Enabling Gender Responsive Food Security Programming:

Focus on Sustainable Agricultural Mechanization

October 12 – 14, 2022

Developed by Maria Jones

Day 1
Logistics

• 9 am – 12 pm
• Ask questions anytime via chat online or in person
• Presentations by UN Women & UN ESCAP
• Coffee break at 10:30 am (timekeeper)
• Activities
  • In-person groups (5 participants each)
  • Online groups (4 participants each)
Objectives

- **Why** do we need to develop gender-responsive food security programs and agricultural innovations?
- What are **key barriers** women face in adopting agricultural innovations?
- How does gender-responsive agricultural mechanization programming look in practice: **Frameworks and approaches**
Training Agenda

**DAY 1**

*Session 1:* Women’s role in agriculture & food security  
*Session 2:* Developing gender-responsive food security programmes  
*Session 3:* Introduction to frameworks for developing gender-responsive innovations

**DAY 2**

*Session 4:* Designing mechanization that benefits women and men: Time & labor-saving technologies  
*Session 5:* Gender-sensitive dissemination: Focus on agricultural extension  
*Session 6:* Addressing gender barriers in technology adoption & continued use

**DAY 3**

*Session 7:* Understanding impacts of intra-household dynamics in technology adoption and scaling
1. Women’s role in agriculture & food security
Women account for greater than 50% of the agricultural labor force on average in Asia, and form 60 - 80% of smallholder farmers globally.

Women account for 60 – 80% of smallholder farmers, yet -

<table>
<thead>
<tr>
<th>Land</th>
<th>Credit</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Female</td>
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Only 15% of landholders are women, they receive less than 10% of credit and 5% of extension services.

Rural women are the backbone of agricultural economies

Women farmers play a fundamental role in all stages of the food production cycle and yet have unequal access to resources and agricultural innovation.

Source: UN Food Systems Summit (2021) Review of evidence on gender equality, women’s empowerment and food systems. CARE (2022) Food security & gender equality: a synergistic understudied symphony
The Gender Yield Gap

If women had the same access to productive resources as men, they could increase yields on their farms by 20 to 30%, which would immediately lift 100-150 million people out of hunger.

Agricultural innovation as a productive resource

- Agricultural innovations, technologies and mechanization help increase farm productivity, reduce poverty, increase food security and adapt to climate change.
- However, agricultural innovation programs are primarily directed at middle-income male farmers.
- Moreover, technologies are not designed considering women farmers and low-income farmers’ needs and conditions.
- Critically thinking of the impact of agricultural innovations is very important to ensure that **both** men and women will benefit, and neither will be harmed.

What is preventing women farmers from accessing productive resources?

**Individual constraints**
- Women’s agency
- Women’s access to & control over resources

**Technology attributes**
- Women’s needs & conditions in design
- Women’s barriers in learning
- Women’s constraints with access, adoption and continued use

**Systemic & structural constraints**
- Institutional biases in agricultural partners
- Policies & governance
- Socio-cultural practices & norms

Imagine that you are a smallholder farmer in rural China

Discuss with your groups on what your day looks like from morning when you wake up to night when you go to sleep. What are you doing at home, on the farm, in the community or marketplace?

If you are a woman, take the role of a male farmer.
If you are a man, take the role of a female farmer.

Activity adapted from Henderson, Colverson (2017) Introductory Workshop on Integrating Gender and Nutrition within Agricultural Extension Services
Photo by Sandy Zebua on Unsplash
Discussion Questions

- Who is performing most of the activities?
- Which activities are the most physically demanding?
- Which activities take up a lot of time during the day?
- Who decides which family members perform each activity?
- Other interesting things you noticed?

Activity adapted from Henderson, Colverson (2017) Introductory Workshop on Integrating Gender and Nutrition within Agricultural Extension Services
Gender barriers & determinants of adoption

Access to land ownership/tenure  Access to credit  Access to inputs
Access to extension services  Access to markets  Access to labor
Literacy barriers  Time & labor burden  Household decision making

Gender barriers & determinants of adoption

Access to **land ownership/ tenure**

- Legal structures often restrict women’s ownership of land – officially or unofficially
- Access to land & land tenure affect decisions to invest in and adopt technologies
- Women’s plots are smaller, less fertile and get less attention

*Sources: Doss (2000), Doss (2001), INGENAES Technology Assessment Toolkit (2017)*
Gender barriers & determinants of adoption

Access to credit

- Lack of credit makes it harder for women to access technology or buy inputs like fertilizers or better seeds
- Traditional lending requires collateral which is usually land deeds
- Informal lending has very high interest rates
- Challenge in providing appropriate, timely and sustainable credit

Gender barriers & determinants of adoption

Access to inputs & complimentary technologies

• Improved seeds or fertilizer requires access to credit
• Needs access to extension (information) for proper use
• Local and timely availability
• Constraints with accessing complimentary or necessary inputs/assets to use technology

Gender barriers & determinants of adoption

Access to labor

- Gendered division of labor within the household and the farm
- Access to household or hired labor
  - Male out-migration with increased wage rates
  - Not prioritized by service providers
  - Socio-cultural norms in contacting service providers

Sources: INGENAES Technology Assessment Toolkit (2017); Doss (2001)
Gender barriers & determinants of adoption

Access to extension services

- Limited access to extension services prevents women from learning about new technologies
- Formal trainings require male permission, time, convenient location, and land ownership
- Literacy levels can affect willingness to attend training
- Social norms can prevent interactions with male extension officers

Gender barriers & determinants of adoption

Access to markets

- Limited ability to travel to better markets
- Lack of market information on prices and crops
- Vulnerability due to lower literacy / socio-cultural contexts
- Digital barriers

Sources: Lee, McNamara, Bhattacharya (2022) Does linking women farmers to markets improve food security. INGENAES Technology Assessment Toolkit (2017)
Gender barriers & determinants of adoption

Literacy barriers

• Determines farmers’ ability to understand and manage unfamiliar technology
• Constrains ability to properly use or benefit from technology
• Literacy and numeracy barriers

Gender barriers & determinants of adoption

- Different roles and responsibilities in the house / farm and community
- Responsible for feeding the family and care giving for children and the elderly
- Awareness of shift in gender roles after acquiring technology - need to ensure that women’s time & labor burdens do not increase with new technologies!

Sources: INGENAES Technology Assessment Toolkit (2017); Doss (2001)
Gender barriers & determinants of adoption

Household decision making

- Multiple decision makers on:
  - **Application**: Who uses the technology and how it is used
  - **Benefits**: Who benefits from the technology (outputs and profits)

Sources: Theis, Lefore (2018) What happens after technology adoption
2b. Developing gender-responsive food security programmes
Investing in gender equality in agriculture brought a $5 return for every $1 invested, compared to a $2 return for every $1 invested in agriculture programs that ignored gender equality (CARE 2022)

Sources: CARE (2022)
Developing gender-responsive food security programmes

1. Develop a gender strategy
2. Decide how gender will be integrated
3. Get leadership buy-in
4. Develop a gender budget
5. Build staff capacity
6. Careful Implementation
7. Measure impact

Promoting gender equality and women’s empowerment in food systems will not just lead to better food security and nutrition at the household level, but also result in resilient and sustainable food systems overall.

(Bryan, Ringler, Lefore 2022)

Sources: Bryan, E., Ringler, C., Lefore, N. (2022) To ease the world food crisis, focus resources on women & girls. Nature
Develop a gender strategy

• Merely taking women into account is not enough to ensure gender equality in adoption of agricultural technologies. (Doss 2001)

• To expand the benefits of agricultural innovation to more people, we need to consider **gender-specific needs and implications**
  - Throughout the project cycle from design to scale
  - Throughout the agricultural cycle, from land-preparation and cultivation to post-harvest and processing

Sources: Doss 2001

Photo credit: Maria Jones
Develop a gender strategy

Principles & Pathways
- Determine specific principles or pathways to mainstream gender into program or agency’s operations
- E.g., *Commitment to integrate gender equality into all areas of agency’s work*

Action Areas
- Determine key areas for program intervention through gender analysis
- E.g., *Climate change programs that consider the experiences, social positions and differing access to resources of marginalized people*

Set a target
- How many women or men will be reached?
- E.g. 30% of all training participants will be women
Develop a gender strategy

Ownership
- Create structures of responsibility and ownership across the agency or program
- E.g. M & E officer, Gender specialist, Program manager; Country offices

Resources
- Determine what resources are needed
- E.g. Build staff capacity to mainstream gender

Collaborate
- Who are key partners required?
- E.g. Enlist technical assistance from UN Women!
Decide how gender will be integrated

<table>
<thead>
<tr>
<th>Gender-focused programs</th>
<th>Gender-integrated programs</th>
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<tbody>
<tr>
<td>• Programs that specifically target women</td>
<td>• Programs that target men and women, and are intentionally integrating gendered needs &amp; constraints</td>
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<tr>
<td>• E.g., Increasing adoption of better grain storage among women’s farmer groups</td>
<td>• E.g., Farmer engagement with providing grain drying service. Ensuring women farmers also can access grain drying services</td>
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Leadership buy in & gender budget

- Agency leadership buy-in
- In-country stakeholders and implementer buy-in
- Ensures commitment & support when challenges occur during implementation

Leadership buy in should lead to prioritizing gender budget.

Gender budget to invest in-
- Programs
- Staff capacity

E.g., 10% of program budget dedicated for gender-mainstreaming activities
Build staff capacity

- Get gender expertise in teams
  - Agriculture is male dominated field!
  - Get gender specialists or people who have gender mainstreaming expertise along with other skills such as program management

- Ensure diversity at different levels of staff
  - Women in leadership
  - Multi-disciplinary teams to break silos

- Invest in building staff capacity
  - Provide country specific technical assistance and training
Implement & measure impact

• Support implementers
• Enable feedback cycles – is the strategy working?
• **Set targets:** How many women or men will be reached?
  ○ *E.g. 30% of all training participants will be women*
• **Go beyond sex-disaggregated data**
  ○ Use data to measure and improve the impact of interventions for women and girls
• Invest in **evidence-based research** to see if policies are having intended impacts
3. Introduction to frameworks for developing gender-responsive innovations
Reach, Benefit, Empower Framework

**REACH**
Are we intentionally including women in program activities?

**BENEFIT**
Do our programs increase women farmers’ access to inputs, finance and extension services, digital services and technology?

**EMPOWER**
Are we strengthening their ability to make strategic life choices and to put those choices into action?

To expand the benefits of mechanization to more people both women and men, consideration of gendered needs and implications is required.

### Stages of Innovation to Scaling

1. **Design**
   - What are the user’s needs and preferences?

2. **Dissemination**
   - What barriers (or enablers) do users face in learning about the technology? (awareness)

3. **Adoption**
   - What barriers (or enablers) do users face in adopting the technology? (initial adoption)

4. **Continued Use**
   - What is the effect of the innovation on the household on continued use?

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Sources:
- Manfre, Rubin, Nordehn (2017) Assessing how agricultural technologies can change gender dynamics and food security outcomes. INGENAES.
Activity sheet

This is only an indicative activity intended to get you to think and discuss. This is not the actual gender strategy development process.
Thanks!

Any questions?

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