



Guidance for Emergency Seed Interventions during the COVID-19 pandemic

Emergency seed interventions may already be planned or ongoing in many areas (e.g. to respond to drought, pest infestation, displacement, or other stresses). COVID-19 and its associated restrictions on travel, trade and markets may also constrain farmers' seed security, as well as the ways in which aid agencies are able to operate. This Guidance Note provides key information to implementing organizations that might be considering an [emergency seed intervention](#)¹ for the forthcoming planting season linked to the COVID-19 pandemic, often overlain with other stresses.

1. The guidance is presented in four parts:

- 1) **Background on seed security** and how seed systems might be affected by the restrictions imposed in response to COVID-19;
- 2) **A decision tree** and seed-related response options;
- 3) **Key aspects** to be considered for each of the different seed-related interventions;
- 4) **Additional guidance** for conducting a remote seed system assessment (contained in Annex 1).

This document complements other guidance notes, including the Seed System paper on [Better Seed Security Response during the time of COVID-19](#). To help keep this guidance short, links and references are made to other guidelines and documents for additional details.

¹ FAO, 2010. Seeds in Emergencies: A technical handbook.

1. Background

[Seed Security](#)² can be described in relation to availability, access and quality (quality in the sense of both good seed health and adapted varieties).

Within smallholder farming systems, a good amount of seed is normally available at the household level as seed that has been saved from the previous harvest.

For many crops, this 'informal' seed³ (produced informally by smallholder farmers) is also normally available in local markets through [informal traders](#)⁴ (often grain traders) and also through other farmers. For some crops (notably legumes such as beans and groundnuts), some of the informal traders might distinguish seeds⁵ from grain by selecting for quality and keeping different varieties separate.

Certified seed from the formal seed sector is normally available through seed companies and distributed through agro-input dealers, government schemes and other projects. Smallholder, semi-subsistence farmers in Africa normally only purchase formal, certified seed for hybrid maize and vegetables.

Access to seed is determined by farmers' ability to save their own seed from one season to the next, also by their social networks, purchasing power, and the functioning of local markets. Timing is a crucial aspect in relation to the use of seed in rainfed farming systems – if seed is planted late in relation to the rainy season, this reduces the potential yield at harvest.

² CIAT, CRS, CARE Norway 2006. Seed Aid for Seed Security: Advice for Practitioners.

³ For simplicity, this guidance refers to 'seed' as both certified seed from the formal, regulated seed sector (produced by seed companies and registered farmer seed growers, and sold through agro-dealers), and also 'potential seed' (produced by farmers and sold through informal traders) though only the former has undergone independent quality assurance (see Sperling and McGuire 2010, for more detail: <https://seedssystem.org/wp-content/uploads/2014/03/Local-seed-markets.pdf>).

⁴ IFPRI, FAO. 2009. Local markets, local varieties. Rising Food Prices and Small Farmers' Access to Seed.

Seed security varies by crop and the relative capacity and wealth of individual farmers. For most subsistence food crops, smallholder farmers in sub-Saharan Africa normally acquire most of their seed from informal seed sources, i.e. own-saved seed, other farmers, informal traders, and local markets⁶.

⁵ Not all of what is available through informal grain traders can be used as seed; however, some traders maintain stocks that can be potentially planted, and farmers regularly purchase seed from them.

⁶ This predominant use of informal sources for seed is true for the large majority of crops- especially for those key for food security, nutrition, resilience (McGuire and Sperling, 2016). <https://seedssystem.org/wp-content/uploads/2016/01/Seed-systems-smallholder-farmers-use.pdf>

Possible impacts of COVID-19 and associated restrictions on seed security:

- Farmers' ability to save seed is unlikely to be affected directly by COVID-19. Note that the poorest farmers often find it difficult to save seed even in normal times; increases in poverty relating to loss of income as a result of COVID 19 may affect both seed-saving and access to seed from social networks.
- Travel restrictions and disruptions to local markets⁷ may disrupt established supply chains and reduce the ability of informal traders to provide seed at planting time (reduced seed availability in local markets).
- Market disruptions may lead to an increase in the price of seeds, as well as reduced incomes and reduced ability of farmers to purchase seeds. Disruptions to local markets may affect farmers' physical access to markets to purchase seeds.
- Travel restrictions and lockdown measures may affect [established supply chains for certified seeds](#), and the transport and sale of certified seed by agro-dealers in rural areas – this may affect the local availability of certified maize and vegetable seeds.
- International travel restrictions may reduce the import of vegetable seeds other than indigenous vegetables. Hybrid vegetable seeds tend to be imported from The Netherlands, Asia (or elsewhere).
- Farmers may alter their crop choices and the size of their planted plots due to the uncertainty of the situation and/or due to seed access and availability – they may decide to plant more of food crops and less of cash crops (to increase production for greater self-sufficiency), or they may plant less overall if they cannot access the labour and inputs they need. They may prefer to plant crops that have shorter growing periods and/or crops that can be stored more easily. All these shifts may affect the demand for seed and planting material for certain crops.

Note that the direct impacts of COVID-19 may not be as great as impacts due to other on-going stresses such as those caused by desert locusts, Fall Armyworm, drought, floods or conflict. These impacts will be compounded in contexts where markets and market systems are adversely affected by COVID-19 restrictions.

The need for any potential seed-related intervention must be determined by [needs assessment](#)⁹. Guidance on assessing needs remotely is provided in Annex 1.

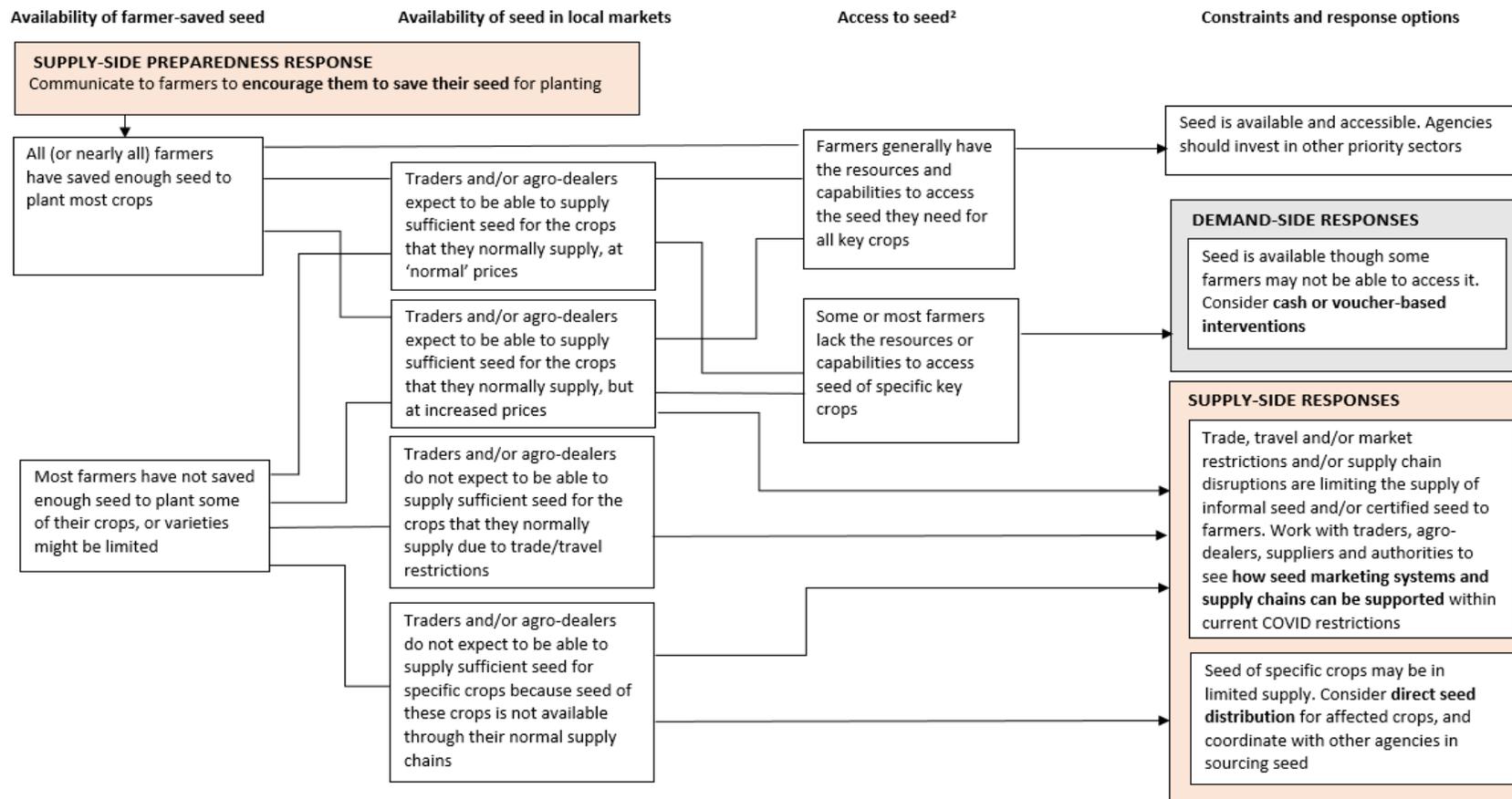
Impacts on availability or access will often differ by crop. Responses therefore need to be tailored to address the constraints affecting specific crops. It is important to focus on crops that will be sown in the upcoming season, and which are key for farmers' food security, nutrition or incomes. Bearing in mind that responses should be crop-specific, the following section presents a simple **decision tree** to consider the most appropriate mode of emergency or short-term response for the forthcoming planting season.

⁷ Local markets in this guidance refer to the markets where farmers normally go to purchase seed, whether from informal traders or agro-dealers. They include weekly markets and also mobile traders who travel to rural communities to sell goods and inputs.

⁸ International Seed Federation. 2020. Seed Movement during the COVID-19 pandemic.

⁹ Key guides are FAO, 2016. Seed Security Assessment: A practitioner's guide. <http://www.fao.org/3/a-i5548e.pdf>; and Seedsystem.org, who also provide an e-course <https://seedsystem.org/assessments-and-e-learning-course/>.

2. DECISION TREE¹⁰ TO DETERMINE APPROPRIATE RESPONSE OPTIONS BASED ON LOCAL SEED AVAILABILITY AND ACCESS¹¹



¹⁰ The lines linking the boxes describing availability and access indicate different combinations of factors that create various scenarios; they do not indicate causal linkages

¹¹ Access refers to whether farmers have economic and physical/social access to markets.

3. Implementation of seed-related interventions

COVID-19 has changed the ways in which aid agencies are able to operate, and it generally takes longer to get things done when working remotely. **Decision-making and planning processes relating to seed interventions need to start much earlier** if seed-related support is to be provided in time. If farmers have been affected by reduced incomes, if crop production levels at harvest are substantially lower than 'normal' and if local markets are not functioning, then aid agencies should invest in the **remote assessment** approach described in Annex 1 to compile the information needed to apply the Decision Tree. The short-term, emergency interventions described below should only be implemented by agencies that have prior experience with these programming modalities. Some interventions can be done in combination, e.g. vouchers or cash and market system support. The guidance below provides key considerations when implementing these modalities specifically in relation to seed. More general programming guidance is provided in other documents, as indicated.

a) Messaging to farmers to save their seed

- Communicate to farmers to encourage them to save the seed that they will need for the next planting season. In case there are travel restrictions and market closures at planting time due to COVID-19, then it is important that farmers have their own seed for planting rather than relying on others or local markets.
- This communication should be implemented as a preparedness measure, regardless of the seed security context. This intervention type has been recommended in the Seed System guidance paper on [Better Seed Security Response during the time of COVID-19](#).
- Such communication needs to start before the harvest season and should continue during and after the harvest season.

b) Cash transfers for seed

- Experience is limited, but evidence suggests that [cash transfers for seed](#)¹² are most effective when targeted at existing farmer groups and combined with complementary support, e.g. agricultural extension messaging and/or technical agricultural or agri-business training.
- Prior [market assessments](#)^{13,14} must show that quality seed is available either through informal seed sources (farmers and traders) or formal seed sources (agro-dealers)
- Timing of cash transfers intended for seed is crucial in relation to the planting season.
- Complementary support for food security should also be considered, depending on the food security situation.
- Refer to [CVA in COVID-19 contexts: guidance from the CaLP network](#) and [ICRC Cash and Voucher Assistance and COVID-19 \(tipsheet\)](#) for more general guidance on cash transfers and COVID safety considerations.

c) Vouchers for seed

- If vouchers are to provide seed through the formal sector, prior market assessments must show that this quality seed is available: if certified seed is not available through agro-dealers, then informal traders or farmers could be considered as vendors if national seed regulations and donors allow for this. e.g. in countries that recognise 'quality declared seed' that can be sold by registered farmer groups. Some countries allow for the relaxation of seed standards in an emergency (e.g. to allow for 'commercial seed'). Seed quality must be assured.
- If vouchers are to provide seed from the informal sector, from informal traders, selection of participating traders should be based on an assessment of the quality of their wares and practices, as well as their reputation. Not all traders are the same. Some may stock single varieties from defined regions, or manage potential seed stocks differently – others will not.

¹² Keane et al. 2019. Study on cash transfers for seed security in humanitarian settings.

¹³ International Rescue Committee, The Cash Learning Partnership. 2015. Comparative Table of Humanitarian Marker Analysis Tool.

¹⁴ Also consider - Minimum Economic Recovery Standards (MERS) Guidance in Response to COVID-19. 2020. https://www.calpnetwork.org/wp-content/uploads/2020/04/MERS_COVID19_10Apr2020.pdf

For further guidance on selecting vendors, refer to [chapter 3.12](#) from [CRS Agricultural Fair and Voucher Manual](#).¹⁵ Seed quality must be assured.

- Seed quality assurance: involves screening vendors, verifying their seed management practices, and testing their seed. Is the capacity for testing seed quality affected by COVID-19 – for example, because laboratories are not functioning normally? Could these delays affect the interventions, or unduly delay payment to vendors?
- Timing of seed voucher or e-voucher activities needs to fit the planting season.
- Refer to [CVA in COVID-19 Contexts](#)^{16,17} for safety considerations. Can seed vouchers be distributed and used in ways that do not expose people to infection risk?

d) Seed Fairs

- In general, seed fairs are not recommended because it is difficult to maintain safe physical distancing and proper hygiene. Seed fairs should only be implemented if it is possible to ensure proper safety considerations (e.g. through smaller, more dispersed fairs, staggered over several days), and with the explicit agreement of local authorities.
- Alternative modalities should be considered, including cash transfers and support to seed market systems (see below).

e) Supply-side support to seed market systems

- Market systems approaches not only address supply chains, but also the key infrastructure, actors, and enabling environments. As described above, there are essentially two distinct seed market systems: the informal system (farmer-produced seed, supplied by farmers and informal traders) and the formal, regulated system (seed produced by formal seed companies and registered farmer groups, with seed supplied through agro-dealers, government schemes and NGO projects). In both normal conditions and crisis contexts, farmers rely most on informal seed markets
- Market support to seed systems is an emerging approach in emergency contexts. There is little documented experience of supporting seed market systems in emergencies, other than with seed vouchers and fairs. In general, market support interventions can take multiple forms, including activities that support market actors, market infrastructures and services. They can seek to address both obstacles to supply/availability and demand/access .
- Support either to formal or informal market systems requires detailed knowledge of the market actors and the broader value chain linkages. This is not something to embark upon for the first time at the peak of the crisis (but may be worth exploring for future seasons). Constraints linked to COVID-19 restrictions could take many forms.
- Refer to [Market Support Interventions in Humanitarian Contexts – a Tip Sheet from the CaLP network](#), [Mercy Corps Beyond Cash: Making Markets Work in Crisis](#), and [USAID Bureau for Resilience and Food Security Guidance on Supporting Safe and Functioning Food Markets](#). More general guidance can also be accessed through [The CaLP Learning and Tools](#) portal.

f) Direct Seed Distribution

- Refer to more general FAO guidance on [direct seed distribution](#)^{18,19}. Key considerations specifically in relation to the COVID context include the following:
- Timing: There are many stages for seed procurement and delivery (e.g. tender, contract, purchase, package, quality assurance, transport); everything will take longer with COVID restrictions, and some tasks will need to be modified. Is there sufficient time to procure and deliver seed to farmers before the planting season starts? Be realistic.
- Choice of seed class: Most direct distributions involve certified seed procured from seed companies. In some countries, there are other classes of certified seed such as 'quality declared seed' that can be procured from registered farmer groups. Some countries allow for

¹⁵ Catholic Relief Services, 2017. Agricultural Fair and Voucher Manual. Baltimore, MD, USA.

¹⁶ Golay, A. and Tholstrup, S. 2020. CVA in COVID-19 Contexts: Guidance from the CaLP network.

¹⁷ Also consider - ICRC 2020. Tipsheet: Cash and Voucher Assistance and COVID-19 <https://www.calpnetwork.org/wp-content/uploads/2020/03/ICRC-Tip-sheet-CVA-and-COVID-19.pdf>

¹⁸ FAO, 2010. Seeds in Emergencies: A technical handbook.

¹⁹ Also consider Relief and Rehabilitation Network - Overseas Development Institute. 1996. Seed Provision During and After Emergencies <https://www.alnap.org/system/files/content/resource/files/main/gpr4.pdf>

the relaxation of seed standards in an emergency (e.g. to allow for 'commercial seed'). All seed classes require quality assurance prior to procurement and distribution.

- Quality assurance: is the capacity of seed inspection analytical laboratories affected by COVID restrictions? This may further delay direct distribution, or compromise procedures for independent verification of quality (i.e. affect contracts with suppliers).
- Choice of crops and varieties: Is the right type of seed available, by crop and variety? This means the crops and varieties preferred by farmers and adapted for the upcoming season. Now is not the time to introduce novelty, especially unknown or untested varieties.
- Quantity of supplies: [Formal sector seed supply chains](#)²⁰, both national and international, may have been affected by COVID restrictions. Check if suppliers have the capacity to supply the quantities of the desired crops and varieties required.
- Level of agency demand: Are other agencies' seed plans already accounting for available quantities of seed? Large-scale distributions by several agencies can distort seed markets and the availability of seed.
- Coordination with other agencies is essential for harmonisation and to avoid potential market distortions and duplication of effort, e.g. through the Food Security Cluster or a similar body.

²⁰ International Seed Federation. 2020. Seed Movement during the COVID-19 pandemic.

Annex 1.

Remote Assessment Guidance²¹ for FSL / Agricultural Officers who are unable to travel to existing or potential project areas

Steps 1 to 6 can be undertaken before the next harvest season. Start as soon as possible. Focus on 3 or 4 main crops that are important for food and nutrition security in the potential project area. Working remotely through a network of key contacts, in addition to other on-going tasks, one or two weeks should be allocated to each step. Steps 7 to 9 should be undertaken well before the planting season. The information compiled through Steps 1-9 can then be used in the Decision Tree presented above (Step 10).

1. Establish a reliable **information & communication network** on agriculture and local markets
 - a. Work with your colleagues to establish contact with key people who you can rely on to provide accurate information about the farming and market situation in each of your project areas over the current / forthcoming cropping season. e.g. Department of Agriculture officers, extension workers, market monitoring officers, community outreach officers, farmer leaders, local chiefs, local traders, agro-input dealers, etc. Perhaps set up a WhatsApp group for each project area so that you can communicate easily on a regular basis with key staff / officials.
 - b. Ensure that your key contacts are able to communicate with you – if necessary, ask your organization to provide them with phone credit on a regular basis and/or access to solar phone charging facilities.
 - c. For each of your key contacts, check where / how they are able to get information. Ideally, they should be able to communicate with other farmers and/or traders who they already know; you may need to advise them about establishing their own network of key contacts who they can rely on to provide accurate information.
 - d. Share a list of contacts with your colleagues or supervisor, including details of your contact's contacts if possible, so that you or one of your colleagues can still be in touch with the key contacts in case you or one of the contacts is unable to communicate.
2. Compile information about **local markets** in your project areas. Key questions to ask your contacts, and for them to ask their contacts:
 - a. Are local food / grain markets and established supply chains still functioning?
 - b. Are farmers and others able to buy and sell the normal range of agricultural products?
 - c. Have prices of any key agricultural products been affected? How and why, if so?
3. Find out if the normal **food security / market monitoring systems** are still functioning in your country / region and make sure that you or your colleagues are receiving any regular bulletins, outlooks or updates. Where reliable, these can usefully provide a broader perspective and help to verify or explain the information you compile for your project area.
4. Familiarize yourself with the **normal cropping patterns** in your project area by searching for and reading existing reports. Be sure that you have the correct information about the planting times for the different crops - if necessary, ask your contacts. Compile information about the **on-going cropping season** or most recent planting season, and whether there are any **active farmer groups** who are multiplying good quality seed. Key questions to ask your contacts, and for them to ask their contacts:
 - a. Has there been any change in the range of crops normally planted by farmers? Describe any changes if so and the reasons for these changes.

²¹ Extensive guidance on assessments, the process and the type of technical information needed, is at: <https://seedssystem.org/assessments-and-e-learning-course/> and <http://www.fao.org/3/a-i5548e.pdf>. These resources can help to gather the essential information needed to make rapid decisions. One doesn't have time to collect everything!

- b. Has there been any change in the areas / farm sizes that are normally planted? Describe any changes if so and the reasons for these changes.
 - c. Are there any farmer groups who are currently multiplying seed of the crops and varieties farmers want and need?
5. Familiarize yourself with the **normal seed systems for 3 or 4 main crops** in your project area by searching for and reading existing reports, e.g. documentation from recent or on-going projects, any studies or [Seed System Security Assessments \(SSSAs\)](#)²² that may have been done, etc. If no reports are available for your project area, then look at other SSSAs to gain a general understanding of how farmers normally access seed for different crops. Key questions to ask your contacts, and for them to ask their contacts:
 - a. For each crop, what is the approximate quantity of seed that an 'average' farming household normally plants?
 - b. For which crops do farmers normally save seed? Are there any crops or crop types which farmers find difficult to save? (e.g. due to pest damage during storage)
 - c. For which crops do farmers normally acquire seed from other farmers (e.g. friends, neighbours) within the community? (e.g. by barter or purchase or as free gifts)
 - d. For which crops do farmers normally buy seed from informal markets or informal grain traders? According to farmers, are these markets / grain traders normally able to provide seed of acceptable quality for planting?
 - e. For which crops do farmers normally buy seed (certified seed) from agro-input shops or dealers or agents?

An important message that you should ask your contacts to convey is that farmers should try as best they can to save the seed that they will need for the next planting season. In case there are travel restrictions and market closures at planting time due to COVID-19, then it is important that farmers have their own seed for planting rather than relying on others or local markets.

6. Continue to keep in touch with your contacts and existing market monitoring platforms throughout the cropping season so that you know if markets are still functioning and whether there have been big price changes. Ask your market / trader contacts to put you in touch with **key traders** who normally supply the crops for which farmers normally purchase from the market (Qu. 5d). Ask your contacts to put you in touch with the largest **agro-input dealers** that operate in the area (Qu.5e).
7. Before the next planting season, compile information about **informal seed and grain markets**. Focus on the crops for which farmers normally acquire seed from informal markets or informal grain traders (see Qu. 5d above). Key questions to ask your contacts and for them to ask their contacts:
 - a. Are the crops that farmers normally purchase as seed (Qu.5d) available in local markets?
 - b. If possible, **contact the key informal traders** (Qu.6) who normally supply the grains/seed that farmers normally buy for planting, and ask them whether they expect to be able to continue to supply these grains/seed up until the forthcoming planting season.
8. **Contact the agro-input dealers** (Qu.6) and ask them if they expect to be able to supply the seed for the crops that farmers normally buy from agro-input shops, dealers or agents (Qu. 4e).
9. Before the planting season, compile information about the **seed available within local communities** for the crops that farmers normally save as seed or acquire from other farmers (Qu. 5b, 5c). Key questions to ask your contacts, and for them to ask their contacts:
 - a. Have the better-off farmers and/or active farmer groups been able to save enough seed of these crops for themselves and for the other farmers that they normally

²² Sperling, L. 2008. When disaster strikes: a guide for assessing seed security. Cali: CIAT.

provide for? If not, approximately what proportion of their normal seed-saving amount have they actually been able to save?

- b. Have the 'average' households been able to save enough seed of these crops for themselves? If not, approximately what proportion of their normal seed-saving amount have they actually been able to save?

10. Use the information compiled above for the key crops in conjunction with the decision tree to help determine whether or not a seed-related intervention might be necessary, and what type of response option might be appropriate. Because different crops have different seed security systems, you may find it easier to assess each crop separately through the decision tree.

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