LONG-TERM SEED AID IN ETHIOPIA:
PAST, PRESENT AND FUTURE PERSPECTIVES

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EXECUTIVE SUMMARY

Introduction

This report assesses the effects of emergency seed assistance in Ethiopia. Such aid has been given at least since 1974, making Ethiopia a country with some of the earliest distributions and likely the most continuous emergency seed-related initiatives.

While analyses of food aid in Ethiopia have been abundant, overviews of seed aid are non-existent, with modest site-specific cases appearing only within the last three years. This seed assistance information gap seems a crucial one for an aid practice which has been ongoing for more than three decades and which unfolds in some of the more marginal farming zones and among more vulnerable populations.

Intervening in seed systems represents serious business. Seed is the input at the heart of agricultural production and determines what farmers grow and if they will harvest. Further, as seed is often replanted, even short-term seed-related interventions can have effects over many seasons. The design of emergency seed aid interventions is also particularly challenging as such interventions are complex and context-specific and, following a disaster, time may be short for anticipating needs of the next season.

For all these reasons, it seems illogical (and unwise) that seed-related assistance to date has received so little attention within the governmental and non-governmental aid communities in Ethiopia. In short, seed aid suffers from being a humanitarian orphan. Seed aid is often given simply because food aid is given: Alternatively, seed provision may be lumped together with the diverse pool of non-food items, and emphasis put on efficient procurement and transport procedures. Far from being a logistical exercise, (i.e., buying and distributing seed), effective seed aid operations demand considerable expertise of (inter alia), regional agro-ecology, livelihood strategies and markets. While good seed aid can help, poor assistance can make farmers even more vulnerable.

Aims and Methods

The aims of this investigation have been practical ones:

- to assess the effects of seed-related assistance;
- to promote ‘better implementation practice’ for the acute and chronic stress zones;
- to help shape general policy and specific guidelines for targeted and effective seed security support (as distinct from food security support).

The investigation has asked a basic set of questions:

- What is the history of seed aid in Ethiopia?
- What policies shape seed aid practice?
- What forms of seed aid have been delivered?
- Has seed aid been needed?
- What have been the short-term results of seed aid?
- What have been the longer terms results of seed aid?
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Investigations have pursued three general strategies. Researchers collected information from different stakeholders in the seed aid process: from national and regional policy makers, including donors; from governmental and non-governmental aid implementers (GO/NGO); from seed supply providers (formal sector and local seed grain/traders); and from farmer aid recipients. The work embraced long-term and short-term analyses, documenting seed aid history as well as the diversity of contemporary implementation. Third, analysts reviewed the national and region policy environments which have shaped seed aid practice.

In terms of field investigations, four sites were identified for intensive case study.

- Miesso and Chiro woredas in West Hararghe (Oromiya)
- Raya Azebo woreda in Southern Tigray (Tigray)
- Humbo woreda in Wolaita (SNNPR)
- Gera Keya woreda in North Shoa (Amhara)

The first two of these sites represent ‘classic’ seed aid scenarios, where chronic drought stress has led to low crop production and repeated emergency aid. The latter two sites have also received repeated aid, though their primary stresses are different: high population density and land degradation.

While this *Executive Summary* presents broad conclusions and recommendations, specific conclusions and recommendations are listed at the end of each report chapter.

**SUMMARY OF FINDINGS**

1. **History and Overview of Seed Aid**

Emergency Seed Aid has been implemented in Ethiopia for at least 34 years and has been near continuous since 1982. Conservative estimates suggest $US 15,000,000 per year of seed aid has been delivered by governmental and non-governmental organizations. *Over a 34-year period, this translates to $US 510,000,000 or about ETB, 4,650,000,000 spent for emergency seed-related assistance.*

Three broad types of seed assistance have been identified in use in Ethiopia: besides emergency aid for a crisis or acute stress, seed is provided for chronic stress contexts (‘aid for chronic stress’), and for medium to higher potential areas where production is being intensified (that is, more ‘developmental aid’). These three are poorly distinguished conceptually, and often not distinguished at all in terms of what is offered ‘on the ground’. There seems to be little governmental strategy tailored to addressing these different seed assistance contexts; In particular, seed assistance strategies for the most vulnerable, those in chronic stress areas, appears to be the least well-conceived. This is despite concrete data which show that the lion’s share of recent ‘acute’ seed aid has been delivered in the chronic stress (safety net) zones.
At present:
• Acute seed aid (repeated year after year) is being implemented mostly in chronic stress areas;

• Acute (emergency) aid is being used as an important vehicle for moving new, modern varieties (which, when used alone, is a developmental type of assistance);

• The seed system support component for chronic stress areas (including safety net areas) is near-completely undefined.

The box below lists the broad types of approaches in use.

<table>
<thead>
<tr>
<th><strong>Emergency Seed Aid</strong></th>
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<tbody>
<tr>
<td>• Direct Seed Distribution (DSD)</td>
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<tr>
<td>• Revolving Seed Funds</td>
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<tr>
<td>• Seed Vouchers (SV, also sometimes called ‘coupons’)</td>
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<td>• Seed and Fairs (SV+F, also sometimes linked to Livelihood Fairs)</td>
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<tr>
<td>• Seed Swaps (grain for seed, which is then redistributed)</td>
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<td>• Cash for Seed (in relief context)</td>
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<th><strong>Development Seed Programs</strong></th>
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<tr>
<td>• Agricultural packages: seed and fertilizer (for repayment)</td>
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<tr>
<td>• Modern varieties alone (for free or repayment)</td>
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<tr>
<th><strong>Special Seed Assistance for Chronically-Stressed (within safety net other poverty alleviation programs)</strong></th>
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<tr>
<td>• Seed given in food security-related programs</td>
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<tr>
<td>• Seed given in HIV/AIDS victim support programs (instead of food aid)</td>
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**Moving Forward: Recommendations (overview)**

1.1 National reflections on seed security strategy need to be planned so as to distinguish recommended seed system support: for emergency, for chronic stress and for developmental contexts. Frameworks need to be sharpened so as to give strategic guidance to on-the-ground implementation.

1.2 Recognizing the considerable overlap between acute and chronic stress contexts, specific reflection should be given to programs which link ‘relief to development’ (or ‘developmental relief’), starting in the emergency phase and continuing through recovery and beyond. This reflection should explore which approaches are already known and proven, and which ones need to be further tested.
2. Policies Shaping Seed Aid

Emergency policy, seed policy and agricultural development policies potentially all shape seed security approaches and this policy set was respectively reviewed. Policies articulating overall government strategy for achieving seed security are not apparent. In terms of specific thrusts, The GoE’s strategy of seed assistance for development is strongly expressed through a number of technology transfer programs, including the National Extension Improvement Program (NEIP) and its successors. In contrast, strategies for seed security in acute stress and chronic stress contexts remain inadequately differentiated.

Few specific policies appear to shape seed aid specifically, except a provision to relax regulations of seed quality in situations of acute need. Emergency seed aid remains an ‘orphan’ within policy.

Emergency seed aid in Ethiopia is not generally used to promote the seed industry (whose mandate is development as the commercial sector remains limited). Package programs presently absorb most of public-sector seed production, which is dominated by maize and wheat. The formal seed industry produces ‘other crops’ (non-maize/wheat) only in small quantities. Multiplication sites are concentrated in the intermediate and higher attitudes and there is little emphasis on lowland crops. This has implications for seed aid, as most of emergency delivery takes place in drought-prone areas.

Seed aid tends to be affected most by policies designed for other reasons. Food security policy presently leans heavily on agricultural intensification through modern varieties. This promotion affects the shape of seed aid directly in terms of the GoE’s preferred choice of approach (Direct Seed Distribution) and use of emergency as the vehicle to distribute modern varieties.

Moving Forward: Recommendations (policy)

2.1 Seed security needs to be put on the emergency, chronic stress and development agendas as a central theme in its own right. This needs to happen at the policy level, as well as in practice, and from national planning and all along the chain down through to the district (woreda) and farmer association-level implementation.

2.2 Special seed security expertise (seed system expertise) has to be made available with the MoARD, starting at the national level.

2.3 Crop development for chronic stress areas needs far more attention. Chronically-stressed areas are often “low-potential”, and need types of technologies that recognize the high levels of risk and large distances from markets and infrastructure.
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2.3.1 One priority is to review technologies that perform under stress and under farmers’ management for high-risk conditions (i.e. low inputs). Full packages should not be assumed in these cases.

2.3.2 A second priority is to address the barriers to the development of technologies for stress conditions. More resources need to be directed to research for lowland ecologies.

2.3.3 Related to the above (2.3.2), seed production for lowland crops needs to improve and become more demand-responsive.

2.4 In terms of emergency aid, seed security issues must treated distinctly from food security issues. For this to occur, the integration between emergency and technical agencies needs to improve. Presently, the DPPA does not deal with seeds, while MoARD generally does not engage with emergencies. The current restructuring in the MoARD may offer an opportunity to forge clearer lines of communication between DPPA and MoARD, delineating responsibility so that key decisions are not lost in the “no man’s land” between both organizations.

More specifically in reference to emergency aid:

2.4.1 Seed aid has to be given a separate identity, distinct from food aid practice.

2.4.2 Seed aid has to be removed from the ill-defined cluster of ‘Non-Food-Items (NFI).’ Seed-related interventions demand explicit concepts, expertise and planning. The shopping list of NFI often translates into simplistic supply-side operations (for instance, tallying the amount of seed aid which should be given).

3. Seed Security Assessment

Achieving seed security is quite different from attaining food security, despite their obvious links. One can have enough seed to sow a plot but lack sufficient food to eat, for example, during the ‘hungry season’ prior to harvest. Conversely, a household can have adequate food but lack access to appropriate seed for planting. Despite these important differences between food security and seed security, determinations of seed security have been invariably based, implicitly or explicitly, on food security assessments. This results from a lack of appreciation and understanding of seed security issues.

For farm families to achieve seed security: seed has to be available, farmers need to be able to access to it, and the seed quality must be sufficient to promote healthy seed system functioning. This has to happen in the short and in the long-term

At present, there are no seed security assessments conducted at any level in Ethiopia.
More National Level Assessments

At national level, determinations of need for seed aid are not done directly. Rather, food and crop supply assessment missions, food security assessments, or no assessments at all are used to justify seed–related responses. So seed need is extrapolated from food security assessments, or ‘assumed’ from food security assessments.

The trigger used to signal a “need for seed aid” is most often a “harvest failure”. A drop in harvest is directly linked to a lack of seed. Concrete examples drawn from across Ethiopian crops and regions show that even a severe production shortfall does not necessarily translate to a seed shortfall.

While since 2005, there have been initial moves (spurred by the Agricultural Task Force) toward more holistic seed security assessments, the proposed changes exist mostly on paper, and in rough (not sufficiently defined) indicator formats. The current variables for ‘best-worst’ scenarios are not sufficiently honed for seed security insights, and the formats for determining seed assistance (‘emergency needs requirements’) encourage a pre-determined response: that seed is needed and that seed availability is the problem.

Regional and Woreda (District) Level Assessments

Seed security assessments at the governmental local (woreda) level are not conducted.

Seed security assessments by NGOs are not conducted.

Seed need estimates at the woreda level are projected for two different factors. ‘Possible seed shortage’ is inferred from yield loss thresholds. The desire to acquire modern varieties for the zone also strongly shapes seed need assessments. Hence, seed need requests in emergency appeals can be particularly inflated so as to obtain modern varieties.

Moving Forward: Recommendations (seed security assessments)

Seed security assessment tools need to be refined for Ethiopia, capacity needs to be built, and incentives must be put in place to ensure such tools are used. National level organizations (such as the Agricultural Task Force) should be the prime drivers behind this.

3.1 Overall national formats for assessing seed security status should shift from those which calculate simplistic ‘seed needs’ to frameworks which recognize different types of seed security problems, and which tailor responses accordingly. These problems might include diverse constraints of seed availability, seed access and seed quality, which are distinguished by their presence in the short and in the long term.
3.1.1 The ‘best to worst’ scenario formula and the emergency needs assessment formats should be reviewed—to shift to seed security perspectives;

3.1.2 The Crop and Food Assessments missions (and other more ‘national formats), should be revised to contain a specific seed security component.

3.2 Precise seed security indicators need to be built into early warning system programs. These might start by focusing on harvest/seed tables and key indicators for seed/grain market fluctuations.

3.3 Seed security assessment capacity needs to be built at regional and woreda levels. Technical tools are already in development to help agricultural officials move forward on seed security assessments. These include harvest/seed tables, and field ‘seed system security assessment’ (SSSA) guides. An explicit technical process needs to be put in place to:

- raise awareness of seed security versus food security issues
- set up woreda level seed security indicators
- train woreda level staff in seed security field assessments

3.4 More generally, a political environment for ‘real seed security assessment’ has to be established. This is no easy task. Technical advances in methods alone will not lead to more accurate assessments.

Without strong seed security frameworks and indicators (as national guides) and without strong leadership ensuring that seed security assessment is given focus (as distinct from food security and other Non-Food Item assessment), seed aid assistance in Ethiopian will likely remain supply-driven rather than demand or problem driven

4. Implementation: Government and NGO Aid Givers

Historical records show seed aid to be continuous in areas considered as stress zones. For example, in one site of study, investigations found seed given 13 times in a period of nine years.

The emergency seed aid approaches used are strongly shaped by institutional philosophy, rather than by concrete problems encountered on the ground. Hence, seed aid approaches used in a given zone directly depend on which implementers are present. The GoE generally uses Direct Seed Distribution (DSD) (assuming that seed availability is the problem). NGOs have taken the lead in testing non-DSD approaches: cash, vouchers, seed vouchers and fairs (assuming that seed access is the problem). Some NGOs still also favor DSD, particularly to promote new varieties.

Two themes shape novel trends in seed aid programming: a) approaches to empower farmers within the seed aid process; and b) approaches to link relief response to more
developmental initiatives. ‘Developmental relief’ work presently encompasses: support to small scale business enterprises during the relief phase; support to local traders as beneficiaries in relief (via the SVF system), and introduction of new varieties as part of relief aid. Using a ‘developmental relief’ perspective might be particularly important for chronic stress contexts. (The direct technical approach would need to be tailored to high risk contexts among vulnerable populations.)

Seed aid targeting is little differentiated from food aid targeting. In one effort to encourage that seed received is actually used by farmers, one NGO asks that recipients to sign a ‘contract’ to plant and not sell aid. Similarly, evaluations are few and far between. Seed aid is often treated as a logistical exercise (that is, distribute seed). Little learning is taking place on even the short-term effects of seed aid. There are a few exceptions.

**Moving Forward: Recommendations (GO and NGO Implementers)**

4.1 Seed - related responses have to be better matched to actual seed security problems encountered on the ground. This can be encouraged by building capacity to conduct seed security assessments (section above); and also by building capacity among implementers to effect a greater range of response options.

More specifically: developing greater response capacity will involve:

4.1.1 establishing two-way learning for a among practitioners of the intricacies of different approaches (GO-NGO and among NGOs)
4.1.2 explicit-in-field training on approaches for implementation;
4.1.3 awareness raising within government and donor circles of the variety of response options;
4.1.4 harnessing financial support for more targeted action;
4.1.5 getting policy support for more targeted action.

4.2 The complete gap in seed aid implementer guidelines for Ethiopia also needs to be addressed. An initial set of issues for inclusion in guidelines has been suggested by seed security experts (Box below). The list needs to be expanded and might best be discussed in national fora, with strong regional representation and representation from key stakeholder groups. Such guidelines would be indicative, and non-binding, so debate and consensus are important for achieving subsequent advances on the ground.
SEED RELIEF GUIDELINES FOR ETHIOPIA: (proposed items)

- Seed security assessment needs to be effected prior to intervention.
- The type of aid response should be matched to the seed security problem at hand.
- Implementing organizations need to have agronomic expertise (seed aid is not just a logistical exercise). Such aid intervenes at the heart of a farming system.
- IF seed is to be provided, minimally: (examples)
  1. adapted crops and accepted varieties need to be put on offer
  2. the quality should be at least as good as what farmers normally use
- Modern varieties should be introduced in crisis periods only after a well-programmed set of steps has been followed *.
- Monitoring and evaluation (M+E) should be built into all seed relief interventions. This M+E is to promote learning by doing, and to improve practice. Such a commitment to follow-up should be a pre-condition to receipt of funds.
- If seed aid in any one zone continues for multiple seasons (3 or more) a review process should take place. The review should either: a) clearly justify the continuance of emergency aid; or b) stop the aid and plan an explicit exit strategy.
- Implementers should be held accountable for the products they deliver (whether from formal sector or from traders). Processes need to be devised for ensuring this accountability.

* Procedures detailed in Box 4 in the full report

5. Implementation: Traders

Seed/grain traders are key for stabilizing farmers’ seed systems during both normal and stress periods. Farmers routinely rely on markets to fill seed gaps and traders may be sought as suppliers for select emergency operations (both in DSD and SVF implementation). Traders at all levels (from collectors to large-scale traders), distinguish between seed and grain routinely, but to different degrees according to crop and according to their intended customer base. When presented with specific requests for seed (from local clients, government or exporters), traders can refine their seed management practices and often negotiate premiums to obtain better quality seed and sell better quality materials.

Traders’ assessments give strong insights into what happens to seed systems in periods of stress. For example, traders in West Hararghe recounted their extensive business experience, across periods of drought, severe insect and pest attack and civil strife, Traders (from small- to large-scale) asserted that there was no time, not a single season, when sufficient seed was not available directly within the region or within reach of the region for all key crops. Seed did not need to be brought in from outside as a form of aid.
While in times of stress, seed availability is not generally a problem, traders do cite other signals, which indicate seed system stress. These signals can be quickly and easily monitored at regional and more local levels.

- Volume changes in seed supply
- Seed price fluctuations
- Changes in geographic sourcing of seed
- Changes in the scale of seed loans
- Seed quality shifts (both positive and negative)

In terms of precise trends, unexpectedly, larger traders in West Hararghe, increased the volumes of seed sold during stress periods (sometimes tripling volumes), aiming to capture increased demand. Prices also increased from 50-100%, with the rises due mostly to increased transport costs.

Traders were also directly linked to NGOs and relief programs, particularly involving seed vouchers (with or without fairs). Experience showed that incentives can be put in place which encourage traders to improve seed (versus grain) management within a small number of seasons, so as to improve the quality of supply.

\textit{Moving Forward: Recommendations (traders)}

Given that local markets and traders are the backbone of farmer seed supply, much more attention should be given to ensuring that these markets can supply the kinds of seed farmers need.

5.1 Seed/grain traders could be powerful partners in helping to move \textit{new modern varieties} widely within and among farming communities. Methods should be tested for directly linking formal sector seed supply with informal trader seed/grain sellers. Among the items that might be tested and evaluated:

5.1.1 Distribution of variety samples (to stimulate demand);
5.1.2 Sale of small packets of seed;
5.1.3 Sale of modern varieties in bulk.

5.2 Seed/grain traders are potential partners in improving the \textit{seed quality per se} of sowing materials put on offer to farmers. While the quality of farmer seed overall is often shown to be quite adequate, procedures for (\textit{inter alia}) segregating among varieties and reducing percentage of sub-standard grains could give farmer clients a better return for their purchases. Awareness-raising, capacity building and incentives might all be possible measures for encouraging gradual seed/grain quality improvements.
6. Implementation: Farmer Recipients

Farmers receive seed aid repeatedly. The average household sampled received seed aid 3.35 times, with a high of 10 separate seed aid receipts. There is little evidence that recurrent seed aid decreases their vulnerability.

Seed aid supplied about half the seed a household actually planted, for the crop supplied, in any given emergency season. This was the case across all four regions sampled. This figure for seed aid should be interpreted as elevated for three reasons:

- Aid was frequently given specifically to introduce a new variety or even a new crop, so farmers may not have had parallel local stocks;
- Seed is distributed in some regions as a ‘third’ season, after the normal rains (so farmers already had sown their stocks in the ‘season before’). Chickpea, in particular, is often given for such late planting. Many farmers consider this a crop of ‘last resort’ and do not have their own stocks.
- Seed aid usually provided one or two different crops, but farmers generally grow a range of species. Therefore, seed aid’s contribution to overall household seed supply is less than 50%.

Fourteen percent of aid recipients relied on seed aid for 100% of their sowing needs (for the crops distributed). Even in an emergency season, seed aid recipients obtained over 30% of their seed from their own stocks, with another 12% coming from markets.

Seed aid provides a mix of Modern Varieties (MVs) and Farmer Varieties (FVs). Across all regions (with 578 cases examined) 60% of seed aid cases involved MVs and 40% FVs. The balance of MV/FV varied between sites: in the Tigray site, 58% of cases involved FVs; in the Amhara site, only 2% involved FVs. In places such as Humbo and Gera Keya, seed aid largely serves to promote MVs.

*The large majority of farmers (95%) indicated that seed was available in their respective regions in periods of stress (in concordance with traders’ assessments, section 5). However, farmer preference for aid approaches was not directly linked to the problem identified (i.e. seed availability, seed access, or seed quality). Rather preference varied by region and the way that an approach (DSD, cash, voucher, or SVF) was actually implemented. Generally those wanting to buy their own seed (and preferring voucher or cash approaches) highlighted that they preferred having a choice of crops and varieties. Generally, those preferring the DSD approach found transactions with traders difficult, or sought access to modern varieties.*

Overall, no conclusive patterns were identified of long-term changes linked to emergency seed aid (for instance possible changes in seed sourcing practice, or in farmers’ relationships with others). In some 400 interviews, obtaining new varieties was the single clear positive impact identified; and widespread dependency, from farmers, traders, and aid implementers, was cited as the single clear negative impact.
Moving Forward: Recommendations (farmer aid recipients)

6.1 Even though farmers are ‘recipients of assistance’, it is important they be treated as active, not passive actors in this aid process. Procedures need to maximize farmers’ ability to strategize even during an emergency, and especially in vulnerable areas.

More specifically: this might include

6.1.1 Farmers should have right to say ‘no’ to any one type of crop and variety, especially if it has been not previously used in system (such as many modern varieties). A range of crop and variety options should routinely be put on offer.

6.1.2 There should be vigorous efforts to get seed aid out early. Early knowledge of what crops and varieties might be on offer increases farmers’ flexibility to respond to changing conditions (e.g. rainfall).

6.1.3 Overall standards for fair dealing with farmers should be reviewed, no matter what the approach.

This might involve:
- maximizing information to farmers on expected procedures in advance;
- increasing competition among providers (traders and sellers);
- setting up procedures for farmer feedback to refine aid processes;
- setting up transparent procedures for allowing farmers to redress grievances: —in cases where the aid process or aid product is significantly substandard.

Concluding Comments: There are multiple and significant challenges to improving seed-related assistance in Ethiopia, particularly in the emergency and chronic stress contexts. Changes are needed at the policy, national planning and strategy levels, as well as in the areas of regional, zonal and district implementation. Changes and refinements will involve Government, NGO, as well as donor modifications.

Capacity building and political will need to be reinforced to put seed security issues on the agenda as separate from food security issues. Promoting seed security assessments; better matching seed system-related responses to actual constraints on-the-ground; and generally shaping Ethiopian-specific guidelines for ‘Better Practice in Seed Relief’, are among the central activities recommended. The aim for future seed system-related assistance is to move away from three decades of supply-driven aid and to move toward more targeted, effective and problem-solving programs.