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Introduction

The spike in world food prices that dominated headlines in 2007-08 posed new intervention challenges for relief and development organizations like Mercy Corps.

The first challenge was that the onset of the “food crisis” initially looked like any other emergency, but was later found to have a gradual incubation period with increasingly urgent warning signs from the world's poor. For three years prior, the price of basic commodities had crept up by 80%, which then hit full force with the doubling of the price of rice and wheat between March 2007-March 2008. During this time, poor and chronically food insecure households across the world began coping by eating less, borrowing, selling off assets, sending kids away to other family members to reduce burdens on households’ consumption, or migrating in search of work. By the time this trend made headlines, 37 countries were at imminent risk of malnourishment, starvation and civil unrest.¹

The second challenge was that this was not a finite emergency with a clear end in sight, but was instead symptomatic of a more complex and chronic problem of market failure and poverty.² Without access to affordable quality seed, fertilizer, irrigation and credit, many smallholder farmers were already struggling to feed their own households with 1-2 acres, let alone harvest enough to sell. And, in places like the Central African Republic, where two-thirds of the population can only afford sub-standard meals in a normal year, the food crisis trapped families with no purchasing power further beneath the poverty line.

In August 2008, Mercy Corps and The Bill & Melinda Gates Foundation launched the Global Food Crisis Response (GFCR), a program aimed at providing immediate and longer-term assistance to households in five countries severely impacted by food shortages: the Central African Republic (CAR), Nepal, Niger, Somalia and Sri Lanka. The program used a hybrid of emergency and development approaches in an accelerated 18-month timeframe to enable more than 75,000 people to move from asset depletion towards asset generation.

Looking beyond immediate safety nets, the program aimed to permanently raise families’ income above the poverty line by facilitating changes in food production, micro-business management, market interaction, and access to financial services from the outset. GFCR also provided Mercy Corps with a learning platform to manage a truly global program that stretched across five countries in South Asia and Africa.

This paper takes a critical look at the GFCR program design and evaluates the efficacy of adopting an aggressive market-based approach to a crisis context in CAR, Nepal, Niger, Somalia and Sri Lanka.

Mercy Corps hopes these lessons inspire discussion among practitioners and donors, and the development of best practices for the food, agricultural, environmental and economic challenges that lie ahead.

¹ FAO, “Soaring Food Prices: Facts, Perspectives, Impacts and Actions Required,” April 2008
² The Economist, “How to Feed the World,” November 2009
Lessons Learned Overview

The overall goal of the Global Food Crisis Response (GFCR) program was to improve immediate and medium-term food security, while laying the groundwork for long-term solutions in vulnerable communities worldwide.

Program implementation focused on fulfilling three strategic objectives: (1) address short-term needs of 71,700 vulnerable individuals to reduce suffering and ease impact of the rise in food prices; (2) reduce vulnerability to future food security shocks by laying the groundwork for stronger livelihoods for 81,400 individuals; and (3) pilot a multi-country emergency response and disseminate best practices.

Discussion of lessons learned in this document follows the chronological order of the program’s implementation, from early assessment & planning, to initial quick-impact interventions, and finally to longer-term interventions. Key themes that are explored in each section include:

### Assessment and Planning
- Capitalizing on the ‘lean’ season
- Investing in value chain analyses
- Monitoring unintended social impacts

### Quick-Impact Interventions
- Using cash-for-work to safeguard assets and build economic infrastructure
- Using cash-for-work in a long-term development context

### Long-term Interventions
- Building input supply chains
- Improving value of agriculture and livestock production
- Facilitating market linkages
- Integrating agriculture value chains with financial services

Profiles of each participating country program are shown below:

<table>
<thead>
<tr>
<th>Country</th>
<th>Quick-Impact Intervention</th>
<th>Agriculture Value Chain</th>
<th>Financial Services Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central African Republic</td>
<td>Cash-for-work</td>
<td>Potatoes, onions</td>
<td>Village lending &amp; savings associations</td>
</tr>
<tr>
<td>Niger</td>
<td>Vouchers</td>
<td>Poultry</td>
<td>None</td>
</tr>
<tr>
<td>Nepal</td>
<td>Cash-for-work</td>
<td>Ginger, potatoes</td>
<td>Microfinance institutions</td>
</tr>
<tr>
<td>Somalia</td>
<td>Cash-for-work</td>
<td>Watermelon, tomatoes, maize, cowpeas, sorghum</td>
<td>Revolving funds</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>Vouchers</td>
<td>Rice, pulses</td>
<td>Microfinance institutions</td>
</tr>
</tbody>
</table>

3 Mercy Corps uses the FAO 2002 definition of this concept, which says that food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritional food that meets their dietary needs and food preferences for an active and healthy life.
Assessment and Program Planning Lessons

One of the greatest challenges – and opportunities – the GFCR program faced was providing immediate support to communities coping with the 2008 food crisis while introducing longer-term solutions to food production and market access. From a planning standpoint, the program's spectrum of emergency and development interventions required a wide bandwidth of staff skills, strong monitoring and logistics systems, and a dynamic program design process.

Towards this end, the GFCR program relied on three major information sources: food security and income assessments, third party assessment reports, and value chain analyses. The following lessons emerged about managing program assessment and planning efforts:

**1. TIMING IS CRITICAL**

- The success of interventions in a combined food security and economic development program depends on understanding and planning around the relationship between the 'lean' seasons, harvest seasons, and household cashflow.

Timing initial activities to coincide with the beginning of the agricultural 'lean' season proved particularly effective in the GFCR program: this was the critical period when household income retracted and assets were most at risk of being sold, and/or when food availability in local markets was most scarce. While these are chronic conditions in places like Niger and CAR, the food crisis escalated these problems to a point where an urgent intervention was necessary to sustain families until the next harvest.

Further, as the GFCR program was implemented over an 8-month period (allowing for only 1-2 planting seasons in most countries), Mercy Corps confirmed that sustainability of longer-term interventions and behavior change increases with every successive harvest cycle. While new production practices, financial products and market linkages can be introduced with the first harvest, more than one cycle is necessary to witness replication in the absence of NGO incentives.

In Nepal, for example, cash-for-work in food insecure areas started and stopped with the lean season between February and April. This boosted food purchasing power when households needed it most. Overlaying activities with the lean season had the added benefit of maximizing participation in infrastructure works and minimizing disruption of labor markets, as all agriculture workers were unemployed during this time.

In Sri Lanka, where Mercy Corps' initial role in buffering families through the agriculture lean season was ultimately taken over by its microfinance partner, the Social Welfare Development Project Society (SWDPS). By paying close attention to cashflow cycles among its farming clientele, SWDPS launched two seasonal loan products to help households meet regular farm investment needs without depleting their assets: an 'on-season' loan to cover land preparation, inputs, and labor costs and an 'off-season' loan between harvests cycles to cover household emergency and consumption needs.

- Invest time upfront in understanding food security and agricultural calendars.
- Time the emergency response at the very beginning of the lean season, to avoid asset depletion.
- Plan for program activities and monitoring to span at least two harvest cycles to test behavior change and commercial viability of new products, services and linkages.
2. **Value chain analyses need to be conducted as early as possible to identify food market constraints and begin shaping solutions with partners.**

Investing in value chain analyses in all five country programs enabled the GFCR program to choose interventions with the highest potential economic returns for low-income, food insecure households in Mercy Corps’ target area. Had Mercy Corps skipped this step, the program would have run the risk of promoting crops with no long-term market value, and thus made households more vulnerable to future shocks.

Ideally, value chain analyses are useful navigation maps from day 1. However, this can be a time-intensive, iterative process. This information was not available to GFCR teams until months 2-6, due to the urgency of getting emergency activities off the ground first and then sourcing qualified staff to lead the assessment. The program teams therefore needed to retain a degree of design flexibility and treat initial activities as action research to learn how households and markets adapted to severe food shortages.

Value chain analyses served a secondary purpose of extending a collaboration invitation to prospective partners; stakeholder meetings held while conducting values chain assessments helped build ownership of problems and solutions from players with a direct interest in making the local food economy function better. This approach also helped encourage data exchange between colleague agencies, rather than keeping assessments confidential.

The process for mapping Sri Lanka's rice value chain shows the advantages of keeping design efforts collaborative with government and colleague agencies. Mercy Corps had started engaging the Department of Agriculture and other NGOs in a series of conversations as part of its value chain assessment. The discussions revealed that government subsidies and limited contact with extension agents were the primary reasons why farmers in Mercy Corps’ target area were still using out-dated techniques and too much fertilizer.

By the end of these meetings, the GFCR team and representatives of the Department of Agriculture decided to promote the System of Rice Intensification (SRI), a technique piloted by Mercy Corps and other colleague agencies, to boost rice yields. The government’s willingness to support this initiative was no doubt influenced by seeing the opportunity to reduce farmers’ dependency on their input subsidies. Later, as the relationship developed and other needs emerged, Mercy Corps was able to leverage this partnership to promote household milling equipment through government channels.

- Conduct value chain analyses as early as possible -- within the first three months of implementation or even prior to program design. A series of tools are easily adaptable and available, such as the Emergency Market Mapping and Analysis Toolkit. Keep program design flexible to incorporate assessment findings.
- Whenever possible, use internal staff to conduct value chain analyses. This not only expedites the process and reduces costs, but it equips the implementation team with the knowledge and relationships to do their jobs. It is important for Mercy Corps to build this knowledge in-house.
- Utilize market assessments to open dialogue with stakeholders throughout the implementation process, rather than treat as a one-off activity.

3. **While interventions need to be aligned closely with a program’s food security goal, there is value in ensuring monitoring captures wider, unintended social impacts.**

While GFCR’s goal was focused on improving food security, it benefited the team and communities to monitor the program’s unintended social impacts. A useful tool in this regard was the Participatory Impact Assessment (PIA), which created a platform for participants to reflect on how activities had changed their lives (regardless of whether their feedback mirrored Mercy Corps’ original intentions or not).

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4 The GFCR Participatory Impact Assessment (PIA) methodology is an adaptation of guidelines produced by the Feinstein International Center at Tufts University, an initiative funded by the Bill & Melinda Gates Foundation. For more information on PIA participatory and statistical analysis, please see [https://wikis.uit.tufts.edu/confluence/display/FIC/Participatory+Impact+Assessment](https://wikis.uit.tufts.edu/confluence/display/FIC/Participatory+Impact+Assessment).
For example, Participatory Impact Assessments revealed that Mercy Corps’ practice of transferring cash payments to women had surprisingly positive consequences in Nepal. Women’s participation in cash-for-work projects encouraged household working-sharing with their husbands and a sense of empowerment from directly managing how the wages were spent. One beneficiary described this change as “Usually, men bring the money to the shop and we carry the bag back home; this time we carried the money to the shop.” Another noted, “Now, husbands understand that women can spend in the right.”

The PIA process also showed to what extent any unintended impacts were universal to all participating GFCR countries, or specific to just one country. The perception that women could handle monetary affairs, for example, turned out to be context specific to Nepal only. Conversely, in CAR, women’s care-giving responsibilities limited their participation in cash-for-work activities.

Monitoring unintended consequences also helped avert potentially serious mistakes. In Sri Lanka for example, the GFCR team discovered that its initial targeting decisions had excluded certain minority groups in divided villages. Community members from an adjacent conflict-mitigation project flagged this problem. Interestingly, the ultimate success of the GFCR program in that area was due to participants’ willingness to source agriculture inputs from their ethnically diverse neighbors, rather than from town. The original targeting criteria had been derived from two value chain assessments, both of which failed to incorporate the impact of ethnic relations and the war economy on market transactions. Thanks to the emphasis on continued monitoring and dialogue with these communities, the project was able to adjust its targeting.

Ensure value chain analyses and monitoring systems are designed to collect unintended social impacts, including conflict dynamics, from beginning to end. These can point to major leverage points and red flags for later interventions.
Quick Impact Intervention Lessons

Since purchasing power was the biggest hurdle for target communities to access food, the GFCR program’s first intervention in most countries was **cash-for-work**. This activity was used primarily to prevent asset depletion, alleviate debt, and increase immediate food purchasing power, but also served a secondary purpose of catalyzing community participation and improving infrastructure. In Nepal and Somalia in particular, and to a lesser extent in CAR, it was also a springboard for follow-on livelihood activities to ensure longer-term resilience.

Cash-for-work had immediate, tangible benefits at the household and community level across GFCR’s participating countries, including having cash in hand to meet basic needs during lean seasons and building community infrastructure. In CAR, Nepal and Somalia, Cash-for-work allowed 3,540 households to earn a total of $249,420, which allowed families to pay for immediate expenditures such as food, clothing, health and education without adopting negative coping strategies or depleting assets. In fact, some cash for work money was even used to invest in productive assets, including buying livestock, expanding land under cultivation and hiring labor. Additionally, 293 infrastructure projects were identified by village committees and completed, including improved roads, water systems, waste management and new schools.

![CASH USAGE](chart)

Key lessons for cash-for-work as a quick-impact intervention are discussed below.

4. **In combined emergency and development programs, there is an inherent tension in selecting participants:** emergency interventions favor the most vulnerable farmers, while long-term agriculture interventions favor farmers with high growth potential.

   Beneficiary selection and design decisions can help close this gap.
The profile of a vulnerable farmer across GFCR’s five countries reflected the severity of the food crisis and the damage from preexisting chronic poverty, while at the same time pointed to contextual differences. In CAR, where 100% of households were highly food insecure, few families owned any productive assets at all (0% owned cattle, only 6% owned a single goat, 11% owned between 1-5 chickens). However in Somalia, where food insecurity levels were even more acute, 98% of households owned one or more cows and an average of 44 goats and sheep. Yet no Somali households had access to latrines and nearly every beneficiary (95%) had worried about getting enough to eat within the last four weeks. Access to agriculture inputs and tools was universally low.

In ensuring these hard-hit families benefited from emergency cash-transfer interventions, GFCR’s country programs each steered a different course in selecting beneficiaries and leveraging that group’s participation in follow-on agriculture activities. The shared lesson was that no targeting criteria is perfect; rather targeting methods need to be guided by whether quick impact activities like cash-for-work are intended as a stand-alone activity or to work together with later economic development work.

The CAR program chose to use a community-led beneficiary selection process to select extremely poor and vulnerable households for cash-for-work participation. Their clear vulnerability criteria proved worthwhile in ensuring that cash transfers reached the most impoverished families. The downside was that the process took an average of four months to complete. Given the emphasis on vulnerability criteria, it was clear at that time that follow-on livelihood activities would benefit an entirely different segment of the population who had land, and the capacity to save money and participate in petty trade. In this case, cash-for-work was a stand-alone intervention.

Participant selection in Nepal steered a middle course to bridge emergency and development activities. The team chose to build on existing food security research conducted by the World Food Program and then, through consultation with the local government and humanitarian actors in the area, select Village Development Committees that had high levels of food insecurity and could benefit from agricultural market development. After the most vulnerable settlements had been identified, the team

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**Pairing Cash-transfers with New Technology**

**A closer look at Somalia: When it's strategic to think smaller infrastructure for bigger returns**

For residents of Seila Bari, Somalia, the best way to put food on the table is to cultivate your own backyard. This is much easier said than done, in a country that looks hopefully to the skies every April and October to see if the ‘Gu’ and ‘Deyr’ rainy seasons will come at all.

2008-2009 was a particularly lean, and mean, drought year for agro-pastoralists in Somalia. Mercy Corps saw that diminishing crop yields shut out the possibility of buying food as a fall-back option: 95% of beneficiaries worried whether their household would have enough to eat, and 40% reported that there was often no food to eat of any kind in the household in the last four weeks due to a lack of resources.

Fast-forward to three months later. The drought still rages on but farmer Abdi Qayle of Seila Bari (pictured above) is busy examining his 1200 strong watermelon harvest – his first ever. He later walked away with USD $950 after selling the surplus in a local market.

Mercy Corps started out with a USD $4/day investment in Seila Bari’s youth and men, earned through their construction of 180 earth pans across five agricultural villages. This strategy had the double benefit of injecting cash in to unemployed households and increasing farmers’ access to simple irrigation technology.

The original plan was to build five larger, communal irrigation ponds to be used and maintained by 20

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5 Vulnerability criteria included: internally displaced households (of less than 12 months); households affected by HIV/AIDS; woman headed households; households caring for orphans (both parents are deceased); and households including handicapped members.
used a ‘self-selection’ approach by setting the daily wage rate around the daily rate for an agricultural day laborer. This approach had the benefit of building on local knowledge and criteria that had already been used to determine food sufficiency. Intentionally targeting communities that could benefit from cash-for-work and longer-term agriculture development had its trade-offs, in favoring village clusters versus remote, satellite communities. To avoid distorting the labor market, the project limited participation to one member per household. This targeting strategy enabled a number of cash-for-work beneficiaries to also participate in ginger and potato producer groups and financial access interventions at later stages in the GFCR program.

5. Selecting the ‘right’ infrastructure projects is just as important as selecting its construction team.
A thoughtful facilitation process is required that’s tailored to the local context and budget.

In natural disasters, selecting the right infrastructure to rebuild is usually obvious, following the eye of the storm. However, in the case of food shortages caused by food price increases and chronic poverty, an assessment is needed to identify what market infrastructure is lacking and what initiatives can be completed within a limited timeframe and budget. These assessments are usually carried out by Mercy Corps team, in collaboration with beneficiary communities and local authorities. Findings can then be used to generate a menu of strategic options, or parameters, to guide project selection by the community and local government.

This process also provides an immediate connection between initial safety net activities and longer-term solutions to economic constraints. For example, by using cash-for-work to rehabilitate market access roads and introduce irrigation solutions at the beginning of the program, GFCR participants were positioned to use new roads for market linkages and irrigation for production techniques introduced later in the program.

Mercy Corps’ experience revealed that there is merit in investing in both shared community assets and in private assets, as long as projects can be technically sound, fill an identified gap, and advance livelihood productivity.

The floods of September 2008 destroyed the summer rice crop just before harvest in the Terai plain of Nepal, thus creating a severe income and food shortage. The clear choice for a cash-for-work project was to raise the river banks and remove sand from the fields to jumpstart replanting and mitigate future risk. This project
strengthened livelihoods while also generating short-term employment for 1,000 people at-risk of migration. The drawback to choosing a public works project was that no clear ownership existed to maintain the infrastructure, despite a system of community-based User Committees established with the specific responsibility to maintain the infrastructure.

Meanwhile, in Somalia, the most glaring infrastructure gap was irrigation. However, attacking this problem from a public works standpoint required a much greater financial and technical investment than Mercy Corps could provide. One option was to build five large earth pans on public land. However, given the geographic spread of the farms and long distances, these would be difficult for farmers to access and, according to the farmers concerned, would likely be used for livestock’s drinking purposes. There was also no guarantee that farmers would collectively maintain the ponds. The team opted instead to construct 180 small earth pans on the fields of individual farmers, which ensured that the structures would be regularly used and maintained by their new owners. While the original plan was to improve access to water for all farmers of the five targeted villages, as pans were built on private land, a smaller number of farmers than originally planned benefited. Nevertheless, these farmers invested in improving their pans and modeled a technology that others could easily replicate.

If using cash-for-work in a situation caused by chronic poverty and market failure, build in more time for assessment to identify economic infrastructure gaps. A multi-party assessment team is more efficient, and should be, as much as possible, composed of representatives from the private sector, the local government, and the beneficiary communities. Consider using assessment findings to develop a strategic menu of options for community selection. This will ensure projects have clear economic purposes and benefits.

If using cash-for-work as an entry point to a longer economic development program, choose infrastructure projects that specifically address constraints in the targeted value chains.

Ensure cash-for-work budgets do not only include wage transfers, but also construction equipment, tools and technical expertise for project longevity. In labor intensive cash-for work projects, where the primary goal is to interject cash into communities, an overhead of 20-25% of wages has been found appropriate to also create quality infrastructure. If larger and longer lasting infrastructure is the goal, 40% of labor costs is usually needed for construction materials and skilled oversight.

Consider conducting public audits at the mid-term and completion of infrastructure projects to improve quality and ownership of public works.

Prioritize infrastructure projects that can be technically sound, fill an identified gap, and boost livelihood productivity. If public infrastructure works are too large and not feasible, then pursue private infrastructure with a strong link to follow-on livelihood activities.

Consider giving away tools to cash-for-work participants, the communities, or the local government to maximize household economic benefit and/or for re-use in public works programs. Larger or more sophisticated equipment can also be given to community tool banks.

6. When used as an entry point to long-term economic development, cash-for-work needs graduated exit steps for participants to be ready to secure a more permanent source of income.

While cash-for-work can be a lifeboat for families facing dire decisions around asset depletion and migration, it is not a permanent income fix. With daily wages in the $1.60 - $4.00 range, it’s not surprising that only 1-4% of GFCR participants managed to save any money during this time.

That said, some GFCR participants did manage to stretch their cash payments a long way to temporarily enhance their livelihood prospects. For example, participants in CAR used 13% of their cash payments to acquire new land or hire labor to double or triple their arable land. Others bought seeds, tools and livestock to get a head start on the season and upgrade their asset holdings. Yet, to reap the full benefits of these investments, participants needed a sustained source of income to cover the next season’s costs of farm labor, seed, fertilizer, and animal feed.

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A public audit is a process of collective assessment by stakeholders of all the aspects of a project (i.e. open discussions to solicit feedback on a project’s design, implementation process, impact, and use of technical and financial resources).
Migrating For Work: To India and Now To His Own Backyard

The Sijali family’s story

Agriculture employs 77% of Nepal’s population, but for many, survival depends on an annual migration to India to earn a supplemental income.7 While this enables households to subsist economically, it can also divide families for months at a time.

The Sijali household is one such family. For years, Bal Bahadur Sijali’s main source of income was manual labor in remote locations from his village. “I used to go to India or sometimes some other districts within Nepal to look for work and make money. I usually was away from home for six to seven months every year,” recounts Mr. Sijali. He owns one ropani of land (about an eighth of an acre), which is not enough to produce grains for himself, his wife and his four children.

In 2009, he heard about Mercy Corps’ Global Food Crisis Response project, which included rehabilitation of local infrastructure, seed support for ginger cultivation, and access to loans through Nirdhan Bank.

His choice to forego migration this year was simple: “If I get work and other opportunities in my village, than I do not need to go to other places for work and money. I can make money here and stay with my family. This really motivated me to stay and work here.” His wife is also pleased since “these days, I don’t worry about my family. I do not need to wait for the return of my husband with money from India because he is already home.”

Joining in Mercy Corps’ cash-for-work activities, Bal worked alongside his neighbors to build a community center. The ground floor houses a health clinic and the upper floor is used for community meetings and events. Bal said of his work cutting stones for the building, “It didn’t feel like work, it felt like fun.” He liked that the community came together and worked together on something that they can all use. He now feels ownership of the building; if even one stone falls out of place, he feels it is his responsibility to fix it.

While the wages from the cash-for-work project were less than he normally brought back from India, it was enough to buy food, pay for his children’s education and buy his first goat.

Also, because Bal was present in his village for the first time in March, he was eligible to participate in a new ginger income generation scheme launched by Mercy Corps. He has planted a third of his land with ginger and plans to sell it in the spring for seed. His wife has also taken out a loan of 20,000 rupees (USD $269) to buy more goats which they intend to breed and sell. The first baby goat has already been born, and they expect several more in the coming months.

Nepal’s farmers are among the poorest in the country’s population, with a poverty head count of 53.8% (agriculture wage laborers) and 32.9% (smallholder farmers). Source: Op. Cit., Central Bureau of Statistics, September 2006.
For this reason, if cash-for-work is being used as a transitional activity within a longer-term economic development program, there is value in overlapping its implementation with financial access and business planning interventions. This enables the NGO to phase out its role as a short-term employer and at the same time build the capacity of the most entrepreneurs who will be then able to create more permanent sources of income through job creation. Early introduction of financial service providers (or if none exist, creation of village lending & savings associations) can be an ideal way to begin this transition. To be successful, this strategy requires total overlap of early and later program beneficiaries, who essentially graduate from one intervention to the next.

What this overlay could look like:

<table>
<thead>
<tr>
<th>Phase I</th>
<th>First wave of cash-for-work to meet immediate food needs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase II</td>
<td>Business planning training (cost-revenue analysis); Strategies for productive investments to teach beneficiaries how they could invest their next earnings and plan in advance for the lean season.</td>
</tr>
<tr>
<td>Phase III</td>
<td>Formation and capacity building of village lending and savings associations (or linkages to financial providers) to ensure beneficiaries save enough to build their resiliency.</td>
</tr>
<tr>
<td>Phase IV</td>
<td>Market-based livelihood capacity building (e.g. agriculture practices, carpentry, petty trading, etc) to complement the short-term cash relief with longer-term revenue sources.</td>
</tr>
<tr>
<td>Phase V (simultaneously with Phase IV)</td>
<td>Second wave of cash-for-work to build productive livelihood investments, combined with cash grants for those who have graduated successfully from Phase IV. This second wave should not be later than one year after the first wave, and be the final CFW wave.</td>
</tr>
</tbody>
</table>

If using cash-for-work in a longer-term development context (2+ years), consider overlaying implementation with provision of business skills training, formation of village lending and savings groups, and livelihood capacity building to ultimately produce more food and increase food security. This will ensure cash-for-work is a lasting investment in the household’s food and financial security.

Consider conducting two seasons of cash-for-work to give participants sufficient time to recover and rebuild assets. Consider the use of cash grants for those entrepreneurs who have graduated from the capacity building activities. By that point, other income-generating activities can start replacing cash-for-work wages without destabilizing the household, and even create jobs for the most successful entrepreneurs, a sign of success in the transition.

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8 Successful graduation means having acquired skills and knowledge, and developed a sound business plan.
Long-term Intervention Lessons

How to enable families to survive the next lean season, without relying on another round of cash transfers from an NGO or the government? As early as the design phase, Mercy Corps began to wrestle with some of the root causes of hunger: (1) weak input supply markets; (2) low production quality and productivity; (3) weak market linkages; (4) absence of enabling services such as financial or animal health; and (5) poor infrastructure. These five interrelated constraints appeared across all value chain analyses in participating GFCR countries. Their solutions however looked quite different in each context, depending on the mix of livelihood activities and private and public sector partners who stepped up to fill the gap.

Mercy Corps focused on crops and livestock in demand locally, towards fortifying the regional food system before competing in higher-risk export markets. In helping families move beyond hunger and safety nets, Mercy Corps’ role began evolving as well – from a direct provider of services and cash, into a trainer and facilitator with business and government partners who would be ultimately held accountable for food availability in local markets. Lessons learned in making that transition are discussed below.

7. Stimulating local production of quality certified seed can increase incomes and improve long-term food security.

Dependency on imported or high-priced agriculture inputs (or a severed input supply chain altogether) defined many of the regions where GFCR operated in. To help local vendors compete and farmers cut costs, Mercy Corps invested in establishing local private seed multipliers through training and initial provision of quality seed. A focus on building both supply and demand for the new inputs enabled Mercy Corps to successfully exit the scheme within the project’s 18-month timeframe.

Different business models emerged from CAR, Nepal and Sri Lanka’s efforts to rebuild the seed supply chain. At one extreme is CAR, where farmers could neither produce nor buy quality potato seeds anywhere in the country. Mercy Corps imported an initial shipment of seed and trained 6 new seed multipliers. A revolving seed fund was established whereby participating farmers returned a portion of their first seed harvest to be re-distributed to other farmers for further multiplication.

In Nepal, Mercy Corps incubated six seed banks that forged a link between local seed supply and demand. Seeds were received as a “loan,” with farmers signing an agreement at the time of seed distribution stipulating that they would return the same amount of seed to a local cooperative. In turn, the local cooperative was responsible for rotating the seeds and managing the re-distribution the following season. Farmers were allowed to choose if they wanted to return some of their harvest as seed or sell all of their harvest and return cash instead. This cash would then be used by the cooperatives to buy more seed. Mercy Corps further assisted these cooperatives in the procurement of new quality seeds. In the end, these linkages have not only improved local seed supply, but also connected farmers to other types of services provided by the cooperatives.

The Sri Lanka program adopted the most stringent approach to seed supply, in close partnership with the Department of Agriculture (DoA). Both partners had already invested time in exposing rice farmers to more productive techniques. Following the harvest of 12,000 bushels of paddy, 75% of the farmers who had received special training from the DoA had produced quality seeds, and thus, were recognized by the DoA as potential seed producers for the next harvest season. To ensure these farmers had an immediate market for their first seed harvest, a contractual relationship was established with the Agrarian Services of the Government of Sri Lanka, an entity within the DoA responsible for the marketing of agricultural produce. The Agrarian Services bought the production, and were then responsible for “selling” these seeds through vouchers to the GFCR program’s most vulnerable beneficiaries. This strategy ensured that seeds were sold at market rates and created a tri-partite business linkage between the new seed suppliers, the Agrarian Services, and potential buyers who all knew they were buying seeds harvested by fellow community members. A final step in the program involved linking eligible seed producers to the DoA’s certification program, to ensure they would have easy access to government and other lucrative buyers.

9 It’s worth noting that building effective input supply markets, akin to building market linkages, can take years to function optimally. However, Mercy Corps was able to initiate this process within 18 months and ensure its early investments were sustainable.
Use certification and quality labeling, where they exist, to quickly build credibility of new agribusinesses like seed suppliers. Where formal certification processes do not exist, consider promoting these systems through a targeted advocacy campaign.

Build the supply and the demand of seed multiplication networks simultaneously. This enables the NGO to test viability of the supply chain before exiting.

For subsistence farmers, business planning can be a powerful first step towards entrepreneurship.

In the majority of GFCR’s country programs, farming remains the livelihood of the poor and as a result, is not considered enough as a legitimate business. Therefore, one of the most empowering aspects of the GFCR program was the delivery of a simple business training to teach farmers how to conduct market surveys and basic business planning. This enabled farmers to see their daily livelihood as a dynamic local enterprise, and take the first step towards entrepreneurship.

Helping farmers analyze their profits early on also served as a useful motivator for their participation in later technical trainings designed to simultaneously increase yields and cut costs. Similarly, introducing credit services enabled farmers to capitalize on better lending products and rates, thus further decreasing their costs. It is worth noting that business trainings were most effective when delivered on an individual basis.

At the close of the business training in Sri Lanka, Mercy Corps asked participants what they had learned. Their response: ‘We were surprised.’ Before the training, most participants were convinced they were making enough money from the farm to sustain their families. However, after deducting their expenditures in land preparation, seed, fertilizer, equipment and labor, they reviewed their net incomes for the first time in real terms. While this realization worried a number of participants, it ultimately helped motivate these farmers to find ways to cut costs and increase revenues.

Plan for business training and cost/revenue calculation in the first three months of implementation to: 1) generate profit baseline data; 2) motivate farmers to participate in follow-on activities; and 3) set the program’s tone of treating the farm as a profitable enterprise.

The best-equipped trainers are often the buyers and suppliers.

Mercy Corps learned that changing farmers’ behavior requires a variety of approaches and actors drawn from the local socio-economic context – and, that it may take a few attempts to get it right.

Some GFCR countries utilized lead farmers as trainers. However, this model proved challenging in places that had been starved of technology and information for decades. Few farmers had the necessary skills, ability or time to train others.

Other country programs focused their efforts on delivering information through government extension agents, as this had the added benefit of building rapport between farmers and their local government. These public sector partnerships frequently involved capacity building, as government offices were often out of touch with market realities and latest technologies. In this case, Mercy Corps learned that it was critical to have a clear description of the NGO role versus the government role to avoid confusion with farmers in the field.

One of the most efficient routes to behavior change turned out to be the private sector through the provision of embedded business services. As they were conducting regular business deals in local markets, buyers and suppliers had the most current pulse on product quality and market demand (e.g. a rice trader is most likely to know what types of paddy and post-harvest processing will fetch the highest price on a particular day, versus an NGO trainer who is not actively doing business in that local market). In instances where Mercy Corps had introduced new production methods to farmers, the private sector proved particularly useful in reinforcing those methods through their marketing of related inputs and services.

A business training outline was developed under GFCR to harmonize the approaches used by Mercy Corps teams in participating countries.
In Nepal, Mercy Corps teamed up with a local input supply company, Kishan Agro-Vet, to develop its network of agriculture and veterinary agents to offer affordable products to farmers in remote GFCR areas. This collaboration had the added benefit of creating jobs, as Kishan hired and trained new agro-vets agents directly from GFCR’s target communities.

Mercy Corps provided initial training to ginger and potato producer groups on organic pesticides and disease control methods, which required farmers to have access to a wider array of inputs. The new agro-vets agents met this new demand by selling bio-fungicides like trichoderma, copper sulfate, and lime as well as vegetable seeds and animal medicine. The combination of Mercy Corps introducing new methods and the agro-vets reinforcing the techniques, offering affordable products and addressing farmers’ questions helped solidify behavior change.

Facilitating embedded services within the private sector for lasting impact is critical and efficient, even in transitional environments, such as using input suppliers to introduce higher quality products to farmers.

Continue to work through government extension services but with a clear description of roles, and with the NGO in the background.

10. In livestock value chains, improving product quality goes hand-in-hand with improving animal disease surveillance and services.

In Niger and Somalia, where livestock was the primary livelihood, the most fundamental intervention to improve asset security and incomes was improving animal health. Nevertheless, the central challenge lies in finding a business model to sustain a supply of veterinary services through the lean season. And equally important – which was an oversight in the GFCR model – was the need to build demand by helping people understand that they could afford animal health services.

It was confirmed within the two countries that farmers raise and maintain livestock herds for a variety of reasons. In Niger, chickens are raised to be sold. In Somalia, camels are only sold as a last possible resort. Selecting interventions therefore depended on how the animal was traditionally used and whether the program’s goal was asset security or income generation. Thus, conducting thorough value chain analyses was a key first step, even within the livestock sector.

Mercy Corps’ experience in Niger illustrates why animal health interventions are a key component to livestock value chain development. Mercy Corps launched the GFCR program in Niger with a voucher scheme to help 160 women’s producer groups select their starter chickens and build trust with buyers and sellers. It quickly became apparent that poor animal health standards were affecting everyone’s profit margins; When the women came to redeem their vouchers at a public trading fair, the combination of live animal trade in extreme heat, poor transport conditions, and Newcastle disease accounted for the premature deaths of 50% of the chickens purchased that day. However, upon introducing a disease-surveillance initiative managed by 44 community animal health workers (CAHWs), both the health of the rural poultry industry and its owners’ profits dramatically improved.

Mercy Corps’ experience with livestock in Somalia illustrates the importance of financing and marketing to ensure sustainability of veterinary services. Together with the Ministry of Livestock, Mercy Corps upgraded the skills and drug kits for 100 CAHWs in 39 villages in Somalia. However, frequent cycles of drought and migration left many CAHWs with only a seasonal job, at best, as herders were unwilling to pay for services during lean times. Solving this problem would require changing attitudes and behaviors within pastoralist communities (i.e. people being willing to sell one animal in drought cycles to pay for treatment of the entire herd) in tandem with raising productivity of livestock systems.

Integrate veterinary services within the livestock value chain as an early-stage intervention.

Facilitate the establishment/strengthening of animal health surveillance systems to build resilience to shocks and monitor asset depletion.
Focus on changing attitudes with regard to fee-for-service so people understand they can afford treatment and vaccinations. Also bear in mind the negative impact that free vaccination campaigns can have on this gradual process of acceptance.

Adopt a two-pronged approach to livestock interventions: 1) improve marketing of small animals (poultry, goat, sheep) for sale and to pay vaccination fees; and 2) improve animal health for large animals (cattle, camels) as household safety nets during shocks.

Market linkages are the ultimate test of whether an NGO’s capacity building efforts are compatible with the realities of doing business in a specific industry. They are also the building blocks to transform a value chain to better serve the interests of all its stakeholders.

Market linkage work began early in GFCR’s program in Nepal, even though it took the whole 18 months for relationships to build and results to become evident. Mercy Corps began facilitating a dialogue between the Kailali Chamber of Commerce, farmers, traders and other actors to jointly map out the problems and opportunities in their local ginger and potato value chains. This enabled all stakeholders to visualize and agree on the big picture of their industry’s performance. More specifically, it provided an open space for traders to hear what farmers had to say about price, and for farmers to hear what traders had to say about quality and market demand.

Linkages required varying degrees of preparatory work and involvement from Mercy Corps, depending on why these relationships were defunct to begin with. For example, few linkages existed at the production level since input supply companies did not market their products in Mercy Corps’ remote, rural areas. However, after Mercy Corps worked with an agricultural input supply company to expand its outreach and offered vouchers to attract first-time clients, an incentive existed for farmers to easily try out the new products and for suppliers to extend into more remote areas.

At the post-production level, relationships between farmers and traders were largely non-existent at the beginning of the project, mainly due to the fact that traders did not want to take the risk to travel to remote areas if the quality of the produce found was poor or the quantity was small. The strengthening of farmers’ capacity to increase yields, product quality, and the ability to market had to take place simultaneously while making introductions and building networks between farmers and traders. Ultimately, producers needed to have a good harvest and see the benefit for themselves, and buyers needed to be satisfied with their business transactions before trust can be built and a lasting linkage established.

Set the stage for market linkages through stakeholder meetings and collaborative value chain mapping at the beginning of the program. Allow for more than one harvest season to test the sustainability of the new commercial relationship.

Facilitate linkages at multiple levels in the value chain (including both private and public actors), as this will benefit all stakeholders and the performance of the industry as a whole.

Strengthen producer groups to promote economies of scale, market access, group problem solving and advocacy.

Limit the NGO role to an enabler and catalyst in facilitating market linkages. To be sustainable, there needs to be a lasting market incentive for both parties to continue doing business together.
Review of Lessons Learned
Global Food Crisis Response

12. Increasing access to financial services within value chain programs is essential to build resilience to shocks and spur economic growth.

Financial service interventions are another pillar of support to Mercy Corps' GFCR graduated approach, from cash-for-work to village lending and savings associations to microfinance partnerships. Financial services can both increase the productivity of agricultural work and support complimentary sources of income that fit in the lives of agricultural communities. Depending on the sophistication of the country's financial sector, Mercy Corps adopted three different financial access strategies in the GFCR program: (1) revolving funds; (2) village lending and savings associations (VSLAs); and (3) microfinance institutions. These approaches were integrated into value chain work in varying degrees, as outlined below.

Revolving funds in Somalia were originally intended to support women milk producers to upgrade their equipment and expand their wholesale business. However, the 2009 drought decreased milk production, so women entrepreneurs used the credit instead to start restaurants, engage in petty trade, and feed livestock. While these results were not directly integrated within the milk industry as originally intended, they did enable families to survive a difficult food season and increase the value of their remaining assets. For the model to evolve further beyond its initial group of users, the fund would need a broader management structure, by a village committee, clan elders, or even the Hawala system in the case of Somalia.

Village lending and savings associations (VSLAs) served as a good stepping stone to introduce lending and savings concepts to 684 beneficiaries in CAR. Overseen by a democratic process to select interest rates, loan duration and repayment periods, VSLAs made good use of the participatory group processes introduced in the early stages of the program. Loans were particularly effective for consumption, productive investments, land rental, and avoiding distress sales during harvest. The VSLA model was shown to be less effective in supporting longer-term needs of larger agribusiness clients, as the amount available for financing is dependent only from the amount members are willing and capable of saving.

Partnerships with microfinance institutions in Sri Lanka and Nepal were geared towards developing new agriculture lending and savings products that filled gaps identified in value chain analyses. This required significant operational and product adjustment from partner MFIs, as discussed in the next section.

The degree to which these three approaches had direct impact on specific value chain constraints depended to some extent on what money could buy in the potato, rice, onion, maize, and ginger industries in target countries. For example, producers in Somalia and Sri Lanka experienced routine debt due to borrowing money every season to pay for tractor rentals and purchase seeds and fertilizer. In this case, there was a clear entry point for alternative financing with a direct impact on the value chain. In CAR, however, agriculture processes were so underdeveloped that no equipment rental market existed. Production processes were fairly simple with no mechanization or animals, requiring only reinvestment of seeds from one year to the next. With little to spend money on, there wasn't a clear financial offer for farmers in CAR's potato value chain. However, once the VSLAs decided to target petty trade, which needs cash outlets for bulk buying and reselling, the lending groups' performance exceeded 300%. The downside was that this intervention had no overlap with Mercy Corps' other activities in the potato value chain.

It is important to note that due to the early stages of market development in the target countries, the project focused on the direct and traditional provision of financial services. Moving beyond the timeline of this program, it is recommended to begin looking at other financial constraints affecting the performance of the value chain as a whole (e.g. processor levels) and to consider embedded financing as an alternative.

- Whenever possible, and depending on the results of the value chain analysis, integrate financial services (lending, savings, insurance) into value chain assessments and interventions, rather than treating it as a stand-alone activity.
- Use VSLAs as an entry point to introduce inexperienced borrowers to sound financial management and savings practices. This is particularly effective if coupled with business training, which will equip borrowers to interface with more formal financial institutions later.
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- Build out ways for VSLA members to graduate as their agriculture enterprises mature (since VSLAs are capped by their members' capacity to save). Strategies might include facilitating linkages with an MFI, or developing an inventory credit relationship with a recognized and trusted trader.

- Allow revolving funds to grow by transferring management to a broader, higher-level group (e.g. Hawala, village committee, etc).

- Evaluate financial constraints and opportunities at different levels in the value chain, and consider embedded financing within the suppliers' or buyers' offer as an alternative solution.

13. Agriculture lending is most successful when it leverages capacity building of both the new clients and the financial provider, without exposing the NGO as matchmaker.

The benefit of engaging financial services within the context of a larger value chain program is that interventions collectively reduce risk – for everyone involved. The GFCR program demonstrated that capacity building of farmers' production methods improved their client profile for an MFI as more reliable harvests lead to a higher probability of repayment. Similarly, capacity building of loan officers in product development and portfolio management resulted in more relevant services for farmer clients.

While Mercy Corps was in an ideal position to stimulate the supply and demand for financial services, it was critical that the organization was not seen as a go-between given the high risk of loan default associated with NGO programs, and to ensure sustainability. And, just as Mercy Corps needed time to test out farmers' behavior change, it was just as crucial to build in mechanisms to test out the MFI's ability to attract and retain its new agribusiness clients before the program ended.

Mercy Corps integrated its support to farmers and to lending institutions in Sri Lanka and Nepal. In Sri Lanka, it was possible to avoid monopoly concerns by partnering with an umbrella of eight MFIs, the Social Welfare Development Project Society (SWDPS), which had existing relations with farmers and was ideally positioned to serve the same villages where Mercy Corps introduced production trainings for rice farmers. Mercy Corps was able to help SWDPS market its products to 279 new clients through tapping its existing network of producer groups, government extension workers, and other leaders in the rice industry. Capacity building on both sides resulted in a 100% loan repayment rate for these new agriculture clients.

In Nepal, only one possible partner existed who was interested in expanding into agriculture lending, the Nirdhan Utthan Bank Ltd (NUBL). However, NUBL did not have any rural branch offices that overlapped with Mercy Corps' beneficiaries in the ginger and potato industries. As a result, Mercy Corps' financial support was directed at enabling NUBL to create three new branch offices in target areas. To ensure Mercy Corps' investment was demand-driven, it was critical that NUBL initially showed motivation in conducting its own market research, as a way for its loan officers to better understand farmers' cashflow needs, build face-time with potential clients, and raise visibility of its new branch operations. Start-up timelines and repayment rates were much more protracted in this case, given the depth of operational expansion required on the MFI side.

For agriculture lending, build capacity on both sides to stimulate supply and demand of useful financial services – of the financial institution in product development and loan provision, and of the farmers in business and production skills. However, let the partners interface on their own.

Choose a financial institution partner with a demonstrated interest in agriculture lending and a willingness to conduct market research (either alone or with NGO support). This will ensure that the NGO's role is a supportive one, rather than being the intermediary.

Wherever possible, start with existing financial institutions rather than creating new ones.

Use a mix of grant and loan support as incentives for financial institutions to expand operations in under-served agriculture areas. This will help both partners plan and prioritize cost-recovery of new branch operations within the program's timeframe. Consider alternative approaches such as branchless banking, using a combination of technology and networks of outreach agents to reduce the needs for large investments in equipment and infrastructure.

Plan the financial institution's capacity building support around the agriculture season, and ensure mentoring lasts through a few harvest cycles to test and modify new products.
Seeding Business Opportunity in the 183rd Toughest Market in the World

A closer look at rebuilding an input supply chain in the Central African Republic

Before 1999, Nana Mambéré Province was the cornucopia of the Central African Republic (CAR); its vegetable farmers fed the country. Today, its fields are dotted with an occasional onion, carrot or tomato patch, as farmers try to keep their families alive without attracting attention from roving bandits and armed groups. The 2008 surge in food prices nearly halted agriculture activity altogether, as 56% of households ended their days hungry.

Through a value chain analysis, Mercy Corps identified a cash crop that had potential to raise CAR's farmers out of poverty while simultaneously injecting food into Nana Mambéré's local markets: potatoes. A kilogram of potatoes could boost household incomes by 400 FCFA (USD $0.85) and by another 500 FCFA (USD $1.06) if farmers could sell their seed. However, no quality potato seed existed in Nana Mambéré Province – or for that matter, anywhere in CAR in 2008.

This was a case where knowing the history was important – new potato strains had a difficult track record in CAR. In the ‘80s and ‘90s, both the World Bank and Agence Française de Développement had imported potato seeds from European vendors to stimulate local production. Unfortunately the new strain degenerated just three years after introduction, in a void of government and supplier support. Without access to overseas buyers or the cashflow to afford their prices, farmers' potato yields slumped and quality seed disappeared from CAR's markets. The only relic left standing was the Fédération des Maraîchers de la Nana Mambéré (FMNM), an empty shell of a vegetable farmers' association.

Mercy Corps decided to give potatoes another try, but directed its efforts at making seed multiplication a viable business. There wasn’t always an obvious path, especially in the beginning: for example, in trying to keep the distance as small as possible between the original supplier and farmers, Mercy Corps opted to source initial seeds from Cameroon rather than from Europe (to give CAR's farmers a realistic option should they need to source a supplemental starter stock in the future). However the quality of the shipment was extremely poor. A second order through an intermediary was labeled ‘from Cameroon’, but turned out to be degenerated local seed instead. Mercy Corps made a last-ditch attempt at sourcing from a European supplier with an office in Cameroon, but ultimately cancelled the order due to transparency concerns and lack of a quality guarantee. This was how Mercy Corps got a taste of what it means to do business in the Central African Republic, ranked as the world's most difficult economy by the World Bank’s 2010 Doing Business Report – and the compromises that its farmers weigh everyday.

Seizing the opportunity to revitalize the Fédération des Maraîchers de la Nana Mambéré (FMNM), Mercy Corps and FMNM selected 16 farmers nominated by their producer groups to become seed multipliers. To equip farmers to manage the agribusiness start-ups, Mercy Corps and FMHM offered a series of trainings on potato seed production and storage techniques, and mentored participants in business planning. While only 258 kg from the original sub-par Cameroon shipment could be harvested, the first two potato harvests generated enough seed to continue the multiplication scheme. However, Mercy Corps’ contract with farmers to return 50% of their first harvest to launch new multiplier groups turned out to be unrealistic, given their small yields. As a compromise, recipients repaid FCFA 4,000 (USD $8.51) towards their starter kit of seed and tools, worth about FCFA 50,000 (USD $106.34). While it took time to build the multipliers' stock, they had no problem selling their potatoes to fill demand in the local Bouar market.

The process of rebuilding the potato input supply chain in CAR revealed just how tenuous doing business is in CAR, and how critical it would be for Mercy Corps to later link its grassroots development efforts with national agrarian policy. Ideally organizations like the Central African Agronomical Institute would be leading the charge to localize seed production and ensure dissemination of best practices. Following the first two potato seed harvests, Mercy Corps started this dialogue by hosting market fairs to give potato farmers a space to market their products with buyers, and to share their journey of reintroducing four new seed strains into CAR with their industry and government leaders.

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11 CAR ranks 183rd of 183 economies analyzed by the World Bank in its Doing Business Report, 2010
12 Baseline data, Mercy Corps Food Security Assessment, September 2008. The average Household Food Insecurity Access Score for CAR at the start GFCR activities was 19.5. Using the FANTA classification, this meant that 100% of households were considered highly food insecure.
14. For financial institutions to compete with moneylenders, they need a niche loan product that removes a structural constraint to farmers’ cycle of poverty.

In the absence of formal lending to agriculture, moneylenders are usually the first to gain market share with farmers. Unfortunately, as in most GFCR countries, the conditions of their offer – including their short repayment cycles, interest rates, and penalties among others - can perpetuate farmers’ cycle of poverty.

To be able to compete, financial institutions need both an understanding of what constraints funds and services can address in specific industries and the terms that are favorable for their clients’ agribusiness growth.

Indebtedness to moneylenders was common among GFCR’s target farmers in both Sri Lanka and Nepal. Farmers needed money to cover basic needs, but could only access credit through moneylenders. These loans came with terms such as high interest rates and the presale of products at a poor price, thus exacerbating the root causes of the need for the loan. For example, the analysis in Nepal revealed that moneylenders apply a 36% interest rate, versus 24% for financial institutions and 15% for cooperatives. In addition, many families had to migrate to India or other places in Nepal to pay back the loans, which reduced the time and money they could put into their farms and increasing their assets.

In Sri Lanka, rice farmers often borrow from moneylenders at 10-20% monthly interest rates. One poor harvest thus runs a huge risk of placing farmers in debt to their lender. Mercy Corps and its partner in Sri Lanka, the Social Welfare Development Project Society (SWDPS), refinanced farmers with better terms and conditions to break the cycle of debt and premature sales. SWDPS created a better offer for rice farmers by aligning their loan product closely to their seasonal cashflow needs, capping interest rates at 2%, and increasing loan size with every successful repayment. This has had a direct impact on the rice value chain by allowing farmers to avoid pre-selling their paddy (thus commanding a higher market price) and being able to capitalize on new market opportunities.

- Study the range of available products first (offered by moneylenders/traders, government banks, cooperatives, etc.) to help the supported financial institution develop a better offer that unlocks farmers’ cycle of poverty.
- Encourage an appropriate diversification of financial products and services based on the needs of the clients (for example loans, savings and insurance products, rather than just micro-credit), and within the capacities of the financial institution.
Conclusion

As a learning initiative, the Global Food Crisis Response (GFCR) tested whether it is possible to transition 8,000 families debilitated by hunger on the pathway towards financial stability, food access and agribusiness entrepreneurship – in five countries over 18 months.

As the nature of the food crisis, and its poverty predecessor, became further understood, it was confirmed that one family’s food crisis was symptomatic of a much larger market failure. In this situation, short term interventions to address the immediate suffering caused by the food crisis combined with the longer-term solutions which allow beneficiaries to combat the cycle of chronic poverty was an appropriate approach in the rural context of these five targeted countries. Results confirmed that food is the very first thing that people spend money on and that short-term interventions like cash-for-work helped prevent households from selling off their cattle and land. It also became apparent that addressing problems in food supply was necessary to address this crisis. This took place through a series of inter-linked and concomitant interventions to help producers access quality inputs, information, financial services, and market outlets. Most importantly, interventions needed to persuade farmers to take risks without dire consequences, and the impetus to start seeing their livelihood as their community’s most vital business operation.

Was 18 months enough time to permanently alter households’ food stocks, purchasing power and resilience to future threats? Probably not. But it was a necessary investment in igniting a movement of farmers’ groups, government ministries, extension workers, veterinarians, seed vendors, traders, savings groups, and banks to agree on the problems, identify reasonable solutions, and start moving forward while Mercy Corps moved further into the background.

The GFCR’s program impacts will be tested in the years to come based on the extent to which Mercy Corps accomplished two things: changed behavior, and aligned both interest and capability of stakeholders to continue doing business together. Since agriculture lives and dies by the crop cycle, the harvest period was the time to see this change in action – whether Sri Lanka’s rice farmers grossed a higher yield and profit from SRI methods, whether CAR’s seed suppliers multiplied their stocks, whether Somalia’s herdsmen were willing to sell a goat to pay to vaccinate the herd, or whether Nepal’s ginger farmers negotiated better deals with traders. The more harvest cycles a program witnesses, the better the chance of supporting and seeing lasting behavior change.

Changes in the way that households managed their finances, farms, and transactions were also spurred by helping the larger community recognize and pool its assets. For example, when cash-for-work laborers worked together to improve a market access road or an irrigation system, benefits were felt at their household level. When farmers banded together in a producer group, access to more buyers opened up. And sometimes, simply introducing a new mechanism was enough to unlock local resources. The village lending and savings associations in CAR, one of the world’s poorest nations, surfaced $18,000 in community wealth in only 9 months time.

While change may be gradual, by focusing agriculture recovery programs on local crops for local consumption, the early wins will benefit those that need it most -- for their next meal. As one program participant put it directly, “Before, we had a problem of not enough vegetables in our kitchen. Now we have lots of vegetables in our kitchen.” And Mercy Corps did not just hand those out.
Review of Lessons Learned
Global Food Crisis Response

Healthy Animals – The Building Blocks For The Livestock Trade

A closer look at strengthening the rural poultry industry in Niger

When Mercy Corps launched the Global Food Crisis Response (GFCR) in 2008, two-thirds of Niger’s population was at risk of severe malnutrition, in an unforgiving landscape desiccated by the Sahara and Sahel deserts. A year later, in the southwest corner of the country, 4,800 women have banded together from 160 villages to stave off hunger by raising chickens to sell and feed their families. Unlike the capital and time investment required in rearing larger livestock, chickens placed relatively little economic strain on their households. And most importantly, the barrier to entry was affordable for women looking for ways to supplement their families’ income.

However, chickens can be a fragile business venture, as Mercy Corps quickly discovered in April 2009. The country’s poultry markets had taken a hit from the avian flu scare three years earlier, and had not fully rebounded despite widespread unmet demand. Mercy Corps’ hunch that the women of Loga, Filingué and Niamey could revitalize the rural industry was met with huge enthusiasm: over 6,000 women registered for initial trainings in animal health and production. To launch new producers, Mercy Corps distributed vouchers and sponsored 36 village trade fairs for participants to select their hens, purchase medical supplies, and network with one another. In April, however, the thermostat in southwest Niger pushes 110 degrees (Fahrenheit). These sweltering conditions nearly grounded the program to a halt: the combination of owners transporting chickens to a central collection point plus a sudden flare in Newcastle disease proved lethal for 50% of the animals sold that day. Mercy Corps changed course from that point forward, in ensuring that future fairs and voucher schemes didn’t involve live animal transactions.

A positive outcome of the initial fair fiasco was that it motivated producer groups to monitor and invest in the health of their flock, in order to fetch a better market price (or at the very least, ensure their chickens survived the journey to market). This stimulated demand for an expanded network of Community Animal Health Workers (CAHWs), 44 of which were incubated by Mercy Corps and the Niger Government’s Agriculture Extension. The CAHWs’ primary role is to monitor an epidemiological surveillance network and alert the extension office if there is any discrepancy in their findings. By charging a nominal fee for their monitoring and treatment services, they’re now able to restock their medical kits and generate a secondary source of income.

For 21 of the most entrepreneurial producer groups, Mercy Corps mentored their members in cooperative management, marketing, and negotiating direct contracts with buyers to maximize their profit margins. Thirty percent of these women have already “graduated up” to sheep and goat rearing, which offers a ten to twenty-fold increase in their earnings.

13 Chicken prices vary seasonally between USD $3-$5 in rural markets.
14 Sheep and goats sell for USD $35-$80 per animal in rural markets.
What Makes a New Market Linkage Happen?

A case study on Mercy Corps’ role in creating and aligning opportunities in the potato and ginger industries in Nepal

Facilitating a web of new market linkages -- between ginger and potato producers, input suppliers, and buyers -- was a vital component in the Global Food Crisis Response (GFCR) program in Nepal. Market linkages tested whether Mercy Corps’ efforts over 18 months in helping subsistence farmers grow higher-value crops ultimately resulted in concrete profit returns in local markets. While the program’s timeframe was ambitious to fully develop these linkages, it did build a foundation for stronger transactions in the ginger and potato value chains.

The GFCR program was implemented in the highly food insecure regions of far-western Nepal, an area that is referred to as the “mid-hills” (but would easily qualify as mountainous anywhere else). Communities in this area subsist on rice, maize and wheat farmed across terraced hillsides and deep valleys. Transportation requires perseverance, with many villages accessible only by foot and landslides routinely blocking market access roads during the monsoon season. As the region is a net importer of food, agriculture yields are kept small by insufficient irrigation, poor quality seed, erratic rains and traditional cultivation methods. For the majority of households in the Baitadi, Dadeldhura, and Kailali districts, this situation necessitates that one family member migrates to earn additional income during the lean season. During the harvest season, most farmers only produce enough to satisfy their family’s consumption needs for 6-9 months of the year, and therefore have little interaction with local markets except to buy food during shortages. This combination of remote geography, poor transportation infrastructure and limited agriculture inputs creates a vicious cycle for many of Nepal’s farmers: they are dependent on food markets for their staples, but unable to benefit from market sales due to low-value, low-yield cash crops.

Developing market linkages in western Nepal was therefore anything but a stand-alone intervention with a target group of 1,200 subsistence farmers. This required Mercy Corps to facilitate changes at multiple levels in the market, including: 1) mapping the market to select high-value crops and engage industry and government partners; 2) supporting producer groups in commercial crop cultivation; and 3) facilitating interactions between farmers groups and other actors in the value chain.

1. Mapping the Market

To identify where linkages would have the greatest impact on farmers’ incomes, the GFCR team first conducted a value chain assessment to understand western Nepal’s food market dynamics and select crops with most potential to benefit smallholder farmers. This included mapping out actors in relevant markets and identifying constraints and opportunities, services available, market demand, and potential points of intervention.

Potato and ginger emerged as the best candidates due to their suitability to the local climate, high value per unit of land, and unmet demand in local and regional markets (which was sizeable enough to absorb any replication efforts by neighboring communities). Potatoes offered the added nutritional benefit of diversifying the local diet of rice and lentils. Villages were then selected for the GFCR program based on their food insecurity status, distance to market center (within a day’s walk), and willingness to devote some of their land to new crops.

A success factor at this early stage was Mercy Corps’ decision to not conduct any research alone. By visiting production and trading sites together with farmers, traders, government officials and the Kailali Chamber of Commerce, all parties witnessed and discussed the same problems firsthand: for example, limited, low-value production deterred traders from populating GFCR’s target areas, limited market information and relationships disabled farmers from negotiating large returns, and lack of cold storage prevented wholesalers from buying in large quantities. This was the first step in agreeing on problems, generating solutions and mingling the farmers and traders who could potentially do business together in the future.
2. Developing the Farm as a Business

Before Nepal’s farmers would be ready for market linkages, they first had to build their offer for buyers. This meant strengthening the farm as a profitable enterprise through commercial intercropping, group production and input supply linkages.

What caught farmers’ attention in western Nepal was the opportunity to rotate in a profitable third crop (for sale), without losing their annual maize and wheat harvests (for subsistence). While farmers could produce 40-80 kgs of wheat from one ropani (0.05 hectares) of land, that same area could generate 200-800 kgs of potatoes for a higher price. Further, ginger could be intercropped in with maize, the traditional summer crop. While this would reduce the maize harvest slightly from 20 to 13 kgs, it would produce an additional 60-140 kgs of ginger, a high value cash crop. The GFCR program thus encouraged farmers to plant a half ropani with either potato or ginger, which allowed them to continue growing subsistence grains in the remainder of the land.15

Intercropping and seasonal crop rotations would only be profitable if farmers could sell their potato and ginger harvests. The GFCR team next helped form 43 producer groups to give smallholder farmers market leverage through increased volumes. The producer groups also provided Mercy Corps an entry point to mentor farmers in production methods and business practices (e.g. managing labor, finances, collective marketing, deal negotiation, etc). For example, Mercy Corps emphasized that a 50 rupee (USD $0.67) investment to control pests paid for itself through increased yields.

To support ongoing quality production, Mercy Corps also strengthened the input supply markets linked to potato and ginger in western Nepal. Mercy Corps invested in six seed cooperatives which ‘on-lend’ seed to producer groups at the beginning of each planting season. After harvest, producer groups replenish the seed banks with ‘interest’ paid in additional seed. This interest helps the cooperatives buffer any losses between harvests, and rotate seeds between farmers on demand.

Potato and ginger production also required new inputs like biofungicides, copper sulfate and lime, which were initially not available in GFCR’s remote target communities. Mercy Corps teamed up with a local input provider, Kishan Agro-Vet, to expand its network of agents by hiring from GFCR’s target villages. One agent, for example, is a farmer and shopkeeper who dedicates one side of his shop to agriculture and veterinary supplies. Another is a recent graduate from an agriculture school who moved back to his family farm.

Mercy Corps then facilitated its first market linkage with the 31 potato and 12 ginger groups through distributing vouchers to connect them with the Agro-Vets to test out their products. To cover their costs, the Agro-Vets needed to offer a wide range of products and services; this ultimately helped them attract new clients, as farmers could buy fungicides, vegetable seeds and veterinary medicine all from one vendor.

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15 The Government of Nepal defines a smallholder farmer as having less than six ropani of land. Mercy Corps’ data shows that most farmers in GFCR areas farm four ropani of land. Therefore, a half ropani is only about one eighth of their productive land.
3. Facilitating Post-Production Linkages

As early as the first value chain stakeholders meeting, Mercy Corps had begun facilitating links among players in Nepal’s potato and ginger industries. Over the course of the 18-month program, these interactions gradually deepened from initial introductions, to discussing shared challenges and opportunities from production to wholesale, and ultimately to doing business deals together after the first successful potato and ginger harvests.

Even when farmers’ started harvesting at sufficient volumes to warrant traders’ attention, there was no guarantee that market linkages would happen automatically: farmers in Nepal’s hills had a difficult value proposition for traders, simply due to their geographic isolation. Traders needed a good reason to cover the transport costs, and this required building trusted relationships. To stimulate and build these relationships, Mercy Corps supported farmers, traders and exporters from Baitadi, Dadeldhura, and Kailali districts in a cross-visit to North India (for potatoes) and Eastern Nepal and Northeast India (for ginger) to see functional production and trade systems in action. District Chambers of Commerce conducted workshops for local traders on how to market ginger and potato and held agricultural fairs, including a “Potato Expo” which drew thousands of people. And, market centers were linked with cooperatives so that price information could be distributed to farmers to maximize their profit margins.

Supporting these ongoing interactions throughout the value chain proved important. This helped farmers to better understand market dynamics and demand in their industries, and gave buyers new choices to source quality potatoes and ginger.

4. Impact

By the end of the GFCR program, 1,200 farmers had experimented with incorporating higher value crops in to their planting patterns, with many harvesting between 80-400 kg of potatoes and 20-160 kgs of ginger/per farmer/ per half ropani of land. After only one season of Mercy Corps’ support, many farmers successfully sold their crops, either individually or collectively though their producer group. Others were waiting to sell until the price went up because they had been tracking market prices through the price boards, radio and telephone. Most still felt that market access wasn’t easy: some struggled with lack of transportation and others didn’t understand the difference between wholesale and retail prices. All participants however seemed very excited to try again next year, despite some complete crop losses due to droughts or landslides.

The written business plans and financial records of the potato and ginger farmers who participated in GFCR were far from perfect; however, everyone now sees the profit potential from intercropping with higher value crops. This is a significant step, particularly for those who were skeptical at the beginning of the program, and for others who could only witness success in their neighbor’s fields. The producer groups have attracted new members, and additional farmers have shown an interest in planting ginger and potatoes in the upcoming season.

It is more difficult to measure the sustainability of the market linkages, as these are based on ongoing quality of production and gradual building of trust. The GFCR experience showed that it could take a few seasons for traders to start to recognize farmers, and for farmers to build a reputation and learn how to negotiate and engage in the market (particularly if farmers are marketing an entirely new crop among new traders). In this respect, the project’s 18-month timeline was not enough time to fully develop market linkages, but it was worthwhile to build a strong foundation – through introducing higher value crops, strengthening group production and marketing, and facilitating introductions across the value chain. Most likely, some linkages initiated under this project will be more fruitful than others and not all will last. But it is clear that the linkages have benefited farmers during the project and through to the next production cycle.
**Cashing-in On The Harvest Season**

**A case study of Mercy Corps’ integration of agriculture and finance in Sri Lanka**

Access to finance was the backbone of building healthy food systems in Mercy Corps’ Global Food Crisis Response (GFCR) program – from initial cash injections into destabilized households to grassroots lending and savings schemes for aspiring entrepreneurs.

SRI LANKA’S AGRICULTURE CALENDAR:
- Maha = main cultivation season October-January, rain-fed
- Yala = minor cultivation season, March – June, irrigation required

The GFCR program in Sri Lanka witnessed a two-fold effect in integrating its agribusiness and financial support: more knowledgeable farmers made for healthier loan clients; and more knowledgeable banks built loan products that met local demand. This case study explores how an umbrella of eight microfinance institutions and 13 farmers organizations capitalized on mutual opportunity, and examines Mercy Corps’ role as a low-profile advisor to both.

**Baseline Profile of the Lending Partner**

The Social Welfare Development Project Society (SWDPS) made its first loan to a Batticaloa farmer in 1999, nearly 10 years before their collaboration would begin with Mercy Corps in agribusiness banking. With eight branches stretched across the Vellavely region in eastern Sri Lanka’s Batticaloa District, SWDPS began competing alongside the region’s moneylenders and input suppliers for a share in the rice cultivation sector that supports more than 90% of the region’s population. SWDPS undercut the moneylenders by offering a 2% interest rate rather than the 10-20% norm. But by 2008, their agriculture portfolio had grown to include only 2,641 clients. Loan officers were puzzled why more farmers weren’t utilizing the six-month loans offered during the irrigated Yala season every March - June, and why 8% of its existing clients had already defaulted.

**Baseline Profile of the Typical Farmer Client**

Across from one of SWDPS’ branches lives the Pakkiyararjah family, a four-member household who has cultivated rice for several generations. The family owns two acres of paddy fields, which have survived more than 15 years of internal strife. Like 8,000 other poor families struggling to make ends meet in rural Batticaloa District, the Pakkiyararjah’s household income averages a mere Rs 1,737 (USD $15) per person/per month. The Sri Lankan government has identified Rs 2,240 (USD $20) per person/per month as the minimum living standard, which places households like the Pakkiyarajahs below the poverty line.

Understanding why the Pakkiyararjahs cannot get ahead is written in their balance sheet: one acre of land yields 24 sacks (60 kg) of rice, which translates to a Rs 25,000 – 30,000 (USD $174 - $262) net profit per acre/per harvest when using traditional cultivation methods. But the devil is in the details for the smallholder paddy farmer. To cover the rising costs of labor, fertilizer, pesticides, seed and equipment, more than 57% of Batticaloa’s farmers’ returns are much smaller due to debts owed to moneylenders at exorbitant interest rates. And, while two harvest seasons are technically feasible, the majority of Sri Lanka’s rice farmers depend on just one rain-fed season to generate their annual income, with a second irrigated harvest limited to the lucky few. This last detail was where the Social Welfare Development Project Society was losing many of its potential agriculture clients to more observant moneylenders.

**Mercy Corps’ Intervention**

Following a value chain analysis in September 2008, Mercy Corps decided to focus its GFCR food security efforts on strengthening the rice industry, the country’s three-daily staple. From the perspective of the smallholder farmer, the two weakest links in the rice value chain were access to new production technology and access to financial services.

To help boost yields, Mercy Corps and the Department of Agriculture and Ecological Training introduced rice producer groups to the System of Rice Intensification (SRI), a labor-intensive planting method that requires careful transplanting, seed spacing and organic fertilizer to promote maximum growth (as opposed to the traditional

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broadcasting of seed). Since none of the producer groups had been exposed to this method before, only three farmers were interested in trying SRI during the rain-fed Maha season of 2009.

The Pakkiyarajahs were one of these pioneering SRI families and ended up harvesting a rice crop with an average of 17 sacks more per acre. This resulted in a net profit of USD $177 per acre above their previous year’s earnings from traditional planting. Watching a respected farming family increase their harvest value by 84% per acre was a compelling call for neighboring farmers to change their own behavior; the next planting season saw a ten-fold increase in voluntary participants who adopted SRI to rise above the poverty level.

With more farmers seeing the benefits of SRI in their fields and sales, the demand for affordable credit remained a constraint for many households, particularly given the increased labor and organic fertilizer investments required in the SRI method. At the same time, SRI farmers were becoming increasingly attractive loan clients with every productive harvest. This provided an ideal opportunity for Mercy Corps to engage with the Social Welfare Development Project Society to re-evaluate its existing loan products and conduct some joint market research with these successful farmers.

The research revealed that SWDPS’ existing loan product was irrelevant to rice farmers’ seasonal calendars and cashflow needs: rather than access to a low-interest 6-month loan during the irrigated season, most farmers needed a low-interest loan during the major paddy cultivation period in the rain-fed season. This mismatch was in part due to SWDPS’ attempt to mitigate risk by avoiding lending to rain-fed farmers, given the region’s erratic weather patterns. Yet, in exposing farmers to minimal irrigation methods like SRI, their harvests were becoming more dependable and their risk profile was improving for lending institutions.

With Mercy Corps’ support, SWDPS launched a new product on the market, this time specifically tailored to rice farmers’ needs. Available up to three times a year, the agriculture loan enables clients to make monthly interest payments, and then pay the principal at harvest. For farming households like the Pakkiyarajahs, that worked out to be an average loan size of Rs 15,000 (USD $135) with manageable interest payments of Rs 390 ($3) per month, in contrast to the USD $26 they’d previously paid to moneylenders every month. As a risk mitigation strategy, SWDPS chose to offer individual loans but ask for members of the farmers’ producer group to co-sign as guarantors. As SWDPS got to know its agriculture clients even better, they launched a second, higher-interest product to help farmers meet the emergency, education and consumption needs that arose during the 2-3 months between harvest seasons.

SWDPS’ new loan products hit an immediate nerve in the Batticaloa farming community: 279 farmers lined up for loans within the GFCR project period. In their first cycle, 100% of the new agriculture clients repaid their loans in full within the repayment period. With each successful loan cycle, SWDPS deepened its investment in its clients by expanding their loan size, from Rs 15,000 (USD $135) to Rs 20,000 (USD $190). This should enable families like the Pakkiyarajahs to build a credit history towards a larger loan from a commercial bank in the future.

In hindsight, Mercy Corps, SWDPS and the farmer loan clients would not have collectively achieved this 0% default rate without a few strategic decisions. One was for Mercy Corps to build capacity of both the agriculture producer and lending institution in parallel, to create a better offer on both sides. For the farmers, this included conducting two trainings on credit management, product marketing, record keeping and business planning to improve their agribusiness management, which also indirectly benefited SWDPS. For SWDPS, this included building the organization’s capital base and its staff capacity in developing and tracking highly relevant loan products.

Mercy Corps’ second decision was to refrain from getting involved in the daily operational affairs of the microfinance institution. This ensured its support was directed at the organization as a whole (in market information, loan capital and training), and enabled the loan officers to get on with their jobs on their own terms: building trust and learning from new clients, one farmer at a time.