



Bureau of Agriculture and Natural Resource Development

ቁጥር 921/ቤ/2001  
ቀን 25/05/2018

**ለመንግስታዊና መንግስታዊ ላልሆኑ የልማት አጋር ድርጅቶች**

**በየአድራሻችሁ**

ጉዳዩ፡- የዘር ስርዓት ማስፈጸሚያ መመሪያ መላክን ይመለከታል

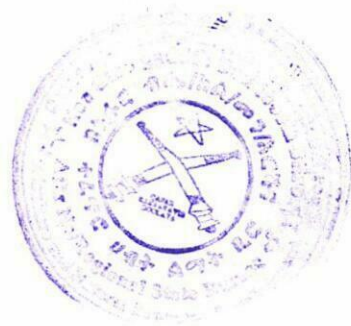
ምርጥ ዘር ምርትና ምርታማነትን ለማሳደግ ቀዳሚና ወሳኝ መሆኑ ይታወቃል። ይሁን እንጂ ዘርን ወደ ክልሉ ማስገባትና መጠቀም በስርዓት ካልተመራ ቀጣይነት ያልወጡ ምርትና ምርታማነትን ለማረጋገጥ በሚደረገው ርብርብ ላይ አሉታዊ ትግል ይኖረዋል።

በክልላችን ብዛት ያላቸው መንግስታዊና መንግስታዊ ያልሆኑ የልማትና ሰብዓዊ እርዳታ ድርጅቶች ለዓመታት ለክልላችን አርብቶ አደርና ከፊል አርብቶ አደር ማህበረሰብ ከሚያበረክቷቸው እርዳታዎች ውስጥ የምርጥ ዘር እገዛ አንዱ ሲሆን በዚህም በምግብ እራሱን ለመቻል የሚደረገውን ጥረት ሲደግፍ እንደቆዩና ድጋፍ በማድረግ ላይም እንዳሉ ይታወቃል።

ይህ ድጋፍ ብዙ ጥሩ ጎኖች ያሉት ቢሆንም ጠባቂነትን ከማስወገድና ዘላቂ መፍትሄ ከማምጣት አንጻር መመሪያን በተከተለ አሰራር ሲከናወን አልነበረም። እናም ተሞክሮዎችን ከተለያዩ ያገራችን ክልሎች እንዲሁም ከውጭ ሀገራት በመውሰድ ከክልሉ ነባራዊ ሁኔታ ጋር በማጣጣም ይህን 37 ገጾች ያሉትን መመሪያ ከሚመለከታቸው አካላት ጋር በመሆን አዘጋጅተን ከአባሪ ደብዳቤ ጋር የላክን ሲሆን የሚመለከታችሁ የልማትና ሰብዓዊ ድርጅቶች መመሪያውን እንድትከተሉ ስንል እናሳስባለን።

**ግልጻዎ**

- ለቢ.ሮ ኃላፊ ጽ/ቤት
- ለምክ/ቢ.ሮ ሃላፊ ጽ/ቤት
- ዕዕዋት ጤናና ዘር ጥራት ቁጥጥር



ከሰላምታ ጋር

ቢ.ሮ ኃላፊ ጽ/ቤት

*Haji Abdul Kassen  
seed enterprise*

*James  
FAO*

*General  
corps*

# Afar Seed Response and Seed System Development Guideline

*Mohamed  
APARF*

*WFP*

*Save the children*

## A Framework for Restoring Seed Security and Agro-pastoralists' Livelihoods

December 2025

*Afar Agr and NRM  
office head*

Semera



## Team members

No.	Name	Organization	Position
1	Habib Abdalla	BoANRD	Seed Regulatory Team Lead
2	Ahmed Mohammed	BoANRD	Agricultural input supply and Marketing Directore
3	Hamedu Mohamed	BoANRD	Crop Development Director
4	Mohammed Ahmed	APARI	Crop Research Director
5	Seid Loyita Abubeker	ASE	Productivity Improvement and Seed Production Director
6	Tesfaye Balemi (PhD)	FAO	Crop Expert
7	Zerihun Abebe	MercyCorps	Program Manager
8	Dawud Takele	MercyCorps	Regional Seed System coordinator
9	Dandena Gelmesa (PhD)	Ethiopian Seed Partnership	Seed Governance Senior Expert



## Contents

<b>1. Introduction</b> .....	1
<b>2. Experiences from Other Countries in Seed Security Response</b> .....	2
<b>2.1 Ethiopia – Community-Based Seed Systems and community Seed Banks</b> .....	2
<b>2.2 Malawi – Seed Fairs and Revolving Seed Loan Schemes</b> .....	3
<b>2.3 India – Self-Help Groups and Farmer Seed Enterprises</b> .....	3
<b>2.4 Niger faced recurring droughts and food insecurity</b> .....	3
<b>2.5 Uganda – Emergency Relief Transitioning to Local Seed Supply</b> .....	4
<b>2.6 Role of the Private Sector in Seed Security Response</b> .....	4
<b>2.7 Distribution and Retail Networks</b> .....	4
<b>2.8 Seed Credit and Finance</b> .....	5
<b>2.9 Extension and Seed Marketing</b> .....	5
<b>2.10 Local Seed Enterprises Development</b> .....	5
<b>2.11 Enabling Private Sector Engagement</b> .....	5
<b>3. Objectives and scope of guideline</b> .....	6
<b>3.1. General objective</b> .....	6
<b>3.2. Specific Objectives</b> .....	6
<b>3.3 Scope of the guideline</b> .....	6
<b>4. Challenges and Opportunities</b> .....	7
<b>4.1 Challenges related to free or repeated seed handouts</b> .....	7
4.1.1 Dependency and Erosion of Farmer Resilience.....	7
4.1.2 Disruption of Local Seed Markets.....	7
4.1.3 Mismatched or Poor-Quality Seed .....	7
4.1.4 Weakening of Informal Seed Systems.....	8
4.1.5 Poor Accountability and Weak Monitoring.....	8
<b>4.2 Challenges related to conflict, environmental shocks, institutional functionality and socioeconomic barriers</b> .....	9
4.2.1. Conflict.....	9
4.2.2. Environmental Factors .....	9
4.2.3. Weak Institutional Framework.....	10
<b>4.3 Challenges related to Availability and Access of Quality Seeds</b> .....	11
4.2.3 Underdeveloped seed producer cooperatives/Unions .....	11
4.2.4 Limited engagement of private sector in seed business .....	11
<b>4.4. Opportunities</b> .....	12
4.4.1. Presence of High Seed Demand .....	12
4.4.2 Presence of irrigation based cultivable arable land .....	12
4.4.3. Presence of Diverse Agro-Ecology .....	13
4.4.4. Enabling Government Policy .....	13
4.4.5. Presence of emerging Seed Producers.....	13
4.4.6. Presence of humanitarian and development actors supporting the seed system .....	14
4.4.6.1. Food and Agriculture Organization of the United Nations (FAO).....	14
4.4.6.2 Mercy Corps.....	14
4.4.6.3 World Food Programme (WFP).....	14
4.3.6.4 National and Regional Agricultural Research Systems.....	14



4.4.6.4 Other Local and International NGOs (e.g., CARE, Goal Ethiopia, VSF-Germany, Islamic Relief, SSD, COOPi, World Vision).....	14
4.4.6.5 Other opportunities.....	14
<b>5. Institutional Framework.....</b>	<b>15</b>
5.1. Strengthening Research and Variety Development.....	15
5.2 Enhancing Stakeholder Coordination and Collaboration.....	15
5.3 Regional Biodiversity Conservation and Characterization.....	16
<b>6. Ten guiding principles of seed emergency response.....</b>	<b>17</b>
6.1 Seed System Security Assessment (SSSA).....	17
6.2. Goal of the intervention.....	18
6.3. Response Types.....	18
6.3.1 Supporting seed and seed systems.....	18
6.3.1.1. Technical Option 1: Facilitate access to seeds.....	18
6.3.1.2 Technical Option2: Support for the seed system development.....	19
6.3.1.3 Technical Option 3: Provide seed.....	21
6.4. Crop and Varieties choice.....	23
6.5. Agro-pastoralists' Choice.....	23
6.6. Contextual solution and feasibility.....	23
6.7. Market-based assistance.....	24
6.8. Seed Quality.....	25
6.9. Timeliness.....	25
6.10. Feedback at multiple key stages.....	26
<b>7. Sustainability measures.....</b>	<b>26</b>
7.1 Promote Market Based Seed Distribution.....	26
7.2 Seed Recycling and Revolving Approach.....	27
7.3 Enhancing Access to Credit for Agro-pastoralists and Seed Producers:.....	28
7.4 Strengthening Input Voucher System instead of direct seed support.....	28
7.5 Strengthening Seed Contract Agreement Enforcement:.....	28
<b>8. Accountability and Grievance Mechanisms.....</b>	<b>32</b>
<b>9. Monitoring and Evaluation.....</b>	<b>34</b>
<b>10. Conclusion.....</b>	<b>36</b>



## 1. Introduction

The economy of the Afar region is predominately dependent on pastoralism (87%) and agro-pastoral systems (13%). The region encompasses around 2.98 million hectares of arable land, which has significant potential for year-round irrigation-based crop production to achieve food security; however, merely 2% of the total area is currently cultivated. In the region, crop farming has a long history and crops like cotton, maize, sesame, fruits and vegetables have been produced by smallholder agro-pastoralists and large-scale farm states, mainly along the Awash River basin using irrigation.

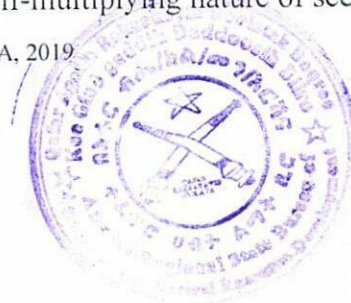
As the whole, about 26% (CFSVA, 2019)<sup>1</sup> of Afar population are food insecure, and specifically about 13% (ARATP, 2019)<sup>2</sup> of population of the region experiences chronic food insecurity and relies on food assistance. The pastoral system as a whole and agropastoral system in particular faces difficulties in meeting food security needs and generating revenue due to low productivity levels which mainly related to chronic shocks such as frequent drought, poor extension practices. For instance, there are about 61% and 76% of yield gaps between region and national productivity for maize and sorghum, respectively (ARATP, 2019). This has led to a significant gap between actual and potential productivity, a gap that is directly influenced by one of the key inputs, which is the lack of seed production and supplies in the region. The use of quality seeds also depends on the effectiveness of the seed value chain development in the region.

The seed sector in the Afar region is currently facing significant challenges that impede its effectiveness and development, as formal and intermediate seed systems are not developed in the region. Key issues such as lack of strategy, guidelines, institutional ownership, poor awareness of the existing national and regional seed legal frameworks as well as poor coordination of the key actors in the seed value chain are some of the key challenges. Additionally, there is a deficiency in clear role differentiation among stakeholders, leading to accountability issues and limited institutional capacity for regional seed self-sufficiency. The overall seed response and seed system development remains unfavorable, further exacerbating these challenges.

Lack of seed systems response and development guideline in the region have amplified the difficulties faced by the agricultural sector, particularly affecting seed security and putting farmers on aid dependent. In times of crisis, prompt humanitarian intervention is essential to revitalize local farming systems. This enables agro-pastoralists to return to food production and enhances their resilience in the short term. Emergency seed interventions are a common strategy within humanitarian aid efforts, as seeds are easy to utilize and can yield quick returns. Furthermore, these interventions are often viewed as cost-effective due to the self-multiplying nature of seeds.

<sup>1</sup> Comprehensive Food Security and Vulnerability Analysis (CFSVA) ETHIOPIA, 2019

<sup>2</sup> Afar Region Agricultural Transformation Plan (ARATP, 2023)



However, the direct distribution of emergency seeds disrupt local seed systems. Such actions may also discourage local seed producers from producing and supplying seeds. This situation is compounded by the lack of involvement of regulatory authorities during seed distributions which may have a quality problem that may led to total crop failure. As a result, emergency seed responses may deteriorate the overall performance of seed systems and development and intensify agropastoralists' vulnerability. Additionally, humanitarian aid efforts can lead to duplication of initiatives and inequitable distribution of resources. Generally, direct emergency seed responses is weakening the development and overall seed systems in the region, which results that agropastoralists significantly depending on informal seed systems.

Hence, the Afar Seed Response and Seed Systems Development Guideline is developed to provide a clear and comprehensive framework for a timely, efficient, and coordinated response to seed and seed system in the region by both humanitarian and development actors. This guideline serves as a practical resource for government agencies, non-governmental organizations (NGOs), UN-agencies, community-based organizations (CBOs), cooperatives, private sectors, Seed Enterprises, research institutes, and other stakeholders involved in seed system recovery and seed system development, and agricultural support efforts.

The Afar Seed Response and Seed System Development Guideline outlines key objectives, defines the scope of seed and seed system interventions, addresses anticipated challenges, clarifies the institutional framework for response, establishes guiding principles for effective action, proposes sustainable measures for long-term seed security, details accountability mechanisms, and emphasizes the importance of rigorous monitoring and evaluation systems. By providing a unified approach, this guideline aims to enhance the effectiveness and efficiency of the seed system and development interventions, contributing to the rapid restoration of agricultural production, the resilience of local communities against shocks and enhances the well-being of the Afar farming communities. Ultimately, the goal is to build a more resilient and sustainable seed systems that can endure future challenges.

## 2. Experiences from Other Countries in Seed Security Response

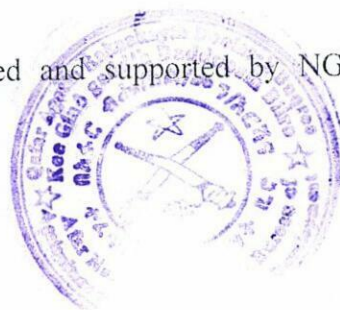
**Experiences from Other Countries:** Seed security responses have evolved across various countries based on local agro-ecological, economic, and institutional contexts. Below are selected examples demonstrating how different countries have addressed seed insecurity through both emergency and developmental seed system intervention.

### 2.1 Ethiopia – Community-Based Seed Systems and community Seed Banks

**Context:** Frequent droughts and climate shocks often lead to seed insecurity in parts of Ethiopia.

**Response:**

- Community Seed Banks (CSBs) were established and supported by NGOs and the government.



- These banks store diverse local varieties and distribute seed to agro-pastoralists on a revolving, in-kind credit basis.
- Quality Declared Seed (QDS) production by farmer cooperatives expanded access to improved but locally adapted seed.

**Lesson:** Strengthening local seed systems enhances resilience, reduces dependency on seed aid as well as seed procurement from other regions ( seed sovereignty), and promotes agro-biodiversity.

## 2.2 Malawi – Seed Fairs and Revolving Seed Loan Schemes

**Context:** After repeated food crises in the 2000s, Malawi implemented multiple seed-based recovery programs.

**Response:**

- Seed Fairs were used to allow agro-pastoralists to choose preferred seed varieties using vouchers.
- Community-level seed banks and revolving seed loans were introduced, requiring agro-pastoralists to return seed after harvest.
- Integration of farmer-based seed production increased local seed availability over time.

**Lesson:** Seed fairs combined with local production and credit-in-kind models support both choice and sustainability

## 2.3 India – Self-Help Groups and Farmer Seed Enterprises

**Context:** In rain fed and tribal regions of India, seed insecurity is tied to market inaccessibility and irregular climate.

**Response:**

- Self-Help Groups (SHGs) of women were trained in seed selection, multiplication, and storage.
- Farmer-led seed enterprises emerged under public-private partnerships.
- Government supported decentralized seed production with subsidized seed-processing units at village level.

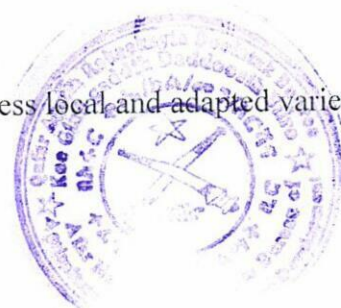
**Lesson:** Social capital (via SHGs) can be leveraged to organize and scale community-based seed systems, particularly community-based seed production and supply systems Niger – Seed Fairs and Warrantee System

## 2.4 Niger faced recurring droughts and food insecurity.

**Context:** Niger faced recurring droughts and food insecurity.

**Response:**

- Seed vouchers and fairs enabled agro-pastoralists to access local and adapted varieties.



- A warrantee system allowed agro-pastoralists to store grain or seed as collateral for seasonal loans.
- Some programs linked seed aid to repayment through surplus grain or seed contributions.

**Lesson:** Integrating seed systems with broader food and financial systems can reduce vulnerability.

## 2.5 Uganda – Emergency Relief Transitioning to Local Seed Supply

**Context:** Post-conflict Northern Uganda required rebuilding of agricultural systems.

Response:

- Emergency seed aid was replaced by a structured program to support local seed businesses.
- NGOs helped train agro-pastoralists in seed multiplication and certification.
- The government encouraged a phased withdrawal from free seed distribution in favor of commercial and farmer-based systems.

**Lesson:** Transitioning from relief to development requires gradual support to local institutions and private sector actors.

**Recommendation:** Countries that moved from free seed aid to structured, community-driven responses built stronger, more resilient seed systems. Any national guideline should draw from these examples to promote locally adapted, sustainable, and inclusive seed system responses.

## 2.6 Role of the Private Sector in Seed Security Response

### Seed Production and Supply

- Commercial seed companies (national and local) are key suppliers of certified and improved seeds.
- They ensure the scaling of quality seeds, including hybrids and open-pollinated varieties (OPVs).
- In emergency or recovery contexts, private suppliers can be contracted to provide starter packs or seed vouchers, ensuring faster, cost-effective access.

**Example:** In Uganda, private seed companies participated in government seed subsidy programs and seed fairs, helping distribute certified maize and bean seed to returning IDPs.

### 2.7 Distribution and Retail Networks

Private agro-dealers, input shops, and rural retailers can:

- Serve as last-mile distributors of seed in hard-to-reach areas.
- Facilitate voucher-based seed sales during emergencies.
- Participate in seed fairs by showcasing their varieties and offering choice to agro-pastoralists.

**Best Practice:** Partner with local agro-dealer associations for emergency seed response programs.



In Malawi, agro-dealers supported the voucher system during seed fairs post-crisis.

## 2.8 Seed Credit and Finance

- Private seed companies or Seed Enterprise or agro-dealers can offer seed on credit to trusted farmer cooperatives or individuals.
- In collaboration with MFIs or digital finance platforms, they can support innovative seed financing models (e.g., "plant now, pay later").

Innovation: In Kenya, partnerships between mobile platforms and agro-dealers allowed agro-pastoralists to access seed and repay after harvest using mobile money.

## 2.9 Extension and Seed Marketing

Many private seed companies provide technical support to agro-pastoralists, including:

- Agronomic advice
- Demonstration plots
- Seed selection guidance

These services improve seed adoption and performance, especially when public extension is weak.

**Benefit:** Strengthens farmer trust in seed quality and performance, reducing reliance on seed aid.

## 2.10 Local Seed Enterprises Development

Support to small-scale seed producers (e.g., seed out-growers, cooperatives) can be facilitated by larger seed companies through:

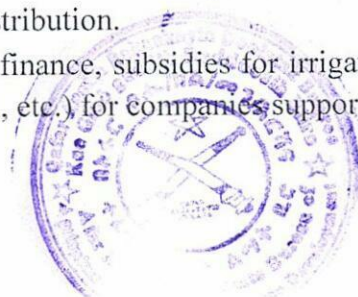
- Contract growing
- Training in quality standards
- Access to breeder or foundation seed

Ethiopia: Private seed companies work with cooperative unions to scale seed production of improved OPVs under a quality-declared system.

## 2.11 Enabling Private Sector Engagement

To maximize private sector contribution, seed response guidelines should:

- Include private seed companies in seed aid planning and procurement.
- Promote public-private partnerships (PPPs) for emergency response and long-term seed development.
- Avoid undermining markets through repeated free seed distribution.
- Provide incentives (e.g., tax relief, recognition, access to finance, subsidies for irrigation facilities and infrastructure, revolving funds, availing land, etc.) for companies supporting crisis-prone areas.



### 3. Objectives and scope of guideline

#### 3.1. General objective

- To enhance seed security and strengthen resilient, market-oriented seed systems in the Afar region by ensuring timely access to quality seeds, rebuilding seed-related infrastructure, promoting adherence to minimum seed quality standards, and fostering effective coordination among seed actors in the region.

#### 3.2. Specific Objectives

The primary objectives of Afar seed response and seed system development guideline are:

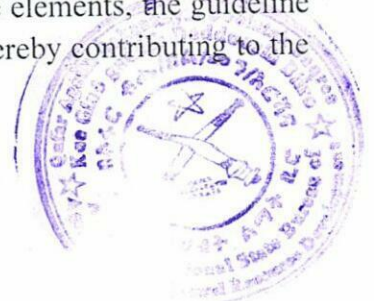
- To develop a seed working guideline that enforces all humanitarian and development actors to ensure market-based seed response distribution to agro-pastorals.
- To fulfill minimum standards for seed-related livelihood intervention starting from initial seed system security assessment, intervention plans, implementation, and monitoring and evaluations.
- To ensure timely access to quality seed for agro-pastoralists in Afar region impacted by by natural and human made hazards,
- To re-build or support crop production and seed related infrastructures that ensure livelihoods of local communities affected by different crises.
- To support resilient and market-oriented seed system development intervention
- To ensure effective coordination framwork among humanitarian and development partners for joint assessment, planning, implementation, and monitoring and evaluation

#### 3.3 Scope of the guideline

Afar seed response and seed systems development Guideline applies to all woredas within the Afar region. Its provisions govern all activities related to seed response and seed system development interventions aimed at restoring agricultural production and improving seed security for affected farming communities.

For the purposes of this Guideline, "seed" shall retain the meaning ascribed to it under Proclamation No. 1288/2023 of the Federal Democratic Republic of Ethiopia, pertaining to Seed Legislation. This definition encompasses all living plant propagation materials intended for raising the next generation of plants, including True Seeds: Seeds resulting from sexual reproduction. Vegetative Planting Materials: Asexually propagated materials such as: Cuttings, Tubers, Bulbs, Suckers, Grafts, Tissue Culture Plantlets, and Other similar vegetative propagules.

This guideline is designed to ensure a consistent aspectss of the seed system security frameworks: availability, accessibility, quality varieties choice. By incorporating these elements, the guideline aims to bolster local agricultural resilience and enhance food security, thereby contributing to the overall economic growth and sustainability in the region.



## 4. Challenges and Opportunities

### 4.1 Challenges related to free or repeated seed handouts

Providing seed aid, especially free or repeated seed handouts from NOGs and governments, can have serious challenges and long-term consequences for both agro-pastoralists and the broader seed system if not carefully designed. While seed aid is often necessary in emergencies, its misuse or overuse can unintentionally undermine local seed systems, create dependency, and distort markets. Some of the key challenges and consequences of poorly designed or overused seed aid are indicated as below sub-titles.

#### 4.1.1 Dependency and Erosion of Farmer Resilience

**Challenge:** Repeated free seed distributions can lead agro-pastoralists to expect continued handouts, reducing their motivation to save seed, purchase seed, or engage in local seed production.

Consequences:

- Agro-pastoralists become less self-reliant and more vulnerable to future shocks.
- Traditional seed-saving practices and local knowledge decline.
- Long-term resilience and adaptive capacity are weakened.

“If seed comes for free every season, why bother saving or producing my own?” a farmer from a seed aid-dependent region in South Sudan.

#### 4.1.2 Disruption of Local Seed Markets

**Challenge:** Free seed undermines local seed producers, agro-dealers, and community seed banks, making it difficult for them to sell their seed.

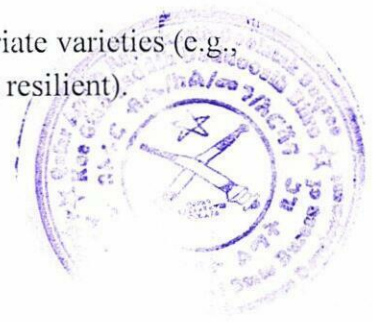
Consequences:

- Market collapse for small-scale seed entrepreneurs and cooperatives.
- Private seed companies may withdraw from rural or risky areas due to uncompetitive pricing (free vs. market seed).
- Hinders the development of a diverse and sustainable seed supply system.

Example: In Malawi, private seed companies were reluctant to invest in remote districts where repeated free seed distribution created artificial competition.

#### 4.1.3 Mismatched or Poor-Quality Seed

**Challenge:** Seed aid often includes generic, non-adapted, or inappropriate varieties (e.g., lowland seed sent to highlands, maize to areas where sorghum is more resilient).



Consequences:

- Poor germination or crop failure due to incompatibility with local agro-ecologies.
- Loss of agro-pastoralists' trust in external assistance.
- Genetic erosion when local varieties are displaced or neglected.

A study in Haiti found that over 60% of seed aid delivered post-disaster was unsuitable for local farming conditions.

#### 4.1.4 Weakening of Informal Seed Systems

**Challenge:** Most smallholder agro-pastoralists rely on informal systems such as saving, exchanging, or purchasing seed locally.

Consequences:

- Seed aid displaces local varieties and reduces genetic diversity.
- Disrupts traditional seed exchange networks.
- Marginalizes women and indigenous knowledge holders, who are key custodians of local seed systems.

#### 4.1.5 Poor Accountability and Weak Monitoring

**Challenge:** Many seed aid programs lack proper monitoring, quality control, or feedback mechanisms.

Consequences:

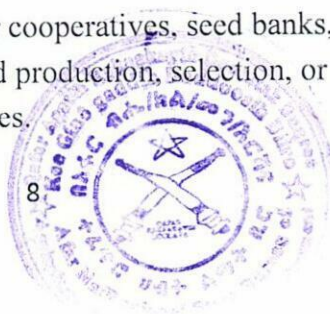
- Distribution of fake, expired, or uncertified seed.
- Corruption, leakage, or politicization of seed aid.
- No tracking of whether aid reached the right agro-pastoralists or had the intended impact.
- In some post-conflict areas, seed packages labeled "certified" were found to be food grain repackaged as seed.

#### 4.1.6 Missed Opportunities for System Strengthening

**Challenge:** When seed aid is delivered directly from external suppliers (without local partnerships), it bypasses opportunities to build long-term seed system development.

Consequences:

- No investment in strengthening farmer cooperatives, seed banks, or agro-dealers.
- No skills transfer to improve local seed production, selection, or storage.
- Weak foundation for future emergencies.



## 4.2 Challenges related to conflict, environmental shocks, institutional functionality and socioeconomic barriers

Afar seed response and seed system development interventions face a multitude of interconnected challenges and risks that could significantly impede its effectiveness. These challenges span conflict and instability, limitations in access to quality seeds, adverse environmental factors, weaknesses in the institutional framework, fragmented and dysfunctional response by actors and economic barriers, requiring a comprehensive and adaptive approach.

### 4.2.1. Conflict

**Severe Disruption of Agricultural Activities:** The impacts of conflict, the conflict between Afar and Tigray region, and border conflicts, in Afar have profoundly disrupted the agricultural sector. This disruption mainly affects seed procurements, distribution and marketing. The conflict has rendered fields inaccessible, destroyed crops, and decimated livestock, further exacerbating food insecurity.

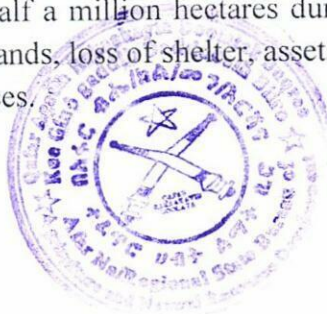
**Infrastructure Damage and Logistical Constraints:** Widespread damage to critical irrigation infrastructure, community based institutions, research facilities, roads and bridges blockages, presents a major obstacle to the timely and efficient delivery of seeds to agro-pastoralists. The destruction of transport networks hampers the movement of seeds and other essential inputs to agro-pastoralists in need, particularly in remote and inaccessible areas.

### 4.2.2. Environmental Factors

**Climate Change and Recurrent Droughts:** Afar regions are highly vulnerable to climate change, characterized by increasing temperatures, erratic rainfall patterns, and more frequent and severe droughts. These environmental stresses negatively impact seed production, viability, and quality, making it difficult for agro-pastoralists to secure adequate seed supplies.

**Soil salinity:** Soil salinity poses a critical threat to irrigated agriculture, food security, and livelihoods of agro-pastoralists of the Afar region. The combination of poor irrigation practices, such as flood irrigation practices and frequent floods, has led to widespread land degradation due to accumulated soil salinity. Significant soil salinity issues have been documented in irrigated zones like Amibara and Dubti, where around 62% (Amibara) and 18% (Dubti) of soils are identified as saline with a notable portion also being saline sodic.

**Floods:** Flooding in Afar typically occurs during Ethiopia's Belg and Kiremt rainy seasons, when heavy rainfall in the Highlands causes the Awash River and tributaries to overflow. This often occurs annually, and approximately 1.2 million hectares are inundated during the long rainy season and half a million hectares during the short season. This results in the displacement of tens of thousands, loss of shelter, assets, crops, livestock, heightened disease risks and disrupted access to services.



In general, the Afar Region is chronically flood-prone, facing frequent humanitarian crises that knock communities back into food and economic insecurity. Its fragile infrastructure and nomadic livelihood systems compound the risk, necessitating proactive planning, resilient infrastructure, and integrated early response systems.

**Pest and Disease Outbreaks:** The occurrence of pest and disease outbreaks, especially desert locust, *Quelea* bird, and fall army worm, can cause significant damage to crop, including seed crops, leading to reduced yields and seed quality. Climate change and the introduction of new pests and diseases can exacerbate these problems. The consequences include severe yield losses, increased cost and labor, and reduced seed quality. Therefore, effective responses demand investment in integrated pest management, seed health systems, and crop diversification are very important.

**Existing invasive weeds:** the encroachment of farmland by invasive weed species, such as *Prosopis juliflora*, and *Parthenium hysterophorus* are the most damaging invasive weeds in the Afar region, which erodes ecosystems, vital water resources, and pastoralist livelihoods. For instance, *Prosopis juliflora* covers over 1.2 million hectares of Afar —about 12.3% of the region’s area—spreading at ~31,127 ha per year. *Parthenium hysterophorus* further threatens cropping and grazing systems. Effective management strategies should prioritize control of *P. juliflora*, integrate early detection, and include community-based restoration.

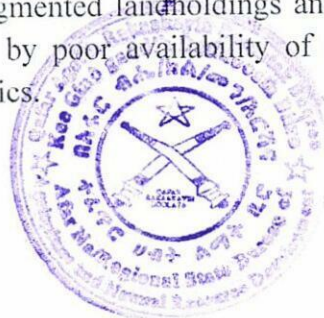
#### 4.2.3. Weak Institutional Framework

**Absence of developed Regional Seed Strategy:** The lack of a comprehensive regional seed strategy hinders the development of a coordinated and sustainable seed system. Without a clear strategic vision, investments in the seed sector may be fragmented and ineffective.

**Lack of Clear Ownership within seed actors:** Ambiguity regarding ownership and responsibility for the regional seed system leads to inefficiencies. Clear roles and responsibilities of actors in the seed value chain are essential for effective coordination among government agencies, research institutions, seed producers, humanitarian actors and other stakeholders.

**Insufficient seed Extension Services:** Inadequate extension services limit agro-pastoralists’ access to information, training, and technical support related to seed selection, utilization, and management. This lack of extension support hinders the adoption of improved varieties, promotion, and popularization.

**Lack of mechanization services:** very limited availability of mechanization services for land preparations, combining harvesting, processing are the common challenges of the nation in general and Afar region in particular. This may relate to fragmented landholdings and unsuitable land structures, maintenance challenges are compounded by poor availability of spare parts, non-standard equipment quality, and few qualified mechanics.



## 4.3 Challenges related to Availability and Access of Quality Seeds

### 4.3.1 Limited availability of quality seeds of preferred varieties by agro-pastoralist

**Reliance on Traditional Seed Systems and Limited Seed Diversity:** Many agro-pastoralists in the Afar region rely heavily on traditional and local markets (grain traders). While these systems play a crucial role in maintaining local crop diversity, they often provide seeds that are of poor variable quality, low yielding, and lack resistance to common pests and diseases. This limits agro-pastoralists' ability to improve productivity and adapt to changing environmental conditions.

**Absence of Seed Quality Assurance and Regulation:** Lack of certification and regulatory systems of the region contribute to the distribution of poor-quality seeds by different actors. Lack of adherence to seed standards, inadequate testing, and proliferation of uncertified seed compromise crop establishment and yields, limit interested actors to participate in seed production and supplies.

**Limited Availability of Improved and Adapted Varieties:** Access to improved drought-tolerant, disease-resistant, and high-yielding seed varieties remains limited for many agro-pastoralists in Afar. The lack of such varieties hinders agro-pastoralists' capacity to mitigate the impacts of climate change, pest outbreaks, and other agricultural challenges resulting in low productivity and production. Furthermore, the adoption of improved varieties is often hampered by a lack of awareness and technical knowledge among agro-pastoralists, and limited capacity of research and extension service providers.

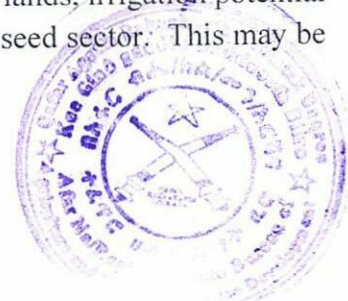
**Absence of Seed Quality Control Infrastructural facilities:** The absence of an independent regulatory body with adequate resources to effectively enforce seed laws and regulations poses a significant risk. Limited manpower, insufficient laboratory infrastructures, and lack of modern seed testing technologies further weaken the seed quality control system.

**Absence of Quarantine System:** the absence of quarantine system increases the risk of introducing new pests and diseases into the region, which can further devastate crop production and undermine seed security.

**Poor Enforcement of Seed Laws and Regulations:** Ineffective implementation of existing seed laws and regulations allows the circulation of substandard seeds and undermines the integrity of the seed system. This lack of enforcement discourages investment in quality seed production and distribution.

### 4.2.3 Underdeveloped seed producer cooperatives/Unions

The involvement of private sectors in the seed business could significantly contribute to ensuring seed security. Limited involvement of the privates in the seed sector of the nations in general absence of the same in the Afar region in particular is of the key problem that hinders the development of formal seed system of the region. Despite the presence of potential opportunities for attraction of the private sector to seed business, such as fertile arable lands, irrigation potential along Awash River basin, there are no any private sectors that invest in seed sector. This may be



due to the prevailing chronic drought and outbreak of pests that potentially risk the private sector for investing in seed. Limited availability of incentive mechanisms for irrigation infrastructures, narrow ranges of drought tolerant crops, weak research extension linkage in adapted varieties of local seeds, high risks and instability or inter-regional conflicts.

#### **4.2.4 Limited engagement of private sector in seed business**

The involvement of private sectors in the seed business could significantly contribute to ensuring seed security. Limited involvement of the privates in the seed sector of the nations and generally absent in the Afar region is of the key problem that hinders the development of formal seed system of the region. Despite there are potential opportunities for attraction of the privates, such as fertile arable lands, irrigation potential along Awash River basin, there are not any privates' sectors that invest in seed sector. This may be related to the chronic drought and outbreak of pests that potentially risk the private sector for investing in seed. Limited availability of incentive mechanisms for irrigation infrastructures, narrow ranges of drought tolerant crops, weak research extension linkage in adapted varieties of local seeds, high risks and instability or inter-regional conflicts.

### **4.4. Opportunities**

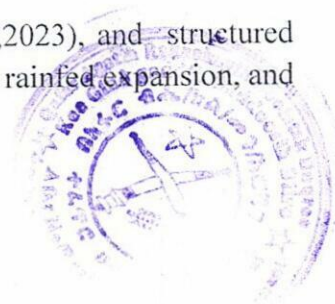
Afar seed system possesses inherent opportunities that, if strategically leveraged, can contribute to improved agricultural productivity, food security, and farmer livelihoods. These opportunities include high seed demand, diverse agro-ecological zones with potential irrigation are suited to different crops, potential arable lands, 2-3 cycle production season. Enabling government and seed policies, the presence of existing regional seed Enterprise, regional research Institute/Werer research center and community-based seed producers, development and humanitarian actors that potentially collaborate could also be a good opportunity to strengthen the seed and seed system of the region.

#### **4.4.1. Presence of High Seed Demand**

There is significant and persistent demand for seeds in the Afar region. Current seed production capacity within the region, primarily through the support of NGOs and regional government, Afar Seed Enterprise (ASE), and other seed Enterprises from nearby regions only meets a fraction of this demand. The fact that significant seed volumes are procured from outside the Afar region highlights a gap in local production capacity. This gap represents an opportunity to expand and strengthen the regional seed production system. Seed demand may be further amplified due to disruptions caused by conflict. The high demand provides a clear market signal for potential investors and organizations looking to support the development of seed sector of the region.

#### **4.4.2 Presence of irrigation based cultivable arable land**

The Afar Region has about 2.98 million potential arable land (ARATP,2023), and structured irrigation facilities particularly along the Awash river (e.g Tendaho Dam), rainfed expansion, and



flood-driven farming, to high-value horticultural crops (tomato, watermelon, onion), cereals (maize, sorghum, wheat) and other major fruits (date palm, banana, guava, mango, citrus) crops. In addition, underutilized 'virgin land' around Middle and lower Awash areas are known for their fertile alluvial soils and have high potential for commercial farming, given proper irrigation and inputs. So far, only 2% of the total potential arable lands are under cultivation. Unlocking these potential hinges on investments in water infrastructure, seeds and agronomy, and access to markets and finance.

#### **4.4.3. Presence of Diverse Agro-Ecology**

Afar regions exhibit considerable agro-ecological diversity, creating a suitable environment including irrigation potential to produce a wide range of crop varieties. This allows for the cultivation of cereals, pulses, oilseeds, fruits, vegetables, cotton and other crops. The key challenge is to ensure that appropriate seed varieties are available and accessible to agro-pastoralists in each specific agro-ecological zone. A "one-size-fits-all" approach will not be effective. The diverse agro-ecology allows for specialized seed production in different localities, potentially creating comparative advantages for specific crops. It is crucial to consider the impacts of climate change on different agro-ecological zones and promote the use of climate-resilient varieties that can withstand drought, flooding, or other extreme weather events. The agro-ecological diversity also underscores the importance of conserving local germplasm (traditional seed varieties) that are adapted to specific microclimates and may possess valuable traits for future breeding programs. Development and maintain crop-specific agro-ecological zoning map to ensure that seed is distributed within the right environment.

#### **4.4.4. Enabling Government Policy**

The Ethiopian Government has prioritized agricultural development in its strategic plans and has implemented policies such as agriculture and rural development policy and seed policy that aim to support seed production and distribution. The seed policy provides a framework for seed certification, quality control, and variety release. Policy frameworks promote coordination and collaboration among various seed system stakeholders. Policies on seed development and distribution can also promote capacity building on seed farming practices to ensure high quality seeds.

#### **4.4.5. Presence of emerging Seed Producers**

Afar has a very limited number of established seed producers, particularly Afar seed Enterprise which is owned by the Afar Regional State, and community based seed production. The presence of these seed producers, and attraction of other potential seed producers provides a foundation upon which to build a more robust seed system. However, there is regional limitation in terms of community-based seed production and private sector involvements.



#### 4.4.6. Presence of humanitarian and development actors supporting the seed system

The presence of humanitarian and development actors in supporting the seed system is vital in both emergencies and development contexts. These actors contribute to strengthening seed systems by improving seed access, enhancing seed quality, promoting resilience, and ensuring food security. Below are examples of potential actors and their key specific roles:

##### 4.4.6.1. Food and Agriculture Organization of the United Nations (FAO)

Role:

- Distributes emergency seed aid in crisis-affected areas, and supports establishment of community-based seed multiplication.
- Supports national seed policies and regulatory frameworks.
- Promotes the conservation and use of plant genetic resources.

##### 4.4.6.2 Mercy Corps

Role:

- Implements Seed System Security Assessments (SSSAs).
- Supports community-based seed multiplication and fairs.
- Facilitates seed voucher and fair (SVF) approaches in humanitarian responses.

##### 4.4.6.3 World Food Programme (WFP)

Role:

- Provides logistical support for seed distribution.
- Integrate seed support with food security interventions.
- Partners with NGOs to ensure seed access in post-disaster recovery.

##### 4.3.6.4 National and Regional Agricultural Research Systems

Role:

- Develop and release improved crop varieties.
- Maintain breeder and foundation seed.

##### 4.4.6.4 Other Local and International NGOs (e.g., CARE, Goal Ethiopia, VSF-Germany, Islamic Relief, SSD, COOPi, World Vision)

Role:

- Mobilize communities and build local capacity in seed production.
- Support farmer-managed seed systems and climate-resilient seeds.
- Facilitate market access for quality seed and strengthen local governance.

##### 4.4.6.5 Other opportunities

- Pluralistic seed supporting system /different market actors



- Availability of emerging local MFIs
- Seed saving culture
- Existence of humanitarian and development actors
- Research institutions (TARI and Universities) and Biotechnologies
- Regional seed core team

## 5. Institutional Framework

A robust and well-defined institutional framework is critical for the effective implementation of the Afar seed response and seed system development Guideline and the long-term development of a sustainable seed system in the region. This framework must foster collaboration, clarify roles and responsibilities, and ensure the coordinated action of all key stakeholders.

### 5.1. Strengthening Research and Variety Development

Supporting agricultural research is essential for developing new and improved crop varieties that are adapted to the specific agro-ecological conditions of Afar and are resistant to prevalent pests and diseases. These new varieties are the foundation for improved agricultural productivity and enhanced food security. Some of the focus areas to strengthen the capacity of the regional research

- Providing sustained and adequate support to regional agricultural research centers to enable them to develop and release new, high-yielding, drought-tolerant, and disease-resistant crop varieties.
- Prioritizing research that focuses on farmer-preferred traits and that addresses the specific challenges faced by agro-pastoralist in the region.
- Strengthen the capacity of research institutions in areas such as plant breeding, seed technology multiplication, and germplasm conservation.
- Establish effective linkages between research institutions and seed producers to facilitate the rapid multiplication and dissemination of new varieties.

### 5.2 Enhancing Stakeholder Coordination and Collaboration

Afar seed response and seed system development guideline ensures the effective integration and collaboration of diverse stakeholders, including government agencies, research institutions, seed producers, extension services, NGOs, UN, and cooperatives. Coordinated action is essential for avoiding duplication of effort, maximizing resource utilization, and ensuring that seed interventions are aligned with the needs and priorities of agro-pastoralists.

Strengthening existing coordination platforms, such as the Agricultural Task Force (ATF), the recently established regional Seed coordination and technical committees could be vital. These platforms should serve as forums for information sharing, joint planning, and facilitate collaborative problem-solving. Establishing clear lines of communication and decision-making processes to ensure effective coordination among stakeholders is important. This ensures all parties involved work well together, including joint work plans that outline specific roles and



responsibilities for each partner.

Alignment among government, development, and humanitarian actors is crucial for ensuring the effective and efficient delivery of emergency seed assistance and seed system development. This alignment requires coordinated planning, resource allocation, and geographic targeting of interventions. This established stakeholder coordination and collaboration could help to

- Facilitate joint planning sessions among partners to develop a shared understanding of needs, priorities, and intervention strategies.
- Conduct comprehensive seed mapping exercises to identify areas of greatest need and to avoid overlapping or conflicting interventions.
- Align budgets and resource allocations to ensure that resources are directed to the areas where they are most needed.
- Establish a mechanism for monitoring and reporting on partner activities to track progress and identify any gaps or overlaps.

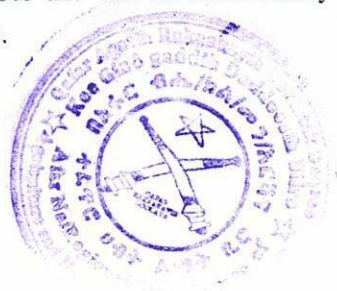
### **5.3 Regional Biodiversity Conservation and Characterization**

The Afar region possesses a rich agricultural biodiversity, which is a valuable resource for developing new and improved crop varieties and for adapting to climate change. Conserving and characterizing this biodiversity is essential for ensuring the long-term sustainability of the seed system. This can be addressed through

- Conducting surveys to identify and document local crop varieties and their unique characteristics.
- Implementing programs to conserve and characterize the region's agricultural biodiversity.
- Establishing seed gene banks to preserve valuable germplasm for future use.
- Promoting the sustainable use of agricultural biodiversity by supporting farmer-led seed selection and breeding programs.

Community seed banks play a vital role in conserving local crop diversity, providing agro-pastoralists with access to locally adapted seeds, and building resilience to climate change and other environmental stresses. Some of the key areas to enhance conservation of biodiversity are

- Supporting the establishment and strengthening of community seed banks in strategic locations,
- providing technical assistance and training to communities on seed collection, storage, and management.
- Link community seed banks with research institutions and seed producers to facilitate the exchange of germplasm and improved varieties.
- Promote the use of community seed banks as a source of seed for emergency response efforts.



## 6. Ten guiding principles of seed emergency response

The seed emergency response structure broadly follows the timelines and sequence of activities that mainly include, gaining the fundamentals of seed system knowledge, understanding the seed security problem(s), including possible differences in access to seed by agro-pastoralists and those from marginalized communities, reviewing and comparing potential response interventions, focusing on a particular response (or set of responses) for a given context, and implementing 'good practices' (or the best possible ones) for that response. The procedures of seed emergency response should follow ten guiding principles as indicted below sub-titles.

### 6.1 Seed System Security Assessment (SSSA)

Where people are at risk of seed insecurity, assessments should be conducted to identify seed security problems among the diverse groups affected (e.g., men, women, the displaced). An SSSA should guide a decision to undertake any response intervention. The assessment should fulfill seed availability, access, seed health, and variety suitability with a minimum standard as per the national regulatory guidelines. Any assessment should include analysis of the demand agro-pastoralists and supply sides and, where possible, additional market system information such as regulatory norms. Attention should be given to analyzing differential demand (women vs men; agro-pastoralists of varying wealth and land area). Agro-pastoralists often decide to use multiple channels to procure their seed, out of necessity, cost-benefit considerations, and preference. The existing channels should play the seed supply and distribution channel; without these certified channels there is not any option to supply and distribute any seed in the region. The seed procurement should be done for locally available seed first, then if there is shortage within the region, as an option it is possible to procure out of the region from other supplies, with an approval of the BoANRD. The seed demand assessment should be carried out by seed producers, and if required it could be also undertaken by a joint task with different stakeholders. If there is a requirement by donors it is possible to undertake the assessment through separate and jointly with partners. It should be approved by the existing platforms (Seed core team).

**Risk Mapping and Identification of Key Challenges:** Begin by conducting a contextual analysis to identify the key risks and challenges to seed systems in Afar. This includes factors such as conflict-induced disruptions, climate shocks (e.g., droughts), market access challenges, and reduced agricultural production due to loss of livelihoods or seed production capacity.

**Data Collection and Stakeholder Engagement:** Collect both quantitative and qualitative data from various stakeholders, including agro-pastoralists, local agricultural extension workers, community leaders, seed producers, private sectors, donors, and government authorities. This data should cover the seed production capacity, seed access, and the viability of local seed markets. For effective data management there should be a category of short- and long-term database management system. The assessment should consist of a clear mapping of seed distribution centers, seed distributors and outlets. Evaluate the strengths and weaknesses of local seed systems, focusing



on seed availability, quality, and the functionality of local seed markets. This assessment should also identify local institutions and actors that can support seed production and distribution (e.g., farmer groups, NGOs, government bodies). The assessment should consider a crop by crop-based assessment approach. In addition to the above-mentioned points, the assessment should also address acute and chronic seed insecurity often exists in stressed contexts. Practitioners need to be aware of the nature of both the acute and chronic stresses and differentiate between them. Also, practitioners should work on the short-term response in ways that do not further contribute to longer-term stress.

## **6.2. Goal of the intervention**

The seed security intervention should be designed to meet a clear goal. Diverse overall goals shape the type of seed security to be achieved, whether these goals are explicitly stated or not. These goals need to be made clear to agro-pastoralists and transparently defined. Seed assistance moves beyond the generic goal of agro-pastoralists having enough seed for basic production. Depending on agro-pastoralists' needs, a goal of seed security assistance might also be to bolster household nutrition, family income, and/or farming systems resilience. Farmer priorities, including stressed periods, the assessment goals must meet agro-pastoralists' immediate needs rather than the implementers' desires.

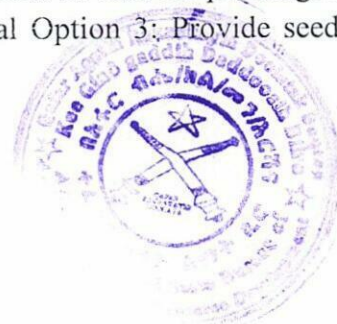
## **6.3. Response Types**

The response(s) chosen should aim to alleviate the seed security problem(s) identified. If seed availability is assessed as a problem, seed-based interventions such as direct distribution may be appropriate. If seed access proves a problem, interventions might involve cash or voucher-based responses that also give male and female agro-pastoralists and marginalized communities more buying power. Practitioners need to be cautious (and review their assessments) if they are using only a single response type in all contexts to address a range of seed security problems. The problems can be quite nuanced, by geographic location, agroecological zone, crop, season, even gender. If in a single context, practitioners implement the same response season after season, they need to review the identification of the seed security problem, especially as to whether it is acute or chronic situation. Repeated responses can damage farming system resilience. Direct aid calculations need to be based on agro-pastoralists' realistic sowing rates, not recommended ones. Also, calculations need to factor in the seed or funds agro-pastoralists already can access. It is relatively rare that 100% of seed or seed funds are needed.

### **6.3.1 Supporting seed and seed systems**

#### **6.3.1.1. Technical Option 1: Facilitate access to seeds**

This refers to any market-aware action that helps crop producers get seeds in time for planting. It excludes direct distribution of seed which is covered under technical Option 3: Provide seed.



Before, during, or after a crisis, access to seeds can be rapidly facilitated in many ways depending on the context.

Access to seed can motivate crisis-affected households to restart crop production. If the minimum standards in this chapter are achieved, it can also allow them to increase their crop production. Several examples of market awareness (or market-based) sub-options that address the three barriers to access seeds are indicated in Table 1.

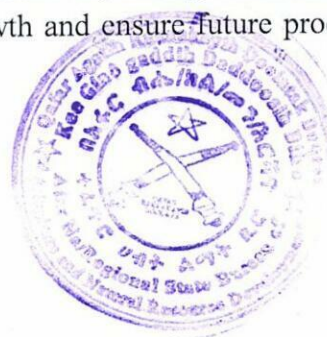
**Table 1: Several technical sub-options are available to address seed access constraints**

Technical sub-options	Access constraints		
	Economic	Physical	Sociocultural
1.1. Provide cash to targeted participants so they can buy suitable seed that is available in local markets	X		
1.2. Provide cash to targeted participants so they can use safe transportation to markets to buy seed	X		
1.3. Provide cash to seed sellers or physically transport them closer to targeted participants (for example, seed fairs)		X	x
1.4. Provide cash grants or credit to seed sellers to move supplies to remote areas		X	x

### 6.3.1.2 Technical Option2: Support for the seed system development

Seed system activities are those that support the actors in the seed supply chain. In normal times, where crop production plays a primary role in livelihoods, state and non-state systems and services ensure that crop producers have the seed they need to produce, harvest, and market crops. These systems include both government and private actors that have a role in the research, production, supply, sale, regulation, and certification of seed and planting material. The option offers an exit strategy for organizations trying to break repeated cycles of aid and create inclusive business relationships between value-chain actors

Crises can often disrupt those systems or weaken already weak systems further without destroying them completely. Support to the seed system can be rapid and address availability and quality constraints. Support to seed systems can improve them by strengthening formal and informal sellers' and state actors' ability to cover the required seed demand before, during, and after a crisis. This support can encourage early recovery and economic growth and ensure future production,



thus decreasing dependence on repeated cycles of aid. Several examples of sub-options that address the availability and quality constraints described in Table 2.

Table 2: Some options are available to support the seed system

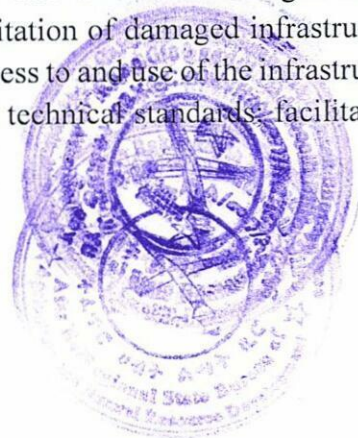
Technical sub-options	Availability constraints		Seed quality constraints
	Physical	Temporal	
2.1. Raise crop producers' and seed sellers' awareness of seed quality			x
2.2. Provide cash support to formal and informal seed multipliers to produce seed for future seasons.	x		x
2.3. Provide credit or loan guarantees to local seed sellers to buy seed for humanitarian tenders		x	x
2.4. Provide technical assistance to seed multipliers or sellers to improve the quantity and quality of their planting material	x		x
2.5. Provide technical assistance and funding to establish community seed banks	x	x	

Technical option-two may encompass additional non-seed-related factors that contribute to the advancement of sustainable seed system development. The elements encompassed within this framework are as follows:

**Provide non-seed related inputs:** Where tools, equipment, and other non-seed inputs are unavailable, including in remote, inaccessible, and insecure areas where markets are non-functional, it may be necessary to procure, transport, and directly distribute inputs to seed producers affected by crisis.

**Support to formal and informal non-seed related input systems:** In normal times, service providers and systems provide access to tools, equipment, and other non-seed inputs for seed producers. Crises may weaken or temporarily end such service provision. They are, however, seldom destroyed, except in a long-term complex crisis. Where this has happened, support in the form of grants and loans can help rebuild services and systems. The process of rebuilding is often complex, takes several years, and may require a mixture of public and private investment.

**Supporting seed-related infrastructure:** Infrastructures required for seed production or distribution can be demolished or not accessible due to crises. These include irrigation system, seed storage, seed cleaning machines and seed laboratories. The intervention might include providing the required tools, materials, or funds for the rehabilitation of damaged infrastructure; providing legal and technical assistance to secure sustainable access to and use of the infrastructure by all users and to ensure the infrastructure meets the required technical standards; facilitate reconstruction or re-building of the required infrastructure, etc.



### 6.3.1.3 Technical Option 3: Provide seed

Direct seed distribution (DSD) provides seed directly to crop producers in time for them to plant for the targeted cropping seasons, particularly during acute crisis. DSD may also introduce improved varieties or certified seeds that beneficiaries are familiar with, but which are not available locally. It can also renew lost or damaged seed stocks from the same improved seed variety.

DSD is only suitable when seeds are unavailable and markets are not functioning, a rare context even in a crisis. In this rare context, without DSD, no seed of any quality would be available to plant. DSD often reflects food distribution models in that seed is procured and brought to the crisis-affected area. Targeted participants gather in central locations to receive their allotted seed for free. The advantages and disadvantages of each technical option for supporting seed and seed systems are summarized in table 3.

**Table 3: Each technical option has advantages and disadvantages**

Option	Advantages	Disadvantages
1. Facilitate access to seed	<ul style="list-style-type: none"> <li>• Rapid, except seed fairs</li> <li>• Supports crop producer-determined priorities and choice of crops and varieties</li> <li>• Cash injected into local formal and informal economies</li> <li>• Can be done face to face (direct cash) or using digital transfers</li> <li>• Bolsters all seed systems crop producers use, formal and informal, and has greater long-term impact</li> <li>• Can be designed to support women's role in seed sale and marketing system</li> <li>• Seed choice can be tracked to inform future responses</li> </ul>	<ul style="list-style-type: none"> <li>• Cash provided may not be used for seed as crop producers have many competing priorities</li> <li>• Seed quality control may be weak depending on sellers participating, requiring sufficient market and agronomic competencies to monitor that sufficient good-quality seed of the right variety is consistently available</li> <li>• Seed fairs can be labor intensive to organize and implement, may only reach a relatively small number of crop producers, and cannot be done if people cannot congregate</li> <li>• When using vouchers, benefits to informal seed systems may be limited if informal sellers are excluded in favor of sellers who are registered or carry only certified seed</li> </ul>
2. Support seed systems development	<ul style="list-style-type: none"> <li>• Offers an exit strategy for organizations trying to break repeated cycles of aid</li> </ul>	<ul style="list-style-type: none"> <li>• Requires sufficient market and supply chain knowledge to avoid creating artificial markets, as with</li> </ul>



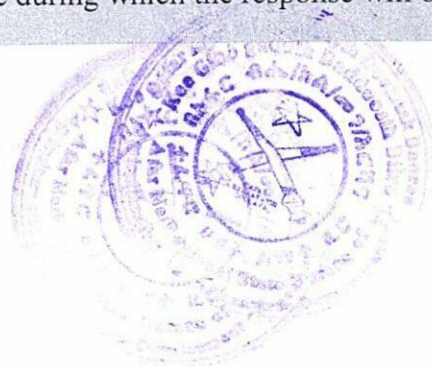
	<ul style="list-style-type: none"> <li>• Creates inclusive business relationships between value-chain actors</li> <li>• Builds on existing system</li> <li>• Favors coordination and links to development efforts</li> <li>• Links research results with extension and communities</li> <li>• Strengthens local seed certification and regulation processes</li> <li>• Strengthens availability of improved varieties</li> </ul>	<p>sweet potato vine multiplication, for instance, that has no real market beyond relief</p> <ul style="list-style-type: none"> <li>• If program requirements allow only formal sellers and state actors, informal sellers and systems may be undermined</li> <li>• May require more time for initial assessment if target systems are not already known and understood</li> </ul>
3. Provide seed	<ul style="list-style-type: none"> <li>• Familiar to donors, affected people, and implementers</li> <li>• Logistically relatively easy for implementers</li> <li>• Can reach large populations</li> <li>• Can control initial seed quality (if certification regimes, or rigorous controls by implementers, are in place)</li> <li>• Easily quantifiable in terms of amount of seed distributed and number of clients served</li> <li>• In some settings may be cost-effective if routine sellers are spread out and remote from crop producer aid recipients</li> <li>• Easier to monitor as standard output indicators are used as well as baselines and targets</li> <li>• May support a competitive nascent seed sector and even informal markets and sellers when combined with small lot tenders (for example, a 2-ton limit per tender per crop and variety profile) and preference for local sellers</li> </ul>	<ul style="list-style-type: none"> <li>• Range of crops and varieties on offer and choice among them are limited. Range may not be those most suitable to address stress</li> <li>• Quantities of seeds given may be fixed or not tailored to the specific preferences and needs of each crop producer</li> <li>• Unregistered crop varieties may not be allowed</li> <li>• May undermine markets, both formal and informal</li> <li>• After controlling for quality, seed often arrives to crop producers late</li> <li>• May have challenging transport logistics, including the need for additional trucking and warehouse capacity associated with centralized procurement</li> <li>• Done repeatedly, it can alter local crop and diversity profiles</li> <li>• Often done repeatedly, it creates crop producer dependency</li> <li>• Contract delays are common</li> </ul>

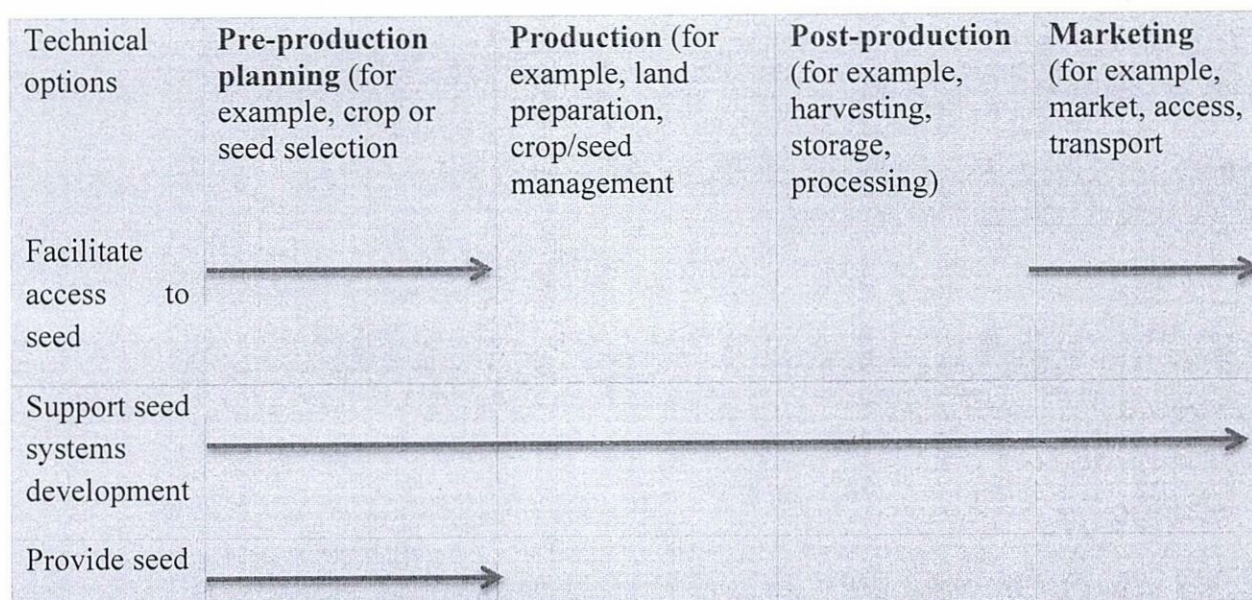
### 6.3.1.3 Timing of seed system response and development technical options

Timing of seed and seed system technical options should be influenced predominantly by the agriculture calendar and the selected option, as shown in 4.

**Table 4: Different seed and seed system technical options are relevant at different stages of the agriculture calendar**

Stage of the crop production cycle during which the response will occur





#### 6.4. Crop and Varieties choice

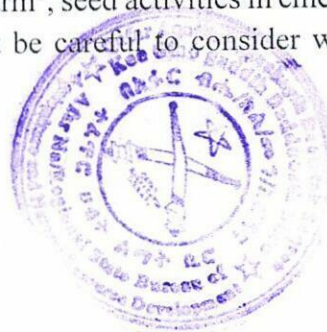
The crops and varieties selected for the intervention should be agroecologically adapted and socially accepted, the crops and varieties linked to any intervention need to be suitable on many fronts. They should be adapted, usable under agro-pastoralists' management conditions, tolerant of major stresses, and deemed acceptable by diverse groups of agro-pastoralists, with attention given to female and male preferences. Self- and open-pollinated varieties are often preferred for emergency operations because agro-pastoralists can save the seed from the harvest to plant the following season. Hybrids should be considered only where stressed agro-pastoralists have considerable prior experience with hybrids and explicitly want them. In an emergency intervention, it is risky (and poor practice) to introduce varieties that have not been previously tested in an area, with farmer participation and feedback. Risk minimization procedures need to be followed.

#### 6.5. Agro-pastoralists' Choice

Agro-pastoralists should be able to choose crops and variety types by themselves. Not all agro-pastoralists sow the same set of crops and varieties. Male and female agro-pastoralists should have the opportunity to plan and tailor assistance to their immediate household needs and overall cropping strategy.

#### 6.6. Contextual solution and feasibility

The type of response chosen should be practically feasible for the given context and adhere to the 'do no harm' principle. Seed interventions must be matched to the context. The modes of operation required in a crisis caused by drought. In the local context, gender and social exclusion practices must be considered. To ensure that interventions 'do no harm', seed activities in emergency settings must be demand-driven (pull factor). Practitioners must be careful to consider whether there is



potential for seed provision to act as a push factor, for example to encourage displaced populations to return to farming before the risk is removed or before they are fully comfortable doing so. This might be especially true in areas of conflict or with active landmines, where seeds are included in return packages.

### **6.7. Market-based assistance**

Humanitarian assistance should support, not undermine, based on market based smart solutions.. Market-based assistance should be given priority if the approach can also address the seed security constraint identified. Market-based assistance has the potential to deliver immediate assistance. Facilitating interventions that target both supply and demand sides. If appropriate, practitioners might consider market support on the demand side (e.g., increasing agro-pastoralists' purchasing power) and on the supply side (e.g., selecting, informing, and supporting seed sellers). Much depends on whether markets are functioning and on the specific crops and varieties in question. Regarding key market actors, it is important to identify and understand key seed-related actors. Agro-dealers are an obvious choice, but there are different types of actors that also play important market functions. Additional market functions and other market systems functions should also be assessed, such as information services and infrastructure.

#### **Market-Based Seed Response Options:**

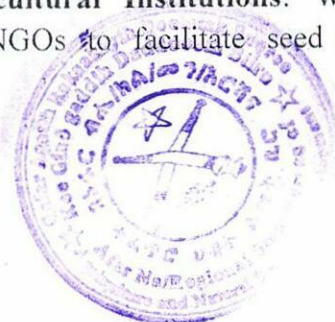
**Seed fairs:** Provide a platform for agro-pastoralists to directly access a range of locally produced and climate-appropriate seeds. They also enable local seed producers to sell seeds, supporting the local economy and the recovery of the seed market.

**Vouchers System:** allow agro-pastoralists to purchase seeds from local markets, ensuring that the market continues to function and that agro-pastoralists receive quality, suitable seeds for their needs. Distribute vouchers to smallholder agro-pastoralists based on their needs (e.g., type of crop or agroecological zone). The vouchers can be redeemed at registered local seed vendors or seed fairs.

**Smart Subsidies:** allow agro-pastoralists to purchase seeds from local markets, ensuring that the market continues to function and that agro-pastoralists receive quality, suitable seeds for their needs. Subsidize seed purchases for smallholder agro-pastoralists without directly distorting the market. Instead of providing free seeds, subsidies could be designed to make seeds more affordable while ensuring local seed vendors and producers remain competitive.

**Local Procurement and Distribution:** ensure that seeds are sourced from local producers as a priority, supporting the local economy and reducing the risk of importing unsuitable seeds that may not be adapted to local conditions. Purchase seeds from local agro-pastoralists, cooperatives, and seed companies. Local procurement helps support the seed economy and ensures that the seeds are culturally and environmentally appropriate for the region.

**Partnerships with Local Authorities and Agricultural Institutions:** Work with local agricultural authorities, community leaders, and NGOs to facilitate seed production and



distribution. This will ensure that the process aligns with local needs and priorities. Last-Mile Seed Distribution: To ensure that even the most remote agro-pastoralists have access to seeds, last-mile distribution models can be used. These models often involve local community-based organizations or groups that have strong connections with agro-pastoralists in hard-to-reach areas. Work with local community-based organizations (CBOs) or agro-pastoralists' associations to organize last-mile seed distributions. These groups have a deep understanding of the communities' needs and can facilitate the efficient delivery of seed aid to those who need it most. Use a mapping tool to identify agro-pastoralists in remote areas who may not be reached by traditional seed distribution networks. The seed assistance should be provided to agro-pastoralists and cooperatives in a seed recycling and revolving approach to be used by other agro-pastoralists in the next season.

### 6.8. Seed Quality

The quality of the seed involved in the intervention should meet the minimum standards of farming communities, practitioners, and donor organizations. At a minimum, donors and practitioners want to ensure that the seed aid products do not cause harm. Two seed quality issues are paramount. Is the seed quality sufficient to give a reliable production result? Is the seed free of pathogens that could cause disease to spread. The term 'seed quality' has several central aspects: physical quality, physiological quality, and seed health. Vegetative planting material while seed quality concerns are important for all crop types, they are of special importance for the cluster known as vegetatively propagated crops (VPCs). For these crops, the sowing material is not a grain but rather a vegetative part of the plant (stem, root, bulbs, tubers, vine or sucker) or, in the case of trees, a sapling. A primary concern during emergency aid operations is that pests and diseases might be present, on or in the living tissue, and could be transmitted to other areas. Diseased plants can potentially infect not only the aid crops, but other species as well. VPCs are also susceptible to rapid degradation during transport. •Avoiding stereotypes Implementers most often define quality according to the formal sector definition and equate quality with certified seed and address the formal producers and certification process. Note that certified seed is not necessarily of good quality (especially once it reaches the farmer), whereas farmer-saved seed may be of fine quality. Seed quality needs to be managed at many stages of the intervention: from procurement, to transport, to storage, to distribution – and other phases. Seed quality can quickly deteriorate if the planting material is not carefully managed. To enhance performance, seeds to be treated at all levels with fungicide or insecticide, focusing on maize, sorghum, and vegetable seeds. Especially when sourced from formal sources, seeds should be labeled so agro-pastoralists know its crop, variety, class, and letter of certification. Labels might also include information on the supplier, so agro-pastoralists can give feedback and address any quality concerns.

### 6.9. Timeliness

Any intervention proposed should be able to be completed in time, ahead of time before the planting period, for agro-pastoralists to have seed in hand for their normal planting period.



## 6.10. Feedback at multiple key stages

Client groups (Government bodies, cooperatives, donors) agro-pastoralists, and suppliers should have the opportunity to give feedback at the end of the season, and afterwards on beneficiary's selection, seed quality, seed performance, delivery time, integration among partners. Conduct regular stakeholder consultations to gather feedback on program performance and to identify areas for improvement. Establish a system for capturing and disseminating lessons learned. Use these lessons learned to inform program adaptation and improvement.

## 7. Sustainability measures

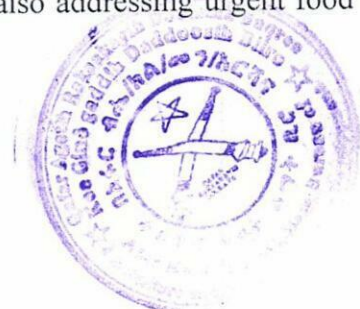
To ensure the long-term effectiveness and sustainability of the Afar Seed Emergency Response, a shift away from traditional aid-dependent models is essential. The following measures are designed to foster local ownership, build market-based solutions, and promote a resilient seed system.

### 7.1 Promote Market Based Seed Distribution

Unconditional free seed distribution, while seemingly beneficial in the short term, can undermine local seed markets development, discourage local seed production, create dependency, and weaken the overall seed system. It can also lead to the distribution of inappropriate varieties and fail to address the underlying causes of seed insecurity.

Prohibit or severely restrict free seed distribution. Emergency seed assistance should primarily focus on market-based approaches, such as seed vouchers, smart-subsidy, seed fairs, and support for local seed producers. Emphasize the provision of technical support and training to agro-pastoralists to ensure that they can effectively utilize the seeds they receive.

In certain evidence based exceptional circumstances—such as instances of drought, flooding, armed conflict, desert locust invasions, or severe damage caused by fall armyworms—free seed distribution may be warranted. However, such distributions should only occur when these conditions are thoroughly validated by regional steering committee (optional). The final decision for evidence based free seed distribution is decided by Afar Bureau of Agricultural and Natural Resources Development (BoANRD) while the implementation modality is recommended by regional steering committee. This ensures that all measures taken align with the overall objective of promoting sustainable seed system development practices while also addressing urgent food security needs in a responsible manner.



## 7.2 Seed Recycling and Revolving Approach

A seed recycling and revolving system promotes local ownership, ensures sustained access to quality seeds, fosters responsible resource management, and builds resilience within farming communities. This approach enables efficient use of seed resources and enhances local adaptation of preferred varieties. To effectively implement this system:

Provide structured and sustainable seed assistance to agro-pastoralists and cooperatives, operating effectively as a seed loan. First-time participating agro-pastoralists or cooperatives receive in-kind provision of high-quality basic or certified seed. Following harvest, participating agro-pastoralists or cooperatives return an equivalent number of seeds of the same variety and meet established quality standards to the designated seed cooperatives. Implement a rigorous quality assurance process that includes thorough cleaning and processing of returned seed to meet established standards. Comprehensive seed testing in certified laboratories to verify quality (germination rate, purity, disease absence) is undertaken. Mandatory regulatory approval from the relevant seed certification body. The tested and approved seed is then made available to a new cohort of participating agro-pastoralists or cooperatives, following the same in-kind seed loan and repayment process. Establish clear limits to the number of recycling cycles (e.g., after C2 or C3 seed generation). This helps manage the potential for genetic drift and maintain seed vigor. After the specified number of cycles, the seed is given free to the next beneficiary or agro-pastoralists. To ensure effective implementation of the seed revolving modality, provide intensive awareness creation sessions, and comprehensive training and technical support to participating agro-pastoralists and cooperatives. Training should cover: Improved seed production techniques (selection, planting, fertilization, pest control). Awareness creation training should cover proper post-and pre-harvest seed production and quality management, the significance of revolving seed within the community, seed storage management, and community Ownership which encompasses the value of community participation in local seed production, management and revolving to promote production of locally adaptable foods in a sustainable manner.



### **7.3 Enhancing Access to Credit for Agro-pastoralists and Seed Producers:**

Access to credit is essential for enabling agro-pastoralists to purchase improved seeds and inputs, and for allowing local seed producers to invest in production and processing facilities. This access stimulates local seed markets and promotes a more resilient seed system. Facilitating access to affordable credit for agro-pastoralists and seed producers through:

- **Microfinance Programs:** Partnering with microfinance institutions to provide small loans to agro-pastoralists for seed purchases.
- **Agricultural Credit Guarantees:** Establishing credit guarantee schemes to reduce the risk associated with lending to smallholder agro-pastoralists.
- **Seed Production Financing:** Providing seed producers with access to credit for seed production, processing, and marketing activities.
- **Promote Rural Saving and Credit Cooperatives (RUSACCOs):** Strengthening the existing Rural Saving and Credit Cooperatives to use as a source of capital for seed purchase.

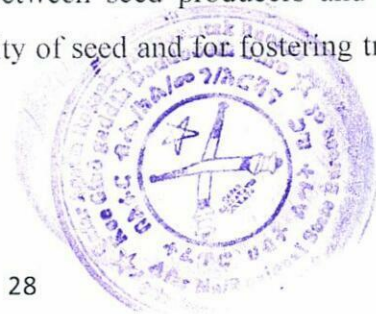
### **7.4 Strengthening Input Voucher System instead of direct seed support**

A well-designed input voucher system can provide agro-pastoralists with targeted assistance while promoting local seed markets networking and empowering agro-pastoralists to make their own seed choices. Enhance the input voucher system by:

- **Ensuring Timely Distribution:** Streamlining the voucher distribution process to ensure that vouchers are delivered to agro-pastoralists in a timely manner, before the planting season.
- **Monitoring and Evaluation:** Regularly monitoring and evaluating the voucher system to assess its effectiveness and identify areas for improvement.
- **Piloting e-voucher system:** Introduce e-voucher system to reduce administrative costs and improved efficiency.

### **7.5 Strengthening Seed Contract Agreement Enforcement:**

Clear and enforceable contract agreements between seed producers and agro-pastoralists are essential for ensuring the quality and availability of seed and for fostering trust and transparency within the seed system.



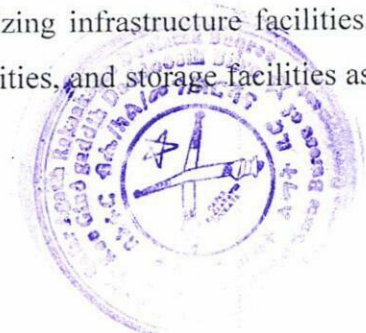
A significant impediment to effective seed production in Afar is the lack of robust and enforceable contract agreements at multiple levels of the seed value chain. Specifically, there is a deficiency in legally binding contracts: (1) between Afar Seed Enterprise and seed producer community, and (2) between Afar seed enterprise and agro-pastoralists, private investors or seed producers. This weakness undermines seed multiplication efforts and contributes to significant seed leakage into the grain market. So, there is law enforcement between the communities and private investors signed contractual agreements with the regional seed enterprises that need to obey to the term and conditions of the contracts.

The potential solutions are, develop legally binding contracts with clear terms, conditions, and penalties for non-compliance. The contract agreement should be considered as binding law and promote the use of model contracts that address key issues such as seed quality, pricing, delivery, and payment terms, establish effective mechanisms for enforcing contracts, such as mediation, arbitration, or legal action. Conduct awareness campaigns to educate agro-pastoralists about their contractual obligations and the importance of using certified seed, improve monitoring and oversight of seed production activities to detect and address contract violations, ensure that seed prices are competitive with grain prices to reduce the incentive for agro-pastoralists to divert seed production to the grain market, foster trust and cooperation among stakeholders through transparent communication, fair dealings, and mutual respect.

### **7.6 Strengthening a strategy to ensure availability of demanded Early Generation Seeds (EGS)**

A reliable supply of high-quality Early Generation Seed (EGS) – breeder seed, pre-basic seed, and basic seed – is the foundation of a sustainable seed system. EGS serves as the starting point for the seed multiplication chain, ensuring that certified seeds of improved varieties is available to agro-pastoralists. Strengthening regional and federal research centers as well as regionally seed enterprises to produce adequate quantities of EGS is crucial for reducing dependence on external seed sources, fostering local seed production capacity, and ensuring that seed varieties are well-adapted to the region's agro-ecological conditions.

Allocate sufficient and sustained funding to regional research centers and seed enterprise specifically for EGS production. Invest in upgrading and modernizing infrastructure facilities, including seed production fields, greenhouses, seed processing facilities, and storage facilities as



well as introduction and maintenance of demanded varieties in the regional research system. Ensure that these facilities meet the necessary standards for producing high-quality EGS of varieties of demanded. Provide training and technical support to research staff and regional seed enterprise seed experts on advanced seed production techniques, quality control measures, and seed storage and handling practices. Facilitate staff exchanges and collaborations with national and international research institutions to promote knowledge sharing and technology transfer.

Prioritize research and development of new and improved crop varieties that are well-adapted to the diverse agro-ecological zones of Afar and that address the specific needs and preferences of local agro-pastoralists. Establish efficient and transparent variety release procedures to ensure that promising new varieties are quickly made available to seed producers. Invest in the conservation and characterization of local germplasm resources. These local varieties often possess valuable traits, such as drought tolerance and disease resistance, that can be incorporated into new breeding programs. Foster close collaboration between research centers and local seed producers to ensure that EGS is efficiently multiplied and distributed to agro-pastoralists. This collaboration should involve providing technical support, sharing information on new varieties, and facilitating access to EGS. Establish a robust quality assurance system for EGS production, including seed testing, field inspections, and certification procedures. Ensure that EGS meets the highest standards for genetic purity, germination rate, and physical quality.

### **7.7 Creating a Market-Driven Seed System**

A market-driven seed system promotes efficiency, responsiveness, and sustainability. By empowering agro-pastoralists to make informed seed choices and by fostering competition among seed producers, a market-driven system ensures that agro-pastoralists have access to the quality seeds they need to improve their yields and livelihoods.

**Promote Seed Sector Liberalization:** Gradually liberalize the seed sector by reducing government regulation and encouraging private sector investment in seed production, processing, and distribution.

**Strengthen Seed Certification and Quality Control across the seed distribution channels:** Establish a robust seed certification and quality control system to ensure that seeds sold in the market meet minimum quality standards. This system should be independent, transparent, and accountable.



**Empower Agro-pastoralists to Make Informed Choices:** Provide agro-pastoralists with access to accurate and timely information on seed varieties, prices, and performance through extension services, demonstration plots, and field days.

**Support Local Community Seed Producers:** Provide technical assistance and access to credit to local seed producers to help them improve their production, processing, and marketing practices.

**Promote Seed Marketing and Distribution:** Encourage the development of efficient and reliable seed marketing and distribution networks, including seed shops, cooperatives, and agro-dealers.

**Facilitate Access to Information:** Support the development of market information systems that provide real-time data on seed supply, demand, and prices. This information can help agro-pastoralists and seed producers make informed decisions.

**Promote Competition:** Encourage competition among seed producers and distributors by ensuring that there are no barriers to entering the seed market.

**Address Market Failures:** Identify and address market failures that may impede the development of a market-driven seed system, such as information asymmetries, lack of access to credit, and inadequate infrastructure. Government intervention should be targeted and designed to correct these market failures without distorting market incentives.

**Creating community awareness on the value of quality seed:** Creating community awareness about the value of quality seed is crucial for enhancing agricultural productivity and ensuring food security. This can be achieved through various approaches, including farmer training, community seed banks, demonstrate the merit of using quality seed for increased crop yield, prevention of crop failure and introduction of new pests that invade crop field.

**Seed extension services to agro-pastoralists:** Seed extension services involve providing agro-pastoralists with information and support to improve their access to and use of quality seeds, leading to better crop yields and overall agricultural productivity. This includes disseminating knowledge about new seed varieties, optimal planting practices, and pest and disease management related to seeds. This extension service can also be delivered through various digital platforms including farm radio programs.



### **7.8 Establish and strengthen private seed producers and distributors in the region**

To establish and strengthen regionally based seed producers and distributors, it is essential to focus on creating a robust framework that supports both private seed producers and community-based initiatives. This involves not only the initial establishment of private seed production businesses to ensure their sustainability and growth. Moreover, attention should be devoted to developing community-based organizations, such as seed producers' cooperatives which foster collaboration among local agro-pastoralists. These cooperatives are pivotal as they work collectively to produce and supply high-quality seeds specifically tailored to the varieties that are in demand within the region.

### **7.9 Promote crop insurance program for seed entrepreneurs**

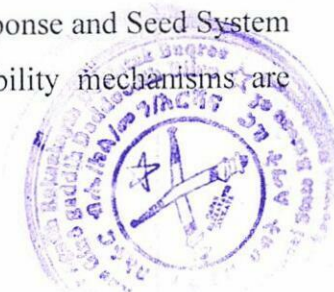
Crop insurance is a risk management tool for agro-pastoralists and protects against financial and business losses due to adverse weather events, pests and diseases. Promoting the benefits of crop insurance as a vital tool to ensure that agro-pastoralists can maintain sustainable production levels and secure a consistent supply of high-quality seeds, particularly in the face of challenging and crisis-laden environments. Hence, climate risk financing instruments are important to increase the resilience of vulnerable agro-pastoralists and seed business cooperatives against extreme weather events like drought.

### **7.10 Promote B2B linkage between community seed producers and regional seed enterprise**

Strengthening the linkage between the regional seed enterprise and primary cooperatives or community seed producers through a business-to-business model is vital to create a more robust and efficient seed business that benefits both parties. These linkages can reduce marketing risk, improve access to EGS supply and finally improve access to quality seeds for agro-pastoralists. It also increases the income of community-based producers and enhances the overall seed supply chain. It also provides access to wider markets beyond the local community, including seed enterprises that can distribute their seeds more broadly.

## **8. Accountability and Grievance Mechanisms**

To ensure the effective and equitable implementation of the Afar Seed response and Seed System Development Guideline and to maintain public trust, robust accountability mechanisms are



essential. These mechanisms will ensure that all stakeholders, including implementing partners, beneficiaries, and government agencies, are held accountable for their actions and that any grievances are addressed promptly and fairly.

### **8.1 Accountability Principles:**

**Transparency:** Information about the program's objectives, target beneficiaries, selection criteria, implementation procedures, and monitoring results will be readily available to the public through various channels, including websites, community meetings, and public notices.

**Responsiveness:** Implementing partners will be responsive to the needs and concerns of beneficiaries and will provide timely and accurate information upon request.

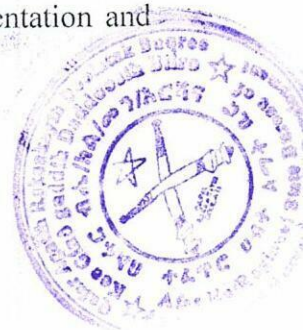
**Participation:** Beneficiaries and other stakeholders will be actively involved in the planning, implementation, and monitoring of the program. Their feedback will be solicited and considered in program design and implementation.

**Integrity:** All program activities will be conducted with the highest ethical standards, ensuring that resources are used efficiently and effectively to minimize corruption or misuse of funds.

**Fairness:** Selection criteria for beneficiaries will be applied consistently and transparently, ensuring that all eligible individuals and communities have an equal opportunity to participate in the program.

### **8.2 Accountability Mechanisms:**

Define clear roles and responsibilities for all stakeholders involved in the program, including government agencies, implementing partners, seed producers, and beneficiaries. Establish a robust internal monitoring and evaluation system to track program progress, identify challenges, and ensure that activities are being implemented in accordance with the program guidelines. Conduct regular performance and financial audits of programs to ensure that funds are being used appropriately and that there is no fraud or misuse. Utilize performance-based contracts with implementing partners, linking payments to the achievement of specific targets and outcomes. Establish an independent oversight committee, composed of representatives from government, implementing partners, and beneficiary communities, to monitor program implementation and provide feedback on program performance.



### 8.3 Grievance Mechanisms:

Establish multiple channels for beneficiaries and other stakeholders to report grievances, including Toll-free telephone hotlines that beneficiaries can call to report complaints. Anonymous suggestion boxes located in accessible locations. Regular community meetings where beneficiaries can raise concerns and provide feedback. Appoint designated grievance officers at the woreda and regional levels to receive and investigate complaints. Create an online platform where beneficiaries can report complaints. Ensure that all grievances are properly registered and documented, including the date of the complaint, the name of the complainant, a description of the grievance, and any supporting evidence. Establish a clear and transparent process for investigating and resolving grievances, including timelines for responding to complaints and escalating unresolved issues. Ensure the confidentiality of complainants and protect them from retaliation. Establish an independent appeals process for individuals who are not satisfied with the resolution of their grievance. This process should involve an impartial third party. Use grievance data to identify systemic problems and to improve program design and implementation. Regularly analyze grievance data to identify trends and patterns. Share lessons learned with implementing partners and government agencies.

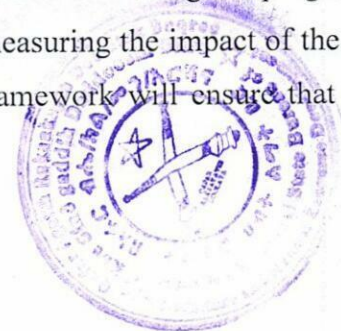
### 8.4 Communication and Awareness:

**Public Awareness Campaigns:** Conduct public awareness campaigns to inform beneficiaries and other stakeholders about the accountability and grievance mechanisms available to them.

**Training and Sensitization:** Provide training to program staff and implementing partners on accountability principles and grievance handling procedures. **Translation and Accessibility:** Ensure that information about the accountability and grievance mechanisms is available in local languages and in formats that are accessible to all.

## 9. Monitoring and Evaluation

A robust Monitoring and Evaluation (M&E) system is essential for tracking the progress of the Afar Seed and Seed Response, identifying challenges, and measuring the impact of the program on seed security and agricultural livelihoods. This M&E framework will ensure that program



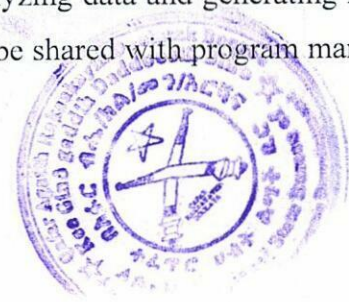
activities are aligned with the stated objectives, that resources are used efficiently, and that lessons learned are incorporated into future programming.

### **9.1 M&E Objectives:**

Monitor the implementation of program activities and track progress towards achieving the stated objectives. Evaluate the efficiency and effectiveness with which resources are being used to deliver program outputs and outcomes. Assess the impact of the program on seed security, agricultural productivity, and the livelihoods of beneficiary communities. Identify challenges and constraints that are impeding program implementation and achievement of objectives. Provide timely and accurate information to inform decision-making by program managers, implementing partners, and government agencies. Promote accountability for program performance and resource utilization. Capture and disseminate lessons learned to improve future programming.

### **9.2 M&E Framework**

Develop a detailed Log-Frame that outlines the program's inputs, activities, outputs, outcomes, and impact. The Log-Frame should include clear and measurable indicators for each level of the results chain. Develop a comprehensive M&E plan that specifies the data collection methods, data sources, frequency of data collection, responsibilities for data collection and analysis, and reporting requirements. Develop a set of key performance indicators (KPIs) that will be used to track program progress and measure impact. These indicators should be SMART (Specific, Measurable, Achievable, Relevant, and Time-bound). Employ a variety of data collection methods to ensure data quality and reliability, including conducting baseline and endline surveys to assess changes in key indicators. Conduct regular field visits to monitor program activities and verify data collected through other sources. Conduct interviews with key stakeholders, such as agro-pastoralists, seed producers, extension workers, and government officials. Conduct focus group discussions with beneficiary communities to gather qualitative data on their experiences and perceptions. Implement a seed tracking system to monitor the movement of seed from distribution points to agro-pastoralists' fields. Establish procedures for analyzing data and generating regular reports on program progress and impact. These reports should be shared with program managers, implementation partners, and government agencies.



### **9.3 Roles and Responsibilities**

The Regional Seed Steering and technical committee will be responsible for overseeing the overall M&E system, ensuring that data is collected and analyzed in a timely and accurate manner, and that reports are generated and disseminated to relevant stakeholders. Implementing partners will be responsible for collecting data on program activities in their respective areas of operation and for reporting this data to the Regional Seed Steering committee. Government agencies will be responsible for providing data on relevant indicators and for participating in program reviews and evaluations. External evaluators will be contracted to conduct independent evaluations of the program at pre-defined intervals.

### **9.4 Data Quality Assurance:**

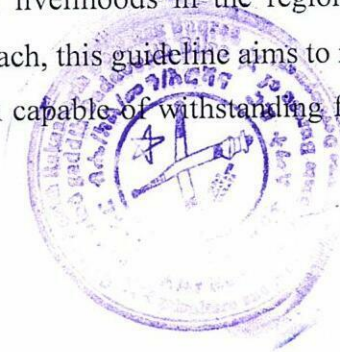
Implement procedures for validating data to ensure that it is accurate and reliable. This may involve cross-checking data from different sources and conducting field visits to verify data reported by implementing partners. Establish secure data storage systems to protect data from loss or unauthorized access. Develop data management protocols to ensure that data is collected, stored, and analyzed in a consistent and standardized manner.

### **9.5 Feedback Mechanisms:**

Conduct regular stakeholder consultations to gather feedback on program performance and to identify areas for improvement. Utilize grievance redress mechanisms to address complaints and concerns raised by beneficiaries and other stakeholders. Establish a system for capturing and disseminating lessons learned from the M&E process. Use these lessons learned to inform program adaptation and improvement.

## **10. Conclusion**

The Afar Seed system and development Guideline provides a vital framework for navigating the complex challenges of restoring seed security and agricultural livelihoods in the region. By prioritizing a coordinated, sustainable, and market-oriented approach, this guideline aims to move beyond short-term relief efforts and build a resilient seed system capable of withstanding future



shocks. Effective implementation of the principles and strategies outlined in this document, coupled with robust monitoring and evaluation, is crucial for empowering farming communities, ensuring food and nutrition security, and fostering long-term agricultural development in the Afar region. This guideline serves as a roadmap for all stakeholders to work together towards a future where all agro-pastoralists have access to the quality seed they need to thrive.

## 11. Guideline Revision

Given that the Afar seed response and seed system development guideline is a new framework for the region, it has been determined that the guideline will be revised annually to ensure immediate relevance and effectiveness. In the future, the revision period will be extended based on the sustained progress and successful implementation observed.

