



# FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



## Effects of Agricultural Input Fairs on Seed Markets: A Review



**USAID**  
FROM THE AMERICAN PEOPLE



**Activity Title:** Feed the Future Global Supporting Seed Systems for Development activity

**Activity start date and end date:** Aug 24, 2018 – Aug 23, 2023

**Cooperative agreement number:** 7200AA18LE00004

**Document title:** Effects of Agricultural Input Fairs on Seed Markets: A Review

**Publication date:** October 2020

**Author's name:** Edward Walters, Technical Advisor Agriculture and Markets

**Sponsoring USAID office:** LOC Unit, Federal Center Plaza (SA-44)/M/CFO/CMP

**Technical office:** USAID/RFS/CA

**AOR name:** Daniel Bailey

**Activity Goal:** Improved functioning of the high-impact integrated seed systems

**Language of document:** English

**Submitted on behalf of:** Catholic Relief Services

**Submitted by:** Nikaj van Wees, Chief of Party S34D activity  
Catholic Relief Services  
228 West Lexington Street, Baltimore, MD 21201  
[Nikaj.vanwees@crs.org](mailto:Nikaj.vanwees@crs.org)

## Acronyms

CRS	Catholic Relief Services
DiNER	Diversity for Nutrition and Enhanced Resilience
FAW	Fall Army Worm
PDM	Post Distribution Monitoring
QDS	Quality Declared Seed
SVF	Seed and Voucher Fairs

## Introduction & Background

In response to major emergencies, governments and international humanitarian agencies often use direct seed distribution as a first level response to help communities stabilize or restart their farming systems. Catholic Relief Services (CRS) used Seed and Voucher Fairs (SVFs) as a common response effort to mitigate the effects of crop loss and help families acquire or recover the necessary seed and inputs to support their farming system. After many years of successfully implementing S&VF, CRS developed a new type of seed fair that specifically focuses on the relief-development continuum and diversity. Diversity goals include both improving nutrition and crop diversity for increasing farming system resilience. This new approach is termed a **Diversity for Nutrition and Enhanced Resilience (DiNER) fair**.

The DiNER Fair is a bridge between emergency and development. The fairs create a platform for establishing longer-term business relationships between farmers and seed companies, agrodealers, vendors, and farmer-producers who regularly sell quality seed; and, these groups are encouraged to expand the crops and varieties on offer in communities on a more continuous basis. Buyers and sellers come together at the fair event, with sellers showcasing the merits of specific agriculture inputs and small livestock, while being exposed to the local demand of this farmer segment. Ties formed at the fairs should spur business relationships for many seasons onwards.

Products available at the fairs can include seeds of basic grains and pulses (beans), exotic and local vegetable seeds, tools, fertilizer, animal feed and small livestock. Leading up to and during the DiNER Fair, participants are likely to receive agriculture information, nutrition education and gender messaging to guide purchases and to support women in equitably benefitting from this activity. Cash DiNER fairs in Guatemala included household budget management training to participant household couples. Vendors at the fairs can include private sector input dealers (including paravets), seed companies, community-based seed multipliers, individual sellers and market traders.

This review comprises information from four studies: a Southern Africa study incorporating Malawi, Zimbabwe and Madagascar, and separate studies examining Guatemala, Nicaragua, and Madagascar. The two Madagascar cases examined different sets of fairs.<sup>1</sup> The review examines the market effects of DiNER fairs explored in the four studies to draw lessons learned, provide recommendations for the use of DiNER fairs for market system development and propose further study.

---

<sup>1</sup> Diversity for Nutrition and Enhanced Resilience (DiNER) Fairs and Voucher Programming: Evaluation and Learning in the Southern Africa Region; A Comparison of Voucher and Cash Transfer Modalities for DiNER fairs in Guatemala; Assessment of Voucher Modality in CRS Nicaragua Seed Fairs; A Comparison of Cash/Voucher Modalities in CRS Madagascar DiNER Fairs

## Overview of the Fairs

All the DiNER fairs in this study were conducted between December 2017 and January 2020 (Table 1). The majority of fairs were responding to chronic drought – Guatemala (2), Nicaragua, Zimbabwe, and Madagascar (2). The Malawi DiNER fair was in response to a Fall Army Worm (FAW) outbreak, as well as the 2016 El Niño induced drought.

**Table 1. DiNER Fair and Survey Timeframes.**

Country	Timeframe for DiNER Fairs	Survey Timeframe
Guatemala	2017, Nov 2018, April 2019	Aug 2019
Madagascar (cash)	Jan 2020	Jul 2020
Nicaragua	Apr 2019	Aug 2019
Madagascar (voucher)	Oct-Dec 2018	Apr-Jun 2019
Zimbabwe	Dec 2017, April 2018	Apr-Jun 2019
Malawi	Nov-Dec 2018	Apr-Jun 2019

All the fairs reviewed here were short-term (less than 20 months) emergency responses, while all (save one) of the fairs had a goal of restoring food security. In addition to food security, Madagascar considered climate adaptation; Malawi, diversification of crops and livestock; Guatemala, child nutrition; and Zimbabwe, income. The Nicaragua fair did not have an explicit food security goal, but sought to reactivate livelihoods and increase resilience, following droughts. None of the fairs had explicit market (expansion/building) related objectives. Typically, vendors are considered only as service providers. Nonetheless, the fairs present an opportunity for seed suppliers to extend their market frontier to new set of clients and potentially establish longer-term business relationships.

Additionally, seeds of staple crops (e.g. maize, sorghum, millet), and pulses (beans) were on offer in all fairs. Madagascar also offered cassava cuttings and sweet potato vines. Vegetable seeds were available in Guatemala and Malawi. Livestock was available in Malawi (goats), Zimbabwe (chickens), and Guatemala (chickens). Tools were offered in Madagascar and Guatemala. Guatemala also offered fruit tree seedlings, fertilizer, veterinary medicine, and poultry feed. Nicaragua, Madagascar, and Zimbabwe also had cover crop seed for soil enhancement and fodder. The Malawi, Nicaragua and Zimbabwe DiNERs used only the voucher modality, whereas in Guatemala and Madagascar, initial fairs used vouchers followed by fairs with cash.

**Table 2. DiNER Fair modality and type of inputs per country.**

Country	Modality	Crops*	Livestock	Tools
Guatemala	Cash and vouchers	Vegetable seeds, fruit tree seedlings	Chicken, veterinary medicine, feed	Various, fertilizer
Madagascar	Cash and vouchers	Casava cuttings and sweet potato vines, cover crops and fodder		Various
Nicaragua	Voucher	Cover crops and fodder		
Zimbabwe	Voucher	Cover crops and fodder	Chicken	
Malawi	Voucher	Vegetable seeds	Goats	

\* In addition to the maize, millet, sorghum and beans.

## Methods

The various studies collected primary information from participant farmers,<sup>2</sup> vendors, and CRS staff. One set of data collection instruments was used for the separate Guatemala, Nicaragua, and Madagascar studies. The studies compared the cash/voucher modalities in the fairs and the long-term market expansion for vendors. The Southern Africa study survey tools had a wider lens, which investigated crop productivity and diversity, livelihoods and nutrition outcomes, effectiveness in distributing quality and diverse goods, and efficiency of the voucher process. Additionally, the Southern Africa study examined how DiNERS influenced vendor behavior and market strategies (client capture) that would ultimately result in market expansion.

For primary data, the Southern Africa study had a much larger sample size (395 individual farmer interviews, 34 supplier interviews, 14 focus groups), whereas the other three studies collected only qualitative information from 14 focus groups and 17 vendor interviews. All studies also analyzed secondary data consisting of project proposals, reports, and Post Distribution Monitoring (PDM) reports, among others.

### *Findings*

***Guatemala Study:*** The Guatemala study compared cash to voucher modalities with vendors and farmers who participated in both fairs, and the cash fairs included 3 local seed banks. Vendors who participated in both the cash and voucher fairs came from more distant market centers. Focus groups reported that because of the distance to vendors, they would be unlikely to continue buying inputs from these vendors. For vendors, the fairs provided a tremendous one-time boon to their sales. The tree nursery saw an increase of 229% in sales of seedlings. The two hardware stores showed a total increase of sales of 112% and 203%. Sales of these products in their shops dropped 31% and 10% showing that some of the normal demand was satisfied during the seed fairs, but not dramatically for the second dealer. This indicates that there was limited overlap of the seed fair clients with their normal clients, confirming focus group reports that they really did not know the vendors prior to the fairs.

In terms of longer-term impact on their businesses, one hardware vendor reported new clients from a nearby village who she anticipated would continue supporting the business in the future. The fruit tree nursery anticipated longer-term business from new communities where she had never sold before: “... *The people are made aware and make orders...mostly tree seedlings.*” She reported plans to modify her nursery’s business model as a result of the fairs – expanding beyond its reliance on institutional purchases – to reaching out and selling directly to farmers.

Nevertheless, the learning study reports only 20% of farmers could recall the vendor who served them, indicating little possibility of supporting these businesses in the future. Because most vendors were not local, they were not known to the beneficiaries and a continued business relationships was there unlikely in the future. One concern of any transfer program is the potential negative effect on the local market. Transfer programs that rely on non-local suppliers could result in local vendors losing sales. Transfer programs that rely on local suppliers could see an increase in demand causing local shortages of the product potentially creating price inflation. In Guatemala, the regional vendors reported seeing no price changes on their markets during the fairs. However, price drops for some goods were reported in the local market during the cash fair as non-participant local vendors sought to compete with the fairs.

---

<sup>2</sup> Subsequently referred to as simply farmers and vendors/suppliers

**Madagascar Cash/Voucher Study:** The Madagascar study compared fairs using vouchers with those using cash. Only regional vendors participated in the voucher fairs, while local vendors were added to the cash fairs. All vendors reported positive effects of both voucher and cash fairs on their long-term business. Four of six vendors reported an increase in their overall seasonal sales during the fair period because of the fairs. One vendor had been able to open an additional sales outlet because of profits from the voucher and cash seed fairs. On the other hand, one vendor complained that he had closed his store in order to participate in the DiNER fairs during the two-month fair period, so he had temporarily lost clients.

Two vendors considered that the fairs would only have a one-time effect on their businesses. Four of six vendors expected that their client base would expand over the long-term because of contacts made during the fairs. Two vendors planned on adding points of sale to their businesses. Vendors did report a temporary rise in seed prices in the local market during the period of both voucher and cash fairs, perhaps because the demand for seed in the fair strained local supply. Yet, after the fairs, prices returned to normal.

**Nicaragua Study:** The Nicaragua voucher fair study included both regional suppliers and local seed banks (cooperatives). Because most local seed sellers were invited to participate in the fairs, local sellers did not lose business – in fact, the sellers reported moderate to substantial increased business during the season of the fairs. One farmer/seed producer reported a 75% increase of sales of beans and 120% for maize. Another reported sales increases of 37% and 50%, respectively. Among all interviewed vendors, 3 out of 4 reported higher profits; half reported that the fairs were an excellent opportunity to connect with new customers and get to know them; and, one vendor reported more rapid turnover in his inventory. All vendors reported an increase in clients with one reporting a dramatic increase. Three out of four vendors anticipated a long-term increase in clients as a result of the fairs. One seed bank leader reported,

*“[The fairs] have amplified the vision of our business... They have allowed us to understand the farmers’ demand and seed varieties they prefer. Our relationships...have improved and we feel we have gained prestige and the confidence of farmers in the area.”* (author’s translation)

In short, the larger established enterprises saw only marginal changes in business as a result of the fairs, whereas the smaller and more local enterprises saw significant increases in current business. These smaller enterprises expected increases to continue in the longer term. Prices in the local markets were unaffected by the fairs, perhaps because of the small size of the fairs or the high-level of market integration.

**Southern Africa study:** While not directly asking if vendors and customers expected to continue the vendor/client relationship in the future, the Southern Africa study examined how DiNER fairs influenced vendor behavior and market strategies. Most vendor respondents (62%) said that fairs influenced where they sell their products. In Zimbabwe, some vendors used different modes of transport to get staff closer to the farmer segment and hired additional staff.

Moreover, fairs influenced to whom 79% of suppliers sold products. Three businesses hired female salespersons to engage with female clients, and three worked with local agrodealers to supply varieties of crops that women prefer. Half of the vendors stated the fairs influenced how they packaged their product. In Zimbabwe, vendors bundled vegetable seed with other products offered at DiNERs. Fairs also influenced how vendors communicated with their farmer customers after the fair. In Zimbabwe, four suppliers used SMS messaging and three businesses used social media to increase their client reach after the fair. Some Zimbabwe vendors used

mobile money to reach specific farmer segments. In Madagascar, suppliers created market awareness about drought-resistant seeds.

In addition, nine businesses developed targeted communication strategies for female farmers. Businesses also sought to understand the unique needs of their female client base post-fair (21/34). However, twenty-two businesses did not feel it was applicable to have specific ways to reach female clients with products. Some barriers to vendors in expanding their businesses included franchising and alignment with government regulations, particularly when expanding delivery models (i.e. bikes and vans) and distance to the clients being restrictive in serving clients more frequently than at the weekly market.

Most farmers did not notice these changes in supplier services (90% in Malawi, 87% in Zimbabwe, and 65% in Madagascar). More research is needed, but some ideas that may shed light on this aspect is the short-term nature of the 3 projects (all less than 20 months), lack of an explicit market development objective and vendor location. In Madagascar, focus groups reported mixed interactions with vendors post-fair. In Zimbabwe, one farmer focus group mentioned that the supplier continued to provide guidance on how to manage their chickens.



## Conclusions and Discussion

As expected, vendors reported a significant immediate increase in sales at the fairs. Longer-term effects are mixed, with larger, regional suppliers anticipating no expansion in their client base, whereas smaller and more local vendors anticipated that relationship with new clients gained during the fairs would continue in the future. Furthermore, the Southern Africa study noted that more than half of the vendors interviewed were increasing their strategies to try to reach and respond to the needs of new male and female clients. New approaches ranged from expanding staff and sales points, offering varieties that cater to client interest, adding packaging options, using mobile money, developing client-specific communication strategies, and use of outreach via SMS and social media.

While the fairs' effects on local markets in terms of supply and prices are more theoretical, temporary price changes in local markets around the fairs were observed in both Guatemala and Madagascar. In Madagascar, after the fairs were announced, the price of seed spiked in the local market. Conversely, in Guatemala, local vendors lowered their prices to compete with what was on offer at the fair. It appears that the smaller the local market, the greater the potential impact of the fairs on supply and pricing.

Additionally, fairs offer the opportunity for market expansion and last mile seed delivery (with caveats):

Fairs usually target the most vulnerable, limited asset farmers. These farmers are typically not the client base of formal private-sector seed traders. While formal seed may not normally be available to these farmers because of the absence of outlets, the farmers may not be able to afford quality seed or even have the desire to purchase quality seed if it is available. Efforts to sensitize farmers, either before or during fairs, on the benefits of locally adapted improved seed may help overcome their reluctance to pay a premium for improved seed. These factors (proximity to clients, resources, demand creation) present hurdles that the formal seed sector needs to address. However, locally produced quality seed, whether it be Quality Declared Seed (QDS) or other, can overcome some of these barriers. In addition, improving seed quality grain from local traders can offer a readily available and less expensive source of seed to farmers.

Are vendors in fairs simply considered service providers or are they also part of the target population? While any fair offers the potential for market development, humanitarian organizations responding to emergencies are primarily focused on livelihood recovery through the fairs. These organizations may not have the time or resources to actively promote private sector seed market expansion. Seed businesses, particularly smaller, local businesses may lack the capacity and resources for expansion. These businesses may require much longer-term capacity building support.

## Recommendations

Seed fairs have had an implicit objective of expanding vendor reach and long-term business relationships with the fair client base. Although the results from this review show promise in building market opportunities and expanding the market frontier for sales of improved seed, further investigation is required to fully understand the ability of DiNER Fairs to expand markets for vendors, particularly for smaller, local vendors. **Where possible, future fairs should make this objective explicit and undertake measures to expand vendor markets with the goal of providing last mile access to seed for harder to reach farmers.**

As such, **DiNER Fairs should be framed (and planned) as an emerging private sector opportunity for continuing businesses that serve remote or vulnerable clientele.** The programming could involve considerable post fair business development. Complementary programming could be offered to suppliers on tailoring their strategies for resource-poor farmers, creating strategies for female farmers, and examining options for reaching distant, underserved farmers.

While the impact of the fairs on larger, more established, vendors was a short-term, one-off effect, **smaller vendors believed that they were capturing clients and thus growing their business over the longer-term. This effect on smaller and more localized seed businesses that are in closer proximity to farmers can be a means of developing more sustainable last mile delivery of quality seed.**

**Local suppliers and vendors should be recruited**, that is, those who might serve the community on a continuing basis. It is also important to consider reviewing the recruitment/selection criteria and registration process to ensure it is inclusive and clear to all potential suppliers.

**Projects should make efforts to mitigate any negative consequences of the fairs on local market** – identifying and contracting local vendors well before the fairs will give them sufficient time to procure seed, mitigating sudden jumps in demand with accompanying price rises just prior to the fair.

### *Further Research*

The primary purpose of seed fairs is to provide farmers with access to seed that helps them to restart their production after a shock. However, these fairs also offer the possibility for vendors to establish longer-term relationships with clients. Long-term effects of fairs on market expansion have been largely hypothetical to date and evidence of this longer-term market effect remains thin. Examining the effect of fairs on expanding participant vendor business in the long-term would enable programs to understand the degree that this occurs and build-in measures to promote this secondary objective; and, examine the differences in building a long-term client base between smaller, local vendors in the fairs and those more distant enterprises with less connection to the communities. The studies reviewed here suggests that this is happening to a limited degree, but **a more retrospective study (1 year or more after the fairs) with a larger scope, is needed.**

The fairs examined in this study were all undertaken in emergency projects with relatively short-term time horizons. Longer-term development programs are also using DiNERs as a means of getting quality seed out to farmers. These longer-term options may hold greater prospect for building longer term connections between farmers and the formal seed sector including educating farmers on the benefits of locally adapted improved seed. **These experiences merit**

**examination and will provide lessons learned regarding the use of DiNERs for development objectives.**

This review underlines the difficulty of comparing experiences across time and countries. **The process would be facilitated by standard indicators for all fairs that incorporate market development indicators.** This will require revision of the standard tools found in CRS' Agriculture Fair and Vouchers Manual.<sup>3</sup>

Finally, while CRS collects substantial information on fair outputs, limited information is available on fair outcomes such as expanded seed options, increased seed utilization, and increased productivity with consequent enhanced food and nutrition security. Where possible, DiNER fair outcome information should be collected post-fair. DiNER Fairs are being implemented in both emergency and development projects and thus offers research teams with the opportunity to compare short versus long-term or repeat seed fair options. These options allow teams to learn more about fair clients, such as retention of new information, interest in new types of crops, and the prospect for longer-term business between farmers and input suppliers.

---

<sup>3</sup> Catholic Relief Services, Agricultural Fair and Voucher Manual. Baltimore, MD, USA. 2017, <https://www.crs.org/our-work-overseas/research-publications/agricultural-fair-and-voucher-manual-1>