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



STUDY ON CASH TRANSFERS FOR SEED SECURITY IN HUMANITARIAN SETTINGS



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The Consortium Partner that conducted this review:



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Table of Contents

ACKNOWLEDGEMENTS.....6

ACRONYMS.....7

DEFINITIONS.....8

EXECUTIVE SUMMARY10

BACKGROUND/CONTEXT.....12

METHODOLOGY14

CASE STUDIES.....15

PERSPECTIVES ON QUALITY: The importance of a multi-stakeholder view24

KEY FINDINGS.....26

INSIGHTS FROM OTHER SECTORS31

PRACTICAL IMPLICATIONS: Risks, opportunities and enabling features of cash for seed security.....32

RECOMMENDATIONS.....40

REFERENCES.....42

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ACRONYMS

CaLP	Cash Learning Partnership
CIAT	International Center for Tropical Agriculture
CIMMYT	International Maize and Wheat Improvement Center
CRS	Catholic Relief Services
DFS	Digital financial services
DiNER	Diversification for Nutrition and Enhanced Resilience
DSD	Direct Seed Distribution
ECHO	European Civil Protection and Humanitarian Aid Operations
FAO	Food and Agriculture Organization of the United Nations
ICRC	International Committee of the Red Cross
IDP	Internally Displaced Person
IITA	International Institute of Tropical Agriculture
NRC	Norwegian Refugee Council
REST	Relief Society of Tigray
S34D	Feed the Future Global Supporting Seed Systems for Development activity
SOP	Standard Operating Procedures
SSSA	Seed System Security Assessment
UNHCR	United Nations High Commissioner for Refugees
USAID	United States Agency for International Development
OFDA	Office of U.S. Foreign Disaster Assistance
WFP	World Food Programme

DEFINITIONS

All cash-related definitions are from the CaLP Glossary.¹

Cash Transfer: The provision of assistance in the form of money - either physical currency or e-cash - to recipients (individuals, households or communities). Cash transfers are by definition unrestricted in terms of use and distinct from restricted modalities including vouchers and in-kind assistance.

Cash and Voucher Assistance (CVA): Refers to all programs where cash transfers or vouchers for goods or services are directly provided to recipients. In the context of humanitarian assistance, the term is used to refer to the provision of cash transfers or vouchers given to individuals, household or community recipients; not to governments or other state actors. This excludes remittances and microfinance in humanitarian interventions (although microfinance and money transfer institutions may be used for the actual delivery of cash). The terms ‘cash’ or ‘cash assistance’ should be used when referring specifically to cash transfers only (i.e. ‘cash’ or ‘cash assistance’ should not be used to mean ‘cash and voucher assistance’).

Complementary Programming: This term refers to programming where different modalities and/or activities are combined to achieve objectives. Complementary interventions may be implemented by one agency or by more than one agency working collaboratively. This approach can enable identification of effective combinations of activities to address needs and achieve program objectives. Ideally this will be facilitated by a coordinated, multi-sectoral approach to needs assessment and programming.

Modality: Modality refers to the form of assistance – e.g. cash transfer, vouchers, in-kind, service delivery, or a combination (modalities). This can include both direct transfers to household level, and assistance provided at a more general or community level e.g. health services, WASH infrastructure

Multipurpose Cash Transfer (MPC): Cash transfers are unrestricted, which means they can be spent as recipients choose. This flexibility means that a single cash transfer can potentially be used to address a range of needs, and potentially achieve multiple program objectives. From a recipient perspective then cash might be described as multipurpose simply in that it can serve multiple purposes, within the limits of the amount of cash transferred. Note also that strictly there cannot be a ‘multipurpose voucher’ as there are inherent restrictions on the use of any type of voucher. There are differing understandings of what constitutes multipurpose cash in the humanitarian sector. Is cash multipurpose by design, use, or funding allocation? ‘Multipurpose cash transfer’ is also frequently used interchangeably with the concept of ‘basic needs’, which describes the types of needs that multipurpose cash is usually designed to address. This glossary recommends that ‘multipurpose cash’ be understood primarily as assistance explicitly designed to address multiple needs on a cross-sectoral basis through a cash transfer. The extent to which a cash transfer enables basic needs to be met is of course dependent on the sufficiency of the transfer value provided and should be considered when terms are applied to specific interventions.

Response Analysis: The link between situational analysis (broadly speaking, needs assessment and other contextual information) and program design. It involves the selection of program response options, modalities and target groups; and should be informed by considerations of appropriateness and feasibility and should simultaneously address needs while analyzing and minimizing potential harmful side-effects. [Maxwell, D. 2013]

¹ <http://www.cashlearning.org/resources/glossary>

“Cash transfers are not a sector in their own right: cash is simply an instrument that can be used – when appropriate – to meet particular objectives in particular contexts and sectors of response. Cash transfers are not a panacea; nor are many of the fears that still attend their use in humanitarian response justified in practice. Ultimately, listing theoretical advantages and disadvantages of cash transfers in comparison to in-kind relief is not a helpful framework for discussion. The appropriateness of cash transfers depends on needs, markets and other key factors, all of which vary from context to context.” (Harvey & Bailey, 2011)

“Seed aid suffers from being a humanitarian orphan. Seed aid is often given simply because food aid is given: Alternatively, seed provision may be lumped together with the diverse pool of non-food items, and emphasis put on efficient procurement and transport procedures. Far from being a logistical exercise (i.e. buying and distributing seed), effective seed aid operations demand considerable expertise of (*inter alia*) regional agro-ecology, livelihood strategies, and markets. While good seed aid can help, poor assistance can make farmers even more vulnerable.” (Sperling, et al., 2007)

“Direct seed distribution is unsuitable for many situations in which it is currently being used...evidence from the field suggests that seed availability is rarely a prime constraint. [rather, lack of access dominates.] More market-based approaches, including use of vouchers or cash...may have wider application.” (Sperling, Cooper, & Remington, 2008)

“Cash is the main means with which people pay for goods and services all around the world. This fact does not change because there is an emergency. Being in possession of cash or vouchers – physically or electronically – can be the difference between life and death for people affected by armed conflict.” (ICRC, 2018)

“The free distribution of seeds and tools is the standard approach to agricultural recovery. The predominance of this approach is partly attributable to the: (1) perception that farmer seed quality is poor, (2) insistence on seed certification, (3) promotion of researcher varieties, (4) misdiagnosis of unavailability, (5) difficulty accessing farmer seed, and (6) support for the commercial seed sector.” (Remington, Maroko, Walsh, Omanga, & Charles, 2002)

“The increasing use of unconditional cash assistance poses an existential challenge to the humanitarian industry’s business model because it doesn’t just blur the lines between the major agencies’ mandates—it transcends and obliterates them. It shifts decision making and priority setting radically, away from a mandate-centered debate between large agencies and toward individual determinations by aid’s end users based on their own needs. This effectively inverts the funding logic on which the current business model rests. Rather than forcing end users to segment their needs within what the industry is predisposed to provide, cash assistance asks the industry to conform its delivery systems to needs as defined by end users.” (Konyndyk, May 2018)

EXECUTIVE SUMMARY

This study examines the barriers and opportunities for cash transfers to be used to address seed security in humanitarian situations. Cash, while not a new approach, has gained momentum in recent years, especially with the emergence of the Cash Learning Partnership (CaLP) and humanitarian organizations' commitments through the Grand Bargain.² Historically, direct seed distribution (DSD) has dominated agricultural responses in emergencies. While effective in many situations, other modalities of addressing farmers' needs have also proven to be effective, including seed and voucher fairs and, increasingly, cash transfer responses. The latter response typically provides farmers greater choices to make decisions about their seed needs and preferences. However, as with direct distribution and vouchers, cash can be a viable option but may not always be appropriate in every situation.

The quality of seed is of paramount importance in choosing a response and has been an ongoing (and often contentious and political) discussion for decades. The results of this study advocate for a multi-stakeholder perspective on the quality of seed, while offering farmers the most flexible and most appropriate response possible for their given situation. In some cases, this will be cash transfers, but certainly not in all cases. A range of options offers the best chance for a successful, responsive, and appropriate program.

The evidence base on outcomes from using cash for seed in humanitarian contexts is limited, however, reviewing a series of examples shows the breadth and range of options that are being explored. The cases from an array of organizations and countries including Iraq, Ethiopia, Nigeria, Uganda, Zambia, Zimbabwe, Malawi, Madagascar, and Guatemala, show that understanding the context is key to the response analysis and the choice of modality. Organizational approaches and previous experience also played a role in the choice of modality. The evidence to date shows that cash, in addition to complementary programming such as technical or business training, offers promise for seed security interventions. In addition, initiatives to support both the demand and supply side of the market have proven to be effective.

Key findings include:

- 1. Market and needs assessments must include a seed component or SSSA to ensure a response designed to address the right problem, not the assumption. For markets, both informal and formal seed markets need to be included.**
- 2. Good needs assessments, response analysis and program design help ensure participants' spending cash on what implementers anticipate they will.**
- 3. Program participants' preferences on modalities are not consistently included in response analysis.**
- 4. Mixed modalities (cash and vouchers, or cash and DSD) can broaden crop choices.**
- 5. Quality screenings for seed are taking place; the quality of seed is important to organizations and project participants.**
- 6. Cash for seed security interventions are limited, but growing in prevalence.**
- 7. Providing cash plus complementary support is a promising practice for fostering seed security.**
- 8. The nexus between relief and development is critical—designing projects with a longer-term development view: cash can prepare the way for farmers to continue true market engagement post-relief, spur business development in subsequent seasons, and offer opportunities for financial inclusion.**
- 9. Supporting supply side to bring quality seed markets 'closer' to project participants should be considered along with demand-side interventions (cash, voucher and other).**

² <https://interagencystandingcommittee.org/grand-bargain>

10. Investment in preparedness provides a better foundation to implement impactful cash for seed security response.

The risks, mitigating actions, opportunities and enablers for cash and seed security response are also explored. The study concludes with actionable and practical recommendations for further advancing the evidence base, as well as implementation suggestions. Continuous collaboration of key stakeholders in seed systems is essential to advance the discussions and action on the way forward with cash and seed systems.

BACKGROUND/CONTEXT

In the Feed the Future Global Supporting Seed Systems for Development (S34D) activity, funded by the Feed the Future initiative through the Bureau for Food Security and USAID through OFDA, CIAT-PABRA is leading the component that focuses on seed security in contexts characterized by emergency, chronic stress, and resilience. This study is initial research under this component to explore the demand side/farmer side of the feasibility of using cash transfers in various contexts to provide last mile seed for chronic stress contexts, or in emergencies for acute stress. A complementary study looks at market side aspects specifically (Walsh & Sperling, 2019). By identifying opportunities and potential barriers to using cash transfers for seed security, the study informs further actions regarding the types of contexts (when, where and how) cash transfers can be promoted as an effective means for fostering seed security and to further test promising practices and new approaches. Cash is increasingly being used in emergencies for sectoral outcomes, notably shelter, food security and WASH. A ‘thinking group’ comprised of representatives from various organizations active in cash transfers and seed systems in emergencies guided the study and provided valuable input throughout the process.

This study delves into the specific opportunities and challenges that cash transfers bring for promoting seed security. As staff who have worked in emergency responses can attest to, any two situations that appear similar to an external viewer are often actually incredibly complex and different. Because not all emergencies (acute and chronic stress) are the same, it is essential to have a range of options that may suit the context rather than having a “one size fits all” approach, or a standard response. While this study looks specifically at cash transfers, it is not a study that advocates for cash in all situations and contexts. Rather, it seeks to expand the options that are available to best meet the seed needs of project participants by giving beneficiaries choice and encouraging sustainable seed systems—to allow them real choice in times of stress, to choose crops and varieties and the timing of when and where to access seed.

The most common approach for seed systems in emergency response remains direct seed distribution (DSD) (Sperling, Cooper, & Remington, 2008), followed by vouchers. An extensive review of the history and impact of DSD or vouchers is beyond the scope of this study; however, a few key issues are necessary to provide the backdrop to the cash for seed security discussion.

DSD has been the dominant approach in emergency response for decades. While appropriate for seed relief sometimes, DSD can occasionally cause supply-side issues by distorting the markets through large seed procurements, and by often benefiting large suppliers rather than more local, typically smaller seed suppliers. Common demand-side challenges related to DSD include inappropriate, unfamiliar or less-preferred varieties/crops, and distributions coming too late for the planting season. Unintentionally providing maladapted varieties can have negative consequences by leaving farmers worse off than they were before receiving seeds (Sperling & McGuire, 2010). Repeated seed aid distribution had become the norm in many countries even 10 years ago when Sperling et al. characterized the issue, such as 34 years of near continuous seed aid in Ethiopia since 1974 (Sperling, Cooper, & Remington, 2008). The article recommends more market-based approaches to address seed system issues. In addition, research shows that access, not availability, is the main seed-related constraint for vulnerable or disaster-affected farmers (Sperling & McGuire, 2012).

Seed vouchers and fairs have been used in emergency situations as early as 2000 for CRS in East Africa (Remington, Maroko, Walsh, Omanga, & Charles, 2002) and FAO in Mozambique in 2002 (FAO, 2019). The primary purpose was to enable disaster-affected farmers to access seeds of their own choosing rather than direct distribution of seeds chosen by NGOs or government (CRS, 2017). Vouchers are appropriate in some contexts, but can limit farmers’ choice to selected suppliers and crops/varieties selected by the organizing agency.

Cash for seed, although not a new approach, has been used as early as 2006 in Ethiopia (Sperling, et al., 2007) on a relatively limited basis to date, and therefore extensive evidence on its effectiveness in various

contexts is not robust. However, in principle, cash provides farmers with the ability and flexibility to strategize in times of stress; evidence indicates that within one season or across seasons, farmers will choose crops and varieties that are known and trusted by them. (McGuire & Sperling, 2013).

This study recognizes that while cash can be a viable option, it may not always be appropriate in every situation, just as direct distribution and vouchers are not always appropriate. In addition, multi-purpose cash is usually aimed at meeting project participants' various needs, while cash linked to a sector may have expected program outcomes that ultimately may not be met, as cash is fungible and can be used according to the choices of the participants. In sectoral programs, the transfer value is often based on expected expenditures and the accompanying information provided to participants ensures that they understand its expected use; alternatively, cash intended for sectoral outcomes is commonly issued in "tranches," the next tranche only distributed if recipients show progress towards the sectoral aim.

METHODOLOGY

The study included a comprehensive literature review, including key documents and resources in the cash transfer dialogues, and seed system specific resources. Primary donor policies and resources, including OFDA, DFID, and ECHO were also consulted.

Key informant interviews were conducted with representatives of multiple organizations including: OFDA, CIAT, Mercy Corps, CRS, CARE, FAO, UNHCR, World Bank Consultative Group to Assist the Poor (CGAP) and Cash and Learning Partnership (CaLP). Additional information for case studies included in the report were based on published documents (ICRC) and communication with staff knowledgeable on the examples (e.g. Save the Children, ZOA International).

Key research questions focused on:

1. What is the ability of unconditional cash, either alone or in conjunction with other support ('plus'), to enable people to meet their preferred seed needs (availability, access, and quality)?
2. What are the opportunities that cash assistance can offer in humanitarian context for seed security (availability, access and quality), and how does this compare to opportunities in other sectors (e.g. WASH, Shelter)?
3. What are the potential barriers to using cash assistance for seed security in humanitarian context, and how do they compare to barriers in other sectors (e.g. WASH, Shelter)?

CASE STUDIES

While cash for seed security is not as commonly utilized as DSD or vouchers, examples of using cash for seed security do show a wide range of approaches in various contexts. These approaches include: the use of multiple modalities, even within the same program, based on quality of seed and security concerns; both supply- and demand-side interventions to ensure local availability of sufficient farmer-preferred seed; cash plus business coaching and agricultural extension; mixed modalities such as vouchers plus enabling project participants to use their own cash to top up; and, conditional cash delivered before planting time, with transfer values designed to enable seed and input purchases. Although experimentation is happening, it is not well-documented or widely shared externally. The cases below provide a snapshot of the types of responses that have been utilized.

1. Iraq (ZOA International) (Ramsis, 2019)

Quick, efficient and flexible: cash for livelihood recovery

In response to the humanitarian crisis in Iraq, ZOA International implemented an Asset Replacement/Asset Recovery emergency livelihoods program in 2018. As a lead member of the Emergency Livelihoods Cluster in Iraq, ZOA follows the cluster's agreed Standard Operating Procedures (SOPs) for Asset Recovery programs to assist in replacing or partially recovering productive assets to reestablish their livelihoods. These SOPs apply for all asset replacement interventions (restoring businesses, restoring agricultural activities including livestock restocking) in the conflict-affected context in Iraq. ZOA's program used cash-based assistance to enable returnee farmers to re-establish agricultural livelihoods, including women's urban kitchen gardening. Before providing cash grants, ZOA trains farmers on essential skills: cultivating relevant cash crops, calculating their costs (including seeds, fertilizers, water, labor, etc.), and estimating the income their farming will provide. Once plans are complete, a standard cash grant provides farmers with the necessary economic boost to help them cover these costs. ZOA continues to work with the farmers through its monitoring, business coaching and agricultural extension to ensure their success.

2. Ethiopia (CRS) (Weatherall, 2019)

Cash for change: Expanding options for seed access

In 2018, CRS and its implementing partners provided emergency agriculture support for seed access utilizing mixed modalities: cash, voucher and direct seed distribution (DSD). Post-harvest management techniques and messaging on how to manage Fall Armyworm infestation were also part of the project. The planned mixed modality provided commodity vouchers for main crops plus a complementary cash transfer to purchase nutritionally-dense crop seeds (e.g. kale, beans). The balance of modalities helped to guide crop choices. The project was implemented in 19 woredas across the two regions of Oromia and Southern Nations, Nationalities and Peoples' Region of Ethiopia, targeting a total of 42,467 beneficiaries who were impacted by drought and other natural hazards in the previous season.

The project was intentionally designed to transition from direct seed distribution approaches of its previous projects in the area, as was recommended by the Seed System Security Assessment, and to test cash and commodity vouchers. Based on the local context (both attitudes toward cash and seed availability), partners conducted rapid assessments which included information on local availability, preferences, seed price, and average landholding. These assessments informed the type and amount of seed to be supported per household. For some of its five partners, the cash intervention was new, while for others it was not. Changing the delivery model of the program necessitated partner staff buy-in and capacity building. The mixed modality approach for seed provision and the flexibility to change modalities as needed in the context was appreciated by the partners.

Project participants also appreciated the mixed modality approach. For them, it provided increased access to modern varieties (improved, hybrid seed) and certified seeds from the formal sector for main crop production

that they would otherwise be unable to access locally and unable to afford, while cash provided households with flexibility to buy other crop types for household consumption and more empowerment to women to decide how to spend the cash, and contribute to household livelihoods. Post-distribution discussions indicated that households bought some crop seeds (e.g. kale and cabbage), and in some cases also bought other inputs such as hens for egg production (for household consumption and sale). Although partners provided information to participants on the purpose of the transfer, ultimately participants could choose how to prioritize their needs and use the cash.

Because Ethiopia has had many continuous seasons of emergency seed interventions, expectations from participants for future support remained. In future programs, linking emergency and more long-term resilience-focused interventions was recommended. A program review also acknowledged that more systemic issues such as livelihoods diversification and strengthening and support to local seed production would be best addressed with multi-year resilience-focused programs.

3. **Nigeria (ICRC)** (ICRC, 2018)

Context, context, and context: Nuanced response analysis pays off

The ICRC implemented emergency programming in response to the conflict context in north eastern Nigeria. A nuanced understanding of the context, including market functionality, seed quality and availability and security, influenced the organization's modality choice for meeting participants' needs.

In Biu, functioning markets and assessed adequate quality in the market steered the ICRC to provide cash to 3,160 households. The ICRC agronomist determined the cash value based on the specific needs of each household, including transportation and 10% contingency. One-off grants were distributed electronically via Teasy Mobile. In another location, Muchikia, due to quality concerns about seeds in the local market, the ICRC restricted purchases to limited suppliers where quality had been confirmed; 26,502 households were provided with a restricted voucher that enabled people to purchase a range of quality seeds, including sorghum, maize, cowpea, as well as fertilizer. The vouchers were a one-off transfer for the majority of the target population.

The ICRC decided cash and vouchers were not feasible in the context of Maiduguri due to limited market functionality and security concerns limiting access to markets. Instead, the ICRC provided direct distribution of seeds for crops such as rice, maize, cowpea and other vegetables. In-kind assistance was selected due to these reasons. This assistance was a one-off distribution.

4. **Uganda (Mercy Corps)** (Mercy Corps, 2016)

Bringing the market closer to farmers – and leveraging farmers' "willingness to pay"

Mercy Corps utilized seed e-vouchers to address the limited supply of seeds farmers in Karamoja, Uganda. With the e-vouchers, farmers were able to access high yielding and drought tolerant seed varieties through certified national seed suppliers, agro-dealers, and agents at the community level. Businesses brought their products and services closer to the farmer population, as farmers had subsidized vouchers with which to purchase their wares. The voucher, similar to a mobile phone top up scratch card commonly used in the area, provided a 50% subsidy (worth approximately 3,250 Ugandan Shillings, or \$1 USD). The farmer was required to pay the remaining 50% which then amounted to enough to buy approximately 1 kilogram of seed, such as sorghum, maize, beans, vegetables, or groundnuts. The e-vouchers could be used for any type of seed the farmers preferred, so agro-dealers needed to know their customers' preferences in order to be prepared to meet the demand. Using mobile money technology ensured quick payment to suppliers and facilitated longer-term business relationships between these agro-dealers in Karamoja and reputable producers of high-quality seeds at the national level.

To address constraints of input costs for farmers, the project also worked with them to plan and help save for planting costs for future seasons. Project-based agricultural extension workers delivered accompanying

training to the farmers to support them to maximize the potential of the seeds. The partial rather than full subsidy showed that vulnerable farmers were willing to invest their own funds since the costs and risks were minimized. Farmers' seed choice decisions in future seasons will show how much they value the expected improved yield as compared to the higher cost of the seed.

The program's case study documented the following highlights from the program:

- **Scalability**—the e-voucher intervention reached significantly more farmers than paper vouchers, indicating it is highly scalable.
- **Market actors**—the agro-dealers were in a better position to understand and respond to customer demand than the NGOs because of the direct business-to-customer relationship.
- **Market facilitation**—the less-restricted e-vouchers facilitated markets more than commodity vouchers that specify a seed type and quantity. Giving farmers the ability to choose their seeds allowed agro-dealers to respond by stocking preferred certified seeds within the same planting season, increasing efficiency in the market.
- **Mobile money**—the improved cash flow allowed agro-dealers to access their revenue quickly in order to restock their supply. Agro-dealers also repaid seed companies in mobile money, decreasing their payment period and improving the relationship with seed companies.
- **Seed quality**—compared to previous seasons when the seed companies provided seeds directly to NGOs to distribute, the e-vouchers incentivized seed companies to provide higher quality seeds to the agro-dealers because they had a more direct link to their customer.
- **Farmer capacity strengthening**—the farmers learned the costs and benefits of certified seeds. The program allowed staff to explain how the benefits of using certified seeds exceeded the increased costs.

5. **Ethiopia/Tigray (Relief Society of Tigray (REST))** (Sperling, et al., 2007)

Rights-based approach empowers communities with cash

A study on long-term seed aid in Ethiopia reviewed the multiple aid modalities linked to seed security used in 2006 and a few years previous. For the emergency phase, six seed security-related approaches were variously used, mostly dependent on organization preference. These included: direct seed distribution; revolving seed funds, seed vouchers (also called 'coupons'), seed vouchers and fairs (sometimes linked to livelihood fairs), seed swaps (grain for seed, which is then redistributed), and cash for seed (in relief context).

One local organization, REST, had a very strong preference for the use of cash linked to seed security response. Their rationales for choosing this approach include cash is the fastest modality; cash allows farmers to make their own choices on crop/variety of seeds that match their agro-ecology, timing of rain, and land fertility; farmers are in control of the quality of seed they purchase; and farmers are responsible for their own choices. In addition, the organization had specific concerns about DSD, including: the quality of seeds, and lack of system for confirming/controlling private seed supplies, and the additional costs (e.g. transportation, loading/unloading, and storage).

In South Tigray, farmers were able to buy more seed with cash (26kg), as compared to DSD (16 kg), and had slightly more variety with cash. The main difference was choice and flexibility: by having cash farmers could strategize about what to buy—for example based on the rainfall pattern they could choose the most appropriate variety for their context. Farmers in South Tigray predominantly purchase farmer (not certified) varieties (landraces), but DSD was predominantly certified varieties. An evaluation showed that 78% of the farmers preferred cash because of quality (previous DSD chickpea did not germinate); the freedom to purchase from local, trusted sources; and their flexibility and choice.

6. **Zambia (CRS)** (CRS, 2016) (Mwenya, 2016)

Linking relief to development with innovations in mixed modalities

In 2014, DiNER fairs were held in Eastern Province Zambia, a drought-prone area characterized by substantial use of maize hybrids by smallholder farmers. DiNERs—Diversification in Nutrition and Enhanced Resilience fairs—are a seed-related agricultural response specifically geared to helping households improve nutrition and strengthen farming system resilience. A variant of seed vouchers and fairs, DiNERs let farmers choose which crops and varieties to grow in times of chronic stress, aided through the provision of vouchers. The supply side of the fair is actively shaped, as sellers are asked to widen what they would normally bring to the venue—much more diversity and an array of potentially nutritious crops. DiNERs also aim to stimulate positive change more sustainably, particularly in terms of promoting future supply channels for seed.

For this reason, DiNERs invite strong private sector involvement along with other vendors at the organized fairs. In 2014, 11 DiNERs were held across Chipata and Lundazi Districts serving a total of 4,223 farmers. Seed of a wide array of crops was accessed by farmers: in order of scale, maize (their main preference), vegetables, soybeans, groundnuts, sunflower and even papaya tree saplings. Suppliers included many of the major private companies (MRI/Syngenta, ZamSeed, SeedCo, Pannar, Dupont/Pioneer); research institutions (CIMMYT, IITA); local agrodealers; and, many local farmers and farmer-producers (who offered several types of bambara). A Zambian Government seed inspector from the Seed Control and Certification Institute was also present full time to inspect the quality of seed on offer from diverse suppliers and ensure compliance with Zambia seed laws and standards.

The real innovation of this DiNER was the use of mixed modality. Vouchers were issued by CRS, in units ranging from ZMW5 to ZMW 50, to allow for bargaining over prices. Equally, however, cash was allowed—farmers were welcome to purchase directly, with their own funds, additional crops or varieties as desired. Overall, tallying of sales showed a large volume of seed was purchased by farmers. While \$190,322 was generated through voucher sales, farmers (using their own cash) made purchases valued at \$21,642.

7. Zimbabwe, Madagascar, and Malawi (CRS) (CRS, 2019)

Enhancing access to seed through catalyzing the supply side

In 2019, CRS conducted a follow-up learning review on DiNER fairs implemented in Zimbabwe, Malawi, and Madagascar in 2015-2018 (see case 6 for DiNER explanation). The learning review, which included extensive fieldwork, sought to understand how to serve direct farmer clients better; how to engage with suppliers more strategically so they are keen on serving communities longer-term; and, more generally, the post-fair effects on households in terms of diversity, nutrition and income. The preliminary findings provide insights from those most affected—farmers and the suppliers.

Box 1 below provides specific *feedback from farmers* on why they did or did not use cash during the fairs. Vouchers were issued to all farmers, so beneficiary use of cash was supplemental and elective. The reasons cited suggest that farmers’ cash use may be guided by a wide range of concerns, many of which might steer future DiNER fairs refinement.

Box 1. CRS DiNER Learning Review: Farmers’ responses on why they did or did not use their own cash during fair

Malawi:

- Most common reason for farmers for use of cash: the voucher amount was not sufficient to cover purchases
- Most common reason for farmers for not using cash: lack of the cash itself (58 of 127 respondents)
- Others suggested they had enough voucher amount (22 of 127 respondents) but did not know they could use the cash (34 of 127 respondents)
- “Last year we ably bought seeds using a voucher, otherwise it would have not been

possible for us to buy using cash because we did not have any money.”

Zimbabwe:

- Most cited reason for not using own cash is that the voucher amount was sufficient to cover their needs (54 of 130 respondents)
- The other key reasons were: i) they did not know they could use own cash at the fair (35/130) and, ii) they did not have any cash (38/130)
- “If we knew that we can negotiate at the fair, we’d have carried cash as it is easier to negotiate when buying on a cash basis”
- “Locals wanted cash instead of vouchers citing that the voucher system is slow.”
- “Local suppliers did not respond to the announcement by the Councilor pertaining to the Fair because they did not want vouchers but they only needed cash.”

Madagascar:

- Most (101/127) cited reason for farmers not using cash was that they did not have cash.

The intensive DiNER fair follow up on the supplier side was particularly unusual, both because of the supplier focus and because fieldwork looked at post-fair changes (Box 2). Prior to the fairs, considerable effort was spent sensitizing suppliers to farmer needs: greater diversity, nutritional impacts, more affordable, and products brought closer to rural homes. In this way, the fairs, which were intended to support farmers facing chronic stress, seem to have had some sustaining, and more developmental effects.

Box 2. Supplier responses on how they did or did not change practices post fair to better reach the customer

Malawi:

- Some of the suppliers, as a post fair strategy, sold smaller packs to make seed more affordable
- Other suppliers have since started using bikes and motorbikes to reach more rural customers

Zimbabwe:

- Suppliers promoted vegetable seed as a value pack i.e. if a farmer buys from any seed line, they would choose a promotional pack of vegetable seed
- Sales agronomists were incentivized to get closer to the farmer, by conducting demos and training farmers. This sometimes included using motorbikes or bicycles to move seed
- Suppliers used mobile money more readily, as this allowed some of the clients to follow through on seed purchases post fair
- One chicken supplier is working on a model buy-back facility; in this model the supplier provides chicken to the farmers who care for them and grow them before selling them back to the supplier. The supplier then slaughters and supplies to retail outlets

Madagascar:

- Suppliers have not shifted to smaller packs, as the packaging costs have direct bearing not only on their profitability but also on how they can meet conditions set by the program on pricing
- Some of the suppliers offer price discounts for the seed they sell and offer additional gifts as long as the farmer buys a minimum amount

The overall changes noted by the full sample of suppliers offers insights that can further inform future DiNER fairs. In short, supply-side changes from this approach included the following:

- Availability/ Geographic reach:
 - Suppliers opened outlets closer to farmers

- Suppliers extended reach through use of bikes, motorbikes, satellite vans
- Suppliers brought their sale trucks to markets on local market days
- Access:
 - Suppliers packed smaller (extending social reach)
 - More use of mobile money—to better link with clients after fair.
- Quality: Suppliers expanded crops/varieties on offer

8. **Guatemala (CRS)** (Walters, 2019 (forthcoming))

Comparing cash to vouchers: Which did participants prefer?

Responding to drought conditions in Guatemala, CRS implemented food security and child nutrition projects called Superamos I and II, and Adelante. Vulnerable families received cash transfers for food items, as well as education in nutrition and agriculture, and they also participated in Diversification in Nutrition and Enhanced Resilience (DiNER) fairs to access seeds and other agricultural inputs.

DiNER fairs in Guatemala were single-day fairs organized by the project to bring the vendors (private sector input dealers, community-based seed multipliers and individual sellers) closer to the participants to improve access to diverse seeds and agricultural products that will contribute to improved household nutrition, food security and resilience. Typical products on offer at the fairs included staple crops, vegetable seeds, tools, fertilizer, small livestock and animal feed. Nutrition and agricultural education sessions further enhance the market activity.

The Superamos DiNER fair provided electronic vouchers with a value of \$48 to 4,912 participants to purchase goods at the fairs. Based on a recommendation in a 2018 multi-agency study on market approaches, the Adelante project decided to use cash for their DiNER fairs. At the first of two fairs, approximately 4,421 beneficiaries received \$45 in cash to be used at the fair. A learning study conducted in August 2019 compared the relative benefits of both the cash and voucher modalities. Key learnings include:

Project participants' preferences: Focus groups commented that the advantages of cash outweighed any advantages of vouchers. Participants preferred the cash fairs, as they allowed for more choice and better value for money (with the ability to better negotiate price). All focus groups cited the main advantages of cash as the ability to spend it outside the fair for their needs, to buy local seed in their communities, and to better track their spending.

Price: Participants reported that with vouchers, the prices were higher, but with cash the prices were about the same as normal. Over half (63%) of respondents thought prices were inflated when purchasing via vouchers, as compared to 30% who considered cash prices to be inflated. In addition, 32% of cash participants considered that prices were lower than the market. For both cash and voucher fairs, vendors were contractually obligated to respect agreed-upon price ceilings. The voucher price was fixed in the electronic e-voucher platform, while the cash prices were flexible downward.

Quality: To ensure quality standards would be met, project staff inspected all goods to be sold at both cash and voucher fairs at least three weeks in advance.

Spending outside the fair: To encourage spending at the fair, cash was distributed at the fair, so that the first option to purchase goods would be at the fair. In addition, the products on offer were based on beneficiary priorities and families were also receiving regular cash transfers for basic needs. However, focus groups agreed that most participants had retained some of the cash transfer for other expenses, including purchasing local seed from neighbors, transportation, tools, or to save for emergencies. Post distribution monitoring results show that on average participants kept 16% of the cash for use outside the fair. Participants commented that this cash expenditure supported the local economy. In contrast, voucher recipients commented that because they had to spend the whole amount at the fair, they sometimes purchased products they did not need.

Complementary activities: Awareness raising on livestock rearing, improved agricultural techniques, and household budget management and joint decision making between spouses complemented both the voucher and the cash fairs.

Gender implications: Both cash and voucher fairs did not report any differences between men's and women's experiences. A perceived risk that cash fairs would put women more at risk was not borne out by the experience. The project did, however, adjust the location of the fair to be closer to the community in response to beneficiary feedback about the distance and security concerns. All focus groups agreed that couples made joint decisions on what to purchase, with the cash being divided for men to purchase tools and staple crops while women purchased poultry and vegetable seed.

Staffing needs: On the day of the fair, cash fairs required fewer staff as compared to voucher fairs: 12-14 staff and 40 staff, respectively. More learning studies comparing modalities in similar contexts would be useful to further understand the nuances of modality choice, and the impact on the overall access to preferred seed.

9. Malawi (Save the Children) (FEG Consulting, 2018) (Lwanda, 2019)

Layered programming to address the nexus of humanitarian and development

In Malawi, Save the Children International led a consortium including Centre for Environmental Policy and Advocacy, Concern Worldwide, Cooperazione Internazionale, GOAL, Oxfam, United Purpose and UN Food and Agriculture Organization to respond to a food security crisis. The consortium implemented two projects aimed at breaking the cycle of humanitarian response by adopting approaches that combine humanitarian assistance with complementary resilience building activities: “Breaking the Cycle of Humanitarian Assistance through Enhancing Resilience and Shock-Responsive Capacity” (DFID/UKAID, 9 months bridge project, 2017-2018) and “Enhancing Community Resilience and shock response to climate change” (Irish Aid, 5 months, 2018). The program activities were designed to address the short-term food needs and support medium to long-term recovery and resilience building.

In addition to unconditional cash transfers intended for food, conditional cash transfers were provided to 22,783 households (DFID/UKAID) for four months. The purpose of this transfer was to increase household's access to maize, beans, and Orange Flesh Sweet Potato Vines (OFSP) for the 2017-18 summer cropping and the 2018 winter cropping. The households also participated in other resilience and livelihood interventions, such as the Irish Aid project, in which 2,897 households received OFSP vines, in addition to other resilience and livelihood interventions. For both projects, these additional interventions were intended to enable communities and households to build their productive capacity by addressing some underlying issues that contribute to their agriculture vulnerability. Activities included: climate smart agriculture training, catchment conservation, post-harvest training, pest and disease control training for army worm, seed fairs, small irrigation support, and kitchen garden support.

After conducting multiple assessments, including market and crop-specific outlook, the consortium decided to utilize conditional cash transfers for livelihood recovery. To ensure project participants had some means to develop productive assets, the project supported households with minimal access to food post-harvest (food supply for 0-3 months), access to labor, and some access to land and water. The cash transfers placed participants' choice and their own prioritization of their needs and livelihoods investment decisions at the forefront, thereby allowing project participants a wider and more dignified choice on where to invest the funds.

At the start of the rainy season in October, project participants received a cash transfer for one month. Conditions required project participants to develop productive assets, such as engaging in land preparation for the next rain-fed cropping season, or irrigation for winter cropping. Productive asset development was adapted to the community needs and available resources. These initiatives focused primarily on climate adaptive techniques like water harvesting structures, soil and water conservation, conservation agriculture on

individual’s land and small- scale irrigation at the community level. Attending trainings on climate adaptive technologies, nutrition and Village Savings and Loans (VSL) were considered as soft conditionality to ensure that all targeted project participants could qualify for the cash transfer.

To encourage project participants to invest in productive assets, they were informed that the cash transfer amount was calculated based on the value on farm inputs/tools (e.g. fertilizer, seeds and pesticides) and labor for agriculture production. Although this calculation was the basis of the amount, ultimately project participants had the flexibility to use the money received for their own priorities, including buying food and meeting other needs. Over 80% of the project participants used the funds to buy inputs or seeds related to food production. Project implementers collaborated with STAM (Seed Traders Association of Malawi) to ensure quality of seeds and with seed inspectors from the Ministry of Agriculture to check quality of seeds during seed fairs. However, participants could buy seeds on their own in other locations as well, so post monitoring distribution confirmed their satisfaction with the seed quality they purchased.

All (100%) project participants reported satisfaction with the cash transfer modality, but for the overall project interventions suggested timing, quantity of support and length of time for support could be improved to achieve sustained impact.

Linking Cases to Seed Security Framework

Each of the case studies can be mapped according to the seed security parameter it addresses as well as to whether it intervenes in the supply side or demand side. The table below uses the standard seed security framework parameters of availability, access and quality (for the last, subdivided by variety quality and seed health). It includes a fourth parameter of two-way information systems—information to users and feedback from users. The supply side is divided into formal sector and informal sector, recognizing that each channel has appropriate and perhaps diverse interventions to better enable suppliers to meet the needs of farmers.

The cases in this study were especially chosen to focus on experience from the client/demand side, as a concurrent complementary study is focusing on the market/supply side (Walsh & Sperling, 2019). Yet, even with this focus on the client/demand side, we have found it difficult to draw even a conceptual line ignoring supply. The market/supply side is important to effect sustainable change in the seed system so that it is resilient to stressors. In most cases, availability is not the primary issue, but rather access.

As can be seen in the table below, all of the cases analyzed within this report address access to seed, which is consistent with many cash programs. Within this enabling ‘access’ strategy, the following main approaches were used: “soft” conditionality with cash transfers (where project participants are informed of the intended use of the cash, but they are not penalized if these guidelines are not followed), unconditional cash transfers, vouchers for diversity, and then a mix of these modalities within the same implementation program. Perhaps of note is that there were a good number of cases where both the formal and informal sectors were leveraged within a single response program. Interestingly, several cases also addressed availability, and all cases considered quality in some form.

Table 1. Case studies mapped to parameters impacting seed security

Parameter	Client/Demand side	Market side/Supply side	
		Formal sector (e.g. agro-dealers)	Informal (e.g. traders)
Availability <i>Are seeds that farmers prefer available to them in the quantity they need when they need them?</i>	Nigeria (ICRC)		Guatemala (CRS)

<p>Access</p> <p><i>Do farmers have the means/ channels (financial, social, political etc.) to acquire seeds?</i></p>	<p>Ethiopia (CRS)</p> <p>Malawi (Save the Children)</p> <p>Iraq (ZOA)</p> <p>Madagascar, Malawi, Zimbabwe (CRS)</p> <p>Ethiopia/Tigray (REST)</p> <p>Zambia (CRS)</p> <p>Guatemala (CRS)</p>	<p>Uganda (Mercy Corps)</p> <p>Madagascar, Malawi, Zimbabwe (CRS)</p> <p>Zambia(CRS)</p> <p>Guatemala (CRS)</p>	<p>Uganda (Mercy Corps)</p> <p>Madagascar, Malawi, Zimbabwe (CRS)</p> <p>Zambia (CRS)</p> <p>Guatemala (CRS)</p>
<p>Quality</p> <p><i>Do seeds meet the quality needs of farmers, both crop health and crop variety quality?</i></p>	<p>Malawi (Save the Children)</p> <p>Nigeria (ICRC)</p>	<p>Uganda (Mercy Corps)</p>	<p>Uganda (Mercy Corps)</p>
<p>Two-way information system</p> <p><i>Information to farmers/ traders/ agro-dealers</i></p> <p><i>Feedback from farmers/ traders/ agro-dealers</i></p>	<p>Iraq (ZOA)</p> <p>Uganda (Mercy Corps)</p>	<p>Uganda (Mercy Corps)</p>	<p>Uganda (Mercy Corps)</p>

PERSPECTIVES ON QUALITY: The importance of a multi-stakeholder view

The quality of seed is of paramount importance in choosing a response. But what is “quality” and who decides what quality is acceptable? This had been an ongoing (and often contentious and political) discussion for decades—and will likely continue to be debated for decades to come. A full discussion of quality is beyond the scope of this study, but key aspects of quality warrant attention. This study advocates for a multi-stakeholder perspective on the quality of seed, while offering farmers the most flexible and most appropriate response possible for their given situation. After all, it is the farmers who will be most impacted by the quality of the seed. For them, it is not a theoretical question but a practical and risk management question.

Quality is in the eye of the beholder

How do farmers define quality? Farmers’ definition of quality may differ depending on the context, but common aspects they are looking for include: 1) full grain size, 2) no pest damage, 3) variety known to be adapted to their local agro-ecology, 4) stocks that are free from sticks and dirt and pebbles, and 5) known vendor/trust in vendor (CRS, 2017). Additional aspects include preferred and acceptable, known and trusted by farmers, and responsive to farmers’ management conditions.

How does the formal system define quality? Quality is inclusive of both seed health and crop/variety quality. Seed health encompasses aspects such as being disease-free, of full maturity, whether the seed will germinate, and free of inert material. Variety quality includes yield potential, plant type, color, and other traits. (Sperling & McGuire, 2010). Certified seed undergoes inspection to determine if the seed meets quality standards according to these parameters.

Quality Declared Seed (QDS) is often discussed in emergency responses as practical quality ‘middle ground’. After being instrumental in establishing the QDS concept in the early 1980s, FAO published guidance on QDS in the mid- 90s, and in 2006. The 2006 publication recognizes the purpose QDS can serve, especially in emergency situations: “QDS is an attempt to reconcile the continuing need to improve seed supply to farmers with the desire to reflect and accommodate the diversity of farming systems, particularly in the more difficult areas where highly organized seed systems do not function well. QDS is a relatively open scheme, which meets the needs of farmers in a flexible way but without compromising basic standards of seed quality. It may therefore contribute to the wider policy objective of diversifying the seed supply system so that farmers may have more choice.” (FAO, 2006). However, QDS is actually not very flexible system, as it is still closely supervised in the formal sector with strict inspections and regulations.

Quality standards are broadening in some countries to QDS (e.g. Tanzania) but also to standard seed/farmer seed (e.g. Kenya). The challenge may be to open standards even further, while minimizing risk to ensure that farmers get access to the right crops and varieties: right for their preferences and management conditions and with acceptable quality that is adapted to their agro-ecology.

Donors also shape the quality discussion by what they encourage and enable. For example, OFDA guidelines make clear that “for USAID/OFDA, the seed system is the entire network of places where farmers source seed, e.g. their own stocks, neighbors, the local informal market, and formal seed sellers, such as agro dealers and shops. Supporting farmers’ access to a wide variety of seed options, from local preferred varieties to quality declared seed to certified seed and modern varieties strengthens the resilience of farmers and their ability to make decisions which reduce risk.” (OFDA, 2019)

Therefore, in a cash for seed security response, how is quality going to be assured, especially considering that what constitutes “quality” may be different to farmers, international organizations, donors or host governments? Some organizations procure or put on offer the highest quality seed available, based on formal sector quality standards. Other organizations may prioritize beneficiary preferences yet still have some seed inspection to verify quality.

Is consensus about what seed is 'good enough' in an emergency possible? Having a quality screening process with agreed upon standards of quality that are deemed acceptable to all (farmers, implementing organization, host governments and donors) involved in a particular project or response will be critical to success. As noted by (Sperling & McGuire, 2010) it is important to remember that "... quality is not the exclusive possession of one variety type, regulatory system, or seed channel. Following emergencies, what is important is that seed be 'at least as good' and 'farmer-acceptable' as what farmers normally sow, and that the right seed channels and quality-control mechanisms are used to ensure these minimum standards."

KEY FINDINGS

Analysis of the cases, further complemented by key informant interviews and literature review, lead us to the key findings. In light of the vast literature on cash transfers but not specifically on cash for seed, some general cash trends (e.g. coordination) are extrapolated to apply to seed. These are listed below in no particular order of importance: all are central.

- 1. Market and needs assessments must include a seed component or SSSA to ensure a response designed to address the right problem, not the assumption. For markets, both informal and formal seed markets need to be included.**

A common reflex reaction to both chronic and acute emergencies is to provide seed directly rather than base a response on a market and needs analysis specific to seed. Initial multi- sectoral humanitarian needs assessments should include a seed-specific component, but this is not often the case. While response analysis in humanitarian context is improving, seed assistance is still sometimes governed by assumptions rather than evidence. Two common assumptions include: that farmers have eaten all their seed out of stress, and that a yield drop due to disaster automatically means a lack of seed (Sperling & McGuire, 2010). As time is a critical factor in acute emergency responses, including seed security-related questions in rapid needs assessments and response analysis could provide initial information on appropriate seed responses.

In terms of seed-related markets, the central overarching question is: are both informal and formal markets able to meet demand for seed in terms of quantities, crops, and desired varieties? Having a solid SSSA to determine these key issues will lead to program design based on knowledge and evidence, as has been shown by the case studies above.

While tools for assessing seed security are relatively advanced (see <https://seedsystem.org/>), quantifying the market component is particularly challenging. Not all formal sector seed available may include the key crops or varieties needed or even be adapted to the stress conditions. Also, not all that is found in the local market can be used as potential seed, as much of it is best for grain.

- 2. Good response analysis and program design can help ensure that participants spend cash on what implementers anticipate they will.**

Most cases, such as Guatemala and Malawi above, demonstrate that most cash is being spent where implementers anticipate participants will spend it. The response analysis and effective program design contribute to this success, as participants will spend according to what their needs are, so if they are spending funds on seed, then the response analysis and program design have been on the mark. If needs assessments show that basic needs are a concern, addressing this can be built into the program design, as was the case in the Save the Children Malawi example above. Project participants will use cash for their most appropriate needs and the evidence overwhelming shows that the fears of spending for “anti-social” uses like alcohol are often unfounded (CaLP, 2018). Cash enables farmers to prioritize, choose and strategize—if the cash transfer is timely and if the crops and varieties farmers want are available locally.

Response analysis should consider the feasibility of cash transfers for fostering seed security. However, organizational mandates, organizational expertise and fixed mindset may all lead to different choices being made than a proper response analysis would provide. These complexities are not easily addressed, especially when internal politics and resources are involved. For example, as detailed in a recent Mercy Corps report, “Aid actors still struggle to use cash transfers over in-kind aid in many appropriate contexts. And the market distortion caused by in-kind distributions can be used to justify its continuation. In a recent review of responses to three crises, the Overseas Development Institute found in-kind aid distribution prevented market supply from returning to previous levels—a problem that was then used to justify continuing in-kind aid.” (Mercy Corps, 2018). This underlines the importance of response analysis and program design that best matches the context, as was shown in the ICRC Nigeria example.

However, in addition to having analyzed participants' priorities, the program must be designed well, including providing sufficient cash to meet the expected outcome, as shown by an NRC cash-based shelter intervention in Afghanistan: "Although shelter was listed as the biggest protection need amongst IDPs, the amount of cash received seems insufficient to address the problem as the vast majority of beneficiaries choose to spend their assistance on food or other items. This highlights the importance of dedicated cash for shelter interventions." (Taylor, Kreidler, & Harvey, 2019). The same result was found in an outcome monitoring for a shelter and livelihoods programme supporting displaced women in Afghanistan where the cash was meant to be used for shelter purposes: "The trend that the majority of the households spent the cash on food and other expenses despite having been told what to spend on suggests that some households are using the cash grant meant for shelter to cover other immediate needs (food, health, debt repayment and education) and yet borrowing the cash to construct their shelters." (Taylor, Kreidler, & Harvey, 2019).

3. Program participants' preferences on modalities are not consistently included in response analysis.

Although practitioners agree that participant preferences on how to receive assistance is important, these preferences are not systematically included in response analysis. When it was included, recipient preference was often used to justify the preferred or modal response, rather than as a driving decision-making factor (Maxwell & Stobaugh, 2012).

Participants' preferences will differ—even in similar contexts. As the cases in the Ethiopia 2006 study show, farmer preferences for one or another modality may differ for myriad reasons (Sperling, et al., 2007). For instance, some farmers like DSD because it is the only way they can access new varieties or certified seed. Qualitative data from the same study give insight into why farmers may prefer a particular type of seed aid, as indicated by farmers' quotes:

- *"Poor farmers prefer vouchers. I prefer vouchers. You know my daughters and sons may see money in my hand, and we have problems. So better I get the voucher so I do not spend money."*
- *"With vouchers, you are tied to 1 or 2 traders – with cash you can select the seed you really need."*
- *"I like DSD, if it is crops and varieties I know."*
- *"The seed of our ancestors was very good, but this new seed [DSD] we just don't have confidence in it."*
- *"Seed aid helps us get new varieties. That is a good thing."*
- *"A good farmer, even in the very worst year, will have seed. I do not need to go to the market, and I do not need seed aid."*

Understanding participants' preferences can be complex, as they may be based on familiarity, on what farmers have received in the past, or on what they think the enumerator wants to hear. Sometimes participants may not have all the information about the pros and cons of each modality, and it is important to help them become more informed about delivery options for cash and the implications of each. And while enabling participants to express a preference, it should be considered alongside other programmatic decisions.

4. Mixed modalities (cash and vouchers, or cash and DSD) can broaden crop choices.

The cases above show that mixed modality projects are possible and effective—it does not have to be an either/or choice. However, organizational orientation, capacity and willingness to experiment still play a role in the choice of cash, vouchers and/or DSD. The CRS DiNER fair example from Zambia highlights the diversity of crops that participants were able to purchase through vouchers—and through spending their own cash. The Uganda example from Mercy Corps shows that participants will invest their own cash as well to purchase the seeds that provide value to them. In the CRS Ethiopia example, not only did the mixed modalities broaden crop choices, but also the flexibility to switch to a different modality if the context changed was appreciated by implementing partners.

Comparisons of modalities and of the impacts of mixed modality programs for seed are not yet common, however, there are emerging instances of comparisons of modalities post project implementation. For

example, preliminary findings from the abovementioned CRS study on cash compared to vouchers show that cash was generally preferred.

However, the literature shows very few examples of intentional comparisons between modalities at the outset. In Democratic Republic of Congo, a randomized experiment assessed the relative impacts and costs of equivalently valued cash and voucher transfers. The study found that the voucher program distorted households' purchases as compared with unconditional cash. Yet there were no differences in food consumption or other measures of well-being, in part due to the fact that voucher households were able to resell part of what they purchased. Since the study found no significant benefits to vouchers, cash transfers were considered the more cost-effective modality for both the implementing agency and program participants in this context (Aker, 2017). Future research on rigorous modality comparisons from GiveDirectly (GiveDirectly, 2019) may offer further insights.

5. Quality screenings for seed are taking place. The quality of seed is important to organizations and project participants.

All case studies noted the efforts undertaken by the project to ensure seed quality—from collaboration with government seed certification agencies to staff inspecting the quality. These collaborations have ensured that organizations, donors, governments—and ultimately farmers – are reassured that quality is not overlooked. In many cases, having adequate and appropriate crop and variety choice can often be just as, if not more important than, having certified seed. It is worth noting that quality should be considered for all modalities of seed assistance. In addition to risks described above for cash, for example, not all certified seed or direct distributed seed is necessarily of good quality, as counterfeit seed exists; without adequate staff to certify seed or without other controls in place, sub-standard or even “fake seed” can make it into the supply as well.

As seed quality is critical to farmers, quality assurance is important to donors as well, as is clear from guidance such as OFDA's seed quality assurance requirements: “Seeds are subject to quality requirements. Where certified seed is not available, and a Seed Grower's Declaration of Quality cannot be provided, for example in a seed fair situation, the awardee assumes responsibility for ensuring seed quality and must document what quality assurance practices were followed in lieu of certification. When using cash or a voucher, you must detail how you have determined that sufficient seed of appropriate quality and variety is available. If awardee cannot obtain a Seed Grower's Declaration of Quality, awardee assumes responsibility for ensuring seed quality and must document their files to indicate what quality assurance practices were followed in lieu of the certification. These quality assurance practices may include but are not limited to: testing for germination; visual inspection for cracked or damaged seed; percentage weed seed and; inspection for insect infestation or foreign matter.” (OFDA, 2019) (OFDA, 2019). Further discussion of seed quality assurances is in #4 of “Enabling features”, as well as in the “Recommendations” section on things that still need to be tested.

6. Cash for seed security interventions are limited, but growing in number.

There is a limited evidence base for cash for seed security in humanitarian contexts, as with many sector-specific cash transfer projects, as it is not yet a common or well-documented approach. For example, OFDA is a major donor for seed system emergency response programs. Yet, in FY2018, OFDA supported over 120 different awards for over \$ 110 million in 29 countries on Agriculture and Food Security activities but only three of these potentially included cash for seed. (Meissner, 2019)

Examples do exist, such as the case studies included in this study, but more needs to be done to systematically gather information on both successes and failures in emergency seed system programming. In addition, a specific discussion about the opportunities and barriers for cash for seed security is overdue, perhaps due to the fact that seed interventions are often subsumed in food security or under the umbrella of Non-Food Items (NFI) so their impacts—both positive and negative—are often not scrutinized.

The evidence shows that farmers access a good deal of their seed with cash in normal and stressed times. Analyzing a “uniquely comprehensive data set, 9660 observations across six countries and covering 40 crops, show that farmers access 90.2% of their seed from informal systems with 50.9% of that deriving from local

markets. Further, 55% of seed is paid for by cash,” (McGuire & Sperling, 2016). Therefore, expanding cash for seed interventions would support farmers’ existing seed channels and practices.

7. Providing cash plus complementary support is a promising practice.

As several of the case examples demonstrated, cash for seed along with complementary activities or information/ trainings is promising. Where cash is deemed appropriate, this multi- pronged approach helps address concerns about seed quality while assisting farmers with additional knowledge and skills to improve their livelihoods. A recent review of the evidence for multi-purpose cash for meeting sectoral outcomes found that cash alone is often not enough, but rather sector-specific programming in the form of technical knowledge dissemination, training and behavior change is needed to achieve sectoral outcomes (Harvey & Pavanello, 2018).

Examples of complementary programming from ZOA Iraq include training/ technical support on essential skills (both agricultural and business) for cultivating relevant crops, such as calculating expected costs (including seeds, fertilizers, water, labor, etc.), and estimating the income their farming will provide. Other complementary activities include providing information to farmers on what varieties are and how to manage them, household budget management, and joint decision making between spouses (Guatemala). In addition, support to markets could be considered an additional or complementary activity (see finding #9 below).

FAO uses a “Cash plus” approach where seeds are usually provided in kind, and complemented by technical trainings and cash transfers to meet basic needs to maximize opportunities and impacts. An example from Lesotho of the impact of this approach was the Linking Food Security to Social Protection Programme (LFSSP) project where seeds and training on homestead gardening and food preservation were provided to households participating in the Child Grant Programme (CGP). An impact evaluation showed that combining cash transfers with the delivery of vegetable seeds and the training by the LFSSP had a greater impact on household food production and food security – especially in labor-constrained households – than did each program alone. (FAO, 2018).

8. The nexus between relief and development is critical—designing projects with a longer-term development view. Cash can prepare the way for farmers to continue true market engagement post- relief, spur business development in subsequent seasons, and offer opportunities for financial inclusion.

The nexus between emergency and development is a key area for experimentation, learning and innovation. Emergency programs are in general more flexible due to changes in context and, often, more flexible funding. Yet the shorter term funding/program cycles often do not lend themselves to planning for sustainability and longer term impact. In theory, a cash program can facilitate suppliers to serve remote or vulnerable farmers on a more deliberate basis after the relief intervention. The DiNER fairs in Malawi and market support in Uganda specifically aimed to stimulate positive change more sustainably, particularly in terms of promoting future supply channels for seed. Suppliers became familiar with the needs of this new client group and adapted accordingly, as was shown in the DiNER fair cases from Zimbabwe, Madagascar and Malawi.

Cash can further contribute to sparking a transition in market development that has already been seen in vouchers linked to small local producers in captured markets, such as organized fairs. The recent DiNERs review showed that a well-designed relief response can spur business development in subsequent seasons. This could be a catalyst to the development of sustainable delivery channels rather than one-off or start and stop demand that can be difficult for suppliers to anticipate and plan ahead. Other opportunities exist in the nexus of relief and development programs. For example, development programs increasingly have learning components built-in to the project and funding to do so and more sustainable outcomes are expected. Building in a learning approach (and documenting the learning) for relief interventions would be particularly useful for seed interventions, as there may be opportunities to leverage relief-phase activities to inform recovery or even development agricultural investments.

Opportunities for financial inclusion has been one of the suggested medium-term benefits of cash transfers, particularly in the nexus of relief and development programs. Mercy Corps' program in Uganda suggested that clients and sellers increased their use of mobile money due to the program, for example. However, based on current evidence, this opportunity will only be realized if financial inclusion is a specific objective of the program (Harvey & Bailey, 2017). World Bank's Consultative Group to Assist the Poor (CGAP) notes that donors also need to play a more proactive role in promoting financial inclusion objectives in humanitarian and development nexus in order for them to be more widespread. (CGAP, 2019)

9. Supporting supply side to bring quality seed markets 'closer' to project participants should be considered along with demand-side interventions.

As several of the cases highlighted, supporting supply side intervention can be beneficial to assisting farmers to have access to preferred crops and varieties closer to where they live. Especially in the emergency context, the focus of interventions may often be on serving the most vulnerable yet supporting the market may offer an opportunity to benefit them in both the short-term and long term.

For example, connecting local vendors directly to farmers such as through DiNER fairs or e- vouchers in shops, and by enabling project participants to use their own cash to top up their purchases, can provide opportunities for building the relationships that will last beyond the life of the project. Likewise, when implementing organizations work with suppliers to prepare them to participate in the project, a better understanding on how the suppliers can be supported develops. While the initial findings from the three country DiNER review are promising, more research needs to be done. It could be that future fairs (cash or voucher) should include "build market linkages" as a stated objective.

Donors can also support market actors to prepare for crises by offering subsidies and liquidity to ensure they are able to respond to potential increased demand (CGAP, 2019). Subsidies or loans can also be offered by humanitarian agencies as part of relief activities; while not widely documented for seed, many examples of market support now exist in humanitarian responses, to enable market actors to be able to continue supplying local communities with needed goods and services. To date, the vast majority of market support by humanitarian actors is grants to traders (CRS, Oxfam 2017), but there is recent push – and guidance – to promote this kind of thinking (CaLP, 2018).

An example from South Sudan shows that, while possible, intentionally building market linkages may not be common:

"Nearly one million refugees who have fled South Sudan's conflict currently live in West Nile, Uganda, and are expected to live there for at least three years. Despite their long- term need for food, agricultural inputs, and income-earning opportunities, humanitarian activities continue to focus on direct distribution, including monthly food rations (which many households resell) and seeds. This distribution hampers trade of the key items people will continue to need throughout their displacement, such as food, even while local marketplaces expand rapidly to sell other items to this new population. This example highlights the need to transition from in-kind aid to cash in functional market areas. But it also highlights an outdated approach to livelihoods programming in key sectors like agriculture: **Across 22 implementing agencies, only one project has worked to strengthen local networks for agro-dealers. Very few partners have invested resources in attracting agricultural buyers to the area. Instead, projects have focused on giving out seeds and tools directly to farmers**" (Mercy Corps, 2018), (*emphasis added*)

Seed security market-led support is discussed in further detail in (Walsh & Sperling, 2019).

10. Investment in preparedness provides a better foundation to implement impactful cash for seed response.

Investment in preparedness has many facets, including agency-level and context specific preparedness.

“To consider different cash, voucher, and in-kind response options equitably in each context requires appropriate preparation of multiple pipelines. That is, if commodities are pre-positioned and similar pre-agreements are not in place for cash or vouchers, then cash and vouchers cannot be given equitable consideration in response options analysis even if they may otherwise be similarly or more appropriate, effective, cost-efficient, or cost-effective.” (CaLP; CRS, 2017).

At an organizational level, this type of preparedness for cash transfer programs includes learning about government laws that may impact the program (e.g. seed laws, finance issues, policies on cash transfers, existing social assistance), and preparing internal processes and policies. At the field level, knowing the financial service provider landscape and signing pre-agreements with appropriate ones can greatly facilitate a successful program (Xuan & Martin, 2018). Likewise, supporting vendors’ capacity in advance leads to more timely and effective interventions, as they are already adequately prepared.

Donors’ support to such preparedness initiatives are critical. In 2016, OFDA, Food for Peace, and the US Global Development Lab supported Mercy Corps and CRS with 12 -month grants for ‘Institutional Preparedness for Digital Cash Transfers in Humanitarian Response’. CRS chose Somalia while Mercy Corps chose its Mali and DRC programs. These capacity building grants enabled both organizations to build their internal country staff capacity, contextualize tools/Standard Operating Procedures for the country context, including clarifying roles and responsibilities of staff; and expand their knowledge of financial service providers’ capacity and interest in reaching vulnerable populations. Both organizations shared their learnings both within country (e.g. with cash working groups) and within their organizations. The investment in preparedness will be important for the effectiveness of future project implementation because, as stated in the summary report, “the impact of a humanitarian crisis is often inversely correlated with a country’s level of preparedness.” (Marketlinks, 2019) (USAID, 2019)

INSIGHTS FROM OTHER SECTORS

What can be learned from other sectors about cash for sectoral outcomes? Many sector-specific cash transfer projects are grappling with the same issues: limited evidence base, concerns about quality, concerns about participants prioritizing other needs besides sectoral-specific outcomes. CaLP’s “State of the World’s Cash” report offers the most comprehensive review and analysis of these key issues. The report states that “existing systematic studies and syntheses, as well as sector-wide reviews, point to very limited evidence in some sectors, including health, nutrition, WaSH, shelter and protection. There is a need to build credible evidence about sector outcomes.” (CaLP, 2018).

Sectoral discussions taking place in shelter, health and WASH show a real concern that the humanitarian imperative to ‘do no harm’ and meet the needs of those in need means there still needs to be a control on quality. As discussed in the CaLP report: “Unrestricted (cash transfer) can promote choice and quality, but evidence is currently limited. Debates about the role of unrestricted cash in achieving sectoral outcomes are rooted in concerns that: a) project participants may not prioritize certain sectoral needs, b) markets may not have the right quality of goods or services, or c) project participants may purchase lower quality goods or services. This cuts to the heart of ‘putting people at the center’ of decision making and the role of project participants in making complicated decisions in times of crisis.” (CaLP, 2018). This tension between giving full agency to project participants to determine their own needs and the responsibility felt by humanitarians to ensure project activities have not caused harm (and meet Sphere standards) is likely to continue to be explored and debated.

With cash being mainstreamed into technical sectors, the learning and evidence generation will undoubtedly increase. In the new Sphere Guidelines (2018), cash is mainstreamed into each sector. In its proposal guidance, OFDA has recently added “cash” as a key word, and now, each sector has a specific mention of cash/vouchers and quality issues. Organizations such as IRC and UNHCR, are moving beyond “silos” of

cash experts and mainstreaming cash transfer expertise. (CaLP, 2018). These changes will lead to more nuanced discussions within technical sectors, rather than being separated.

Meanwhile, a recent study on cash for WASH sectoral outcomes acknowledges the limited evidence base contributes to WASH technical staff reluctance to fully embrace cash initiatives. The study contributes to the evidence base by analyzing five case studies where cash and vouchers have been used for WASH outcomes. The study recommended actions on coordination, preparedness (staff capacity), situation and response analysis, program design, implementation (including quality assurance) and monitoring and evaluation (to redefine their technical staff roles (Le Seve & Mason, 2019). Many of the issues and recommendations align with the seed security technical sector findings and recommendations.

In addition, an NRC cash evaluation found that: “Though Iran does report cash using WASH indicators, the country examples also confirms concerns of WASH specialist that WASH items are not prioritized by project participants when given a free choice: the PDM of the Iran programme shows limited effectiveness as few HHs reported buying hygiene items or NFIs, and when they did, it was very small amounts compared to paying off debt or buying food -further showing priorities are debt repayment, then food... The results clearly indicate that households have other higher priorities (typically food) and the PDM concludes that ‘cash is likely a weak modality for achieving hygiene benefits even in the very short term.’ But nearly 90% of the project participants of this project preferred to receive cash. Again, **this raises the question to what degree agencies should value the choice of the beneficiaries higher than intended sectoral outcomes.**” (Taylor, Kreidler, & Harvey, 2019), (*emphasis added*)

The Shelter sector has been pro-active in addressing and discussing these key issues. In 2016, The Global Shelter Cluster summarized its position on cash transfers as follows:

“Cash is a vital tool in meeting this {longer term resilience and risk reduction} aim but must usually be accompanied by awareness raising and technical support to ensure better quality and safer housing or more detailed facilitation to overcome complex regulatory issues such as tenure rights or access to key services. Such detailed oversight is essential to ensure accountability to project participants, minimize safety risks and liabilities for all parties whilst ensuring responsible utilization of funding. Building structures that are dangerous and do not meet standards or are built in the wrong place can have devastating implications whilst HLP or regulatory issues can block the use of cash by recipients, or eventually lead to cash being used on other needs, without their shelter requirements having been addressed.” (Global Shelter Cluster, 2016)

Additionally, in 2017, the Shelter and WASH sectors collaborated on a joint statement regarding cash and market based approaches. An excerpt below is in line with the previous Shelter position paper, that technical support must accompany cash to achieve outcomes.

“Ultimately, however, it is informed and technically driven response analyses that should define the best combination of modalities that will meet both immediate and longer term needs of people affected by disasters or conflict. This degree of analysis is often missing from decision making and is also at risk from current trends which are suggesting a default approach of multi-purpose cash as being the most desirable. Both sectors see clear opportunity for cash to be a key response modality -with the condition it can be coupled with all other modalities and approaches required to meet identified objectives.” (Global WASH and Shelter Cluster, 2017).

PRACTICAL IMPLICATIONS: Risks, opportunities and enabling features of cash for seed security

Risks

The examples highlighted in the previous sections and the accompanying findings highlight some perceived risks that sometimes influence program design and may discourage considering cash for a seed security response. The table below looks at these perceived risks in detail, and then suggests what could be alleviating or mitigating actions, in cases where a cash response seems feasible and appropriate.

The perceived risks are organized by user: that is, perceived risks that affect farmers; perceived risks that affect the implementing organization, like a single NGO, and then risks at a higher level which might be seen to embrace the broader humanitarian community. It should be noted that the substantive list of issues might not necessarily be based on evidence and that issues below include routine assumptions and some status quo beliefs. The aim is to show in practical terms what are often raised as concerns with cash tied to seed, and how it could be addressed. Mitigating actions to address these perceived risks at all levels are also proposed. If addressed, or if the risk itself is proven untrue, all of these could contribute to the decision of whether cash is feasible and appropriate.

Some of the perceived risks and actions may also apply to other seed system modalities (direct distribution and vouchers). All resources—whether in kind or in cash—can be vulnerable to diversion or misuse. Large procurements of in-kind seed have inherent risk as well. Proper program design, targeting and controls minimize risk, but will not eliminate risk entirely. However, despite evidence to the contrary, cash is perceived to be riskier. As discussed in the Grand Bargain Cash Workstream Workshop in 2017, “A perceived bias towards higher acceptance of risks in in-kind rather than cash and voucher programming was noted. However, panelists and other participants agreed that evidence did not show cash to be riskier. It was also pointed out that no delivery modalities are risk free.”

Table 2. Perceived risks of using cash in seed security response

Potential Risk	Alleviating Actions
For Farmers	
Seed of key crops might not be widely available in local markets	<ul style="list-style-type: none"> • Intervene on the market side to widen crops on offer in formal and informal markets (e.g. support to traders/ agro-dealers to expand their businesses to meet farmers’ preferences). Market interventions might focus on home use and cash crops-- i.e. the range farmers routinely use. • Use mixed modalities (cash and voucher, or cash and direct distribution) to broaden crop choices.
Seed of specialized varieties may not be available (i.e. no seed of a particular variety available locally, like drought -resistant maize ; or Cassava Mosaic Virus-resistant cassava)	<ul style="list-style-type: none"> • Intervene on the market side to widen crops on offer in formal and informal markets (e.g. support to traders/ agro-dealers to expand their businesses to meet farmers’ preferences); provide support to community producers who multiply clean vines or stems. • Always provide precise technical advice on planting new or unfamiliar varieties • Advise farmers how to manage new variety if they choose it, to minimize losses of land and labor; or eliminate use of non-adapted varieties • Give technical advice on other options. If there is distribution of ‘novel’ varieties, ALWAYS offer choice/several options
Seed quality might be low (e.g. disease) or unknown	<ul style="list-style-type: none"> • Consider/offer special screening measures for all available channels, including: agro dealer shops; farmers’ own stocks (offer advice/tools; local markets (an action point-- the methods need to be developed); other (like community-based producers)

	<ul style="list-style-type: none"> • Help farmers make informed choices about quality by having complementary programming on the topic • Review the rapid screening measures which already exist and signal those that need to be developed (like screening local market seed) NOTE – some quality parameters cannot be visually-assessed (e.g. disease, varietal purity—which may be key in some contexts)
Germination rates might be low	<ul style="list-style-type: none"> • Conduct germination tests when feasible [Note: the impact of low germination depends somewhat on crop] • Provide sufficient cash transfer value to enable farmers to sow at their normal (often higher-density) rates
Cash may hinder (or help) timely planting	<ul style="list-style-type: none"> • Understand agricultural season to ensure cash can be delivered on time for farmers’ planning/purchasing seed needs
Cash may lead to local inflation, affecting farmers’ purchasing power	<ul style="list-style-type: none"> • Do proper assessments and market monitoring to ensure supply and competition is sufficient • If insufficient local competition, consider use of a fair methodology and inviting outside vendors. If needed, organizations can require a price cap or posted price during the fair, as well as a robust complaints mechanism/ help desk to report price gouging, if inflation or vendor collusion is a concern. Note: Evidence base does not show inflation to be a common issue with cash transfers
Household members may have different ideas about what to spend cash on (i.e. not on seed)	<ul style="list-style-type: none"> • Ensure good needs assessment and response analysis, to include participants’ preferences, and concerns of both men and women • Be savvy about appropriate targeting, awareness-raising about project objectives, including addressing intra-household decision making, and post-distribution monitoring
Access to markets may be limited by physical factors (distance, security)	<ul style="list-style-type: none"> • Address potential issues/preferences of project participants during assessment/response analysis • Build in measures to address concerns and/or plan for flexible modalities if needed • Incentivize traders/markets to bring seeds closer to project participants • Consider alternate options if security conditions do indeed affect market functionality or participant access
Access to markets may be limited by social factors (gender, migration status, status as host community member or IDP/ refugee, ethnicity, religion, other)	<ul style="list-style-type: none"> • Conduct good, gender-sensitive, inclusive needs assessment and response analysis • Review options to deliver cash to specific members of the household • Build in good feedback mechanisms to ensure accountability
<i>For Implementing Organizations</i>	
Non-certified seed may not be accepted by donor, host government, or other in-country stakeholder for a given response	<ul style="list-style-type: none"> • Discuss/implement/document quality assurance practices • Advocate for policy reform in longer-term –e.g. QDS, facilitate state supervision of quality or involve in impact evaluations

	<ul style="list-style-type: none"> • Include certified suppliers where possible, possibly via agents or on a consignment basis; include them in cash-based fairs, or inform participants of their offer • Address potential issues/preferences of donors and participants during assessment/response analysis
Different way of doing business may be perceived as threat to existing status quo	<ul style="list-style-type: none"> • Advocate for a champion at the leadership/management level to show support for cash programming • Build capacity of all staff to engage in cash programming, including possible change in roles/responsibilities, different partnerships
Procurement procedures may not be flexible enough to allow for cash	<ul style="list-style-type: none"> • Work with operations staff (finance, administration and procurement) to better adapt procedures to enable cash response • Partner with FSPs and new technologies for payment (smart cards, etc.) to help address procedural challenges
Staff capacity may be limited	<ul style="list-style-type: none"> • Implement a capacity building initiative (such as UNHCR's model), including cross-training for cash experts on seed issues and vice versa. • Ensure seed experts and cash experts are involved from program inception
Project participants may opt to spend cash on items other than seed (which is different from what the organization aimed)	<ul style="list-style-type: none"> • Ensure good needs assessment to identify participant priorities • Review response options to ensure they meet actual needs/priorities of project participants; seed response might accompany other basic needs or sectoral response • Program complementary activities, including information provision, that are designed to encourage spending on seeds • Consider control mechanisms as needed to direct spending (e.g. restricted transfers)
Perception that cash is less secure than in-kind or vouchers	<ul style="list-style-type: none"> • Design strong program based on a risk analysis, incorporating best practices from other similar programs, including security measures/protocols/systems to minimize risk • Include risk analysis as part of response analysis • Communicate and/or develop evidence base showing that in reality cash may not be less secure than other modalities
Perception that scale cannot be achieved with cash because markets cannot supply enough	<ul style="list-style-type: none"> • Conduct market analysis of formal and informal and SSSA to confirm availability of seed in market and other seed sources for farmers • Program market support initiatives to address supply • Use mixed modalities (plus cash, DSD, for example) as appropriate
<i>For the Humanitarian community</i>	
Evidence on cash and seed is still preliminary, so outcomes are not fully understood	<ul style="list-style-type: none"> • Make commitment to learning and evidence generation across the humanitarian community
Different way of doing business may be perceived as threat to existing status quo	<ul style="list-style-type: none"> • Generate evidence of adaptation and dynamic nature of responses

	<ul style="list-style-type: none"> Promote transparent discussions on what may change (e.g. different partners/re-trained partners, re-envisioning of donor funding priorities invested in supporting formal sector, etc.)
Staff capacity may be limited	<ul style="list-style-type: none"> Invest in learning, sharing, documenting among agencies
Coordination mechanisms and governments may not equally consider cash, vouchers and DSD	<ul style="list-style-type: none"> Foster dialogue at high levels around response analysis for seed Leverage food security cluster and other organizations to initiate discussions

Opportunities

As with the above on perceived risks and potential mitigating actions, the table below shows some of the perceived opportunities that may exist at each level: for farmers, implementing organizations, and the larger humanitarian community. Realizing these opportunities greatly depends on the context and the specific program design.

Table 3. Opportunities for cash as tied to seed security response

Opportunities
<i>For Farmers</i>
Allows farmers to decide their own priorities due to the flexibility of cash
Allows farmers to strategize about what seeds they want, and helps reinforce sustainable channels to those seeds (market side) rather than the prescribed channels of vouchers or direct distributions
Allows for active, dignified participation in stimulating the local economy
Shifts to farmers the responsibility for the choices they've made
Builds direct links with vendors and service providers (e.g. for new sources of info, seeds, etc.)
<i>For Implementing Organizations</i>
Facilitates the relationship between project participants and seed suppliers for more resilient and sustainable seed system for the future
Creates space for innovation and new partnerships as organizations adapt to new ways of doing business
Shortens supply chains (compared with direct distributions, vouchers) and can require fewer staff, which can lead to more efficient and more timely responses
Increases ability to reach scale with more streamlined approach
Helps build other aspects of the seed system, including support and use of national capacity to create pathways for more sustainable longer-term quality assurance systems
<i>For the Humanitarian community</i>
With most major public donors (e.g. ECHO, DFID, USAID/OFDA) supportive of cash transfers, create more opportunity for cross-organizational learning and innovation; Commit to building the evidence base for impact on long term seed security
Raise visibility of seed specific discussions in different humanitarian networks rather than having seed stay relatively low-profile under non-food items (NFI) or food security discussions

Enabling features

In parallel to the above mentioned perceived risks at various levels, it is emerging that there are critical enabling features that indicate whether cash is an appropriate and feasible modality for an effective seed security response. These are informed both from cash feasibility and response analysis tools¹ and also by close analyses of the field examples above. While some aspects may be common to all cash-based programming, those highlighted below have specific implications or relevance to seed security.³

What features should be in place to enable a cash and seed security response?

1. Seed-linked markets functioning at some level, including both informal and formal systems

Whether both informal and formal markets able to meet farmers' demand for seed in terms of quantities and desired varieties should be a central question in determining an appropriate seed response. This appraisal includes gathering knowledge about whether traders and formal dealers are able to operate 'as needed' and will be able to meet demand. If cash is given, but there are no appropriate seeds to buy or not enough supply to meet demand, then cash will not address the seed security problem.

Conducting a Seed System Security Assessment (SSSA) will provide invaluable information about the market on specific crops/varieties to determine if cash is an appropriate response. In the following example from Zimbabwe, the recommendations from the SSSA changed the program response:

“The Zimbabwe SSSA (CIAT et al., 2009) took place when donors and NGOs were preparing to distribute seed and fertilizer to 600,000 families (one-half of the farming population) in reaction to the near-worthless Zimbabwean currency, non-functioning formal seed stores (for maize), and the residual effects of a drought the year before. In contrast to this dim view, the assessment found that farmers generally were seed secure. Evidence supporting this conclusion included: (i) a relatively good harvest, 130 per cent above the previous year; (ii) robust social networks, which supplied between 18 and 38 per cent of the seed (depending on the crop); (iii) strong local markets; (iv) a vigorous unregulated market for hybrid maize seed; and (v) thriving local-level seed production, especially for legumes and sorghum. The Zimbabwe SSSA concluded that massive direct seed aid to farmers actually would hurt recovery. It would compete with agro-dealers and short-circuit natural linkages between agro-dealers, farmers, rural traders, and seed houses. The SSSA recommended interventions to increase farmers' purchasing power and to inject cash into local economies. Consequently, while 2008–09 saw USD 150 million sent on direct aid, the SSSA encouraged a transition to market-led responses (including input fairs, support for local enterprises, and vouchers) by 2010.” (Byrne, March, McGuire, Meissner, & Sperling, 2013).

2. Market side support to ensure/promote array of crop and varieties that are adapted to the area

Linked to #1, additional basic support for markets may need to be programmed. Added supply-side support becomes more important in relation to the importance of particular goals (such as building market linkages, longer-term service provision), when community-based / local enterprises are involved (and you want to strengthen them), or you are helping a market system transition to new crops / varieties / links to quality seed producers, or perhaps greater emphasis on supplies of resilient or nutritious crops/varieties. In these instances, supply side support could include activities such as working with traders to help them understand the seed needs of farmers (crop/varietal diversity, small packs, recognition of male/female preferences,

³ A few such tools are in the “References” section, and include the following: CaLP (2019) Program Quality Toolbox, Response Analysis. “CBA appropriateness and feasibility analysis”; CRS (2019) Guidance Document: Cash Feasibility Checklist” [draft]; Red Cross Movement (2015) “Is cash feasible? Checklist”; and USAID (2018) “Modality Decision Tool for Humanitarian Assistance.”

importance of having options), or grants to improve/expand their business, especially to have supply in time for farmer sowing.

3. Government policies and support for cash for seed initiatives

In many countries, there are specific laws that govern seed: who can sell it, and even what is considered seed. Often only certified seed from the formal sector is considered ‘seed.’ However, more openness to other qualities of seed is beginning to emerge. For example, in Kenya and Zimbabwe, farmer seed is now recognized in the law. In a number of others, QDS has been endorsed. Governments may also restrict the use of cash for emergency purposes. At the time of writing, for example, in Mozambique, unconditional cash is not allowed as an emergency response modality, per government policy.

4. Quality information/screening services (informal and formal channels)

As discussed above, it is important to monitor the seed quality on offer. Implementing organizations need to have an explicit strategy for quality assurance. Quality screening methods for seed (both formal and informal seed) need to be planned. Even if seed is being purchased directly by farmers themselves and they decide which seed is acceptable, implementing organizations should take responsibility to ensure ‘do no harm’ principles are followed. If farmers will purchase seeds outside of organized fairs or over longer periods of time, quality assurance procedures may be harder to promote and implement. In these scenarios, it is key to have in place easily-accessible and understood complaints procedures for all users (both sellers and buyers – see also #5 below), plus spot testing, and possibly enforcing post-purchase penalties for vendors selling sub-standard products.

5. Strong feedback/accountability channels

With a cash-based response which gives project participants choice and flexibility – as with any program – it is essential to build in feedback mechanisms for farmers to convey their ratings on the type of crop and varieties, and the quality of the seed both pre and post-harvest. This accountability can also be important if one of the goals is to strengthen the seed ‘value chain’ – i.e. the links between seed users and suppliers.

6. Key stakeholders’ preferences taken into account

Project participants’ modality preference must be taken into account. Do they prefer a cash-based response for seed, or would they rather receive vouchers or in-kind? The answer should not be based on assumptions or organizational orientation, but rather on what participants sense best meets their needs. However, it bears mentioning that often assessing participant preferences can be complex, as such preferences may be based on what farmers have received before/what they are familiar with, what they know this organization may provide, or trying to give the enumerators the “right” answer to ensure they receive some support (Maxwell & Stobaugh, 2012). Other important stakeholders are host government and donors—their support of the choice of cash for this particular project/objective is essential.

7. Acceptable risk levels

Every modality carries risks. Determining what potential risks associated with cash transfers exist in the specific context should be an integral part of the assessment process. A clear strategy for mitigating or avoiding risks associated with cash for seed (e.g. diversion, security of project participants/staff, etc.) should be developed. For example, transferring funds through established financial service providers rather than staff delivering ‘cash in envelopes’ is a common mitigation strategy as the FSPs bear security risk and can lessen the potential of fraud.

8. Preparedness activities to assess the context-specific financial service providers landscape

The investment in preparedness—especially in contexts of chronic stress—enables a more robust assessment of modality choice. Many cash transfer programs utilize financial service providers to actually deliver the cash to program participants (in contrast to staff delivering ‘cash in envelopes’). Signing pre-agreements with

financial service providers can ensure a timelier and more efficient start up (Xuan & Martin, 2018). However, knowing the local context is a pre- cursor to being able to do so. Do financial services exist and exist at scale in the specific areas at last miles that need it? Do these services exist on paper only but not actually function? This analysis is specific to the particular area in each country and would likely need to be done on the ground to advance to know the locally-specific reality. When there are chronic stress contexts, having this knowledge in advance can lead to more rapid response (USAID, 2019).

A key takeaway from OFDA digital financial services (DFS) preparedness grants is: “organizations should put themselves in the best position for success by completing quality due diligence of market providers in advance and assessing internal policies, procedures, and staffing skills. This will enable them to make informed decisions about the types of partners they need to effectively deliver funds using DFS to recipients.” (USAID, 2019). This type of preparedness is important to know what is available—or not— and plan accordingly. Additional finance-related issues to be aware of include knowledge of tax laws and other government policies that are often complex and unknown until start on the project (e.g. are cash responses allowed/prohibited? are debit cards allowed? do project participants have to pay income tax on what they receive? etc.)

9. Organizational mindset and staff capacity

The normalization of cash transfers within an organization enables it to be a possible choice, if appropriate based on response analysis, and increases the comfort level of organizations and staff with the option. It is both an open mindset to cash response and the capacity to implement a cash program that enable a successful response. This applies to lead implementing organizations (both in headquarters and in the field) as well as partner organizations collaborating on the project. The willingness to adapt systems (e.g. procurement, finance) to ensure success and to do things differently than they have been done before is critical. For example, having context-specific standard operating procedures for cash transfer responses can facilitate timely responses, as well as ensure operations teams are well-equipped to facilitate smooth cash transfer programs. (Xuan & Martin, 2018). Thought leaders and agricultural technical staff buy-in and support to using cash for seed response is essential.

In addition, staff dialogue outside of their sector/department silos can facilitate an effective and impactful response. Humanitarian, development, cash, and sectoral experts all need to be on- board and exchanging ideas or concerns. Organizations that incentivize, encourage, or reward – rather than prohibit—such necessary collaboration will lead the way with innovations and successes.

Investment in organization-wide capacity building initiatives, such as those implemented by UNHCR, WFP, and IRC (CaLP, 2018) can show the organization’s priorities of adapting and learning. Likewise, donor investments in cash transfer preparedness grants, such as OFDA–funded grants to CRS and Mercy Corps in 2016 mentioned previously offer invaluable opportunities to invest in staff and organizational capacity to implement successful programs.

10. Timeliness

Oftentimes cash can provide a timelier response than in-kind or vouchers, but this is not always the case. There are examples of cash being distributed too late to allow for farmers to purchase the crop and variety they preferred, just as there are examples of direct distribution and vouchers arriving too late for the season. Having sufficient lead time/preparation time for a cash response is critical to ensuring farmers receive cash on time to plan and procure their selected seeds.

RECOMMENDATIONS

Based on the key findings, the following recommendations encourage continuing promising practices, testing new approaches, and laying the foundation for further testing. The recommendations are grouped by seed security parameters (availability, access, quality, and information systems) that they could help address. Additional recommendations outside of the seed security parameters are also included.

Currently ongoing/promising practice

Availability: Complementary programming and supply-side support to bringing vendors/supply closer to farmers on a sustainable basis should be expanded. Promising results from the three country DiNER fair review could continue to be followed up to look for long-term impacts.

Availability/Access: Additional learning studies such as the CRS Guatemala study should be conducted to compare outcomes and impact from different modalities (e.g. voucher, cash), especially focused on how the modality increased farmers access or availability of seed to a wide range of seed.

Quality/Information: To continue to view quality through a multi-stakeholder lens, projects should build in complementary programming aimed at learning and sharing quality standards for seed with farmers from both the formal sector and informal sector perspective. Farmers can have opportunities to learn more about formal sector quality standards, why they are important, and which ones may be most relevant to their situation. In addition, farmers can help educate implementing organization staff and others about the seed quality parameters that are most important to them when purchasing or procuring seed, even from informal systems. The results of the learning exchange should be documented and widely disseminated.

To be tested

Availability: Preparedness activities are crucial to achieving the most impact. Advocate/fund preparedness for seed supply actors to find viable markets for seed suppliers in delivering seed to last-mile. Transport subsidies or incentives to strengthen their businesses could be explored.

Access: The importance of timeliness when it comes to agriculture cannot be overstated. Piloting initiatives of cash transfers to farmers in chronic stress contexts well ahead of planting season to enable their planning and strategizing could inform future program designs.

Access/Availability: In the same vein, in places with chronic emergencies (e.g. Haiti) where much is known about seed systems, preparedness activities that address the nexus of emergency and development should be initiated. These preparedness activities should include both demand side and supply side and build on any existing studies or recent evaluations.

Quality: Since farmers procure much of their seed from the market, providing skill enhancement to traders on quality issues could have a positive impact on both their business and the quality of seed available to farmers. Trainings with traders to distinguish among varieties, to keep stocks separate, and enhance their storage techniques/locations could be included.

Quality: To further support the multi-stakeholder perspective on quality, simple quality screening techniques should be explored and developed where needed. Disseminating easy screening techniques widely has the potential to impact multiple stakeholders, including farmers, traders, and implementing organizations.

More background work needed for further testing

1. **Access, availability, quality:** Given the number of contexts with ongoing seed security interventions and the collective knowledge about seed systems in those contexts, key organizations should collaborate to jointly study/compare the impact of seed aid modalities in a chosen location (e.g. priority country for multiple organizations). A collaborative study would provide space for organizational buy-in, constructive dialogue, true learning—both successes and failures, and a recognition that all modalities have their advantages/disadvantages. Such a study should also compare effectiveness of cash plus complementary

activity compared to more cash per beneficiary to see difference in outcomes, as recommended in NRC Cash evaluation (2019): “What would be important in taking this forward is better testing of outcomes. If you add a component to a cash programme, do people get the extra cash? And is the companion programming more or less effective than just giving people more cash with the resources used for extra programming?”

2. **Collaboration:** Initiate higher-level discussions with key seed system actors to explore the role of cash use in seed security response. A concrete output could be a position paper on cash to promote seed security outcomes that follows the examples of Shelter and Wash Clusters.

3. **Gender implications:** Generate more evidence on the differential impacts cash transfers for seed security might have for women and men, including focus on intra-household dynamics. Initial studies on general cash transfers have been done by ODI, IRC and others, but there is general acknowledgement that more needs to be done. Conducting a specific study on gender implications of cash transfers to promote seed security could fill a much needed gap.

This analysis contributes to the growing discourse around cash transfers, and seed security, in emergencies. As the implementation, evaluation, and learning about cash for seed security continues to grow and be shared widely, humanitarian responses will continue to improve in providing seed security responses that best meet the varied needs of disaster-affected populations.

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