

Conference Report

September 2016, Biratnagar, Nepal



IWMI
International
Water Management
Institute



The conference

This conference took place in Biratnagar, Nepal, on 15th September 2016, and was attended by government officials, NGO partners and farmers from across the Eastern Gangetic Plains. It sought to address the obstacles in the way of gender equality and agricultural productivity in the Eastern Gangetic Plains. This task is particularly difficult, as the region is dominated by unreliable and unavailable irrigation infrastructure, unpredictable precipitation and increasing prices of fertilizer and seeds. These conditions have led to a drastic rise in male-dominated outmigration, leaving women behind and laying the groundwork for the “feminization of agriculture”. On one hand, this has led to an expansion in the involvement of women outside the home: in the fields, in the market place, and beyond. On the other hand, their workload has increased significantly, as they are expected to manage both the home and the farm. They face obstacles in accessing the same government provided services that men utilize, as certain networks remain largely exclusive to males. Often they are unable to receive necessary assistance from in-laws or neighbors, and crop production falters. Nepal sits at the epicenter of this burgeoning crisis, enabling researchers to interface directly with relevant farmers and government officials. Discussions provided researchers with valuable insight into the priorities of the region, while simultaneously facilitating connections with potential users of the research findings.

The project

The following is part of the “Poverty squares and gender circles: unravelling agriculture gaps, challenges and opportunities in the Eastern Gangetic Plains” project, a joint undertaking by the International Water Management Institute (IWMI) and the Nepal Madhesh Foundation (NEMAF). The project focuses on the region known as South Asia’s “poverty square”, home to around 600 million of the world’s poorest people. Including parts of Nepal, India, and Bangladesh, this is a region significantly impacted by male-dominated out-migration. By critically analyzing ongoing sectoral interventions, the framing of gender issues, and the relationships between governance and labor, the project aims to fill knowledge gaps in a region where prior poverty mitigation projects have failed. Project activities address two core concerns: remediating gender biases in agricultural interventions, and demonstrating that a viable ecosystem enhances the capacity of poor communities to sustainably develop in an increasingly uncertain world.

Key Recommendations

1. Ensure meaningful participation of women
2. Coordinate efforts among agencies and government departments
3. Make existing irrigation systems efficient
4. Attract youth to the agriculture sector and other opportunities within Nepal
5. Generate awareness and alertness among farmers
6. Explore alternatives to water intensive crops
7. Address resource limitations

1. Ensure meaningful participation of women

Women comprise the vast majority of Nepal's "left behind" population, as certain districts experience male outmigration at rates as high as nearly two in three¹. Women have seen some benefits from male outmigration, as they often receive income in the form of remittances, and become more active and engaged in the community. Conversely, women's increased workload and obstacles in accessing necessary services and representation in government need to be addressed in order to create stable village communities. **Mr. Raj Kishor Ray**, program officer for iDE, sums up these problems by explaining, "Agriculture institutions have subsidies for pumps, fertilizers and so on, but women are often unable to access such services. Illiteracy and a higher work burden are among the reasons for



this lack of access, which the government can address by ensuring simple procedures to access services." **Mr. Sailesh Singh**, from the Groundwater Resources Development Board (GWRDB), reminded participants that failing to appropriately address these concerns has already led to a small flow of female migrants, further depleting rural population centers. Although local user groups are required to have at least 33% female representation, **Mr. Ram Lakhan Mandal**, from the Siraha District Agriculture Development Office (DADO), felt that the proportion may need to be raised. Regardless of the mandated percentage, steps must be taken to ensure that women are able to participate meaningfully. Governance

that includes more women can begin to address issues such as agricultural technology that is more difficult for women to operate, and services that are more difficult to access. As of now, the Department of Irrigation is developing a department-wide gender policy, something that could be made mandatory for all government departments.

Farmer Testimonials:

Ms. Sushila Devi Chaudary describes the myriad challenges facing women in her village: "Mostly, men from my village have migrated outside. When there is no man in the family, the woman has no one. I have to sow seeds, apply fertilizers and seek agricultural laborers myself. Women are discouraged to participate if there are any trainings opportunities."

Ms. Shyam Giri's role in farming has also expanded: "Men have gone abroad. So, women have to engage and take responsibilities. When my husband is not there, I use a tractor to plough the land."

Farmer Testimonials (continued):

Mr. Chandra Lal Chaudary feels like women would be able to make it to more user group meetings if they weren't "compelled to take over all agricultural responsibilities," in addition to all family responsibilities.

Ms. Janaki Devi Ram highlights the issue with simply mandating a certain proportion of women be present at community meetings. "In meetings, women do not speak, men do. However, we [women] are the ones who work in the field."

While work on the farm has increased, women are still expected to perform most household duties, as **Ms. Sushila Devi Chaudary** explains: "We have a water association but women do not participate in the meetings as much. They have to perform household duties such as cooking food. Husbands go to work as wage laborers. If wives do not prepare food, husband goes hungry."

2. Coordinate efforts among agencies and government departments

More pressing than the need to create new agricultural departments or agencies is the need to create cohesive implementation pathways among these institutions. Redundancies and knowledge gaps can be significantly reduced via coordinated efforts and projects. Coordination among agricultural institutions would ensure greater access to necessary inputs such as water, fertilizer and seeds. The lengthy process of receiving necessary inputs like power and water has shortened the season for the women supported by iDE, reports program officer **Mr. Raj Kishor Ray**: "In Saptari District, under one program, we tried to take receive electricity from the electricity board. For this, we had to wait one month. To get pumps, filling out the form is difficult and takes weeks." These inputs require infrastructure for purchase and delivery. **Mr. Nanda Kishor Singh**, from the Sunsari DADO, pointed out that this means that productivity gains can be realized from increased synchronization among non-agricultural institutions, such as those responsible for roads, business and loans. This harmonization of departments and agencies could have a cascade of impacts, as investment in the sector may have been deterred by the existing disorganization. Demonstrating the profitability of agricultural investment can generate enormous productivity leaps and retain farming livelihoods for many.



Farmer testimonials:

Ms. Janaki Devi Ram's village has received a boring machine from the government to access groundwater. "However, my village does not have proper electricity. Even when we have electricity, it is not at the full voltage. What is the use of the boring machine if I do not have enough voltage to operate it?"

The government has provided **Mr. Pradeep Singh Danuwar** with a boring machine, which can drill down to 50 feet. "The issue we are facing is that even if we dig down to 50 feet, the water level is not reached. So vegetable farming is not prospering."

3. Make existing irrigation systems efficient

Irrigation efficiency relies upon local government structures understanding the needs and hydrogeological conditions of the area. **Mr. Gulab Chaudary**, from the GWRDB Biratnagar, noticed that farmers were spending too much time moving pipes to irrigate adjacent plots. Now they have recommended small channels rather than piping to connect fields. Many districts in Nepal have historically underutilized ponds as irrigation sources, which can work in concert with existing fisheries businesses. Areas lacking surface water resources should benefit from the planned Sun Koshi development, which will serve five districts.

Farmer Testimonials:

Although **Mr. Chandra Lal Chaudary** does not have proper access to irrigation, he still has to pay for water: “The infrastructure is in place. There is canal in my village and it has been linked to the fields, but there is no water.”

Ms. Sushila Devi Chaudary described the seasonal dysfunction of her village’s irrigation system: “In the rainy season, flood destroys the crop and water clogs the pipes. In the dry season, there is no water. This year, I carried diesel containers from the market to my home. With the help of my neighbor, I irrigated my fields at night. I had to pay 80 rupees (about 0.8 USD) per hour. I had help from my neighbor. However, they are not able to help all the time.”

Ms. Shyam Giri has a tube well and an electric pump, but still must use a costly diesel motor. “Irrigation through the electric pump is hindered by the electricity transmitter. In half of the village, the voltage is too low. Even the wire connected to the transmitter that gets to my village is not of good quality. So, the tube well dries. There is no canal and we have to use a diesel motor to irrigate the land.”



4. Attract youth to the agriculture sector and other opportunities within Nepal

Investing in skill-oriented agriculture programs and subsidizing farm inputs can create a more commercialized and profitable agricultural sector. Simply increasing income, though, may not entirely halt the flow of youth outmigration. Even now, opportunities for skilled, gainful employment in Nepal exists in the agricultural sector and beyond. As young Nepali men migrate, many Indian migrants end up in these positions, earning a decent living as plumbers, electricians, and through other trade occupations. **Mr. Rajendra Upreti** from the Morang DADO recommended that further study seek to understand why youth may not recognize these opportunities, or are uninterested in pursuing them. On the other hand, the government must incorporate a vision of the future that includes development of villages, not just cities.

Farmer Testimonials:

Many farmers (**Ms. Sushila Devi Chaudary**, **Mr. Rakesh Chaudary** and **Ms. Shyam Giri**) made a point of explaining that the norm in their villages is for men to outmigrate. **Mr. Chandra Lal Chaudary**, a male farmer in the Terai region, explains that, “Nowadays, men migrate abroad or go to Biratnagar to seek employment. Mostly, youth are going to Qatar, Delhi or Punjab.”

5. Generate awareness and alertness among farmers

As evidenced by this conference, motivation exists among government and non-government institutions to improve conditions for farmers. Effective provision of subsidies and services requires organized farmer groups that interface with government representatives. **Mr. Nanda Kishor Singh** from the Sunsari DADO explained that farmer groups that articulate the specific conditions and needs of their local area will receive more targeted assistance. Maintaining organizational structures also allows for government agencies to evaluate the success of certain programs. Changes can be made to what subsidies and services are provided, and success stories may motivate further investment in the field from a range of institutions.

Farmer testimonials:

Mr. Chandra Lal Chaudary encapsulates the need for farmers to communicate their situation to government agencies, as he states that, “in my village, my land has relatively higher productivity but only I know how difficult it is to cultivate.”

6. Explore alternatives to water intensive crops

Part of building a more resilient, adaptable future is lowering the inputs necessary to receive a profitable harvest. Even districts that have effective irrigation systems can be disturbed by flooding, which damages infrastructure and as seen in Nepal’s Sunsari district, creates sandy soil conditions. Planting a certain percentage of drought resistant crops can provide valuable income in instances where water is either not prolific or not reliable. In Sunsari, many farmers have begun planting gourds and melons, which can tolerate the rapid drying of sandy soils better than rice. Elsewhere, pulses and millet are taking the place of more water-intensive crops. As urban areas expand and demand diversifies, **Mr. Rajendra Upreti** from the Morang DADO sees opportunities to become even more creative with what cash crops are planted.

7. Address resource limitations

The demand for agricultural necessities, such as pump sets and fertilizer, vastly outweighs the supply subsidized by the government. Additionally, the lengthy and rigid process of receiving a government loan limits individual’s abilities to purchase these items from private dealers. Policy changes can alleviate some of this pressure. A more flexible loan system would help, particularly one that removes procedural difficulties for women. Increasing the budget for the appropriate government agencies may have the biggest impact, though, suggests **Mr. Santosh Raj Poudel** from the Department of Agriculture (DoA). One district representative explained how the budget provided them with 200 pump sets a year, while demand ranged from 3,000 to 4,000. The government has looked into how to improve market linkages to benefit farmers, but limited funding may inhibit significant changes from being implemented.



Farmer testimonials:

Mr. Chandra Lal Chaudary describes the shortage of government-provided resources in his village, describing how, “no one seems to look into the issues facing marginal and tenant farmers.”

Mr. Pradeep Singh Danuwar highlights a crucial value chain linkage that is too often missing. “No matter how much production increases, if there are no cold storage facilities, how can we sell vegetables at the right time and get good prices?”

The MARIS Network

This conference was a part of the Migration and Agricultural Resilience Initiatives for Sustainability (MARIS) Network. MARIS was created to bring together scholars, practitioners and farmers from Asia and beyond to share experiences and develop innovative solutions to the unique challenges facing those left behind by outmigration. Please visit our website at migrationmatters.iwmi.org for more information on MARIS' recent events, news from our research partners and to join us in the future.



Acknowledgments

IWMI and NEMAF would like to thank the following individuals for their participation in the conference:

- **Mr. Gulab Chaudary**, GWRDB Biratnagar
- **Mr. Nanda Kishwor Singh**, Sunsari DADO
- **Mr. Rajendra Upreti**, Morang DADO
- **Mr. Ram Lakhan Mandal**, Siraha DADO
- **Mr. Sailesh Singh**, Groundwater Resources Development Board (GWRDB) Lahan
- **Ms. Sanchita Kaduwal**, Department of Irrigation (DoI)
- **Mr. Santosh Raj Poudel**, Department of Agriculture (DoA)
- **Maa Tulja Bhawani Farmers Group Fulkahakatti**, a Terai Women's Group

1: Sugden, F.; Shrestha, L.; Bharati, L.; Gurung, P.; Maharjan, L.; Janmaat, J.; Price, J. I.; Sherpa, T. Y. C.; Bhattarai, U.; Koirala, S.; Timilsina, B. 2014. Climate change, out-migration and agrarian stress: the potential for upscaling small-scale water storage in Nepal. Colombo, Sri Lanka: International Water Management Institute (IWMI). 38p. (IWMI Research Report 159). doi: 10.5337/2014.210.

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