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CAN MARKET SYSTEMS DEVELOPMENT BUILD RESILIENCE IN FRAGILE CONTEXTS?

Lessons from a Comparative Three-Country Analysis in South and Southeast Asia

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MERCY CORPS

Why Study the Links between Market Systems Development and Resilience?

Mercy Corps has traditionally worked to achieve lasting poverty reduction at scale in complex contexts through a market systems development (MSD) approach. MSD helps teams analyze supply and demand for goods and services—ranging from farm products to water supply systems—that can support economic growth and improve social outcomes. The approach guides teams to identify barriers that prevent this supply and demand exchange from working effectively on behalf of the poor, as well as specific market-based solutions. Finally, the process leads teams to identify and develop partnerships with local, national and regional actors critical to addressing these constraints and creating the right conditions for markets to deliver improved products or services sustainably. Foundational to the MSD approach is the tenet that project implementers should adopt a light-touch role, creating linkages between market actors and stimulating market systems to deliver the selected product or service over the long-term, rather than having the project team deliver these directly within its short lifespan. MSD has evolved into a well-established, impactful model for achieving transformational change in economic systems that, in many cases, leads to sustained income growth and improved economic well-being among poor and marginalized populations.

More recently, Mercy Corps has developed a resilience approach to project design and implementation. The approach evolved in response to growing concerns that frequent and cyclical shocks and stresses have reversed development gains—particularly in politically and ecologically fragile geographies. The resilience approach draws on the systems thinking embedded in MSD, but provides a broader lens for understanding the social, economic and ecological systems within which communities live and identifying the shocks and stresses that contribute to fragility and unpredictability in these systems. The resilience approach also seeks to understand who is most vulnerable to these shocks and stresses, and what resilience capacities are required to prevent risk from undermining progress toward development goals.

While both MSD and resilience take a systems perspective—focusing on how to improve system performance for the benefit of marginalized or underserviced communities—recent research and programmatic learning suggest they are not synonymous, or even automatically reinforcing.[1]

Two Systems-Based Approaches

Systems-based approaches draw on systems thinking to unpack complex systems elements and form a greater understanding around their interconnectedness and interdependencies. Mercy Corps defines market systems development and resilience—two systems-based approaches—as follows:

Market Systems Development: An approach to working through public and private sector actors to address the underlying systemic constraints that hinder target populations' access to, and participation in, the market. Because locally embedded actors have wide-reaching connections with local populations, they can reach more people and change norms in market systems well beyond the life of the program.

Resilience: The capacity of households and communities in complex socio-ecological systems to learn, cope, adapt and transform in the face of shocks and stresses. Mercy Corps takes a systems approach to identifying which shocks and stresses pose the biggest threats to relief, recovery or development goals in a given context; who is most vulnerable and how; and what capacities households and communities need to stay on track and get ahead.

1 Mercy Corps' More Than Markets paper explores the limitations of a pure MSD approach in Northern Uganda, ultimately making a case for the critical role of resilience in achieving the full benefits of market systems work.

MSD traditionally focuses on improving economic outcomes for the poor, such as increased incomes, more recently under the assumption that these outcomes can the help the poor improve social well-being. On the other hand, resilience building is a means or pathway to sustaining and enhancing a broad range of development goals (e.g., increased income, social empowerment, improved health, food security) in a given complex risk environment—even in the face of intensifying shocks and stresses.

For Mercy Corps, introducing the resilience approach into a relatively well-established MSD approach provides opportunities to enhance program impact for the poor, but the requirements of considering multiple systems and risks can be challenging, as they introduce a new level of complexity into a relatively high-performing and bounded MSD model. To better understand where and how practitioners can apply both resilience and MSD approaches in ways that are mutually reinforcing, this research set out to assess the relationship between them in three unique contexts. Over a period of six months, Mercy Corps asked the following questions aimed at better understanding the synergies, challenges and tradeoffs that emerge when attempting to build resilience and achieve market systems outcomes:

- Can MSD—with a primary focus on increasing market access and incomes—help build resilience in fragile contexts? If so, which elements of an MSD approach support resilience?
- What are the risks of applying an MSD approach to poverty alleviation in fragile contexts without considering resilience?
- Can applying a resilience approach to MSD programs implemented in fragile contexts help ensure their long-term success and sustainability?
- Can the principles of MSD strengthen Mercy Corps' resilience approach?

Mercy Corps explored these questions through three MSD-oriented programs in its South and Southeast Asia portfolio, which integrated resilience theory in their designs to varying degrees. This set of programs provides three distinct vantages from which to examine the implications of and determine recommendations for applying MSD and resilience approaches in fragile contexts.

A Comparative Three-Program Analysis

Despite being implemented in three distinct contexts, the MSD-focused programs selected for this assessment share important similarities that allowed for a critical comparative analysis of the synergies and trade-offs that arise when attempting to achieve both MSD and resilience-building outcomes. Making Vegetable Markets Work for the Poor (MVMW) in Myanmar, Effective Seed Storage (ESS) in Timor-Leste and Managing Risk Through Economic Development (M-RED) in Nepal all operate in fragile contexts, characterized by weak governance, thin markets and frequent exposure to a range of economic, ecological and social shocks and stresses. Despite these challenges, all three had documented significant positive economic outcomes across their target populations—primarily smallholder farmers and the wider communities in which they lived—at the time this assessment began. The programs differed most dramatically in the extent to which they targeted resilience-building, ranging from no resilience-specific design processes or components, to explicit inclusion. These differences offered critical lessons about where and how incorporating a focus on resilience in MSD programs can yield greater dividends for risk reduction and sustaining economic outcomes over the long-term. A summary of specific program features relevant to the case study analysis follows.

Making Vegetable Markets Work for the Poor takes a strict market systems development approach to help smallholder vegetable farmers in the Southern Shan and Rakhine states of Myanmar increase their incomes.[2] Specifically, MVMW partners with input suppliers to promote the uptake of new agricultural technologies through vouchers, subsidizing input costs for seedling trays, plastic mulch, trellis netting and personal protective equipment, all of which are designed to reduce production variability and improve yields. In addition, MVMW partners with social enterprises like East-West Seed to increase farmers' knowledge of improved farming practices through extension services and demonstration plots, while piloting contract farming to support smallholders' access to export markets that have the potential to yield better prices. At the time of writing, 1,509 farming households had redeemed vouchers and purchased 2,496 improved technologies, and the total program investment for vouchers was MMK 45.55 million (33,130 USD) with farmer investment at MMK 81.86 million (59,540 USD). Extension services for improved agricultural techniques reached 18,568 farmers. MVMW did not incorporate risk analysis or resilience-building objectives in its design. Through this analysis, price volatility, rainfall variability due to climate change, crop pests and disease and land degradation were identified as the most severe shocks and stresses that continue to threaten the productivity of smallholder farmers in the target program areas. (Download Link)

Effective Seed Storage worked to increase food security in Timor-Leste through initiatives aimed at reducing seed and harvest storage losses and maintaining better access to quality seeds. Since August 2011, ESS has successfully developed a market system for a metal-based, customizable and locally manufactured seed storage system, branded as the "silo," by identifying local preferences, training local blacksmiths to build and sell the new technology, promoting distribution channels through rural shops and providing subsidized vouchers to encourage initial buyers. At the time of writing, ESS silos have reached 49% of all rural households in Timor-Leste, 71,613 in total. While ESS did not intentionally tackle resilience-building, the program was designed around a market sector that inherently addressed one of the major threats to food security—agricultural pests and disease and post-harvest losses. The assessment of ESS was set against the backdrop of the 2015/2016 El Niño elongated drought and other shocks and stresses, which revealed rainfall variability, drought and land degradation as additional shocks and stresses threatening food security among smallholder farmers in Timor-Leste. (Download Link)

Managing Risk Through Economic Development works to build community resilience in the Far West Region of Nepal by creating access to economic opportunities that directly contribute to disaster risk reduction (DRR). This "nexus" approach aims to develop agricultural market sectors that have both high income-earning potential and the ability to reduce exposure to floods and droughts at a community level, both of which were severe and regular shocks affecting communities at the time of program design. MRED combines market systems development around these sectors with the promotion of green infrastructure (e.g., vegetation restoration, bamboo reinforcements) and land management techniques, which together reduce natural disaster risk and preserve assets and livelihoods in vulnerable communities. MRED is one of Mercy Corps' first programs to integrate market systems development (MSD) and resilience intentionally. At the time of writing, the program had witnessed 28 cases of spontaneous, independent replication of nexus farming, reclaimed 187 hectares of marginalized land and sold $122,361 in sugarcane—a nexus crop and the primary focus of the case study—to sugar and molasses mills. In two of the three program areas, the nexus farming approach has reduced disaster losses between 65% and 80% relative to comparison groups. (Download Link)

2 This assessment focused only on Southern Shan State.

Findings Summary and Recommendations

Despite each program's unique features and lessons, the following findings and recommendations emerged across the three diverse program contexts:

Complex risks influence farmers' decision-making and determine trade-offs between market and resilience investments

The comparative analysis underscored how real or perceived immediate risks—rather than long-term potential income gains—often drive farmer and other market actors' decision-making in fragile contexts. Failure on the part of MSD-focused programs to consider the full range of ecological, social and economic shocks and stresses that threaten producers and market actors, and how they drive decision-making, can undermine both market outcomes and resilience. This was the case with MVMW where the program failed to identify that vulnerability to market price shocks and pest and disease outbreaks extends beyond farmers to market actors at all levels, leading a contract farming partnership to falter. Because MVMW did not conduct a risk analysis, the initial program design did not to consider the importance of social ties and trust between input suppliers in connecting farmers to the debt and risk reduction services critical to accelerating uptake of improved agricultural technologies.

In contrast, M-RED's initial assessment of the ecological risks faced by farmers has helped the program select sectors that addressed community risks (specifically related to flooding) while increasing their incomes, in addition to supporting the development of a short-term, smart subsidy program that boosted sugarcane production and encouraged more actors to enter the market. Similarly, ESS conducted an in-depth, participatory assessment of farmers' experiences with and tolerance of risk, which helped inform the design of the improved silo seed storage technology, private sector partner selection and market penetration approach. Risk analysis also contributed to the design of an appropriately-scaled transitional subsidy model that increased farmers' willingness to pay for the new technology.

The findings suggest that a comprehensive analysis of the complex risk environment farmers and market actors face can help programs select and appropriately support private sector partners, and tailor design interventions that facilitate risk reduction across the market system.

> ***Recommendation: Assess economic, ecological and social risk holistically to inform market sector and partner selection and market intervention design.***

Cultivating social capital among farmers and market actors stimulates local markets that support resilience

All three case studies revealed that social capital was central to risk mitigation strategies for farmers and producers who faced multiple shocks and stresses and operated in uncertain conditions, and that the nature of relationships among producers and market actors impacted their resilience. MRED's group farming model for sugarcane—a crop that helped protect productive land from flooding—helped farmers pool their risk in a new and uncertain market sector. However, the group farming model was only successful in communities where social capital was strong. Similarly, this analysis revealed that the ESS team's decision to support and train local blacksmiths as producers and central distributors of the silo, rather than bring in outside or higher-level market actors, leveraged existing relationships with farmers and market actors up the supply chain. These partnerships not only fostered

the adoption of the risk-reducing technology by 71,613 households in a thin market context, they also catalyzed new product offerings for farmers to help them better manage shocks and stresses. This included blacksmiths developing livestock offtake networks during the El Niño drought, reducing farmers' potential loses and providing them the cash critical to maintain food security. Existing networks and social capital were integral to ensuring even the most vulnerable farmers could access and take advantage of these new markets.

Photo Credit: Nepal/Chet Tamang

On the other hand, MVMW's failure to recognize the social capital between farmers and input suppliers hindered their voucher program's ability to expand market linkages and access to new technologies in early stages. Initially, program team members distributed vouchers that could only be redeemed through central distributors, requiring farmers to forego long-standing, trusted input supply chain networks that provided access to low-interest loans or loan deferral in hard seasons, hindering access among the poorest and most vulnerable beneficiaries. Ultimately, mapping social networks, understanding how they support vulnerable households in the face of risk and supporting the best positioned social networks and actors can help market-focused programs ensure that target beneficiary groups are equipped to better manage their risk environment. Fragile contexts thus call for working with partners who possess or can generate high social capital with vulnerable target beneficiary groups even if these actors have lower capacity.

Recommendation: Analyze, leverage and build strong social capital among local actors to make markets work for resilience.

Carefully crafted market subsidy strategies—especially when coupled with complementary risk reducing measures—can maximize the effects of market systems change for resilience

MSD programs have long used smart subsidies to reduce investment risk. Analysis across all three cases suggests that appropriately crafted subsidies can reduce a range of ecological and market-related risks for producers and other market actors in the short-term, while fostering long-term market access for resilience-building products and services. The carefully crafted, short-term silo subsidies in ESS addressed farmers' immediate financial and ecological risks, and ultimately provided the necessary stimulus and capital to spark a vibrant and sustainable market for the risk-reducing silo technology. The amount and scale of the subsidy improved market efficiency, ultimately decreasing silo prices by 40%.

Photo Credit: Myanmar/Ezra Millstein

In Southern Shan State's fragile vegetable market system, MVMW also adapted its sliding scale subsidy model for agricultural inputs to encourage farmers to experiment with risk-reducing technology, while motivating agricultural input wholesalers and a wide network of retailers to expand their businesses in selling agricultural products and technologies that improved farmers' resilience. Finally, M-RED leveraged subsidies to overcome skepticism about sugarcane risks rooted in the crop's historical boom and bust patterns. The program introduced a phased approach that moved from direct sugarcane subsidies to gradual increases in cost share among farmers and processors.

The assessment also found that complementary measures to reduce risk, particularly those that focused on improved land management techniques and holistic access to information, significantly boosted the positive effects and willingness to invest in risk-reducing market strategies. For example, M-RED supported capacity-building in green infrastructure techniques (e.g., bamboo reinforcements, vegetation restoration) that reinforced the market intervention but helped farmers address more immediate, ecological shocks and stresses in the short-term. These, combined with access to early warning information also boosted farmers' confidence to invest. Similarly, MVMW found that providing access to information through agricultural extension services supported uptake of new voucher technology, but that farmers could have significantly benefited from interventions that ensured more holistic access to information, including climate, price and early warning information.

> ***Recommendation: Pair interventions that strategically address immediate, significant risks with facilitative models to build resilient market systems.***

Failure to appropriately target gender-based norms and vulnerabilities in markets programs can undermine resilience

This analysis revealed how social norms drive local decision-making and influence market behavior with often-detrimental effects for resilience. M-RED and ESS's failure to adequately address limitations in women's household and community decision-making power, and their restricted access to markets, ultimately undermined all household members' risk reduction potential. In the context of MRED, where 80% of the male population had migrated, leaving women with all agricultural responsibilities, this proved a major deterrent to the success of a banana nexus intervention. MRED supported women's groups in planting bananas in flood prone rice paddy areas inland of the river. However, inattention to women's weak market linkages and restricted financial decision-making power limited the scale and replication of the banana intervention in comparison to sugarcane intervention led by community disaster risk management committees dominated by male decision-making. Based on lessons-learned in the first phase, M-RED began household and community dialogues on the harmful effects of restricted mobility and financial decision-making for women during its second phase.

Photo Credit: Nepal/Emilie Rex

Similarly, ESS introduced complementary interventions outside of the core silo approach (i.e., savings and internal lending communities and keyhole gardens), which helped women gain and manage small income streams during lean seasons. However,

these interventions only reinforced household decision-making norms favoring men's control over larger assets and expenditures. Though women are primarily responsible for seed storage and handling in the Timor-Leste context, continued norms around household financial decision-making and the expectation that men typically interact with market actors limited women's ability to make future investments in agricultural input technology or fully leverage the new market opportunities the silo intervention supported. This analysis suggests that building resilience through market systems ultimately requires a simultaneous investment in dialogue and awareness-raising around the social norms that can restrict markets for resilience and prove harmful to households and communities' ability to manage shocks and stresses.

> ***Recommendation: Address social norms—especially those related to gender—that limit MSD's resilience-building potential.***

MSD's ability to catalyze market systems change can reduce risks and build resilience at scale

Finally, this three-program analysis found that MSD's central focus on catalyzing market systems change to bring benefits to the poor can foster relationships, ingenuity and open up unintended, but favorable market opportunities that enable vulnerable households to better manage shocks and stresses in complex risk environments. The new connections between blacksmith manufacturers, transporters, retailers and farmers, which ESS facilitated to further a market for the silo technology, spurred new market innovations that contributed to resilience, including a network for purchasing and selling-off of distressed livestock during the El Niño drought.

M-RED's nexus approach was successful enough in its first two years of implementation that many target communities independently scaled up their activities by the third year, communities outside the intervention area replicated the model and a new mill subsequently opened and another expanded in the area without program support. In addition to independently engaging in the sugarcane markets along the same river basin, many non-M-RED communities replicated green infrastructure techniques and adopted other risk-reducing practices, such as stricter local regulations around open grazing. Replication patterns for nexus sugarcane suggest that households and market actors made calculated investment decisions based on their perceptions of risk, and that these shifted over the course of the program. Ultimately, investing in the right sectors, actors and partnerships can enhance the performance of the market as a whole, catalyzing replication, market expansion and the provision of other resilience-building products and services and enhancing sustainability.

> ***Recommendation: Harness market systems change by investing in the right sectors, actors and partnerships to catalyze risk reduction and build resilience at scale.***

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