



VCRD LEARNING ACROSS VALUE CHAINS

USAID VCRD VALUE CHAIN DEVELOPMENTS

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INTRODUCTION

USAID/Burma's Value Chains for Rural Development project ("the project") is helping farmers, processors, and exporters improve the quality of selected commodities – soy, ginger, coffee, sesame and melons – and transact in more efficient, inclusive, and transparent ways. Now in its fifth and final year of implementation, this report highlights key cross-cutting learning since late 2014, grouped under success factors, the shift from direct delivery to facilitated services, challenges and adaptations, measuring market development outcomes, and documenting and sharing project learning. It complements assessments of value chain developments for each of the targeted commodities.

SUCCESS FACTORS

Across the five Myanmar value chains, the most significant VCRD success factors have been:

- **Buyer-guided focus on quality and standards – formal and informal.** Across all our target value chains, opportunities to earn higher incomes were driven by a focus on improved quality, defined by buyers based on end market preferences. Speaking directly with buyers at business-to-business (B2B) events convinced farmers that buyers would pay more for higher quality. Clear criteria and procedures for assessing quality created transparency; for example, cupping scores (coffee), grades and basic tests for moisture levels and acidity (sesame), and lab tests for chemical residues (ginger). Testing, vetting, and disseminating improved practic-

es and technologies enabled farmers to achieve it. Individual farm records and Farmers Groups' internal controls facilitated traceability and accountability, helping farmers qualify for Myanmar Good Agricultural Practices (GAP), as in sesame. Similarly, in the melon value chain, with publication of official Myanmar GAP standards for melons (and later, National Grades and Standards for watermelon, published in 2019), producers supported by a partner of VCRD's, the Myanmar Fruit, Flower and Vegetable Producer and Exporter Association (MFVP) began aiming to qualify for the first GAP certificates for melon production, placing new emphasis on quality across production and post-harvest systems.

Quality standards were articulated and later crystallized and incentivized by increasingly direct contact, dialogue, and relationships with end-users (buyers) from whom producers learned more about meeting quality-based benchmarks on their own; without any formal or government-approved standards or grades formalized for their crops. Such was the case with coffee farmers in Shan, who--prior to the project--had little incentive to produce anything other than low-quality commodity coffee. No government standards for coffee existed, and the quality threshold for specialty coffee traded internationally was unknown, even by relatively experienced estate producers. Once aware of the potential market value of specialty grade product, farmers, processors and other Myanmar stakeholders set about learning the language of international specialty coffee, including the baseline (established by cupping scores) required to meet specialty criteria and unlock quality premiums. Similarly, in the ginger value chain, no government grades, GAP guidelines, or other certification standards existed, and farmers had little-to-no knowledge of what quality or product characteristics were preferred by buyers outside the traditional ginger trading houses in Aungban. Once farmers met buyers from outside the local trading system through linkages fostered by VCRD, volunteers, and private sector partners, they began learning about minimum requirements for quality, traceability and certification, as well as the preferences and requirements of high-end buyers in Europe and North America.

- **Quality partnerships based on transparency and trust.** Initial market linkages evolved into relationships. Processors were motivated by the benefits

BOX 1. TERMS FOR PROJECT PARTICIPANTS

Local Field Assistants. Community-based extension specialists trained and paid by the project to support local farmers. Many of these have since become independent extension providers.

Lead Farmers. Farmers who volunteered to help organize other farmers in their community. Some also established demonstration plots and/or helped test new varieties.

Community-level Farmers Groups. Informal groups of smallholders organized to facilitate access to training and aggregate production.

Township-level Farmers Groups. For-profit firms (aka producer associations) formed to negotiate sales with buyers and provide other support services.

Project partners. Input suppliers, buyers, processors, banks, and other firms who engaged in new ways of doing business with smallholders, for mutual benefit. Some project partners received a VCRD Innovative Grant.

Innovative Grantees. A subset of the project partners, these firms received in-kind grants for equipment to upgrade their plants and the overall value chain.

Sub-awardees. Local NGOs contracted by Winrock under its cooperative agreement with USAID to deliver value chain development services and capacity building of local firms and groups.

of better supply chain management. Farmers were motivated by the prospect of better prices and transparency, eager for an alternative to selling to intermediary traders, who they believed routinely cheated them by under-reporting weights and other means. Highly motivated individuals stepped forward to participate in and lead collaborative problem solving and innovation related to growing, aggregating, processing, and selling. Less committed partners and participants elected to drop out (refer to box).

- **Listening to farmers.** Throughout the process of identifying and disseminating information on improved practices, the project team and consultants **listened to farmers** to understand the "why" underlying their decisions and practices, and coached

project partners to do the same. Rather than viewing them as vulnerable smallholders, the team respected them as entrepreneurs and **co-designers**. This approach empowered farmers and produced user-friendly recommendations. In addition, the project team allowed Farmers Groups to progress at their own pace, recognizing the importance of having a core set of committed farmers succeed in demonstrating the benefits of new practices before encouraging scale up.

- **“Just do it” attitude.** Myanmar smallholders and other market actors embrace new opportunities and learning-by-doing and are not easily daunted by challenges and missteps. They are excellent innovators and problem-solvers. Project participants “self-selected” and diligently pursued higher quality. These traits drove adoption, testing, adapting, replication, and resilience.
- **Starting small, learning, and improving.** Starting with relatively simple solutions and with a manageable number of participants allowed new organizations to maintain quality control. Farmers Groups evolved iteratively, in response to identified needs and opportunities. Identifying selection criteria for mobilizing new farmers and communities helped scale up incrementally, without jeopardizing quality. Participatory, systematic, post-season with buyers, producers, and the project team facilitated joint problem-solving and guided production planning for the following season. Economic analysis of production, aggregation, and processing identified cost ranges and averages to understand break-even points and identify high performing Farmers Groups and processors. In turn, this evidence helped producers and processors negotiate prices with buyers and identify ways to achieve greater quality and efficiency.
- **Social media and smart phone use.** Rural Burmese are avid users of social media. Project participants and partners posted information about production, extension, and/or selling activities on their Facebook pages. In addition, the project team and groups used Viber to share information with Local Field Assistants (LFAs), Lead Farmers, and group members.
- **Effective farmer-to-farmer training and learning.** Lead Farmers and LFAs met monthly to discuss what was working and not working related to adoption of improved practices. In addition, it’s common for village members to meet on each other’s farms to trade labor, which gives them an opportunity to observe and discuss differences between farms, to better understand the benefits of recommended practices and to identify issues and solutions. When interviewed, group leaders and project partners frequently expressed a desire (unprompted) that more people benefit from new market opportunities, and they are willing to share their experience and help train others for this purpose. Potential new participants initiate contact to learn more from others who have demonstrated results, neighbor-to-neighbor or community-to-community.

THE SHIFT FROM DIRECT DELIVERY TO FACILITATED SERVICES

Transition and trade-offs.

As the project shifted its focus from directly training farmers to facilitating market systems development (refer to box), team members and USAID/Burma discussed how best to build private sector capacities to provide quality inputs and services to smallholders. This shift presented a potential trade-off between achieving results in the short-term versus creating capacities that would remain after the project ended. The team understood the importance of sustainability, but was concerned about giving up the level of control that is possible with a direct delivery approach. Most interventions aimed to significantly increase quality and efficiency and in many cases it was not clear if potential private sector partners would be sufficiently motivated or skilled to operate at a pace and level required to achieve progress and meet market requirements. The team focused its support on value chain actors who self-selected to adopt new ways of doing business. Across all targeted value chains, the project team helped market actors achieve several important market firsts and proofs of concept. Examples include the first non-collateralized working capital loans in the agriculture sector, the new Myanmar Sesame Good Agricultural Practices (GAP), the first coffee cupping competitions, the first exports of specialty coffee and chemical residue-free ginger, and the first payment of price premiums for Grade A sesame. Project support to newly formed

producer associations was initially fairly intensive, and then phased out as associations evolved and linked to local business support service providers.

Constructive debate about the conditions under which “light touch” interventions versus more intensive coaching and support are warranted has continued to date. Reflections on important factors to consider are presented below.

Criteria for assessing the appropriate role of projects.

The project goal of “inclusive development” prompted the team to ask the following questions:

Development for who?

Who has an incentive to empower farmers?

What are firms/organizations reasonably willing to do?

FOR WHO:

The project defined the aim of “inclusive development” as **benefiting market actors throughout the value chain, with special attention to empowering farmers** because they typically capture a relatively small share of the total value in the value chain. Rather than seeking a transfer of profits between actors, the team identified ways to help farmers and others **create added value through higher quality** and **reduce costs through greater efficiency**. The project’s most effective farmer empowerment interventions have been helping farmers establish direct relationships with buyers and form for-profit producer associations that support members on a fee-for-service basis. Associations help aggregate production, facilitate access to quality inputs and credit, oversee quality control that reflects buyers’ requirements, and negotiate sales. Members are rewarded with higher prices for higher quality, lower transaction costs, and greater transparency.

INCENTIVES:

Reflecting back on how the first three years of project interventions unfolded, the project team started

BOX 2.

MARKET DEVELOPMENT TERMS

Market systems approach. Project implementers identify firms within the sector or value chain with the incentives, ability and willingness to address constraints and facilitate upgrading. Programming focuses on “light” touch efforts that facilitate sustainable market development and leverage relationships across market actors instead of directly intervening in value chains. Programming strives to sustainably develop the capacity of local actors to take advantage of opportunities, respond effectively to shocks and stresses, and solve their own problems. Programming also addresses systemic constraints that can unlock growth in multiple value chains by intervening in, for example, cross-market supply systems, information services, financial services, logistics, and the enabling environment.

Value chain. Value chains are one way that actors organize themselves within market systems. Value chains refer to the actors and functions connected by a series of value-addition transactions from production to consumption for particular goods and services; for instance, input suppliers, farmers, processors, traders, wholesalers, and national retailers selling into end markets. Value chains, in turn, depend on “cross-market functions” (see above).

Source: Global Food Security Strategy Technical Guidance - Market Systems and Value Chain Programming

its work in the target value chains by training farmers. The team subsequently shifted their focus to facilitating market linkages and strengthening service delivery through private sector players. They identified several partners who were willing to work with farmers, such as buyers seeking to **improve their supply chain** and input suppliers seeking to **sell inputs** – both of whom can benefit from cultivating loyalty and trust. Farmers Groups were formed when market forces led farmers to recognize the need for aggregation and new types of selling arrangements to negotiate better prices, lower transaction costs, establish internal quality control systems, and facilitate traceability. Group formation and partnerships were not an end, but rather a means for addressing business and market development needs. Starting small and simple and progressing to more formal arrangements as needed helped ensure relevance and buy-in.



Photo: Chameleon (taken by Matt Swenson, coffee volunteer)

WILLINGNESS:

Several firms and the Department of Agriculture (DoA) stated that they require that farmers first be organized before they can support or partner with them. It's difficult to imagine how many of the "market firsts" would have been achieved if the project had not established this foundation and momentum. Two activities are critical for facilitating inclusive market linkages – **mapping production pockets** to document production potential and **aggregating farmers and production** to help strengthen their negotiating power. In some cases, such as ginger and soy, buyers advised farmers that they only needed a single point of contact who could facilitate aggregation and speak for the community. These arrangements evolved into more formal Farmers Groups with Internal Control Systems (ICS) to enhance traceability and quality. The project's private sector partners demonstrated a willingness to provide technical training and demos related to produc-

tion and post-harvest handling; however, they had little incentive to help build the business skills of newly formed Farmers Groups. New groups generally required one or two seasons before they demonstrated value and could charge member fees to invest in business development services (BDS). In the meantime, the project provided BDS support to empower farmers as they developed new relationships with other market actors, and offered venues and stakeholder consultation processes that created a level playing field for negotiations and joint problem-solving.

Charting a path to sustainability and scale:

Helping Farmers Groups and associations get to the point where they demonstrate value to members and potential partners is critical for achieving results in the short to medium term and for longer-term sustainability. The team emphasized the importance of developing a **Business Plan** and helped link new organizations to BDS providers. In parallel, the team expanded the agenda for post-season reviews to encourage participants to identify a **3-5 year value chain development plan**, and increasingly discussed the project's value chain exit strategies and need to expand partner roles. Reflecting back, the team would have benefitted from documenting criteria and rationale for proposed project roles in the context of its theory of change. Theories of change are discussed in greater detail in the following section.

CHALLENGES AND ADAPTATIONS

The project team and participants identified the following challenges and adaptations.

Empowering farmers can disrupt markets.

Market development can create winners and losers. For example, when a local trader saw the SFDA establish a collection center for the purpose of selling directly to buyers, he devised a plan to undermine SFDA by publicly announcing an inflated price on their opening day. He assumed that SFDA would have to match his price, leading to losses because SFDA would be unable to fully recoup the cost from their buyers. Instead, the plan backfired because SFDA instructed their members to sell to the trader at his announced price, which he was obligated to honor. Similarly, some local coffee companies have sought to undermine the shift to specialty coffee production by spreading false information in the press and among local communities, sowing doubt about Myanmar's coffee quality. Commercial grade coffee companies and traders face greater competition for cherries and want to keep the price low. According to members of the newly established specialty coffee producer organization, Shwe Taung Thu, this behavior motivated them to strengthen their capacities and reinforced the benefits of having an association that can protect smallholders' interests. Actors who are unable or unwilling to adapt to changing opportunities will seek to obstruct change. In Years 4-5, VCRD began considering how traders (in addition to producers and processors) also could be helped to adapt, align with and benefit from new ways of doing business. For example, VCRD worked closely with Nice Tofu, a large buyer and processor of soy in Myanmar, to raise awareness of the potential to improve the quality of soy beans and tofu, specify new quality criteria for suppliers, and facilitate linkages with Farmers Groups. Once project-trained farmers succeeded in supplying higher quality soy through direct sales, Nice Tofu approached traders to inform them of new quality requirements. Soy traders have started to make price distinctions based on quality and to supply higher quality soy to Nice Tofu for the first time -- representing a significant market transformation outcome that benefits market actors throughout the value chain. VCRD's soy team is collecting market information from soy traders in mid-2019 to document changes in soy quality and value.

Women's Empowerment and Inclusion in Project Activities.

VCRD's approach to women's empowerment was to adapt technical activities to produce desired outcomes based on learnings from what was working. One particularly valuable insight gained after the first few harvests: in order to increase meaningful participation of women in project and partner-led activities, invite them directly by name whenever possible instead of relying on farmer group leaders or village leaders (usually male)

to distribute invitations. In addition, checking with women in advance about their farm schedules and availability to attend activities (e.g. before or after recurring household or other responsibilities) prior to scheduling events can greatly increase participation. The efficacy of this approach became apparent in the ginger value chain and helped increase the percentage of women involved in trainings—especially important because roles in ginger farming are gender-specific. Learning from the ginger example, the project’s partner in the melon value chain, MFVP, adapted its approach and successfully coached lead farmers to boost women’s involvement on GAP by 23 percent compared to the previous year, by sending personalized and hand-delivering invitations to women. Even when trainings centered on activities where women were the primary actors, men usually assumed that general invitations for training or technical assistance were directed towards them as the designated “heads of household”. Greater women’s participation through personalized invitations ensured that improved information and resources were delivered more equitably and efficiently. These lessons prompted MFVP later to experiment with holding some trainings led by women that specifically targeted women farmers, supporting ongoing efforts to ensure inclusive engagement. The project also expanded women’s involvement in both on-farm and value-added (processing) activities in the soybean value chain by fostering relationships between Farmer Groups and already-established networks of women’s groups active in other parts of the country. In the soy value chain, the project and partners disseminated improved practices and technologies outside southern Shan by facilitating connections between women extension experts and a network of women’s Self-Reliance Groups to explore soybean farming in northern Shan, where soy was a lesser-known crop. The linkage led the Innsein May Women’s Self-Reliance Group in Naung Hkio to establish its own demonstration plots to test different seed varieties, leading to uptake there and other areas; the Karen Women’s Organization is also now cultivating soy using improved practices introduced by a project partner.

Spotlighting the knowledge, skills, and abilities of women leaders in agriculture and business contributed to increased visibility of women on the production and market side. For example, in the coffee sector, messaging by VCRD and partners about innovative approaches to production and processing by Amayar Women’s Coffee Producers Group, and about the

women winners of national coffee cupping competitions created increased momentum and new opportunities for women in the coffee value chain in Myanmar. These factors led to creation in 2018 of the first Myanmar-based chapter of the International Women’s Coffee Alliance, and, later, to the launch of a women-led organic coffee export venture called The Lady Coffee Co., in partnership with a Texas-based exporter.

Market and policy failures.

Input suppliers are a potential source of “embedded” extension services to farmers, but their interests can conflict with the interests of farmers, leaving farmers vulnerable to buying and applying the wrong kinds or volumes of agrochemicals and other inputs. The following conditions mitigate this risk: 1) input suppliers are adequately regulated, which is not the case in Myanmar; and/or 2) farmers have a way of knowing where to access quality inputs and advice. In addition, this approach requires that quality input suppliers are motivated to adjust their business model to include embedded services, and there are enough good actors willing to play this role to achieve a significant scale relative to farmer demand. To date, the project has worked effectively with Good Brothers Corporation, JJ-PUN, and Yara International. Looking ahead, the project will conduct cost-benefit analysis of embedded services with these input suppliers to: 1) assess planned capacity relative to farmer demand, 2) help document the business case for embedded services by demonstrating its value to the firms, and 3) encourage other input suppliers to replicate the model.

Side selling.

Processors and associations have a minimum scale they must achieve to cover costs. Both are concerned about side-selling, in which 1) an association member does not sell their product through the association to avoid paying a commission, or 2) a smallholder does not sell their product to the processor or other market actor who has provided inputs, training, quality control, and other support, and instead sells to another buyer. Without a formal contract, this practice is not illegal in a free market. Competition can benefit smallholders, putting pressure on associations to demonstrate their value, and putting pressure on processors and others to be “a better buyer”. However, side-selling can undermine relationships built on trust and mutual benefit and is unlikely to benefit smallholders in the long-run. Some of these

lessons are best learned from experience. A good example can be drawn from the 2018 sesame harvest, which saw increased prices for a limited supply of GAP-quality sesame produced by farmers working closely with the newly established SFDA. After SFDA had worked hard to arrange pre-season credit from a major buyer/exporter, set up a temporary warehouse and committed to aggregating and selling 600 MT of GAP-quality sesame for the buyer, a competing local trader offered an artificially elevated price, encouraging SFDA's members to side-sell, and thereby undermining the new association. SFDA responded by encouraging any interested producers to sell their sesame to the trader and at the higher price, which it knew could not be sustained. Though SFDA lost some volume in the short-term to the competing trader, it gained the long-term trust of members and established itself as a farmer-focused enterprise dedicated to providing services including pre-season finance, discounted inputs and other services such as mechanization.

In some cases, side selling occurs when a farmer has conflicting commitments. For example, farmers that accept pre-season credit from a trader or broker are typically obligated to sell to them as a condition of the loan. The farmer-owned enterprise, Shwe Taung Thu, formed in 2018 by members of 18 villages who had worked closely with VCRD over the previous three harvests, established trust with its 3,400 members and prevented side selling by arranging pre-season finance for its members through a local bank, with loan guarantees from a global social lender based in the Netherlands.

GAP record keeping solution.

Both sesame farmers and buyers have noted that farm recordkeeping, a GAP certification requirement, is the task farmers have the most difficulty with. Identifying an IT solution to improve farmers' record keeping experience and provide a "work aid" for Lead Farmers and extension agents is a high priority. Ideally, a simple app could be adapted from existing farm apps for recording both farm practices and outcomes. Smartphone ownership is not a constraint in Myanmar. However, the app must support the Burmese language. VCRD shared information on existing apps with farmers during the initial Farmer Field Days. Adoption has been mixed to date, as some

farmers have difficulty with Internet connectivity and software updates. Efforts to identify a record keeping app should focus on the user experience to ensure that user constraints are addressed.

Resilience.

Consistent with USAID recommendations to "adopt a resilience lens", the Project recognizes that sesame farmers are extremely vulnerable to climate risk. It will continue to advocate for research on and investment in climate-smart technologies and practices with the Ministry of Agriculture, Livestock, and Irrigation (MOALI) – such as more resilient sesame seed varieties and inter-cropping practices. New seed varieties will be vetted with buyers, recognizing that they may forfeit the unique flavor notes of Myanmar sesame. In addition, the project is facilitating links between Proximity Designs and SFDA to expand access to climate-smart irrigation technologies designed and priced for small-plot growers, such as sprinkler and drip irrigation, sensors, and precision planting.

Access to credit.

Traditionally in Myanmar, smallholder farmers meet their working capital needs by borrowing from family members, local moneylenders who tend to charge high interest rates, and/or traders who may obligate them to pay in-kind with their harvest, leaving farmers unable to negotiate the price.¹ Access to formal credit in Myanmar is stymied by banking laws that set mandatory interest rate floors for deposits and interest rate ceilings for loans that do not allow a sufficiently wide spread to cover the bank's transaction costs and risk. In addition, bank staff typically lack sufficient knowledge of the agricultural sector to assess risk and structure viable loan deals. Saw Dino Ku, Executive Director of Ayeyawaddy Farmers Development Bank (known as "A bank") observed: "Most banks in Myanmar are not familiar with cash-flow based lending. We only think about collateral. If you have collateral, we can lend, but it's not like that in agriculture...It's very challenging at the Board of Director level, they don't understand the agriculture market so it's really hard for us to convince the Credit Department to take these kinds of risks."

Using the specialty coffee value chain as an example, VCRD worked closely with value chain actors, Yoma Bank, A bank, and others to expand access to credit

¹ This does not suggest that all traders who loaned money engaged in predatory lending practices. Some charged reasonable market rates and extended payment periods when crops failed.



for project participants and establish significant precedents for agricultural lending.

Informal loans brokered via value chain collaboration. For the 2016 pilot with four Ywangan communities committed to producing Myanmar's first specialty dry naturals, the project facilitated B2B meetings in which local coffee roasters provided pre-season loans of \$10,000 to help cover processing costs.

First non-collateralized working capital loan in the agriculture sector. In April 2017 Yoma Bank signed a \$143,210 loan agreement with a large coffee processor, guaranteed by Rabobank Foundation (100%), for onlending to a small coffee processor and 13 Ywangan communities. The loan disbursement was delayed by five months, beyond the period of critical need, pending approval by the government bodies responsible for approving investment proposals. Several Myanmar Coffee Association (MCA) members, including local estate owners, processors, and roasters, stepped up to advance working capital in time for the harvest season.

Second non-collateralized working capital loan in the agriculture sector. In January 2018 Yoma Bank provided a \$645,000 working capital loan guaranteed by Rabobank Foundation (80%), with a similar arrangement to the loan provided in 2017.

First non-collateralized working capital loan to a producers association. In 2019 A bank provided pre-season working capital loans directly to Amayar (a processor) and newly registered Shwe Taung Thu (the association established by the Ywangan communities), guaranteed by Rabobank Foundation. This was an important milestone for A bank. The project's prior attempts to broker a loan deal with A bank had been unsuccessful due to lack of confidence on the part of bank employees responsible for making lending decisions – a consequence of lack of experience with agriculture lending and a loan application form that did not fully capture information required to assess credit worthiness. As a result of their experience working with Rabobank, A bank has adapted Rabobank's loan guarantee application for their own use, paving

the way for more robust future lending in agriculture and other sectors.

The project's success expanding access to finance for processors and community-based producer associations is undoubtedly its most significant contribution to market systems development, because these precedents are relevant to farmers beyond the project's targeted value chains or geographic area. Additional information on VCRD's success helping value chain actors access finance is provided in a separate document.

The quality and value pyramid.

Charlie Habegger of Blue Bottle Coffee described the "coffee quality pyramid" to project staff in a January 2019 meeting. *"Quality in anything is shaped like a pyramid (refer to Figure 1). The better the quality, the less that is available. Scarcity and quality drive value. Approximately 20 percent of global coffee production qualifies as "specialty coffee", and only about 1-2 percent has a rare combination of high quality with distinct, harmonious flavor notes.*

The quality pyramid can be applied to all commodities. Even though the project aimed high for each of the five targeted commodities, quality within participating Farmers Groups and individual farm lots will inevitably vary for a variety of reasons. Having a plan for how to best utilize and market different qualities can help maximize value.²

The quality pyramid the trade-off between achieving the highest quality levels and reaching a large number of producers. The project focused on achieving relatively high levels of quality with a modest number of participants³, based on the rationale that higher quality would achieve scale over the medium to long term by attracting new buyers who pay higher prices, which in turn would attract additional producers. This theory of change will not be fully tested by the end of the project period. In the meantime, the project will document evidence of replication and scalability for each of the value chains.

2 For example, one VCRD-assisted coffee processor buys coffee cherries from estates and/or smallholders, sorts them, and produces washed, honey, and dry naturals. The highest quality cherries are used to produce dry naturals. Upon cupping, she may set aside a community's beans as single origin, recognizing that it has achieved the top tier of the coffee quality pyramid. She uses other high quality cherries for wet processing, mixing cherries from multiple communities because the wash process does not retain unique characteristics. The resulting green beans can qualify as specialty coffee, the middle tier of the coffee quality pyramid. She sells overripe, dry, floating cherries to instant coffee processors to recoup cherry costs.

3 In general, the project did not support commercial grade coffee production because it is unprofitable. However, commercial coffee producers interested in shifting to specialty coffee were potentially eligible to participate in training courses, and benefitted from the project's capacity building support to MCA, the national association that represents both commercial and specialty coffee producers.

The list of challenges and adaptations presented in this document represent selected highlights and is not meant to be exhaustive. Additional information is provided in separate value chain documents.

MEASURING DEVELOPMENT OUTCOMES

A critical factor in supporting a project design change – such as VCRD’s shift to facilitating market systems development – is adapting both the Theory of Change (TOC) and project performance indicators to ensure that staff understand how their performance will be measured and adjust the way they work accordingly.

Enhancing the Project’s Theory of Change (TOC).

The May 2018 update to the Monitoring and Evaluation Plan included the first documented TOC:

IF smallholder producers and producer groups have access to appropriate technologies, improved management practices, good agricultural practices, and functional and dynamic input and output markets; and

IF private sector actors are incentivized to establish win-win linkages with smallholder producers and producer groups, engage in responsible investments and drive the competitiveness strategies for each value chain;

THEN smallholder producers will increase production and incomes in a resilient manner.

Subsequent TOC discussions within the team have focused on how project design changes affect results with respect to scale (the number of farmers reached) and time horizons (short-term farm-level outcomes versus longer-term market system outcomes) relies on private sector actors’ willingness to play new roles, and in each instance identifying a viable business case for it. This approach typically requires more time to manifest significant changes in farmers’ yields and sales across a large number of farmers than can be achieved by traditional agriculture projects. Upon reflection, a discussion of timing and scale in the TOC would have facilitated more robust target setting. Refer to the box for additional recommendations.

BOX 3.

RECOMMENDATIONS FOR CREATING MORE USER-FRIENDLY THEORIES OF CHANGE

- **Iterative.** Periodically review, adapt, and refine TOCs as part of the quarterly or annual review process to ensure that they stay relevant, are well understood by team members at all levels of the organization chart, and guide strategic decision-making.
- **Vet TOCs with project partners and stakeholders.** TOCs should be developed and periodically reviewed in consultation with project participants (potential or existing), since their perceptions and priorities are central to identifying robust assumptions.
- **Behavior change stories.** Most TOCs simply describe the results framework in narrative format, using language that is oriented toward project designers and evaluators and focuses largely on linkages between outputs, outcomes, and project objectives -- without explaining the incentives that would drive behavior change or associated risks. Writing TOCs as detailed “stories of change” that describe the evolution and drivers of behavior change across diverse market actors generates more robust, understandable, and relevant TOCs.
- **Intervention-level TOCs.** Developing a TOC for each intervention clarifies the rationale and identifies important assumptions to monitor.
- **Timing and scale.** Ensure stories of change discuss the expected timing and scale of potential changes. This is essential for identifying realistic targets and documenting target rationales.
- **Decision-support criteria and frameworks.** Adopting criteria for making decisions at critical control points and using an analytical framework to document intervention rationales helps operationalize the TOC for project teams and partners, ensure alignment with planned activities, and facilitate transparency. Shwe Taung Thu’s selection criteria for new communities is an excellent example.

Identifying partner-centric market systems development indicators.

In the first four years of the project, results measurement focused on relevant Feed the Future (FTF) indicators, particularly yields, sales, and gross margins. Lack of market development indicators created challenges for setting clear expectations, measuring outcomes, and telling the story of project results. In Year 5, the project has started to collect evidence of market systems development and identified the following potential approaches and indicators for future projects that are relevant to associations and buyers engaged in improving quality, efficiency, and the inclusiveness of supply chains:

- *Volumes sold* (MT) at various grades and varieties, for the purpose of calculating share of production that is high grade and/or higher value
- Number or percentage of producers earning *price premiums* for meeting buyers' requirements or preferences
- *Recovery rates* (percentage of production that can be used, after cleaning and sorting)
- *Certification* (GAP, organic, Hazard Analysis Critical Control Point, etc.)
- *Benchmarking* (comparing results) across Farmers Groups, associations, etc.
- Reductions in *transaction costs* that enhance efficiency and profits
- *Quality of services and relationships* (indicators to be determined)

These indicators have the advantage of being less affected by factors beyond farmers' control, in contrast to yields, sales, and gross margins, which are adversely affected by crop failures and market price fluctuations. Looking ahead to future projects, it would be helpful if a USAID knowledge management resource maintained a list of custom market development indicators identified by project teams across the FTF portfolio and other donors, which teams could pull from. This would allow teams to identify indicators that best support results measurement and story-telling in the context of their unique project design.

In assessing market linkages, the quality of relationships established is more significant than the number of buyers. A Farmers Group or association only needs one to two good buyers. Prior to the end of

the project, the team will document lessons learned about fostering quality partnerships, based on stakeholder consultations during the final round of post-harvest review meetings.

In addition, it will be important that indicators (whether custom or "Required if Applicable") that rely on project partners to collect and report data are:

- *private sector oriented* – meaning that they focus on the kinds of data that market actors want to track and use;
- *streamlined* – because streamlined M&E systems are more resilient; and
- *supported with appropriate technology* to ease the burden of data collection, such as mobile apps.

Enhancing project story-telling.

The project team documented value chain stories for weekly roundups, progress reports, and quarterly reviews, featuring successful events and preliminary outcomes. However, The team found that anecdotes and survey data is generally not sufficient to assess systemic changes and capture project learning.

Survey data provides evidence of change, but is limited in supporting project story-telling because it relies on closed-ended questions that preclude the kind of dialogue that facilitates a greater understanding of participant' motivations, challenges, and perceptions of improvement. Using both quantitative and qualitative methods (a "mixed methods" approach) expands the evidence base. Whether the focus is on households, communities, firms or market systems; there is no substitute for interviewing participants in ways that allow for discussion and engage them in identifying what matters most from their perspective. In the words of Brene Brown, a social science researcher, "stories are data with a soul."

The project team used interviews and stakeholder consultation meetings effectively to support adaptive management. However, as the project entered its fifth and final year the team recognized that none of the standard project deliverables adequately captured the full story arc of each value chain. A series of stand-alone value chain stories was subsequently commissioned to collect additional data and summarize key milestones, results, and learning using new story-telling formats and approaches.

Identifying project beneficiaries.

Although not explicitly documented, it appears that the project team divided beneficiaries into three categories: 1) a broader population who received training on improved practices and technologies, 2) the smaller population of progressive community-based Farmers Groups, associations, processors, and buyers who participated in newly formed market relationships, and 3) recipients of Innovative Grants who they deemed “project partners”. Although FTF indicator data captured aggregate results from these beneficiary populations, the value chain-specific data in project reports often under-reported participants in custom data tables. For example, reporting on the specialty coffee value chain focused on farmers organized with project assistance and processors who received a grant to install or upgrade processing equipment. However, a larger population of market actors participated in Q Grading and Q Processing courses that were instrumental in establishing a cadre of specialty coffee professionals in Myanmar. In turn, several Q training participants are actively engaged in expanding the production of specialty coffee. Processors benefitted from linkages to new buyers even if they did not receive a grant. While their stories were told anecdotally, such as Ruby Hill’s creation of The Lady coffee brand and work with women smallholders, data on their farmers was omitted from custom data tables. Similarly, data on farmers supplying Mandalay Coffee Group (MCG) was omitted because they operated under a processor-lead model that was viewed as less empowering than an association-lead model. This affected how project reach, replication, and evolution of scale were described. A clearer market systems development TOC and discussion of what constitutes a relevant outcome would help team members frame project results more robustly.

How to think about spillover.

Spillover refers to **indirect beneficiaries** who were not intentionally targeted by the project. The project will **collect evidence of spillover** by interviewing Lead Farmers and DoA and possibly posting queries on Facebook or Viber. Moreover, the project team should consider how to intentionally harness this phenomenon to achieve greater impact. According to FTF guidance, attribution is a function of **intention and significance**. If the intervention is significant enough to achieve changes in technology adoption, yields, and sales and the farmer comes into contact with the intervention as a consequence of the imple-

mentation strategy – then it is reasonable to include the farmer in the sampling frame for Annual Results Surveys. The farmer is a direct beneficiary and the outcome is attributable to the project (not spillover). The inherent check against counting farmers who have not received significant support is that it will dilute outcomes, which are far more important for assessing project performance than the number of beneficiaries (an output).

Innovative grants.

Alluded to above, originally the project team viewed Innovative Grants as the primary gateway to establishing partnerships with value chain actors. Grantee’s engagement in value chain development activities varied and some of the more interesting partnerships were not grantees – demonstrating that grants were neither a guarantee nor necessary condition for forming effective partnerships. For example, the project helped link banks to loan guarantees and provided technical assistance to strengthen their understanding of value chains and market actors. As part of end-of-project reflections, the team will assess additional learning related to grant management and partnerships.

Enhancing data quality for FY2019 FTF outcomes.

The project team has learned an important lesson about data quality measures. To date, the third party survey firm tasked with conducting the baseline and annual results surveys has operated independently of the project team with minimal communication, to minimize the risk of bias. However, based on Winrock’s experience implementing other FTF projects, data quality control measures are substantially stronger when the project team and an M&E expert with FTF experience work closely with the third party. This approach is necessary because FTF indicators have unusually complex definitions and are susceptible to misinterpretation and data calculation errors. As a result, the project worked more closely with the survey firm for the FY2019 surveys. In addition, results will be stratified based on levels of project participation between 1) Farmers Groups and association members and 2) other farmers trained under the project, as we anticipate that outcomes will vary significantly between these groups.

DOCUMENTING AND SHARING PROJECT LEARNING

Effective feedback mechanisms.

Project M&E plans tend to suggest that collecting monitoring data is central to project learning and adaptation. However, outcomes are measured post-season, which is often too late to adapt in a timely manner if farmers are not adopting improved management practices and technologies or a significant shift occurs in market factors that needs to be addressed. The VCRD ginger team integrated analysis and feedback on an intervention-by-intervention basis throughout the agricultural calendar. For example, they routinely worked with market actors, including farmers, to test and assess costs and benefits of project recommendations, shared this information with farmers during demonstration events, and asked them about the feasibility and likelihood of implementing new practices. In addition, they routinely facilitated post-season review sessions with value chain actors to identify issues and solutions and plan for the following season. In parallel, with Mission encouragement, VCRD started holding internal Quarterly Review sessions to stop and reflect on project results. Multi-tiered feedback mechanisms were substantially more effective for adaptive management and project story-telling than monitoring data alone.

Knowledge management.

In the project's final year, Winrock will systematically capture additional project learning across the five value chains; for example: document the evolution of the theory of change, implementation strategy, approaches that didn't work, and adaptations. Success stories capture only a part of the project story. These additional pieces will ensure that project documentation efforts do not over-simplify the journey of change or otherwise lose significant elements of the project story. The purpose will be to facilitate replication and serve as an additional project contribution to market systems development learning.

