# A MODEL FOR ACCESSING NON COMMERCIALIZED REGISTERED VARIETIES AND SUPPORT FOR FARMER MANAGED SEED SYSTEMS

SEED SAVERS NETWORK, 2024

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# CHAPTER ONE INTRODUCTION

*"With each passing day the genetic basis of our agriculture becomes narrower. With each passing day fewer species inhabit the planet, and the planet's fundamental (biological) capacity to support human societies diminishes…".*

Dr. Thomas D. Lovejoy

## Background

Seed Savers Network (SSN), established in 2009, is dedicated to conserving agrobiodiversity and strengthening community seed systems to improve food and nutritional security. With over 405,000 community members and 74 community seed banks, SSN has been at the forefront of promoting sustainable agricultural practices and preserving local seed diversity in Kenya.

From its work with small-scale farmers, SSN has noted that there is inaccessibility of local crop varieties registered by public research institutions. Although these varieties are registered, they are often not commercialized, preventing farmers from obtaining seeds that are resilient to climate change and essential for improving agricultural productivity. Additionally, community seed systems provide approximately 80% of seeds used by farmers in Kenya. However, this system lacks recognition and support in policy and resources from the government. Addressing these issues is critical for enhancing food security and enabling farmers to thrive under changing environmental conditions.

In order to contribute to addressing these challenges, SSN in collaboration with a consultant developed a model that outlines how farming communities can access registered varieties and proposes strategies of how community seed systems can be enhanced.

## History and Context of the Seed Sector in Kenya

In Kenya, agriculture contributes 33% to GDP, creates 60% of informal employment and 60% of exports. At the heart of this sector is seed. Seed is the first link in the food chain and without which there is no food. According to the Kenyan Seed Policy 2010, the development of the seed industry in Kenya began in the early 20th century and was strengthened by research on industrial, food and export crops as they were supplied with seeds and planting material., the seed industry in Kenya is made up of the formal and informal seed sector with majority of small scale farmers sourcing most their seed from the informal sector.

On the other hand, the formal sector focusses on varieties that are certified and whose source is known. The production of seed is undertaken by both the private and public sectors with seed merchants contracting growers who must be registered by the Kenya Plant Health Inspectorate Service (KEPHIS) as the NDA. Even though the seed sector is liberalized, it is regulated under the Seeds and Plant Varieties Act (Cap 326) and subsidiary legislations which requires that a systematic seed certification scheme for registered crops. Certification includes field inspection, supervision of delivery of the seed crop, seed processing, labelling, and monitoring at the

distribution points. Seed marketing or commercialization is mainly dominated by a few players largely dealing in only a few crops and has a

unbalanced influence on the commercialization of varieties and pricing of seed. The perceived low value of some registered seeds has discouraged private seed dealers to undertake marketing of some of the registered seeds which reduces their accessibility to the growers.

Challenges identified with the informal system include that the source of most of the planting materials as well seed purchased, multiplied and marketed may not always be known. This system is also unregulated. However, even though it has been over fourteen years since the Seed Policy was effected, research shows that 80% of farmers in East Africa rely on seeds from the "informal" or more recently referred to as farmer managed seed systems (Louwaars & De Boeuf, 2012). This is because farmers mainly source their seeds locally, from their own stocks of saved seed, from neighbors, and from their local markets. As they engage in the practices of seed saving, exchange and selling amongst the community members they not only produce the bulk of the food consumed, but are also the guardians of genetic biodiversity and its associated indigenous technical knowledge (ITK).

The Seed Policy concludes that that as farming becomes more commercial, the focus should be shifting towards formal seed. However, it is worth noting that the worldwide dependence on the availability of genetic resources creates a need for all nations to have an interest in their protection globally as these resources have characteristics of a pure public good and existing mechanisms to protect it are deficient and need strengthening.

# CHAPTER TWO SITUATIONAL ANALYSIS

*A seed grows with no sound, but a tree falls with huge noise. Destruction has noise, but creation is quiet. Grow Silently* African saying

## Survey Approach and Methodology

The methodology comprised of literature review, focused group discussions and key informant interview. A synoptic workshop was held over three days bringing together 28 participants to brainstorm on this issue. The stakeholders comprising of farmers, youth, policymakers, researchers and civil society organisations using participatory approaches reflected on; issues on/reasons for poor access by farmers to registered/released varieties bred by public institutions as well actions needed to support community seed systems.

*Table 1 List of stakeholders*

| S/No. | Focused Group | Number |
|---|---|---|
| 1. | Farmers | 7 |
| 2. | Youths | 6 |
| 3. | Policy & Research | 4 |
| 4. | Civil Society Organisations | 11 |
| | **Total** | **28** |

## The Emergent key issues

In the area of poor access by farmers to registered/released varieties bred by public institutions were clustered as follows;

### 1. Research and Extension challenges

Under this area the following issues emerged

i. Poor farmer involvement in variety research, registration and seed: production/inadequate Research-Extension-Farmer linkages. As a result some varieties are not significantly different existing farmer held varieties leading to distrust.
ii. Insufficient/poor access to Early Generation Seed (EGS) by farmers and farmer organizations;
iii. Limited recognition of traditional seed and crops in the research system. This is in spite of the fact that sometimes traditional varieties perform better than formal seeds particularly when exposed to environmental shocks. as is the case in Ethiopia where a farmer variety of wheat was noted to have higher yield than registered seed. Consequently, there is limited or no evidence to showcase benefits of landraces.

### 2. Socio Economic challenges

i. Low awareness/lack of information

Information on registered but non commercialized varieties is rarely made available to the market and the community to facilitate the use of the seed varieties. Additionally, information is fragmented within public and private institutions with no centralized source

ii. Profit motive/business model is not well established for particular

Several challenges related to non commercialised and traditional varieties were identified. As a business model there is inadequate market demand for produce from certain released varieties; High cost of accessing of released non commercialised varieties; Culture/changing consumption preferences and habits that favour/bias towards uptake of traditional varieties/food particularly for the younger generations

3. **Unfavourable/restrictive seed policies and laws**

Farmers are disenfranchised because they are not able to grow and exchange their seeds freely as a result of unfavourable/restrictive seed policies and laws. In addition, the stringent Intellectual Property Rights (IPR)/ Plant Variety Protection (PVP) and registration and high royalty requirements make varieties inaccessible to farmers and non-commercial organizations such as CBOs and NGOs

**Discussion**

On research the issues raised by stakeholders are also highlighted in the Seed Policy 2010 which indicate that public research institutions have developed many varieties but there has been no clear policy on access to these varieties by interested parties. In addition, the variety maintenance program is not sufficiently developed. The declining resource allocation to the agricultural sector over the years has affected services rendered by both research and extension services.

The Seed Policy concludes that that as farming becomes more commercial, the focus should be shifting towards formal seed. This is testament of the low prioritization of informal seed systems in spite of its dominant market share in the seed market. This presents an opportunity to review the policy, legal and regulatory frameworks to address the seed supply gaps through an inclusive seed system diverse genetic resources are a pure public good and existing mechanisms to protect it must be strengthened.

# CHAPTER THREE KEY RESULT AREAS

*Knowledge is like a garden… if it's not cultivated, it cannot be harvested. African Proverb*

## A. KEY RESULT AREA 1 MODEL FOR ACCESSING NON COMMERCIALIZED REGISTERED VARIETIES

The overall objective of the model (Fig 1) is to increase access to non-commercialized registered varieties. The approach will employ the following strategies;

I. Increasing collaboration with National Agricultural Research System (NARS), CSOs and farmers
II. Improved access to information on non-commercialized registered varieties and EGS as illustrated in Figure 1 and in theory of change in Annex 1:

The model will comprise of the following key steps

1. Crop Mapping
2. Collaboration between NARS and farmers
3. Capacity building for seed multiplication
4. Multiplication of seed in cycles
5. Sale of multiplied seed

**Fig 1 Model to support access to non-commercialized registered seed**

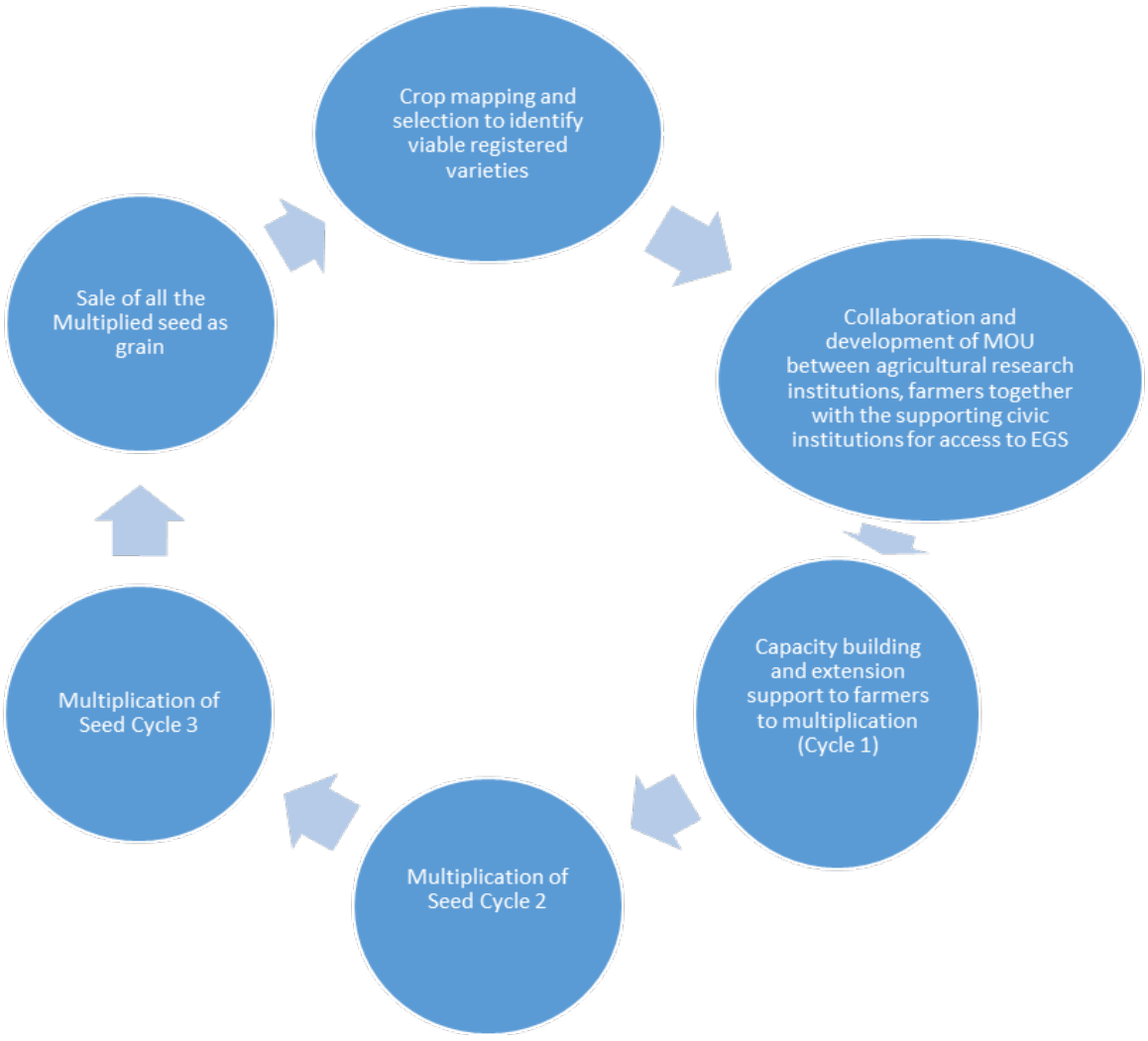

*Table 2 Key Result Area 1 Establishment of Model to support access to non commercialised registered seed*

### 3.1 Key Result Area 1.

| **Key issues constraining farmers' access to seed varieties registered/released by public institutions** | • Poor farmer involvement in seed production including multiplication and bulking<br>• Inadequate Research-Extension-Farmer linkages<br>• Insufficient/poor access to Early Generation Seed (EGS) by farmers and farmer organizations; | | | | | |
|---|---|---|---|---|---|---|
| **Strategy** | **1.1 Increase collaboration with NARS, CSOs and farmers** | | | | | |
| **Broad Activity Area**<br>**Activities** | **Expected Outputs/outcomes** | **Measure of Achievements** | **Lead Responsible Actor/ other actors** | **Other Key actors** | **When to be done**<br>**(period of Month and year e.g.mid June 2024)** | **Resources required** |
| **1.1.1** Strengthen collaboration and linkages within and between agricultural research institutions and stakeholders | Increased linkages and collaborators within and between actors | No of linkages and collaborations documented<br>MoUs signed by SSN and other like -minded organisations | KALRO | Universities, International Research Institutions, County Governments, Private Sector | | Financial<br>Human resources |
| **1.1.2** Crop mapping and selection to identify viable registered varieties. | Information/data available on registered varieties | List of released varieties<br>. | KALRO | County Government. CBOs/NGOsFarmer Organisations | | Financial<br>Human resources<br>Information, communication |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | and education (IEC) materials |
| **1.1.3** Improve access to early generation seed (EGS**)** | Early generation seed varieties selected and accessed | No of EGS accessed by farmers' groups<br>Ability to demonstrate the capacity to multiply, market and sell the seed | KALRO | Universities, International Research Institutions, County Governments, Private Sector | | Financial<br>Human resources |
| **1.1.4** Capacity building and extension support to farmers to multiplication and bulking of seed | Capacity gaps identified and strategies determined<br>Farmers trained and empowered to grow identified varieties | Capacity assessment report<br>Training Reports<br>Demo farms established | SSN | KALRO<br>County Government. CBOs/NGOs<br>Farmer Organisations | | Financial<br>Human resources<br>(Information, communication and education (IEC) materials |
| **1.1.5** Promote gender mainstreaming in variety selection for multiplication | Enhanced capacity on gender mainstreaming<br>Gender mainstreamed in research agenda on seed | No. of stakeholders trained<br>Gender parity in production and bulking | KALRO | Universities, International Research Institutions, County Governments, Private Sector<br>Farmer organisations | | Financial<br>Human resources<br>Training<br>IEC materials |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | CSOs | | |
| **Strategy** | **1.2 Improved access to information on non-commercialized registered varieties and EGS** | | | | | |
| **1.2.1** Collate and synthesize the research on non-commercialized seed and EGS | Collated database | No of studies collated and synthesized<br>No of publications and outreach | KALRO/ SSN | Universities, International Research Institutions, County Governments, Private Sector<br>Farmer organisations<br>CSOs | | Financial<br>Human resources<br>Training |
| **1.2.2** Enhance awareness on availability and sources of EGS and non-commercialised registered varieties for seed multiplication | Enhanced awareness of sources of registered varieties and EGS<br>Increased seed multiplication of EGS/ non commercialized registered varieties | No of dissemination meetings<br>No. mobilized institutions identified<br>No. of farmers accessing NARS<br>No of EGS/ non commercialised registered seed available | KALRO/ SSN | Private Sector,<br>Farmer Organisations CSOs | | Financial<br>Human resources<br>Training<br>IEC materials |

## B KEY RESULT AREA 2 TO ENHANCE RECOGNITION AND SUPPORT TO FARMER/COMMUNITY MANAGED SEED SYSTEMS

*"Indigenous seeds which I have saved close to three and a half years are resistant to tough climatic conditions and diseases and are the answer to the food security problem currently ongoing in the country as a result of failed rain seasons"*

*Selina, Agroecological farmer*

To achieve the above result area, the following key approaches will be used;

**a) Policy and legal reform –**

That Kenya has an opportunity to review the policy, legal and regulatory frameworks to address the seed supply gaps through an inclusive seed system. That the government as a duty bearer should ensure the seed systems are adequately supported by coherent policy and laws that address sustainable conservation, use access and benefits arising from use of genetic resource based on international frameworks (CBD, Nagoya and Cartagena Protocols, ITPGRFA) and national law. The goal of this area should focus on alignment with the conservation and equitable sharing of genetic resources as espoused in the International Treaty on Plant Genetic resources for Food and Agriculture

Policy and legal frameworks should be reviewed to address inclusive FMSS. Stakeholders should also be encouraged to explore alternative pathways for more inclusive seed systems. In due course policy reforms and effective implementation of policies will enable farmers regain control of their seeds and make money in the process.

There is therefore need or a platform for sharing learning and strengthening stakeholder engagement. This has the benefits of avoiding duplication, efficient use of resources that promote community seed systems as well as clarity of issues and strategies particularly those that deal with other policy and regulatory frameworks. This platform would also go a long way in promoting intergenerational learning.

**b) Entrepreneurship for Farmer Managed Seed Systems**

To address the socio economic issues including high cost of registered varieties, inadequate market demand for produce from certain released varieties as well as profitability of farmers seed there is need for scaling up the FMSS as a model that is viable, profitable and sustainable.

*Table 3 Key Result Area 2 To enhance recognition and support to farmer managed seed systems*

### *3.2 Key Result Area 2:*

| | | | | | | |
|---|---|---|---|---|---|---|
| **Key issues constraining support to farmer managed seed systems** | • National and institutional research policies do not prioritize development and maintenance of local/communities' genetic resources<br>• Farmer are disenfranchised because they are not able to grow and exchange their seeds freely due to unfavourable/restrictive seed policies and laws<br>• Stringent IPR/PVP, registration and bureaucratic requirements making registration of varieties difficult for farmers and supporting organizations such as CBOs and NGOs | | | | | |
| **Strategy** | **2.1 Recognition in national policy and legislation frameworks of the value and contribution of farmer varieties to food security and nutrition, livelihoods, biodiversity, and resilience to climate change** | | | | | |
| **Broad Activity Area**<br>**Activities** | **Expected Outputs/outcomes** | **Measure of Achievements** | **Lead Responsible Actor/ other actors** | **Other Key actors** | **When to be done**<br>**(period of Month and year e.g.mid June 2024)** | **Resources required (Don't cost just mention** |
| **2.1.1** Review national seed policy and legislation: to<br>• To provide exceptions and exemptions to protect | Enhanced recognition and appreciation of FMSS by national | Policy and Programme Documents | MoALF | State Law Office and County Government | | Financial Human resources<br>Information, communication and |

| | | | | | | |
|---|---|---|---|---|---|---|
| farmers' rights to save, share, exchange, and sell seeds<br>• To allow for free access to seeds registered by public institutions and universities. | and county governments<br>Reviewed and inclusive policy and regulatory frameworks | | | | | education (IEC) materials |
| **2.1.2** Fast track domestication of the provisions of the ITPGRFA, CBD and Nagoya protocol to ensure that farmers are involved in managing gene banks<br>and to give farmers official recognition of their contribution. | Enacted legislation domesticating provisions of ITPGRFA, CBD and Nagoya Protocol | Legislative reports<br>Policy and programme documents | MoALF | State Law Office<br>Parliament,<br>County Government.<br>CBOs/NGOs<br>Farmer Organisations | | Financial Human resources<br>Information, communication and education (IEC) materials |
| **2.1.3** Establishment of a harmonised and functional national genetic resources coordination mechanism | Functional and inclusive national genetic resources coordination mechanism in place | Effective execution of roles and responsibilities | MoALF/<br>KALRO | County Government.<br>CBOs/NGOs<br>Farmer Organisations | | Financial Human resources<br>Information, communication and education (IEC) materials |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Strategy** | **2.2 Development of viable, profitable and sustainable value chains that support farmer managed seed system**<br><br>**Issues**<br>• Information on farmer varieties is adequately not documented /Low awareness/lack of information<br>• Inadequate market demand for produce from certain released varieties/ Profit motive/business model for stakeholders is not well established for non-commercialized and traditional seeds<br>• Culture/changing consumption preferences and habits that favour/bias uptake of particular varieties | | | | | |
| **2.2.1** Crop mapping and selection to identify viable traditional varieties. | Information/data available on traditional and associated knowledge, innovations and practices | Field Survey report<br><br>Catalogue of varieties | KALRO | County Government. CBOs/NGOs<br><br>Farmer Organisations | | Financial Human resources<br><br>Information, communication and education (IEC) materials |
| **2.2.2** Identification of seed savers who were custodians of local varieties | Custodians of seed identified and mapped | Survey report<br><br>Database of identified seedsavers | SSN | KALRO<br><br>County Government. CBOs/NGOs<br><br>Farmer Organisations | | Financial Human resources |
| **2.2.3** Capacity building through experimentation with knowledgeable farmers to | Capacity gaps identified and | Capacity assessment report | SSN | KALRO | | Financial<br><br>Human resources |

| | | | | | | |
|---|---|---|---|---|---|---|
| encourage them to grow local crops. | strategies determined<br>Seed savers trained and empowered to grow identified varieties | Training Reports<br>Demo farms established | | County Government. CBOs/NGOs<br>Farmer Organisations | | Research infrastructure (Information, communication and education (IEC) materials |
| **2.2.4** Analysis of traditional varieties including unique attributes such as nutrition value | Traditional varieties documented, characterised, and evaluated | Research reports | KALRO | County Government. CBOs/NGOs<br>Farmer Organisations | | Financial<br>Human resources<br>Research infrastructure (Information, communication and education (IEC) materials |
| **2.2.5** Documentation of farmers understanding and indigenous knowledge about varieties | Documentation and dissemination of indigenous traditional knowledge and practices | Research reports<br>Catalogue | SSN | KALRO<br>County Government. CBOs/NGOs<br>Farmer Organisations | | Financial<br>Human resources<br>Information, communication and education (IEC) materials |
| **2.2.6** Scaling up production and market linkages | Functioning and profitable FMSS based value chains with active | No.of varieties with value chains | Ministry of Industry | MoALF<br>County Government. CBOs/NGOs | | Financial<br>Human resources<br>Information, communication and |

| | | | | | | |
|---|---|---|---|---|---|---|
| | participation of all actors | No. of functional market linkages | | Farmer Organisations | | education (IEC) materials |
| **2.2.7** Support consumer awareness campaign to influence preferences and habits that favour consumption traditional varieties/foods | Increased market for traditional and non-commercialized registered varieties | No. of awareness campaigns carried out<br>No. institutions reached | Minstry of Health | MoALF<br>County Government. CBOs/NGOs<br>Farmer Organisations | | Financial<br>Human resources<br>Media (electronic, print and social)<br>Information, communication and education (IEC) materials |

Table 4 Annex 1 Theory of Change

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Impact** | | **Increased access to diverse seeds by farmers and other stakeholders for food security and nutrition, livelihoods, biodiversity, and resilience to climate change** | | | | | | |
| | | ↑ | | ↑ | | ↑ | | ↑ |
| **Outcomes** | | **1.1 Increase collaboration with NARS, CSOs and farmers** | | **1.2 Improved access to information on non-commercialized registered varieties and EGS** | | **2.1 Recognition in national policy and legislation frameworks of the value and contribution of farmer varieties to food security and nutrition, livelihoods, biodiversity, and resilience to climate change** | | **2.2 Viable, profitable and sustainable value chains that support farmer managed seed system** |
| | | ↑ | | ↑ | | ↑ | | ↑ |
| **Outputs** | | • Useful registered non commercialized varieties selected<br>• Increased linkages and collaborators within and between actors<br>• Crop mapping and selection to identify viable registered varieties.<br>• Improved access to early generation varieties seed<br>• Enhanced capacity on gender mainstreaming | | • Collated database on non-commercialized registered varieties.<br>• Enhanced awareness of sources of registered varieties and EGS<br>• Increased seed multiplication of EGS/ non commercialized registered varieties | | • Enhanced recognition and appreciation of FMSS by national and county governments<br>• Reviewed and inclusive seed policy and legislative frameworks<br>• Reviewed legislation frameworks for domestication of provisions of international frameworks (ITPGRFA, CBD and Nagoya Protocol)<br>• Functional and inclusive national genetic resources coordination mechanism in place | | • Information/ data available on traditional and registered varieties and associated knowledge.<br>• Custodians of seed identified and mapped<br>• Capacity gaps identified and appropriate training undertaken;<br>• Traditional varieties documented, characterized, and evaluated<br>• Indigenous traditional knowledge and practices documented and disseminated<br>• Increased market for traditional and non- commercialized registered varieties |
| | | ↑ | | ↑ | | ↑ | | ↑ |
| **Strategies/ Activities** | | **Result Area 1: Establishment of a model to support access to non-commercialized registered seed** | | | | **Result area 2: Enhanced recognition and support to farmer/community managed seed systems** | | |
| | | **1.1.1** Strengthen collaboration and linkages within and between | | **1.2.1** Collate and synthesize the research on non-commercialized seed and EGS | | **2.1.1** Conduct a review national seed policy and legislation<br>**2.1.2** Fast track domestication of the provisions of the ITPGRFA, | | **2.2.1** Crop mapping and selection to identify viable traditional varieties.<br>**2.2.2** Identification of seed savers who were custodians of local varieties |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | agricultural research institutions and stakeholders<br>**1.1.2** Crop mapping and selection to identify viable registered varieties<br>**1.1.3** Improve access to early generation seed (EGS**)**<br>**1.1.4** Capacity building and extension support to farmers to multiplication and bulking of seed<br>**1.1.5** Promote gender mainstreaming in variety selection for multiplication | | **1.2.2** Enhance awareness on availability and sources of EGS and non-commercialize registered varieties for seed multiplication | | CBD and Nagoya protocol to ensure that farmers are involved in managing gene banks and to give farmers official recognition of their contribution<br>**2.1.3** Establish a harmonized and functional national genetic resources coordination mechanism | | **2.2.3** Capacity building through experimentation with knowledgeable farmers to encourage them to grow local crops.<br>**2.2.4** Analysis of traditional varieties including unique attributes such as nutrition value<br>**2.2.5** Documentation of farmers understanding and indigenous knowledge about varieties<br>**2.2.6** Scaling up production and market linkages<br>**2.2.7** Support consumer awareness campaign to influence preferences and habits that favour consumption traditional varieties/foods |

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