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

REVIEW OF CASH TRANSFERS FOR SEED SECURITY IN EMERGENCY CONTEXTS

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Feed the Future Consortium Partners in the Feed the Future Global Supporting Seed Systems for Development activity:

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ACRONYMS

AIP	Affordable Inputs Programme
BHA	Bureau for Humanitarian Assistance
BMGF	Bill and Melinda Gates Foundation
CaLP	The Cash and Learning Partnership Network
CRS	Catholic Relief Services
CSS	Cash for Seed Security
CVA	Cash and Voucher Assistance
DiNER	Diversification for Nutrition and Enhanced Resilience
DRR	Disaster Risk Reduction
DSD	Direct Seed Distribution
ELRP	Emergency Livelihood Response Program
FAO	Food and Agriculture Organization of the United Nations
FSP	Financial Service Provider
GOSM	General Organization for Seed Multiplication
ICRC	International Committee of the Red Cross
IRC	International Rescue Committee
KII	Key Informant Interview
M&E	Monitoring and Evaluation
MPCA	Multipurpose Cash Assistance
NGO	Non-governmental Organization
NRC	Norwegian Refugee Council
PROSPER	Promoting Sustainable Partnerships for Empowered Resilience
RAICES	Restorative Agriculture in Critical Ecosystem
S34D	Feed the Future Global Supporting Seed Systems for Development activity
SANES	Self Administration of NE Syria
SSSA	Seed System Security Assessment
UNHCR	United Nations High Commissioner for Refugees
USAID	United States Agency for International Development
WFP	World Food Programme

GLOSSARY OF TERMS

Cash Transfer: Cash transfers (also referred to as *cash assistance* or *cash grants*) describe assistance provided in the form of money – either physical currency or e-cash – to recipients (individuals, households or communities). Cash transfers are inherently unrestricted, which means recipients can choose how to use the assistance. As such, cash is distinct from restricted modalities including vouchers and in-kind assistance. 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'). [CaLP Glossary]

Cash Transfer for Seed Security: Cash transfers for seed security (also referred to as *cash for seed security* or *cash for seed*) describe cash transfers (as previously defined) specifically to be spent on seed or other agricultural inputs in either a fair setting or a non-fair setting (with local traders or producers).

Cash and Voucher Assistance (CVA): Refers to the direct provision of cash transfers and/or vouchers for goods or services to individuals, households, or group/community recipients. In the context of humanitarian response, CVA excludes payments to governments or other state actors, remittances, service provider stipends, microfinance and other forms of savings and loans. CVA has several synonyms (e.g., *Cash Based Interventions*, *Cash Based Assistance*, and *Cash Transfer Programming*), but Cash and Voucher Assistance is the recommended term. [CaLP Glossary]

Certified Seed: Seed that descends from breeder or foundation seed produced under conditions that ensure maintaining genetic purity and the identification of the variety that meet certain minimum standards for purity defined by law and certified by the designated seed certification agency. [Adapted from BMGF/USAID Early Generation Seed Study]

Complementary Programming: This term refers to the combined use of multiple modalities and/or activities to address needs and achieve a specific outcome or outcomes for a given target group of aid recipients. Complementary interventions can be implemented by one organization or multiple organizations working collaboratively. It can include both incorporating multiple modalities or activities within one project or programme, and/or linking the target population to assistance provided by other sectors or organisations. This approach is premised on the evidence that programmes are more effective where they incorporate the different factors contributing towards achieving outcomes and addressing needs. Ideally this will be facilitated by a coordinated, multisectoral approach to needs assessment and response analysis. To that extent complementary programming is an expression of good programming, or at least a critical part of it. [CaLP Glossary]

Early Generation Seed (EGS): This term is generally used to describe breeder seed and/or basic seed (also known as 'foundation seed') that are required for the production of certified seed. [Adapted from BMGF/USAID Early Generation Seed Study]

Formal Seed System: A deliberately constructed system that involves a chain of activities that support the production of certified seed of verified varieties. The chain starts with plant breeding or a variety development program that includes a formal release and maintenance system. Guiding principles in the formal system are to maintain varietal identity and purity and to produce seed of optimal physical, physiological and sanitary quality. Certified seed marketing and distribution take place through a limited number of officially recognized seed outlets, usually for sale. The central premise of the formal system is that there is a clear distinction between "seed" and "grain." This distinction is less clear in the informal system. [Adapted from BMGF/USAID Early Generation Seed Study]

Informal Seed System: A system based on farmer-produced seed where farmers themselves produce, disseminate, and access seed directly from their own harvest; through exchange and barter among friends,

neighbors and relatives; and through rural grain markets. Varieties in the informal system may be variants of modern varieties originally sourced from the formal system or they may be landrace varieties developed over time through farmer selection. There is no external verification of varietal identity, genetic purity, or seed quality. The same general steps or processes take place in the local system as in the formal sector (variety choice, variety testing, introduction, seed multiplication, selection, dissemination and storage) but they take place as integral parts of farmers' production systems rather than as discrete activities. While some farmers and some traders may treat "seed" as distinct from grain, there is often no distinction made between "seed" and "grain" in local markets. The steps do not flow in a linear sequence and are not monitored or controlled by government policies, regulations or inspections. Rather, they are guided by local technical knowledge and standards and by local social structures and norms. This system is also commonly referred to as a "farmer-based seed system" or "local seed system." [Adapted from BMGF/USAID Early Generation Seed Study]

Labelling: Labelling is the naming of a cash intervention in terms of the objectives the implementing organization aims to achieve (e.g., cash for shelter) and associated messaging to remind people why they are receiving the cash transfers and influence their spending accordingly. Within social protection programming this type of approach is often called 'soft conditionality'. Labelling might also be done in combination with other complementary programming activities. Sector-specific cash interventions are often labelled and might actively encourage recipients to spend the cash on items or services which will contribute to achieving sectoral objectives. - [CaLP Glossary]

Local variety: (also called a *farmer variety*) This is a varietal type that has been developed over time largely through farmer selection and adaptation to the natural and cultural environment in which it is found.

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 [CaLP Glossary]

Modern variety: Also called an "improved variety", this is a varietal type that has been developed by plant breeders though plant breeding or pure line selection to conform to a particular standard of characteristics. Modern varieties are tested and released through the formal seed system. Other varietal types include local varieties or farmer varieties (see above).

Multipurpose Cash Transfer (MPC): Multipurpose Cash Transfers (MPC/MPCA) comprises transfers (either periodic or one-off) corresponding to the amount of money required to cover, fully or partially, a household's basic and/or recovery needs that can be monetized and purchased. Cash transfers are "multipurpose" if explicitly designed to address multiple needs, with the transfer value calculated accordingly. The extent to which a cash transfer enables basic needs to be met depends on the sufficiency of the transfer value and should be considered when terms are applied to specific interventions. MPC transfer values are often indexed to expenditure gaps based on a Minimum Expenditure Basket (MEB), or another monetized calculation of the amount required to cover basic needs. All MPC are unrestricted as they can be spent as the recipient chooses. Note that a "multipurpose voucher" is not possible given the inherent restrictions in all vouchers. *Note: Multipurpose Cash Grants (MPG) is a synonym of MPC/MPCA but is less commonly used now.* [CaLP Glossary]

Quality Declared Seed (QDS): Seed that meets a minimum standard of quality but does not entail a formal inspection by the official seed certification system. The intent behind the QDS system is to provide farmers with the assurance of seed quality while reducing the inspection burden on government agencies responsible for seed certification. The QDS system is considered to be part of the formal seed system. [Adapted from BMGF/USAID Early Generation Seed Study]

Seed Fair: A temporary market created by implementing partners and/or government officers where households purchase seed, either through a cash or voucher system. Seed fairs are typically organized to: (i) enable disaster-affected farmers to access seed of crops/varieties of their choice, (ii) create awareness of alternative seed sources and varieties, and (iii) strengthen and stimulate linkages and information sharing among farmers. A seed fair is organized on a specific day at a specific location, announced in advance. At the seed fair, vulnerable households are provided cash or vouchers to purchase seed and, sometimes, additional agricultural inputs, from vendors who have been contracted to take part. [Adapted from CRS, ICRISAT, and ODI, 2002]

Seed System Security Assessment (SSSA): Also referred to as a Seed Security Assessment (SSA), this is a detailed assessment that focuses on the functioning of the range of different seed channels that smallholder farmers use and determines whether seed is available, accessible and meets farmers' quality needs. An SSSA uses a holistic ('systems') approach to generate an understanding of actual seed security problems and enables practitioners to choose the most appropriate response. Various toolkits and guidelines have been developed for undertaking SSSAs or SSAs, including Sperling (2008) and FAO (2016). A toolkit for a rapid SSSA has also recently been developed and tested by S34D and the Global Food Security Cluster. [Adapted from seedsystem.org]

EXECUTIVE SUMMARY

This report provides an analytical review of eight cash transfer for seed security interventions and offers lessons and recommendations to guide the use and design of future responses. Cash transfers are a viable option for emergency seed interventions where farmers require support to access locally available seed. Whilst there has certainly been an increase in the uptake of cash transfers for seed security in recent years, experience is still somewhat limited. What is striking, however, is the range of different programming approaches and objectives for which cash transfers for seed security have been implemented: (i) to address challenges with earlier voucher-based interventions (Catholic Relief Services, Madagascar and Honduras; International Rescue Committee, Northeast Syria; non-governmental organization [NGO] consortium led by Concern Worldwide, Malawi); (ii) as a rapid response mechanism within a resilience project (International Rescue Committee, Burundi); (iii) as part of a broader livelihood recovery program (Myanmar Red Cross Society); (iv) to support seed multiplication (Mercy Corps, Northeast Syria); and (v) to be able to operate within the restrictions and challenges posed during the Covid-19 pandemic (FAO, South Sudan).

Advantages of cash transfers for seed security

Cash transfers for seed security can be used in any disaster context provided that good quality seed is locally available through either the formal or informal seed system.

Cash transfers can address some but not all of the challenges experienced with other transfer modalities:

- Provided that seed is available through agro-dealers or local seed providers (whether traders or farmers), cash transfers allow for access to a broader number and range of vendors from both the formal and informal seed systems. Farmers can choose not only which crops they require, but also whether to purchase certified seed of modern varieties (from agro-dealers) or less expensive seed of locally adapted varieties with which they are familiar (from local traders or farmers).
- Cash transfers can avoid potential delays and costs associated with seed procurement and delivery, though more data is needed to show the cost-effectiveness of cash transfers.
- Although price increases can occur with cash transfers, these are less frequent than with vouchers. Outside of a fair setting, there is no limit to the number of vendors who can participate in a cash transfer intervention, and this increases the likelihood of fair pricing due to increased competition. Farmers are used to using cash and feel more confident about negotiating prices with cash than with vouchers.
- Cash transfers avoid the need for farmers to exchange vouchers for cash but should not be used as an excuse to sidestep a proper needs assessment.

Cash transfers enable farmers to make their own decisions about which seeds to purchase and from where, maximizing choice and dignity and placing value on farmers' own experience and knowledge. Cash can be coupled with behavior change approaches, such as training and information campaigns, that support farmers to make more informed seed decisions.

The consideration of market development objectives that are possible through cash transfer modalities has led to a shift in the design of emergency seed interventions, allowing for greater focus on seed providers, seed supply, and linkages between farmers and seed providers. Achieving such objectives can potentially help to build the resilience of seed systems beyond the timeframe of the transfer itself, though evidence to show the outcomes and impacts of these interventions has yet to be generated.

Limitations of cash transfers for seed security

Cash transfers for seed security can only be used in contexts where good quality seed is locally available, either through the formal or informal seed systems. Cash transfers are appropriate where participants are already sufficiently able to meet basic needs such as food.

Seed quality is not inherently guaranteed but can be addressed by a range of complementary activities on both the demand and the supply side.

Cash transfers for seed security have a limited ability to meet agricultural development objectives. Cash transfers essentially allow recipients to choose what to purchase, and as such are poorly suited to promoting seed of modern varieties[1] unless they are programmed with fairs that restrict choice or involve complementary actions capable of influencing farmers' choices.

Lessons learned

Good needs assessments are essential prior to any seed security intervention, irrespective of modality. In contexts where immediate food needs have not been met, it is highly likely that at least some, if not all, of a cash transfer intended for seed will be spent on food.

Market assessments that encompass both formal and informal seed markets should be undertaken to inform any seed response and the appropriate modality choice. The report highlights the specific features of seed markets that are important to understand in relation to cash transfers for seed security. A Seed System Security Assessment (SSSA) can help ensure that cash for seed security interventions are locally appropriate and that they are designed in ways that do not harm local seed systems, whether formal or informal.

Among the case studies reviewed, seed quality was often addressed through the use of seed fairs, but fairs limit the choice of seed available and thus diminish one of the main advantages for using cash transfers. Fairs cater to a limited number of farmer participants and also limit the number of vendors and the choice of seed types available. Fairs do provide a mechanism that helps encourage farmers to spend their cash on the intended purpose (i.e., seed), but the process of organizing a fair requires a considerable logistic effort. Alternative complementary interventions (apart from seed fairs) on both the demand and supply side have potential to support agreed seed quality parameters when using cash-based programming. Practitioners should be explicit about how they interpret and apply seed quality criteria (and according to whose perspectives) and should monitor this accordingly during implementation.

As with cash programming in other sectors, technical assistance provided through complementary programming activities is an important part of achieving sectoral outcomes. Complementary activities such as messaging and sensitization can help to encourage farmers to use their cash to purchase quality seed. Complementary activities such as farmer training and social and behavior change can also help to ensure that the seed is cultivated through the use of good agricultural practices. Given that farmers have a choice of vendor from whom to buy, complementary activities that support marketing and quality supply are also critical.

There appears to be greater attention to supply-side issues and market development through the complementary activities implemented through cash transfer programming as compared to other programming modalities.

[1] Also called "improved varieties", modern varieties have been developed by plant breeders though plant breeding or pure line selection to conform to a particular standard of characteristics. Modern varieties are tested and released through the formal seed system.

Investments are needed to develop the necessary capacity for cash transfers, including staff training, operating procedures and partnerships with financial service providers (FSPs). If this capacity is developed prior to an emergency, then it is more likely that cash transfers can be implemented in a timely manner.

Gaps in knowledge and experience relating to cash for seed security

The case studies offered very little gender-relevant information, either about farmers or seed providers. Future cash transfer programs would benefit from gender-responsive program design and gender-disaggregated program monitoring, evaluation and learning.

Further exploration is needed to understand the opportunities to improve seed security within multi-purpose cash assistance (MPCA) interventions. Despite seed needs not being considered regularly in Minimum Expenditure Basket (MEB) design, there are instances where MPCA has been used to purchase seed and other agricultural inputs. Depending on the extent to which seed needs are a priority and common across the target group, seasonal MPCA top-ups to address seed needs could be considered.

Barriers to implementing cash for seed security interventions

Limited awareness and experience of implementing cash transfers for seed security limits their use. Preparedness efforts that build the technical and operational capacity of implementing organizations, such as pre-positioning FSP agreements, training teams, and piloting cash, are important to increase capacity for cash to be used in a given context, including for seed security objectives.

The willingness of donors to fund cash transfers for seed security varies considerably, not only between different donors but also across different departments and geographical regions within the same donor. The presentation and interpretation of donor regulations have a fundamental impact on the uptake of cash transfers for seed security.

Host governments and local authorities may be reluctant to approve cash programming for seed security. In some cases, this might be due to limited awareness and can be addressed through sensitization. In other cases, cash transfers might be permissible if intended for certain crops but not others.

Concerns about seed quality are more likely to act as a barrier to cash-based interventions when quality is perceived according to formal seed sector definitions rather than farmers' perspectives. An appreciation of informal seed systems and farmer knowledge helps in trusting farmers to make good decisions about seed quality when they use their cash to purchase seed.

A lack of trust in farmers' abilities to make good spending decisions can act as a barrier to cash transfers for seed security. In some cases, this stems from aid agencies' reluctance to relinquish power in decision-making over how aid is spent. In other cases, the lack of trust is based on a behavioral economics viewpoint that behavioral biases linked to poverty may lead to irrational decision making by farmers; this can be addressed by complementary activities to influence farmer decision-making.

A lack of understanding about varietal quality, varietal types and the complexity of varietal choices made by farmers can act as a barrier to cash transfers for seed security. This is particularly so when aid agencies wrongly assume that modern varieties are always inherently better than local varieties.

Recommendations

1. When should cash transfers be considered? It is recommended that cash transfers for seed security should be considered in any disaster context where a needs assessment has indicated that seed support is needed, provided that good quality seed is locally available through either the formal or informal seed system.

Cash transfers are highly appropriate to agencies that want to promote the dignity and respect of aid recipients.

- Cash transfers are particularly well suited to short-term emergency interventions that aim to provide farmers access to locally available seed types and varieties with which they are familiar, and/or to promote varietal diversity (of both local and modern varieties that are locally available) and more resilient cropping systems.
- With appropriate complementary activities, cash transfers are also well-suited to supporting more resilient seed markets and seed systems by allowing for greater focus on seed providers, seed supply and linkages between farmers and seed providers.
- Provided that seed is locally available, cash can be considered as a way of overcoming various challenges with other seed transfer modalities, i.e., to allow access to a broader number and range of seed providers; to avoid potential delays and costs associated with seed procurement and delivery; and to increase the likelihood of fair pricing.

2. Capacity and readiness for cash and seed security interventions: For implementing agencies working in disaster-prone and/or nexus contexts where cash for seed security might be appropriate, it is recommended that the following preparedness activities are undertaken so that any future cash for seed intervention can be designed and implemented appropriately and on time in relation to the planting season:

- Seed systems assessment[2] to provide an understanding about local seed systems and seed markets (both formal and informal), planting practices (timing, crops, varieties) and varietal diversity;
- Clarity on how seed and varietal quality will be defined and determined; and
- Organizational cash readiness[3], including staff training, standard operating procedures and identification of FSPs.

3. The importance of seed market assessments: It is essential that an appropriate seed market assessment is undertaken prior to any seed security intervention, regardless of likely modality. This not only helps to determine whether or not cash for seed is possible but it also helps to ensure that interventions are designed in appropriate, impactful and innovative ways that do not harm local formal or informal seed systems.

- Seed market assessments must encompass both formal (including intermediate or semi-formal) and informal seed markets[4]. Additional information about the types of data to collect through seed market assessments is presented in **Box 6**.
- Agencies and stakeholders (including farmers) should agree on the seed quality criteria to be met and how seed quality will be determined by the seed market assessment (See SEADS Minimum Standard 5.5.).
- A seed market assessment can be undertaken on its own or as part of a seed security assessment or SSSA. Alternatively, if a seed system assessment or SSSA has been undertaken previously, then this should be used to inform the seed market assessment.

[2] Various guidelines and tools exist for this type of assessment, e.g. FAO, 2016; Sperling, 2008. See also https://seedsystem.org/assessments-and-e-learning-course/seed-system-security-assessment/

[3] For further guidance on this, see here

[4] Formal seed markets include certified seed that might be available through local agro-input dealers, seed companies or contract growers; intermediate or semi-formal seed markets include QDS that might be available through farmer seed multiplication groups or local seed businesses; informal seed markets include farmer-produced seed that might be available among larger, better-resourced farmers and informal grain traders.

4. Design considerations should be based on very clearly defined objectives: Clearly defined objectives are particularly necessary for cash transfers due to the flexibility of the design options that are possible, including various complementary programming activities (on the demand side and/or the supply side).

- As above, agencies and stakeholders (including farmers) must agree on the seed quality criteria to be met and how seed quality will be assured and monitored during implementation. (See SEADS Minimum Standard 5.5.).
- Complementary programming activities should be considered as part of the design process (see Recommendation 6 below).
- Gender-related aspects must be incorporated into the intervention design to ensure gender-equitable access to cash transfers, decision-making regarding spending choices and control over the seeds and other benefits provided through the intervention (see Recommendation 7 below).
- Monitoring, evaluation and learning must be incorporated in the intervention design (see Recommendation 8 below).

5. Fairs or not? The decision whether or not to program cash transfers within a fair setting depends on the local availability and quality of seed and the distance to functional seed markets. It also depends on the way in which seed quality is defined.

- Fairs limit the number and type of vendors as well as the range of seed types and varieties available to fair participants. If such limitations are appropriate for the program objectives, then a fair may be appropriate. If not, cash transfers for seed security via a fair may not be the optimal programming modality.
- If the distance to functional seed markets is considered so great that a seed fair is necessary, seed vendors may be more willing to participate in a voucher-based fair rather than a cash-based fair because at least some level of sales will be more likely.

6. Complementary programming activities (demand side): Appropriate complementary activities are necessary on the demand side to encourage the purchase of quality seed and to help achieve other sectoral outcomes.

- Messaging and sensitization can help to encourage farmers to use their cash to purchase quality seed.
- Social and behavior change or farmer training can influence agricultural practices and the ways in which seed is cultivated and managed by farmers.

7. Complementary activities that support local seed markets: Appropriate complementary activities on the supply side not only ensure that farmers can purchase quality seed with the cash provided through a cash transfer intervention, but they can also encourage the subsequent continuation of quality seed supply through seed market development. Illustrative activities include:

- Sensitization or training or a code of conduct for seed providers, which can influence seed quality, seed management, supply and service delivery;
- Support to seed multiplication groups or centers can increase the availability of seed, though it is also necessary to ensure that these are linked to sustainable seed sales channels; and
- Support to enhance market linkages, which can help to promote continued supply to remote, underserved areas.

8. Gender-related concerns must be incorporated into all stages of cash transfer programming for seed security:

- Seed system assessments should include information about the crops and varieties planted by women and the role of women in seed management and seed acquisition, as well as any gender-related challenges that they may face in this regard.
- Program design must ensure that both women and men can access cash provided by the project and that any potential protection risks are minimized.
- Where necessary, steps should be taken to reduce any barriers faced by women in the control and decision-making over cash transfers and that potential protection risks are minimized.
- Gender-relevant indicators and issues should be incorporated into monitoring, evaluation and learning.

9. Particular attention should be given to monitoring, evaluation, impact assessment and learning. Experience is still being developed in cash transfer programming for seed security, so it is important that interventions are closely monitored and that data are collected for the evaluation of appropriateness, outcomes and impacts of interventions. Monitoring and evaluation (M&E) tools may need to be adapted to ensure that sufficiently detailed data are being collected in relation to seed supply and seed markets, the seeds and varieties purchased by farmers, as well as aspects relating to the effectiveness of the cash transfer mechanism itself.

- Monitoring data should be used to make programming changes if necessary.
- Regular and timely seed market monitoring is necessary to be able to address any price increases, should these occur.
- Monitoring and evaluation systems should also encompass learning since there is a great opportunity to develop and refine best practice within cash transfer programming for seed security.
- Impacts on farmers' livelihoods, food security, seed markets and resilience should be assessed.

10. Innovation and inter-agency learning: Implementing agencies should be encouraged and supported to innovate and share experiences of cash transfers for seed security. Inter-agency learning can be supported through further research and reviews, through the establishment of a community of practice, e.g., within existing cash- or sector-based bodies such as the Cash Learning Partnership (CaLP) and/or the Global Food Security Cluster (gFSC).

1. BACKGROUND

Emergency agricultural responses and food security/livelihood recovery interventions in rural areas commonly involve the provision of seed of different crops to farmers affected by disaster. Seed can be provided through various modalities such as direct distribution (also called in-kind distribution) or through the use of vouchers, often programmed through seed fairs or agricultural input fairs[5] or – more recently – through cash transfers. Vouchers have been the main type of market-based programming for emergency seed interventions for some 20 years, though experience with cash transfers for seed security is growing.

In 2019, the USAID-funded Supporting Seed Systems for Development (S34D) initiative published a study of cash transfers for seed security, which concluded that there was potential to expand the use of cash transfers for seed security (**Box 1**). This report is based on a subsequent review of cash for seed security,[6] which was commissioned in late 2021 after it became apparent that the use of cash transfers for seed had increased with the COVID pandemic due to restrictions preventing large gatherings such as seed or agricultural input fairs.

Box 1. Findings from the 2019 Study on cash transfers for seed security in humanitarian settings

> Cash transfers offer flexible market-led interventions to support farmers' access to seed in emergency contexts. Available evidence suggests that cash offers promise for seed security interventions, particularly when combined with complementary programming such as technical or business training. 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. Good needs assessments, response analysis and program design can help ensure that farmers spend cash on what implementers anticipate they will. Investment in preparedness provides a better foundation to implement impactful cash for seed security response.
>
> *Source: Keane et al (2019).*

This report offers an analytical review of recent experiences with cash transfers for seed security, highlighting lessons to help guide the use and design of future cash for seed interventions. It draws on detailed case studies and literature from eight interventions[7], plus those documented by the 2019 study. The report examines the contexts in which cash is most appropriate, and the purposes that it best serves within emergency, recovery and resilience-building settings. The issue of seed quality is addressed, and the advantages and disadvantages of combining cash transfers with seed fairs are explored. Experiences with a range of complementary programming activities that can support market development and seed sector development objectives are described. Barriers to cash for seed security are identified, and ways of overcoming these barriers are proposed. Key findings appear as italicized text at the end of each sub-section. General conclusions and recommendations are presented in **13**.

[5] A seed fair or agricultural inputs fair is often organized as part of an emergency seed voucher intervention, whereby various different seed/agro-input providers (often agro dealers or local seed companies, sometimes also large-scale farmers or seed producer groups) are contracted to bring their seed /inputs to a specified location on a specified day. The target farmers (voucher recipients) come to the same location where they are given vouchers (either for a specific monetary value or for specific types of commodities) which they can then exchange for the seed / inputs of their choice. At the end of the day, the contracted seed / input providers redeem their vouchers from the fair organizers and the money from their sales is transferred into their bank accounts or via other payment methods.

[6] The terms 'cash for seed security', 'cash for seed' and 'cash transfers for seed security' are used interchangeably in this report. 'Cash transfers' is also used as a shorthand for these terms.

[7] Seven case studies are presented in the Annexes, and one case study is presented in Box 3.

2. INTRODUCTION

In the four years since the previous study of cash transfers for seed security conducted in 2019, there have been continued and significant developments in relation to Cash and Voucher Assistance (CVA) in the humanitarian sector. CVA is now a well-established humanitarian response tool that contributes to saving lives and livelihoods, and challenges humanitarian actors to think differently and deliver better. The scale of CVA continues to increase, with US$5.6 billion in CVA programs in 2019, equivalent to 17.9% of total international humanitarian assistance – a 100% growth compared with 2016 levels (CaLP, 2020).

This growth corresponds with an increasing emphasis on quality of CVA programs, along with capacity building and ensuring CVA is routinely considered in humanitarian response. There has also been renewed focus on ensuring the perspectives of affected communities and recipients of assistance are central in any response (CaLP, 2020). Cash transfers in particular offer a unique opportunity to support crisis-affected people in ways that maximize their choice and agency, while also contributing to local economic recovery and strengthening.

Cash transfers are one example of a broader spectrum of market-based programming interventions. Market-Based Programming[8] (or market-based interventions) are interventions that work through or support local markets and/or contribute to positive market systems change. While cash transfers can contribute to increasing access among affected populations to essential goods and services required for their immediate and recovery needs, humanitarian actors can also engage in interventions that improve the availability and supply of these critical goods and services in local markets. Even if humanitarian programs are not engaging on intentional market systems strengthening, at a minimum all programs should be 'market aware' and ensure that indirect harm to local livelihoods and markets is not a consequence of interventions implemented.

In general, donor positions on CVA have become better coordinated and clearer, however, there is still a need for more consistency across donors, and clearer policies, when it comes to the use of CVA in relation to sectoral programming and outcomes. In addition, there are still considerable perceptions among practitioners that scaling up CVA poses a risk that sectoral outcomes will not be achieved, particularly when it comes to achieving minimum technical standards (CaLP, 2020).

Despite the potential to use cash as a modality to address seed access, there is still limited evidence and uptake on its use in emergency agricultural programs. Considerations, particularly related to the quality of seed and donor policies that do not necessarily account for cash modalities, continue to play a role in whether or not cash is used to address seed security outcomes. These considerations are further explored in **12**. As in other sectors, a major hurdle for sector specialists is to relinquish the decision-making power to the recipients of assistance. This is a particular challenge in the seed sector due to farmers' familiarity (and often preference) for purchasing seed through informal seed systems, whereas agricultural experts generally aim to promote formal seed systems and the use of quality seed of modern varieties.

[8] Market Based Programming Framework (2022)

3. METHODOLOGY

The review was undertaken by cash transfer and seed systems specialists through desk-based research (document review and key informant interviews [KIIs]) and adopts a case study approach. Recent cash for seed security interventions and related experiences were identified through a call for information that was disseminated in four languages among practitioners, donors and policy makers through relevant discussion groups, online platforms, networks and newsletters. The call for information provided a link to a short online survey designed to capture brief details of interventions that were implemented since the 2019 study, as well as instances of challenges or barriers that may have prevented successful implementation.

Approximately 35 responses to the call were received, though many of these were voucher-based interventions rather than cash, illustrating the way in which the term "cash" is often used as a short-hand to refer to both cash- and voucher-based interventions. This is changing, and the CALP glossary in 2018 clarified definitions to specifically distinguish between cash and vouchers. After reviewing the responses, cases in which cash transfers were proposed but not implemented were noted, and a short list of 14 interventions was agreed. Following some clarifications with some of the implementing agencies, the short-listed interventions were reviewed to select those that were appropriate for further investigation as potential case studies. The selection was based on the desire to:

- encompass a range of different programming approaches, i.e., differing objectives, implementation methods, length of intervention period, complementary aspects, restrictions, conditions, etc;
- highlight specific features or experiences considered to be innovative, interesting and relevant for learning;
- ensure a good spread of interventions geographically, by implementing agency (UN, Red Cross/Red Crescent Movement, NGO), and by donor; and
- document interventions that had not previously been documented by the 2019 study.

Detailed information on each of the selected interventions was compiled through KIIs with relevant staff from the implementing agencies and a review of available documentation provided by the agencies. This was complemented by a review of additional documentation relating to seed systems in the project area and relevant seed sector policies and institutions. Depending on how much information was available, the case studies are either presented as an annex or a text box. The case studies were reviewed by the implementing agencies and corrected for accuracy. Additional information was gathered through KIIs with key donors – both those who had funded cash for seed interventions and those who had not. The review is intended to complement and update the earlier 2019 study by Keane *et al.* However, it should be noted that a different methodology was used for the 2019 study, making it difficult to know whether or to what extent the use of cash transfers for seed security is increasing in prevalence.

4. THE CASE STUDIES

The eight case studies summarized in **Error! Not a valid bookmark self-reference.** are presented by region and alphabetically by country. Details of each case study can be found in Annexes 1-7 and **Box *3***. Specific features of some of the case studies are highlighted in other text boxes throughout the report. Among the case studies, each case had a slightly different motivation, design and programming approach. These aspects are described and explored in more detail in subsequent sections of the report. All but one of the case study interventions provided cash to allow farmers to purchase seed (i.e., demand-side support). The one exception to this was Mercy Corps' intervention in Northeast (NE) Syria, which provided cash to support the multiplication of seed (supply-side support). The case studies range from cash for seed prompted by restrictions and challenges posed during the COVID-19 pandemic (FAO, South Sudan) to projects where cash replaced earlier voucher-based interventions (CRS, Madagascar and Honduras; IRC, NE Syria) to a Rapid Response Mechanism within a resilience project (IRC Burundi) to a desire to work more closely with agro-dealers and encourage them to improve their service delivery standards (NGO consortium led by Concern Worldwide, Malawi).

Table 1. Overview of the case studies

Country, implementing agency & intervention	Summary description of cash for seed component	Complementary activities
Burundi (IRC): Cash transfers as a Rapid Response Mechanism	IRC provided Cash for Seed Security as a Rapid Response Mechanism within a development program. Cash transfers were given in a fair setting to 450 beneficiaries affected by crop failures caused by sudden onset shocks. In the fairs, certified seed was available for purchase from seed entrepreneurs.	Awareness-raising on purchasing quality seed (farmers) and supplying to underserved areas (vendors); training on seed saving and construction of community seed storage facilities; support to private seed multiplication centers
Madagascar (CRS): Piloting cash transfers in a fair setting	CRS piloted a cash-based inputs fair as part of a program to enhance cash preparedness in the organization. Participating vendors and farmers had previously participated in voucher-based inputs fairs, allowing for comparisons to be drawn.	Trainings to encourage farmers to use cash to buy seeds and select quality seed from vendors; trainings for vendors on the provision and importance of quality seed
Malawi (NGO Consortium led by CWW): Market-based approach in resilience program	Cash transfers were implemented in the second year of a four-year resilience program. Cash was provided to 59,822 farmers in the rainy season and to 27,905 farmers in the dry season. The approach involved considerable engagement with agro-dealers.	Code of conduct for agro-dealers to improve service delivery; communications and marketing to promote new and diversified seeds and inputs; comprehensive M&E
South Sudan (FAO): A shift from voucher fairs to cash transfers without fairs due to COVID-19	FAO South Sudan switched from direct distribution and voucher programs to cash transfers for 8% of its beneficiaries, representing around 68,000 households, in response to COVID-19 and recognition of the importance of local seed markets. The transfer was approximately. $30 for the purchase of seeds from local markets and other farmers.	Farmer training on good agronomic practices, integrated pest management, and post-harvest handling
Myanmar (Myanmar Red Cross Societies): Cash for Vegetable Seeds	Cash transfers were piloted as part of a broader integrated livelihood recovery and resilience program. Approximately $7 was provided to 200 households during seed fairs for a range of traditionally grown winter vegetable seeds.	Agricultural training sessions for community volunteers to support targeted farmers
Honduras (CRS): Cash transfers and agricultural input fairs	Cash was provided to fair participants prior to the main and short planting seasons. A total of $83 was distributed to 4,490 farmers for purchase of seed, fertilizer and tools in the fairs.	Cash was also provided for food security needs during this period; trainings for farmers on Water Smart Agriculture practices
NE Syria (IRC): A shift from direct distribution to vouchers to cash transfers for seed security	Cash was given in two tranches, in winter (for wheat, barley, lentils) and summer (for vegetables). The second payment was conditional on planting a winter crop. Strong messaging to farmers to ensure compliance with donor regulations on restricted goods.	Farmer field schools and agricultural training sessions for farmers; advocacy among local authorities, donors and INGOs to re-start formal seed sector multiplication and varietal development efforts
NE Syria (Mercy Corps): Cash for licensed seed multiplication	Cash was provided to farmers licensed to undertake seed multiplication to increase the availability of quality seed. After the necessary quality checks, the multiplied seed was then purchased by the NE Syria seed agency who subsequently distributed it to other farmers.	Capacity-building support for government departments, farmer seed multipliers and other seed system actors to design seed multiplication and certification systems for certified seed production

5. WHY CASH? MOTIVATING FACTORS AND OBJECTIVES

Though we had expected to see an increase in the use of cash transfers for seed security due to restrictions imposed by the COVID-19 pandemic, most of the case studies involved a purposeful decision to use cash transfers beyond COVID-19-related factors. This suggests that implementing agencies recognize the advantages that cash can bring and adopt cash-based approaches to fulfill specific objectives. These objectives can be categorized as those relating to: (i) overcoming challenges related to other modalities; (ii) increased choice for farmer participants; (iii) market systems development; and (iv) agricultural/seed systems development, as described below. Even in the case of South Sudan, where the shift to cash was partly prompted by the need to avoid large gatherings and other logistical challenges linked to the pandemic, the opportunity to strengthen local seed markets was also recognized. South Sudan and other case studies also reveal that the shift to cash is often motivated by the desire to avoid or overcome challenges associated with other transfer modalities. Drawing on evidence from the case studies and existing literature, the paragraphs below explore the extent to which these challenges can be overcome through cash and whether the four broad objectives above can potentially be realized through cash for seed interventions.

5.1 To overcome challenges of other transfer modalities

The cases of Malawi, South Sudan and NE Syria reveal that the uptake of cash for seed was prompted by specific challenges experienced within a particular modality. In some cases (South Sudan, NE Syria), there appears to have been a 'progression' from direct seed distribution (DSD) to vouchers and fairs to cash transfers. Rather than viewing this as a progression, however, it is necessary to examine each of the different challenges within the various transfer modalities, and the extent to which cash can be expected to overcome these, as well as the contexts in which cash for seed is appropriate.

Historically, the **limited range of seed types** and **lack of choice** associated with direct distribution were key factors that prompted a shift to seed vouchers and fairs (CRS, 2017), and these factors are also apparent in the South Sudan and NE Syria (IRC) case studies. Another challenge in South Sudan was the **inappropriate varieties** provided through direct distribution. Although voucher fairs give decision-making power to the farmer participants, the level of choice of seed types and other agro-inputs depends on the number and range of different vendors taking part in the fair. As shown by the Malawi case study, the **limited number and range of vendors** in fairs can be addressed by cash transfers without fairs. In Madagascar, the use of cash allowed for participation of local seed farmers as vendors who provided a diverse range of local seed varieties at a lower price than the formal sector seed provided by agro-dealers. The use of cash with and without fairs is further discussed in **Fair-based and** non-fair based cash transfer programming.

Summary of findings: *Provided that seed is available through agro-dealers or local seed providers (whether traders or farmers), cash transfers for seed security allow for access to a broader number and range of vendors from both the formal and informal seed systems. Farmers can choose not only which crops they require, but also whether to purchase certified seed of modern varieties (from agro-dealers) or less expensive seed of locally adapted varieties with which they are familiar (from local traders or farmers).*

Late delivery of seed through direct distribution was reported to be a challenge in South Sudan, where much of the seed provided is imported from neighboring countries. Although voucher- and cash-based transfers can avoid potential delays that might be caused through the seed procurement process, there is no guarantee that either modality will necessarily be implemented on time in relation to the planting season. The case of Madagascar illustrates the capacities needed in order to be ready to respond with cash transfers in a timely manner (**Annex 2.** Madagascar (CRS, 2019 -2020): Piloting cash transfers for seed security in a fair setting).

Both vouchers and cash can also avoid the transportation, loading/offloading and storage **costs associated with seed procurement**. In South Sudan, the cash transfer was designed to allow farmers to plant the same area as that for the crop kits. Post-distribution monitoring surveys found that the seeds purchased using the cash grant were sufficient to plant an average of 35% more area than the crop kits (**Annex 4.** South Sudan (UN FAO, 2020): A shift from voucher fairs to cash transfers without fairs due to COVID-19). Although more data is needed to draw any firm conclusions, this would suggest that cash transfers were more cost effective in this instance. Both the South Sudan and the Madagascar case studies illustrate ways in which investments can be made to develop capacity for the design and implementation of cash transfers for seed security.

Summary of findings: *Cash for seed security can avoid potential delays and costs associated with seed procurement and delivery, though more data is needed to show the cost-effectiveness of cash for seed. Investments are needed to develop the necessary capacity for cash for seed, including staff training, operating procedures and partnerships with FSPs. If this capacity is developed prior to an emergency, then it is more likely that cash for seed can be implemented in a timely manner.*

The **quality of seed** is addressed in **Seed quality**. In brief, both direct distribution and voucher fair modalities have each developed their own quality assurance procedures. Seed quality assurance remains a challenge for cash for seed security interventions and is one of the main reasons for implementing cash transfers within a fair setting.

Higher prices relative to local markets and **price increases** with the use of vouchers prompted the shift to cash in both NE Syria (IRC case study) and Malawi. Such price increases are reportedly common in voucher programs which – necessarily – can only contract a limited number of vendors to provide the required inputs, often with strict quality control requirements, so there are higher costs, less competition, and consequently, higher prices (Bailey and Pongracz, 2015). Elsewhere, it has been observed that farmers have a **limited ability for price negotiation** when using vouchers and are better able to negotiate with cash (Walters, 2020a). The use of cash was not thought to have led to price increases in NE Syria, but price hikes were noted in Malawi and were quickly addressed. In Malawi, vendors were encouraged to display their prices clearly so that farmers could easily make informed choices. Farmers shopped around for the best price, often using some of the cash for transport to travel elsewhere to acquire their preferred seed types at competitive prices.

Summary of findings: *Price increases can occur with cash transfers for seed security, but less frequently than with vouchers. Careful price monitoring is necessary to be able to address this if it arises. Outside of a fair setting, there is no limit to the number of vendors who can participate in a cash transfer intervention, and this increases the likelihood of fair pricing due to increased competition. Farmers are used to using cash and feel more confident about negotiating prices with cash than with vouchers.*

Challenges faced by farmers due to the **rigidity of vouchers** (i.e., that they can only be exchanged with specific vendors for a limited range of seed types) are clearly illustrated by the case of Madagascar (**Box *2***), which also shows the challenges of promoting certified seed of modern varieties among risk-averse, poor farmers who have also been negatively affected by shocks. In some cases, these challenges led farmers to exchange their vouchers for cash, or to sell the seed obtained with the voucher in order to purchase their preferred seed type. Ideological aspects relating to who controls decision-making and the level of choice that is allowed to farmers is further explored in **Context** and market assessments **6**. With a voucher, beneficiaries may be more likely to purchase what the program prefers, but this comes with risks: it might be at higher price, and seed can still potentially be returned to dealers or sold on to others for cash or eaten. All of these

risks can be avoided by using a cash modality, but they can also be reduced if the design of a voucher-based intervention is based on a good understanding of the actual needs of the target beneficiaries.

Summary of findings: *Cash transfers for seed security avoid the need for farmers to exchange vouchers for cash but should not be used as an excuse to sidestep a proper needs assessment. An appropriate needs assessment is essential to inform decisions on the most appropriate modality for seed security assistance, whether cash, in-kind or voucher.*

Box 2. Findings from CRS Madagascar on the exchange of vouchers

Following previous seed fairs where paper vouchers were used, CRS observed that some farmers returned their seed to participating local vendors and requested cash in return. There were some reports that beneficiary farmers then used the cash to purchase local seed from other farmers within their communities that was considerably less expensive than the formal sector seed on offer from the vendors at the fairs. Others chose to resell the seeds to obtain the cash needed to then buy seeds that better met their pricing, quality and other preferences. Some farmers chose to resell the seeds in order to have cash for other household needs. CRS piloted cash fairs as a means of addressing such challenges. Cash provided to participants during these fairs could be spent within the fair or elsewhere. As a way of encouraging participants to purchase within the seed fairs, sensitization on the importance of purchasing quality seed was provided to participants. Monitoring found that participants receiving cash transfers were able to bargain with vendors and get cheaper prices, and a wider variety of seeds were made available by vendors. More local vendors, including individual farmers, could participate as there were no contracting requirement (unlike voucher fairs where participating vendors had to sign an agreement with CRS and had to have specific government registration). Exit interviews indicated that 89% of participants spent all the cash they received at the fair, indicating that concerns people would use cash for other purposes may not be as significant as anticipated. However, this exit interview figure may be somewhat exaggerated given that, prior to the fair, participants received messaging to spend all of the cash at the fair, so they may have been reluctant to report that they kept some of the money for other purposes. Exit interviews also indicated 99% of farmer respondents reported that they preferred cash. Of those, 86% stated that the reason for their preference was that cash was easier to use than vouchers, while 10% said vouchers were difficult to use. A major reason participants claimed that cash was easier was that they could easily count the money and know the value they had remaining. Some participants also reported that seed prices were lower in the cash fairs, and some reported that they preferred cash as they could decide how to use the cash.

5.2 Giving choice, dignity and decision-making power to farmer participants

A key reason to opt for cash transfers for seed is to offer choice to farmers in terms of seed type, variety and where/from whom to purchase seed. The Honduras (CRS), Malawi (Concern) and NE Syria (IRC) examples highlight the provision of choice for farmers as one key reason for providing cash transfers to farmers instead of vouchers, though this may also raise concerns over farmers' choices in relation to seed quality and seed type (i.e., whether improved or local varieties). The Malawi case study highlights how messaging and demonstration plots were used to promote new and diversified varieties alongside cash transfers (**Annex 3.** Malawi (NGO Consortium led by Concern Worldwide, 2018-21): A shift from vouchers & fairs to cash for inputs and a market-focused approach within a resilience program).

In general, key informants consulted during the review highlighted the importance of cash in providing choice and dignity to farmers, promoting the position that farmers know best and can make good choices

about the best type of seed for their land and situation. The International Federation of Red Cross and Red Crescent Societies (IFRC) believes that people affected by crisis should be supported to recover with dignity and is supporting cash assistance across a range of different sectors, including agriculture, as exemplified by the resilience program implemented by the Myanmar Red Cross Society in Rakhine State (**Box *3***). In South Sudan (**Annex 4.** South Sudan (UN FAO, 2020): A shift from voucher fairs to cash transfers without fairs due to COVID-19), staff interviewed felt that cash was more effective in meeting farmer needs than DSD. In addition, cash enables farmers to choose to purchase seed from any seed vendor, thereby ensuring that smaller informal seed vendors are not excluded from seed programs as they often are with voucher and in-kind modalities.

Summary of findings: *Cash transfers enable farmers to make their own decisions about which seeds to purchase and from where, maximizing choice and dignity and placing value on farmer's own experience and knowledge. Cash can be coupled with behavior change approaches such as marketing, training and information campaigns, which support farmers in making more informed seed decisions in the medium-term.*

Box 3. Cash for Vegetable Seeds in Myanmar

A pilot cash for seeds intervention was implemented in 2019 in Rakhine State by the Myanmar Red Cross Society (MRCS), supported by the International Federation of Red Cross and Red Crescent Societies (IFRC). The pilot was part of a broader livelihood recovery program following the outbreak of violence and external displacement from Northern areas of Rakhine State in August 2017. This basic cash investment, combined with agriculture technical trainings in collaboration with the Agriculture Department, has supported beneficiaries to restart their traditional practices of farming winter crops.

Interventions in Northern Rakhine drew approaches from a broader community resilience program being implemented by MRCS with support from IFRC in the Central areas of Rakhine over a longer timeframe. This resilience program in the Central areas of Rakhine has since been extended up to 2023 and includes seven different types of cash transfer interventions (including conditional cash grants, cash for work and revolving funds) targeted at the levels of individuals, households, groups and communities. These various cash transfer interventions provide livelihoods support in the sectors of agriculture, livestock, small business and fisheries, and are also helping to build household and community assets and enhance disaster preparedness.

The cash for seeds intervention in Northern areas of Rakhine distributed MMK 15,000 (approx. US$7) to 200 targeted households in five villages for the purchase of a range of traditionally grown winter vegetable seeds. The MRCS mobilized local traders to provide a wide variety of vegetable seeds in seed fairs at the village level. A total of 13 types of seed were made available, including: chili, eggplant, radish, cucumber, okra, watermelon, pumpkin, cauliflower, roselle, bitter gourd, tomato, corn and beans, all of which are used for traditional winter vegetable cropping.

This was complemented by improved agricultural practices technical training for 30 community volunteers in collaboration with the government agriculture department. The trained community volunteers supported targeted farmers to improve agricultural practices, particularly winter crops farming. An average of 0.25 acres of land per supported household was cultivated with winter vegetable crops as a result. The five targeted villages had improved access to fresh vegetables within their diets and the 200 targeted households had increased access to income generated through sales in these village markets.

Source: Myanmar Red Cross Society and IFRC, "Cash for Seeds: Revitalizing Winter Vegetable Cropping in Rakhine State" (2020), with additional details provided by program staff.

5.3 Market development objectives

Many decision-makers recognize the unique advantages that cash transfers offer in terms of the potential for strengthening markets. Within the seed sector, market strengthening plays a proactive role in building the resilience of seed systems, both formal (e.g., Malawi case study) and informal (e.g., Burundi case study). Such resilience is especially important in areas that are prone to recurrent disasters, and in areas where there are chronic, long-term crises. Resilience-building and market-strengthening objectives represent an important shift in the aims of emergency seed interventions which, historically, have narrowly focused on meeting farmers' immediate needs, often at the expense of broader seed system development (SEADS, 2022; Longley, 2022, forthcoming). Such a shift is both timely and appropriate to the increasingly long-term nature of emergencies and the growing relevance of resilience programming within the humanitarian-development nexus.

The consideration of market development objectives that can potentially be achieved through cash transfers for seed security encourages a more holistic view of both demand- and supply-side benefits within emergency seed interventions. Here it is important to note that market-based programming in humanitarian settings does not necessarily always support market development as it is understood from a development perspective (Croft *et al*, 2021; Markets in Crises, 2022). For example, voucher-based modalities are regarded as a type of market-based intervention, but the vendors contracted to supply seed at seed fairs are typically treated as service providers rather than project participants, and there is little or no recognition of the potential benefits to their businesses beyond the profits realized from additional sales at the fairs (Longley, 2021). The case studies, particularly Malawi and NE Syria (Mercy Corps), show that cash transfer interventions can be designed to achieve market development objectives beyond the timeframe of the transfer itself. Detailed data to show the outcomes and impacts of these approaches have yet to be collected, however.

Specific market development objectives that were designed to be addressed by the various case study interventions included the following:

a. Increased price competitiveness through increased numbers of vendors and the ability of farmers to negotiate with cash (NE Syria-IRC, Honduras). Similar to this is the reduction in the monopoly of agro-dealer association members in voucher-based fairs in Malawi;
b. Creation of links between farmers and seed providers to promote future sales by seed providers through an expanded client base (Madagascar, Malawi, Burundi, Honduras);
c. Increased availability of seed in local markets, leading to reduced price of seed (NE Syria-Mercy Corps);
d. Extension of the market frontier by encouraging agro-dealers to open sales outlets in remote markets (Malawi); and
e. Improved functioning of market supply systems (NE Syria-Mercy Corps, NE Syria-IRC, Malawi).

Not surprisingly, however, vendors who have benefitted from voucher modalities tend to prefer vouchers over cash due to the greater likelihood or guarantee of sales, higher profit margins, and restricted competition from outside vendors as compared to cash. In Madagascar, for example (**Annex 2.** Madagascar (CRS, 2019 - 2020): Piloting cash transfers for seed security in a fair setting), CRS found that vendors preferred voucher modalities, as they were guaranteed sales and therefore have an assured profit. Larger suppliers, such as Centre Technique Agro-écologique du Sud, only agreed to participate in the voucher fairs if there was guarantee of sale, given that they were transporting their supplies from outside the local area. This is a particularly relevant consideration in remote areas that may have limited local agro-dealers, as larger dealers, including those with certified seed, may not see the benefit of their participation in fairs with additional transportation costs if there is no guaranteed customer base, as with vouchers. Vendors did, however, note

one advantage with cash fairs, which was that they received cash directly from participants rather than having to wait for CRS reimbursement, as was also noted in Guatemala (**Box *4***).

Complementary interventions for seed market development that can be implemented alongside cash transfers include actions to improve enabling environments (e.g., guiding rules and regulations, physical infrastructure, etc.), bolster demand and enhance linkages between various supply and demand actors as well as formal and informal seed systems. Vendor-based interventions can include actions that strengthen capacity, link vendors to distributors of quality seed, improve vendors' own quality of seed (e.g., through cash grants and trainings, as was done in Burundi) and provide storage, transportation, distribution, credit, skills or equipment support (CaLP, 2015). The consideration of market development objectives that are possible through cash transfer modalities has led to a shift in the design of emergency seed interventions, allowing for greater focus on seed providers, seed supply and linkages between farmers and seed providers. Achieving such objectives can potentially help to build the resilience of seed systems beyond the timeframe of the transfer itself, though evidence to show the outcomes and impacts of these interventions has yet to be generated.

Box 4. Comparison of cash and e-voucher modalities in Guatemala

A CRS study in Guatemala compared e-voucher-based fairs implemented in 2016 and 2017 with more recent fairs (2018, 2019) that used cash transfers. The study examined the differences in implementation and the advantages and disadvantages of each modality. For the farmer focus group participants interviewed for the study, the advantages of cash far outweighed any advantages of vouchers. All focus groups cited the main advantages of cash were the additional control and choice it provides and the option of buying products outside of the fair, such as indigenous seed in their communities. Other advantages included the fact that vendors were forced to keep prices lower, and participants were able to better account for their spending in the cash fair than with the electronic vouchers. The latter was one of the main complaints about the e-vouchers – participants could not see the remaining money on their cards and so did not realize how much they had spent. All focus groups complained that with vouchers they had to spend all of the allotted money in the fairs. Due to this, one focus group reported that participants sometimes purchased unneeded products. For vendors, cash is easier for them to manage and there are no delays waiting for payment from CRS. However, with vouchers that can only be utilized at the fair, vendors essentially have a guaranteed market. The perspectives of project staff align with those of the participants and vendors. They preferred the cash fairs because they were less costly and require fewer staff. The competitive pressure both within and outside the fairs encouraged vendors to keep prices competitive and offer promotions (e.g., providing sacks). Beneficiaries felt empowered.

Source: Walters, 2020a.

5.4 Agricultural development objectives

Two broad types of agricultural development objectives are considered here: (i) the promotion of modern varieties among farmers; and (ii) broader seed system development. Many emergency seed interventions aim not just to provide seed to farmers affected by disaster but – more specifically – to provide quality seed of modern varieties as part of broader agricultural development efforts that aim to promote the adoption of these varieties by farmers. Modern varieties are often higher yielding than the local varieties traditionally cultivated by farmers, so it is assumed that the uptake of modern varieties by smallholder farmers will lead to increased production and therefore enhanced food security at both household and national levels.

As noted by the South Sudan case study and other literature (e.g. Longley, 2021), there is often a challenge in identifying the most appropriate crops and varieties to be provided (whether through DSD or through market-based approaches), and farmers often appear to be unwilling to purchase such seed (whether using

vouchers or cash) (e.g. **Box *2***, Madagascar). This unwillingness generally relates to two broad reasons: (i) relating to the variety itself – either it is simply not very appropriate to the local agro-ecological conditions, or the farmers do not like the varieties on offer, or because there is no market for the output produced; and (ii) because the seed is considered by farmers to be expensive compared to the cost of seed produced locally by ordinary farmers (i.e., seed from the informal seed sector).

The advantage of cash is that it allows farmers to select the varieties that they prefer and that are considered by farmers to be appropriate to the local agro-ecological conditions. Cash also allows farmers to purchase seed types according to their own perceptions of price and value for money and to negotiate on the price. If a cash transfer intervention aims to promote specific varieties or specific types of seed, then it must either restrict the choice available to farmers (e.g., though seed fairs) or influence farmers' choices in other ways. Training and information provision alongside cash transfers can support farmers to make more informed choices when they purchase seed.

In longer-term resilience-building and developmental interventions, the promotion of modern varieties generally involves efforts to make farmers aware of the advantages of such varieties, often through demonstration plots, farmer field schools or other agricultural extension and behavior change approaches. Providing farmers with a small quantity of modern varietal seed (sometimes called a test pack or starter pack) allows farmers to test these varieties for themselves (over multiple seasons) so they can decide whether or not to adopt them. Agricultural development interventions often also involve efforts to link farmers to output markets so that they can sell the surplus production generated by higher-yielding varieties. In some market-led or value chain interventions, specific varieties of specific crops are identified and selected because they are part of a broader supply chain for specific products (e.g., sunflower for cooking oil, cassava for beer, etc.). The extent to which emergency seed interventions can promote modern varieties in these ways is limited due to the long timeframe and the expertise required.

For crops and varieties that are generally used as food for farming households, there is a more ideological concern that the so-called "improved" varieties (referred to here as "modern" varieties) are not necessarily seen by farmers to be superior to the local varieties that they already cultivate. This is because high-yielding varieties often lack other qualities that are valued by farmers such as tolerance to drought and pests, cooking qualities and taste. The advantage of cash transfers is that they allow farmers to choose the seed and varieties that they prefer, based on their own criteria.

Because quality seed of modern varieties comes from the formal seed sector, involving several years of plant breeding necessary to develop the variety, followed by seed multiplication processes that have been certified as meeting internationally recognized standards, the seed itself is considerably more costly than the seed produced by ordinary farmers[9]. To make quality seed of modern varieties available at a lower cost, the seed laws of some countries recognize a class of seed known as quality declared seed (QDS) that can be produced by seed entrepreneurs and farmer groups who have been trained in the necessary seed multiplication and management protocols and have access to the early generation seed (EGS, usually produced at national agricultural research centers or by specialized seed companies) required to produce QDS. QDS also requires verification by agricultural officers at different stages of the growth cycle to ensure its quality. Provided that there is sufficient demand for the specific varieties of QDS produced by such groups, the seed can be sold to farmers in the local area, and even to emergency aid projects that require seed for direct distribution, or sometimes through seed fairs involving vouchers or cash. In the Burundi case study, cash transfers were used to allow farmers to purchase locally produced QDS and to generate sales for the seed multiplication groups producing the QDS. Although seed multiplication groups cannot necessarily rely on emergency funding to

[9] Seed produced by the formal seed sector is generally sold for about five times the cost of seed sold through the informal seed sector.

support future seed sales, the linkages between farmers and seed producers created by the intervention might help to support the future sustainability of the groups.

In the case of NE Syria, cash transfers for seed security were used to support seed production through what was left of the formal sector seed structures that had ceased to function as a result of the crisis. Although the farmers formerly contracted by the parastatal General Organization for Seed Multiplication (GOSM) were still able to produce seed, it was not officially certified seed because they could not access the EGS necessary for formal sector seed production, and the inspections required for certification could not be carried out. Despite efforts by Mercy Corps to try and acquire the EGS needed for formal seed sector seed production, it was simply not accessible due to sanctions. Cash was used to allow the contract farmers to purchase locally available source seed and other inputs required for seed multiplication. Although the quality of seed produced was reportedly good, it could not be considered as certified seed. In short, the cash transfers were able to support quality seed production, but they were not able to rebuild or develop the formal seed system itself.

Summary of findings: *Cash transfers for seed security have a limited ability to meet agricultural development objectives. Cash transfers essentially allow recipients to choose what to purchase and, as such, are poorly suited to promoting seed of modern varieties unless they are programmed with fairs that restrict choice or involve complementary actions capable of influencing farmers' choices. Cash transfers can support seed production and can help to create links between farmers and local seed multipliers necessary for more sustainable local seed production.*

5.5 Discussion and conclusions on objectives of cash transfers for seed security

The case studies show that cash transfers for seed security can address some but not all of the challenges experienced with other transfer modalities. Provided that prior assessment has confirmed the availability of appropriate seed through either the informal and/or formal seed systems, then cash can usefully offer access to a broader range of types and varieties of seed than other transfer modalities. Fair pricing is more likely with cash transfers than with voucher transfers, but price monitoring is needed to identify and address any price increases, should these occur. Although the cash modality itself cannot overcome the late delivery of seed, delays associated with seed procurement and delivery can be avoided. The timeliness of cash can be increased if the capacity needed for cash transfers is already in place prior to an emergency (e.g., through staff training and the development of operating procedures and partnerships with FSPs).

The ability of farmers to choose how to spend their cash is perhaps both the greatest advantage of cash transfers for seed security but also its most controversial aspect. Proponents of cash transfers generally believe that allowing choice to recipients both gives them dignity and respects their decision-making abilities. However, it also involves the transfer of power over the decision-making process from the outside 'experts[10]' to the local recipients. For some agricultural experts, the fact that some farmers might choose not to purchase seed at all can be difficult for them to accept. By the same token, the fact that farmers can potentially use their cash to purchase local seed of local varieties instead of modern varieties might be viewed as 'backward' by some agricultural experts. Such views not only conflate short-term emergency needs with longer-term agricultural development needs, but also challenge the existing power relationship between farmers and 'experts'. Issues relating to varietal types and varietal choices are further discussed in **12.5 Attitudes** to varietal quality and varietal types.

Box 5. How can we be sure people will spend the cash on seed?

[10] The term 'expert' here might refer to agronomists, seed specialists, agricultural advisors, development professionals, project managers or donors.

A common question is, if we provide cash, how can we be sure that people will spend it on seed? The short answer is that practitioners cannot track every expenditure and we cannot absolutely ensure that cash is spent on seed. However, there are ways of steering farmers who receive cash towards certain purchases, and then checking that the program is having the desired outcomes. These include:

- Good design. If seed is identified as a priority need, people are likely to spend money on it, and transfer values should be designed to make sure people are able to meet their basic needs along with meeting their seed needs. Good assessments should be the foundation of appropriate targeting and program design.
- Influencing choices. As noted in this section, complementary activities, such as awareness-raising on the intended purpose of cash for seed as well as seed types and varieties, can increase the likelihood that farmers will spend the cash they receive on seed. Farmer choice can also be influenced by the method of distribution; for example, distributing cash at the entrance to a cash-based seed fair where a range of quality seed types are readily available provides additional encouragement towards people spending on seed.
- Post-distribution monitoring (PDM). In the Madagascar and Malawi case studies, exit interviews post-fair and other post-distribution monitoring showed self-reported expenditure on seed at high levels. PDM can be used to understand farmers' priority expenditures and the extent to which seed is purchased with cash assistance.
- Outcome monitoring. Irrespective of the programming modality used, outcome monitoring of any seed intervention is necessary to determine whether farmers were able to plant the seed on time, whether it germinated, the levels of crop production and the extent to which the harvested outputs met their needs. Outcome monitoring can also capture the extent to which farmers may have sold, consumed or exchanged seed received through direct distribution and/or voucher-based approaches.

For cash transfers to encourage the use of modern, high-yielding varieties associated with agricultural development, it is either necessary to restrict the choice of seeds that can be purchased and/or to influence farmers' choices through complementary actions. Restricting choice goes against one of the main reasons for using cash in the first place and might be seen as counter-productive by proponents of cash transfers.

On the other hand, for accountability reasons, some donors and project managers feel the need to ensure that the seed purchased by farmers is of good quality, even if it is not necessarily of modern varieties from the formal seed sector. This then raises the question of what is considered to be good quality, and by whom – the farmers themselves, the 'experts', or others. This is further discussed in **Seed quality**, which explains how ensuring seed quality through mutually agreed parameters (e.g., varietal appropriateness, visual appearance, physical purity, germination rate) can be achieved through restricting choice (e.g.. through a seed fair), by influencing farmers' choices (through complementary actions) and/or by checking the quality of seed available in local markets.

The paragraphs above highlight the importance of complementary actions in influencing farmers' choices in how to spend their cash. A range of different types of complementary actions are reviewed in **Complementary and** accompanying programming. The necessity of complementary actions to promote objectives relating to the use of modern varieties highlights a broader, long-standing debate as to whether or not it is appropriate and/or effective to use emergency interventions (regardless of the transfer modality) to encourage farmers' adoption of modern varieties (see Longley *et al.*, 2004). Although emergency seed projects should not be seen as opportunities to promote modern varieties, appropriate varieties can usefully increase varietal diversity and agricultural and seed system resilience (Longley *et al.*, 2023 forthcoming). However, the

technical capacity required to identify appropriate varieties should not be underestimated, and there is little evidence on the effectiveness of emergency seed interventions in promoting the uptake of modern varieties.

Although cash transfers for seed security on their own are poorly suited to the promotion of quality seed of modern varieties in the short term, they do have the potential to support longer-term agricultural development objectives relating to seed system development and specifically seed market development. Within cash programming, market development objectives can be realized through an increased focus on considerations relating to seed supply, notably the capacity and reach of vendors and other seed providers, both within the formal and informal sectors. This shift in the focus of emergency seed interventions to encompass not only the demand side but also supply-side aspects is considered to be highly relevant to building resilience within both formal and informal seed systems, particularly given the increasingly long-term nature of emergencies.

6. CONTEXT AND MARKET ASSESSMENTS

The range of case studies shows that cash transfers for seed security can be used in fragile states and in contexts affected by natural disaster and/or conflict. Feedback from the KIIs suggests that there is widespread awareness that cash is only effective in contexts where seed of good quality is locally available. Market assessments were generally undertaken prior to implementation in the cases studied, though only two cases involved detailed SSSAs[11]. It should be noted that market assessments are not only a pre-requisite for cash transfers but should be undertaken as part of the assessment process to inform any seed response and the appropriate modality choice.

The earlier study (Keane et al, 2019) cites the case of an ICRC emergency seed intervention in Northeast Nigeria in which an ICRC agronomist assessed the quality and accessibility of seeds in local markets within the targeted areas. The assessment revealed that: (i) quality seed was reliably available in some markets; (ii) the seed available in other markets was of poor quality; and (iii) markets in other areas were not functioning due to security concerns. These findings allowed ICRC to plan seed interventions tailored to these different contexts: cash transfers in non-fair settings were used in the first case; cash with fairs was used in the second case; and DSD was used in the third case.

What is very apparent from the case studies documented in the annexes is the range of variation in the seed systems context, both for formal and informal seed systems. In South Sudan, for example, a formal seed system barely exists, there are very few fledgling seed companies or agro-dealers, and hardly any use of modern varieties beyond what is provided through DSD. The informal seed system in South Sudan is dominant and has proven to be highly resilient over many years of conflict and insecurity. In contrast, in NE Syria, the former, highly centralized, government-controlled formal seed system collapsed as a result of the crisis, and there is a lack of private sector seed companies. Agricultural production is highly mechanized, including machine harvesting, which has implications for seed management, necessitating on-farm seed selection to maintain varietal purity and the use of seed treatments to prevent seed-borne diseases. The case studies show how cash transfers can be designed in different ways to support seed security in these very different seed system contexts. One of the key advantages of cash transfers is that they can be used to support both seed supply and seed demand across both the formal and informal seed sectors. As such, there is considerable scope for cash-based interventions and associated complementary activities to be designed in many different ways.

[11] In the cases of South Sudan and Honduras, the SSSAs had been undertaken some two or three years before the cash for seed interventions but usefully provided evidence to justify the use of cash. Although the NE Syria case studies documented in Annexes 6 and 7 make reference to prior seed security assessments, these do not appear to have been used to inform the interventions.

The context and functionality of both formal and informal seed systems must be understood for any seed intervention, irrespective of modality. An SSSA allows for a detailed understanding of the broader seed systems context, the different ways in which farmers can acquire seed, the various sources of different seed types and varieties, as well as seed quality considerations. Various toolkits and guidelines have been developed for undertaking such assessments, including Sperling (2008) and FAO (2016). A toolkit for a rapid SSSA has also recently been developed and tested by S34D and the Global Food Security Cluster.

There are certain aspects of seed systems that should be well-understood if cash-based interventions are to be designed in ways that are locally appropriate. Drawing on the case studies, features of the seed systems context that are seen to be important in relation to the design of cash transfers for seed security are listed in **Box *6***. Information relating to these features can either be compiled through an SSSA, or through a detailed seed market assessment that encompasses both formal and informal seed markets. An understanding of the seed systems context is necessary for designing cash for seed security interventions that are both innovative and locally appropriate. Equally, an analysis of the seed system context is essential to ensure that modalities for seed support do not do harm to local seed systems, whether formal or informal (see Longley, 2022).

Box 6. Features of the seed systems context relevant to cash transfers for seed security

Formal and intermediate (or semi-formal) seed systems:

- presence, capacity and functioning of seed companies and seed trade associations
- presence, capacity and functioning of farmers/contract growers trained in seed production
- seed laws and regulations relating to different seed classes, e.g., is QDS recognized?
- presence, capacity and functioning of seed multiplication groups
- presence, capacity and functioning of seed certification authorities and processes
- presence, capacity and functioning of agro-dealers and agro-dealer associations
- availability and access to EGS
- quality and health of seeds available through formal and intermediate (semi-formal) seed channels
- strength of formal seed system network, including integration of the formal seed market system
- farmers' access to and demand for certified or QDS seeds and related agro-inputs

Informal seed systems:

- presence, capacity and functioning of informal grain/seed traders and grain trader associations
- access to agro-inputs that might be used for seed production and management by both farmers and traders
- quality and health of locally produced seeds
- sufficiency of local production so grain/seed reaches local markets for sale
- how cash is used to produce, process and store seed (e.g., to pay for inputs, labor, etc.)
- how cash is used to access seed (e.g., from traders, from other farmers)
- capacity and functioning of local seed production, seed management and seed storage by farmers
- seed management practices commonly used by informal traders – this can help to determine the extent to which seed and grain are differentiated and the quality of seed in the informal seed system

Irrespective of formal or informal seed systems, it's also important to understand the following to inform good response analysis and modality decisions for seed support:

- physical, financial and social access to local seed markets among the target group, considering gender and age
- farmer preferences in relation to different modalities to address seed needs
- timeliness of different modalities of seed assistance
- availability of safe and accessible delivery mechanisms for cash

Summary of findings: *Cash transfers for seed security can be used in any disaster context provided that good quality seed is locally available through the formal (including intermediate or semi-formal) or informal seed systems. Market assessments that encompass both formal and informal seed markets should be undertaken to inform any seed response and the appropriate modality choice. This section has highlighted specific features of seed markets that are important to understand in relation to cash transfers for seed security. A Seed System Security Assessment can help ensure that cash for seed security interventions are both innovative and locally appropriate and that they are designed in ways that do not harm local seed systems, whether formal or informal.*

7. SEED QUALITY

One of the main findings from the case studies is that the cash transfer modality itself does not guarantee seed quality. Among the case studies reviewed for this report, quality-related considerations were most often applied by restricting choice to seed types that had been checked or tested for quality (e.g., through a seed fair); there were also cases of influencing farmers' choices and vendors' practices (through complementary actions) and/or by checking the quality of seed available in local markets (**Box *6***). In one case (FAO, South Sudan), seed quality was determined by farmers' knowledge and experience in making seed choices, confirmed by prior seed assessments. Among cash transfer donors, USAID stated particular concerns about ensuring that farmers access quality seed, irrespective of modality choice. However, seed quality can be defined in different ways.

The 2019 study emphasizes the importance of a multi-stakeholder view when considering quality and who decides what quality is acceptable. Similarly, SEADS Minimum Standard 5.5 on seed quality states, "The quality of the seed in the response meets the needs and requirements of crop-producing communities, practitioners, and donor organizations." Among the key actions related to this standard, SEADS advises to decide on the seed quality criteria[12] to be met and to "confirm that the quality is at least as good as what crop producers routinely use, and that it is acceptable to farming communities, donors, authorities, and practitioners" (SEADS, 2022). This allows for different perspectives and interpretations, as illustrated below.

The definition of seed quality, encompassing the concepts of seed health and varietal quality, differs amongst various stakeholders, including farmers, national governments, implementers, and donors. While definitions are often similar, the framing or emphasis of characteristics often vary. For example, there are several components of seed health quality, including presence/absence of disease, purity, viability, germination and moisture content. Seed varietal quality encompasses elements of yield potential, disease resistance, color, nutrition, local adaptability, cultural suitability and other factors (see **12.5 Attitudes** to varietal quality and varietal types). Vendor reputability and dependability are also integral to farmers' definitions of quality, given that trust serves as a key component of farmers' market transactions. While many of these characteristics are included in formal quality assessments, traits critical to farmers – e.g., local adaptability, cultural suitability, and vendor reputability and dependability – are often overlooked.

The examples highlighted in **Box *7*** show that several methods can be employed to address the issue of seed quality in cash-based interventions in fair settings and local markets. These methods have evolved over time[13], and continue to evolve (e.g., **Box *8***). Actors involved in seed quality assessments and assurance can vary (e.g., implementing agencies themselves, local agricultural extension agents, national seed inspectors) which, in turn, impacts the way quality assessments are conducted, as well as their focus. Donor guidance and restrictions further determine the methods used for quality assessments, as in the case of NE Syria (IRC). National seed inspectors may prioritize quality standards from national seed regulations and policies. Local seed inspectors and agricultural officers may be more inclined to take local adaptation into greater consideration. Implementing partners are likely to enforce policies and regulations from their donors and organizations. However, this can be challenging, as some donors do not have clear guidance on quality requirements for seed when it comes to cash transfers for seed security.

[12] Different seed quality indicators encompass attributes that are physical (damaged seed), physiological (germination rate), genetic (adaptability and suitability/appropriateness), and health-related (disease and disease-causing organisms) (FAO, 2010).

[13] One key informant interviewed for this study reported that concerns about seed quality (as evidenced by low germination rates and crop failure) in a cash for seed intervention in Uganda in 2012 led the implementing agency to switch back to vouchers. The agency concerned felt that vouchers allowed for more checks on seed quality and supported traders to supply in more remote areas.

Complementary activities to support quality spanned both supply and demand side interventions. On the demand side, complementary activities include messaging, sensitization, and training for farmers in areas such as: (i) importance of quality seed, (ii) how to select quality seed, (iii) appropriate use of cash to access quality seed, alongside other messaging that promote the safe use of other agro-inputs such as chemicals and fertilizers. On the supply side, some case studies (e.g., Burundi, Malawi) included interventions with seed suppliers to ensure the quality of seed available. This included messaging, training and support through cash grants to market actors along the supply chain to enhance linkages between formal and informal actors and to ultimately allow for farmers' consistent access to quality seeds. For example, in Burundi (IRC), the program held meetings with seed multipliers to encourage continuation of quality seed supply in previously underserved areas and provided training to local private seed multiplication centers on good cultivation practices and the benefits of improved and certified seed. In Malawi, agro-dealers signed a code of conduct with the aim to improve the quality-of-service delivery for farmers. The Code of Conduct included commitments related to registration, sourcing genuine certified products, stocking certified, non-expired seed, as well as other quality control measures such as appropriate storage conditions. This innovative approach has potential to be expanded to seed providers within the informal and intermediate seed sectors (**Box *7***).

Box 7. Examples of different ways of addressing seed quality within cash for seed interventions

Zambia (CRS) - Seed fairs with seed quality inspection: CRS secured a government seed inspector from the Seed Control Certification Institute to be present full-time during fairs to inspect the quality of seed on offer from registered seed suppliers and ensure compliance with Zambia seed laws and standards.

Burundi (IRC) – Seed fairs with seed quality checks: Several varieties of certified bean and maize seeds available through seed entrepreneurs were checked by IRC staff and provincial agricultural officers for quality prior to the start of the fair. The agricultural officers also advised farmers on how to select quality seed prior to seed fairs.

Malawi (NGO Consortium) – Code of Conduct for agro-dealers (**Box *14***): Although the Code of Conduct merely reinforced what might be considered to be 'good practice' for agro-dealers in relation to the quality of seed and other inputs (i.e., sourcing from suppliers of genuine certified products, practicing good storage and selling non-expired products in their original packaging), it was reportedly effective in improving the quality of inputs on offer during the project.

NE Nigeria (ICRC) – Seed quality assessments in local markets: The ICRC agronomist assessed the quality of seeds in local markets. Where quality seed was reliably available in local markets, cash transfers in non-fair settings were implemented. In locations where the seed available was of poor quality, cash transfers with fairs were implemented, allowing only good quality seed to be purchased by farmers.

Northeast Syria (IRC) – Germination tests on seed from local markets and farmer sensitization: Certified seed proved to be unavailable in local markets, so IRC conducted its own germination tests on seed from local markets, the results of which were then shared with USAID prior to the cash distribution. IRC further worked to address quality challenges by providing farmer sensitization on quality seed selection in local markets.

South Sudan (FAO) – Priority accorded to farmers' knowledge about seed quality, with seed quality checks undertaken during Seed Assessments prior to interventions: Neither the Seed Assessment nor the earlier SSSA highlighted any major concerns about seed quality, and farmers were allowed to use their cash to purchase their preferred seed from local markets and other farmers. The subsequent monitoring survey showed that approximately 16% of sampled farmers felt that the quality of inputs provided or purchased with cash grants was inadequate, suggesting that up to 84% felt that seed quality was adequate.

Box 8. Innovative mechanism for quality control in Malawi and potential for expansion

The case of Malawi presents an innovative mechanism for quality control. The agro-dealer code of conduct, developed by the PROSPER consortium, not only mitigated challenges that often arise when implementing cash transfers, but also enhanced agro-dealer practices in general. Cash puts the onus on farmers themselves to make decisions about seed quality and thus fosters competition amongst agro-dealers. In Malawi, the use of cash, paired with the code of conduct for agro-dealers, resulted in (i) the provision of inputs that were of significantly higher quality, (ii) more competitive pricing, (iii) an improved range of products, and (iv) enhanced engagement with agro-dealers relative to traditional seed fairs. Importantly, cash also allowed for the use of existing market systems as a vehicle for improving seed security.

The limitation with the use of the code of conduct in this case was that it only covered agro-input dealers and seed from the formal seed sector (which already have their own quality control mechanisms through the seed certification process and agro-dealer registration requirements). Therefore, the question arises as to whether a similar code of conduct might usefully enhance the quality of seed available through the informal and semi-formal (intermediate) seed sectors, in which seed is provided by farmers, farmer groups and grain traders.

In contexts where QDS is available through individual farmers or farmer groups, a code of conduct for QDS producers is both possible and straightforward. It would also usefully ensure that the implementing partner makes QDS producers aware of any planned cash for seed security intervention so that they can prepare accordingly.

There is also no reason why a voluntary code of conduct could not be drawn up for traders, ideally with some form of visible recognition to those who sign up to the code so that they can easily be distinguished by farmer recipients of the cash transfer (e.g., a badge and/or a laminated certificate). Such a code would need to ensure truthful labelling of 'farmer seed' (that has been sourced and managed as seed), as distinct from 'selected grain' or 'potential seed' (i.e., grain of a single variety that has been cleaned by the trader), as distinct from ordinary grain (for eating). In the same way that the Malawi code of conduct was intended to raise agro-dealer standards and demand from farmers, such a code might usefully create awareness among traders of the need to improve the quality of seed available through informal seed sector markets.

Summary of findings: *Although cash for seed interventions, when appropriately designed, can improve farmers' access to quality seed, quality is not inherently guaranteed by the implementation of such interventions. Seed quality is commonly addressed by the use of seed fairs, which restrict the choice of seed available to that which has been tested or checked for quality. Alternatively, complementary interventions on both the demand and supply side have potential to support agreed seed quality parameters when using cash-based programming. Practitioners should be explicit about how they interpret and apply seed quality criteria (and according to whose perspectives) and should monitor this accordingly during implementation.*

8. FAIR-BASED AND NON-FAIR BASED CASH TRANSFER PROGRAMMING

Seed fairs have been a popular mechanism for delivering voucher assistance since 2000, offering several advantages over non-fair settings in their ability to: bring vendors closer to farmers in remote areas; bring different actors together (e.g., local vendors, farmers, government authorities, extension services and formal seed sector players) to provide advice and information to farmers; and control the types and quality of seed made available to targeted farmers. More broadly focused agro-input fairs designed to increase access to tools, fertilizer and other complementary materials have also become increasingly popular.

There are downsides to fairs, however. Fairs, by their restricted nature, can cater to fewer participants at once and supply fewer seed types and varieties than non-fair settings. The limited choice of seed types and varieties may be intentional on the part of the implementing partner (e.g., to promote only certified seed of modern varieties or to promote specific crops), or it may simply be the result of having a limited number and type of vendors. Because the implementing partner must establish a contract with the participating fair vendors, there are necessarily selection criteria for the vendors, and some will be excluded.[14] Fairs have, on occasion, been known to create price distortions in local markets during the fair. Fairs also create a false marketplace that may increase proximity of vendors to farmers temporarily, but this does not necessarily result in sustained improvements to market access. Fairs can also alter the social dynamics and functioning of hyper-localized markets, given the bartering and gifting of seed that otherwise occurs amongst socially proximate farmers.[15] Fairs also require greater oversight and logistical efforts for implementation relative to non-fairs.

While innovative complementary interventions have highlighted promising opportunities for fairs to create more sustainable market connections relative to traditional approaches (e.g., Longley, 2021), seed fairs themselves are not the most effective way to promote seed market development over long-term projects (Croft et al, 2021)[16]. Within the confines of current understanding, fairs may be best suited to locations where existing markets are non-existent and/or emergency and early recovery contexts in which farmers' access to local markets is constrained, seed quality in local markets is poor or unable to be verified by implementers and/or nutrition should be emphasized through the promotion of particular crops.

Within the case studies reviewed by this report, Burundi, Madagascar and Honduras provided cash within a fair setting. In Burundi, IRC provided cash for seed security to 450 beneficiaries as a rapid response mechanism within a four-year resilience program that had a built-in pool of contingency funds should any sudden onset shocks occur. The broader resilience program included activities to strengthen local seed systems, and the decision to implement cash-based seed fairs was taken due to crop failures caused by floods, hailstorms and landslides. IRC identified seed entrepreneurs with several varieties of certified bean and maize seeds to participate in the fairs. The quality of their seed was checked by IRC staff and provincial agricultural officers who visited the seed entrepreneurs prior to the fairs. Cash was distributed to farmers on the day of the fair, at the fair location. The broader resilience program included various accompanying activities that increased the likelihood of long-term impact and linkages between various seed actors (e.g., multipliers, extension services and smallholders). Complementary activities included awareness-raising sessions with farmers to increase knowledge on what to look for when buying seeds and subsequent monitoring by government extension workers to determine how seed fair participants used the seeds they purchased. During

[14] For some implementing partners and in some countries selection criteria for vendors have excluded farmer seed producers and seed traders from the informal sector, meaning that only certified, formal sector seed is available at fairs.
[15] See Seed Aid for Seed Security for more information on the advantages and disadvantages of seed fairs.
[16] Note that the evidence presented by the reports cited is based on seed fairs with vouchers, not cash. However, it is assumed that seed fairs with cash would generate similar findings relating to the potential for market development.

their monitoring visits, the extension workers also encouraged improved seed saving practices promoted by the broader program, which also supported local private seed multiplication centers to provide a local, sustainable source of high quality, certified seeds.

In Madagascar, CRS piloted the provision of cash to farmers to purchase seed in a fair setting and compared this with the provision of vouchers in a fair setting. This example demonstrated that cash fairs (compared with voucher fairs) allowed for the participation of a wider range of local seed farmers and resulted in availability of more diverse seeds. Where vouchers were used in fair settings, contractual requirements for participating vendors excluded farmer seed suppliers[17], limiting the number and diversity of vendors. Vendors who took part in the cash fair were made aware of the importance of quality seed, and participating farmers were encouraged to spend their cash on purchasing quality seed at the fair. Monitoring and evaluation data collected from the two types of fairs revealed that farmers preferred cash due to its flexibilities, whereas the vendors preferred vouchers due to guaranteed sales. The cash fairs avoided the collusion between local vendors and farmer participants that had occurred during earlier voucher fairs.

The case study from Honduras (CRS) indicates the advantages fairs can bring in ensuring access to inputs among farmers that otherwise would not have been available as a result of the COVID-19 related restrictions. In Honduras, CRS conducted a survey with targeted farmers prior to organizing the fairs to capture their preferences on the inputs that should be available at the fair. When cash was provided, farmers could choose how to use the cash, but prior consultation on preferences meant that farmers were encouraged to spend at the fairs as the inputs available were in line with their needs.

The case studies suggest that fairs might help to encourage farmers to spend their cash for the intended purpose, i.e., seed. In the Burundi and Honduras cases, cash was provided to participants on the same day as the fair, at the fair site. Ensuring proximity and minimizing the time between cash delivery and the fair was reported to encourage farmers to spend cash at the fair and reduced the likelihood of farmers spending the cash assistance outside the fair (i.e., with other vendors or on other needs). The Honduras case also shows that consulting with target farmers to inform the type and variety of seed and agro-inputs to be made available in fair settings is also critical to increasing the degree to which cash was used within the fair setting.

The operational issues of organizing fairs are equally challenging whether a cash or voucher modality is used, though voucher fairs involve the added administrative procedures of contracting vendors and paying them for the vouchers they received from the farmer participants. Larger vendors that do not have a presence in the target geography may be more willing to participate in voucher fairs as there are perceptions that sales will be more 'guaranteed', therefore making it more worth the cost of their participation and transport. However, cash fairs may enable more local seed suppliers to participate as the added steps of navigating organizational procurement processes and agreements are removed. Administratively, cash can be easier than vouchers in fair settings as the added step of reconciling vouchers and processing vendor payments is removed.

Summary of findings: *Cash transfers in a fair setting can improve access to quality seed, particularly where seed available in existing local markets is of poor quality, or where there are no functional seed markets close to farmers. Fairs provide a mechanism that helps encourage farmers to spend their cash on the intended purpose (i.e., seed), but the process of organizing a fair requires a considerable logistic effort. Fairs can cater to a limited number of farmer participants at once and also limit the number of vendors and the choice of seed types available. More evidence is needed to determine whether providing cash in a fair setting, as opposed to a non-fair setting, impacts the extent to which farmers purchase quality seed.*

[17] In earlier rounds of voucher fairs several years previously, staff discovered that many farmers colluded with local vendors after the fair to exchange the seed they had purchased at the fair for cash. In order to avoid further collusion, CRS excluded all local vendors from future voucher fairs.

9. COMPLEMENTARY AND ACCOMPANYING PROGRAMMING

The case studies showcase both complementary activities and accompanying activities, defined for the purposes of discussion as follows:

- **Complementary activities**: Cash transfer activities are often complemented by trainings, supply-side support or other activities that are directly part of the cash transfer activity and occur at the same time. Such activities include (i) complementary inputs and/or food assistance to farmers, (ii) social and behavior change (SBC) activities targeting farmers and/or producers (e.g., sensitization, messaging, and training), (iii) technical training, support, and information-sharing to farmers and/or producers, and (iv) market support and strengthening activities outside of training and SBC (e.g., seed supplier financial support, and connections to suppliers), amongst others. See **Table 1** for the various complementary activities for each of the case study interventions.
- **Accompanying activities**: In the case studies, the cash for seed component is almost always part of a broader livelihoods or recovery program that includes other agricultural or resilience-building activities that provide additional support to some or all of the cash transfer participants. These types of activities depend on the type of program and range from seed system development and other agricultural activities to livelihoods support, food assistance, health and resilience-building activities.

While evaluations of the case study projects are not able to determine the causality of impact – i.e., is impact attributable to the seed intervention alone, or to the seed intervention plus its complementary or accompanying activities – there are observed indications that these activities can lead to improved outcomes. The Code of Conduct implemented in Malawi, for example, reportedly reduced the monopoly of agro-dealer associations and encouraged competitive prices being offered to farmers taking part in the cash transfer program (PROSPER, 2022).

There is also increasing understanding that complementary or accompanying activities are important to the positive impact of any seed program, regardless of modality. Participatory impact assessments of DSD to refugee farmers in Northern Uganda, for example, showed that support to Village Savings and Loans Associations (VSLAs) positively impacted on livelihood security by allowing women to save and later invest the money that they generated from the sales of crops produced from the seeds provided (Longley et al, 2023, forthcoming).

The importance of complementary activities is also a finding across other sectors that utilize a "cash-plus-sectoral programming" approach; technical assistance in some form has been shown to be an important part of achieving sectoral outcomes (Harvey and Pavanello, 2018). Cash alone aims primarily to enable people's access to goods or inputs, such as seed; the complementary technical activities are designed to steer the use of cash towards improved outcomes and provide additional inputs, information, infrastructure or services that can maximize the use of that seed for optimal outcomes.

Since cash is fungible and can (in principle) be used for anything, complementary activities that promote seed purchases and positive agricultural behaviors and outcomes are seen to be particularly important within cash transfer programs relative to other more restricted modalities. Within short-term cash transfer interventions, complementary activities tend to focus on messaging and sensitization on the appropriate use of cash and related donor restrictions (e.g., CRS Madagascar, IRC NE Syria), safe use of chemicals and other inputs and seed purchasing considerations, including the importance of seed quality. Such messaging and information is thought to minimize unintended usage (e.g., for other needs or on restricted goods). Seed or agricultural input

fairs might also be regarded as a complementary activity to help ensure that farmers use their cash to purchase quality seed.

When cash transfers for seed security are used as a part of broader, longer-term resilience/recovery programs, the number and range of complementary activities increase to include training and support for farmers, vendors, seed multipliers and other seed system actors to improve farmers' agricultural practices, post-harvest handling and seed management; seed quality and varietal development; building capacity within the formal seed system; and enhancing service delivery and standards. In such interventions, cash transfers may simply provide an entry point for these other activities. IRC Burundi implemented complementary activities to enhance the supply of quality seed through training and support to private seed multiplication centers. In NE Syria, both Mercy Corps and IRC tailored complementary activities to re-start formal seed multiplication and build formal seed system capacity, with engagement and support from a number of stakeholders (e.g., the Syria Resilience Consortium Multi-Donor Fund, Agricultural Working Group).

The range of complementary activities that are implemented as part of cash transfer interventions appears to be much broader than those typically implemented with other programming modalities (i.e., direct distribution, vouchers) and include supply-side issues, seed system development, (e.g., Burundi, NE Syria), marketing and service delivery (e.g., Malawi). Common across several case studies is awareness-raising on seed selection for farmers and some kind of awareness-raising and support to vendors for quality assurance and accountability. Some cash transfer interventions intentionally link farmers with existing seed multipliers, and some make additional efforts to support those linkages to strengthen relationships with local vendors. Since with cash (as opposed to vouchers), farmer participants are not required to purchase from a given vendor, complementary activities that support marketing and quality supply are critical. An example is Madagascar, where several vendors reported having links to a new client base due to their participation in a seed fair. Although it is theoretically possible that such links could have also been made if vouchers were used, such attention to supply-side issues and market development is not common with voucher-based approaches.

Summary of findings: *Technical assistance provided through complementary programming activities alongside cash transfers is an important part of achieving sectoral outcomes. Complementary activities such as messaging and sensitization are needed to encourage farmers to use their cash to purchase quality seed. Complementary activities can support quality seed supply and marketing and can also help to ensure that the seed is cultivated through the use of good agricultural practices for maximum yield. There appears to be greater attention to supply-side issues and market development through the complementary activities implemented through cash transfer programming as compared to other programming modalities.*

10. GENDER DIMENSIONS

The case studies offered very little gender-relevant information, either about farmers or seed providers. Some programs intentionally targeted women as primary beneficiaries (e.g., South Sudan and Malawi), and one program (Malawi) collected data on individual versus joint decision-making by women and men in relation to how the money was spent. The Malawi intervention also included a small trial to test an electronic cash transfer mechanism, but this experienced a number of challenges, particularly in terms of women's phone ownership, which meant that women might have less access or control over the cash.

Given the limited gender focus of these case studies, we include here some findings from recent publications on gender and cash-based transfer beyond seed to provide more light on this topic. A recent literature review on cash-based interventions, gender and primarily humanitarian response highlights that there is vary little evidence available and raises concerns that "Without proper gender considerations….cash transfers may fail to reach those left furthest behind" (Simon, 2019). The review also noted limited evidence on the relationship between cash transfers in emergency settings and changes in gender-based violence.

Future cash for seed endeavors require greater attention to gender dynamics. It is recommended that this should begin by conducting or using the results of a gender analysis to guide the cash transfer program design (Concern Worldwide and Oxfam GB, no date; FAO, 2018), and that integrative practices should be key elements of targeting and overall program design processes. Furthermore, M&E efforts should capture not only gender-disaggregated data but also gender-specific indicators related to male and female farmers' decision-making and control over the cash transfer, as well as benefits to women as seed providers. Monitoring should also aim to identify any negative unintended consequences. Adaptive learning should be applied to pivot cash transfer programs that either fail to adequately address gender issues, further gender inequities or result in harm. Cash transfers for seed should build off the experiences of addressing gender in other types of cash-based initiatives. Although the existing guidance does not specifically address cash for seed, the guidelines will support teams in starting on the right foot towards gender equity (FAO, 2018; CARE, 2020; CGAP, 2020).

Summary of findings: *The case studies offered very little gender-relevant information, either about farmers or seed providers. Future cash transfers programs would benefit from gender-responsive program design, gender-specific indicators and gender-disaggregated program monitoring, evaluation and learning.*

11. MULTI-PURPOSE CASH ASSISTANCE AND SEED

Multi-purpose cash assistance is a form of unconditional and unrestricted one-off or periodic cash assistance designed to flexibly meet the different basic needs of recipients (CaLP, 2022). A unique feature of MPCA is its ability to empower participants to identify and meet their emergency needs based on their own priorities. Although this review did not directly look at the potential for MPCA to contribute to seed security outcomes, the growing scale and role of MPCA in humanitarian programming warrants a particular mention of MPCA and its implications for seed security.

MPCA transfer values are usually designed based on an MEB, which captures and quantifies the basic items and services people need across multiple sectors that can be accessed through local markets. The items included in an MEB are usually those that households are likely to prioritize on a regular or seasonal basis. What constitutes a 'minimum' in the formulation of an MEB is contextual, and open to subjective judgements (Truelove *et al*, 2022). Some implementers have indicated the potential for MPCA to more intentionally address seed needs, for example: (i) the MEB could include seeds, which are considered by some to be essential needs, if this is contextually appropriate; and (ii) looking beyond essential needs only, there is scope for the MEB and MPCA programming to contribute to resilience building, as well as foster early recovery and address multiple sector-specific challenges – including that of seed security.

Despite seed security needs not necessarily being regularly considered during MEB development, and therefore not considered in MPCA transfer value design, there are instances where seed security efforts are occurring alongside MPCA or cash-for-food interventions and where participants have allocated portions of the cash from these interventions to seed security. In the case of CRS in El Salvador, the transfer value for MPCA distributions was determined by the MEB, which did not include livelihood inputs such as seed. Despite this, CRS program monitoring found that, on average, participants used 5-7% of the MPCA for agricultural inputs; however, there is no further disaggregation available of the agricultural inputs category to understand if this included seed or other inputs. In Honduras, monitoring from a CRS cash for food intervention revealed that roughly 8% of the total cash was used for the purchase of seed. This figure is particularly noteworthy given that in-kind agricultural input and seed vouchers and fair interventions were being implemented concurrently with the cash for food intervention.

In locations where agriculture is an important livelihood activity for the target group and seed access has been negatively affected by a shock or emergency, practitioners could consider inclusion of one-off seed-related costs in their MEB design (alongside other seasonal costs). This is a particularly important consideration where access to seed is an immediate priority among affected households. Although seed does not need to be considered in the MEB as a recurring monthly need, access to seed is essential for survival and early recovery in many communities and therefore should be considered, based on context, alongside other basic needs. In such situations, practitioners would need to determine if seed needs would best be addressed through a seasonal 'top-up' to the MPCA transfer value, or as a sector-specific cash for seed intervention.

The decision to address seed-related needs through MPCA will need to consider a number of factors, including the availability of appropriate seed for affected households to purchase locally, usual agricultural practices among the target group, whether complementary interventions (see **Complementary and** accompanying programming) are required and whether seed access is a priority need for the majority of affected households. MPCA can also play an important role alongside seed-specific interventions by enabling households to meet their household's basic needs and not having to divert seed assistance (whether in-kind, cash or vouchers) to address these unmet needs.

Despite this potential, the feasibility of these as options is contingent upon donor requirements, some of which do not allow for the inclusion of seed and other agricultural inputs in MEB or MPCA transfer value calculations.

Given the limited evidence, future monitoring and evaluation efforts should ensure that outcomes of MPCA programming are captured in relation to seed and other needs (even if MPCA was not intended to address these needs). This would enable donors and implementers to better understand priorities and identify the need for seed-specific programming.

Summary of findings: *Despite seed needs not being considered regularly in MEB design, there are instances where MPCA has been used to purchase seed and other agricultural inputs. Seasonal MPCA top-ups can also be programmed to address seed needs. Further exploration is needed to understand the opportunities to improve seed security within MPCA interventions. This will require more detailed monitoring and evaluation efforts, in which different types of agricultural inputs (e.g., seed, fertilizer, tools, labor, etc.) are disaggregated when collecting and analyzing data on how cash is spent within MPCA interventions.*

12. BARRIERS TO IMPLEMENTING CASH TRANSFERS FOR SEED SECURITY

Although the case studies included in this review do point to more uptake of cash for seed security since the earlier 2019 review, the perception among stakeholders consulted was that the full potential of utilizing cash in seed security programs has not yet been realized, and cash is not routinely considered as a modality for addressing seed needs. A variety of barriers to increasing the use of cash for seed was noted in the KIIs and the literature.

12.1 Stakeholders' familiarity with and receptiveness to cash transfers for seed security

Stakeholders can include implementing organizations, farmers, seed producers and suppliers, government officials, seed inspectors and extension agents, amongst others. Stakeholders' familiarity with cash for seed – and cash transfers in general – varies according to the context. While familiarity with cash for seed is not necessarily a constraining factor in its implementation, it can serve as an enabling feature if stakeholders are familiar with how it is implemented, their potential roles and the benefits it provides. Experience with previously successful programs can further serve as an enabling factor.

Organizational readiness and familiarity with cash

Familiarity and experience with cash for seed and/or cash programming for other needs or sectoral outcomes is particularly important for implementing organizations in the uptake of cash for seed security. Organizations with high levels of familiarity and experience are generally more open and willing to consider cash for seed as a response option and have the systems in place to provide context-specific cash programming. As **Box *9*** indicates, CRS in Madagascar piloted cash for seed for the first time as part of a broader cash readiness project. Not only did this provide the opportunity to pilot cash for seed and compare this with the usual voucher modalities more commonly used, other components of the cash readiness program (e.g., selection and contracting of an FSP for cash delivery; development of Standard Operating Procedures and implementation tools; training of team members on cash programming) all strengthened the ability of the team to implement cash for seed.

Box 9. Cash readiness in Madagascar

> As the cash for seed project was part of a wider readiness strategy designed to improve the Country Program's ability to implement cash responses, it helped staff become more familiar with cash in a context where the default modality had often been direct distribution or vouchers. Aside from building knowledge among the team and piloting cash transfers for seed under the project, CRS also pre-positioned an agreement with an FSP, and developed implementation tools and Standard Operating Procedures for cash. This enabled the team to develop skills and experience implementing a cash response, therefore making it easier to consider and implement cash modalities in the future based on what was assessed as most appropriate (to context and beneficiaries targeted), rather than based on what was most familiar to the agency. As a result, CRS Madagascar was able to respond with cash across a variety of sectors (e.g., WASH, food security, shelter, non-food items) with a range of modality and delivery mechanism combinations following multiple emergencies and shocks that occurred after the cash for seed pilot.

In contrast to this, the example in **Box *10*** outlines the experience in Nepal, whereby an organization that had considerable cash experience in relation to other sectors and significant agricultural programming did not consider using cash modalities as part of the agricultural programming.

Box 10. Nepal example of lack of familiarity with cash for seed

An example from Nepal represents a common theme within a number of implementers and government agencies. Despite being involved in seed security work and also regularly implementing cash interventions for purposes other than seed security, one of the agencies interviewed for this study reported that they had not thought of using cash for seed security. Part of the reason for this might be because – as reported by other agencies – cash has tended to be used immediately after emergencies and is less frequently used in recovery, resilience and development settings. Nepal also represents a context, like many around the world, where governments have become accustomed to direct distribution and voucher subsidy interventions and have been slow adopters of cash transfers. However, after the 2015 earthquake, the Nepal government became more permissive of conditional and unconditional cash programming. MPCA is more regularly being used as part of emergency response initiatives, particularly in annual monsoon flood and landslide response. The Nepal Cash Working Group has been advocating and working with the Nepalese Government to promote cash-based interventions, and cash guidelines for emergency contexts were developed. These guidelines do not contain anything on cash for seed security specifically. Cash has reportedly been underutilized as part of Nepal's COVID-19 response, despite increased adoption elsewhere. Although the Nepalese Government has expressed a more positive environment and permissive attitude to cash for emergency response purposes, it is perceived to be less so within non-emergency settings.

Government buy-in and policy on seed aid modalities

As indicated in the Nepal example, government policy and position play a key role in determining what modalities for seed security are viable in a particular context. In Nepal, despite the government becoming more open to cash modalities in response to the 2015 earthquake, this has not been the case in relation to agricultural interventions. Some government authorities, due to their greater familiarity and experiences with DSD and vouchers, have been slow or hesitant to accept cash for seed as an alternative to more conventional approaches, or have restricted or prohibited the use of cash in programming.

In Ethiopia, CRS has implemented cash transfers for vegetable seeds alongside in-kind and voucher distributions for staple crop seeds, as documented in the previous 2019 review (Keane et al, 2019). Although cash for vegetable seeds are permitted, the Ethiopian seed regulatory authority does not allow for the use of cash for staple crops and places conditions on the use of vouchers (**Box *11***).

Box 11. Government position on seed aid modalities in Ethiopia

The Ministry of Agriculture and Natural Resource (MoANR)'s seed regulatory directorate in Ethiopia has guidelines for emergency seed responses, which require that seed should be procured from identifiable or traceable sources and inspected and approved by an authorized body in the region. The guideline also requires that seed for emergency responses should be from a registered and known variety, free from disease, not mixed with other varieties, should be of known origin and year of production and should meet minimum quality standards. Possible sources are government seed enterprises, cooperatives and large commercial farmers. Procurement of seed from alternative sources requires fulfilment of a minimum criteria that includes the physical appearance of seed, cleanness and acceptable germination percentage, with proper labelling indicating the origin and source (vendor) of seed.

When there is limited production in the formal seed system and farmers' production has failed, practical application of these guidelines during emergency seed provision can be extremely challenging. Conditions on variety, quality and certification, in particular, can also pose a challenge to implementing cash and voucher modalities and limit the choice offered to farmers. For voucher modalities, only specific seed suppliers can be engaged and specific types of seed provided, thereby limiting the choice of farmers. The conditions are such that cash transfers have successfully been used by CRS for vegetable seeds only.

Source: Weatherall, 2019.

Preferences of farmers and seed providers

Of primary consideration is the extent to which trader and farmer participants are willing to partake in cash for seed interventions. As noted in **5.3 Market** development objectives, experiences in Madagascar comparing vouchers and cash show that farmers preferred cash, whereas vendors preferred vouchers. Similarly, in Malawi, agro-dealers who were already familiar with voucher-based seed fairs were not keen to change to a cash-based approach.

Agricultural specialists' familiarity and receptiveness to cash for seed

Outside of the limiting factor of a government's willingness to accept cash transfers, other actors that may be involved in the design, approval and/or implementation of cash for seed include agricultural experts, both those within government departments and those employed by implementing organizations. Unless they have previously worked in the emergency sector, it is unlikely that agricultural experts will be familiar with cash interventions. Moreover, as agricultural specialists, it is likely that they would be concerned to ensure that any seed intervention met the necessary (formal sector) seed quality standards and promoted broader agricultural development objectives, both of which require additional complementary activities, as detailed in **Seed quality**.

Summary of findings: *Limited awareness and experience of implementing cash transfers for seed security is still a barrier that limits their use. Preparedness efforts that build the technical and operational capacity of implementing organizations, such as pre-positioning FSP agreements, training teams and piloting cash, are important to increase capacity for cash to be used in a given context, including for seed security objectives.*

12.2 Donor perspectives and requirements

Among the donors interviewed as part of this study, considerable variations were seen in their levels of familiarity and experiences with cash for seed, their willingness to fund such interventions, as well as the specific regulations required. These variations existed not only between different donors but also within the same donor, among different officers based in different geographic regions or from different departments.

One donor that was less familiar with cash for seed was generally receptive to integrating cash into its seed programming portfolio – particularly as its cash policy shifts to more unrestricted programming – but had not yet funded cash for seed in practice. Another donor was somewhat familiar with cash for seed and had successfully supported one such intervention during the COVID crisis. This provided good evidence to advocate for the use of cash for seeds elsewhere, but it was recognized that seed quality is problematic in some countries and would limit the potential for cash-based transfers. Another officer from the same donor organization, however, was not in favor of cash for seed as part of resilience programming, reportedly due to other donors' restrictions.

Donors also noted concern regarding cash-based programming in places where financial inclusion is particularly problematic, as marginalized groups in these areas generally have limited access to financial services to deliver cash. While such concerns do not prohibit the use of cash for seed in and of themselves, they may decrease the likelihood of funding from some donors.

Donors that fund cash transfers for seed security have specific regulations that shape the parameters around which implementers can design and implement such interventions. In the case of South Sudan, the regulations of one donor were such that they insisted on the use of vouchers rather than cash as part of a broader intervention by FAO. Donor guidelines and policies place primary emphasis on quality of seeds and inputs for seed security interventions, which can deter the use of cash-based approaches. Some donor guidelines call for strong messaging to promote seed quality, whereas others demand more stringent conditions such as using cash within seed fairs.

The United States Agency for International Development (USAID) and its Bureau for Humanitarian Assistance (BHA), for example, enforce strong quality and health, safe use, environmental and security guidelines related to the use of seed and agrochemical inputs (**Box *12***[18]. Such regulations apply to cash for seed, as funds could potentially be used to purchase seed of poor quality or health, seed treated with restricted agrochemicals and/or unintended goods and services. Interviews with implementing partners suggest that these regulations have led some agencies to use alternative seed intervention modalities. Although this is mainly because of the complexity of the requirements to ensure compliance, in some cases it may also be due to the partners' misinterpretation of the donors' willingness to fund cash-based interventions. In other cases (e.g., IRC in NE Syria), the implementing partner had to design a cash-based intervention with increased levels of restrictions and conditions around the use of cash than might have otherwise been the case. IRC engaged in close communication and coordination with USAID to align the ways in which to meet regulations for: (i) seed quality, (ii) safe use of chemicals, and (iii) restricted goods (**Annex 6.** Northeast Syria (International Rescue Committee, 2014 to present): A shift from direct distribution to vouchers to cash transfers for seed security).

Box 12. Summary of USAID Bureau of Humanitarian Assistance Emergency Application Guidelines

Seeds

- General: USAID's Bureau of Humanitarian Assistance (BHA) requires post-award and pre-transfer approval from its technical advisors for restricted agricultural commodities, including seeds, seedlings, cuttings and related commodities purchased with vouchers. Seed system security interventions funded by BHA require a description of seed sourcing channels and any challenges related to seed access, availability and health in the needs summary section of proposals.
- Cash and voucher assistance: Provisioning of cash or vouchers for seed security requires further justification for the determination that seed is available, accessible, possesses quality attributes and of an appropriate variety. BHA also requires that cash-based interventions are accompanied by beneficiary trainings on selection and management of quality seed and messaging on which inputs are inappropriate to purchase with BHA funds.
- DSD: A Seed Grower's Declaration of Quality Requirement is required for all awards involving seed distribution. Only under rare circumstances can BHA justify and approve the use of treated seeds.
- SSSAs or Seed Security Assessments: These are only paid for by BHA if they are made available to interested parties and of value to multiple stakeholders and the broader humanitarian community. Such assessments are recommended for inclusion in the needs summary section of proposals for cash- and voucher-based interventions, and expected as justification for repeated seed provision to the same recipient population in the same location by the same organization for more than three consecutive years.

Agrochemicals

- Fertilizer: The use of fertilizer requires post-award and pre-transfer BHA approval, as well as a completed Fertilizer Template. Awardees must ensure that manure is purchased within 40km of its intended use location. Some fertilizers are ineligible for funding by USAID and only rarely does BHA fund large quantities of fertilizer.
- Pesticides: When proposing the use of pesticides, applicants must submit either a Global Initial Environmental Examination (IEE), Programmatic Environmental Assessment (PEA), or Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP) – at a minimum. Due to the serious environmental, healthy and safety risks pesticides pose, BHA does not provide funding for cash or vouchers intended for pesticide purchases. Only skilled and experienced individuals are allowed to engage in pesticide-related activities and must use personal protective equipment.

[18] Both seeds and agrochemicals (e.g., pesticides and fertilizers) are considered restricted goods under BHA's Emergency Application Guidelines. Seed and fertilizers can be funded by BHA, contingent that they are safe and fit for context and that implementers abide with application and implementation criteria (see **Box *12***).

- Safe use restrictions for agrochemicals are particularly stringent in complex environments, as certain chemicals are able to be used for weapon-making.

Multi-Purpose Cash Assistance

- Restricted goods, including seeds and agrochemicals, cannot be included in MPCA interventions.

Additional BHA requirements and suggestions for seed-related interventions – including those focused on storage and multiplication – can be found in BHA's Emergency Application Guidelines webpage (Section 9.3) and in Annex A).

Summary of findings: *The willingness of donors to fund cash transfers for seed security varies considerably, not only between different donors but also across different departments and geographical regions within the same donor. The presentation and interpretation of donor regulations have a fundamental impact on the uptake of cash transfers for seed security.*

12.3 Attitudes to seed quality

As noted in **Sections 7** and **9**, seed quality is perceived in different ways by different stakeholders, and complementary activities are often needed to help ensure that the agreed quality parameters are met. The different approaches to seed quality assurance within cash transfer interventions are reflective of how seed quality is defined and which stakeholders' perspectives of quality are prioritized. For example, restrictions on seed choice (e.g., through seed fairs, which may only allow for certified seed of modern varieties supplied by registered agro-dealers) suggest that priority is given to formal sector seed quality considerations, regardless of what farmers normally plant or where/from whom they usually source their seed. Interventions that allow farmers to make their own choices regarding seed types and seed sources might be prioritizing farmers' perspectives of seed quality and allowing them to select the seed that they normally plant or might be related to contextual factors such as a lack of formal seed sector structures. In either case, an understanding about the local seed system context provides useful information to help inform a cash-based seed intervention (e.g., to understand the different seed sectors, to know what types of seed farmers normally plant, from whom it might be available and whether there might be any concerns about seed quality). This is illustrated by the case of South Sudan (**Annex 4.** South Sudan (UN FAO, 2020): A shift from voucher fairs to cash transfers without fairs due to COVID-19).

Key informant interviews suggest that concerns about seed quality are more likely to act as a barrier to cash-based interventions when quality is perceived according to formal seed sector definitions rather than farmers' perspectives. This might also relate to the perception that seed from the formal sector is of better quality than seed from the informal sector[19], or a lack of understanding of farmer seed systems and/or a lack of knowledge about the quality of seed within informal seed systems. On the other hand, interventions that address seed quality concerns by testing the seed available in local markets or supporting/training farmers in selecting seed suggest that the decision-makers acknowledge the strengths and benefits of the informal seed sector, local varieties and farmer knowledge.

Summary of findings: *Concerns about seed quality are more likely to act as a barrier to cash-based interventions when quality is perceived according to formal seed sector definitions rather than farmers' perspectives. An appreciation of informal seed systems and farmer knowledge helps in trusting farmers to make good decisions about seed quality when they use their cash to purchase seed.*

[19] Seed quality is often conflated with varietal quality. The issues relating to varieties are discussed separately here – see **12.5 Attitudes** to varietal quality and varietal types.

12.4 Behavioral economics, power, and a lack of trust in farmers' decision-making

Issues of trust and power dynamics in spending choices are closely intertwined with issues relating to donors'/implementers' attitudes towards the informal seed sector, local varieties and farmers' knowledge. It would appear that where there is an understanding and appreciation of the informal seed sector and farmers' knowledge, then there is greater likelihood that agencies will trust farmers to make good decisions and allow them to choose for themselves how to spend their cash. Since cash transfers shift decision-making power from the implementing agency to the cash recipient (farmers), a certain level of trust in farmers is needed on the part of the implementing agency.

It has been stated that, "For all of the rhetoric about putting affected populations in charge, we are often still reluctant to relinquish power for fear that cash will be spent in 'anti-social' ways, despite all the research and experience to the contrary" (Johnson, 2012, p.6). In the case of seed, the fear is not only that cash might be spent in 'anti-social' ways but on essential items other than seed, or on what might be perceived as poor quality seed (as discussed above) or – in some cases – on local seed as opposed to seed of modern varieties (see below)[20]. In all cases, the fear that farmers will somehow 'mis-spend' their cash is linked to the belief that poor farmers either do not have the ability to make rational decisions, and/or that the donor or implementing partner or associated "experts" know better what is best for farmers. Such views are supported by some behavioral economists, who posit that behavioral biases linked to poverty may lead to irrational decision making (e.g., Bertrand et al., 2004, Bernheim et al., 2015, Mani et al., 2013, cited by Shapiro, 2019). As described by Shapiro (*ibid.*), the behavioralist view of aid suggests that it is necessary to influence the decisions of aid recipients for optimal long-term outcomes, implying that cash transfers alone (i.e., without complementary activities to influence decision-making) may not generate these optimal outcomes.

An alternative view, expressed by those agencies and individuals who are strongly supportive of cash transfers, is that cash confers both choice and a sense of dignity on the recipients, granting them autonomy and a feeling of respect.

Summary of findings: *A lack of trust in farmers' abilities to make good spending decisions can act as a barrier to cash transfers for seed security. In some cases, this stems from aid agencies' reluctance to relinquish power in decision making over how aid is spent. In other cases, the lack of trust is based on a behavioral economics viewpoint that behavioral biases linked to poverty may lead to irrational decision making by farmers, necessitating complementary activities to influence farmer decision-making and/or behaviors.*

12.5 Attitudes to varietal quality and varietal types[21]

As mentioned above (**Seed quality**), varietal quality refers to yield potential, disease resistance, color, nutrition, local adaptability and cultural suitability, plus other factors such as duration, drought tolerance, grain size, stature, lodging, cooking qualities, taste, texture and aroma. Farmers take many of these features into consideration when choosing which varieties to cultivate, and trade-offs must often be made between yield, disease resistance and taste.[22] Farmers often grow different varieties of the same crop according to whether they are being grown for sale in local markets or for household consumption. The resilience of cropping systems depends on cultivating a diverse range of different varieties, both modern and local.

[20] For some donors, there might also be concerns that money might be spent on donor-restricted items (e.g. certain types of fertilizer, pesticide, or seed treated with certain pesticides).
[21] 'Varietal types' is used here to refer to modern or "improved" varieties and local or farmer varieties.
[22] Higher yielding varieties are often less resistant to disease and drought and less tasty. To reduce the risk of crop failure due to drought or disease, a farmer may choose to grow more resilient varieties to ensure a more stable yield over multiple years. Varieties grown for household consumption are often chosen according to their cooking and eating qualities rather than yield.

Farmers themselves do not necessarily distinguish whether a variety is modern or local but rather judge it according to its characteristics.

A lack of understanding about varietal quality, varietal types and the complexity of varietal choices made by farmers can act as a barrier to cash transfers for seed security. This is particularly so when aid agencies wrongly assume that modern varieties are always inherently better than local varieties. Information about the different varieties (both modern and local) of key crops cultivated by male and female farmers within the target community can help to generate a better understanding and appreciation of varietal diversity and the value of local varieties within local cropping systems. Such information can be collected through an SSSA.

Summary of findings: *A lack of understanding about varietal quality and the complexity of varietal choices made by farmers can act as a barrier to cash transfers for seed security, especially if it is (wrongly) assumed that modern varieties are inherently better than local varieties. Information about the different varieties of key crops cultivated by male and female farmers can be collected through an SSSA and can help to generate a better understanding and appreciation of varietal diversity and the value of local varieties within local cropping systems.*

13. CONCLUSIONS AND RECOMMENDATIONS

The various case studies documented by this review show that cash transfers are a viable option for emergency seed interventions where farmers require support to access locally available seed. Cash transfers can overcome many of the challenges experienced with other programming modalities and provide choice and dignity to recipients. Cash transfers and associated complementary programming activities can also support supply-side aspects relating to seed market development, including seed production. Although this review has focused on sector-based cash transfer interventions explicitly designed for seed security, it is also possible to incorporate seasonal top-ups into MPCA programs to allow farmers to purchase seed and other agricultural inputs that are needed during the planting season.

13.1 Experience and learning to date

Whilst there has certainly been an increase in the uptake of cash transfers for seed security since the 2019 review, experience is still somewhat limited. What is striking, however, is the range of different programming approaches and objectives for which cash transfers for seed security have been implemented: as a rapid response mechanism; as part of a four-year resilience program; to replace vouchers within agricultural input fairs; to replace direct distribution; and to support seed multiplication. The range and importance of complementary programming activities are also notable, not only to help ensure seed quality but also to promote good agricultural practices, enhance seed markets and support seed systems.

These observations illustrate the flexibility of the cash transfer modality and the way in which cash transfers have stimulated a shift in emergency seed security interventions from focusing solely on demand-side support for farmers to build capacity among seed providers and seed systems more broadly. The inherent design flexibility of cash transfer programming is regarded as an advantage and makes it even more important to be very clear about the objectives of a particular intervention to ensure that it is designed appropriately. This also highlights the importance of adequate assessments to understand seed security constraints as well as market and seed system contexts.

Seed quality remains a key concern for some aid actors, and there is a growing range of different ways in which seed quality can be addressed within cash transfer programming on both the demand side (e.g., training or sensitization for farmers) and the supply side (e.g., training or sensitization for seed providers). Recent standards for emergency agricultural interventions emphasize that seed quality considerations should take a multi-stakeholder view in ensuring that seed quality is acceptable to farmers, donors, authorities and practitioners. As these standards are put into practice, it is expected that new, innovative approaches to addressing issues of seed quality will emerge within cash-based interventions.

Two major gaps in current practice have been identified by the review: (i) attention to gender; and (ii) monitoring, evaluation and learning. The case studies offered very little gender-relevant information about farmers or seed providers, whether in relation to targeting and program design or monitoring and learning. In general, existing monitoring and evaluation data is very limited and inconsistent, though one of the case studies generated valuable information and learning. In another case, however, the failure to adapt standardized monitoring tools to be able to distinguish different seed transfer modalities represented a missed opportunity for valuable learning.

Box 13. Advantages and disadvantages of cash transfers for seed security

Advantages:

- Cash for seed security (CSS) allows for a broader number and range of vendors, from both formal and informal seed sectors, including farmers themselves
- CSS allows for a broader range of choice of crop and seed types (both certified and farmer seed) and varieties (both modern and local)
- CSS avoids potential delays and costs associated with seed procurement and delivery or printing and administering vouchers
- Increased number of vendors and increased competition among vendors increases the likelihood of fair pricing
- Farmers feel more confident about negotiating prices when using cash as compared to vouchers
- CSS avoids the need for farmers to exchange vouchers for cash and avoids the sale or exchange of in-kind transfers to meet more urgent needs
- CSS enables farmers to make their own decisions about which seed to purchase and from where, maximizing choice and dignity of farmers
- CSS can be complemented by awareness-raising and/or behavior change activities that support farmers to make more informed decisions and help to achieve specific sectoral outcomes
- CSS can be programmed with or without seed/agricultural input fairs
- CSS allows for greater focus on market development objectives (especially on the supply side) that can potentially help build the resilience of seed systems
- CSS can support more sustainable seed production

Disadvantages:

- CSS can only be used in contexts where good quality seed is locally available, either through the formal or informal seed systems
- Seed quality is not inherently guaranteed but can be addressed by a range of complementary activities on both the demand and the supply side
- As with any new approach, investments are needed to develop the capacity for cash transfers, including staff training, operating procedures and partnerships with FSPs. This capacity can be developed prior to an emergency
- Seed price increases can occur during an intervention, though less frequently than with vouchers
- CSS has limited ability to meet agricultural development objectives that aim to promote the adoption of modern varieties

13.2 When and for what purpose cash transfers are most appropriate

Cash transfers for seed security can be used in any disaster context provided that good quality seed is locally available through either the formal or informal seed system. The case studies reveal considerable variability in the seed systems context, both for formal and informal seed systems, and show how cash transfers can be designed in different ways to support seed security in very different seed system contexts.

As indicated by **Box *13*** above, cash transfers are advantageous in that they provide a wide range of crops, seed types (both certified and farmer seed) and varieties (both modern and local), but they have a limited ability to promote the uptake of modern varieties without additional complementary activities. Cash transfers allow farmers to purchase seed from all types of seed providers, and they can potentially help to enhance the

resilience of seed markets and seed systems (see below). Provided that the necessary capacity is developed prior to an emergency, cash transfers can be implemented relatively quickly, without the need to procure and transport seed or to print and administer vouchers.

As such, cash transfers are particularly well suited to short-term emergency interventions that aim to provide farmers with seed types and varieties with which they are familiar, and/or to promote varietal diversity (of both local and modern varieties that are locally available) and more resilient cropping systems. On the other hand, if the aim of an intervention is to promote modern varieties for increased yield and productivity,[23] cash transfers would not be the first choice of programming modality.

Cash transfers for seed security have prompted greater consideration of various supply-side aspects of market-based programming, bringing opportunities for building seed system resilience through complementary activities that enhance seed markets. This is a notable aspect of seed sector cash transfers that is still evolving, and – with appropriate monitoring and evaluation – there are opportunities for innovation and learning to further develop and refine new approaches and best practice for seed market development. A related risk that also requires careful monitoring is the possibility that seed may lose its social value by becoming monetized within the informal seed system (as mentioned briefly in **Fair-based and** non-fair based cash transfer programming). Seed is commonly gifted or bartered and thus plays an important role in building and strengthening social networks and social capital within and between farming households and communities. This important social role of seeds may be lost if seed is merely regarded for its monetary value.

The level of acceptance of cash for seed varies for different donors and implementing agencies according to their priorities and how they perceive farmers' knowledge, varietal types and seed quality. Those who prioritize the dignity and respect of aid recipients are more likely to acknowledge and respect farmers' knowledge and decision-making capacities, recognize the value of local varieties as well as modern varieties and acknowledge farmers' perspectives on seed quality (alongside those of other stakeholders). These donors and aid agencies are also more likely to recognize the appropriateness of cash transfers for seed security without the need for limiting the seed choices available. On the other hand, donors and implementing agencies whose priorities are shaped by behavioral economics and the belief that achieving aid outcomes necessarily involves a change in the behavior of aid recipients are more likely to require compliance with externally-defined standards for seed and varietal quality which may not necessarily recognize or value farmers' knowledge and preferences. This second type of donors and aid agencies may find cash transfers more challenging to support and are more likely to insist on various choice restrictions and/or complementary activities to encourage changes is farmers' planting and cultivation practices. In some cases, a cash transfer may simply be regarded as an entry point to an intervention in which behavior change activities are the main focus.

It is important to highlight that these two positions are not mutually exclusive and might exist within the same agency, in which dignity and choice might be prioritized for short-term emergency aid and behavior change prioritized for longer-term, more developmental assistance. In such cases, challenges may occur when a focus on behavior change, new seed varieties and strict quality requirements are expected in short-term sector-based emergency interventions, or when designing resilience and/or nexus programs that may involve perspectives from both short-term and long-term approaches. It is perhaps in these spaces where there is the greatest potential for learning and innovation in the design and programming of cash transfers for seed security.

[23] Although such an objective would not be appropriate for an emergency intervention, it appears to be common within nexus programming.

13.3 Overcoming barriers

Capacity building and other preparedness activities among donors, implementing partners and other stakeholders can help to overcome the limited awareness and experience of cash transfers for seed security. For donors, this includes clearly presented donor guidelines or regulations, as well as clarity on how seed and varietal quality should be defined and determined, including who should be involved in defining and assessing quality.

Some barriers relate to the attitudes, views and perspectives of individuals within donor and implementing partner organizations. In some cases, a greater understanding about farmer seed systems, varietal quality and varietal diversity can help to influence these perspectives by drawing attention to the importance of these features in promoting resilience. In other cases, however, rather than trying to change the viewpoints of policy decision-makers within donor and implementing partner organizations, it is perhaps more effective to encourage internal discussion and debate to generate innovative cash-based programming approaches that include complementary activities to address the concerns of those involved.

13.4 Recommendations

13.4.1 When should cash transfers be considered? It is recommended that cash transfers for seed security should be considered in any disaster context where a needs assessment has indicated that seed support is needed, provided that good quality seed is locally available through either the formal or informal seed system. Cash transfers are highly appropriate to agencies that want to promote the dignity and respect of aid recipients.

- Cash transfers are particularly well suited to short-term emergency interventions that aim to provide farmers access to locally available seed types and varieties with which they are familiar, and/or to promote varietal diversity (of both local and modern varieties that are locally available) and more resilient cropping systems.
- With appropriate complementary activities, cash transfers are also well suited to supporting more resilient seed markets and seed systems by allowing for greater focus on seed providers, seed supply and linkages between farmers and seed providers.
- Provided that seed is locally available, cash can be considered as a way of overcoming various challenges with other seed transfer modalities, i.e., to allow access to a broader number and range of seed providers; to avoid potential delays and costs associated with seed procurement and delivery; and to increase the likelihood of fair pricing.

13.4.2 Capacity and readiness for cash and seed security interventions: For implementing agencies working in disaster-prone and/or nexus contexts where cash for seed security might be appropriate, it is recommended that the following preparedness activities are undertaken so that any future cash for seed intervention can be designed and implemented appropriately and on time in relation to the planting season:

- Seed systems assessment[24] to provide an understanding about local seed systems and seed markets (both formal and informal), planting practices (timing, crops, varieties) and varietal diversity;
- Clarity on how seed and varietal quality will be defined and determined; and

[24] Various guidelines and tools exist for this type of assessment, e.g. FAO, 2016 (https://www.fao.org/3/i5548e/i5548e.pdf); Sperling, 2008 (https://www.crs.org/our-work-overseas/research-publications/when-disaster-strikes). See also https://seedsystem.org/assessments-and-e-learning-course/seed-system-security-assessment/

- Organizational cash readiness[25], including staff training, standard operating procedures and identification of FSPs.

13.4.3 The importance of seed market assessments: It is essential that an appropriate seed market assessment is undertaken prior to any seed security intervention, regardless of likely modality. This not only helps to determine whether or not cash for seed is possible, but it also helps to ensure that interventions are designed in appropriate, impactful and innovative ways that do not harm local formal or informal seed systems.

- Seed market assessments must encompass both formal (including intermediate or semi-formal) and informal seed markets[26]. In case an SSA or SSSA has not already been undertaken, additional information about the types of data to collect through seed market assessments is presented in **Box 6. Features of the seed systems context relevant to cash transfers for seed security**.
- Agencies and stakeholders (including farmers) should agree on the seed quality criteria to be met and how seed quality will be determined by the seed market assessment. (See SEADS Minimum Standard 5.5.)
- A seed market assessment can be undertaken on its own or as part of a seed security assessment or SSSA. Alternatively, if a seed system assessment or SSSA has been undertaken previously, then this should be used to inform the seed market assessment.

13.4.4 Design considerations should be based on very clearly defined objectives. Clearly defined objectives are particularly necessary for cash transfers due to the flexibility of the design options that are possible, including various complementary programming activities (on the demand side and/or the supply side).

- As above, agencies and stakeholders (including farmers) must agree on the seed quality criteria to be met and how seed quality will be assured and monitored during implementation (See SEADS Minimum Standard 5.5.).
- Complementary programming activities should be considered as part of the design process (see Section 13.4.6 below).
- Gender-related aspects must be incorporated into the intervention design to ensure gender-equitable access to cash transfers, decision-making regarding spending choices and control over the seeds and other benefits provided through the intervention (see Section 13.4.7 below).
- Monitoring, evaluation and learning must be incorporated in the intervention design (see Section 13.4.8 below).

13.4.5 Fairs or not? The decision whether to program cash transfers within a fair setting depends on the local availability and quality of seed and the distance to functional seed markets. It also depends on the way in which seed quality is defined.

- Fairs limit the number and type of vendors as well as the range of seed types and varieties available to fair participants. If such limitations are appropriate for the program objectives, then a fair may be

[25] For further guidance on this, see https://www.calpnetwork.org/capacity-building/facilitated-training/organizational-cash-readiness-tool/

[26] Formal seed markets include certified seed that might be available through local agro-input dealers, seed companies or contract growers; intermediate or semi-formal seed markets include QDS that might be available through farmer seed multiplication groups or local seed businesses; informal seed markets include farmer-produced seed that might be available among larger, better-resourced farmers and informal grain traders.

appropriate. If not, cash transfers for seed security via a fair may not be the optimal programming modality.
- If the distance to functional seed markets is considered to be so great that a seed fair is necessary, seed vendors may be more willing to participate in a voucher-based fair rather than a cash-based fair because at least some level of sales will be more likely.

13.4.6 Complementary programming activities (demand side): Appropriate complementary activities are necessary on the demand side to encourage the purchase of quality seed and to help achieve other sectoral outcomes.

- Messaging and sensitization can help to encourage farmers to use their cash to purchase quality seed.
- Social and behavior change or farmer training can influence agricultural practices and the ways in which seed is cultivated and managed by farmers.

13.4.7 Complementary activities that support local seed markets: Appropriate complementary activities on the supply side not only ensure that farmers can purchase quality seed with the cash provided through a cash transfer intervention but can also encourage the subsequent continuation of quality seed supply through seed market development. Illustrative examples include:

- Sensitization or training or a code of conduct for seed providers can influence seed quality, seed management, supply and service delivery
- Support to seed multiplication groups or centers can increase the availability of seed, though it is also necessary to ensure that these are linked to sustainable seed sales channels; and
- Support to enhance market linkages can help to promote continued supply to remote, underserved areas.

13.4.8 Gender-related concerns must be incorporated into all stages of cash transfer programming for seed security:

- Seed system assessments and SSSAs should include information about the crops and varieties planted by women and the role of women in seed management and seed acquisition, as well as any gender-related challenges that they may face in this regard.
- Program design must ensure that both women and men can access cash provided by the project and that any potential protection risks are minimized.
- Where necessary, steps should be taken to reduce any barriers faced by women in the control and decision-making over cash transfers and that potential protection risks are minimized.
- Gender-relevant indicators and issues should be incorporated into monitoring, evaluation and learning.

13.4.9 Particular attention should be given to monitoring, evaluation, impact assessment and learning. Experience is still being developed in cash transfer programming for seed security, so it is important that interventions are closely monitored and that data are collected for the evaluation of appropriateness, outcomes and impacts of interventions. M&E tools may need to be adapted to ensure that sufficiently detailed data are being collected in relation to seed supply and seed markets, the seeds and varieties purchased by farmers, as well as aspects relating to the effectiveness of the cash transfer mechanism itself.

- Monitoring data should be used to make programming changes if necessary.
- Regular and timely seed market monitoring is necessary to be able to address any price increases, should these occur.

- Monitoring and evaluation systems should also encompass learning since there is a great opportunity to develop and refine best practice within cash transfer programming for seed security.
- Impacts on farmers' livelihoods, food security, seed markets and resilience should be assessed.

13.4.10 Innovation and inter-agency learning: Implementing agencies should be encouraged and supported to innovate and share experiences of cash transfers for seed security. Inter-agency learning can be supported through further research and reviews and through the establishment of a community of practice, e.g., within existing cash- or sector-based bodies such as the Cash Learning Partnership (CaLP) and/or the Global Food Security Cluster (gFSC).

ANNEX 1. BURUNDI (IRC, 2021): CASH FOR SEED SECURITY AS A RAPID RESPONSE MECHANISM WITHIN A RESILIENCE PROGRAM

Summary of approach

Cash for seed security was implemented as a rapid response mechanism within a longer-term resilience program. Unconditional cash transfers were distributed at an agro-seeds fair to 450 households affected by hailstorms and floods in Muyinga province. The most vulnerable households received in-kind transfers of seed and food. Conditional cash transfers were also provided to seed entrepreneurs for the multiplication of seed. Various complementary activities to enhance farmers' seed-saving practices and support market linkages within Burundi's emerging private sector-led seed industry were made it possible through the on-going resilience program.

Background on the seed system

Seed systems in Burundi are dominated by informal systems, with various NGO and donor-funded interventions to support the multiplication and dissemination of modern varieties. The formal seed sector is in its infancy. Over the past ten years, individual seed entrepreneurs and farmer groups have emerged to play a key role within the seed sector (Bararyenya et al, 2012; CRS, 2017; IFDC, 2019; Kalemera, 2022). Seed entrepreneurs are generally better-resourced farmers who have received training and support to be able to multiply and market quality seed. Seed entrepreneurs and farmer groups are supported by NGOs, agricultural research organizations and others to produce and sell certified and quality declared seeds of modern varieties as part of a broader effort to develop a private sector-led seed industry within Burundi (Kalemera et al, 2022; IFDC, 2019).

The IRC cash transfer intervention

In Burundi, IRC provided Cash for Seed Security as a Rapid Response Mechanism within a development program that had a built-in pool of contingency funds should any sudden onset shocks occur. The cash intervention supported households affected by crop failures caused by sudden onset shocks of floods, hailstorms and landslides in Muyinga province. The cash intervention was part of a four-year resilience program funded by the EU (2018-22). Cash transfers were given to 450 beneficiaries in a fair setting, where certified seed of different maize and bean varieties were available for purchase. The vendors at the fairs were seed entrepreneurs with several varieties of certified bean and maize seeds. Prior to the fairs, IRC staff and provincial agricultural officers visited the seed entrepreneurs to check the quality of their seed. Cash was distributed directly to beneficiaries by IRC staff (cash in envelopes) through distributions that took place on the same day and in the same location as the seed fair.

Complementary components

The program included several complementary seed security components alongside the cash intervention, as follows:

- **Facilitating links between smallholder farmers and seed multipliers:** The program facilitated links between smallholder farmers and local seed multipliers. This included awareness raising sessions with farmers to increase knowledge on what to look for when buying seeds and meetings with seed multipliers to encourage continuation of quality seed supply in previously underserved areas.

- **Strengthening links between smallholder farmers and extension services:** The program facilitated links between smallholder farmers and local leaders and technical resources, including representatives of the local Ministry of Agriculture. IRC worked with local and provincial leaders with administrative and technical agricultural outreach functions to provide training on the importance of seed saving. They also signed agreements with provincial leaders to facilitate their involvement in monitoring of the program, including monitoring how seed fair participants used the seeds they purchased, and to encourage improved seed saving practices.

- **Market support to improve supply:** IRC also supported a number of local private seed multiplication centers by providing them with training on good cultivation practices and on the benefits of improved, certified seeds. Businesses were encouraged to construct their own drying facilities. IRC supported the construction of high-quality seed storage facilities at the multiplication centers, which received livestock (on average 2 cows) to provide a more sustainable source of organic fertiliser. The aim of this support was to ensure that the target communities (and beyond) had increased access to a reliable source of high quality, certified seeds.

- **Improving community seed storage facilities:** IRC ran demonstrations of how to construct improved seed storage facilities with raised platforms inside by constructing one in each of the communities in which they worked.

The development program also included complimentary cash and other seed security aspects such as:

- Cash to seed multipliers.
- Training and awareness on agricultural practices, improved seed storage advice and support for farmers.
- In-kind seed was distributed to very vulnerable targeted households, who were more likely to directly consume some or all of the seeds received. The in-kind seed was protected through also giving additional food and nutrition support to reduce the likelihood of the seed being eaten or sold.
- Cash for Community work to enable the community to undertake disaster risk reduction measures such as soil conservation and anti-erosion activities such as contour ridges.

ANNEX 2. MADAGASCAR (CRS, 2019 -2020): PILOTING CASH TRANSFERS FOR SEED SECURITY IN A FAIR SETTING

Summary of approach

CRS piloted cash for seed within a broader voucher-based intervention so that they could draw comparisons between the two modalities. The farmers and vendors who took part in the cash-based seed fair had previously taken part in voucher-based fairs. The cash pilot was part of a program to enhance cash preparedness within the organization.

Background on the formal and informal seed sector

The seed system in Madagascar is dominated by the informal sector. Farmers rely on local channels (saved seed, local markets, neighbors) to obtain 99% of their seed (Sperling, 2013). The remainder of seed comes from NGOs with an insignificant amount coming from private seed companies. Formal seed production has withered since the government shifted control of seed production to the private sector in 1994 (Beauval, 2016). The saved seed is generally traditional varieties, as few modern varieties have been developed and extended in Madagascar. New seed varieties that have been introduced in the country have normally been sourced from abroad (Sperling, 2013). In the South, efforts have been made to expand the use of QDS (Beauval, 2016). Most QDS seed comes from the Centre Technique Agro-écologique du Sud (CTAS) which mainly relies on NGOs to distribute the seed. Efforts to create retail seed sale points have met with mixed results. There are a handful of agro-dealers located in the main towns that sell seed from CTAS.

The South has experienced repeated seed distributions in response to the frequent drought-induced crop failures. The free seed distributions have discouraged a fuller development of the private seed sector (Beauval, 2016).

Background to the intervention

From October 2019 to January 2020, CRS conducted seed fairs with paper value vouchers, as well as one pilot seed fair where cash was provided. The aim of the seed security intervention was to provide access to seed for households who had lost their previous harvest due to drought in the Tsihombe and Beloha districts in the South of the country. The cash pilot was funded under the 'Readiness to Respond' (R2R) program and aimed to increase CRS readiness and capacity to respond with cash assistance to future emergencies. Cash was delivered through TELMA Money, an FSP contracted by CRS as part of the wider cash readiness program. Vendors and farmers who participated in the fair where cash was provided had previously participated in CRS voucher fairs. The program allowed farmers, vendors and CRS to compare the advantages and disadvantages of the two modalities.

A total of 20,000 households were targeted for the emergency seed intervention, of which 269 households each received 30,000 Malagasy Ariary (US$10) as a cash transfer to use at the pilot cash-based seed fair. For those households that received vouchers, the value of the voucher was also 30,000 Malagasy Ariary. The amount of the transfer was calculated as sufficient to plant the average holding size of targeted families – around one hectare. The program primarily targeted households that were unable to purchase seeds or other agricultural inputs and who had no available seed reserves.

Seed Security and Complementary Components

Agro-dealerships established in the South under a 2013-2019 EU-funded food security project were intended to make quality seed and other inputs more accessible to farmers. According to farmer focus groups

interviewed in 2019, farmers seldom patronized the agro-dealers. Price was cited as a main constraint as well as distance to the dealerships, uncertain seed quality and unfamiliarity with the agro-dealers. For these reasons, the program opted to facilitate access to seed in remote areas by establishing temporary seed fairs.

Temporary seed fairs were selected to enable households to purchase seed using cash and voucher modalities because they were considered to:

- Ensure traders were present and seed was available for purchase in locations that were accessible to participants
- Offer traders more assured sales to promote their participation and encourage their operations in project intervention areas
- Offer CRS more opportunity to control and monitor for seed quality among the selected vendors (in cases where vouchers were provided to participants)
- Allow for more participation of local seed farmers in the fair and availability of more diverse seed varieties[27] (in cases where cash was provided to participants)

Alongside seed access, the program included complementary components, such as:

Beneficiary training sessions before fairs to encourage people to use their cash to buy seeds and select quality seed from vendors and not keep the cash for other purposes.

Training sessions for vendors on the provision and importance of quality seed. In the voucher fairs, all vendors were required to provide seed that was either of QDS standard or were inspected by the government agriculture service upon entry to the fairs. There were no specific quality requirements for seed available at the fair where cash was provided to participants.

Aside from piloting the use of cash for seed security, the project also enabled CRS to increase readiness and capacity to use cash as a modality in emergency settings in Madagascar. The Readiness to Respond program enabled CRS to select a new FSP, TELMA Money, and pilot this partnership by delivering cash transfers. CRS also developed various tools for the design, implementation and monitoring of cash programs and Standard Operating Procedures for cash programming that are available for use across any CRS cash response in future. The program trained CRS and partner staff on modality decision making, and the use of the various tools developed.

Findings from comparative study, as reported by Walters et al (2020)

Beneficiaries overwhelmingly preferred cash fairs while those vendors who participated in both cash and voucher fairs (mainly the larger regional vendors) favored voucher fairs.

Potential competition beyond the cash Diversification for Nutrition and Enhanced Resilience (DiNER) fair appeared to keep seed prices within the fair aligned with the market. However, the fairs appeared to have influenced upward local market grain/seed prices in the period immediately before and after the fairs. This may be because the fairs were absorbing a significant amount of the local supply and forcing up prices.

An intriguing advantage for cash fairs may be as a means of eliminating collusion between beneficiaries and local vendors who exchanged vouchers for cash. It is not known how widespread this practice may be beyond the Madagascar experience. These pre-existing relationships were noted in the cash fair as well as beneficiaries were more apt to favor local vendors.

[27] In earlier rounds of voucher fairs several years ago, staff discovered that many participants colluded with local vendors to exchange their vouchers for cash (after the fair participants returned the seed to the vendors in return for cash). In order to avoid further collusion, CRS excluded all local vendors from future voucher fairs. During the cash fair, that was not an issue.

Participation in the cash fairs was financially risky for district-level vendors. Many vendors who had participated in the voucher fairs refused to engage in the cash fairs because of the danger that beneficiaries would spend their money outside the fair. Half of those external vendors who participated in the fair complained that they had lost money or had minimal gains during the fairs. Whether this is related to leakage, lower prices in the cash fair, or simply participants preferring local vendors is unclear. Vendor reluctance to participate in cash fairs could reduce choice in the fairs and conceivably force a change in the modality. Even one of the larger agro dealers decided not to participate in the cash fair, despite having been present during all the voucher fairs.

Nevertheless, 4/6 vendors anticipated a long-term expansion of their client base as a result of participating in the fairs. While studies of fairs in other countries have led to a reported expansion of client base primarily for local vendors, the Madagascar fairs appear to have had a broader effect.

While rigorous seed quality standards and inspections were instituted for the voucher fairs, these requirements were dropped for the cash fairs out of concern that participants would refuse to purchase the higher cost quality seed and simply buy seed on the local market. This could be an issue for using cash in DiNER fairs in those areas where farmers do not place a high value on quality seed and are reluctant to pay a premium for it.

No information was gathered regarding seed performance. While two cash fair focus groups complained about the lateness of the distribution and the poor performance due to dry weather and pests, there is no information to compare the performance of inspected seed distributed in the voucher fairs with that of uninspected seed distributed in the cash fairs (e.g., germination rates, performance in field, yield, etc.).

Recommendations, as reported by Walters et al. (2020)

The use of cash for a sectoral outcome such as seed requires buy-in from both participants and vendors. Vendors want to make a profit and potentially expand their market while participants want quality seed at planting time at a reasonable price while ensuring their basic needs. In order to satisfy these multiple demands, cash fairs should:

- Ensure that participants food security needs are addressed;
- Time the fair just prior to the planting season when farmers are seeking seed;
- Ensure that the products on sale meet the demand of the farmers in terms of kind and quality (conduct a needs assessment beforehand);
- Distribute cash in or beside the fair so the fair is the beneficiaries' first option for spending the money;
- Sensitize farmers to the benefits of quality seed (germination, performance, yield, improved variety, etc.); and
- Sensitize vendors as to the potential to gain long-term clients through the fairs.

While there may be a risk that farmers choose to buy seed elsewhere of lower quality and price, nevertheless CRS should ensure certain minimum standards of seed quality in the fairs – especially concerning seed health. Undertaking the above recommendations should minimize that risk.

If the purpose of the seed fairs is more of a developmental nature with the objective of improving the varietal quality of farmer seed, then this will almost surely raise the price. Under these circumstances, unless farmers are motivated to acquire the improved varieties, then voucher fairs may be more appropriate than cash. Regardless, only varieties that have been tested in the zone and have proven to be acceptable by farmers should be made available.

The local and regional market should be closely monitored in the period before and after the fair. Price increases related to the increased seed demand from the fairs negatively affect farmers not benefiting from DiNER fairs. Mitigation measures should be planned in the case of significant seed price rises.

Because the process of contracting FSPs is lengthy and time-consuming, it is important to have already gone through this process and have an existing contract with an FSP to speed any emergency cash seed response.

Seed fairs have had an implicit objective of expanding vendor reach and client base. The potential for DiNER fairs to expand markets for vendors needs to be further investigated, particularly for smaller, local vendors. Future fairs should make this objective explicit and undertake measures to expand vendor markets with an ultimate goal of ensuring "last mile" access to seed for unreached farmers.

The knowledge base on the use of cash in DiNER (and seed) fairs is growing but remains thin. Future DiNER fairs using cash should routinely gather information from vendors, participants, and staff in terms of advantages and disadvantages of the cash modality to share with the wider seed fair community.

While CRS collects substantial information on fair outputs, limited information is available on outcomes such as crop performance, yield and income effects and should be collected.

ANNEX 3. MALAWI (NGO CONSORTIUM LED BY CONCERN WORLDWIDE, 2018-21): A SHIFT FROM VOUCHERS & FAIRS TO CASH FOR INPUTS AND A MARKET-FOCUSED APPROACH WITHIN A RESILIENCE PROGRAM[28]

Summary of approach

Cash transfers were implemented in the second year (2020/21) of a four-year resilience program, after various limitations were experienced with vouchers and agro-input fairs in the first year. Cash was provided to 59,822 farmers in the rainy season (Sept-Oct 2020), and to 27,905 farmers in the dry season (Feb-March 2021). The amount provided to each farmer was either MWK 10,000 (approximately US$12) or MWK 5,000, depending on the level of support they had received in the previous year. Farmers were also expected to contribute their own cash for the purchase of inputs. The approach involved considerable engagement with agro-dealers, who signed up to a code of conduct designed to improve service delivery by raising agro-dealer standards and demand from farmers.

Background on seed systems in Malawi

As in many other African countries, farmers in Malawi rely largely on informal seed systems to access seed; over 80% of smallholders plant either seed saved from their own harvest or acquire seed from neighbors and local markets. These informal seed systems have largely been ignored by government policy. As a result, certified seed of key crops such as millet, sorghum, greengram, chickpea and amaranth that are locally adapted, climate-resilient and nutritious are often unavailable or of poor quality.

Although the formal sector seed industry has grown over the past decade in both the number of seed companies and the types of crops, it is still predominantly focused on maize. Malawi has had a continuous series of large-scale agricultural subsidy programs since the 1990s, mainly focused on maize with some legumes. Quantities of seed and the number of beneficiaries have varied over the years, between 4,000 and 10,000 MT annually. It has been argued that the repeated input subsidy programs have created market distortions that do not support markets to develop sustainably in the long term. In 2005, there was a shift in the subsidy delivery mechanism from direct distribution to private sector distribution through the use of vouchers. This shift stimulated private sector investment in retailing and led to an increase in the number of agrodealers, though many remain dependent on the input subsidy schemes for 60-70% of their seed sales income (Audet-Bélanger et al, 2016). The latest subsidy program, initiated in 2020 and known as the Affordable Inputs Programme (AIP), is the biggest yet, with over 21,000 MT of seed for 4.3 million farmers. In 2021, there was some uncertainty as to whether AIP would be implemented, and this contributed to farmers' uncertainty about which crop seeds to purchase.

Background on the broader resilience project

Promoting Sustainable Partnerships for Empowered Resilience (PROSPER) was a four-year UK Aid-funded program (Dec 2018 to March 2023). The program covered four districts of southern Malawi (Balaka, Chikwawa, Mangochi and Phalombe), which are particularly vulnerable to the effects of climate change, as evidenced by the increasing frequency of droughts and floods. The program was initially jointly implemented

[28] Information for this case study has been extracted from PROSPER 2021 "NGO Consortium Cash for Inputs (CFI) Learning Brief", unless otherwise stated. This has been supplemented with information from key informants at the program level.

by an NGO consortium[29] led by Concern Worldwide and a UN consortium[30] convened by WFP, but NGO consortium activities ended in August 2021 due to UK Aid funding shortfalls. The aims were to build the resilience[31] of households and communities and to be a collective and influential voice for innovation, evidence and impact.[32] The program recognized the need to improve farmers' access to quality agricultural inputs as a key step towards increasing productivity and yields to improve household resilience.

Experiences with vouchers & fairs

In the 2019/20 growing season, the program focused on increasing access to quality seed and agro-chemicals through agro-dealers by replacing traditional seed fairs with more commercially oriented agro-input fairs. A total of 26,458 farmers (60% women, 40% men) were provided with vouchers with which to purchase seed and other inputs from the fairs. Program monitoring highlighted several limitations with the voucher and fair approach, including: a limited range of products available; competition among agro-dealers; price rate increases; and challenges with the voucher system used. In terms of pricing, the Agro-dealer Association had dictated prices of inputs to participating agro-dealers, which disadvantaged the farmers because the prices offered were higher than the usual market prices.

Purpose of the cash for inputs approach

In 2020/21, the program shifted to a Cash for Inputs (CFI) approach to address constraints, adapt to the COVID-19 context, and apply a more market systems approach. The CFI objectives were to:

- Build sustainable links between smallholder farmers and market actors/agro-dealers to improve access to high quality seed and other inputs;
- Utilize and strengthen local market systems, improving standards and function of the system;
- Increase availability of different products, crops and crop varieties within local markets;
- Generate demand among smallholder farmers for high quality farm inputs, diversified crops and varieties, use of inputs such as inoculant[33] and fertilizer and improved service standards from agro-dealers;
- Encourage smallholder farmers to purchase inputs from reputable and accessible suppliers;
- Empower farmers by changing from a voucher payment method to unconditional cash transfers, so that farmers have greater decision-making control over the types of inputs and outlets to purchase from; and
- Demonstrate the profitability to agro-dealers of engaging with poor households, stocking a broader range of products and conducting agro-input sales in remote locations where there may not have been existing agro-dealer outlets.

Cash was provided to 59,822 farmers in the rainy season (Sept-Oct 2020) and to 27,905 farmers in the dry season (Feb-March 2021). The amount provided to each farmer was either MWK 10,000 (approximately US$12) or MWK 5,000, depending on the level of support they had received in the previous year. Farmers were also expected to contribute their own cash for the purchase of inputs. Most farmers received hard cash

[29] The NGO consortium consisted of Concern Worldwide (lead agency), GOAL Malawi, United Purpose, Kadale Consultants, CUMO Microfinance and CARD.
[30] The UN consortium consists of WFP (convening agency), FAO, UNDP, UNICEF, and the UN Resident Coordinator's Office.
[31] Building resilience encompasses strengthening shock sensitive social protection, expanding climate smart agriculture, reducing exposure to hazards and risks, achieving food and nutrition security and diversifying and improving income generation and economic opportunities.
[32] See https://www.resilience.mw/project/prosper
[33] Inoculant is a biological input used to improve nitrogen fixation in some crops, notably soyabean.

through 'cash in transit' service providers and banks, and a small number of farmers volunteered to take part in a trial to test an electronic cash transfer mechanism[34]. Cash was provided in the month before the planting period, allowing farmers time to plan and procure necessary inputs. The program asked farmers to obtain receipts to allow for monitoring of purchases.

Targeting

In alignment with Malawi's National Resilience Strategy, the program classified households into three different wealth categories - Hanging In, Stepping Up and Stepping Out[35]. The CFI program targeted the Stepping Up wealth category with the expectation that these farmers would engage with market players to encourage sustainable and empowered farmer-agro-dealer relationships. The dry season cash transfer targeted a subset of Stepping Up farmers who could demonstrate ownership or accessibility to irrigable land. Approximately 60% of targeted farmers were women.

It was also expected that Stepping Out households might use the opportunity of the mobilized agro-dealers and temporary outlets to purchase inputs using their own funds. Similarly, Hanging In and non-program farmers were also free to participate with their own funds. In practice, however, few Stepping Out households reported purchasing inputs through the CFI markets, but it is not clear whether this was due to low reporting or low participation. Stepping Out farmers felt they had missed out on the cash transfers and perceived the wealth difference between Stepping Up and Stepping Out as marginal. As a result, Stepping Out farmers were reticent to report on the inputs they may have bought.

Engagement with agro-dealers

Participation of agro-dealers was crucial to the success of the approach, though farmers were able to buy from any agro-dealer, whether or not they actively participated in the project. Having a choice of agro-dealers promoted competition and stimulated the functioning of the local market. Early engagement of agro-dealers supported buy-in to the CFI approach, though some indicated a preference for seed and input fairs due to more limited competition and the potential to fix prices. Unlike the previous seed fairs, the CFI program enabled participation of agro-dealers not registered as members of the districts' Agro-Dealers Associations, and this encouraged competitive pricing. In each district, between 50 and 76 agro-dealers participated in the program, providing farmers with access to a wide range of agro-dealers and inputs to choose from.

Agro-dealers were encouraged to promote more diverse seed varieties and types, broader ranges of new and existing agricultural inputs, as well as the setting up of temporary seed and input stalls close to cash distribution centres on market days. All but one agro-dealer opened new temporary outlets, and some reported the intention to continue to run the remote outlets. Prices were higher in the temporary outlets to cover transport and staffing and probably also some risk premium due to the uncertainty of sales and/or lack

[34] The mobile money trial experienced a number of challenges: only small numbers of people volunteered to take part; multiple beneficiaries registered the same phone number due to lack of personal phones; registering, screening and verification of phone numbers took time resulting in delay to cash transfers; after verification, it was discovered some farmers had changed their numbers, lost their phones or had inactive numbers; most women registered with their husbands' phones, meaning they may have less access or control over the cash. In some cases, the SIM card belonged to the woman while the handset belonged to the husband.

[35] 'Hanging in' refers to those who continue to survive on a subsistence level and require consumption support with change happening if circumstances allow. 'Stepping up' in agriculture refers to choosing to take risks, accumulate assets, diversify investments in agriculture and increase access to services and value addition, thereby diversifying risk and reducing vulnerability. 'Stepping out' refers to moving away from agricultural activities, partially or entirely, into higher SMEs or employment that has a different risk profile, but higher return. (Government of Malawi Department of Disaster Management Affairs. 2018.)

of knowledge about underserved markets. The majority of agro-dealers reported an increase in sales and new customers.

Quality of inputs and service delivery

The participating agro-dealers signed up to a code of conduct for the activity, which had the aim of improving service delivery, raising agro-dealer standards and thus increasing demand from farmers. The Code of Conduct (**Box *14***) included 11 points in line with key priorities of the program for improved market function.

Box 14. Agro-dealer Code of Conduct

1. Shall have formal registration from Pesticides Control Board (PCB) &/or Seed Traders Assoc of Malawi (STAM) to trade in agro-inputs;
2. Shall display business registration certificate and either seed sellers or PCB license or both;
3. Shall only source products or agro-inputs from suppliers of genuine certified products;
4. Shall not collude with any other agro-dealer to set prices for any agro-inputs;
5. Shall stock and sell certified, non-expired products in their original packaging;
6. Shall issue proper receipts bearing the (printed) name of the business to all farmers who buy inputs from their outlets, including satellite markets
7. Shall commit to make available relevant agro-markets from October 1st 2020;
8. Shall store agri-inputs on dry shelves or stacks that allow free air circulation to keep seed alive and to maintain separate areas for seed and chemicals;
9. Shall display selling prices to enable informed choice by farmers and to avoid exploitation by individual employees trying to take advantage;
10. Shall comply with all relevant COVID-19 precautions and preventive measures that are in place from time to time; and
11. Shall comply with NGO safeguarding policies and procedures.

The use of the Code of Conduct is reported to have influenced agro-dealer behavior, including increases in stock to anticipate demand from beneficiary farmers; increased diversity of stocks and new seed types by some dealers; transparent display of prices; provision of receipts; registration/ licensing; and more provision of certified products rather than re-packaged seed.

The majority of beneficiaries (78%) purchased inputs from agro-dealers that had signed the Code of Conduct. The assessment of the Summer CFI showed 70% of farmers were satisfied with the prices and range of inputs through the CFI (44.8% very satisfied; 24.8% satisfied). Key informant interviews with District Project Managers show the quality of inputs on offer significantly improved during the Cash for Inputs. They attribute this change to the fact that farmers had the liberty of buying from any agro-dealer they perceived offered better quality inputs, forcing agro-dealers to be competitive and provide high quality inputs.

Monitoring and Quality Management

Comprehensive M&E was employed to ensure quality service delivery, to document the approach, and feed into future program adaptations. The following M&E tools were used: spot checks during cash transfer distributions; purchase receipts documentation; post distribution monitoring surveys; KIIs; focus group discussions; and complaints, response and feedback mechanisms.

Complementary Activities

Crop diversification was a key aim of the CFI program, used to promote more resilience and reduce dependency on rain-fed maize while also promoting farmers to take on some cash crops for sale in the market. The PROSPER project included communications and marketing to promote new and diversified seeds and inputs and how to use them. These messages were disseminated through radio advertising, sponsoring road shows that demonstrated and promoted inoculants and other new technologies, advertising posters, and the development of mini clips on improved agricultural techniques (e.g., spraying, how to apply inoculants, etc.) to be shared on WhatsApp with agro-dealers or lead farmers with access to smart phones. Climate-smart agriculture techniques and different maize varieties were featured in maize demonstration plots maintained by Lead Farmers. In hindsight, however, program learning found that a more deliberate focus on cash crops in demonstration plots would have perhaps contributed to greater uptake among farmers.

Monitoring and Evaluationfindings

The post-distribution monitoring survey found that 99% of participants spent the cash received on agricultural inputs, with 72% spending all, and 27% spending part on agricultural inputs. The actual purchases by those who spent all their cash on agricultural inputs in the rainy season (Sept-Oct 2020) is illustrated by **Figure *1***. Other items purchased included food, emergency needs and education. Two-thirds of respondents made spending decisions on their own (rather than in consultation with another household member such as a husband) – this was interpreted as an indication of women farmers' own decision making[36].

Post-distribution monitoring indicated that farmers purchased inputs from the following locations: mobile markets organized in their communities (52%); trading center markets (28%); local markets (16%); and markets at the Boma (8%). These results show good engagement of agro-dealers to provide outlets community locations.

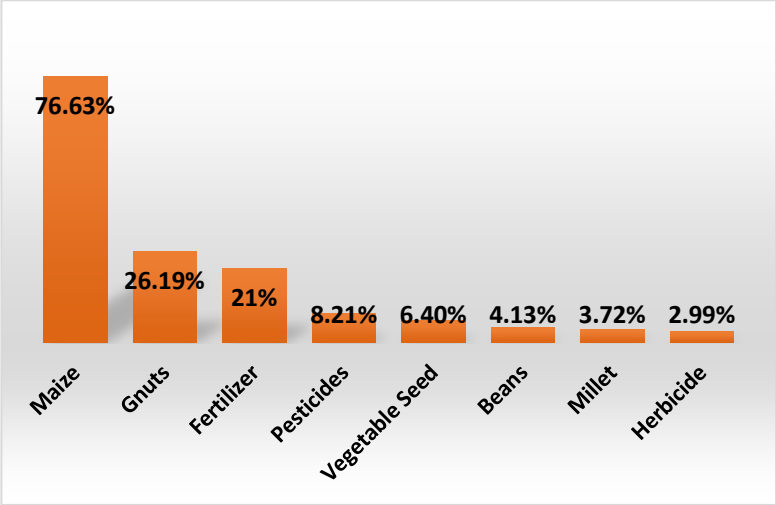

Figure 1. Main Inputs Bought by Farmers Spending 100% on Inputs in Sept-Oct, 2020

Despite awareness raising and very clear messaging on crop diversification (e.g., 'Not for Maize'), many farmers still prioritized the purchase of maize seed over other crops (**Figure *1*. Main Inputs Bought by Farmers Spending 100% on Inputs in Sept-Oct, 2020**). As mentioned above, the uncertainty surrounding

[36] Given that this result is not disaggregated by gender, and some 40% of beneficiaries were men, it might also be interpreted as male farmers' own decision-making with a smaller proportion of female farmers' own decision-making.

whether the AIP would be implemented may have prompted farmers to purchase maize rather than other crops, in case support from AIP was not forthcoming[37]. COVID-19 was an additional contributory factor in choosing maize seed due to the risk of market disruptions for cash crops.

The use of farmers' own money to purchase agricultural inputs was considerably lower than expected. In the rainy season, 38% of farmers contributed their own cash, with an average amount of MWK 3,504 (US$4.21). Though low, it shows some understanding of the value of improved inputs. It is also likely that the CFI M&E was not able to fully collect information on farmers' own expenditures.

Challenges and mitigation measures

There were some challenges around agro-dealer engagement and securing their buy-in to the approach. Some agro-dealers reported lower than expected sales and some over-stocking; this was thought to relate to the relatively high number of agro-dealers and high sales expectations. Some Agro-Dealer Associations tried to exclude non-member agro-dealers and set prices. There was also indication that agro-dealers' decisions to stock inputs are made well ahead of the season so earlier engagement with agro-dealers was needed.

During the rainy season CFI, there were challenges with some agro-dealers perceiving the activity as an opportunity to raise prices for greater profit from individual sales (as was common in the seed fairs the previous year). This was remedied with quick feedback from farmers and program staff to the agro-dealer association and direct to agro-dealers, with prices being revised relatively quickly. However, it also led some farmers to buy from agro-dealers offering market prices in other locations, which may have contributed to farmers using part of the cash for transport costs; the PDM data indicated 11% of farmers used some cash on transportation.

Recommendations and lessons learned

- Cash for Inputs was considered to be more effective than traditional voucher seed fairs in terms of competitive pricing, range of products, engagement of agro-dealers (in terms of numbers engaged and market competition) and supporting existing market systems.
- The Code of Conduct on agro-dealer behavior contributed to improved access and standards for all. Awareness-raising on the Code of Conduct among farmers was also important to generate demand for minimum service standards.
- There was clear competition and transparency gains. Increasing the number of agro-dealers participating at each mobile market was reported to increase competition and promote fair pricing. Feedback mechanisms were also reported to have promoted competitive pricing.
- The project deliberately aimed to work with more 'progressive' (Stepping Up) farmers and to promote crop diversification and the adoption of new technologies through demonstration plots and lead farmers. This was not as effective as anticipated; changes in agricultural practices take time, and farmers tend to be risk averse for good reasons. Significant changes would be unlikely in just two years of the curtailed four-year project. A challenge to diversification is the risk farmers attach to high value crops due to uncertainty around prices and access to markets. Ongoing strengthening of farmers' understanding of marketing systems for high value crops is needed to support diversification from maize.
- With a voucher, beneficiaries may be more likely to purchase what the program prefers, but this comes with risks: it might be at higher price, the voucher is still fungible and seed can still be returned to dealers or sold or eaten.

[37] CFI took place several weeks before AIP was rolled out.

- Agro-dealers used to the voucher seed fairs were not keen to change to a cash-based approach. Agro-dealers collude on price and muscle out those that don't. This must be carefully managed and requires effective price monitoring to be able to identify and act on any price spikes.

ANNEX 4. SOUTH SUDAN (UN FAO, 2020): A SHIFT FROM VOUCHER FAIRS TO CASH TRANSFERS WITHOUT FAIRS DUE TO COVID-19

Summary of approach

Under FAO's Emergency Livelihood Response Program in South Sudan, a shift was made from seed vouchers and fairs to cash transfers without fairs to avoid the need for large groups of people to congregate during the COVID-19 pandemic. Cash transfers were provided to over 67,000 households. Vouchers for seed were used (without fairs) in some locations due to the requirements of one donor. Direct distributions of seeds and tools (in-kind transfers) were provided in other areas.

Background on seed systems in South Sudan[38]

The seed system in South Sudan is highly dominated by the informal sector, which provides most seed planted by farmers, either through own saved seed, local markets or social networks (Government of South Sudan [GoSS] *et al.*, 2019). The key crops grown by small-scale farmers are sorghum, cowpeas, maize, groundnuts, sesame and beans, while the predominant vegetable crops are okra, tomatoes and onions (FAO, 2020). Access to new varieties of these crops remains low. The formal seed sector is very weak and there are only a small number of fledgling seed companies. In 2018, certified seed production by these companies produced 1760 tons of assorted crop seed, contributing to about 15% of the estimated seed demand (GoSS *et al.*, 2019). Certified seed production by local companies is thought to have increased in recent years, largely due to demand for seed for emergency interventions. Community-based seed production and supply efforts are also supported by various different NGOs for a range of crops.

At community levels, the 2019 Seed System Security Assessment (GoSS *et al.*, 2019) showed that the overall supply of seed through the informal seed system was considered to be adequate by slightly more than half of households interviewed, but access by some households seems to be the major concern. Almost half of all seed obtained off-farm (i.e., from markets and other farmers) was purchased on cash or credit basis, and more than 90% of the seed sourced from local markets is acquired using cash (*ibid.*). Farmers interviewed for the SSSA did not raise any major concerns about seed quality and the suitability of the varieties they planted in 2018, but this could partly be due to their limited exposure to modern varieties.

Modern varieties are mostly accessed through direct distribution of seed aid provided by FAO and various NGOs, though such distributions typically provide a very limited range of varieties and crops. The relative importance and contribution of seed aid varies from state to state, ranging from 10% to 25% contribution to household seed needs. While seed aid makes an important contribution to providing quality seed and reducing household expenditure on seed, cases of late distribution and the provision of unsuitable varieties undermines its importance in addressing seed and food insecurity concerns in some parts of the country (*ibid.*).

FAO's seed interventions in South Sudan

FAO has implemented large-scale seed interventions in South Sudan since at least 2000 to restore the productive capacities of farmers affected by displacement, food security and natural disaster such as drought (Buchanan-Smith *et al.*, 2016). Seed was initially procured internationally for direct distribution, but in the late 2000s, FAO started sourcing seed from local seed producers, farmers or local markets (*ibid.*). Recognizing

[38] Much of this section has been taken from 'Seed System Security Assessment (SSSA) in South Sudan' by Government of South Sudan, FAO and various NGOs (2019).

that access to seed was usually more of an issue than availability of seed, FAO subsequently began to provide vouchers that could be exchanged for seed at input trade fairs where the vendors were mainly better-resourced, progressive farmers from the local area.

DSD has continued up to the present time, particularly in locations where seed security and market assessments indicate that local markets cannot provide the commodities in sufficient quantities. However, there have been challenges in seed procurement and logistics, some of which have been exacerbated by restrictions relating to the COVID-19 pandemic. Challenges of DSD include:

- Delays in deliveries of seed due to import procedures and restrictions;
- Transportation challenges to FAO Hubs and consequently to partners and eventually to beneficiaries leading to untimely distribution;
- Certain companies who deliver sub-standard seed, leading to a halt in clearance;
- Challenges in meeting farmers' seed preferences; and
- The delivery of varieties that may not be appropriate to the agro-ecological zone and therefore do not perform well.

The Emergency Livelihood Response Program (ELRP) and programming context

The ELRP was launched in late 2013 and currently forms part of the FAO's broader resilience-building efforts in South Sudan, aiming to bridge the divide between humanitarian and development outcomes. It is a multi-year, multi-donor humanitarian response program designed to protect vulnerable crisis-hit populations in IPC Phase 3[39] against hunger, malnutrition and destitution through livelihood assistance to farmers, herders and fisherfolk. The 2020 ELRP was funded by various donors[40] and implemented by over 20 local and international NGO partners working in different geographical areas[41].

In general, many years of civil and intercommunal conflict in various parts of South Sudan have disrupted agricultural production, rural livelihoods, trade and markets across the country. Natural disasters, such as flooding in low-lying areas and outbreaks of crop and livestock diseases in several parts of the country, have further stretched the limited coping capacity of communities and households. In 2020, the situation was further exacerbated by dry spells, the desert locust infestation, as well as the COVID pandemic. The COVID crisis impacted the importation of both food commodities and agricultural inputs, resulting in sharp price increases of these items during the early part of the year. Livelihoods were also severely disrupted as nationwide and localized restrictions on trade and movement took effect.

The 2020 ELRP supported 851,074 farming and fishing households with seeds of field crops (791,249 households) and seeds of vegetable crops (759,796 households).[42] In addition, 67,881 households received cash for seed, and 2,500 households received seed vouchers. Other forms of support were provided to herding households. Household targeting focused on the most vulnerable households, with some additional conditions (e.g., evidence of sufficient land to cultivate) incorporated in the targeting criteria for the cash-for-seed interventions to ensure that the beneficiaries who received the cash grants to purchase seeds would be able to successfully utilize them to increase their production.

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[39] The Integrated Food Security Phase Classification (IPC) system is widely used to classify the severity and magnitude of food insecurity in emergency contexts. The IPC system differentiates five levels of severity of acute food insecurity, in which Phase 3 is described as "Crisis". Phase 4 is "Emergency" and Phase 5 is "Catastrophe/Famine".
[40] ELRP donors include the Governments of the United Kingdom (UK Aid), the United States (USAID), the Netherlands, Norway, the United Nations Central Emergency Fund (CERF) and the South Sudan Humanitarian Fund (UNDP).
[41] In hard-to-reach areas, the ELRP is implemented directly by FAO.
[42] Fishing kits were also provided to 490,664 households. Some households received more than one type of input kit, i.e., field crop seeds, vegetable seeds and/or fishing kits.

The beneficiary recipients of seeds and agricultural inputs programming (including cash, voucher and in-kind) were 63% women and 37% men.

The 2020 ELRP cash-for-seed intervention

After implementing voucher programs for seed security for several years, mostly in fair settings, FAO's South Sudan office in 2020 shifted to a cash transfer approach to provide seed assistance to approximately 8% of the total caseload of crop farmers. The shift was largely to comply with COVID-19 restrictions and to avoid the need for farmers to gather together in a fair setting. The shift was also partly in response to the additional procurement and logistical challenges created by the COVID-19 pandemic, though in-kind seed continued to be provided to the majority of crop farmers targeted by the ELRP.

Lessons learnt and knowledge gained from earlier seed systems assessments revealed a thriving local seed market that could be strengthened through local seed purchase in most target locations. The design of the cash-based approach was informed by an FAO training on cash assistance that took place in Juba in mid-February 2020, as the COVID crisis was emerging. One of the ELRP donors required that vouchers should be used instead of cash; this is why 2,500 households out of the targeted 70,381 households continued to receive vouchers.

Unconditional cash grants worth 5,000 South Sudanese Pounds (approx. US$30) were given to 67,881 households to enable them to purchase seeds of their choice from local markets and other farmers. In addition to agricultural inputs (whether through cash, vouchers, or in-kind), beneficiaries received training on good agronomic practices, integrated pest management, and post-harvest handling. This was aimed at ensuring that the inputs provided would have the maximum positive impact on crop yields.

Findings from monitoring surveys

Most cash-grant farmers purchased their seed from local traders or other farmers within the village, indicating that seed was available through the local seed supply systems. The estimated total quantity of seed purchased by beneficiaries using the cash grant was about 1,200 metric tons. The findings of the post-planting monitoring assessment conducted in July – August 2020 show that the total weighted average quantity of seed purchased using the cash grant was 18.9kg per beneficiary household (FAO, 2020) (**Table 2**).

Table 2: Weighted average quantities purchased (kg) with the cash for seed grant

Crop	Percent of households which purchased *[a]*	Average quantity purchased per household (kg) *[b]*	Weighted average quantity purchased *[a x b]* (kg)
Sorghum	81%	9.1	7.3
Maize	44%	4.9	2.2
Groundnut	76%	10.3	7.8
Sesame	35%	3.3	1.2
Cowpeas	15%	2.7	0.4
		Total	*18.9*

The seeds purchased using the cash grant were sufficient to plant an average of 2.2 feddan[43] (86% of planned acreage). By comparison, the crop kits enabled the beneficiary farmers to plant an average of 1.6 feddan (60%

[43] 1 feddan is equal to 0.42 hectares (ha) or 1.037 acres (FAO, 2020).

of the planned 2.7 feddan acreage) (FAO South Sudan, 2020)[44]. This suggests that the cash modality was probably more effective in meeting the seed requirements of the farmers, although its scope and scale is constrained by seed availability in the local market, as well as the need to mitigate its potential effects on general price levels.

The Seasonal Outcome Monitoring Survey shows that 75% of sampled beneficiary farmers received/ purchased seeds on time relative to the planting season, and 68% were satisfied with the type of seed support received (including cash, voucher and in-kind). Some of those who rated the support as unsatisfactory cited inadequate quantities of inputs or cash provided to meet their requirements. At least 16% felt that the quality of inputs provided or purchased with cash grants was inadequate, while 10% were dissatisfied with the support modality, though it is not known which modality the respondents were referring to.

Lessons learned

The shift to cash transfers was considered to be successful in achieving the ELRP responsive programming and operational objectives in the face of the COVID-19 disruptions.

The earlier SSSA usefully highlighted the availability of seed within local seed systems and the importance of seed purchases within existing seed systems, providing evidence to support the potential of the use of cash transfers for seed.

Whilst the ELRP was able to pivot quickly to implement significant changes in the face of unprecedented challenges presented by the pandemic, it was also a missed opportunity to gather post-distribution and post-harvest data to compare the effectiveness of the different cash, voucher and in-kind distribution for seed security intervention modalities. The seasonal outcome monitoring assessment is designed to measure the overall increase in food production and the level of beneficiary satisfaction, but the assessment results did not differentiate between the seed provisioning modalities, partly because the proportion of beneficiaries who received cash or vouchers was relatively small compared to those who received seed.

[44] It is important to note that the figures relating to the crop kits presented here might not be representative of future projects due to COVID-induced import and trade restrictions, price volatility, and movement/transport issues, all of which affected the purchase of seed by FAO.

ANNEX 5. HONDURAS (CRS, 2021-22): CASH TRANSFERS AND AGRICULTURAL INPUTS FAIRS

Summary of approach

Cash transfers for seed and other agricultural inputs were provided in addition to cash transfers for food. In the first planting season, US$53 was provided for inputs and US$120 was provided for food. In the second planting season, US$30 was provided for inputs, in addition to the amount provided for food. Inputs were made available at fairs located next to a kiosk where the cash was distributed. The selection of inputs available at the fairs was based on a survey to determine farmers' inputs preferences and allowed access to inputs that were otherwise unavailable due to market closures related to COVID-19.

Background on the seed sector[45]

The Ministry of Agriculture, Direccion de Ciencia y Tecnologia Agropecuaria (DICTA) is the primary developer of new maize and bean varieties in Honduras. Seeds of new varieties are distributed through agrodealers or Ministry of Agriculture programs. However, smallholder farmers largely depend on informal seed channels to supply them with seed. This is primarily due to their reliance on their own-saved seed of open pollinated varieties of maize, bean and sorghum. In many cases, saved seed comprises "criollo" varieties (traditional varieties) that have a long history of being grown in their geographic area. However, in the case of maize and sorghum, the saved seed may also consist of improved varieties that have been adopted by smallholders over the past 10 – 15 years. These varieties are seen to give good yields and are saved alongside the traditional varieties. Some communities have completely substituted their criollo varieties with modern varieties that were released decades ago. In contrast, some improved and open-pollinated varieties experienced poor results in the first season and consequently were not resown.

The broader disaster risk reduction project

CRS' RAICES-DRR[46] Project (October 1, 2020 – September 30, 2022) directly supported 4,490 small-holder producers in the departments of La Paz, Lempira and Intibucá. The project used a three-pronged approach including: (i) timely cash assistance for food and seed to absorb the effects of recent droughts on food insecurity; (ii) land and water restoration practices to adapt agricultural livelihoods; and (iii) strengthening the transformational capacities of households and communities to be more resilient to future shocks and stresses. In addition to provision of cash assistance, project activities included extension of water smart agriculture[47] practice to restore soil, conserve water, and increase food production, installation of small-scale irrigation systems, establishment of village-based savings and internal lending communities (SILC), development of community risk mitigation plans, and Diversity for Nutrition and Enhanced Resilience (DiNER) fairs.

Cash transfers for seed security

The project provided three rounds of cash transfers aimed at improving food security. All three rounds provided cash for food. Two of the cash transfers included cash for agricultural inputs (in addition to the cash for food element), and inputs were made available at DiNER fairs. Prior to the DiNER fairs, a survey was carried out with participants regarding their agricultural input preferences. The selection of inputs at the fairs was based on results of this survey and included improved seed, tools, appropriate fertilizers, and care

[45] Much of this information has been sourced from Varrieur (2019).
[46] Restorative Agriculture in Critical Ecosystem - Disaster Risk Reduction
[47] Water smart agriculture includes the basic principles of conservation agriculture (managing crop residue, minimum tillage, croprotation), soil fertility management and integrated pest management.

services for poultry vaccination. Participants were instructed that the funds were for agricultural inputs and that they could spend the money at the fair or elsewhere. Cash was provided to participants from a kiosk immediately adjacent to the fair.

The first DiNER fair took place immediately before the main planting season in May. Farmer participants received US$53 each. The second DiNER fair took place in August, prior to the second planting season. Farmers received US$30 for agricultural inputs, in addition to the food security transfer of US$120.

M&E Findings

A post-distribution monitoring report found that 78.3% of respondents agreed with the appropriateness of the inputs on offer at the DiNER fairs, with only two respondents indicating that they were unsatisfied. Seventy-eight percent were very satisfied with the quality of the products offered. Respondents mentioned most frequently the appropriateness of the timing (fairs before each of the main planting seasons, *primera* and *postrera),* as well as the overall difficulty of farmers in 2021 accessing required inputs due to price increases, availability in the supply chain, and market shutdowns due to COVID-19 in many of the municipalities.

Lessons learned

- Selecting the products on offer at the fair based on farmer preferences and priorities encourages appropriateness and promotes the use of the cash within the fairs.
- Ensuring that the food security needs of the most vulnerable households are met prior to distribution of seeds helped to discourage the use of the cash for seeds for consumption purposes.
- Providing cash in or adjacent to the fair maximizes the likelihood that the fair is the first option for spending the funds and helps to ensure that farmers are purchasing the types of improved seeds and inputs and the products that have undergone quality control monitoring by the program.
- The flexibility of cash provided farmers the choice to spend on agricultural and other needs either inside or outside of the fair and access a more diverse range of products and services.
- The ability of the cash to be spent inside or outside the fairs kept prices in the fairs aligned to the market and the potential to thereby procure more with their money.
- The DiNER fairs provided access to agricultural inputs that would otherwise be unavailable due to market closures due to COVID-19.

Postscript

After the completion of the cash transfers program in 2022, the fairs continued, with farmers using their own money to purchase the improved products available. Village savings and loans associations negotiated prices with vendors and used group savings to purchase inputs. This shows that the program was able to establish a link between farmers and vendors for the continued supply of agricultural inputs.

ANNEX 6. NORTHEAST SYRIA (INTERNATIONAL RESCUE COMMITTEE, 2014 TO PRESENT): A SHIFT FROM DIRECT DISTRIBUTION TO VOUCHERS TO CASH TRANSFERS FOR SEED SECURITY[48]

Case study overview and approach

NGOs began DSD in NE Syria in 2014. As part of a wide-ranging basic needs, recovery and resilience program, the IRC provided seed through vouchers from 2016 and then shifted to cash for seed in 2019. Cash was transferred in two tranches through a hawala-based delivery mechanism for the cultivation of winter crops and summer vegetables. This case study describes the reasons for the shift in modalities, and the ways in which IRC was able to comply with donor regulations for cash interventions.

Informal and formal seed systems in NE Syria

Despite the government's strong control over the formal wheat seed system prior to the crisis in 2011, it is important to note that farmers in NE Syria obtained the majority of their wheat and barley seed from the informal seed system (Bishaw et al, 2011). Whereas the formal seed system largely collapsed in NE Syria as a result of the crisis, the informal seed system continued to operate, allowing farmers to use seed that had been saved from the previous harvest and to acquire seed from local markets or traders.

Surveys undertaken among 406 farmers in NE Syria before the crisis (Bishaw et al, 2011) reveal that – for wheat – 59% of seed was sourced on-farm (from the previous harvest), 24% was from the formal sector, 13% from neighbors or other farmers and less than 5% from markets or traders.[49] For barley, 83% of seed planted came from the farmer's previous harvest, 11% came from neighbors or other farmers, and 7% from markets or traders. None of the 200 barley farmers surveyed obtained seed from the formal sector – this is because the formal seed sector in Syria produced very small quantities of barley seed, sufficient for only 3% of the national barley area.

Data from Northwest Syria (SeedSystem, 2015) suggest that the proportions of seed sourced from each of these channels would have changed during the crisis, with a decrease in the proportion sourced from the formal sector, and an increase in the proportion of seed sourced from traders. In general, informal traders are known to play an important role in seed security, particularly during times of crisis, though not all traders necessarily distinguish seed from grain. In Syria, the following seed management processes are practiced by traders: the use of chemicals for seed storage to protect against pests; the removal of inert material, such as weeds and stones; the use of sieves to clean grains; and the use of specific places for seed treatment, weighing and bagging (SeedSystem, 2015).

Within the informal seed system, seed management practices used by the majority of farmers include on-farm selection, seed cleaning[50], treatment and the use of separate storage facilities (separate to grain). Most farmers

[48] Information for this case study comes from KIIs and correspondence with IRC staff at program and HQ levels. Additional background information comes from various publications, as cited within the text.

[49] These percentages refer to seed 'lots', not seed weight. Of the 206 wheat farmers, 150, 44 and 12 farmers planted one, two and three wheat varieties respectively, using 273 seed lots from different sources. The data were collected in the 1998/99 crop season. It is likely that the proportion of wheat seed acquired from the formal sector may have increased slightly up to the onset of the crisis in 2011, but the overall pattern would have remained similar until the changes brought about by the crisis.

[50] The majority of farmers clean their seed by hand with wire mesh sieves. Small-scale, machine cleaning services were also readily available in Hasakeh through the use of locally manufactured, mobile cleaning machines (Bishaw et al, 2012).

perceived informal sector seed to be of good quality, but it is rare for farmers to carry out their own germination tests. Both the physical and physiological quality of wheat seed from various informal sector sources has been shown to be comparable to seed from the formal sector.[51] Since both wheat and barley are self-pollinating crops, varietal purity can be maintained by experienced farmers through on-farm selection and rogueing out off-types, especially when harvesting by hand. Tests for seed health showed that wheat seed samples from both the informal and formal sectors were infected by fungal diseases (Bishaw et al, 2013)[52]. Chemical treatments are widely used within informal wheat seed systems, though the supply and quality controls for the required agro-chemicals have been negatively affected by the crisis.

Prior to the crisis, formal sector, certified seed was produced in Syria through 12 government seed centers, where seed that had been multiplied by contract farmers was mechanically cleaned and sorted, treated, tested, labelled and stored. The government seed centers located in NE Syria ceased to operate in 2013. Although some of the former contract farmers continued to multiply seed, they were unable to access the EGS required for certified seed production, the seed could not be mechanically cleaned and sorted at the seed centers, and the seed certification agencies no longer functioned. In effect, the production of certified seed was no longer possible. Even after the Northeast Syria Seed Multiplication Corporation took over the former government seed centers and started working with the former contract farmers to multiply seed in 2020, the lack of EGS meant that the seed produced could not be certified (see **Annex 7.** Northeast Syria (Mercy Corps, 2020-21): Cash for licensed seed multiplication). The quality of seed produced by the former contract farmers has declined over the years due to the lack of EGS, the lack of large-scale mechanical cleaning and sorting and the lack of quality-assured agro-chemicals required for seed treatment.

NGO seed provisioning modalities, 2014-present

NGOs began DSD in NE Syria in 2014. At that time, seed was procured through traders and some of the former contract farmers engaged in seed multiplication. Limitations on access to sufficient quantities of quality seed by the NGOs, along with problems related to the circulation of counterfeit seed,[53] led IRC to attempt to purchase and import certified seed from neighboring countries. However, logistical, political and regulatory challenges prevented this, along with concerns about the adaptability of imported crop varieties to the agro-ecological conditions in NE Syria. This led IRC to introduce seed provisioning through agricultural input vouchers for seed and fertilizer in 2016.

A key challenge with vouchers, however, is the limited number of traders or vendors that can be contracted to supply the inputs for the exchange of vouchers. This necessarily limits the choice of inputs available to farmers. In 2018, farmers' feedback on the IRC voucher for agricultural inputs program showed that most farmers were only able to access one variety of wheat seed and one variety of barley. There were also complaints from farmers that the prices charged by the voucher vendors for some of the fertilizers were higher than the market price, reportedly due to the level of demand.[54] Efforts to encourage the vendors to

[51] Bishaw et al. (2012) show that the mean physical purity and germination for wheat seed collected from informal sector sources was 97.6% and 88%, respectively, and, for barley, 95.5% and 86%, respectively. The majority of wheat seed samples, i.e., 70.4% (n = 206) for physical purity and 78.2% for germination, met the minimum seed quality requirements of certified seed 2. In barley, only 10% of samples for physical purity and 72% of samples for germination met this standard. Contamination with weed seeds appeared to be the major constraint for barley seed samples not meeting the standard of formal sector.

[52] Machine harvesting (which is common in NE Syria) makes it more difficult to maintain varietal purity and increases the rate of infection by different seed-borne diseases.

[53] In this case, counterfeit seed refers to seed that is sold by traders as certified seed when it has not, in fact, been certified, and it does not reach the quality standards required for certification.

[54] This is common in voucher programs which – necessarily – can only contract a limited number of vendors to provide the required inputs, so there is consequently less competition and voucher vendors are able to hike prices for the participants.

provide more varieties did not work well, and the desire to provide greater choices to farmers contributed to the decision to shift from vouchers to cash for agricultural inputs.

Cash for agricultural inputs

In 2019, IRC replaced the voucher modality with cash for seed and other agro-inputs. Cash was given in two tranches for the cultivation of winter crops (predominantly wheat, barley and lentils) and for summer vegetable production. Farmers were allowed to purchase their preferred combinations of seed and agricultural inputs, including tools or equipment (such as irrigation equipment) according to their individual situation and agro-ecological conditions. The objective was food security (including income generation from crop sales), as well as seed security. It was estimated that 10% of the harvest would be saved as seed for the next season to prevent farmers having to purchase expensive seed on the market. It was also anticipated that farmers would produce a surplus to be sold as both food and seed to others, thereby increasing seed supply.

A hawala-based delivery mechanism was used for the transfer of cash to farmers. The hawala network is a common cash delivery option in Syria, whereby international NGOs do not handle cash themselves and instead have negotiated contracts with hawalas who deliver the cash transfers to recipients.

Conditionality and complementary components

The program used a combination of accompanying messaging and conditionality:

- Cash was intended to be used for agricultural inputs and was therefore 'labelled'[55] as such, with messaging provided to farmers to explain what cash was being provided for and to encourage spending on seed and agricultural inputs;
- Farmers were encouraged to attend agricultural training sessions provided through farmer field schools[56], but attendance was not enforced, and the PDM report notes that just 15.5% of respondents reported that they received agricultural training and extension services from IRC. For the remaining 85% of farmers not enrolled in the farmer field school program, concise training sessions and supporting brochures were provided on seed selection, planting techniques, and adherence to the agricultural calendar
- Farmers were encouraged to provide receipts that IRC could use as evidence of compliance with donor regulations on seed quality and the use of agro-chemicals (see below); and
- The second payment for the summer season was conditional. Farmers had to demonstrate the first payment was used for inputs for the winter season cropping in order to receive the second payment for the summer season. This was checked through post-distribution monitoring, and the second payment could be withdrawn in cases where a farmer had not satisfactorily planted a winter crop.

IRC is a member of the Syria Resilience Consortium[57] and works in three governorates of NE Syria.

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[55] See CaLP Glossary (2018): 'Labelling is the process by which humanitarian agencies 'name' a cash intervention in terms of the outcome they want it to achieve e.g. cash for shelter, or cash for food. This may be accompanied by activities to influence how recipients use their cash assistance. Sector-specific interventions using cash transfers are labelled and might actively encourage recipients to spend the cash on items or services which will contribute to achieving sectoral objectives.'

[56] Farmer Field Schools amplify practical training efforts by enabling farmers to receive immersive instruction directly on their own farms. Some farmers will also be trained to become community trainers, imparting agricultural knowledge to their peers. This sustainable approach ensures that the acquired expertise remains embedded within the community, bolstering capacity even after the IRC's involvement concludes.

[57] The Syria Resilience Consortium (SRC) was established in 2016 by six agencies - CARE, DRC, Handicap International, IRC, NRC, and Mercy Corps, funded by Norway, Finland, SIDA and DANIDA. The SRC utilizes an area-based model,

Coordinated efforts were made by the members of the Syria Resilience Consortium and the Agriculture Working Group to encourage the Self Administration of NE Syria to allow for seed imports (see below) and to re-start formal sector seed multiplication and varietal development at the former government seed centers, but this has been constrained by a lack of financial and technical support. Given the long-term (5 to 7 years), high-level technical expertise needed for varietal improvement, NGOs have been advocating to donors and international organizations (e.g., International Center for Agricultural Research in the Dry Areas [ICARDA] and FAO) to engage with the seed centers whilst the NGOs have focused on farmers' seed-saving and seed multiplication efforts.

Compliance with donor regulations on cash transfers

One of the donors for IRC's cash program (USAID) has very specific regulations to ensure the provision of high-quality seed and the safe use of agro-chemicals, particularly in insecure/conflict contexts[58]. IRC engaged in close communication and coordination with USAID to agree on an approach in NE Syria that allowed them to meet USAID regulations through the following measures:

- Seed quality: Since certified seed was not available in local markets, IRC conducted its own germination tests on seed from local markets and shared the test results with USAID prior to the cash distribution. The program also included sensitization for farmers on how to select quality seed from local markets.
- Safe use of chemicals: Strong messaging was used to caution farmers on the safe use of chemicals, and awareness-raising sessions included information about preserving and sustaining natural resources.
- Restricted goods: Since pesticides and certain types of fertilizer cannot be purchased with USAID funds, strong messaging was used to ensure that farmers had a clear understanding of how the cash was intended to be spent. Awareness-raising sessions and the farmer field schools included information about organic fertilizers and integrated pest management so that farmers had knowledge about alternatives to agro-chemicals. Finally, the receipts from farmers' purchases were collected as part of the post-distribution monitoring survey that IRC conducted three weeks after the cash distribution. These receipts were used as evidence to show that only non-restricted agricultural inputs had been purchased with USAID funds. Where necessary, IRC was able to use funding from their other donors for the purchase of USAID-restricted goods, since DFID/FCDO, DANIDA and SRC funds allow the purchase of agro-chemicals.

Other challenges

In addition to the lack of certified seed and the need to work within donor regulations, the Syria Resilience Consortium partners and the Agriculture Working Group have faced the following challenges, one of which has been mitigated through coordinated advocacy efforts:

- Drought and reduced harvests: Unseasonably low levels of rainfall occurred in NE Syria during the 2020/21 winter season, resulting in extensive crop failure. Agriculture Working Group assessments indicated that just 10% of wheat and barley farmers harvested their crops in 2021, leading to reduced production and substantial increases in the prices of grain and seed in 2021.

where analysis, response planning, and implementation are coordinated across three response areas: North Syria, Northeast Syria, and Southern-central Syria.

[58] The safe use of agro-chemicals partly relates to environmental concerns over the use of certain pesticides, insecticides and fungicides, plus the need for proper personal protective equipment when handling agro-chemicals. Another concern (especially in conflict contexts) is that ammonium nitrate - a chemical compound widely used in fertilizers - is also highly explosive.

- Price increases: Market assessments indicated limited supply and price rises for wheat and barley seed. From 2020 to 2021, prices of wheat seed increased from 500 Syrian Pounds (SYP) to 2000 SYP, and barley seed increased from 100 SYP to 1350 SYP. Price monitoring by agencies reported that the cash for seed security programs have not impacted on price changes. The prices of fuel and other agricultural inputs have increased substantially since the onset of the crisis.
- Restrictions on seed imports from neighboring countries had been a challenge since at least 2016 and prompted IRC to adopt a seed voucher approach. Coordinated needs assessments by the Syria Resilience Consortium and the Agricultural Working Group allowed for increased advocacy and leverage to push successfully for changes by the Self Administration of NE Syria. Three wheat varieties are now allowed to be imported from the Kurdish Region of Iraq under specific terms and criteria.

Other elements of IRC's approach

The cash for seed intervention described here forms part of a wide-ranging economic recovery, resilience and development program that is delivered through three main approaches: (i) basic needs relief through MPCA; (ii) early recovery through a food security program involving cash for seed, cash for food, cash for work, cash for livestock, VSLAs and farmer field schools to strengthen capacity in improved agricultural practices; and (iii) building resilience through a livelihoods program involving support to small and medium enterprises, vocational training and apprenticeships.

The MEB used to calculate the MPCA transfer value did not include an amount of cash for seed security purposes, or for other livelihoods inputs. The targeting criteria for the MPCA program was different to that of the cash for seed program which used additional eligibility criteria such as access to land and water, and levels of agricultural experience and knowledge.

ANNEX 7. NORTHEAST SYRIA (MERCY CORPS, 2020-21): CASH FOR LICENSED SEED MULTIPLICATION[59]

Summary of approach

In 2020 and 2021, cash (US$320 and US$320 respectively per farmer) was provided by Mercy Corps to local farmers licensed to undertake seed multiplication in order to increase the availability of quality wheat seed. Licenses for seed multiplication had previously been issued by the NE Syria Seed Multiplication Foundation based on the experience and technical capacity of the farmers. Farmers used the cash to purchase fertilizer and other inputs needed for seed production. The multiplied seed was then purchased by the Seed Multiplication Foundation who conducted the necessary seed quality checks and subsequently distributed the seed to farmers.

Background on the formal seed sector

Prior to the crisis, formal sector wheat seed production was subsidized by the Government of Syria and highly centralized. The parastatal agency, the GOSM, was responsible for the supply and marketing of wheat seed, including seed quality control. GOSM had seed processing and storage facilities at 12 seed production sites, from which seed multiplication was organized through contracts with private farmers, farmer cooperatives or state farms. The seed was then marketed and provided to farmers at subsidized cost through retail outlets, either on a cash or credit basis.

GOSM's facilities were heavily damaged by the crisis; only half of GOSM's trained staff remained, and only two of the processing centers were operating in 2018. All of the GOSM centers in NE Syria became inactive in 2013. Despite the damage to the facilities, however, the knowledge and experience of the former contract farmers were retained, and many of these contract farmers continued to produce seed. Although this was not officially certified seed (because the parent seed does not conform with internationally recognized protocols, and certification agencies no longer function in Syria), the seed was still reportedly often of modern varieties and of fairly high quality. At the time of writing, Mercy Corps was working with the Department of Agriculture of the Self Administration of NE Syria (SANES) to support the establishment of a wheat seed certification system in NE Syria.

When emergency seed aid began in 2014, at least some of the seed procured for DSD was purchased from traders who had themselves purchased the seed from farmers who had previously been contracted by GOSM. In NE Syria, SANES took over some of the former GOSM seed centers and supported some of the former contract farmers by supplying inputs for seed multiplication (seed, fertilizer, fuel and pesticides) on a credit basis to be repaid after the harvest. The SANES seed agency – now known as the Northeast Syria Seed Multiplication Foundation – faced constraints in accessing breeder's seed which would normally be used to generate pre basic and basic seed[60] (on GOSM farms). Basic seed is normally used to produce certified seed (by GOSM farmers), but there was limited funding for the seed agency to purchase the certified seed from contracted farmers. In 2019, for example, Mercy Corps was planning to implement a seed intervention using vouchers for seed, but there was no certified seed available in local markets. Instead of vouchers, Mercy

[59] Information for this case study comes from KIIs with Mercy Corps staff at program and HQ levels, with additional background information from 'Seed System Security Assessment NW Syria' (SeedSystem, September 2015) and 'Syrian Arab Republic Seed Security Assessment' (FAO, August, 2020).

[60] Basic seed is also known as foundation seed. Breeder seed and basic or foundation seed are generally both regarded as EGS. Early generation seed is essential for the production of certified seed.

Corps provided seed by direct distribution after undertaking seed quality checks. This experience prompted Mercy Corps to consider seed multiplication.

Background to the intervention

Mercy Corp's discussions with the SANES Department of Agriculture and a range of seed suppliers in NE Syria identified poor quality seed within the formal seed sector as a constraint that needed to be addressed. The Seed Multiplication Foundation was the sole public sector agency producing "certified" wheat seed in NE Syria through contracted out-growers, but its activities were seriously curtailed by the crisis and lack of capacity. The Seed Multiplication Foundation requested support to improve the quality of the source seed that was being used by licensed seed multipliers for the production of seed within the formal seed system. Sanctions meant that the SANES Department of Agriculture no longer had access to EGS (i.e., breeder seed and basic or foundation seed, essential for the production of certified seed), and international agricultural research organizations that might have supplied such seed (such as ICARDA) were not authorized to work in NE Syria.

The intervention was supported by the Multi-Donor Fund of the Syria Resilience Consortium. Mercy Corps initially planned to purchase EGS in regional markets, but this proved impossible. The agency, therefore, decided to concentrate on improving locally available "certified" seed by supporting the existing seed producers (i.e., the previous contract seed farmers), who had been licensed and approved to produce seed by the authorities. Cash was provided to the seed producers for the purchase of source seeds, fertilizer and other inputs for seed multiplication in order to increase the quality and supply of seed. Mercy Corps did not provide any funds directly to the Seed Multiplication Foundation or any other SANES body.

Cash transfers for licensed seed multipliers

In 2020, 811 farmers who had existing licenses from the Northeast Syria Seed Multiplication Foundation were each given US$350 to buy the inputs required for seed multiplication. This amount was determined through discussions with farmers and Department of Agriculture officers and was calculated to include the cost of 900 kilos of urea fertilizer, sufficient for 60 donums[61]. Whilst there were no restrictions from Mercy Corps on how the cash was to be spent, the condition was that the seed multipliers were expected to use the cash to fulfil the terms of a contract between the individual seed multipliers and the Seed Multiplication Corporation. In 2021, the number of farmer seed multipliers who received the cash transfer (US$320) increased from 811 to 1118 farmers.

Contractual arrangements and quality control

Licensed seed multiplication farmers had been given a contract by the Northeast Syria Seed Multiplication Foundation based on their earlier seed multiplication experience and their capacity to multiply seeds. Quality control for the seed produced by the contracted farmers was the responsibility of the Seed Multiplication Foundation. The multiplied seed was then purchased by the Seed Multiplication Foundation after conducting quality checks (i.e. germination tests). In future, Mercy Corps would like to further increase the number of farmers involved, and to allow farmers to sell their seed to local traders after certification and seed quality checks have been undertaken by the Seed Multiplication Foundation.

[61] One metric donum is the equivalent of 1,000 square meters.

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