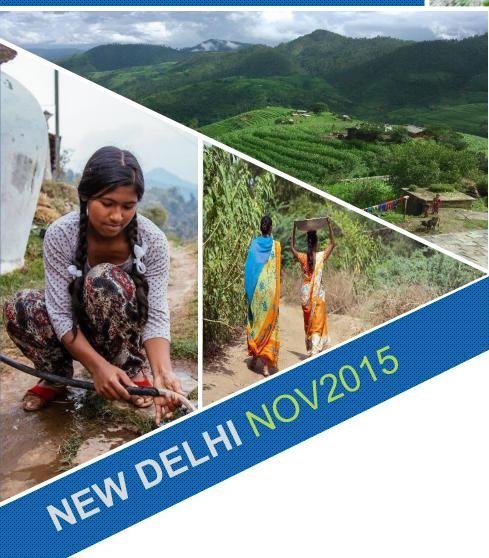
OUT-MIGRATION WORKSHOP REPORT





International
Water Management
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INTRODUCTION

This report encompasses the findings and discussions that occurred at the Regional Conference on Male Outmigration and Feminization of Agriculture in New Delhi, India from 26-27th November 2015. The conference was organized by the CGIAR Research Program on Water, Land and Ecosystems (WLE), and was attended by experts and senior officials from Sri Lanka, China, Nepal, Bangladesh, and India.

The workshop was timely, as in today's world nearly one billion people are on the move, and the impact on rural economies is unprecedented. According to the FAO, there are an estimated 214 million international and 740 million internal labor migrants worldwide. Asia is at the forefront of this transformation as urbanization and industrial development are increasing the capacity for its cities to absorb the vast surplus labor of the countryside. Added to this are the cultural changes wrought by globalization, which is both raising the demand for cash and changing the aspirations of young people.

Alan Nicol, a researcher from the International Water Management Institute (IWMI), made it clear that there is no single definitive picture of migration. Too often, the move away from the homeland is not made freely. Termed "distress migration", it is on the rise in recent decades as rising costs of rural living combined with climate stress and other ecological pressures are making agricultural based livelihoods decreasingly feasible.

Despite the exponential increase in migration, agriculture often remains critical for household members who stay behind, although production may be more challenging than ever before. As a panel of experts, including Professor Diwakar from AN Sinha Institute, reminded participants, restoring and protecting a sustainable "life on the land" is a UN Sustainable Development Goal. Often, though, it is part of a dual livelihood strategy, with the small farm income paired with remittances from migrated family members. For a multitude of reasons related to the informal nature of migratory work, these remittances may be

sporadic, and the rising price of events such as weddings can divert remittances away from farm-related uses. Additionally, Community Based Organizations (CBOs) are common throughout the studied regions to manage the limited natural resources such as communal irrigation systems, but they have suffered due to the failure to create spaces for women to replace out-migrated men.

Simrat Labana of the Australian Centre for International Agricultural Research (ACIAR), noted that with many more men than women migrating, shifts in farm responsibilities are as frequent as they are unavoidable. Recent research has documented the negative impacts on gender relations when men migrate. There is usually an increased workload for women, who pick up the slack left behind by the farm's labor shortage. Compounding this inequity is the fact that women may not be able to access remittance money, government services, or the social networks of which their husbands were a part. On the flip side, positive outcomes exist too, such as increased empowerment and entrepreneurial opportunities for women.



COUNTRY CASE STUDIES

Sri Lanka

In Sri Lanka, child labor participation in both agriculture and domestic sectors is increasing as adults and elders move away from the rice paddies that have long-sustained their families. IWMI researcher Sanjiv de Silva's studies show that rice farming provides families with low economic returns, increasing the draw of blue and white collar jobs in factories, shops, and supermarkets in urban areas. These migrants are typically male, as females may have a more difficult time finding such employment.

Dr. Wijaya Jayatilaka of Peradeniya University noted that remittances account for 65% of total income in the country. Mr. SM Premasiri from Sri Lanka's Department of Irrigation noted how they are attempting to curb the flow of farmers leaving their land by offering free water, free repair and maintenance of irrigation systems, and training programs on fertilization and crop maximization. The Department acknowledges that improved water management through such initiatives is probably the best way to improve the livelihood of farmers and reduce 'distress' migration.

China

Migration in China started prominently in the 1990s with people migrating to coastal cities from inland villages. In 2014, the National Bureau of Statistics noted that the number of migrants had reached a staggering 270 million, with the majority on the younger side (59% within an age range of 16-45). It is common for young couples work or study in cities and send remittances back to their parents, who often also take on the childcare burden.

Professor Chen Fengbo from South China Agricultural University noted that unlike other Asian countries studied, the proportion of male to female migrants is almost even, with only a slightly greater representation of males. 89% of households interviewed felt that migration had improved their family's fortunes, even though only 57% of households receive remittances.

The positive gains that have come from migration are likely due to the fact that technology and agricultural mechanization have successfully filled much of the gap left behind by emigrating laborers. Rather than fallow fields, a double season of rice is more common as zero tillage and direct seeding approaches have become widespread, which require reduced labour.

In addition to changing farming strategies, equipment service providers have become popular and revolutionized the ability for farmers to increase productivity with fewer workers. These service providers rent rather than sell equipment, reducing the need for large amounts of capital to increase crop production. Agricultural wages have doubled as migration has increased, though about half of households believe that a labor shortage still exists. It is not clear, though, if migration is directly responsible for the labor shortage. Young people may not have had an interest in agriculture had they not migrated, as farm jobs remain the domain of the older population.



Nepal

Emigration is not new in Nepal, having started in the 19th century for recruitment into the British army. The Foreign employment act in 1985 coupled with economic liberalization pursued by the government in the early 1990s encouraged out-migration, particularly to the Middle East. 90% of migrants are male, leaving an incredible deficit of men in rural areas.

Currently, many of those men are working in the Gulf states. The construction sector is a major employer and many Nepalese labourers are involved in building facilities for the 2022 FIFA World Cup in Qatar. Projects such as these have resulted in many human rights violations and a shocking number of deaths- with nearly one Nepali worker dying every other day while working on the World Cup project.¹

Lastly, this emigration may not be helping those at home. While some districts of Nepal (Syangja) have been able to cope with emigration through hired labor, others (Baitadi) demonstrate stark differences between families with migrated members and those without. Non-migrant families tend to have both more livestock and higher crop output.

¹ BBC. http://www.bbc.com/news/magazine-33019838

Despite these negative impacts of emigration, clear benefits have also emerged in Nepal. Some have returned from overseas with knowledge of new irrigation technologies and methods. In the Terai region, income from remittance has improved farmers' ability to bargain with landlords over certain farm inputs like fertilizer.

Bandita Sijapati, of the Centre for the Study of Labour and Mobility at the Social Science Baha in Nepal, told the unexpected story of how even seemingly unproductive purchases made with remittance income, such as jewelry, were sold for emergency sustenance after the devastating 2015 earthquake.

Nepal's newly ratified Agriculture Development Strategy hopes to turn the high ratio of women left on farmland into a unique opportunity for female empowerment.

Ms. Sijapati noted an ambitious 20-year goal of having 50% of farmland under either single or joint ownership of a woman. This is a step in the right direction in helping women access better government services and potentially even social networks that have historically been reserved for men.

Bangladesh

As one of the most population-dense countries in the world, migration in Bangladesh is compulsory for many, as Sufia Nurani of World Fish Bangladesh explained. A high frequency of natural calamities has further increased the emigration rate.

In India alone, 3.2 million Bangladeshi citizens reside as migrant workers. Women left behind on farmland face a massively steep uphill battle in negotiating for credit and land rights, as women typically are unpaid and confined to the home.

The government has taken positive steps in recent years to address migratory issues, rolling out a digitized migration management system and groundwater cards that allow small farmers to pay per use for groundwater pumps. The latter technology is particularly beneficial for rural women who no longer need to negotiate for water with men from informal groundwater markets.

India

India is unique in that it is a country which supplies a large number of migrant workers to the Gulf states and other regions (particularly from better off Southern states) while also receiving significant numbers of migrants from neighboring states such as Nepal and Bangladesh. By far the most notable population movement though is the internal migration of laborers from the poorer eastern states moving to richer southern and western regions of the country. Like many other South Asian countries, those who migrate are largely men (85%), and to understand the drivers of migration it is necessary to look at the agrarian context.

Coupled with rising population, the pressure to improve agricultural productivity in poorer eastern states is huge. Agricultural mechanization faces roadblocks though, as research into its appropriate usage in India has been given very low priority by government agencies. Additionally, in states with high levels of sharecropping, which decreases farmer incentives to invest in productivity improvements, landlords show limited interest in spending money to improve the productivity of their fields. While some have pushed for better access to credit for farm-related loans, this will have to occur simultaneously with tenancy reforms, as farmers who do not own their land are unlikely to invest in its improvement.



The second limiting factor to agricultural productivity is water availability. Since the 1990s, the government's budget for irrigation has routinely shrunk. Dr. Govinda Chaudhary of North Bengal University described a new program in West Bengal that shows promise, as the state has decided to protect its multitude of wetlands for sustainable irrigation into the future.

The national government has also introduced a comprehensive Agriculture Irrigation Scheme which includes watershed level analysis of different irrigation methods. Involving the government in water management is preferable to the private model of water distribution that is currently prevalent and creates huge costs for the farmers.

Unfortunately, not all water is equal in India. Dr. Chaudhary reminded the workshop that groundwater often has toxic levels of arsenic, so both surface water and water treatment likely deserve more consideration. A poor agrarian investment climate combined with rising costs of living are likely to make migration an increasingly central component of household livelihoods.

THEMES FROM WORKSHOP DISCUSSIONS

How is migration changing water usage and management? What policies can be pursued to solve these issues?

While the cycle of distress migration may seem unbreakable, research across the countries suggested that water management has tremendous potential to improve the ability of rural farmers to provide for their families. Without reforms, many water issues may become exacerbated as emigration continues, disrupting local water management institutions.

Implementation and maintenance of irrigation infrastructure lags in many regions facing labor shortages, as CBOs and water user groups are

weakened. Without community investments in surface water infrastructure like canals, groundwater wells become increasingly necessary. Purchasing equipment to access groundwater is more difficult for women-headed households as they have less access to capital.

With proper intervention from NGOs and governments, migration can drive vast improvements in irrigation technology, as we have seen in countries like Sri Lanka, India, and Bangladesh. The Sri Lanka Department of Irrigation offers free water, irrigation maintenance, and a variety of training programs to farmers, all while encouraging farmers to comment on the effectiveness of these subsidy programs. In West Bengal, India, wetlands (a source of surface water) are being protected for long-term irrigation access.

In order to combat the high cost of entry into the groundwater market, the government of Bangladesh has created Water User Associations that install groundwater pumps and then sell pre-paid water cards for access. Not only do these programs provide easier water access for women headed households whose husbands are outside, they also improve irrigation for entire communities, increasing yields and reducing the incentive to migrate. Crop production has more than doubled in some areas, where farmers are now able to plant during the dry season rather than letting land lie fallow.

Deeper improvements may come from improving the role and reach of government at different levels in water management, an overwhelming theme of the workshop across the regions studied. Md. Mazharul Anwar from the Bangladesh Agricultural Research Institute explained how private service providers in India and Bangladesh can play a negative role, taking advantage of a lack of government-provided water for personal profit. On an international scale, governments will have to cooperate and coordinate to design cross-border water policy that prevents one country from excess groundwater abstraction.

Even where government agencies are set up to serve rural areas and encourage agricultural intensification, the local level government officials often lack proper resources to deliver the help that locals were promised. Dr. VV

Sadamate of the Indian Planning Commission pointed out that many new and useful interventions have been attempted, involving changing fertilizers, irrigation schemes, cropping systems, and seed varieties. The weak presence of water management agencies and professionals at the local level, though, is detrimental to the success of these efforts.

Floriane Clement from IWMI advises that water management should become linked to more established sectors such as food or energy. Using the governmental infrastructure that is often in place for those departments could drive improvement in water resource management.

Additionally, further research is necessary to understand the multitude of community and water user groups that allocate water on a local level. How do these groups form and how can women and smaller farmers play a serious, nontokenistic role in their decisions? Water markets also remain mysterious, as more information could be uncovered on buyer and seller relations, water prices, and challenges faced by farmers in purchasing irrigation technology.



How is migration affecting agricultural development and mechanization? As migration causes labor shortages, can increased mechanization fill the gap?

When locally hired labor is insufficient to fill the gap left by those who have emigrated, families and communities may turn to mechanization. This shift was observed to some extent across the study sites.

China in particular stood out as having embraced mechanization. Prof. Chen Fengbo from the South China Agriculture University explained how service model providers have revolutionized agriculture in China by enabling poor farmers to rent otherwise high cost equipment. Gone are the barriers to entry that had long reserved mechanization as an option only for the wealthy.

The topic of service provision is one that merits further study, as workshop participants wondered about the economics of being a service provider and the likelihood of these providers forming monopolies across poorer regions. Other issues relate to the intersection between service providers and gender. Would the expansion of service providers give womenheaded households more of an opportunity to compete on a regional agricultural scale? Or would they become another male-dominated realm, where, lacking the proper connections, women would be largely excluded?



Aside from creating a need to explore increased efficiency, emigration has arguably helped provide affected communities with the ability to develop and mechanize. Interest and knowledge of agricultural technologies have increased in some cases, when returned emigrants share success stories of mechanization abroad. Remittances can be hugely helpful in furthering development. Directly, farmers can use this newfound cash flow to either purchase equipment or rent from a service provider, if available.

Remittance cash can also be used indirectly, as Fraser Sugden from IWMI told the story of farmers in Nepal's Terai-Madhesh region, who were able to leverage their increased income from remittances to begin negotiations with their landlord. Their bargaining eventually led to landlords contributing to the costs of fertilizer, ensuring a greater yield for the farmers. Mechanization and general agricultural development emerged as an important coping strategy for many in regions hardest hit by emigration.

What key policy issues and recommendations regarding migration emerge from our discussions?

Out-migration is treated in complex ways by government and other institutions. Some governments actively encourage migration, although policies and programs have been focused on facilitating the migration process and not on maximizing the benefits for migrants and "left behind" populations. Programs by NGOs are often focused on strengthening livelihoods so that people do not migrate.

Agricultural initiatives, however, have sometimes been slow to accept the changed gender roles due to migration itself, with programs for women still focused on the traditional 'female' domain of household water access, sanitation, and kitchen gardens. While male outmigration clearly presents major challenges, it will be important for organizations to focus on how these changing gender roles in agriculture can be turned into opportunities to empower rather than further marginalize women.



Workshop participants agreed that governments should continue to permit out-migration, and in some cases encourage it to improve the lives of rural communities via remittances.

Representatives from different countries, though, had disagreements as to whether government should play a role in how remittances are utilized.

Those from regions where remittance income tends to go towards non-farm uses, such as Bibek Sapkota from the Nepal Agricultural Research Council, suggested that the government could implement efforts or incentives to ensure that at least half of the remittance must be invested in agricultural development. The increase in dowry amount in Nepal though has created a sort of vicious cycle where dowry continue to increase as families become more desperate for cash, consuming valuable remittance inflows.

Zahra Khan from iDE Bangladesh echoed this sentiment, wondering if government policy could be used to combat some of the consumptive behavior that has limited the cash available for mechanization. Soumyadeep Banerjee from ICIMOD felt like any government intervention in how remittances were used was an overreach, but shared an interesting success story from the Philippines.

Matching funds for infrastructure improvements exist, so that if a farmer contributes a dollar to a productive agricultural development project, the government contributes a dollar as well.

Whatever the solution, economic policy should be a crucial tool for governments to assist those left behind by migration. Better linkages between sellers and buyers could encourage the growth of higher value crops rather than just subsistence level farming, which can be difficult at a time of labor shortage. Appropriate financial services must also be made available in rural areas, and regulated to keep prices fair.

Irrigation markets and service providers, while encouraged to be spread to rural areas, must also be regulated to prevent the formation of monopolies. Lastly, land and tenancy reforms should be explored, which could increase the joint on-farm spending by landowners and tenants.

Capacity development also will play a key role in stretching the value of remittance income. Farmers may benefit from further exposure to modern farming practices, involving both technological and behavioral changes. In areas facing critical levels of out-migration, low labor agricultural methods can be taught to prevent land from simply lying fallow.

Improved vocational skills training may also prove useful for those who stay behind, as well as migrants themselves. Panelists also advocated for financial literacy classes. Bargaining and negotiating skills could be developed for improved effectiveness of Community Based Organizations and water user groups.

The governments and other organizations that carry out these tasks will have to give constant consideration to gender. As we have seen, severe barriers exist for women after migration occurs. Their access to markets, mobility, and business networks are all limited.

Changing this, the workshop participants agreed, would have to begin with addressing household perceptions of gender. Training sessions can be held to build trust in women as both household members and decision makers, with the goal of creating an equal workload for men and women.

To do this, the non-economic value of women's contributions have to be recognized. As Zahara Khan from iDE Bangladesh emphasized, men must be asked what they can do as husbands to support women.

Herein lies an exciting opportunity to empower rural women, but care must be taken to ensure that this empowerment doesn't lead to an increased female workload. As Bibek Sapkota from the Nepal Agricultural Research Council described, many women in Nepal are not allowed to use a plow. If this taboo is to be broken, then task distribution will have to change in order to not add to the already overloaded work schedule of many women. IWMI has begun multi-faceted gender training courses in study sites in Nepal and India, which includes role-playing and discussion groups of all-men, all-women, and mixed participants.

Many changes will have to be made on a community and institutional level as well.

Nepal's new Agriculture Development Strategy

aims to have 50% of land in the name of women or in joint ownership within 20 years, which hopefully can be coupled with other innovative ideas to improve its efficacy. Anil Kumar from Mahila Adhikar Kisan Manch (MAKAAM), an Indian organization supporting female farmers, noted the importance of collective farming for women, and the need for proper state support for such initiatives.

In Bangladesh, the Program for Strengthening Household Access to Resources is helping pregnant and lactating women in poor and ultrapoor families access safe food and water. Such programs can help level the playing field for marginalized women. Security risks for women that often don't exist for men also need to be addressed. In Bangladesh, accessing toilets is a challenge, while Mr. SM Premasiri from the Sri Lanka Dept. of Irrigation explained how irrigating after dark can be unsafe for women. Larger policy changes may further exacerbate gender inequalities if the basic rights of women are not properly considered.





















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For more information on IWMI's work on migration, please visit http://migrationmatters.iwmi.org, or contact Fraser Sugden, IWMI researcher, at f.sugden@cgiar.org, or Andrew Reckers, IWMI communications, at a.reckers@cgiar.org

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