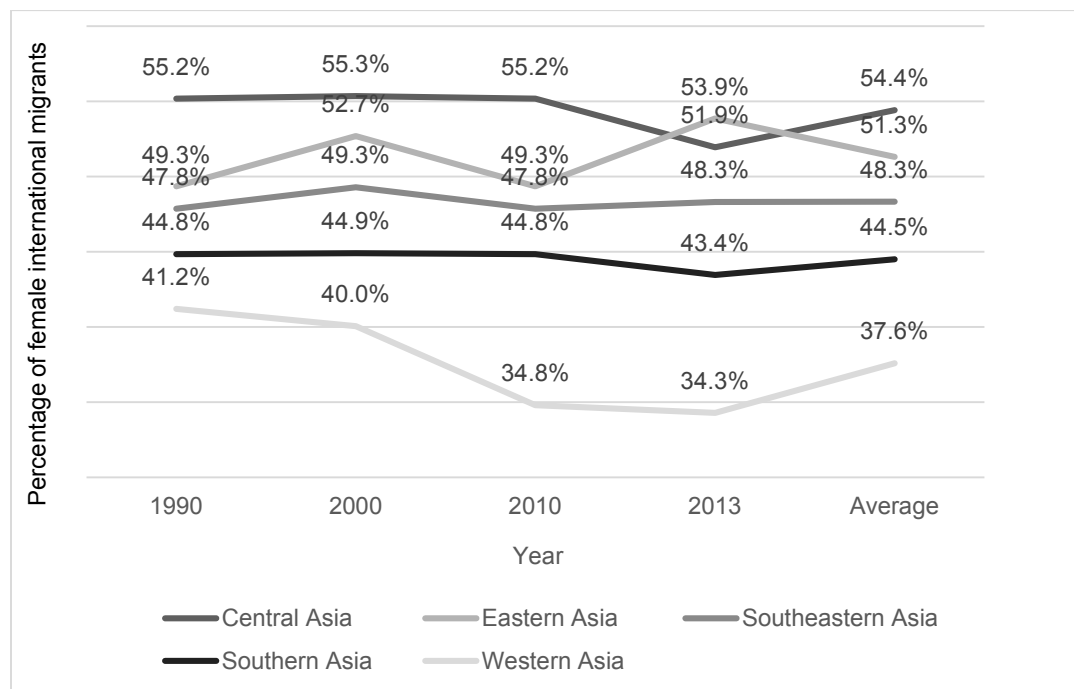
<b>Region/country</b>	<b>Male (%)</b>	<b>Female (%)</b>	<b>Total (%)</b>	<b>Sample size</b>
<b>Southeastern Asia</b>				
Cambodia	11.0	11.8	11.5	3,000
Indonesia	3.1	5.1	4.1	3,000
Laos	5.8	7.6	6.7	2,000
Malaysia	14.0	11.4	12.7	3,000
Myanmar	4.2	6.0	5.2	2,040
Philippines	9.7	11.1	10.4	4,000
Singapore	9.5	9.7	9.6	2,000
Thailand	7.3	6.5	6.9	4,000
Vietnam	5.2	6.7	6.0	4,017
<b>Southern Asia</b>				
Afghanistan	7.1	10.1	8.6	3,000
Bangladesh	5.8	8.4	7.1	3,000
Bhutan	17.8	19.3	18.5	1,000
India	5.0	4.9	5.0	16,598
Iran	12.9	15.0	13.9	4,507
Nepal	6.2	8.2	7.3	3,050
Pakistan	3.5	5.4	4.4	3,008
Sri Lanka	4.7	8.0	6.4	3,030
<b>Western Asia</b>				
Armenia	5.30	7.70	6.60	3,000
Azerbaijan	4.5	5.1	4.8	3,000
Bahrain	23.7	20.1	22.1	2,002
Cyprus	7.6	8.6	8.1	2,005
Georgia	4.8	7.3	6.2	3,000
Iraq	18.7	19.5	19.1	2,003
Israel	14.5	11.8	13.1	2,000
Jordan	4.4	3.8	4.1	2,000
Kuwait	12.7	9.3	11.2	2,008
Lebanon	5.4	5.1	5.2	2,001
Qatar	32.7	26.0	30.0	1,000
Saudi Arabia	13.9	7.3	10.9	2,078
Syria	24.3	23.1	23.7	2,047
Turkey	4.7	4.4	4.5	4,001
United Arab Emirates	20.7	14.3	18.4	2,016
Yemen	3.4	8.3	5.9	2,000

Source: Gallup (2013).

Note: Data were collected in 2012/2013. The survey question asked, “Did you move from another city or area within this country in the past five years?” The numbers reflect those who responded “yes.” These results are based on country-level samples, which have a margin of error from  $\pm 2.1$  to  $\pm 5.3$ . Please note that subgroups (such as gender) from country-level samples have a greater margin of error than the country-level sample. All country-level analyses use country weights.

The sex distribution of the international migrant stock varies by source over time. Although most international migrants emerge from Southern Asia, this region has the lowest percentage of female migrants of all Asian regions.<sup>3</sup> The greatest percentage of female migrants come from East Asia. Moreover, the percentage of women originating from East Asia gradually increased from 2000 to 2013, from 49 percent to 54 percent, while the proportion of female international migrants from Southern Asia has stabilized at around 44 percent (Figure 2.1).

**Figure 2.1 Female international migration trends, by region of origin**



Source: United Nations, Department of Economic and Social Affairs (2013).

## Internal Migration

Although the United Nations estimates about 232 million migrants moved between countries worldwide in 2013, Gallup studies suggest a greater number of individuals moved within countries (United Nations Department of Economic and Social Affairs 2013; Esipova, Pugliese, and Ray 2013). The lack of reliable comparable data across countries stymies attempts to arrive at global estimates of internal migrants. However, from 2011 to 2012, Gallup conducted interviews with 236,865 adult men and women in 139 countries worldwide, asking whether they had moved from another city or area within their country in the past five years (2013).<sup>4</sup> Table 2.2 summarizes Gallup’s sex-disaggregated survey data from 44 Asian countries. Women are generally more likely to move within a country. At the extremes, women are 2.2 times more likely than men in Kyrgyzstan to have internally migrated, almost twice as likely in Uzbekistan, and 1.7 times more likely in Sri Lanka. While not directly comparable, this contrasts with the international migration findings, which are dominated by male migration from Southern and Southeastern Asia.

<sup>3</sup> Despite these regional trends, there are striking anomalies within regions. For example, the region with the lowest percentage of female international migrants includes Nepal, which has the greatest percentage of female international migrants of all countries (68 percent).

<sup>4</sup> These 139 countries represent more than 97 percent of the world’s population. The typical sample size for each country is between 1,000 and 3,000 interviews. Sample sizes are higher in some countries: for example, more than 10,000 interviews in China and in India and 5,000 interviews in Russia. In three countries, sample sizes were approximately 500: Haiti, North Cyprus, and Suriname.

## Data Limitations

A number of data limitations plague international and internal migration statistics, making it even more difficult to make consistent comparisons between the two phenomena. International migration statistics, which have a longer complete time-series than internal migration statistics, suffer from inconsistent definitions. At the international level, no universally accepted definition for “migrant” exists (IOM 2004). However, the term “migrant” is generally understood to cover all cases where the decision to migrate is voluntary, specifically without intervention of an external compelling factor. This term therefore applies to persons, and family members, moving to another country or region to better their material or social conditions and improve the prospect for themselves or their families (IOM 2004). Our discussion therefore focuses on this definition of migration, even though international statistics often include smuggled, trafficked, and displaced people.

The primary issue in measuring internal migration in most Asian countries is the absence of migration questions in nationally representative surveys. International statistics are derived from surveys in hosting countries, where the systematic administration of surveys permits routine documentation of foreign residents. In contrast, internal migration statistics rely on within-country data collection, which is not a routine activity in many Asian countries’ statistical systems. With the exception of China, most nationally representative surveys administered in Asian countries that document internal migration are often few and far between (for example, the Nepal Living Standard Surveys) or collect only in-migration rates (for example, Labor Force Surveys). The restrictions of the latter are best illustrated by the example of the Pakistan Labor Force Survey, which asks which district a person moved from, the length of residence in one’s current district, and whether the previous location was urban or rural. Such information can be used to monitor aggregate migration between districts but will exclude within-district moves that can dominate in some contexts due to financial, linguistic, or cultural barriers that preclude long-distance migration (for example, Gray and Mueller 2012).

Even among countries that gather information about internal migration, comparability of statistics across countries is limited. Reference periods during which surveys ask for information on migration may range from 12 months preceding the interview to ten years. Migration patterns (for example, rural to rural or rural to urban) that depend on definitions of what constitutes an urban area will affect interpretation (United Nations Statistics Division 2005). For instance, in Indonesia “urban” is defined as “places with urban characteristics,” while in India “urban” includes “towns...; also, all places having 5,000 or more inhabitants, a density of not less than 1,000 persons per square mile ... [with] pronounced urban characteristics and at least three fourths of the adult male population employed in pursuits other than agriculture” (United Nations Statistics Division 2005).

Given the measurement problems inherent in both international and internal migration statistics, it is no surprise that it is difficult to compare internal and international migration statistics. Many studies or databases do not have data on both internal and international migrants; when they do, it is generally limited to a single country (see Sharma and Zaman 2013, for example, on Bangladesh). Finally, the samples considered may not be nationally representative, or even representative at any level, because studies often purposively sample areas with high rates of migration (for example, Sharma and Zaman 2013; Semyonov and Gorodzeisky 2005; Belanger and Tran 2011; Niimi and Reilly 2011; Thieme and Wyss 2005; Maharjan, Bauer, and Knerr 2012; Jayaweera and Dias 2009) or other characteristics like high proportions of female-headed households (Gunchinmaa, Hamdamova, and van Koppen 2011). Purposive sampling obviously provides valuable information and is an efficient way to study migrant populations, but it lacks external validity.

### 3. GENDERED DETERMINANTS OF MIGRATION, EMPLOYMENT, AND REMITTANCES: A REVIEW OF THE LITERATURE

The difficulties of understanding the processes underlying gendered migration in Asia using international statistics motivated us to undertake a review of the existing literature. Our interest was to build a consensus and identify gaps in knowledge regarding the key push-pull factors for gendered migration, the direction of migrant selection on observable characteristics, and the implications of their absence on the families left behind. Our search began with review pieces on gender and migration. We then conducted online searches (Google Scholar, peer-reviewed journals, and so forth) using keywords (“gender,” “migration,” “Asia,” “marriage migration,” “remittances,” and so forth) as well as publication searches of organizations, such as the World Bank, the International Organization for Migration, Gallup, and the United Nations Population Division, that are known to work in this area. Finally, we conducted snowball citation techniques, reviewing papers that were cited in the list of publications generated in the above search process.

We reviewed 126 studies in all, with data from 1980 through the present. We limit our analysis in this paper to 52 studies of the 126 reviewed. Of those 52 studies, 37 are quantitative, and the remaining 15 are qualitative. Our inclusion criteria require that studies (1) discuss gender and migration in Asia; (2) cover countries included in the United Nations definition for Asian regions, excluding Western Asia; (3) use data collected in 2000 or later;<sup>5</sup> (4) include new data and/or a new analysis of existing data (that is, they are not reviews of earlier studies); and (5) if quantitative, have a sample size of at least 100 observations. The 37 quantitative studies form the bulk of our analysis for this section of the paper, but the 15 qualitative studies are used to back up, inform, or provide additional insight into the quantitative findings.

Figure 3.1 displays the geographical breakdown of the 37 quantitative studies included in our analysis. Twelve countries are covered, with the most studies coming from China, India, Bangladesh, and the Philippines. Several countries in Asia are not represented, notably the Central Asian countries, despite their importance as a sending region.

---

<sup>5</sup> An exception was made for those studies that used data collected prior to 2000 if the data collection process continued up to or past 2000.

**Figure 3.1 Map of Asia with breakdown of studies**



Source: Authors.

Notes: Of the 37 quantitative studies we reviewed, 34 are included on the map. Of these 34 studies, 32 cover one country: Rahman (2012); Sharma and Zaman (2013); Fan (2008); Connelly, Roberts, and Zheng (2010); Chen (2013); Mu and van de Walle (2011); Chang, MacPhail, and Dong (2011); Chang, Dong, and MacPhail (2011); de Brauw, Li, Lu, Rozelle, and Zhang (2008); de Brauw, Huang, et al. (2013); Paris et al. (2005); Garikipati (2006, 2008); Nagaraja (2012); Hugo (2005); Rahman and Fee (2009); Lokshin and Glinskaya (2009); Semyonov and Gorodzeisky (2005); Cabegin (2006); Asis (2005); Shaw (2010); Resurreccion and Khanh (2007); Belanger and Tran (2011); Niimi and Reilly (2011); Resurreccion (2009); Thieme and Wyss (2005); Bureau of Manpower, Employment, and Training (2014); Maharjan, Bauer, and Knerr (2012); Jayaweera and Dias (2009); Jampaklay, Bryant, and Litwiller (2009); Neetha (2004); and Lam, Yeoh, and Law (2002). Of the 34 studies included on the map, 2 mention more than one country. These are Hugo (2005) and Siddiqui (2008), which mention five and six countries, respectively. All of the countries mentioned are included on the map. The remaining 3 of the 37 studies were not included on the map because they cover multiple countries in Asia or do not mention which Asian country(ies) they include. These 3 studies are Foroutan and McDonald (2008), Badkar et al. (2007); and Ozden et al. (2011).

## Motivation for Migration

Of the 37 quantitative studies, 11 explicitly mention a motivation for migration. Of these studies, 9 state economic reasons as the primary motivator, with 3 studies<sup>6</sup> citing marriage migration (domestic marriage migration in India and China and international marriage migration in Vietnam). In the qualitative literature, an economic reason<sup>7</sup> is cited in the majority of papers that mention a motive for migration. Marriage migration for women is also cited as a motivator in one of the qualitative studies in Pakistan (Aftab 2014). Several of the other studies, while not explicitly stating a motivation for migration, imply that migration is motivated by work by focusing on the careers migrants seek and the disposition of income earned.

<sup>6</sup> One study cites both economic reasons and marriage as motivators for migration, depending on the decade under consideration (Fan 2008).

<sup>7</sup> Economic reasons include one or more of the following: migrating for work opportunities, including due to lack of opportunities and lack of a regular wage in origin area; migrating to support family sustenance; migrating to earn money for asset accumulation (for example, house or land); migrating due to lack of food; migrating to obtain a better education for children; and migrating to pay off debts.

Economic motives emerge as a major reason for migration in the literature review. This pattern seems to hold across different subregions of Asia: China (Fan 2008; Connelly, Roberts, and Zheng 2010), India (Neetha 2004), Nepal (Thieme and Wyss 2005), Sri Lanka (Shaw 2010; Jayaweera and Dias 2009), the Philippines (Semyonov and Gorodzeisky 2005), and Vietnam (Resurreccion and Khanh 2007). While both men and women report migrating for economic reasons in many studies, such as in India (Garikipati 2006, 2008), the Philippines (Semyonov and Gorodzeisky 2005), and Sri Lanka (Shaw 2010; Jayaweera and Dias 2009), this is not always the case. For example, a study in Nepal (Thieme and Wyss 2005) finds that men migrate internationally to get out of debt (economic reasons) as well as for their children's educations, while women migrate primarily to follow their husbands.

Interesting to note, studies conducted in China and India in particular not only reflect gender distinctions in the motives to migrate but also imply an evolution in motives over time. In the 1990 census (Fan 2008), female rural-to-urban migration in China seemed predominantly driven by social norms surrounding marriage. However, by the 2000 census (Fan 2008), women began migrating primarily for economic reasons (65 percent of female migrants were migrating for industry/business). Another study using data from 2000 (Connelly, Roberts, and Zheng 2010) corroborates the finding that economic reasons dominate rural-to-urban female migration. Although male migration continues to be motivated by economic reasons, family migration is becoming more common, with low-income migrants bringing their spouses and children along (Fan 2008).

Studies from India provide a more nuanced view of why women migrate, since conditions depend on context and location. For instance, in Andhra Pradesh, women migrated with their husbands for seasonal or contract work (primarily motivated by economic reasons) (Garikipati 2006, 2008). In a study of domestic workers in Delhi, Neetha (2004) finds that for women who migrate internally, the decision to migrate is often (48.4 percent of the time) taken by their spouse if the women are live-out domestics;<sup>8</sup> this drops to less than 1 percent in the case of live-in domestics, however. In contrast, another study from India (Nagaraja 2012) finds that women migrated primarily for marriage, though the proportions differed greatly between rural and urban<sup>9</sup> areas (90 percent and 60 percent, respectively).

However, we present these findings with a few cautionary notes. First, this review is based on studies that employ different survey designs; some surveys interview the migrants themselves at the migration destination, while others rely on information by proxy (that is, the head of household). Few surveys combine the two, tracking households that have moved within the past year while also collecting information from households about migratory members. Second, there may be differences in the framing of the questions, which affects responses. If response options differ between surveys this could create the illusion of difference. Thus, although economic factors vastly underlie individual moves, inconsistencies in survey instruments and sampling frames prevent the literature from building a consensus on migration patterns.

## **Migrant Characteristics**

Characterizing migrants in terms of their average traits and skills further enhances understanding of the demographic profile of male and female migrants from Asia.<sup>10</sup> Findings on the role of age in migration suggest that in general, people of younger working age (20–35 years) migrate<sup>11</sup> (Rahman 2012; Mu and van de Walle 2011; Thieme and Wyss 2005; Lokshin and Glinskaya 2009), with marriage migrants at the younger end of the spectrum (Belanger and Tran 2011). With respect to gender, evidence points to female

---

<sup>8</sup> According to Neetha (2004), two broad systems of domestic work exist in Delhi: “live-out” domestics are part-time domestic workers who live in their own homes, and “live-in” domestics reside in accommodations provided by their employers.

<sup>9</sup> For urban areas, in addition to moving for marriage (60 percent), the movement of parents and earning members constituted almost 30 percent of the reasons cited for migration.

<sup>10</sup> It is possible that the profile of migrants will also vary by duration of the episode and contractual arrangement. Given the lack of attention to these aspects of migration in the literature reviewed, we abstract away from these details in our summary.

<sup>11</sup> A study in Nepal finds that the average age of male migrants is 31 (Thieme and Wyss 2005). One study in China (Mu and van de Walle 2011) finds that migrants are primarily working-age males. Nepal Living Standards Survey (NLSS) data reveal that almost all (97 percent) Nepali migrants are men, ages 15 to 44, with the majority between 20 and 35 years old (Lokshin and Glinskaya 2009).

migrants being younger than male migrants in the Philippines (Semyonov and Gorodzeisky 2005) and China (Mu and van de Walle 2011; Fan 2003). Regarding human capital and wealth, the literature suggests that male migrants may be more positively selected in human capital and wealth attributes than female migrants. For instance, male migrants are more educated than female migrants in Bangladesh (Rahman 2012), the Philippines (Semyonov and Gorodzeisky 2005), and China (Mu and van de Walle 2011). Regarding economic status, in India, Garikipati (2008) finds that male migrants tend to come from the higher class of self-employed farmers, while female migrants come from the lower, laboring classes. A study in China finds a more nuanced relationship whereby at low income levels, the likelihood of migration increases with wealth, but at moderate income levels, the reverse is true (Mu and van de Walle 2011). Finally, the evidence on marital status and migration is inconclusive. Female migrants are more likely to be single than male migrants in China (Mu and van de Walle 2011; Fan 2003). However, once controlling for age, marital status is not a significant determinant of a woman's likelihood to migrate (Mu and van de Walle 2011). A study by Rahman (2009) also suggests marital status is largely affected by age, finding in a panel study of male migrants that most were unmarried at baseline but had married five years later. In contrast, another study in Bangladesh found that female migrants were more likely to be married than were male migrants, which the author attributes to cultural practice dictating women's ability to migrate (Rahman 2012).

Comparing the characteristics of migrants to characteristics of others from their source location may provide greater insight as it provides information about the selection of migrants and their earning potential outside of their home villages. Evidence regarding age is sparse and inconclusive. In Vietnam, females who migrate internationally for marriage tend to be younger (21 years) than nonmigrants (Belanger and Tran 2011), but another study finds female domestic migrants to be older (30–45) than those who stay behind (Resurreccion and Khanh 2007).<sup>12</sup> The findings on human capital suggest higher levels of education among migrants as compared to nonmigrants. For example, in China male migrants are more educated than male nonmigrants in the agricultural sector; the same comparisons hold true for female migrants (Mu and van de Walle 2011). In addition, relatively better-educated women are more likely to be migrants than women who are less educated (Mu and van de Walle 2011). In Vietnam, the findings also suggest higher levels of education among female migrants as compared to nonmigrants, with one study finding that many female migrants had completed at least a secondary education (Resurreccion and Khanh 2007).

Finally, with respect to wealth, the direction of migrant selection is ambiguous. One study in Nepal (Lokshin and Glinskaya 2009) finds that migrant-sending households are on average smaller, have a higher share of male members, have larger land plots, and have higher nonwage incomes than do nonsending households. In Vietnam, Niimi and Relly (2009) suggest provinces with the highest population densities and low household incomes are found to have the highest rates of migration. However, comparisons of migrants and nonmigrants using cross-sectional data can be flawed because we often do not know whether individuals choose to migrate because of these characteristics or if they have these characteristics because they migrate (de Haan 2000).

The wider literature (that is, studies that are not included in our review, such as Esipova, Pugliese, and Ray 2013) on internal migration supports many of these findings more conclusively, finding that for both developed and developing Asia as a region, individuals with a college education are more than twice as likely as those with a primary education or less to have migrated internally. Moreover, those between 15 and 29 years of age are twice as likely as those older than 50 to have migrated internally. The employment status of internal migrants also differs from those who have not migrated; 46 percent of internal migrants are employed full-time for an employer as compared to 37 percent of those who have not moved in developing Asia; in developed Asia the numbers are 68 percent and 57 percent, respectively (Esipova, Pugliese, and Ray 2013).<sup>13</sup> This suggests that internal migrants tend to be younger and better educated than those left behind and also more likely to be employed.

---

<sup>12</sup> The Belanger and Tran (2011) study focuses on international migrants, while the Resurreccion and Khanh (2007) study focuses on domestic migrants, so the different findings may be attributable to different types of migrants.

<sup>13</sup> Which countries are considered developing and which are developed is not specified.

Another insightful comparison is to examine the characteristics of internal versus international migrants by country, region of origin, or both; however, few studies do this. One noteworthy study in Bangladesh by Sharma and Zaman (2013) finds that international migrants are on average older than domestic migrants, by a difference of about 6 years. However, data on migrants' years of education suggest that an average migrant, whether domestic or international, has attended but did not complete lower secondary school. Sharma and Zaman (2013) also find that both domestic and international migrants are less likely to be married in 2007 as compared to the past 10 years. International migrants are also more likely to be married than domestic migrants. Finally, the duration of migration is longer for international (6.1 years) as compared to domestic (4.6 years) migrants.

### ***Employment***

Given the primacy of economic motives for migration, we review the findings from the 18 of the 37 quantitative studies that mention the types of jobs migrants undertake. These studies cover 12 international migration scenarios and 6 internal migration scenarios. While the studies indicate there is some gender dimension regarding the kinds of jobs female and male migrants do, both primarily engage in unskilled labor. For female migrants, the most frequently mentioned employment category is domestic work, which is mentioned in half of the studies (Hugo 2005; Rahman and Fee 2009; Rahman 2012; Semyonov and Gorodzeisky 2005; Shaw 2010; Siddiqui 2008; Jampaklay, Bryant, and Litwiller 2009; Neetha 2004; Jayaweera and Dias 2009); followed by contract work (Garikipati 2006, 2008; Rahman and Fee 2009; Siddiqui 2008) and informal-sector work (Hugo 2005; Resurreccion 2009; Resurreccion and Khanh 2007). For men, the top job categories include manual and/or unskilled labor, which is cited in more than one-third of the studies (Atamanov and Van den Berg 2011; Rahman 2009; Rahman 2012; Semyonov and Gorodzeisky 2005; Shaw 2010), with manufacturing/industrial work (Atamanov and Van den Berg 2011; Paris et al. 2005; Rahman 2012), white-collar work (Lam, Yeoh, and Law 2002; Paris et al. 2005; Jayaweera and Dias 2009), and contract work (Garikipati 2006, 2008) also being common. Unfortunately, given that most of these studies use migrant samples, it is difficult to make comparisons about which jobs male and female migrants have as compared to nonmigrants.

### ***Remittances***

A recent World Bank press release notes that in 2015 official remittance flows to developing countries are expected to reach \$440 billion, with total global remittance flows, including those to developed countries, reaching \$586 billion (World Bank 2015a). India and China rank first and second in receiving the greatest amount of remittances, on the order of \$55 billion and \$51 billion, respectively (Yang 2011). Other Asian countries include the Philippines (\$21.3 billion), Bangladesh (\$11.1 billion), Vietnam (\$7.2 billion), and Indonesia (\$7.1 billion) (Yang 2011). By proportion of gross domestic product, Tajikistan and Nepal rank first and fifth, respectively, receiving remittances worth 35 percent and 23 percent of their annual gross domestic product (Yang 2011). Other Asian economies with substantial contributions from remittances include the Kyrgyz Republic (15 percent), Bangladesh (12 percent), the Philippines (12 percent), and Sri Lanka (8 percent). Thus, international migrants leave behind their families in exchange for income opportunities that are otherwise scant in their origin localities.

Ultimately, there are three aspects of gender that influence the role remittances may play in agricultural systems. First, men and women have different preferences and different earning profiles, and therefore, as migrants, their willingness and ability to send income varies. Second, the intrahousehold allocation of tasks may assign greater control of the remittance income to women, men, or both. Third, men and women may place different weights on the importance of human and physical capital investments. Thus, how remittance receipts ultimately affect agricultural systems will greatly depend on the sex of the migrant and the sex of the person at the origin household making the decision about how the income is spent. In what follows, we synthesize from the literature how remittance behavior varies by migrant sex but also the role of gender on the investments of remittance income.

One of the challenges faced in the review of the literature is that less than half of the studies provided details on gender and remittance behaviors.<sup>14</sup> The studies that distinguish remittance patterns by migrant gender suggest that the likelihood of remitting is high for both men and women (Paris et al. 2005; Nagaraja 2012; Semyonov and Gorodzeisky 2005; Belanger and Tran 2011; Jayaweera and Dias 2009; Jampaklay, Bryant, and Litwiller 2009; Neetha 2004). For instance, Semyonov and Gorodzeisky (2005) find that more than 95 percent of both male and female migrants from the Philippines remit while abroad. Neetha (2004) observes remittances comprise an average of 72 percent of total household income in India, and if a spouse is abroad the remittances become the primary source of household income in Sri Lanka (Jayaweera and Dias 2009). Only a few studies look at the proportional level of remittances by gender, and the findings are mixed. Women were shown to remit proportionally more than men despite earning lower wages in both Bangladesh (Rahman 2012) and Indonesia (Rahman and Fee 2009). However, men from the Philippines remit proportionally more than women, remitting more than 60 percent of their income as compared to 45 percent for women (Semyonov and Gorodzeisky 2005).

There are several reasons we might expect one sex to remit more than the other. Jobs targeting male migrants potentially generate greater earnings than jobs obtained by migrant women (Semyonov and Gorodzeisky 2005). Women can face wage discrimination, earning only 60 percent of male wages for the same contract in Andhra Pradesh, India (Garikipati 2008).<sup>15</sup> Distinctions in preferences by migrant sex (for example, degree of altruism, risk aversion, precautionary savings) could offer additional explanations for gender-differentiated remittance patterns (Hoddinott 1994; De la Briere et al. 2002; Amuedo-Dorantes and Pozo 2006; Osili 2007; Yang 2011; de Brauw, Mueller, and Woldehanna 2013b). With the exception of De la Briere et al. (2002), few studies are designed to examine these behavioral distinctions by migrant gender. De la Briere et al. (2002) compare the motives to remit of migrant men and women in the Dominican Republic by destination (internal versus international migration). Although both migrant men and women in the United States remit out of self-interest in preserving their right to land inheritance, they also find that migrant women in the United States are more likely to provide transfers to insure their families against a shock at home.

To date, studies indicate that the extent of control migrants have over the end use or the extent to which they are “financially empowered” affects remittance patterns (Chin, Karkoviata, and Wilcox 2010; Ashraf et al. 2011). One study (Chen 2006) using the China Health and Nutrition Study finds evidence of noncooperative behavior by mothers when fathers migrate. However, this noncooperative behavior is fairly harmless; increases in child labor in the household are compensated by increases in children’s caloric intake so that overall child health is maintained. While there are few similar studies conducted on international migrants from Asia and by migrant gender, there is evidence that the sex of the person who controls the remittances within the household can vary. In Vietnam (Belanger and Tran 2007) and in India (Garikipati 2006, 2008) men are found to control more of the incoming money. However, two studies in Bangladesh find that women exercise more control over remittances. These include a quantitative study (Rahman 2012) that finds that 76 percent of female migrants report having control over remittances as compared to 56 percent of male migrants. A qualitative study also by Rahman (2009) finds 78 percent of migrant wives received remittances and 72 percent of left-behind wives have exclusive privileges over remittance use.

Control of the remittance income is important only if we expect men and women to have different opinions about how money should be invested at home. We next summarize whether men and women earmark these funds for different purposes, drawing from surveys taken from the perspective of the migrant and the recipient. Rahman (2012) asks male and female Bangladeshi migrants how they had used

---

<sup>14</sup> See Rahman (2012), Paris et al. (2005), Garikipati (2006, 2008), Nagaraja (2012), Rahman and Fee (2009), Lokshin and Glinkaya (2009), Semyonov and Gorodzeisky (2005), Cabegin (2006), Shaw (2010), Resurreccion and Khanh (2007), Belanger and Tran (2011), Resurreccion (2009), Maharjan et al. (2012), Jayaweera and Dias (2009), Jampaklay, Bryant, and Litwiller (2009), and Neetha (2004).

<sup>15</sup> The amount of remittances may be constrained by living expenses abroad, which limits the amount migrants can remit. A study of primarily male migrants from India by Paris and colleagues (2005) found that less than 50 percent of remittances are sent home for this reason. To maximize remittance potential, male migrants from the same household will often live together and pool their money to send.

remittances in the past and wished to use remittances in the future. The author found that from the perspective of both male and female migrants, receiving households used the remittances for family maintenance, land purchase, and education. Male migrants also often thought remittances were used for home building, while females instead thought they were used for loan repayment. This may be partly due to the fact that a much higher percentage of women than men had to take out loans to finance their migrations. Interesting to note, according to the household surveys, remittances from female migrants are mostly allocated for savings, education, and medical treatment while those from male migrants are primarily used for business and loan repayment. When asked how they would like to use remittances in the future, both males and females emphasized shifting to long-term goals rather than short-term consumption. Females emphasized saving while men emphasized acquiring land. Likewise, in India, Garikipati (2006) notes that male migrants use a quarter of their incomes to buy or improve agricultural land.

When examining remittance investments by sex of the recipient, we witness investment patterns similar to those discussed above. Garikipati (2006, 2008) finds that women tend to spend remittance income on household maintenance and miscellaneous expenses while men tend to spend it on the purchase of land and other assets as well as personal spending. In Indonesia, Rahman and Fee (2009) ask both male and female recipients of remittances from international female migrants how remittances are used. They find some evidence to support the idea that female recipients tend to use the money sent to invest in human capital (for example, family maintenance, education, health, quality of life) while male recipients use money sent to invest in physical capital (for example, savings, loans, purchasing assets, investments in businesses). In Vietnam, Resurreccion and Khanh (2007) find that remittances brought home by women are used to pay for, in order of importance, food, farm inputs, household-related expenditures, and children's education. One qualitative study in the Philippines (Lukasiewicz 2011) asked wives of migrant husbands about remittance use and found that remittances sent home by husbands are used to purchase land, though this is a decision that is resisted by women, for whom more land results in a greater workload. Taken together these findings suggest that in places where women in migrant households have greater decisionmaking power (because they are the migrants themselves or are responsible for spending the remittance income), we might expect investments in human capital to take precedence over agricultural investments.

## 4. GAINS AND LOSSES

The seminal work of Harris and Todaro (1970) theoretically modeled the draw of rural workers to urban employment. Migrant workers are attracted to urban areas based on the increased probability of employment and the expected rural-urban wage differentials. The Harris-Todaro conceptual framework underlies empirical studies of the determinants of migration in developed countries (Borjas 1987; Chiquiar and Hanson 2005; Grogger and Hanson 2011; Kaestner and Malamud 2014). However, despite casting expected wage differentials as the fundamental driver of migration, studies that rigorously measure the direct income (or welfare) gains realized by the migrant from moving out of his rural area for employment are rare (McKenzie, Gibson, and Stillman 2010; Beegle, De Weerd, and Dercon 2011; de Brauw, Mueller, and Woldehanna 2013a).

The New Economics of Labor Migration literature has since broadened the Harris-Todaro framework to reflect the realities in developing countries such as the cohesiveness of families and their liquidity constraints (Stark and Bloom 1985; Stark 1991). Under these circumstances, the decision to move is relinquished from the individual to the collective household, where members are spatially allocated to diversify household income risk (Stark and Lucas 1988; Azam and Gubert 2006). These arrangements involve an implicit contract between the household and the migrants. The household is responsible for financing the move and providing income during periods of unemployment. In exchange, the migrant relieves the household liquidity constraint through the provision of remittances. Earlier work focused on short-term contracts and seasonal migration (Stark and Lucas 1988). Long-term contractual arrangements may also arise if migrants are motivated by bequests (Hoddinott 1994; De la Briere et al. 2002; Melkonyan and Grigorian 2012), their own self-insurance (Amuedo-Dorantes and Pozo 2006), and social norms where the young are expected to support their parents after the parents financially supported their children at an earlier stage of their life cycle (Cox, Hansen, and Jimenez 2004). The implication of the New Economics of Labor Migration is that the benefits of migration are likely not limited to the person who moved but also those he or she left behind. In what follows, we discuss how these literatures inspired a growing body of work that aims to measure the benefits of migration and highlight knowledge gaps in the Asian context.

### Increases in Consumption or Investment

McKenzie, Gibson, and Stillman (2010) provide the first evidence in the developing world of the direct income benefits of migration accounting for the positive selection of international migrants. They exploit an experimental setting to estimate the effects of Tongans migrating to New Zealand. Given that the New Zealand government issues a fraction of visas to Tongans each year through a randomized lottery, the authors utilize such random variation in the demand for international migrants as a unique instrument for international migration. They pair the results from the visa lottery with a 2005 survey of migrants who submitted a visa application (those who did and did not win the visa) and individuals who did not apply for the visa lottery (nonmigrants) to estimate the worker's gains to migration. Current earnings in 2005 are compared to 2004 (premigration) earnings collected through retrospective questioning on the survey. Using the lottery as an instrument for migration, the authors find that the returns to international migration within the first year averages 263 percent (or an average increase of \$274).

While there is a paucity of work that measures the direct benefits of relocation in Asia, there is an emerging literature that instead examines the welfare gains to the remaining family members.<sup>16</sup> In the absence of remittance receipts, remaining family members may benefit from the reallocation of resources initially designated to the migrant. de Brauw and Harigaya (2007) find seasonal migration in Vietnam led to improvements in per capita household consumption on the order of five percentage points. Bryan, Chowdhury, and Mobarak (2014) identify the causal welfare impact of having at least one seasonal

---

<sup>16</sup> Aside from finding a strong instrument for migration (such as a randomized visa lottery), the main barrier to performing an analysis similar to that of McKenzie, Gibson, and Stillman (2010) in the Asian context is the lack of longitudinal studies that track migrants and nonmigrants over time. We discuss this issue in more detail in the conclusion.

migrant in Bangladesh by using the random variation introduced by credit and information experiments to induce migration as an instrumental variable for migration. The authors find having at least one seasonal migrant increases household welfare, where consumption per capita, nonfood expenditures, and caloric intake improvements range between 30 and 35 percent. In contrast to the aforementioned positive assessments, Quisumbing and McNiven (2010) find a negative impact of permanent migration on per adult equivalent consumption but a positive welfare impact of remittance receipts.

Recent work evaluates the benefit of migration, remittances, or both on human capital investments at the origin household. Mueller and Shariff (2011) identify a positive association between a household receiving remittances and the schooling attendance of male teens in low-caste households in India. Remittances are also shown to affect human capital in Nepal by reducing dropout and increasing enrollment rates (Acharya and Leon-Gonzalez 2014). Yang (2008b) finds remittances further lead to a decline in child labor and a rise in schooling expenditures in the Philippines.

Linkages between migration and physical capital investments have been primarily documented in the Philippines. Quisumbing and McNiven (2010) show investments in consumer durables, nonland assets, and housing accrue with remittance receipts in the same country. Other studies additionally demonstrate the receipt of remittances promote riskier yet higher return agricultural practices (Gonzalez-Velosa 2011) and other capital-intensive investments (Yang 2008b). These investment patterns in conjunction with evidence on migrants' ability to self-insure against consumption variability (Yang and Choi 2007) suggest migrant households may also be less vulnerable to risk.

Publications that relate migration to improvements in the nutrition and health of children left behind are quite limited to countries outside of Asia (Hildebrandt and McKenzie 2005; Azzarri and Zezza 2011; Carletto, Covarrubias, and Maluccio 2011; de Brauw 2011). Mansuri (2006) found a positive correlation between the household having a temporary migrant and girls' height-for-age scores in Pakistan. Alternatively, de Brauw and Mu (2011) found the weight of older children in China was vulnerable to having a migrant parent owing to increased responsibilities for domestic chores in the household. One reasoning for the paucity of work in this area is that few available surveys collect anthropometric measures or auxiliary measures of child health that are required for the analysis.

A number of empirical concerns arise in measuring the welfare impacts of migration in Asia. The first obvious concern is that the majority of migration studies rely on the use of instrumental variables to identify the migration effects, which has implications on the interpretation of the findings. Even though studies use sufficiently strong instruments that satisfy the exclusion restriction, the estimated local average treatment effect will vary with the experimental design (Angrist and Pischke 2009). Here, increasing the representation of migration research in Asia can hopefully help build a consensus on the migration gains and losses even in the context of varying experimental designs.

The second issue is that studies focus on either the direct monetary effects of migration or remittances, without considering their simultaneous consequences on welfare. When focusing on the migration impact, it is unclear whether the channel of welfare improvements stems from the increase in the availability of resources to household members or the additional income gains from remittances. Yang (2008b) and Quisumbing and McNiven (2010) suggest, at least for the case of the Philippines, that it may be the latter.

While the absence of the migrant can lead to an increase in resources available to those members left behind, it also can compromise household production, which (in the absence of remittances) would explain a negative migration impact. Scant attention has been designated to measure the opportunity costs of labor migration, with a few exceptional studies. Thus far, migration has proven to negatively affect production in China (Rozelle, Taylor, and de Brauw 1999), while more recent estimates suggest no effect (Wang et al. 2014).

Last, migration studies simplify analysis by estimating the impact of having at least one migrant household member. However, which household member migrates may affect the welfare of those left behind, and its implications may differ by household member. Until now, the literature has addressed the welfare implications of migration on various household members mainly through examining changes in the intrahousehold allocation of labor (Mu and van de Walle 2011) and child nutrition (de Brauw and Mu 2011) in China. Since most standardized surveys collect employment measures at the individual level,

existing surveys in other Asian countries could be used to explore the effect of member-specific migration on the employment of members left behind.

## **Changes in Gender Roles and Their Consequences**

The absence of a household member owing to migration has the potential to change gender roles, depending on the sex of the migrant, the duration of absence, and the adjustments that origin households make in the absence of the migrant. Existing evidence, much of which is based on studies in China, analyzes shifts in labor patterns, shifts in decisionmaking, or a combination of both in the absence of a migrating family member. Reflecting the relative dominance of male migration, most often the discussion is around the impacts on females when males migrate, but a few studies discuss the impacts when females migrate.

One of the most often discussed questions on the consequences of mainly male migration patterns in China is whether agriculture—long considered a male domain—is feminizing. The issue of feminization is difficult to address because of the many definitions of feminization that abound—whether it means an increase in the number and proportion of women working agriculture per se, whether it implies an increase in the number of hours worked by women in agriculture, or whether it signals an increased decisionmaking role by women in agriculture. de Brauw et al. (2008), using different datasets and different measures of female participation in agriculture, find that there has been a feminization of neither labor nor management in Chinese agriculture. Although women are taking on a large part of on-farm work, they have increasingly larger roles in off-farm work as well. They are putting in no more than half the agricultural labor, are not increasing their share of labor, and even if their share in management is growing, it is still minor. Even if agriculture is not becoming female dominated, as might be suggested by the literature on feminization, migration may still have an impact on gender roles. Other studies (some by the same authors) find that women and children in Chinese migrant households work harder on the farm (Chang, Dong, and MacPhail 2011; Mu and van de Walle 2011) and at home (de Brauw and Mu 2011). Mu and van de Walle (2011), for example, find that for women left behind in migrant households the probability of working on a farm is 6 percent higher, and they work close to three more hours per week in agriculture and three hours less per week in off-farm activities. However, this increase in hours worked on the farm does not seem to translate to an increase in responsibilities; women left behind are not more likely to hold primary responsibility for farm, fish, or livestock activities as a result of living in a migrant household.

Qualitative work from several countries also supports the theory that women adopt a greater workload when men migrate. In Bangladesh, both Rahman (2009) and Debnath and Selim (2009) find that when men migrate, women tend to take over their duties, thus increasing their workload. Some women resort to hiring tenants or laborers from outside the household to take over farm duties when their husbands migrate (Lukasiewicz 2011). Debnath and Selim (2009) note that the amount of additional work a wife takes on depends on whether she lives with her in-laws. They also note that the wife often becomes the de facto head of household in her husband's absence, though this depends on whether she is the recipient of the husband's remittances. If, instead, the woman's in-laws receive the remittances, the woman's status does not improve and may actually worsen. Finally, in cases where women do receive remittances and take over household decisionmaking, this is only a temporary change, which is reversed when the husband returns. However, the more educated a woman was, the more her decisionmaking authority increased in her husband's absence, a change that was often sustained on his return.

Studies generally focus on countries where out-migration was predominantly male; thus, our review did not find many studies in settings where women were the main migrants and males were the ones who were left behind. However, one study in China by Connelly, Roberts, and Zheng (2010) finds that female migration has a statistically significant and lasting impact on women's status in the household<sup>17</sup> when she returns, both positively and negatively. For instance, women's migration is strongly

---

<sup>17</sup> Women's status in the household is divided into four categories: "women's views on male/female relationships, women's roles in household decision making, women's relationships with their husbands, and women's views on children and parents" (Connelly, Roberts, and Zheng 2010, pg. 6).

related to lower rates of domestic violence and to beliefs in having greater agency about whom they marry and that divorce is an acceptable outcome. Conversely, women's migration has a negative impact on their ability to make household decisions.

The differential impact of female versus male out-migration does serve to illustrate the gendered consequences of these similarly gendered migration decisions. For example, Resurreccion and Khanh (2007) find that in Vietnamese families where the wife migrates, the majority of tasks that she used to undertake now fall to her husband, with some tasks falling to grandparents. Interesting to note, a study by Jayaweera and Dias (2009) in Sri Lanka finds that in families where males migrate, women's workloads increase, but in families where females migrate, men's workloads do not increase. Instead, tasks that females perform are reallocated to other females in the household when they migrate. One qualitative piece (Gamburd 2008) studied female migrants from Sri Lanka and found that when mothers migrate, there is some evidence that children's education decreases, marriage patterns shift, and paternal alcohol consumption increases, though it is hard to identify causality. Another qualitative paper from the Philippines (Go 2009) also found interesting impacts on children when mothers, fathers, or both migrate; compared to children without an overseas migrant worker parent. Children of at least one overseas migrant parent are more likely to go to private school, do better in school (as measured by the proportion not having to repeat a grade), have more regular attendance, and have broader life ambitions that focus on self-fulfillment in addition to having a good living standard. In addition, this study found that when the mother migrates, the proportion of grandparents or other relatives that care for the child is much greater than when the father migrates, in which case the mother assumes full support for the child. This suggests that child care is still very much considered to be a maternal responsibility, with maternal relatives substituting for a mother's time when she migrates.

The impacts of migration on labor may also extend to off-farm labor. For example, Lokshin and Glinskaya (2009) find that female labor market participation declines 5.3 percentage points in Nepali households with migrant household members. The effect is more pronounced for prime age (25–35) and skilled women (11 or more years of education). It remains unclear whether the reduction in female labor participation rates are in response to the remittance gains from migration or the migrant's departure, which would imply a smaller pool of available labor at home. The former channel would suppress the necessity for women to seek employment, while the latter would reduce available family labor, causing women to increase their involvement in household production activities. Work in Sri Lanka by Shaw (2010) also finds that some women report scaling back business activities in the absence of their husbands because of difficulties. These difficulties were primarily attributable to social norms that limit their mobility and ability to interact with men outside the family, including inability to enforce contracts, recover debts, or conduct business without a male family member.

Other literature seems to point to shifts in decisionmaking on the farm that accompany an increase in workload as a result of male migration. For example, Paris and colleagues (2005) find that in India, as men migrate, women generally have to take over many of the male tasks, and their decisionmaking also increases. A study in two districts of Nepal that have high levels of migration (Maharjan, Bauer, and Knerr 2012) finds something similar: women in migrant households have higher levels of decisionmaking power than women in nonmigrant households.

Of course, one must not underestimate the impact of migration on the migrant. One study on marriage migration of females in Vietnam (Belanger and Tran 2011) finds that being a marriage migrant and sending remittances home to family members has actually increased the status of those daughters and in one-third of cases has increased their role in family decisionmaking. Somewhat similarly, a study in India (Neetha 2004) finds that women domestics experience an increase in their household decisionmaking abilities (including their ability to choose when and who to marry) due to the family's economic dependence on these women. All in all, the few studies in this area suggest that migration has the potential to change gender roles in sending households as well as the status of migrants themselves. Yet it remains a relatively under-researched area relative to topics such as decisions to migrate and even the costs and benefits of migration.

## 5. CONCLUSIONS, POLICY IMPLICATIONS, AND AREAS FOR FUTURE RESEARCH

Evidence from the qualitative literature in Asia challenges the traditional narrative of male migrants as breadwinners. Evolving traditions and globalization attract Asian women into the workforce. The paucity of quantitative studies undermines these trends by focusing on the contribution of male migrants. While female migrants are typically subject to lower earning profiles, some studies indicate the share of their remittances can be greater and they are more likely to remit to insure their families against income variability. Furthermore, the remittances of women can be geared toward precautionary savings and items that benefit the welfare of remaining household members (such as education and health).

Even if men dominate employment migration, qualitative studies suggest women who are left behind to manage the household may have an increasing role in the nature of how remittances are invested. Thus far, the quantitative literature has focused on measuring the effect of migration on women's time spent on agricultural tasks. Observed increases in domestic and farm workload are not necessarily indicative of a feminization of agriculture, but data limitations have facilitated analysis on this particular dimension. Insights from the qualitative literature suggest migration can increase women's agency to invest on behalf of the household. What remains unclear is whether women as migrant breadwinners and/or decisionmakers of how income is spent will lead toward investments that favor agricultural productivity.

To date, existing designs of nationally representative surveys pose challenges to deciphering how gendered migration patterns influence agricultural investments. We focus on three aspects of survey design that are partially responsible for the knowledge gaps in the literature: the lack of (1) detailed questions on various forms of migration, (2) detailed questions on transfer activities, and (3) nationally representative longitudinal surveys.

Our representation of the evolution of male and female migration flows thus far has been heavily skewed toward international migration patterns. In fact, short of acquiring several rounds of census surveys or Labor Force Surveys in each country, it becomes quite difficult to provide a nationally representative description of the internal migration patterns of men and women over time. Most census surveys and Labor Force Surveys in developing countries will fail to capture the international migration patterns of their citizens because they will ask only current inhabitants from where they moved. Thus, we are unable to compare the scale and relative importance of internal and international migration patterns in general, yet alone for men and women.

As we learned in conducting this review, the international migration bias manifests itself in the impact evaluation literature as well. One obvious reason to provide a mandate for adding a few detailed migration questions in nationally representative household surveys (such as the Household, Income, and Expenditure surveys or the Demographic Health Surveys) would be to compare the various migration patterns by gender and examine their welfare impacts systematically on a global scale. Understanding how the internal migration of household members affects welfare is particularly important as this form of mobility is likely more accessible to the poor given the fewer financial and linguistic barriers involved in travelling shorter distances. Moreover, the characteristics of the migrants and their position in the household appear to matter in terms of the benefits realized by those left behind.

A second issue relates to the collection of remittance information on available household surveys. While some nationally representative household surveys incorporate a category for declaring remittance information, we often are unable to link the income to a particular source, such as an individual household member. The discrepancies in how migration and remittances are reported (one at the individual level and the other at the household level) render differentiating the effects of gendered migration and remittance behavior on household welfare difficult. We are unable to evaluate how gendered patterns of migration translate into auxiliary income to the household.

The final plea is to find ways to support the collection of nationally representative longitudinal surveys (like the Indonesian Family Life Survey) to study the dynamics of migration and its impacts on agriculture. The main reason for recording behavior over time is to abstract from identifying migration, remittance, and agricultural investment relationships that are sensitive to the timing of the survey interview. Consider the case where we collect data from a snapshot of household behavior in an extreme flood year. We might observe migration is negatively correlated with agricultural productivity because those who migrate are also more vulnerable to the flood. We could in theory use an instrumental variables approach to try to account for the selection bias, but by failing to include adequate controls we are jeopardizing the possibility of satisfying the exclusion restriction needed to identify the effect. Without monitoring this behavior over time, we are unable to make generalizations about these relationships. Even by adding panel datasets to the spectrum of resources to study gendered migration dynamics, we will always face the perils of finding adequate instruments for migration and remittances and the external validity of these measures. By increasing the resources designated to researching this topic in Asia, a body of literature can be established to determine whether estimates converge in one general direction to inform policy.

## REFERENCES

- Acharya, C., and R. Leon-Gonzalez. 2014. "How Do Migration and Remittances Affect Human Capital Investment? The Effects of Relaxing Information and Liquidity Constraints." *Journal of Development Studies* 50 (3): 444–460.
- Aftab, S. 2014. "Pakistan Rural Household Tracking Study—Qualitative Component." Unpublished consultancy report for the International Food Policy Research Institute. Islamabad, Pakistan.
- Amuedo-Dorantes, C., and S. Pozo. 2006. "Remittances as Insurance: Evidence from Mexican Immigrants." *Journal of Population Economics* 19: 227–254.
- Angrist, J., and J. S. Pischke. 2009. *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton, NJ, US: Princeton University Press.
- Ashraf, N., D. Aycinena, C. Martinez, and D. Yang. 2011. *Remittances and the Problem of Control: A Field Experiment among Migrants from El Salvador*. Working Paper SDT 341. Santiago de Chile: University of Chile, Department of Economics.
- Asis, M. M. B. 1995. "Overseas Employment and Social Transformation in Source Communities: Findings from the Philippines." *Asian and Pacific Migration Journal* 4 (2/3): 327–346.
- . 2005. "Caring for the World: Filipino Domestic Workers Gone Global." In *Asian Women as Transnational Domestic Workers*, edited by S. Huang, B. S. A. Yeoh, and N. A. Rahman, 21–53. Singapore: Marshall Cavendish Academic.
- Atamanov, A., and M. Van den Berg. 2011. "Heterogeneous Effects of International Migration and Remittances on Crop Income: Evidence from the Kyrgyz Republic." *World Development* 40 (3): 620–630.
- Azam, J., and F. Gubert. 2006. "Migrants' Remittances and the Household in Africa: A Review of Evidence." *Journal of African Economies* 15 (AERC Supplement 2): 426–462.
- Azzarri, C., and A. Zezza. 2011. "International Migration and Nutritional Outcomes in Tajikistan." *Food Policy* 36 (1): 54–70.
- Badkar, J., P. Callister, V. Krishnan, R. Didham, and R. Bedford. 2007. "Gender, Mobility and Migration into New Zealand: A Case Study of Asian Migration." *Social Policy Journal of New Zealand* 32: 126–154.
- Beegle, K., J. De Weerd, and S. Dercon. 2011. "Migration and Economic Mobility in Tanzania: Evidence from a Tracking Survey." *Review of Economics and Statistics* 93 (3): 1010–1033.
- Belanger, D., and G. L. Tran. 2011. "The Impact of Transnational Migration on Gender and Marriage in Sending Communities of Vietnam." *Current Sociology* 59 (1): 59–77.
- Borjas, G. 1987. "Self-selection and the Earnings of Immigrants." *American Economic Review* 77 (4): 531–553.
- Bryan, G., S. Chowdhury, and A. M. Mobarak. 2014. "Underinvestment in a Profitable Technology: The Case of Seasonal Migration in Bangladesh." *Econometrica* 82 (5): 1671–1748.
- Cabegin, E. C. A. 2006. *The Effect of Filipino Overseas Migration on the Non-migrant Spouse's Market Participation and Labor Supply Behavior*. IZA Discussion Paper No. 2240. Bonn, Germany: Institute for Study of Labor.
- Carletto, C., K. Covarrubias, and J. Maluccio. 2011. "Migration and Child Growth in Rural Guatemala." *Food Policy* 36 (1): 16–27.
- Chang, H., X. Y. Dong, and F. MacPhail. 2011. "Labor Migration and Time Use Patterns of the Left-behind Children and Elderly in Rural China." *World Development* 39 (12): 2199–2210.
- Chang, H., MacPhail, F., and X.Y. Dong. 2011. "The Feminization of Labor and the Time-Use Gender Gap in Rural China." *Feminist Economics* 17(4): 93–124.
- Chen, J. 2013. "Identifying Non-cooperative Behavior among Spouses: Child Outcomes in Migrant-sending Households." *Journal of Development Economics* 100: 1–8.

- Chen, J. 2006. "Migration and Imperfect Monitoring: Implications for Intra-household Allocation." *American Economic Review* 96 (2): 227–231.
- Chin, A., L. Karkoviata, and N. Wilcox. 2010. Impact of Bank Accounts on Migrant Savings and Remittances: Evidence from a Field Experiment. Accessed August 25, 2015. <http://econweb.umd.edu/~davis/eventpapers/ChinImpact.pdf>.
- Chiquiar, D., and G. Hanson. 2005. "International Migration, Self-selection, and the Distribution of Wages: Evidence from Mexico and the United States." *Journal of Political Economy* 113 (2): 239–281.
- Connelly, R., K. Roberts, and Z. Zheng. 2010. "The Impact of Circular Migration on the Position of Married Women in Rural China." *Feminist Economics* 16 (1): 3–41.
- Cox, D., B. Hansen, and E. Jimenez. 2004. "How Responsive Are Private Transfers to Income? Evidence from a Laissez-faire Economy." *Journal of Public Economics* 88: 2193–2219.
- de Brauw, A. 2011. "Migration and Child Development during the Food Price Crisis in El Salvador." *Food Policy* 36 (1): 28–40.
- de Brauw, A., and T. Harigaya. 2007. "Seasonal Migration and Improving Living Standards in Vietnam." *American Journal of Agricultural Economics* 89 (2): 430–447.
- de Brauw, A., J. Huang, L. Zhang, and S. Rozelle. 2013. "The Feminisation of Agriculture with Chinese Characteristics." *Journal of Development Studies* 49 (5): 689–704.
- de Brauw, A., Q. Li, L. Chengfang, S. Rozelle, and L. Zhang. 2008. "Feminization of Agriculture in China? Myths Surrounding Women's Participation in Farming." *China Quarterly* 194: 327–348.
- de Brauw, A., and R. Mu. 2011. "Migration and the Overweight and Underweight Status of Children in Rural China." *Food Policy* 36 (1): 88–100.
- de Brauw, A., V. Mueller, and T. Woldehanna. 2013a. *Does Internal Migration Improve Overall Well-being in Ethiopia?* Ethiopia Strategy Support Program Working Paper 55. Washington, DC: International Food Policy Research Institute.
- . 2013b. "Motives to Remit: Evidence from Tracked Internal Migrants in Ethiopia." *World Development* 50: 13–23.
- de Haan, A. 2000. *Migrants, Livelihoods and Rights: The Relevance of Migration in Development Policies*. Social Development Working Paper No. 4. Accessed August 25, 2015. [www.eldis.org/vfile/upload/1/document/0708/doc7584.pdf](http://www.eldis.org/vfile/upload/1/document/0708/doc7584.pdf).
- De la Briere, B., E. Sadoulet, A. de Janvry, and S. Lambert. 2002. "The Roles of Destination, Gender, and Household Composition for Explaining Remittances: An Analysis for the Dominican Serra." *Journal of Development Economics* 68: 309–328.
- Debnath, P., and N. Selim. 2009. "Impact of Short-term Male Migration on Their Wives Left Behind: A Case Study of Bangladesh." In *Gender and Labour Migration in Asia*, edited by International Organization for Migration (IOM), 121–151. Geneva: IOM.
- Esipova, N., A. Pugliese, and J. Ray. 2013. "The Demographics of Global Internal Migration." *Migration Policy Practice* 3 (2): 3–5.
- Fan, C. 2003. "Rural-urban Migration and Gender Division of Labor in Transitional China." *International Journal of Urban and Regional Research* 27 (1): 24–47.
- . 2008. *China on the Move: Migration, the State, and the Household*. London and New York: Routledge.
- Foroutan, Y., and P. McDonald. 2008. "Asian Migrant Women's Employment Participation: Patterns, Determinants, and Differentials." *Asian Journal of Women's Studies* 14 (2): 109–141.
- Gallup. 2013. *Gallup World Poll, 2012–2013*. Washington, DC.
- Gamburd, M. R. 2008. "Milk Teeth and Jet Planes: Kin Relations in Families of Sri Lanka's Transnational Domestic Servants." *City & Society* 20 (1): 5–31.

- Garikipati, S. 2006. *Feminization of Agricultural Labor and Women's Domestic Status: Evidence from Labor Households in India*. Accessed August 25, 2015. [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=951199](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=951199)
- . 2008. "Agricultural Wage Work, Seasonal Migration and the Widening Gender Gap: Evidence from a Semi-arid Region of Andhra Pradesh." *European Journal of Development Research* 20 (4): 629–648.
- Go, S. 2009. "Working in Italy: The Experience of Filipino Migrants Workers and Their Families." In *Gender and Labour Migration in Asia*, edited by International Organization for Migration (IOM), 153–191. Geneva: IOM.
- Gonzalez-Velosa, G. 2011. "The Effects of Emigration and Remittances on Agriculture: Evidence from the Philippines." Unpublished, University of Maryland, College Park, MD, US.
- Gray, C. L., and V. Mueller. 2012. "Natural Disasters and Population Mobility in Bangladesh." *Proceedings of the National Academy of Sciences* 109 (16): 6000–6005.
- Grogger, J., and G. Hanson. 2011. "Income Maximization and the Selection and Sorting of International Migrants." *Journal of Development Economics* 95: 42–57.
- Gunchinmaa, T., D. Hamdamova, and B. van Koppen. 2011. "Gender in Irrigated Farming: A Case Study in the Zerafshan River Basin, Uzbekistan." *Gender, Technology and Development* 15 (2): 201–222.
- Harris, J., and M. Todaro. 1970. "Migration, Unemployment, and Development: A Two-sector Analysis." *American Economic Review* 60 (1): 126–142.
- Hildebrandt, N., and D. McKenzie. 2005. "The Effects of Migration on Child Health in Mexico." *Economia* 6 (1): 257–289.
- Hoddinott, J. 1994. "A Model of Migration and Remittances Applied to Western Kenya." *Oxford Economic Papers* 46: 459–476.
- Hugo, G. 2005. "Migration in the Asia-Pacific Region." Paper prepared for the Policy Analysis and Research Programme of the Global Commission on International Migration, Stockholm, Sweden.
- IOM (International Organization for Migration). 2004. *International Migration Law: Glossary on Migration*. Geneva.
- . 2013. *World Migration Report 2013. Migrant Well-being and Development*. Geneva.
- . 2014. *Glossary on Migration*. Geneva. Accessed April 10, 2015. [www.iom.int/cms/en/sites/iom/home/about-migration/key-migration-terms-1.html#Migrant](http://www.iom.int/cms/en/sites/iom/home/about-migration/key-migration-terms-1.html#Migrant).
- Jampaklay, A., J. Bryant, and R. Litwiller. 2009. "Gender and Migration from Cambodia, Laos, and Myanmar to Thailand." In *Gender and Labour Migration in Asia*, edited by International Organization for Migration (IOM), 193–216. Geneva: IOM.
- Jayaweera, S., and M. Dias. 2009. "Gender Roles and Support Networks of Spouses of Migrant Workers." In *Gender and Labour Migration in Asia*, edited by International Organization for Migration, 57–59. Geneva: IOM.
- Kaestner, R., and O. Malamud. 2014. "Self-selection and International Migration: New Evidence from Mexico." *Review of Economics and Statistics* 96 (1): 78–91.
- Lam, T., B. S. A. Yeoh, and L. Law. 2002. "Sustaining Families Transnationally: Chinese-Malaysians in Singapore." *Asian and Pacific Migration Journal* 11 (1): 117–143.
- Lokshin, M., and E. Glinskaya. 2009. "The Effect of Male Migration on Employment Patterns of Women in Nepal." *World Bank Economic Review* 23 (3): 481–507.
- Lukasiewicz, A. 2011. "Migration and Gender Identity in the Rural Philippines: Households with Farming Wives and Migrant Husbands." *Critical Asian Studies* 43 (4): 577–593.
- Maharjan, A., S. Bauer, and B. Knerr. 2012. "Do Rural Women Who Stay Behind Benefit from Male Out-migration? A Case Study in the Hills of Nepal." *Gender, Technology and Development* 16 (1): 95–123.

- Mansuri, G. 2006. *Migration, Sex Bias, and Child Growth in Rural Pakistan*. World Bank Policy Research Working Paper Series 3946. Washington, DC: World Bank.
- McKenzie, D., J. Gibson, and S. Stillman. 2010. "How Important Is Selection? Experimental vs. Non-experimental Measures of the Income Gains from Migration." *Journal of the European Economic Association* 8 (4): 913–945.
- Melkonyan, T., and D. Grigorian. 2012. "Microeconomic Implications of Remittances in an Overlapping Generations Model with Altruism and a Motive to Receive Inheritance." *Journal of Development Studies* 48 (8): 1026–1044.
- Mu, R., and D. van de Walle. 2011. "Left Behind to Farm? Women's Labor Re-allocation in Rural China." *Labour Economics* 18:S83–S97.
- Mueller, V., and A. Shariff. 2011. "Preliminary Evidence on Internal Migration, Remittances, and Teen Schooling in India." *Contemporary Economic Policy* 29 (2): 207–217.
- Nagaraja, B. 2012. "Economic Implications of Migration: The Case of Female Migrants in India." *Asia Pacific Journal of Social Sciences* 4 (1): 90–108.
- Neetha, N. 2004. "Making of Female Breadwinners: Migration and Social Networking of Women Domestic in Delhi." *Economic and Political Weekly* 39: 1681–1688.
- Niimi, Y., and B. Reilly. 2011. "Gender Differences in Remittance Behavior: Evidence from Vietnam." *Singapore Economic Review* 56 (2): 215–237.
- Osili, U. O. 2007. "Remittances and Savings from International Migration: Theory and Evidence Using Matched Sample." *Journal of Development Economics* 83:446–465.
- Ozden, C., Parsons, C. R., Schiff, M., Walmsley, T.L. 2011. "Where on Earth is Everybody? The Evolution of Global Bilateral Migration 1960-2000." *The World Bank Economic Review* 25(1): 12–56.
- Paris, T., A. Singh, J. Luis, and M. Hossain. 2005. "Labour Outmigration, Livelihood of Rice Farming Households and Women Left Behind: A Case Study in Eastern Uttar Pradesh." *Economic and Political Weekly*, June 18.
- Quisumbing, A., and S. McNiven. 2010. "Moving Forward, Looking Back: The Impact of Migration and Remittances on Assets, Consumption, and Credit Constraints in the Rural Philippines." *Journal of Development Studies* 46 (1): 91–113.
- Rahman, M. M. 2009. "Temporary Migration and Changing Family Dynamics: Implications for Development." *Population, Space and Place* 1 (5): 161–174.
- . 2012. "Gendering Migration Remittances: Evidence from Bangladesh and the United Arab Emirates." *International Migration* 51 (S1): 159–178.
- Rahman, M. M., and L. K. Fee. 2009. "Gender and the Remittance Process: Indonesian Domestic Workers in Hong Kong, Singapore and Malaysia." *Asian Population Studies* 5 (2): 103–125.
- Resurreccion, B. P. 2009. "Female Migration and Social Reproduction in the Mekong Region." *Asian and Pacific Migration Journal* 18 (1): 101–122.
- Resurreccion, B. P., and H. T. Van Khanh. 2007. "Able to Come and Go: Reproducing Gender in Female Rural-urban Migration in the Red River Delta." *Population, Space and Place* 13:211–224.
- Rigg, J., and A. Salamanca. 2011. "Connecting Lives, Living, and Location: Mobility and Spatial Signatures in Northeast Thailand, 1982–2009." *Critical Asian Studies* 43 (4): 551–575.
- Rosenzweig, M., and H. Binswanger. 1993. "Wealth, Weather Risk and the Composition and Profitability of Agricultural Investments." *Economic Journal* 103 (416): 56–78.
- Rozelle, S., J. E. Taylor, and A. de Brauw. 1999. "Migration, Remittances, and Agricultural Productivity in China." *American Economic Review* 89 (2): 287–291.
- Semyonov, M., and A. Gorodzeisky. 2005. "Labor Migration, Remittances and Household Income: A Comparison between Filipino and Filipina Overseas Workers." *International Migration Review* 39 (1): 45–68.

- Sharma, M., and H. Zaman. 2013. "Who Migrates Overseas and Is It Worth Their While? An Assessment of Household Survey Data from Bangladesh." *Journal of Developing Areas* 47 (1): 281–302.
- Shaw, J. 2010. "From Kuwait to Korea: The Diversification of Sri Lankan Labour Migration." *Journal of the Asia Pacific Economy* 15 (1): 59–70.
- Siddiqui, T. 2008. "Migration and Gender in Asia." Paper presented at the United Nations Expert Group Meeting on International Migration and Development in Asia and the Pacific, Bangkok, Thailand, September 20–21.
- Stark, O. 1991. *The Migration of Labor*. Boston: Basil Blackwell.
- Stark, O., and D. Bloom. 1985. "The New Economics of Labor Migration." *American Economic Review* 75 (2): 173–178.
- Stark, O., and R. Lucas. 1988. "Migration, Remittances and the Family." *Economic Development and Cultural Change* 36 (3): 465–481.
- Thieme, S., and S. Wyss. 2005. "Migration Patterns and Remittance Transfer in Nepal: A Case Study of Sainik Basti in Western Nepal." *International Migration* 43 (5): 59–98.
- United Nations, Department of Economic and Social Affairs. 2013. *Trends in International Migrant Stock: Migrants by Age and Sex*. United Nations database, POP/DB/MIG/Stock/Rev.2013. New York.
- United Nations Statistics Division. 2005. *Demographic Yearbook*. Accessed January 20, 2015. <http://unstats.un.org/unsd/demographic/products/dyb/dyb2005.htm>.
- . 2013. *Composition of Macro Geographical (Continental) Regions, Geographical Sub-regions, and Selected Economic and Other Groupings*. Accessed May 15, 2015. <http://unstats.un.org/unsd/methods/m49/m49regin.htm#asia>.
- Wang, C., N. Rada, L. Qin, and S. Pan. 2014. "Impacts of Migration on Household Production Choices: Evidence from China." *Journal of Development Studies* 50 (3): 413–425.
- World Bank. 2015a. "Remittances Growth to Slow Sharply in 2015, as Europe and Russia Stay Weak; Pick up Expected Next Year." Press release April 13. Accessed May 6, 2015. [www.worldbank.org/en/news/press-release/2015/04/13/remittances-growth-to-slow-sharply-in-2015-as-europe-and-russia-stay-weak-pick-up-expected-next-year](http://www.worldbank.org/en/news/press-release/2015/04/13/remittances-growth-to-slow-sharply-in-2015-as-europe-and-russia-stay-weak-pick-up-expected-next-year).
- . 2015b. *World Development Indicators*. Accessed May 15, 2015. <http://data.worldbank.org/indicator/SM.POP.TOTL.ZS>.
- Yang, D. 2008a. "Coping with Disaster: The Impact of Hurricanes on International Financial Flows, 1970–2002." *B.E. Journal of Economic Analysis and Policy* 8 (1): Article 13.
- . 2008b. "International Migration, Remittances and Household Investment: Evidence from Philippine Migrants' Exchange Rate Shocks." *Economic Journal* 118 (528): 591–630.
- . 2011. "Migrant Remittances." *Journal of Economic Perspectives* 25 (3): 129–152.
- Yang, D., and H. Choi. 2007. "Are Remittances Insurance? Evidence from Rainfall Shocks in the Philippines." *World Bank Economic Review* 21 (2): 219–248.
- Zeza, A., C. Carletto, B. Davis, and P. Winters. 2011. "Assessing the Impact of Migration on Food and Nutrition Security." *Food Policy* 36 (1): 1–6.







## RECENT IFPRI DISCUSSION PAPERS

For earlier discussion papers, please go to [www.ifpri.org/pubs/pubs.htm#dp](http://www.ifpri.org/pubs/pubs.htm#dp).  
All discussion papers can be downloaded free of charge.

1457. *Los efectos de la roya en las economías Centroamericanas*. Valeria Piñeiro, Samuel Morley, and Pablo Elverdin, 2015.
1456. *Agriculture, gendered time use, and nutritional outcomes: A systematic review*. Deborah Johnston, Sara Stevano, Hazel Malapit, Elizabeth Hull, and Suneetha Kadiyala, 2015.
1455. *Public benefits of private technology adoption: The localized spatial externalities of water conservation in eastern Uttar Pradesh*. Anil K. Bhargava, Travis J. Lybbert, and David J. Spielman, 2015.
1454. *Supply-side dynamics of chickpeas and pigeon peas in India*. Kalimuthu Inbasekar, Devesh Roy, and P. K. Joshi, 2015.
1453. *Measuring women's decisionmaking: Indicator choice and survey design experiments from cash and food transfer evaluations in Ecuador, Uganda, and Yemen*. Amber Peterman, Benjamin Schwab, Shalini Roy, Melissa Hidrobo, and Daniel Gilligan, 2015.
1452. *The potential of farm-level technologies and practices to contribute to reducing consumer exposure to aflatoxins: A theory of change analysis*. Nancy Johnson, Christine Atherstone, and Delia Grace, 2015.
1451. *How will training traders contribute to improved food safety in informal markets for meat and milk? A theory of change analysis*. Nancy Johnson, John Mayne, Delia Grace, and Amanda Wyatt, 2015.
1450. *Communication and coordination: Experimental evidence from farmer groups in Senegal*. Fo Kodjo Dzinyefa Aflagah, Tanguy Bernard, and Angelino Viceisza, 2015.
1449. *The impact of household health shocks on female time allocation and agricultural labor participation in rural Pakistan*. Gissele Gajate-Garrido, 2015.
1448. *The biophysical potential for urea deep placement technology in lowland rice production systems of Ghana and Senegal*. Cindy Cox, Ho-Young Kwon, and Jawoo Koo, 2015.
1447. *The Impact of investment in agricultural research and development and agricultural productivity*. Nicostrato D. Perez and Mark W. Rosegrant, 2015.
1446. *Agricultural diversification and poverty in India*. Pratap S. Birthal, Devesh Roy, and Digvijay S. Negi, 2015.
1445. *Peer effects in the valuation of attributes and practices for food safety: Findings from the study of dairy consumers in India*. Raj Chandra, Abdul Munasib, Devesh Roy, and Vinay Kumar Sonkar, 2015.
1444. *The Bali Agreement: An assessment from the perspective of developing countries*. Eugenio Diaz-Bonilla and David Laborde, 2015.
1443. *Rural and agricultural mechanization: A history of the spread of small engines in selected Asian countries*. Stephen Biggs and Scott Justice, 2015.
1442. *Investigating public financial accounts and coding system in Malawi and measuring agricultural expenditures within the system*. Chance Mwabutwa, 2015.
1441. *The effects of political competition on rural land: Evidence from Pakistan*. Katrina Kosec, Hamza Haider, David J. Spielman, and Fatima Zaidi, 2015.
1440. *Heterogeneous preferences and the effects of incentives in promoting conservation agriculture in Malawi*. Patrick S. Ward, Andrew R. Bell, Gregory M. Parkhurst, Klaus Droppelmann, Lawrence Mapemba, 2015.
1439. *The cooling effect of pulse imports on price: The case of pigeon pea in India*. Akanksha Negi and Devesh Roy, 2015.
1438. *Financial constraints and international trade with endogenous mode of competition*. Antoine Bouët and Anne-Gaël Vaubourg, 2015.
1437. *Understanding men's and women's access to and control of assets and the implications for agricultural development projects: A case study in rice-farming households in Eastern Uttar Pradesh, India*. Thelma Paris, Valerien Pede, Joyce Luis, Raman Sharma, Abha Singh, Jeffrey Stipular, and Donald Villanueva, 2015.
1436. *Gender, assets, and agricultural development: Lessons from eight projects*. Nancy L. Johnson, Chiara Kovarik, Ruth Meinzen-Dick, Jemimah Njuki, and Agnes Quisumbing, 2015.

**INTERNATIONAL FOOD POLICY  
RESEARCH INSTITUTE**

**[www.ifpri.org](http://www.ifpri.org)**

**IFPRI HEADQUARTERS**

2033 K Street, NW  
Washington, DC 20006-1002 USA  
Tel.: +1-202-862-5600  
Fax: +1-202-467-4439  
Email: [ifpri@cgiar.org](mailto:ifpri@cgiar.org)