



RESILIENT MOUNTAIN SOLUTIONS (RMS) WEBINAR SERIES

Women farmers and sustainable mechanization

Improving lives and livelihoods in the Hindu Kush Himalaya

Episode II: The Bhutan chapter

07 May 2021 | MS Teams | 14:30-16:45 (Bhutan Standard Time, UTC+06:00)

Mountain agriculture and changing gender dynamics in the HKH

The challenge of food and nutrition security in the Hindu Kush Himalaya (HKH) has become increasingly complicated by rapid socioeconomic, demographic, and environmental change, including migration and climate change. Increasing climate variability and extreme events, coupled with limited investment in mountain agriculture and rural development, have resulted in low productivity and lack of off-farm employment options, pushing men into seeking alternative livelihoods elsewhere. Women have therefore been compelled to take on tasks formerly done by men, especially in land preparation, harvest, and post-harvest operations, and marketing of produce, adding to their burden of household and off-farm work. This increasing feminization of mountain agriculture has emerged as one of the most pressing issues in recent decades.

Rationale

Mountain agriculture is physically demanding and time consuming. Rural women, who mostly work as subsistence farmers while also performing domestic work and communal activities, often face a poverty trap, undermining their well-being. Despite increasing labour

participation in this sector, women remain invisible as active players and agents of change.

A range of new and inexpensive agriculture machinery, adapted to local conditions, could potentially enhance labour productivity, reduce work burden and drudgery, and enable women to gain new skills and knowledge that can transform rural gender relations and reduce inequalities. It could also allow them to shift from subsistence to more market-oriented farming. However, the extent to which these technologies are available, suitably introduced (by individual use or via extension services) or adopted by women farmers in the HKH is still not clear.

Sustainable agricultural mechanization in HKH must be tailored to the diversity of mountain contexts and user needs, especially of women. To gain better understanding of the current context and explore the opportunities and barriers to introducing customized technologies for women farmers in the HKH, the Resilient Mountain Solutions (RMS) Initiative of ICIMOD organized [a regional consultation on 15 November 2019](#). The consultation revealed that while there is some degree of mechanization in mountain agriculture, the process is uneven, understudied, and lacks documentation. It also highlighted the need to address gender-related concerns in agricultural



Box 1. Barriers women farmers face in accessing and adopting agricultural mechanization

Lack of customized machines and equipment for women: The machines are often piloted with male farmers and fail to consider women's needs, features, and preferences. Lack of pre-consultation with women in technology development, evaluation, and their adoption results that many machines are inappropriate for women (e.g. too big to handle) and therefore difficult to operate.

Limited access to finance: The cost of machines often makes them unaffordable for small holder farmers, mainly women. Even where subsidies are provided, these are mostly availed by men as women have very little or no information. Limited ownership of land by women in many HKH countries makes it difficult for them to obtain collateral free loans easily. Consequently, women have difficulties in acquiring machines.

Inadequate institutional support: Absence of strong political buy in for upscaling and out scaling as well as limited linkages with existing outreach and extension, credit and market services which fail to target and reach women with information, knowledge, capacity, and services to handle these machines.

Restrictive social norms: Social norms associated with gender roles often amplify gender gaps and influence women's ability to participate in training programmes, access finance, or use technology.

Little monitoring of the impacts of technology: While technologies may offer opportunities to challenge existing imbalances in gender relations, they can worsen existing power imbalances if not monitored. Sometimes, technologies meant to reduce drudgery or improve the socioeconomic conditions of women can push women out of the sector, replacing them with men, thus taking away their opportunity for income generation.

mechanization and its effects on women farmers and disseminate these concerns to a wider policy audience. Some of the challenges to accessing and adopting these technologies based on the presentations made during the regional consultation are described in Box 1.

Given this background, ICIMOD's RMS Initiative and United Nation's Food and Agriculture Organization (FAO) have come together to organize a series of country-specific and regional webinars on sustainable mechanization for improving the lives and livelihoods of women farmers in the HKH region, as part of their commitment to improving women's active participation in agriculture.

RMS is committed to scaling out gender responsive and mountain specific resilient solutions that are simple, affordable, replicable, sustainable as well as appropriate and relevant to the needs of stakeholders at different levels. FAO is committed to addressing gender-related technology adoption constraints by promoting dissemination of equipment, machines and tools that are sustainable and can address the drudgery women face. As part of this effort, FAO is also supporting women entrepreneurship by promoting women's roles as mechanization service providers.

The webinar series

Through this webinar series, ICIMOD and FAO aim to create awareness and action around current mechanization gaps and help identify good practices and possible solutions for empowering women farmers in the region. The webinar series will discuss strategies contributing to the process of mainstreaming and institutionalizing successful efforts of agricultural mechanization for improving productivity while also reducing drudgery for women farmers.

Objectives

The specific objectives of the webinar series are:

- Share lessons learned from projects, programmes, and policies focusing on agricultural mechanization for women in the HKH
- Showcase successful examples and solutions of agricultural mechanization used in the HKH
- Identify key actionable solutions and approaches to promote agricultural mechanization in the HKH

Each webinar will conclude with a call for action to align policy with practice to leverage technology to address the constraints and solutions that women farmers face for sustainable, efficient, and profitable farming.

The first webinar of this series, [Episode I: The Nepal Chapter](#) was organized on 5 March 2021, with more than 150 participants. You can watch the recording of that webinar [here](#).



Webinar 2: The Bhutan Chapter

The second webinar of this series focuses on Bhutan. The participants will hear from government officials, international and local development organizations, practitioners, local research organizations, and women farmers/farmers groups about the ongoing efforts, key issues, opportunities, and constraints in facilitating women's access to agricultural mechanization in the country.

Bhutan country context

Women in the agriculture sector

Bhutan is a mostly mountainous country, where agriculture is practiced on steep and moderate slopes. The average landholding is 3.4 acres (\approx 1.4 hectares) per household, with almost 70% of the land owned by women, mostly because of matrilineal heritage that favours daughters in land inheritance. At present, all children inherit land from their parents mostly in equal shares, regardless of their gender.

Increasing commoditization of land has given economic advantage to women with land ownership but this is mostly in areas with good market access. Land ownership in remote parts of Bhutan may do little to enhance the position of women.

Subsistence agriculture dominates the sector employing more than half the labour force, with almost 62.9% of the women engaged in agriculture compared to men.

Women have lower access to and control of productive resources such as agricultural machinery as well as training and extension services when compared to men. However, both men and women have equal access to and control of credits, labour, health and education services

Migration and remittances

As per the [Population and Housing Census of Bhutan, 2017](#), 48.7% of the total population migrated between Gewog (group of villages) and a town at some point or since birth. Of the total migrants, 51% are male and 49% are female. Men migrate mostly for employment (18.7%), family move (13.1%), or education (8.9%), whereas, women migrate due to family move (23.0%), education (7.6%) and marriage (7.5%)

Almost 65.6% of rural households have at least one member who has migrated to an urban centre. This has led to labour shortages in the rural areas, impacting women who are less likely to migrate for employment. This also translates to a high work burden as the women are also responsible for household and community activities.

Agenda

Moderator: **Suman Bisht**, ICIMOD

Time (BTT)	Programme	Speakers
14:30–14:40	Welcome and background	Suman Bisht , Senior Gender Specialist, ICIMOD
14:40–14:50	Welcome remarks	Chadho Tenzin , Assistant Representative (Programme), FAO Bhutan (TBC)
14:50–15:00	Opening	Dasho Rinzin Dorji , Secretary, Ministry of Agriculture and Forest, Bhutan
15:00–15:10	Presentation 1 Key government policies and strategies to promote mechanization among women farmers	Pema Wangmo , Agriculture Machinery Center (AMC)
15:10–15:20	Presentation 2 Making agriculture machinery accessible to women: The FMCL Experience	Choki Wangmo , Monitoring and Evaluation, Farm Machinery Corporation Limited (FMCL)
15:20–15:35	Q&A session	Suman Bisht
15:35–15:45	Presentation 3 Experiences of women farmers with farm mechanization	Roseleen Gurung , Director of Programmes, Tarayana Foundation, Bhutan
15:45–15:55	Presentation 4 Evolution of agriculture machinery	Ugyen Tshomo , Officiating Director National Commission for Women and Children (NCWC)
15:55–16:10	Q & A	Suman Bisht
16:10–16:35	Call for action	Suman Bisht
16:35–16:45	Closing remarks	Pema Gyamtsho , Director General, ICIMOD

Register by 4 March 2021

Co-organized by

International Centre for Integrated Mountain Development ([ICIMOD](#)) and the Food and Agriculture Organization of the United Nations ([FAO](#))

For further information

ICIMOD

Suman Bisht
Pratigya Silwal
Subha Khanal

suman.bisht@icimod.org
pratigya.silwal@icimod.org
subha.khanal@icimod.org

Plant Production and Protection Division - Natural Resources and Sustainable Production, FAO, Rome, Italy

Mayling Flores Rojas
Flavia Grassi

mayling.floresrojas@fao.org
flavia.grassi@fao.org

PHOTOS: CHIME WANGMO, AGRICULTURAL MACHINERY CENTRE, DEPARTMENT OF AGRICULTURE, MINISTRY OF AGRICULTURE AND FORESTS, BHUTAN

ICIMOD gratefully acknowledges the support of its core donors: the Governments of Afghanistan, Australia, Austria, Bangladesh, Bhutan, China, India, Myanmar, Nepal, Norway, Pakistan, Sweden, and Switzerland.