



Transforming Rakhine's Vegetable Markets

Case Study on Inclusive Market-based Programming in Rakhine State
December 2020

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Mercy Corps is a global team of humanitarians, working together on the front lines of today's biggest crises to create a future of possibility, where everyone can prosper. Our mission: to alleviate suffering, poverty, and oppression by helping people build secure, productive, and just communities. Since 2008, Mercy Corps has been working to bring about sustainable peace, stability, resilience, and inclusive economic growth in Myanmar.

East-West Seed is one of ten largest vegetable seed companies in the world. It focuses on serving smallholder farmers by supplying high-quality seeds that help them grow better crops and realize higher yields. East-West Seed Knowledge Transfer works hand-in-hand as part of the company to improve farmers' skills through sharing evidence-based knowledge.

Author

Drew Johnson

Edited by

Mercy Corps

EXECUTIVE SUMMARY

East-West Seed and Mercy Corps have been working to improve vegetable farming productivity and farmer incomes in Central Rakhine State since 2015. From July 2018 to September 2020, the organizations implemented the Transforming Rakhine's Vegetable Market (TVeg) Project with the aim of increasing the incomes of 10,000 vegetable farmers (30% women) in approximately 250 communities (10% Muslim). The project provides an opportunity to examine insights on social inclusion dynamics that can inform longer-run strategies that require deeper investment with market actors in Rakhine.

TVeg is one of the few market-led economic development projects that have been implemented in Central Rakhine State—an area trapped in an interlinked humanitarian, human rights, and security crisis. Rakhine's poverty rates are double those in other parts of the country. Muslim communities face systemic barriers including the lack of freedom of movement and limited access to government services. Women have less control of resources and far less power than men. Conflict between the Arakan Army and the Tatmadaw as well as the COVID-19 pandemic, both occurring during the TVeg project timeline, further threatened people's health, safety, and economic livelihoods.

This case study explores two research questions:

- To what extent were the TVeg project's outcomes inclusive?
- What approaches should be used to include all communities in Rakhine in economic development programming?

An investigation of the project's outcomes shows that TVeg's delivery model of private sector-led agronomy training with market connections was relevant and successful for men and women as well as Muslim, Rakhine, and other communities. An analysis of primary data collected during the project, cross-referenced with stakeholder interviews, shows the following key findings from the program:

Key finding 1

Increased use of good agronomic practices

Farmers increased their adoption of good agronomic practices promoted by the project. There is insufficient data to make conclusive statements on how different groups benefited.

Key finding 2

Increased availability and consumption

Farmers reported increased vegetable availability at the community level, and vegetable consumption at the household level. More data is needed to understand the depth of this change.

The data also highlighted two important findings that reaffirm the realities of vegetable cultivation and agricultural production in Rakhine:

Key finding 3

Reduced acreage due to conflict

Escalating conflict and market uncertainty led to a steep decline in cultivated acreage for all vegetable farmers for both the monsoon and winter seasons.

Key finding 2

Continued vegetable price volatility

Vegetable price volatility is extreme and has a large impact on farmer's incomes. The extent of price volatility negatively impacts all farmers, including men and women and farmers of all ethnicities.

Sixteen recommended approaches for social inclusion and conflict sensitivity, both crosscutting and specific to the project's core workstreams, are presented in the final section. From those 19, seven key lessons and recommendations are as follows:

Key recommendation 1

Balance equality with customization

To address different social inclusion constraints, project staff customized some aspects of the project—language translation, number of key farmers, training venue, etc. However, there are risks to implementing vastly different workstreams in different communities.

Key recommendation 2

Incorporate inclusion objectives into the staff screening process

Emphasizing the importance of social inclusion ensured that the project hired the right staff and set expectations for an inclusive project implementation.

Key recommendation 3

Be clear on community expectations

Project expectations on social inclusion created a common understanding that helped address social norms from the start of the project. The concept of "mutual agreement" should be adopted as part of the participant selection process.

Key recommendation 4

Employ a snowball technique for community mobilization

Participating farmers were asked to recommend others who might be interested in joining the project. Receiving a referral and introduction can be safer and more effective than a direct approach.

Key recommendation 5

Allow additional time for gatekeeper engagement and adaptation

Particularly in Muslim communities, TVeg staff observed that it was important to begin work with community influencers, who are disproportionately male, as a way to build trust and gain access.

Key recommendation 6

Emphasize tiered options

As Muslim and female farmers face more constrained access to finance, the project provided different options with lower levels of investments. These tiered options provided alternatives for farmers who are poorer or lack financing.

Key recommendation 7

Support and leverage female market actors

A large percentage of vegetable buyers are Rakhine women. There are ample opportunities to support and empower these female entrepreneurs, as they provide vital services to farmers.

INTRODUCTION

Much has been written about the challenges faced by the people of Rakhine State, none more famous and influential than the 2017 report from The Advisory Commission on Rakhine State—also known as the Annan Commission. The Annan Commission’s report detailed a plan to address Rakhine’s State interwoven triple crisis: development, human rights, and security.¹ It provided a myriad of recommendations spanning rights, health, education, the economy, and security. While most of these recommendations remain pertinent, its release preceded the events of August 2017 which pushed nearly 800,000 civilians, mostly Rohingya, across the border to Bangladesh.² Overnight, Rakhine State looked entirely different.

Since August 2017, conditions in Rakhine State have further deteriorated. Little progress has been made towards achieving the Annan Commission’s most meaningful recommendations. There is still no just and durable solution for the more than 100,000 internally displaced people living in camps. Meanwhile, a new, escalating conflict between the Arakan Army and the Tatmadaw has led to further violence, death, and displacement.³

It is infeasible for this case study to provide a full contextual explanation of Rakhine State. However, it is important to reference these events as they have acutely affected Central Rakhine State—the target area of the Transforming Rakhine’s Vegetable Markets (TVeg) project.⁴

The TVeg project did not seek to address the root causes of these conflicts nor respond to resulting humanitarian emergencies. Rather, the project aimed to provide a market-based approach to develop sustainable economic opportunities for all communities, in line with the Annan Commission’s recommendations.⁵ The project operated within and adapted to these difficult circumstances while maintaining a focus on improving vegetable productivity and the incomes of men and women of all ethnicities and religious groups.

This study evaluates the effectiveness of TVeg in benefiting all communities in Rakhine while also recommending successful approaches. With four out of ten people in Rakhine living below the poverty line, complementary development initiatives are needed to tackle the complex triple crisis in the state.⁶

1 Advisory Commission on Rakhine State (2017) Towards a Peaceful, Fair, and Prosperous Future for the People of Rakhine.

2 Bureau of Intelligence and Research (2018) Documentation of Atrocities in Northern Rakhine State.

3 UN OCHA (2019) Humanitarian Needs Overview.

4 Central Rakhine State is generally used to describe the area north and east of Sittwe including the Kaladan River valley extending to the Arakan Mountains in the east. It typically includes Sittwe, Ponnagyun, Kyauktaw, Mrauk U, Pauktaw, Minbya, and Myebon Townships.

5 Especially the Economic and Social Development recommendations on farmer extension service (#7) and climate adaptation (#10). (Advisory Commission on Rakhine State, 2017)

6 World Bank Group (2019) Myanmar Living Conditions Survey.

METHODOLOGY

Research Questions

This case study explores two research questions:

1. To what extent were the TVeg project's outcomes inclusive?
2. What approaches should be used to include all communities in Rakhine in economic development programming?

The first question is addressed through an analysis of project datasets using disaggregation by sex and ethnicity. Interviews with project stakeholders are used to validate the analysis. The aphorism, "a rising tide lifts all boats" cannot hold true when the "boats" are different and the "tides" unequal. That is to say, farmers in Rakhine State face a number of shared challenges but also face unique challenges based on ethnicity, sex, location, among other factors. The study explores how changes in project participants' behavior, farm productivity, and income differed between sexes and across ethnic groups.

The second research question is addressed through a review of the TVeg project's approaches to village selection, farmer training, market facilitation, and other activities. Insights are gleaned from a literature review and through interviews with project stakeholders. Experiences and adaptations from the 26-month-long project are assessed to create recommendations for future economic development projects in Central Rakhine.

Data Collection and Analysis

To answer the above questions, three distinct sources of data were reviewed and analyzed.

First, a literature review of internal project documents and publicly available studies was conducted. The latter group included studies on agriculture, social inclusion, gender, and markets with a focus on Central Rakhine. Relevant studies are cited throughout.

Second, the study includes an analysis of 88 farmers who were surveyed at the project baseline and endline.⁷ Records were matched for comparison purposes; only farmers who completed both surveys are included in the analysis—i.e., a paired comparison. Escalating conflict between the Arakan Army and the Tatmadaw coupled with the COVID-19 pandemic prevented a large sample size during endline data collection.

⁷ Baseline survey conducted by Mercy Corps and East-West Seed from October 2018 to January 2019. N=332 farmers (277 men, 55 women). Endline survey conducted by Mercy Corps and East-West Seed from April to May 2020. N=108 farmers (85 men, 23 women).

Category	Muslim		Rakhine		Other*		Total	
	#	%	#	%	#	%	#	%
Men	8	9%	58	66%	5	6%	71	81%
Women	0	0%	17	19%	0	0%	17	19%
Total	8	9%	75	85%	5	6%	88	100%

Notes:

*Other categories include Mro and Maramagyi ethnic groups. Farmers from these ethnic groups were recorded as Rakhine in project reports while the endline survey data recorded them as Mro or Maramagyi.

Surveyed farmers answered questions about adoption of good agricultural practices, farm productivity, and farm income for the prior two seasons. All analyzed farmers received at least one training from East-West Seed and market information from Mercy Corps during the project period.

Survey	Winter 2017 (Nov 17 to Mar 18)	Monsoon 2018 (Jun 18 to Oct 18)	Winter 2018 (Nov 18 to Mar 19)	Monsoon 2019 (Jun 19 to Oct 19)	Winter 2019 (Nov 19 to Mar 20)
Baseline	X	X			
Endline				X	X

The third source of data was phone interviews with 25 project stakeholders: project field staff, management, farmers, buyers, input sellers, and the fund manager. As understanding the local language and dialect was sometimes a challenge, a native Rakhine speaker was hired for interviews with farmers, buyers, and input sellers. Interviewed individuals are listed in the acknowledgements section at the end of this document.

Table 3 - Interviewed project stakeholders

Survey	Project staff	Farmers	Buyers	Input sellers	Fund managers	Total
Men	9	2	1	1	3	16
Women	4	2	2	0	0	8
Total	13	4	3	1	3	24

Limitations

- The small sample size for Muslim men (n=8), Muslim women (n=0), and Rakhine women (n=17) means it is impossible to make conclusive statements on how the benefits of the project are distributed across different groups. Disaggregated data is used to show broad differences, but specific statements are avoided.
- Interviews with project stakeholders were conducted over the phone due to travel and social distancing restrictions in place because of the COVID-19 pandemic



PROJECT BACKGROUND

East-West Seed and Mercy Corps implemented the Transforming Rakhine's Vegetable Market (TVeg) Project from July 2018 to September 2020. Funded by the DaNa Facility, the project built on the two organizations' previous projects with vegetable farmers in Central Rakhine State.

The project was market-based, with a goal of strengthening the vegetable market system through building local knowledge, networks, and markets. It was market-led and driven by East-West Seed, which contributed GBP 292,000 (40%) of the project budget, with the DaNa Facility covering the remaining GBP 446,000 (60%).

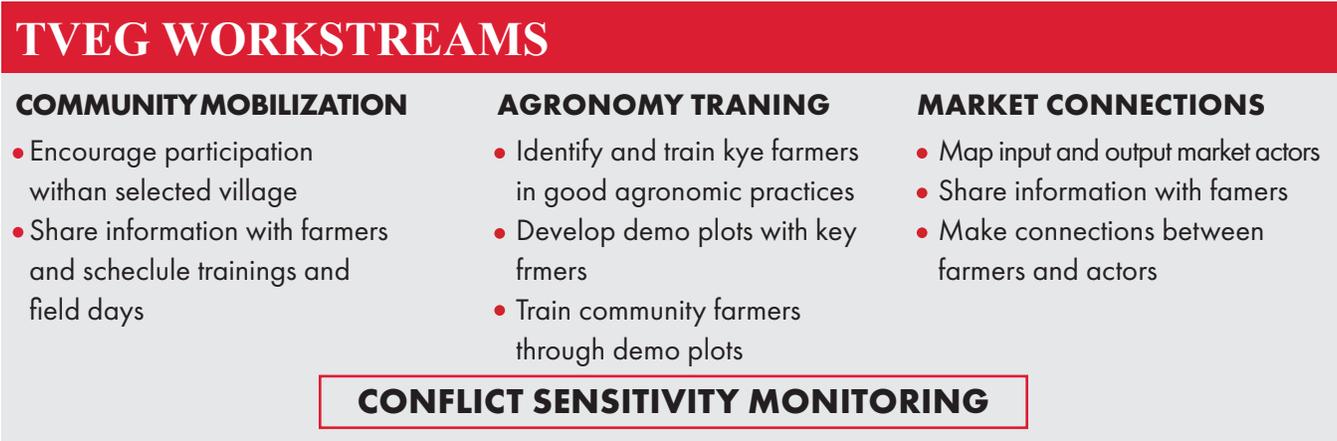
It is widely acknowledged that market system development projects require many years to incubate and sustain systemic changes. Despite TVeg's short time frame, it provides an opportunity to extract insights on social inclusion dynamics. Takeaways from this project, and the corresponding research, can inform longer-run strategies that require deeper investment with market actors in Rakhine.

TVeg aimed to increase the incomes of 10,000 vegetables farmers (30% women) in approximately 250 villages (10% Muslim communities). To achieve this goal, the project worked to address some of the main constraints faced by farmers.

Rakhine’s agriculture sector, the largest segment of the economy, suffers from chronic low productivity and profitability. Farmers lack the knowledge of good agronomic practices, access to high-quality inputs, and access to finance for productive investment. They suffer from a poorly-connected market that is distant from Myanmar’s largest cities. Rice is the dominant crop and is grown on approximately 85% of cultivated land.

While rice is by far the most widely grown crop, the project focused on vegetable farming, which can be cultivated on extremely small plots (0.1 acres) and yield high profits. Vegetables are mainly grown during winter (October - January) and only occasionally grown during the monsoon season (June - September). Summer (February - May) cultivation is rare due to the lack of rainfall, high temperatures, and pest/disease issues. The project aimed to capitalize on the opportunities for increasing vegetable production and productivity within the state.

Figure 1 - TVeg Workstreams



Project activities concentrated on improving farmers’ adoption of good agricultural practices and high-quality inputs. East-West Seed identified key farmers and influential individuals within their community with pre-existing knowledge of vegetable farming to establish demonstration plots with project support. Key farmers’ demonstration plots, for which a subsidy was provided, then served as a nexus for agronomy training delivered to any interested farmers by East-West Seed extension staff. Staff promoted the new practices and live demonstrations on the demonstration plot alongside key farmers. This approach aimed to sow knowledge in local communities while also developing focal persons with expertise (i.e., key farmers) who could share information during and after the project.

Alongside the East-West Seed-led agronomy training, Mercy Corps mobilized community participation and supported connections for both input (e.g., seed, fertilizer) and output markets (i.e., sale of vegetables to brokers/traders). Staff completed a market mapping of more than 220 off-takers (80% women) and shared it with farmers at training events and field days. Input market connections were meant to help farmers purchase the inputs promoted through the

7 Mercy Corps & East-West Seed (2014) An Assessment of Rakhine’s Vegetable Sector. & Johnson, D. (2019) Market Vegetable Markets Work Case Study.
 Criteria for key farmers are a) strong motivation - willingness to maintain demo plot and share information b) willingness to be trained - able to participate in trainings
 Agronomy trainings are divided into four modules: seedling production, fertilizer management, pest & disease management, cost & benefit analysis. Staff have flexibility to change the order or combine the trainings depending on the field situation.
 Demonstration plot subsidy includes seedling tray, plastic mulch, trellis, plastic cover, shade net, fertilizer, and pesticide according to the crop specifications. Key farmers contribute bamboo, seed, labor, fuel for irrigation, and manure. 100% subsidy in crop cycle #1, 75% subsidy crop cycle #2, and 50% subsidy in crop cycle #3.

East-West Seed trainings while output market connections with off-takers were viewed as important as vegetable production increased. Market connections are particularly important for Muslim farmers and female farmers as they have less freedom of movement and social connections outside the village.

TVeg aimed to include both male and female key farmers and community farmers (i.e., those trained through demonstration plots). Gender analyses in Rakhine have clearly shown that women have a “double labor burden” due to income generating activities plus household responsibilities, have less control of resources, lack decision making power, and have less access to livelihood services. In general, women in Rakhine have less power in the household and on the farm compared with women in other parts of Myanmar. Muslim women have less education, fewer choices, and face strong social norms (e.g., purdah) that limit their participation in non-household activities. Vegetable plots are considered a household asset with both men, women, and children providing labor. East-West Seed encouraged women’s participation in the project with a goal of reaching 30% women.

Figure 2 - In-depth view of agronomy workstream



TVeg was one of the first market-based projects in recent years to work with Muslim communities in Central Rakhine State. The vast majority of development initiatives in Rakhine.

do not aim to develop sustainable, market-based opportunities. This is partially due to the systemic constraints facing communities, especially Muslim communities, as they lack freedom of movement, do not receive equal services, and have lower levels of education.

Working with the Rakhine State Department of Agriculture, project leadership selected 250 villages with an initial target of 90% Rakhine and 10% Muslim communities. Village selection was based on a high potential for vegetable cultivation, community interest, and water access. Due to the escalating conflict, which limited access, as well as to capitalize on new opportunities, the project team went beyond the originally selected villages as the project progressed.

Off-takers are buyers who purchase vegetables. There are a wide range of off-takers from small, village-based individuals who buy from other farmers to other farmers to full-time traders operating between regional markets.
 DaNa Facility (2019) Women’s Participation in Agriculture Value Chains.
 Purdah is the practice of secluding women, especially unmarried young women, from public events
 Kimiri, Hoffmann and Haneef (2020) CARE Rapid Gender Analysis Myanmar–Rakhine State



SOCIAL INCLUSION AND PROJECT BENEFITS

Key Findings

Data from baseline and endline surveys were analyzed to understand the extent to which different groups of farmers benefited from the project. Interviews with 25 project stakeholders were used to confirm findings.

Key finding 1

Increased use of good agronomic practices

Farmers increased their adoption of good agronomic practices promoted by the project. There is insufficient data to make conclusive statements on how different groups benefited.

Key finding 2

Increased availability and consumption

Farmers reported increased vegetable availability at the community level, and vegetable consumption at the household level. More data is needed to understand the depth of this change.

Key finding 3

Reduced acreage due to conflict

Escalating conflict and market uncertainty led to a steep decline in cultivated acreage for all vegetable farmers for both the monsoon and winter seasons.

Key finding 4

Continued vegetable price volatility

Vegetable price volatility is extreme and has a large impact on farmer's incomes. The extent of price volatility negatively impacts all farmers, including men and women and farmers of all ethnicities.

Project Reach

The three project workstreams (mobilization, agronomy, and market connections) reached 9,840 farmers and 554 key farmers over the course of the project. Due to the decentralized nature of activities, no data is available that shows the depth of engagement by each farmer—for example, farmers who attended one training versus multiple training sessions, or farmers who attended trainings and received market advice

Table 4 – Farmer and key farmers reached through the project

Category	Muslim		Rakhine		Other*		Total	
	#	%	#	%	#	%	#	%
Reached farmers								
Men	932	9%	5,255	53%	0	0%	6,187	63%
Women	288	3%	3,365	34%	0	0%	3,653	37%
Total	1,220	12%	8,620	88%	0	0%	9,840	100%
Key farmers								
Men	44	8%	313	56%	0	0%	357	64%
Women	26	5%	171	31%	0	0%	197	36%
Total	70	13%	484	87%	0	0%	554	100%

Notes:

*Other categories include Mro and Maramagyi ethnic groups. Farmers from these ethnic groups were recorded as Rakhine in project reports while the endline survey data recorded them as Mro or Maramagyi.

TVeg provided services in 244 villages (12% Muslim villages), which is near the total village target (250), while exceeding the Muslim community target of 10%. Of the total farmers reached, 12% were Muslim and 88% were Rakhine. Female farmers accounted for 37% of all farmers while Muslim women accounted for only 3% of farmers reached. Per interviews with project staff, the project steadily increased the percentage of women as it made adjustments in its approach.

Figure 3 - Reached farmers by percentage



Key farmers are nearly representative in terms of ethnicity and sex, of the reached farmers. For example, TVeg reached 12% Muslim farmers and selected 13% Muslim key farmers. The percentage of Muslim female key farmers (5%) exceeded Muslim female farmers (3%).



Adoption of Practices

The project identified and tracked 11 key practices meant to increase productivity and resilience through the baseline and endline surveys. Surveyed farmers adopted, on average, 2.5 additional key practices during the project. Disaggregation by sex and ethnicity is provided, but the study only draws limited conclusions due to small sample sizes.

Category	Muslim Men (n=8)	Rakhine Men (n=58)	Rakhine Women (n=17)	Other Men (n=5)	Total All (n=88)
Baseline	1.6	2.7	2.9	3.4	2.7
Endline	4.4	5.6	4.3	5.2	5.2
Change	+2.8	+2.9	+1.4	+1.8	+2.5

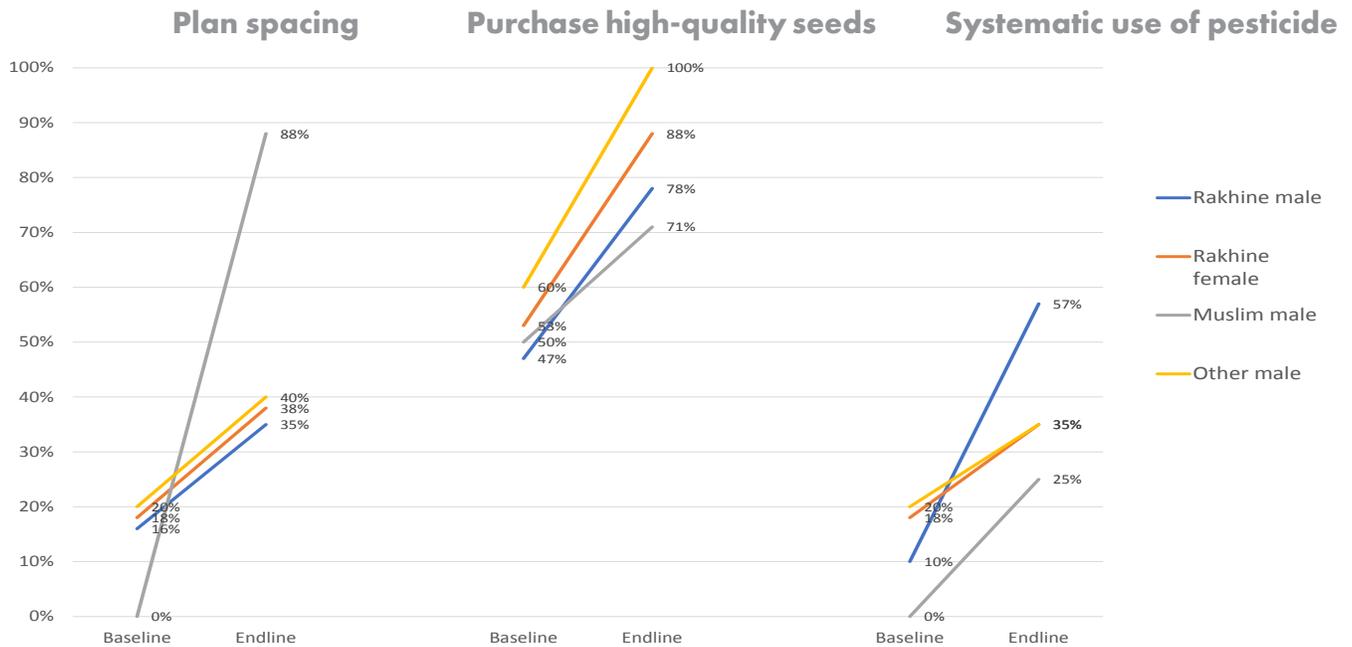
Per Table 5, Rakhine men adopted the most new practices (2.8) and Rakhine women adopted the least (1.4). A good example of this is highlighted in Figure 4, which shows the adoption of high-quality seeds. All groups of farmers increased their purchase of high-quality seeds but Rakhine women had lower adoption rates likely due to the systemic barriers that they face.

Muslim men adopted nearly as many practices as Rakhine men (2.8 versus 2.9) but still employ fewer practices because they started at the lowest level of practice adoption (1.6). Project staff verified that Muslim farmers, in general, implement

fewer good agriculture practices as they have historically not received extension services. Therefore, effort is needed to narrow the gap faced by Muslim farmers while also increasing the adoption of good agriculture practices for all communities.

Figure 4 shows adoption of correct plant spacing by the different farmer groups. At endline, male Muslim farmers showed drastic improvements in this practice (increasing from 0% to 88%) while the other groups showed less significant gains (increasing from roughly 18% to around 40%).

Figure 4 - Change in adoption rates of selected practices (% of farmers)



Practice adoption may not change at equal rates across genders due to the gendered nature of farm labor and decision making. Both men and women in married households contribute to vegetable farm decision making and labor but some practices such as pesticide spraying (Figure 4), are usually performed by men while other tasks, such as weeding, are generally performed by women.

Acreage and Seasonality

There was a steep decline in acreage under cultivation from baseline to endline. On average, farmers decreased their monsoon acreage from 0.40 to 0.24 and winter acreage from 0.54 to 0.35. Disaggregation by ethnicity is provided but only limited conclusions can be drawn due to small sample size. As vegetable production is a shared household activity and plots belong to both men and women, no sex-disaggregated data is presented in this section.

Per interviews with project stakeholders, decrease in vegetable acreage was due to increased conflict. Some farmers decided to stop cultivating fields further away from the village because they did not feel safe traveling to their fields. In extreme cases, farmers were displaced from their villages and had to completely abandon their fields in the middle of the season. Interviewed project staff also reported an increase in market uncertainty that dampened farmers' interest in investing resources and time in vegetable farming.

Key practices are the following: a) high-quality seed, b) seedling nursery, c) seedling trays, d) raised bed planting, e) plant spacing, f) plastic mulching, g) systematic use of fertilizers, h) sprayers, i) systematic use of pesticide, j) personal protective equipment, k) pest and disease management

East-West Seed and Mercy Corps (2018) Analysis of Gender in Vegetable Value Chain in Central Rakhine.



The data shows a modest increase in the number of farmers (7%) cultivating vegetables in the monsoon season. In central Rakhine, farmers rarely grow vegetables in the monsoon season due to heavy rains that can damage crops. The TVeg project promoted monsoon cultivation with practices (e.g., raised beds) that mitigate the negative effects of heavy rainfall and flooding. Market prices are often higher during the monsoon season as there is a shortage of fresh vegetables in Rakhine.

Table 6 - Change in acreage

Category	Muslim (n=8)		Rakhine (n=75)		Other* (n=5)		Total (n=88)	
	E**	Δ***	E	Δ	E	Δ	E	Δ
Total								
Farmers cultivating****	9%	+0	85%	+1%	6%	+1%	100%	+2%
Average acreage*****	0.39	-0.34	0.143	-0.20	0.24	-0.21	0.42	-0.21
Winter								
Farmers cultivating	9%	+0	77%	+0%	6%	+1%	92%	+1%
Average acreage	0.36	-0.37	0.35	-0.17	0.20	-0.25	0.35	-0.19
Monsoon								
Farmers cultivating	2%	+2%	34%	+6%	1%	-1%	37%	+7%
Average acreage	0.12	+0.12	0.25	-0.17	0.20	+0.00	0.24	-0.16

Notes:

* Other categories include Mro and Maramagi ethnic groups. Farmers from these ethnic groups were recorded as Rakhine in project reports while the endline survey data recorded them as Mro or Maramagi.

** E is the endline value.

*** Δ is the change from baseline to endline.

**** Farmers cultivating is the number of farmers growing vegetables during that season.

***** Average acreage only includes data from farmers who cultivated vegetables (i.e., zeros are excluded).



Price

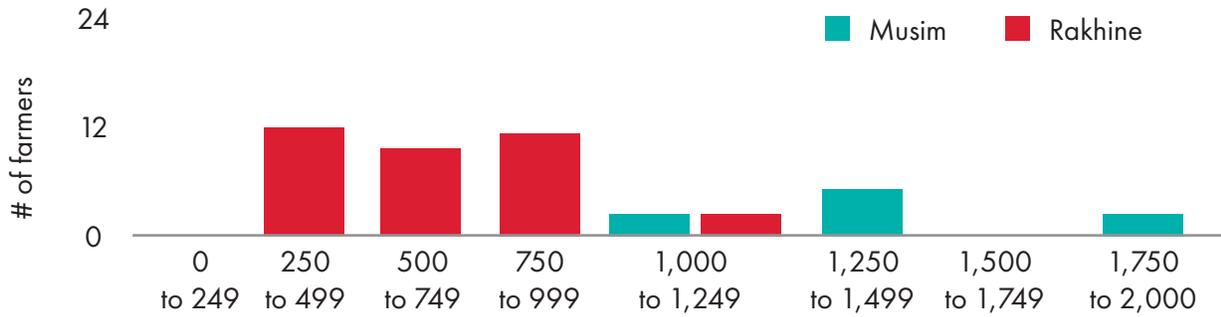
Per interviews with stakeholders, Rakhine and Muslim farmers receive nearly the same price when brokers come to the villages to purchase vegetables. Some Rakhine farmers transport their goods to the market where they are able to fetch a higher price albeit with transportation costs. The price premium could not be verified during this case study as buyers were reluctant to share information about their margins. The option of transporting vegetables to market is not available to Muslim farmers due to movement restrictions.

Project data show that vegetable prices are extremely volatile for all farmers, regardless of gender or ethnicity. With no forward contracts or cold storage, farmers are reliant on local brokers and subject to wide swings in prices which affect incomes, resilience, and investment. It is for this reason that Myanmar farmers often call vegetable cultivation a “lottery”.

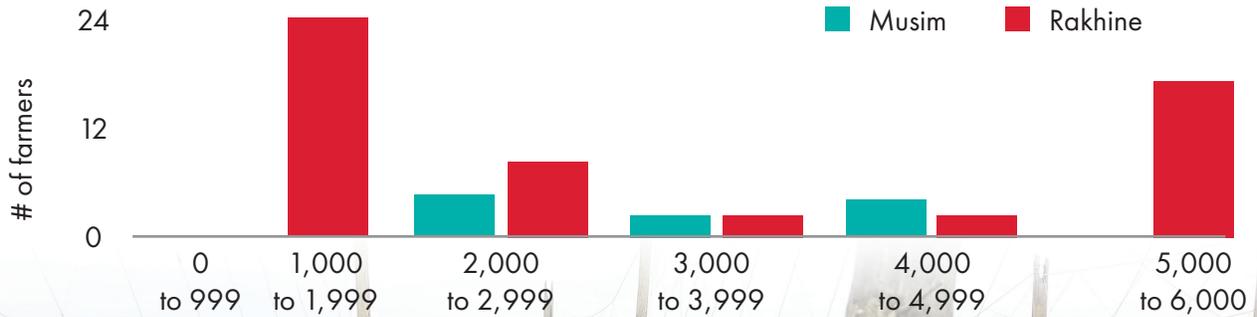
Figure 5 shows the wide range of prices that farmers reported receiving for one kilogram of eggplants and hot peppers. All data points were captured during the endline for the winter 2019 season. Despite being the two most widely cultivated vegetables in the sample, the prices show extreme volatility with some farmers receiving five times as much for one kilogram.

Figure 5 - Prices for eggplants and hot pepper

**Eggplant: Price received per kg
(n = 31 farmers)**



**Hot pepper: Price received per kg
(n = 52 farmers)**



Burke (2015) What Holds Vegetable Farmers Back?

Johnson and Aung (2018) Describing Vegetable Price Volatility Factors in Southern Shan, Myanmar.

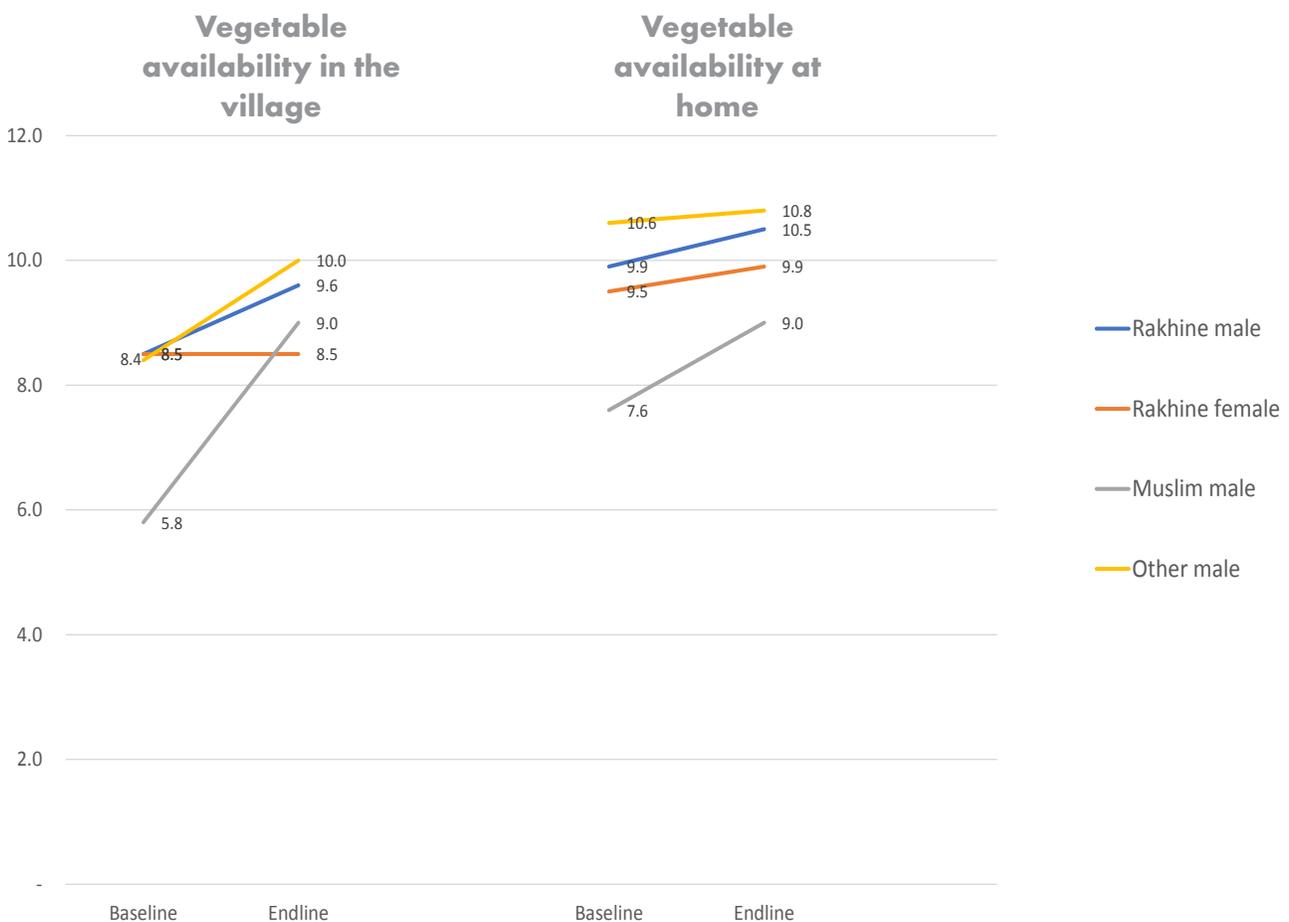
Vegetable Availability and Consumption

When asked about 12 specific vegetables, farmers reported an increase of those vegetables within their local market and an increase in the consumption of those vegetables at home. One hundred percent of farmers at endline (n=88) reported that they eat more vegetables at home than they did two years ago.

Muslim male farmers (n=8) had the largest increases in both vegetable availability and consumption at home. Muslim male farmers reported a 55% increase (3.2 vegetables) in the number of vegetables available and an 18% increase (1.4 vegetables) in consumption at home. Figure 6 below shows how Muslim households are “catching up” to other communities in Rakhine in terms of vegetable availability and consumption. Both Rakhine and other communities reported more modest increases in these categories.

While the project focused on income and productivity, an increase in household vegetable consumption, possibly leading to better nutrition and increased food security, was a notable side effect. More data is needed to understand the availability and consumption of vegetables over time both in terms of variety and volume of consumption. In addition, a larger sample size is needed to make conclusive statements about vegetable availability and consumption across different groups.

Figure 6 - Vegetable availability in village and at home (Average number of vegetables, max + 12)



Questions were “Do you consume X at home?” and “Is X available within your community?” where X is the following vegetables: bitter melon, bottle gourd, chili (hot pepper), eggplant, pumpkin, ridge gourd, snake gourd, tomato, wax gourd, and yard long bean.

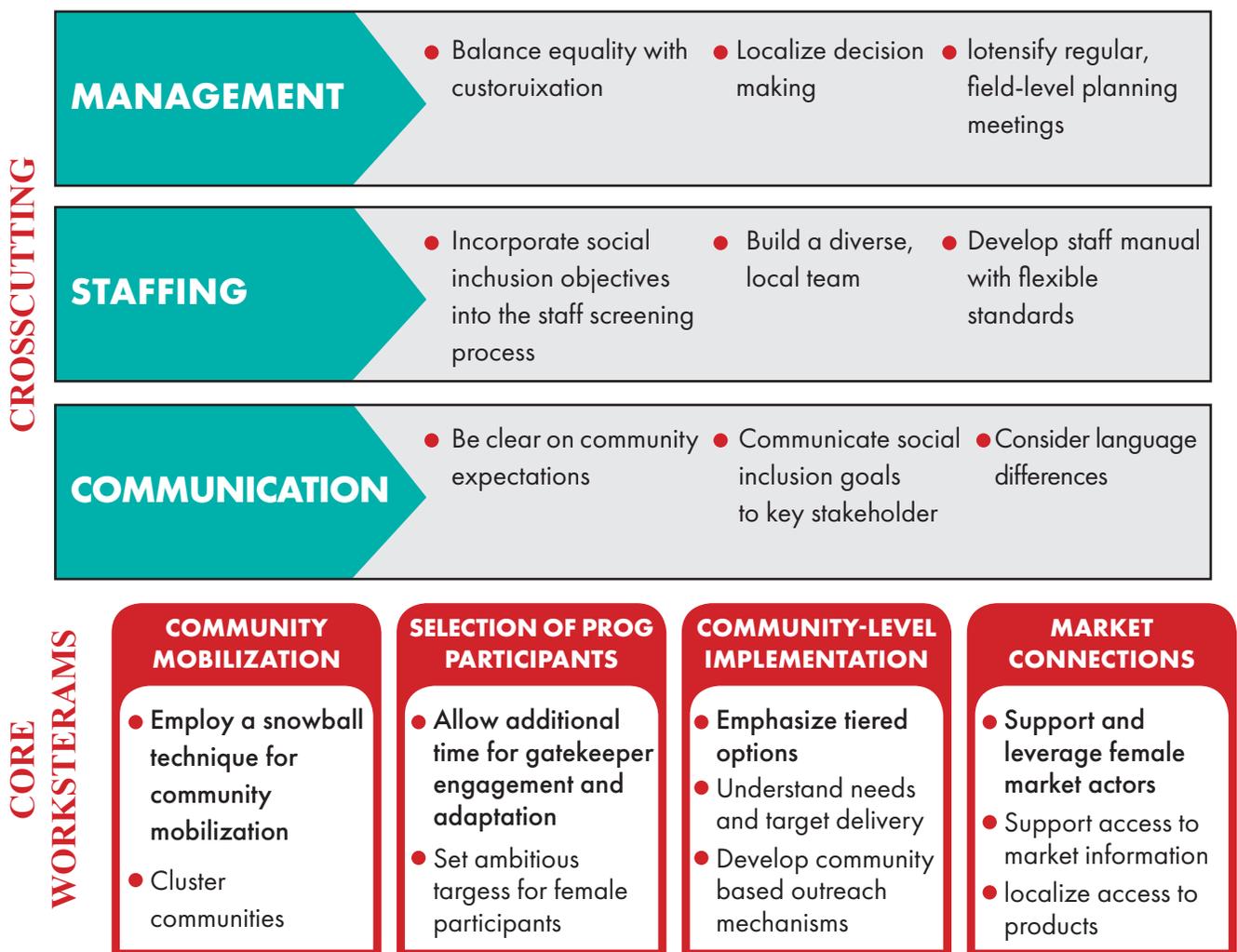
CONFLICT-SENSITIVE APPROACHES TO SOCIAL INCLUSION IN ECONOMIC DEVELOPMENT PROGRAMS

Key Recommendations

In this section, the approaches taken by TVeg to including all people in Rakhine are considered. The goal of this section is to present successful and high-potential approaches that can be applied to economic development projects seeking to include and benefit all communities in Rakhine within the current security context.

While the findings from the first section are retrospective, this section looks ahead. Recommendations combine experiences from TVeg with new ideas pulled from the literature review and interviews with 25 project stakeholders.

Figure 7 - Recommendations for conflict-sensitive approaches to social cohesion in economic development programs



Sixteen recommendations are divided into two sections: crosscutting recommendations and the recommendations about the project’s core workstreams. Key recommendations, highlighted in bold in Figure 7, are listed below.

<p>Key recommendation 1 Balance equality with customization</p>	<p>To address different social inclusion constraints, project staff customized some aspects of the project—language translation, number of key farmers, training venue, etc. However, there are risks to implementing vastly different workstreams in different communities.</p>
<p>Key recommendation 2 Incorporate inclusion objectives into the staff screening process</p>	<p>Emphasizing the importance of social inclusion ensured that the project hired the right staff and set expectations for an inclusive project implementation.</p>
<p>Key recommendation 3 Be clear on community expectations</p>	<p>Project expectations on social inclusion created a common understanding that helped address social norms from the start of the project. The concept of “mutual agreement” should be adopted as part of the participant selection process.</p>
<p>Key recommendation 4 Employ a snowball technique for community mobilization</p>	<p>Participating farmers were asked to recommend others who might be interested in joining the project. Receiving a referral and introduction can be safer and more effective than a direct approach.</p>
<p>Key recommendation 5 Allow additional time for gatekeeper engagement and adaptation</p>	<p>Particularly in Muslim communities, TVeg staff observed that it was important to begin work with community influencers, who are disproportionately male, as a way to build trust and gain access.</p>
<p>Key recommendation 6 Emphasize tiered options</p>	<p>As Muslim and female farmers face more constrained access to finance, the project provided different options with lower levels of investments. These tiered options provided alternatives for farmers who are poorer or lack financing.</p>
<p>Key recommendation 7 Support and leverage female market actors</p>	<p>A large percentage of vegetable buyers are Rakhine women. There are ample opportunities to support and empower these female entrepreneurs, as they provide vital services to farmers.</p>

Management

Balance equality with customization. Staff implemented the same workstreams (mobilization, key farmers, agronomy training, and market connections) in Rakhine and Muslim communities. Nonetheless, to address different constraints project staff customized some aspects—language translation, number of key farmers, training venues, etc. There was a clear understanding of the different constraints facing different genders and communities and it was preferable to customize some project components while adhering to an equal core set of workstreams. However, interviewed staff expressed their unease with the idea of offering different workstreams or levels of subsidy to different communities due to the risk of project reputation and intercommunal grievance.

Localize decision making. Rapid changes in Central Rakhine, such as road closures and unrest, required quick changes in project implementation. For example, one village that held a large field day was not accessible the following week. To accommodate this, senior management empowered the local team to make decisions, especially related to conflict-related situations. Senior management trusted the local staff, based across the project townships, to assess the situation and adjust their approaches. This led to faster and more localized decision making that kept the project staff safe.

Staffing

Incorporate social inclusion objectives into the staff screening process. Management included the project's social inclusion objectives for working with Muslim communities and female farmers in job descriptions. These were reinforced during interviews to identify staff willing to work across communities; it is not easy to find these types of candidates due to social stigma. Emphasizing the importance of social inclusion ensured that the project hired the right staff and set expectations for inclusive project implementation.

Develop a staff manual with flexible standards. The project relied on the experience of staff who had worked for several years on East-West Seed and Mercy Corps' previous projects. Documented standard operating procedures on workstreams, communication, and monitoring can help create a systematic and consistent approach. Documentation and staff onboarding is even more important for new staff who lack experience working in such a complex environment. However, it is important to balance the desire for standardizing principles and key rules while allowing flexibility due to the wide range of situations encountered in different communities.

Communication

Be clear on community expectations. Market-led and market system development projects offer different levels and types of support for communities compared to humanitarian projects. Communities must understand the expectations, if any, for their involvement so that they can make informed decisions about their participation. For example, expectations for key farmer selection including requirements of co-investment, practice adoption, maintenance of the demonstration plot, and information sharing should be clearly understood by potential participants. This is particularly important in Central Rakhine as some communities are accustomed to receiving humanitarian assistance. In a few cases, communities that initially declined to participate in TVeg decided to join after seeing neighboring vegetable farmers benefit. This concept of "mutual agreement," which reinforces agency, should therefore be adapted as part of the participant selection process. Describing project expectations about social inclusion—for example, including female farmers creates a common understanding and helps address social norms from the start of the project.

Communicate social inclusion goals to key stakeholders. The project’s social inclusion objectives should be communicated to external stakeholders including partners and government staff. As part of the TVeg program, for example, staff needed to practice how to introduce and explain the project’s objectives related to women and Muslim communities. There must be clarity and consistency in messaging from the first day of engagement. A transparent process ensures early buy-in from gatekeepers and reduces operational risks.

Community Mobilization

Employ a snowball technique for community mobilization. In a snowball technique, participating farmers are asked to recommend others who may be interested in joining the project. This approach can be used for involving more farmers, especially women, as well as identifying new, nearby communities. Local leadership, such as the village tract administrator, can be a powerful ally in this process. TVeg staff used this method to find and gain access to Muslim communities. Receiving a referral and introduction was considered safer and more effective than a direct approach.

Cluster communities. Building from the snowball technique, implementing workstreams in several nearby villages (i.e., clusters) also brings benefits. There is often a considerable amount of trade and exchange between, for example, Muslim and Rakhine villages: labor, input sales, and selling. In such cases, opportunities may arise to further strengthen intercommunal ties through shared training, field days, and market coordination. TVeg experimented with these types of activities but further experimentation and analysis is recommended.

Selection of Program Participants

Allow additional time for gatekeeper engagement and adaptation. Particularly in Muslim communities, TVeg staff observed that it was important to begin work with community influencers, who are disproportionately male, as a way to build trust and gain access. Projects should clearly set expectations on women’s participation (see section above) and have concrete plans to quickly add female key farmers in these types of situations. Women may also need to check with their husband or other family member before agreeing to serve as a key farmer. It is therefore advisable to allow additional time during the selection process for women to have this consultation before key farmer selections are finalized.

Set ambitious targets for female participants. Thirty six percent of key farmers were women which roughly corresponds to the 37% of trained farmers who were women (see Table 4). There is global evidence that female farmer trainers increase women’s participation and anecdotal evidence, from other East-West Seed projects, that female key farmers outperform male key farmers. During interviews, female key farmers stated that it is easier for them to engage female than male key farmers due to gender norms. Increasing the number of women key farmers should increase women’s participation in the project.

Jiggins et al. (1997). Improving women farmers’ access to extension services. & Oakley (2020). ADVANCE Myanmar: Lessons for strengthening private sector-led farmer extension

Mercy Corps’ currently implements the Supporting Empowerment and Economic Development of Women in Rakhine State (SEED) in four townships of Rakhine State (Sittwe, Ponnagyun, Pauk Taw, and Mrauk U). SEED has been working with 100 percent female key farmers/promoters and effectively increasing female productive participation in farming.

Community-Level Implementation

Emphasize tiered options. Farmers in Central Rakhine lack the access to finance needed to fund agricultural investment. As Muslim and female farmers face more constrained access to finance, the project provided different options with lower levels of investments. These tiered options provide alternatives for farmers who are poorer or lack financing. Linking with microfinance institutions and/or adding a short-term discount workstream to the project in order to subsidize investment would further support practice adoption especially among poorer vegetable farmers.

Table 7 - Recommendations for conflict-sensitive approaches to social cohesion in economic development programs

Practice	Purpose	1st option (More expensive)	2nd option (Less expensive)
Seedling nursery	Develop high-yielding, disease free seedlings for transplanting to field	Seedling trays	Plastic bags
Trellis	Provide sturdy structure for healthy vine growth	Bamboo	Plastic tubing
Ground cover	Trap moisture and reduce weeds and labor costs	Plastic mulching	Rice straw

Understand needs and target delivery. As women have a larger share of household labor responsibilities and suffer from time poverty, they are not readily available for training during certain times, especially the morning. Muslims are not available on Friday due to prayer. Trainings should be held at locations that are suitable for both genders and if holding intercommunity events, suitable for all ethnicities. For example, TVeg stopped hosting agronomy trainings at mosques because although women could attend the mosque, gender segregation was imposed.

Develop community-based outreach mechanisms. In its second half, the TVeg project experimented with key farmer promoters. Key farmer promoters received intensive agronomy training from East-West Seed and also gained additional responsibilities including visiting other villages and training farmers. This adaptation was made due to the staff's inability to travel to certain project villages due to the conflict situation. While key farmers lack the skill of East-West Seed extension staff, this approach allowed the project to continue activities. Support to promoters was provided by phone and Viber, when the Internet was available. This approach should be further analyzed and honed for future projects as a way of empowering local key farmers. However, it should be noted that most Muslim women are unlikely to be able to participate as key farmer promoters due to social norms. Mercy Corps is continuing to implement this outreach mechanism in its SEED project, funded by UN Women, by supporting female promoters to assist female farmer champions.

Short-term discounts (i.e., vouchers) de-risk farmers' initial investments in new technology. In this way, farmers are able to see benefits and make informed purchasing decisions in future seasons. These types of smart subsidies can build long-term practice adoption and market change as local shops stock new inputs.

Market Connections

Support and leverage female market actors. A large percentage of vegetable brokers are Rakhine women—of the more than 220 brokers and traders in the TVeg market mapping, 82% were women. These brokers buy from local villages, both Rakhine and Muslim, and then sell in larger markets. TVeg shared broker information with farmers and invited brokers to field day events to meet and interact with farmers. This was a good start, but there are even more opportunities to support and empower these female entrepreneurs, as they provide vital services to farmers, on future projects.

Support access to market information. Conflict, the lack of freedom of movement, and vegetable price volatility are hindrances to efficient market operations. As price takers, farmers are disadvantaged. TVeg staff conducted a market mapping and shared vegetable broker and traders' contact information to help farmers identify buyers and better prices. Ninety-nine percent of farmers who receive market information from the project reported that it benefited them by giving them more choice on where to sell their vegetables. While market information sharing was project-driven, market-led and conflict-sensitive sharing mechanisms should be developed. For example, in-person or online farmer groups and online marketplaces could improve exchange of information.

Localize access to products. There is an opportunity to support local input suppliers, especially in Muslim communities, to stock inputs promoted through the agronomy trainings. Local shops do not currently stock some inputs due to low demand from farmers prior to TVeg. Muslim farmers rely on Rakhine farmers and brokers to bring certain inputs from town since they lack freedom of movement. While this arrangement is workable, promoting local sale of inputs would be more convenient and create choice for farmers.

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