

# Community Seed Bank

Facilitator Training Manual

Ibrahim Osman Ismail  
Nimo Abdirahman Yusuf  
Mustafe Abdilahi Abdi  
Said Haibe Aideed



**UNIVERSITY OF BURAO**  
**FACULTY OF AGRICULTURE  
AND ENVIRONMENTAL SCIENCE.**

كلية الزراعة والعلوم البيئية



---

**Authors:** Ibrahim Osman Ismail, Nimo Abdirahman Yusuf, Mustafe Abdilahi Abdi and Said Haibe Aideed

**Abstract:** "Manual on Establishing Strengthening Community Seed Banks in Somaliland" A training manual aimed at a range of groups including students, NGO personnel, researchers and government agents with an emphasis on participatory methodology. It avoids reliance on traditional lecturing in favor of engaging discussions and activities that create an environment for students to experience the material firsthand. With content organized into eight modules, the resource covers several dimensions of seed banking — beginning with an overview of CSB multifunctionality in biodiversity preservation to unravelling complexities related to legal and governance issues that affect their functioning during crises. The order of the sections presents an incremental transfer or empowerment hierarchy for each step in seed systems management, community engagement and being strategic with networking.

Featuring: real-world case studies, exercises and clear facilitator instructions that allow you to bridge the gap between theory and practice. It highlights the critical importance of CSBs in supporting biodiversity conservation, disaster resilience and local crop varieties - making clear that they are central to climate resilient agriculture.

It is hoped that the manual will provide detailed guidance to contribute towards turning community seed banks into strong, viable and sustainable entities. These banks are viewed as crucial for improving food security and agricultural sustainability by the conservation of landraces, but also beyond that to stimulate better practices within communities as an adaptive response in order to be able cope with current agro-environmental challenges.

**Keywords:** Community Seed Banks; Biodiversity Conservation; Participatory Learning; Sustainable Agriculture; Seed System Management; Capacity Building



© 2024 Wageningen Centre for Development Innovation, part of the Stichting Wageningen Research. P.O. Box 88, 6700 AB Wageningen, The Netherlands. T + 31 (0)317 48 68 00, E [info.cdi@wur.nl](mailto:info.cdi@wur.nl), [www.wur.eu/wcdi](http://www.wur.eu/wcdi).



The Wageningen Centre for Development Innovation uses a Creative Commons Attribution 4.0 (Netherlands) licence for its reports.

The user may copy, distribute and transmit the work and create derivative works. Third-party material that has been used in the work and to which intellectual property rights apply may not be used without prior permission of the third party concerned. The user must specify the name as stated by the author or licence holder of the work, but not in such a way as to give the impression that the work of the user or the way in which the work has been used are being endorsed. The user may not use this work for commercial purposes.

The Wageningen Centre for Development Innovation accepts no liability for any damage arising from the use of the results of this research or the application of the recommendations.

Photo cover: Generated on Canva and Ideogram.AI

---

# Contents

<b>How to Use Community Seed Bank Manual?</b>	<b>6</b>	
<b>How is the manual organized?</b>	<b>7</b>	
<b>Acknowledgements</b>	<b>8</b>	
<b>List of abbreviations and acronyms</b>	<b>9</b>	
<b>Summary</b>	<b>10</b>	
Objectives of the Community Seed Bank Manual	13	
Community Seed Bank Operations: Key Components	13	
Seed System Mechanism and Regional Networking	13	
Capacity Building for Farmers, Extension Workers, Students, and Professionals	13	
Partnership Networks	14	
Quality Assurance in CSB	14	
Strategy for strengthening existing community seed banks in Somaliland	14	
<b>1</b>	<b>Module 1: The Multiple Functions and Services of Community Seed Banks</b>	<b>16</b>
1.1	Objectives	16
1.2	Duration	16
1.3	Contents	16
1.4	Process:	16
1.5	Training Evaluation:	17
1.6	Equipment and Materials Needed:	17
2.1	Objectives	19
2.2	Duration	19
2.3	Contents	19
2.4	Process	19
2.5	Training Evaluation (20 minutes)	20
2.6	Equipment and Materials Needed	20
<b>3</b>	<b>Module 3: Steps and Process of Establishing and Supporting a Community Seed Bank</b>	<b>22</b>
3.1	Objectives of the Topic:	22
3.2	Duration	22
3.3	Process:	22
3.4	Training Evaluation:	22
3.5	Equipment and Materials Needed:	23
<b>4</b>	<b>Module 4: Technical Issues Involved in Operating Community Seed Banks</b>	<b>26</b>
4.1	Objective:	26
4.2	Duration	26
4.3	Process:	26
4.4	Key Principles and Practices for Effective Operations:	26
4.5	Training Evaluation:	26
4.6	Equipment and Materials Needed:	27
<b>5</b>	<b>Module 5: Governance and Management of Community Seed Bank Training</b>	<b>29</b>
5.1	Objectives	29
5.2	Process and Steps	29
5.3	Training Evaluation:	29
5.4	Equipment and Materials Needed:	30
<b>6</b>	<b>Module 6: Support and Networking Training for Community Seed Banks</b>	<b>32</b>
6.1	Objective:	32
6.2	Contents:	32
6.3	Process and Steps:	32
6.4	Training Evaluation:	32
6.5	Equipment and Materials Needed:	33
<b>7</b>	<b>Module 7: Policies and Laws Impacting Community Seed Banks</b>	<b>35</b>
7.1	Objectives:	35
7.2	Duration	35
7.3	Contents:	35
7.4	Process and Steps:	35
7.5	Evaluation for Training:	36
7.6	Equipment and Materials Needed:	36
<b>8</b>	<b>Module 8: Viability and Sustainability of Community Seed Banks</b>	<b>38</b>
8.1	Objectives:	38
8.2	Duration	38
8.3	Contents:	38
8.4	Process and Steps:	39
8.5	Evaluation:	39

	8.6 Equipment and Materials Needed:	39
<b>9</b>	<b>Annex 1: Module One (The Multiple Functions and Services of Community Seed Banks)</b>	<b>40</b>
	9.1 Facilitator instructions	40
	9.2 Conclusion and evaluation	40
<b>10</b>	<b>Annex 2: Module Two (Trends in Agricultural Biodiversity)</b>	<b>42</b>
	10.1 Facilitator instructions	42
	10.2 Introduction	42
<b>11</b>	<b>Annex 3: Module 3(Steps and Process of Establishing and Supporting a Community Seed Bank)</b>	<b>44</b>
	11.1 Facilitator instructions	44
	11.2 Introduction	44
	11.3 Conclusion and evaluation	44
<b>12</b>	<b>Annex 3: Module 3: Steps and Process of Establishing and Supporting a Community Seed Bank (Facilitator Instructions)</b>	<b>45</b>
	12.1 Introduction (5 minutes)	45
	12.2 Conclusion and Evaluation (15 minutes)	46
<b>13</b>	<b>Annex 6: Module 6(Support and Networking Training for Community Seed Banks)</b>	<b>47</b>
	13.1 Seed Network Analysis: A Collaborative Exercise (Facilitator Instructions)	47
	13.2 Conclusion and Evaluation (15 minutes)	47
<b>14</b>	<b>Annex 7: Module 7(Policies and Laws Impacting Community Seed Banks)</b>	<b>49</b>
	14.1 Analyzing Policy and Legal Landscapes: Their Impact on Community Seed Banks (Facilitator Instructions)	49
	14.2 Introduction (5 minutes)	49
	14.3 Conclusion and Evaluation (15 minutes)	49
<b>15</b>	<b>Annex 8: Module 8 (Viability and Sustainability of Community Seed Banks Objectives)</b>	<b>51</b>
	15.1 Assessing Viability: A Collaborative Approach (Facilitator Instructions)	51
	15.2 Introduction (5 minutes)	51
	15.3 Conclusion and Evaluation (10 minutes)	51
<b>16</b>	<b>References and Resources</b>	<b>53</b>

# Who is this Training Manual intended for?

This training manual is intended for people working directly with farmers, who are motivated to set up a community seed bank or who want to strengthen the operations of a community seed bank that already exists. They may be NGO staff, researchers, government extension agents, and professionals who want to become more knowledgeable about the concept and practice of community seed banks, who are leading a process to establish one or more community seed banks, and/or who are conducting training sessions for community members about the concept and practice of a community seed bank.



---

# How to Use Community Seed Bank Manual?

The manual employs a participatory learning approach, fostering active interaction between facilitators and learners. This methodological strategy is designed to engage participants directly in learning, minimizing traditional lecturing. Instead, the emphasis is on dynamic exercises and hands-on activities, creating an environment where practical experiences drive the learning. Following is an overview of the approach:

## **1. Participatory Learning:**

- Facilitators encourage active participation, dialogue, and collaboration among learners.
- Group discussions and interactive sessions provide opportunities for sharing local knowledge and experiences.

## **2. Minimal Lecturing:**

- Traditional lecturing is intentionally kept to a minimum to ensure a more engaging and interactive learning experience.
- Facilitators act as guides, prompting discussions and encouraging participants to explore concepts independently.

## **3. Dynamic Exercises:**

- The manual incorporates a variety of dynamic exercises, including role-playing, group activities, and case studies.
- Hands-on exercises allow learners to apply theoretical knowledge to practical situations, enhancing understanding.

## **4. Reflection on Experiences:**

- Learners are encouraged to use and reflect on their experiences in seed banking and agricultural development.
- Reflections contribute to a richer understanding of the material and its practical applications.

## **5. Adaptability and Local Context:**

- Users of the manual are encouraged to adapt exercises based on their context and needs.
- Facilitators can incorporate local case studies, examples, photos, videos, and stories to make the learning more relevant.
- Learners are empowered to use their examples, contributing to a diverse and context-specific learning environment.
- Local case studies and real-world examples enrich the learning process, making it more applicable to participants' realities.

---

# How is the manual organized?

## The manual is organized in eight modules, as follows:

- MODULE 1** Module 1, The multiple functions and services of community seed banks, highlights the importance and functions of the community seed bank.
- MODULE 2** Module 2, Trends in Agricultural Biodiversity, presents tools for assessing local agricultural biodiversity, distribution of crop species and varieties and monitoring trends in agricultural biodiversity over time.
- MODULE 3** Steps and processes in establishing and supporting a community seed bank, Identify and logically organize the steps required for establishing and supporting a community seed bank.
- MODULE 4** Module 4, Technical Issues Involved in Operating Community Seed Banks, examines the technical complexity of managing community seed banks, addressing challenges, and outlining key principles and practices for their effective operation.
- MODULE 5** Module 5, Governance and Management, looks at how community seed banks establish, effective governance structures; develop leadership skills and structures within the community to ensure transparent decision-making and accountability in seed bank operations, and enhance management practices.
- MODULE 6** Module 6, Support and Networking, discusses the importance of providing, to emphasize the critical role of sound technical and organizational support in sustaining a community seed bank. Additionally, the training aims to highlight the importance of networking for knowledge exchange and collaborative efforts in seed conservation.
- MODULE 7** Module 7, Policies and laws impacting community seed banks enhances awareness of the institutional and regulatory environments governing their establishment and operations; familiarizes participants with key legal requirements for operating a community seed bank and provides insights into aligning seed bank operations with broader agricultural and environmental policies.
- MODULE 8** Module 8, Viability and sustainability of a community seed bank, presents key dimensions of viability and sustainability within the context of community seed banks. The Module emphasizes the importance of long-term planning and resilience.
- ANNEXES** In the final section of the manual, you will find two Annexes: Annex 1, complete Learner instructions to be copied and distributed to participants; and Annex 2, facilitator instructions.

---

# Acknowledgements

This training manual for community seed banks has been developed through collaborative efforts. Special thanks go to the following resource persons, who played integral roles in its development:

1. **Dr. Ibrahim Osman Ismail** of the Faculty of Agriculture and Environmental Science at the University of Burao, Somaliland;
2. **Nimo Abdirahman Yusuf** of the Faculty of Agriculture and Environmental Science of the University of Burao, Somaliland;
3. **Mustafe Abdillahi Abdi** of the Agriculture Development Organization (ADO), Somaliland; and
4. **Said Haibe Aydid** of the Ministry of Environment and Climate Change, Somaliland.

The Community Seed Bank Training Manual benefited significantly from the direct supervision and guidance provided by:

1. **Ronnie Vernooy** of the Alliance of Biodiversity International and CIAT; and
2. **Arnab Gupta** of the Wageningen Centre for Development Innovation of Wageningen University and Research, the Netherlands.

Their expertise and insights have been invaluable in shaping this resource training manual. It is noteworthy to express gratitude to the Wageningen Centre for Development Innovation of Wageningen University and Research for their valuable contribution to knowledge building for the University of Burao in Somaliland. Additionally, we thank NUFFIC, of the Netherlands, for providing the funding that has facilitated this crucial knowledge-building initiative for the University of Burao.



---

# List of abbreviations and acronyms

CSB - Community Seed Bank

E4FSR - Entrepreneurship for Food System Resilience

FNS - Food and Nutrition Security

NUFFIC - Netherlands Organization for International Cooperation in Higher Education

CIAT - International Center for Tropical Agriculture

FAO - Food and Agriculture Organization of the United Nations

NGO - Non-Governmental Organization

FGD - Focus Group Discussion

SWOT - Strengths, Weaknesses, Opportunities, Threats

IP - Intellectual Property

---

# Summary

This training manual empowers agricultural professionals in Somaliland and South Sudan to establish and strengthen community seed banks (CSBs). It's part of the "Entrepreneurship for Food System Resilience" (E4FSR) project, funded by NUFFIC and the Netherlands, a collaboration between Wageningen Centre for Development Innovation (WCIDI) at Wageningen University & Research (WUR), and their partners, the Alliance of Bioversity International and CIAT.

The project offers a participatory curriculum with eight short courses, tailored for each region. These courses weave theory with practical application, equipping participants to enhance existing CSBs, establish new ones, and manage seed labs. The manual prioritizes a hands-on approach. Lectures are minimized in favor of interactive exercises and activities, fostering experiential learning. Participants actively engage with the material, solidifying theoretical knowledge through practical implementation.

The curriculum is structured into eight modules, building upon each other. These modules delve into the critical roles of CSBs: conserving biodiversity, supporting local agriculture, and maintaining vital resources in the face of climate change and agricultural variability. Participants explore seed bank operation, governance, management, collaboration strategies, and the relevant policies and laws that impact their work. By emphasizing the importance of CSBs in preserving genetic diversity, enhancing disaster resilience, and maintaining local crop varieties, the manual positions these banks as essential tools for food security and ecological stability. The training goes beyond technical skills. It equips participants with the ability to manage resources effectively, engage their communities, and advocate for policies that support sustainable seed banking practices. Detailed facilitator instructions accompany each module, guiding trainers on how to adapt the content to diverse contexts and learner needs, encouraging critical thinking and problem-solving through group discussions, case studies, and field exercises.

By the program's end, participants gain a thorough understanding of CSB operations, challenges, and effective strategies to address them. This empowers them to lead initiatives that enhance food and nutrition security, promote sustainable agriculture, and foster economic resilience within their communities. This manual transcends a simple educational tool. It acts as a catalyst for sustainable development in agricultural practices, aligning with global efforts to strengthen food security and resilience in a changing world.

# Community Seed Bank Training Manual: Course Schedule

## Course Duration:

The duration of the course is 5 days (30.4 hrs.)

Day	Module	Contents	Time
Day 1	Module 1: The Multiple Functions and Services of a Community Seed Bank	<ol style="list-style-type: none"> <li>1. Introduction to Community Seed Banks</li> <li>2. Functions of Community Seed Banks</li> <li>3. Services Provided by Community Seed Banks</li> <li>4. Group Discussion and Research</li> <li>5. Plenary Discussion</li> <li>6. Conclusion and Summarization</li> <li>7. Training Evaluation</li> </ol>	3.20 hrs.
	Module 2: Trends in Agricultural Biodiversity	<ol style="list-style-type: none"> <li>1. Introduction: importance of agricultural biodiversity and role of community seed banks.</li> <li>2. Assessment Activity (assess the abundance and distribution of crop species and varieties)</li> <li>3. Trends Analysis</li> <li>4. Importance of Community Seed Banks</li> <li>5. Group Discussion (reasons for establishing a community seed bank)</li> <li>6. Training Evaluation</li> </ol>	3.20 hrs.
Day 2	Module 3: Steps & process of establishing and supporting a community seed bank	<ol style="list-style-type: none"> <li>1. Needs Assessment: Identify the community's seed-saving needs and resources.</li> <li>2. Site Selection: Choose a suitable location for the seed bank, considering climate and accessibility.</li> <li>3. Capacity Building: Train community members in seed collection, storage, and documentation.</li> <li>4. Seed Collection: Gather locally adapted and diverse seed varieties.</li> <li>5. Infrastructure Setup: Establish storage facilities and record-keeping systems.</li> <li>6. Seed Testing: Assess seed quality through germination tests.</li> <li>7. Outreach and Education: Engage the community and raise awareness about seedsaving.</li> <li>8. Maintenance and Monitoring: Regularly check and replenish seeds, update records, and ensure proper storage conditions.</li> <li>9. Networking: Connect with other seed banks and organizations for support and knowledge sharing.</li> <li>10. Training Evaluation</li> </ol>	6.20 hrs.
Day 3	Module 4: Technical Issues involved in operating CSB	<ol style="list-style-type: none"> <li>1. Seed Collection and Preservation</li> <li>2. Genetic Diversity Management</li> <li>3. Climate and Environment Considerations</li> <li>4. Record-keeping and Documentation</li> <li>5. Community Engagement</li> <li>6. Key Principles and Practices for Effective Operations</li> <li>7. Training Evaluation</li> </ol>	5. hrs.
	Module 5: Governance and Management of a Community Seed Bank	<ol style="list-style-type: none"> <li><b>1. Assessment of Governance Needs:</b> Conduct a thorough assessment to identify specific governance and management challenges faced by the community seed bank.</li> <li><b>2. Customized Curriculum Development:</b> Tailor the training curriculum to address identified needs, incorporating relevant governance and management principles.</li> <li><b>3. Interactive Training Sessions:</b> Conduct engaging sessions covering topics such as organizational structure, financial management, conflict resolution, and community participation.</li> <li><b>4. Case Studies and Best Practices:</b> Illustrate key principles with relevant case studies and best practices from successful community seed banks to provide practical insights.</li> <li><b>5. Hands-on Workshops:</b> Facilitate practical workshops allowing participants to apply learned principles in real-world scenarios, promoting experiential learning.</li> <li><b>6. Feedback Mechanism:</b> Establish a feedback system to collect insights from participants, ensuring continuous improvement of the</li> </ol>	4.30 hrs.

Day 4		training program.	
		<b>7. Follow-up Support:</b> Offer post-training assistance to help community seed banks implement and sustain effective governance and management practices.	
		<b>8. Monitoring and Evaluation:</b> Implement a robust monitoring and evaluation system to assess the impact of the training on the governance and management performance of community seed banks.	
		<b>9. Training Evaluation</b>	
	<b>Module 6:</b> Support and Networking for Community Seed Banks	<ol style="list-style-type: none"> <li>1. Pre-training Communication</li> <li>2. Interactive Workshops: hands-on exercises to reinforce technical and organizational concepts and share experiences and insights.</li> <li>3. Networking Sessions: networking opportunities, both within the workshop and beyond.</li> <li>4. Case Studies and Best Practices: Share relevant case studies demonstrating successful seed bank initiatives.</li> <li>5. Training Evaluation</li> </ol>	2.30 hrs.
Day 5	<b>Module 7:</b> Policies and Laws Impacting Community Seed Banks	<ol style="list-style-type: none"> <li>1. Introduction to Seed Bank Policies</li> <li>2. Key Legal Requirements:</li> <li>3. Institutional Environments</li> <li>4. Regulatory Challenges</li> <li>5. Evaluation for Training</li> </ol>	3.3 hrs.
	<b>Module 8:</b> Viability and Sustainability of Community Seed Banks	<ol style="list-style-type: none"> <li>1. Assessment of Current Status: Self-assessment and group discussions to evaluate the current status of community seed banks and identify strengths, weaknesses, opportunities, and threats.</li> <li>2. Interactive Workshops: hands-on activities to develop practical skills for seed bank management and Role-playing scenarios to simulate real-world challenges and solutions.</li> <li>3. Stakeholder Collaboration:</li> <li>4. Evaluation</li> </ol>	3 hrs.
<b>Total days + hours</b>		5 days	30.4 hrs.

---

# INTRODUCTION

Seeds are a fundamental part of any agricultural system. Farming communities have been developing, saving, and exchanging seeds since the advent of agriculture. Nowadays, many farmers organize this practice collectively in community seed banks. Community seed banks have emerged as an alternative to the mainstream corporate-led seed supply system due to their contribution not only to food and ecological security but also to the economic, political, and social empowerment of communities.

In Somaliland, the conservation of original or native seed varieties is crucial due to the loss of indigenous seeds and related knowledge. This manual for community seed banks is vital for reinstating local seed diversity. Without local seed improvement, food security is at risk. This manual outlines the importance of conserving original or native seeds and emphasizes the role of community seed banks and seed labs in achieving sustainable agriculture.

The Community Seed Bank (CSB) Manual for Somaliland contributes to the realization of three large goals that focus on:

Seeds systems improvement, storage, and preservation.

Capacity building for farmers, extension agents, students, and professionals for enabling access and sustaining quality seeds.

Food and nutrition security improvements in the country

## Objectives of the Community Seed Bank Manual

The objectives of the CSB Training Manual are to equip participants with knowledge and skills:

- To conserve indigenous seeds
- To promote traditional farming practices
- To ensure seed and food security
- To employ proper documentation of traditional knowledge and transfer of knowledge to future generations

## Community Seed Bank Operations: Key Components

The operations of a community seed bank will be structured around four key components:

### Seed System Mechanism and Regional Networking

Establishing a robust seed system mechanism for efficient seed storage and distribution.

Fostering collaborative networks with regional seed banks to facilitate seed exchange and collective support.

### Capacity Building for Farmers, Extension Workers, Students, and Professionals

Implementing comprehensive training programs to enhance the knowledge and skills of farmers, extension workers, students, and professionals.

Empowering them with expertise in seed saving, storage techniques, and sustainable agricultural practices.

---

## Partnership Networks

Building strong partnerships with local farmers, agriculture institutions, farmers Associations, and research institutions to create a collaborative ecosystem.

Facilitating knowledge exchange and resource sharing to strengthen the community seed bank's impact.

## Quality Assurance in CSB

Developing robust systems for continuous monitoring and evaluation of seed bank activities.

Establishing feedback loops to assess effectiveness, make data-driven improvements, and ensure the sustained success of the community seed bank.

Ensuring effective quality assurance.

## Strategy for strengthening existing community seed banks in Somaliland

This manual and the training course are part of an integrated strategy for establishing and supporting community seed banks in Somaliland. The key elements of this strategy are the following;

- **Capacity Building Workshops:** Prioritize organizing regular workshops to enhance the knowledge and skills of stakeholders, with a specific focus on farmers. Cover
- topics such as seed improvement techniques, storage best practices, and institutional governance related to seed management.
- **Localized Training Centers:** Establish decentralized training centers in different regions of Somaliland to ensure widespread access to capacity-building programs. Tailor these programs to address the specific needs of each community.
- **Partnerships with Agricultural Institutions:** Collaborate with agricultural research institutions and universities to bring expertise to the community seed bank and laboratory. Foster knowledge exchange programs to strengthen the technical capabilities of local stakeholders.
- **Information Dissemination:** Develop a robust communication strategy to disseminate information on seed improvement, storage, and governance. Utilize various channels, including local media, community meetings, and digital platforms to reach a broader audience.
- **Establish Farmer Networks:** Facilitate the formation of farmer networks to encourage the sharing of knowledge and experiences. These networks can serve as platforms for collaborative seed improvement projects and collective decision-making.
- **Inclusive Governance Structures:** Strengthen the governance structures of community seed banks, ensuring inclusivity and representation of farmers. Empower local communities to actively participate in decision-making processes related to seed management.
- **Resource Mapping and Management:** Conduct thorough assessments of available resources and design sustainable resource management plans. This includes efficient water usage, land management, and energy conservation strategies to ensure the long-term viability of the seed bank and laboratory.
- **Promote Climate-Resilient Seeds:** Integrate climate-resilient seed varieties into capacity-building programs. Equip farmers with the knowledge to adapt to changing environmental conditions and promote the cultivation of seeds suitable for Somaliland's unique climate.
- **Continuous Monitoring and Evaluation:** Establish a robust system for monitoring and evaluating the effectiveness of capacity-building programs and resource management strategies. Use feedback to continuously refine and improve the implemented initiatives.



# **The Multiple Functions and Services of Community Seed Banks**

.

---

# 1 Module 1: The Multiple Functions and Services of Community Seed Banks

## 1.1 Objectives

At the end of the training, the participants will be able to describe the importance and functions of the community seed bank.

## 1.2 Duration

3.20 hrs.

## 1.3 Contents

- i. **Introduction to Community Seed Banks:**
  - a. Definition and Purpose
  - b. Historical Context
- ii. **Functions of Community Seed Banks:**
  - a. Seed Preservation
  - b. Biodiversity Conservation
  - c. Disaster Recovery
  - d. Preservation of Local Crop Varieties
- iii. **Services Provided by Community Seed Banks:**
  - i. Seed Distribution and Exchange
  - ii. Training and Capacity Building
  - iii. Community Support and Engagement

## 1.4 Process:

### **Step 1: Introduction to Community Seed Banks (10 minutes)**

- Provide a brief definition of community seed banks.
- Explain the historical context of seed banks and their importance.

### **Step 2: Functions of Community Seed Banks (20 minutes)**

- Discuss the core functions of community seed banks, including seed preservation,
- biodiversity conservation, disaster recovery, and local crop variety preservation.

### **Step 3: Services Provided by Community Seed Banks (15 minutes)**

- Explore the various services offered by community seed banks, such as seed distribution, training, and community support.

### **Step 4: Group Discussion and Research (30 minutes)**

- Divide learners into small groups.
- Assign each group one function or service to research in-depth.
- Instruct them to gather relevant information and examples.

### **Step 5: Plenary Discussion (20 minutes)**



- 
- Each group presents their findings.
  - Encourage discussion and questions to promote a deeper understanding of the topic.

**Step 6: Conclusion and Summarization (10 minutes)**

- Summarize the key points discussed.
- Highlight the importance of community seed banks in agriculture and biodiversity.

## 1.5 Training Evaluation:

1. Assessment Tools:

- Utilize pre- and post-training assessments to measure knowledge gain.
- Gather feedback through surveys and interactive discussions.

2. Participant Engagement:

- Evaluate the level of participant engagement during group activities and discussions.
- Encourage open dialogue to address any concerns or additional needs.

## 1.6 Equipment and Materials Needed:

1. Projector and Screen
2. Flipcharts and Markers
3. Training Modules and Handouts
4. Networking Materials (e.g., business cards, contact sheets)
5. Evaluation Forms and Pens
6. Seeds for Practical Demonstrations (if applicable)
7. Audio-Visual Equipment for Presentations



# Trends in Agricultural Biodiversity

*Photo: Participatory seed security assessment. Credit: Nimo Abdirahaman, University of Burao*

---

# 2 Module 2: Trends in Agricultural Biodiversity

## 2.1 Objectives

By the end of this training, participants will be able to:

- Explain the importance of assessing local agricultural biodiversity.
- Analyze the abundance and distribution of crop species and varieties.
- Monitor trends in agricultural biodiversity over time.
- Comprehend the significance of community seed banks in preserving biodiversity.

## 2.2 Duration

3.2 hours

## 2.3 Contents

- **Introduction to Agricultural Biodiversity**
  - Defining and explaining agricultural biodiversity
- **Current Trends in Somaliland**
  - Understanding current trends: climate change, market demands, technological advancements
- **Survey Tools**
  - Field survey tools for crop species identification
  - Seed bank tools for analyzing available data
- **Role of Community Seed Banks for Agricultural Biodiversity**
  - Definitions and purposes

## 2.4 Process

- **Introduction (10 minutes)**
  - Explain the importance of agricultural biodiversity.
  - Highlight the role of community seed banks.
- **Tools for Assessment (10 minutes)**
  - Introduce two assessment tools:
    - **Biodiversity Surveys:** Conduct surveys to identify crop species and varieties within a community.
    - **Seed Bank Records:** Analyze historical data from seed banks to trace changes over time.
- **Assessment Activity (40 minutes)**
  - In pairs or small groups, participants will assess the abundance and distribution of crop species and varieties in a given scenario.
- **Trends Analysis (30 minutes)**
  - Participants will discuss and analyze the results of the assessment activity.
- **Importance of Community Seed Banks (20 minutes)**
  - Explain why community seed banks are essential for preserving agricultural biodiversity.
- **Group Discussion (30 minutes)**
  - Participants will discuss the reasons for establishing a community seed bank based on the learning from the session.

---

## 2.5 Training Evaluation (20 minutes)

- **Assessment Tools**
  - Utilize pre- and post-training assessments to measure knowledge gain.
  - Gather feedback through surveys and interactive discussions.
- **Participant Engagement**
  - Evaluate the level of participant engagement during group activities and discussions.
  - Encourage open dialogue to address any concerns or additional needs.

## 2.6 Equipment and Materials Needed

- Projector and Screen
- Flipcharts and Markers
- Training Modules and Handouts
- Networking Materials (e.g., business cards, contact sheets)
- Evaluation Forms and Pens
- Seeds for Practical Demonstrations (if applicable)
- Audio-Visual Equipment for Presentations



## **Steps and Process of Establishing and Supporting a Community Seed Bank**

*Photo: Seed selection. Credit: Nimo Abdirahman, University of Burao*

---

# 3 Module 3: Steps and Process of Establishing and Supporting a Community Seed Bank

## 3.1 Objectives of the Topic:

### Enable participants to:

- Identify the steps required for establishing and supporting a community seed bank.
- Logically organize the tasks involved in building and maintaining a successful seed bank.

## 3.2 Duration

6.2 hours

## 3.3 Process:

1. **Needs Assessment:** Identify the community's seed-saving needs and resources to tailor the seed bank accordingly.
2. **Site Selection:** Choose a suitable location for the seed bank, considering factors like climate control and accessibility for the community.
3. **Capacity Building:** Train community members in essential skills like seed collection, proper storage techniques, and effective documentation methods.
4. **Seed Collection:** Gather locally adapted and diverse seed varieties to ensure a robust seed bank.
5. **Infrastructure Setup:** Establish storage facilities that meet seed preservation requirements and implement record-keeping systems for efficient management.
6. **Seed Testing:** Assess seed quality through germination tests to ensure viability and optimize storage strategies.
7. **Outreach and Education:** Engage the community through educational programs to raise awareness about seed saving and the importance of the seed bank.
8. **Maintenance and Monitoring:** Regularly check seed viability, replenish stocks as needed, update records, and ensure proper storage conditions are maintained.
9. **Networking:** Connect with other seed banks and relevant organizations to foster collaboration, knowledge sharing, and access to additional resources.

## 3.4 Training Evaluation:

- **Assessment Tools:**
  - Utilize pre- and post-training assessments to measure participants' knowledge gain regarding establishing and managing a community seed bank.
  - Gather feedback through surveys and interactive discussions to gauge understanding and identify areas for improvement.
- **Participant Engagement:**
  - Evaluate the level of participant engagement during group activities and discussions.
  - Encourage open dialogue to address any concerns or additional needs and ensure a comprehensive learning experience.

---

## 3.5 Equipment and Materials Needed:

- Projector and Screen
- Flipcharts and Markers
- Training Modules and Handouts
- Networking Materials (e.g., business cards, contact sheets)
- Evaluation Forms and Pens
- Seeds for Practical Demonstrations (if applicable)
- Audio-Visual Equipment for Presentations



Photo: Discussing the challenges involved in operating a community seed bank. Credit: Nimo Abdirahman University of Burao

# Technical Issues Involved in Operating Community Seed Banks





---

## 4 Module 4: Technical Issues Involved in Operating Community Seed Banks

### 4.1 Objective:

#### **Examining the Technical Management of Community Seed Banks**

This session explores the technical complexities of managing community seed banks, addressing challenges, and outlining key principles and practices for effective operation. By understanding these aspects, participants will gain the competence to maintain sustainable seed sources at the community level.

### 4.2 Duration

5 hours

### 4.3 Process:

1. **Seed Collection and Preservation:** Techniques for collecting, storing, and preserving diverse seed varieties will be explored, ensuring long-term seed viability.
2. **Genetic Diversity Management:** Strategies to maintain and enhance genetic diversity within the seed bank, crucial for a resilient seed collection, will be discussed.
3. **Climate and Environment Considerations:** Adapting seed storage and handling procedures to local climate and environmental conditions will be addressed, guaranteeing optimal seed health.
4. **Record-keeping and Documentation:** Techniques for establishing robust systems to track seed inventory, viability, and distribution will be covered.
5. **Community Engagement:** Strategies for involving local communities in seed-saving practices and decision-making processes, fostering ownership and sustainability, will be explored.

### 4.4 Key Principles and Practices for Effective Operations:

1. **Participatory Approach:** Involving the community in decision-making fosters a sense of ownership and ensures long-term sustainability of seed bank practices.
2. **Capacity Building:** Providing training to community members on seed bank management and essential agricultural practices is crucial for successful operation.
3. **Adaptability:** Maintaining flexibility in operations allows the seed bank to accommodate changing environmental and community needs.
4. **Networking:** Building connections with other seed banks and agricultural organizations facilitates knowledge exchange and access to additional resources.
5. **Quality Control:** Implementing measures to ensure the quality and viability of stored seeds guarantees the effectiveness of the seed bank.

### 4.5 Training Evaluation:

- **Assessment Tools:**
  - Utilize pre- and post-training assessments to measure participants' knowledge gain regarding technical aspects of community seed bank management.

- 
- Gather feedback through surveys and interactive discussions to gauge understanding and identify areas for improvement.
  - **Participant Engagement:**
    - Evaluate the level of participant engagement during group activities and discussions.
    - Encourage open dialogue to address any concerns or additional needs and ensure a comprehensive learning experience.

## 4.6 Equipment and Materials Needed:

- Projector and Screen
- Flipcharts and Markers
- Training Modules and Handouts
- Networking Materials (e.g., business cards, contact sheets)
- Evaluation Forms and Pens
- Seeds for Practical Demonstrations (if applicable)
- Audio-Visual Equipment for Presentations



# Governance and Management of Community Seed Bank Training

Photos: Training on inventory control, record keeping, Beer community seed bank. Credit Mustafa Abdillahi, ADO organization

---

# 5 Module 5: Governance and Management of Community Seed Bank Training

## 5.1 Objectives

1. **Establish Effective Governance Structures:** Develop leadership skills and structures within the community to ensure transparent decision-making and accountability in seed bank operations.
2. **Enhance Management Practices:** Improve seed bank management by providing training on inventory control, record keeping, and resource allocation for sustainable seed conservation.
3. **Promote Community Engagement** and foster active community involvement in the governance and decision-making processes of the seed bank to ensure inclusivity and shared responsibility.

**Duration:** 4.30hrs

## 5.2 Process and Steps

1. **Assessment of Governance Needs:** Conduct a thorough assessment to identify specific governance and management challenges faced by the community seed bank.
2. **Customized Curriculum Development:** Tailor the training curriculum to address identified needs, incorporating relevant governance and management principles.
3. **Interactive Training Sessions:** Conduct engaging sessions covering topics such as organizational structure, financial management, conflict resolution, and community participation.
4. **Case Studies and Best Practices:** Illustrate key principles with relevant case studies and best practices from successful community seed banks to provide practical insights.
5. **Hands-on Workshops:** Facilitate practical workshops allowing participants to apply learned principles in real-world scenarios, promoting experiential learning.
6. **Feedback Mechanism:** Establish a feedback system to collect insights from participants, ensuring continuous improvement of the training program.
7. **Follow-up Support:** Offer post-training assistance to help community seed banks implement and sustain effective governance and management practices.
8. **Monitoring and Evaluation:** Implement a robust monitoring and evaluation system to assess the impact of the training on the governance and management performance of community seed banks.

## 5.3 Training Evaluation:

1. Assessment Tools:
  - Utilize pre- and post-training assessments to measure knowledge gain.
  - Gather feedback through surveys and interactive discussions.
2. Participant Engagement:
  - Evaluate the level of participant engagement during group activities and discussions.
  - Encourage open dialogue to address any concerns or additional needs.

---

## 5.4 Equipment and Materials Needed:

1. Projector and Screen
2. Flipcharts and Markers
3. Training Modules and Handouts
4. Networking Materials (e.g., business cards, contact sheets)
5. Evaluation Forms and Pens
6. Seeds for Practical Demonstrations (if applicable)
7. Audio-Visual Equipment for Presentations



# Support and Networking Training for Community Seed Banks

*Photo: Training of networking for knowledge exchange and efforts in seed conservation. Credit: Mustafe Abdullahi, ADO*

---

# 6 Module 6: Support and Networking Training for Community Seed Banks

## 6.1 Objective:

### **Building Sustainable Community Seed Banks: Technical Support, Organization, and Collaboration**

This training emphasizes the critical role of technical and organizational support, along with networking, in sustaining a thriving community seed bank. Participants will gain the knowledge and skills to establish and manage a successful seed bank through sound practices and collaboration.

**Duration:** 2.5 hours

## 6.2 Contents:

- **Technical Support for Seed Viability:**
  - Providing guidance for effective seed collection, storage, and maintenance techniques.
  - Addressing common challenges and best practices to ensure seed longevity.
- **Organizational Structures for Seed Banks:**
  - Establishing clear structures for seed bank management, fostering efficient operations.
  - Developing protocols for documentation, record-keeping, and quality control procedures.
- **Networking in Seed Conservation:**
  - Exploring the importance of networking for knowledge exchange and resource mobilization within the seed conservation community.
  - Sharing case studies showcasing successful collaborations between seed banks.

## 6.3 Process and Steps:

1. **Pre-Training Preparation (15 minutes):**
  - Inform participants about the training objectives and expectations beforehand.
  - Share any pre-training materials or resources to enhance their preparedness.
2. **Interactive Workshops (1.5 hours):**
  - Facilitate interactive sessions encouraging participants to share their experiences and insights related to seed banking.
  - Conduct hands-on exercises to solidify understanding of technical and organizational concepts.
3. **Building Networks (30 minutes):**
  - Facilitate networking opportunities within the workshop and provide guidance for continued support beyond the training.
  - Encourage participants to establish contacts for ongoing collaboration.
4. **Case Studies and Best Practices (30 minutes):**
  - Share relevant case studies demonstrating successful seed bank initiatives.
  - Discuss best practices and valuable lessons learned from other community seed banks.

## 6.4 Training Evaluation:

- **Assessment Tools:**



- 
- Utilize pre- and post-training assessments to measure knowledge gain regarding technical and organizational aspects of community seed bank management.
  - Gather feedback through surveys and interactive discussions to gauge understanding and identify areas for improvement.
  - **Participant Engagement:**
    - Evaluate the level of participant engagement during group activities and discussions.
    - Encourage open dialogue to address any concerns or additional needs and ensure a comprehensive learning experience.

## 6.5 Equipment and Materials Needed:

- Projector and Screen
- Flipcharts and Markers
- Training Modules and Handouts
- Networking Materials (e.g., business cards, contact sheets)
- Evaluation Forms and Pens
- Seeds for Practical Demonstrations (if applicable)
- Audio-Visual Equipment for Presentations



# Policies and Laws Impacting Community Seed Banks

*Photo: Seed collection local farmers. Sanaag region. Credit: Mustafe Abdillahi, ADO organization*

---

# 7 Module 7: Policies and Laws Impacting Community Seed Banks

## 7.1 Objectives:

### **Navigating the Legal Landscape for Community Seed Banks**

This training equips participants with a thorough understanding of the legal frameworks surrounding community seed banks. Participants will gain the knowledge and skills to operate their seed banks in compliance with regulations and advocate for supportive policies, fostering long-term sustainability.

## 7.2 Duration

3.5 hours

## 7.3 Contents:

- **Understanding Seed Bank Policies:**
  - Gain an overview of national and regional policies governing community seed banks.
  - Explore how legal frameworks impact seed bank activities (collection, storage, distribution).
- **Key Legal Considerations:**
  - Identify specific legal requirements for seed collection, storage, and distribution.
  - Discuss compliance with intellectual property laws and seed sovereignty principles.
- **Institutional Environments:**
  - Analyze the role of institutions in supporting or hindering community seed banks.
  - Explore case studies showcasing successful collaborations between seed banks and government agencies.
- **Regulatory Challenges and Advocacy:**
  - Identify common challenges faced by community seed banks in navigating the regulatory landscape.
  - Develop strategies for overcoming regulatory hurdles and advocating for supportive policies.

## 7.4 Process and Steps:

1. **Policy Analysis (30 minutes):**
  - Conduct a detailed analysis of relevant seed-related policies and laws.
  - Highlight specific legal considerations that impact community seed banks.
2. **Interactive Policy Exploration (1 hour):**
  - Facilitate discussions on the practical implications of existing policies for seed banking activities.
  - Engage participants in analyzing real-world policy applications through case studies.
3. **Expert Insights (45 minutes):**
  - Invite legal experts or policymakers to provide valuable insights into policy interpretation and implementation.
  - Dedicate time for Q&A sessions where participants can seek clarification on legal nuances.
4. **Scenario-Based Training (1 hour):**

- 
- Employ hypothetical scenarios that simulate real-world situations involving legal and regulatory challenges faced by community seed banks.
  - Encourage participants to brainstorm solutions and best practices for navigating these challenges.

## 7.5 Evaluation for Training:

- **Knowledge Assessments (pre- and post-training):**
  - Conduct assessments to gauge participants' understanding of relevant policies and legal frameworks.
  - Evaluate the application of this knowledge through case study analysis.
- **Participant Feedback:**
  - Collect feedback through surveys to understand the effectiveness of the training.
  - Encourage open discussions to address any concerns or questions participants may have.

## 7.6 Equipment and Materials Needed:

- Projector and Screen
- Policy Documents and Legal Texts (printed or accessible electronically)
- Training Modules and Handouts
- Case Study Materials
- Q&A Session Tools (microphones if needed)
- Evaluation Forms and Pens



# Viability and Sustainability of Community Seed Banks

---

# 8 Module 8: Viability and Sustainability of Community Seed Banks

*Building Thriving Community Seed Banks: Viability, Sustainability, and Stakeholder Empowerment*

*This training empowers farmers, students, and extension agents with the knowledge and tools to ensure the long-term viability and sustainability of community seed banks. Participants will explore key dimensions of success and develop practical strategies for collaborative seed bank management.*

## 8.1 Objectives:

- **Understanding Viability and Sustainability:**
  - Define key dimensions of viability and sustainability for community seed banks.
  - Emphasize the importance of long-term planning and building resilience.
- **Practical Strategies for Success:**
  - Develop practical skills and strategies to enhance seed bank viability and sustainability.
  - Address challenges and opportunities associated with each dimension.
- **Empowering Stakeholders:**
  - Foster collaboration among farmers, students, and extension agents to contribute actively to seed bank success.

## 8.2 Duration

3 hours

## 8.3 Contents:

- **Viability and Sustainability Defined:**
  - Deep dive into the meaning of viability and sustainability in the context of community seed banks.
  - Differentiate short-term success from long-term resilience.
- **Key Dimensions of Success:**
  - Analyze critical dimensions such as financial stability, ecological soundness, social impact, and organizational effectiveness.
  - Utilize case studies to illustrate successful approaches for addressing each dimension.
- **Building a Sustainable Seed Bank:**
  - Interactive workshops will equip participants with practical skills for seed bank management.
  - Develop guidelines for integrating sustainability principles into everyday practices.

---

## 8.4 Process and Steps:

1. **Seed Bank Self-Assessment (30 minutes):**
  - Participants will engage in self-assessment and group discussions to evaluate the current status of their community seed banks.
  - Identify strengths, weaknesses, opportunities, and threats (SWOT analysis) for each seed bank.
2. **Interactive Skill-Building Workshops (1.5 hours):**
  - Participants will engage in hands-on activities to develop practical skills for seed bank management.
  - Role-playing scenarios will simulate real-world challenges and allow participants to explore solutions collaboratively.
3. **Stakeholder Collaboration and Action Planning (45 minutes):**
  - Encourage collaboration among participants representing diverse stakeholder groups (farmers, students, extension agents).
  - Group exercises will focus on developing action plans for collaborative seed bank projects, fostering long-term success.

## 8.5 Evaluation:

- **Participant Engagement:**
  - Assess the level of participant engagement during workshops and group activities.
  - Solicit feedback on the relevance and applicability of the strategies discussed.
- **Action Plans:**
  - Evaluate the quality and feasibility of action plans developed by participant groups.
  - Encourage peer review and constructive feedback to strengthen the plans.

## 8.6 Equipment and Materials Needed:

- Projector and Screen
- Workshop Materials and Handouts
- Flipcharts and Markers
- Case Study Materials
- Group Activity Tools (e.g., sticky notes, construction paper)
- Evaluation Forms and Pens

---

# 9 Annex 1: Module One (The Multiple Functions and Services of Community Seed Banks)

## 9.1 Facilitator instructions

### A: Preparation

Prepare a slide or poster with the definition of a community seed bank provided in Community Seed Banks: a community seed bank is a locally governed and managed, mostly informal, institution whose core function is to maintain seeds for local use.

Familiarize yourself with the functions and services of a community seed bank.

Familiarize yourself with the framework of functions and services of a community seed bank developed in the article The multiple functions and services of community seedbanks (Vernooy et al. 2014).

#### **Part 1**

- Introduce this section: Definition of a community seed bank.
- Ask participants to give their description of a community seed bank, based on knowledge from practice, references, and hearsay.
- Use their input to propose a succinct definition (referring to the definition provided in the Community seed banks book).

#### **Part 2**

- Introduce this section: Functions and services.
- Invite participants to identify functions and services of a community seed bank, based on knowledge from practice, references, and hearsay.
- Write the answers on cards: one function per card, one service per card.
- In the process, explore whether the answers can be grouped logically.
- Probe the group, if necessary, by asking them to unpack the keywords: "community," "seed," and "bank."

#### **Part 3**

- Introduce this section: Presentation of a framework of multiple functions and services of a community seed bank.
- Present the framework developed by Vernooy et al. (2014) and compare the results of the group exercise with it.

#### **Part 4**

- Introduce this section: Identification of functions and services.
- Ask each of the participants to use the framework to identify the possible major functions and services that a community seed bank could have in their region and ask them to note down their answers.
- Invite some participants to present their answers in plenary.

## 9.2 Conclusion and evaluation

- Wrap up the session with a summary of what has been covered and by inviting participants to think about what farmers in their region could see as the main functions and services of a community seed bank in their village or district.
- Evaluate the session. A good indicator of success is whether participants are able to apply the framework to their own region and make a realistic assessment of what the main functions and services of a seed bank could be.





---

# 10 Annex 2: Module Two (Trends in Agricultural Biodiversity)

## 10.1 Facilitator instructions

### A: Preparation

- Prepare a presentation of the two participatory tools that you will use in the activity: historical trend analysis and four-cell analysis.
- Familiarize yourself with the history of agriculture in the district and community (or small watershed) and the changes that have occurred regarding the main crops over the last 20 years.
- Prepare some examples of historical trend maps.
- Prepare some examples of how a participatory on-farm crop diversity assessment can be used by a community seed bank in choosing crops and crop varieties for collection, multiplication, and subsequent distribution.
- Collect seed samples from 8–10 crops or prepare some photographs or drawings of the seeds and crops.

### B: Process

## 10.2 Introduction

Explain the objective and the dynamic of the learning activity. Introduce the two participatory tools that you will use in the activity: historical trend analysis and four-cell analysis.

### Part 1

Introduce this section: Status and trend analysis of agricultural biodiversity at the district or community level. Explain that a community can evaluate the changes (positive or negative) in the diversity of crops and/or crop varieties (in terms of number and area) over a time frame of one or two decades (comparing the situation 10 or 20 years ago with the current situation), using historical trend maps in a participatory manner. Present the historical trend analysis tool. Present a few examples of historical trend maps.

#### Ask each participant to:

Select a crop and identify whether and what changes have occurred (positive or negative) in the last 20 years, in terms of diversity by area and number of farmers growing the crop (the period used depends on the age and knowledge of the participants and the history of agriculture in the district and community)

#### Ask participants to map the changes (historical trend maps) in their notebooks.

In a plenary session, invite a few participants to present their trend map showing the historical trend of the selected crop.

### Part 2

#### Introduce this section: Four-cell analysis of crops.

- ✓ Present the definitions of richness and evenness of crops and varieties
- ✓ Explain how a participatory on-farm crop diversity assessment can be used by members of a community seed bank to choose crops and crop varieties for collection, multiplication, and subsequent distribution.
- ✓ Present the four-cell analysis tool.
- ✓ Present a few examples of how a participatory on-farm crop diversity assessment done with this tool can be used by members of a community seed bank in choosing crops and crop varieties for collection, multiplication, and subsequent distribution.
- ✓ organize the participants into groups disaggregated by sex and age.
- ✓ Ask the participants to carry out a four-cell analysis of crops using focus-group discussion.
- ✓ Organize the seed samples that you have collected (or drawings or photographs of crops/ seeds) or that participants have brought, on a large sheet of paper in the middle of the room.

---

In plenary, ask some of the participants to carry out a four-cell analysis on several crops using local seed samples, to identify priority crops for conservation and subsequent multiplication and distribution by a community seed bank.

---

# 11 Annex 3: Module 3(Steps and Process of Establishing and Supporting a Community Seed Bank)

## 11.1 Facilitator instructions

### **A: Preparation**

illustrating the steps and process of establishing and supporting a community seed bank. If feasible, take your photos reflecting these steps in your region or obtain them from colleagues or the Internet.

Alternatively, copy the photographs provided here; you will then need to explain cultural and regional differences in your region.

Allow the necessary time to print as many copies as you will need for this exercise.

### **B: Process**

## 11.2 Introduction

Explain the objective of the learning activity

### **Part 1**

1. Randomly divide the participants into groups of 4 or 5 people.
2. Give each of the groups an envelope containing a set of the photographs.
3. Ask the participants to have a look at the photographs and put them in order, using a collective decision-making process, and tape them on a large piece of paper.
4. Ask each group to write down the logic behind the ordering of the photographs.
5. Select someone from each group to briefly present the order and explain the logic in a plenary session.

## 11.3 Conclusion and evaluation

1. Wrap up the session with a presentation of the actual steps that have been followed at two pilot sites in South Africa and explain the logic (see the text below). You may also refer to the creation of other community seed banks that you may be familiar with. Mention that in the following modules, each of the steps will be presented in more detail.
2. Evaluate the session. A good indicator of success is the degree to which the groups have come up with a well-reasoned, logical sequence.

---

# 12 Annex 3: Module 3: Steps and Process of Establishing and Supporting a Community Seed Bank (Facilitator Instructions)

## A: Preparation

1. **Traditional Seed Management Practices:** Prepare a presentation showcasing traditional seed management practices for major crops in your region/country, differentiating between self-pollinated, cross-pollinated, and clonal crops. Include examples from other areas if possible.
2. **Poor-Quality Seed Samples:** Prepare several samples of poor-quality seeds to demonstrate seed quality issues during the session.
3. **Key Technical Functions:** Prepare a presentation outlining the key technical aspects of seed banking, including:
  - Seed selection and collection
  - Seed health and cleaning
  - Registration of new seeds
  - Seed processing
  - Seed storage (facilities and methods)
  - Seed monitoring
  - Seed regeneration
  - Seed distribution

## B: Process

### 12.1 Introduction (5 minutes)

- Briefly explain the objective of the session and the interactive format.

#### Part 1: Traditional Seed Management (30 minutes)

1. **Review Traditional Practices:** Present the traditional seed management practices for major crops grown by both women and men farmers in your region.
2. **Rationale and Principles:** Discuss the rationale behind these practices and the principles of sound seed management.
3. **Identifying Challenges:** Encourage participants to identify problems, limitations, and knowledge gaps related to seed management in their communities.
4. **Poor Seed Quality:** Distribute samples of poor-quality seeds. Ask participants to identify quality issues, potential causes, and if they've encountered similar problems in their experience.

#### Part 2: Key Technical Functions (60 minutes)

1. **Presentation:** Deliver your presentation on the key technical functions of seed banking listed in section A:3.
2. **Seed Biology and Storage:** Introduce key concepts related to seed biology, storage, germination, and seed-borne diseases. Identify knowledge gaps and areas for improvement.
3. **Interactive Learning:** Use an example-based approach for each function. For instance, for seed storage:
  - Discuss traditional storage structures and methods used by participants.
  - Introduce methods used by national gene banks, highlighting advantages of both approaches and local innovations.
  - Conclude by explaining the key principles of seed storage, emphasizing the role of moisture and temperature in seed viability and germination. Encourage questions and participation throughout.

---

### Part 3: Seed Bank Operations (30 minutes)

1. **Operating Rules and Regulations:** Discuss the importance of establishing basic operating rules and regulations for community seed banks. This could include:
  - Seed quality standards (free from diseases, pests, and weeds)
  - Seed contribution policies (open to all or by selection)
  - Seasonal considerations for seed management activities (planting/harvesting times)
  - Minimum and maximum seed contribution amounts
  - Recording seed donors and maintaining accurate records
2. **Seed Multiplication:** Discuss strategies for seed multiplication, including:
  - Which seed varieties to multiply
  - Quantities required
  - Roles and responsibilities for seed multiplication processes
  - Costs associated with multiplication
  - Record-keeping procedures
3. **Seed Distribution:** Explore seed distribution practices, including:
  - Whether seeds are distributed to members and non-members
  - Distribution methods (first-come, first-served vs. equitable distribution)
  - Repayment policies for seeds (if applicable)
  - Recording seed distribution activities

## 12.2 Conclusion and Evaluation (15 minutes)

- Summarize the key points covered during the session.
- Evaluate the session's effectiveness. A successful session would equip participants with a basic understanding of the technical principles of seed banking and the importance of operational procedures for maintaining healthy seeds.
- Emphasize the crucial role of women farmers in seed banking and the importance of ensuring their participation, decision-making, and leadership opportunities.

---

# 13 Annex 6: Module 6(Support and Networking Training for Community Seed Banks)

## 13.1 Seed Network Analysis: A Collaborative Exercise (Facilitator Instructions)

### A: Preparation

1. **Venn Diagram Slide:** Prepare a slide displaying a blank Venn diagram with two or three overlapping circles.

### B: Process

#### Introduction (5 minutes)

- Briefly explain the objective of the session and the interactive format.
- Briefly explain the concept of a Venn diagram using an example unrelated to seeds (e.g., Venn diagram showing overlapping interests of two sports teams).

#### Part 1: Mapping Seed Stakeholders (30 minutes)

1. **Introduction:** Explain the first part of the activity: mapping key seed-related stakeholders and their relationships within the local community.
2. **Small Group Work (20 minutes):** Divide participants into small groups or pairs. Provide each group with a large sheet of paper or a whiteboard (if available) to replicate the Venn diagram slide. Instruct them to use the Venn diagram to map key seed actors and their relationships in their work area. Encourage them to consider:
  - Farmers (women and men)
  - Seed vendors
  - Researchers
  - Extension agents
  - NGOs
  - Local government agencies
3. **Group Presentations (10 minutes):** Invite each group to present their stakeholder map and analysis to the larger group. Encourage feedback and discussion from other participants.

#### Part 2: Network Analysis (25 minutes)

1. **Web of Relationships (10 minutes):** Introduce the second part of the activity: identifying the nature of the web of relationships revealed in the stakeholder maps.
2. **Network Density (10 minutes):** Explain the concepts of "dense" and "light" webs of stakeholders. A dense web indicates strong and frequent interactions between stakeholders, while a light web suggests limited interaction. Discuss the implications of web density for the strength of the local seed network.
3. **Support Systems (5 minutes):** Analyze which organizations and individuals are currently providing support to farmers and the community regarding seeds. If there are gaps in support, discuss how these gaps might be filled.

## 13.2 Conclusion and Evaluation (15 minutes)

1. **Strengthening Networks:** Facilitate a discussion about potential activities to strengthen seed networks and the community seed bank in the short and long term. Highlight the importance of building and strengthening partnerships with a range of stakeholders at different levels, including:
  - National gene banks
  - Extension services

- 
- Local government
  - 2. **Evaluation:** Briefly evaluate the session. Signs of a successful session include:
    - The groups effectively identified key stakeholders, their relationships, and potential gaps in the network.
    - Participants offered suggestions for strengthening trust and building relationships within the seed network.



---

# 14 Annex 7: Module 7(Policies and Laws Impacting Community Seed Banks)

## 14.1 Analyzing Policy and Legal Landscapes: Their Impact on Community Seed Banks (Facilitator Instructions)

### A: Preparation

1. **Policy and Legislation Examples:** Prepare slides showcasing examples of policies and legislation related to community seed banks, drawing from Chapter 7 of Vernooy et al. (2015).
2. **Policy Resource Person:** Invite a policy expert or representative to participate in the session and provide concluding remarks.
3. **Impact Analysis Table:** Prepare copies of a table with the following columns:

Policy/Law	How it will affect community seed banks	Positive or Negative Impact

### B: Process

## 14.2 Introduction (5 minutes)

- Briefly explain the objective of the session and the interactive format.
- Present the prepared slides showcasing examples of policies and legislation that can impact community seed banks.

### Part 1: Group Analysis (30 minutes)

1. **Distribute Handout:** Provide participants with copies of the impact analysis table.
2. **Small Group Work (20 minutes):** Divide participants into small groups of five. Instruct them to use the table to analyze actual experiences and knowledge of policies and laws affecting community seed banks in their regions. Encourage them to consider:
  - Existing seed-related policies and laws
  - How these policies and laws impact seed bank activities (collection, storage, distribution)
  - Potential positive or negative consequences of these policies and laws

### Part 2: Plenary Discussion (25 minutes)

1. **Group Presentations (15 minutes):** Invite a rapporteur from each group to present their table and analysis to the larger audience.
2. **Comparison and Synthesis (10 minutes):** Facilitate a discussion where groups compare their findings. Help them identify common themes and trends across different regions. Prepare a brief summary of the key points emerging from the discussion.

## 14.3 Conclusion and Evaluation (15 minutes)

**Wrap-Up and Guest Speaker (10 minutes):** Briefly summarize the key takeaways from the exercise. Invite the policy resource person to provide concluding remarks, offering insights and perspectives on the legal and policy landscape for community seed banks.

---

**Evaluation (5 minutes):** Evaluate the session's effectiveness. A successful session is one where participants: \* Actively participated in the group exercise using the impact analysis table. \* Used the information to discuss how conservation and development decisions can be influenced by policies and laws affecting community seed banks.

---

# 15 Annex 8: Module 8 (Viability and Sustainability of Community Seed Banks Objectives)

## 15.1 Assessing Viability: A Collaborative Approach (Facilitator Instructions)

### A: Preparation

1. **Viability Framework Slide:** Prepare a slide or poster visually depicting the chosen community seed bank viability framework (e.g., one focusing on financial, ecological, social, and organizational aspects).

### B: Process

## 15.2 Introduction (5 minutes)

- Briefly summarize the key takeaways from previous modules (3-5), reminding participants of the various functions, technical considerations, and governance/management principles for community seed banks.
- 2. **Learning Activity Objective (2 minutes):** Briefly explain the objective of the session: collaboratively explore how to assess the viability of establishing a community seed bank.

### Part 1: Brainstorming Viability Factors (20 minutes)

1. **Paired Discussion:** Instruct participants to form pairs and brainstorm how to assess the potential success (viability) of establishing a community seed bank before starting one (ex-ante assessment).
2. **Variables and Tools (15 minutes):** Ask each pair to identify at least five variables or indicators that could influence a seed bank's viability. Additionally, encourage them to propose at least one tool or method to determine the actual importance of these variables in their specific area.
3. **Sharing Ideas (5 minutes):** Invite each pair to share their identified variables, indicators, and proposed assessment tools with the larger group.

### Part 2: Comparing Frameworks (15 minutes)

1. **Collective Analysis:** Compile all the suggestions from the group discussion on a board or flipchart. Organize the variables and proposed assessment tools into a clear list.
2. **Viability Framework Comparison (10 minutes):** Compare the results from the group discussion with the prepared slide or poster showcasing the chosen community seed bank viability framework. Discuss any similarities and differences between the group's ideas and the formal framework.

### Part 3: Long-Term Viability (if time permits - 10 minutes)

1. **Organizational Sustainability (5 minutes):** If time allows, introduce the challenge of ensuring a community seed bank's long-term organizational viability. Briefly discuss strategies for building a sustainable seed bank in terms of ongoing operations, funding, and community engagement.

## 15.3 Conclusion and Evaluation (10 minutes)

1. **Recap and Key Points (5 minutes):** Summarize the key points covered during the session, emphasizing the importance of assessing viability before establishing a community seed bank.
2. **Evaluation (5 minutes):** Evaluate the session's effectiveness. A successful session is one where participants can:
  - Apply the viability framework to their specific region.

- 
- Make a realistic assessment of the potential success of a community seed bank in their context.

---

## 16 References and Resources

1. Alvarenga, A. C., & Dayrell, C. A. (2015). Brazil: the Minas Gerais seed houses for conservation in times of climate crisis. In R. Vernooy, P. Shrestha, & B. Sthapit (Eds.), *Community seed banks: origins, evolution, and prospects* (pp. 85–87). Routledge. Available: <https://hdl.handle.net/10568/68708> (accessed 21 January 2020).
2. Andersen, R., & Winge, T. (2011). Linking community seedbanks and farmers' rights. In *Banking for the future: savings, security, and seeds* (pp. 5–6). Development Fund. Available: [https://www.utviklingsfondet.no/files/uf/documents/Rapporter/Banking\\_for\\_the\\_future.pdf](https://www.utviklingsfondet.no/files/uf/documents/Rapporter/Banking_for_the_future.pdf) (accessed 21 January 2020).
3. Biodiversity International. (n.d.). Community seed banks. Available: <https://www.biodiversityinternational.org/seedbanks/> (accessed 21 January 2020).
4. Clancy, E. (2016). Supporting community seed banks to realize farmers' rights. Biodiversity International. Available: <https://hdl.handle.net/10568/78756> (accessed 22 January 2020).
5. FAO (Food and Agriculture Organization of the United Nations). (2014). Community seed banks: Junior Farmer Field and Life School—facilitator's guide. FAO. Available: <http://www.fao.org/3/a-i3987e.pdf> (accessed 21 January 2020).
6. Vernooy, R., Shrestha, P., Gauchan, D., Bhusal, A., Gurung, R., Pudasaini, N., & members of the Community Seed Banks Association of Nepal. (2019). Let us conserve and exchange seeds: Celebrating traditional crop diversity of the Nepali lowlands. Bioversity International; LI-BIRD; Association of Community Seed Banks of Nepal. Available: <https://hdl.handle.net/10568/102365> (accessed 21 January 2020).
7. Vernooy, R., Shrestha, P., Sthapit, B. (Eds.). (2015). Community seed banks: origins, evolution, and prospects. Routledge. Available: <https://hdl.handle.net/10568/68708> (accessed 21 January 2020).
8. Vernooy, R., Shrestha, P., Sthapit, B. (2017). Seeds to keep and seeds to share: The multiple roles of community seed banks. In D. Hunter, L. Guarino, C. Spillane, & P.C. McKeown (Eds.), *Routledge handbook of agricultural biodiversity* (pp. 580–591). Routledge. Available: <https://hdl.handle.net/10568/82995> (accessed 21 January 2020).
9. Vernooy, R., Sthapit, B., Dibiloane, M.A., Maluleke, N.L., Mukoma, T., & Tjikana, T.T. (2015). South Africa: A new beginning for community seed banks. In R. Vernooy, P. Shrestha, & B. Sthapit (Eds.), *Community seed banks: origins, evolution, and prospects* (pp. 254–258). Routledge. Available: <https://hdl.handle.net/10568/68708> (accessed 21 January 2020).
10. Vernooy, R., Sthapit, B., Galluzzi, G., & Shrestha, P. (2014). The multiple functions and services of community seed banks. *Resources*, 3(4), 636–656. doi:10.3390/resources3040636. Available: <https://hdl.handle.net/10568/65196> (accessed 21 January 2020).
11. Vernooy, R., Sthapit, B., Tjikana, T., Dibiloane, A., Maluleke, N., Mukoma, T. (2013). Embracing diversity: Inputs for a strategy to support community seedbanks in South Africa's smallholder farming areas. Bioversity International; Department of Agriculture, Forestry and Fisheries. Available: <https://hdl.handle.net/10568/105076> (accessed 21 January 2020).
12. Vernooy, R. (2020). CSB Facilitator Handbook. Available: [https://cgspace.cgiar.org/bitstream/handle/10568/81286/CSB\\_FacilitatorHandook\\_Vernooy\\_2020\\_la\\_st.pdf](https://cgspace.cgiar.org/bitstream/handle/10568/81286/CSB_FacilitatorHandook_Vernooy_2020_la_st.pdf) (accessed 21 January 2020).



**UNIVERSITY OF BURAO**  
**FACULTY OF AGRICULTURE**  
**AND ENVIRONMENTAL SCIENCE.**

كلية الزراعة والعلوم البيئية



Alliance



*The Faculty of Agriculture and Environmental Science (FAES) is an agricultural education institution offering quality education, community services, and research. It is committed to addressing the needs of communities in the Horn of Africa, with a specific focus on combating food insecurity and poverty, environmental degradation, desertification, and climate challenges.*

*Dr. Ibrahim Osman Ismail*  
*Dean of Faculty of Agriculture and Environmental Science*  
*Email: Ismail@uob-edu.net*

Wageningen Centre for Development  
Innovation  
Wageningen University & Research  
P.O. Box 88  
6700 AB Wageningen  
The Netherlands  
T +31 (0)317 48 68 00  
[wur.eu/wcdi](http://wur.eu/wcdi)



The mission of Wageningen University & Research is "To explore the potential of nature to improve the quality of life". Under the banner Wageningen University & Research, Wageningen University and the specialised research institutes of the Wageningen Research Foundation have joined forces in contributing to finding solutions to important questions in the domain of healthy food and living environment. With its roughly 30 branches, 7,700 employees (7,000 fte), 2,500 PhD and EngD candidates, 13,100 students and over 150,000 participants to WUR's Life Long Learning, Wageningen University & Research is one of the leading organisations in its domain. The unique Wageningen approach lies in its integrated approach to issues and the collaboration between different disciplines.