

Climate-Smart Agriculture Learning Brief

Building Climate-Resilient Livelihoods in Northern Uganda

Resilient North Uganda (RNU)

 Northern Uganda |  2024–2025

1. Background & Context

Smallholder farmers in Northern Uganda face increasing climate risks, including erratic rainfall, prolonged dry spells, declining soil fertility, and pest pressure. These challenges are compounded by post-conflict vulnerabilities, limited access to extension services, and weak input and output markets. Climate-Smart Agriculture (CSA) offers a practical pathway to enhance productivity, strengthen resilience, and reduce climate-related livelihood risks.

Resilient North Uganda (RNU), in partnership with local farmer organizations such as **Sebei Organic Farmers Association (SOFA)**, promotes CSA practices that are locally adapted, cost-effective, and inclusive of women and youth.

2. CSA Approach Implemented by RNU

RNU integrates CSA across its agricultural and livelihoods programming through a **farmer-centered and systems-based approach**, combining improved technologies with knowledge, markets, and community institutions.

Key CSA Practices Promoted

-  Adoption of **improved, drought-tolerant maize and groundnut varieties**
-  **Good Agricultural Practices (GAP)**: timely planting, spacing, row planting
-  **Soil health management**: composting, mulching, crop rotation
-  Water conservation techniques (minimum tillage, moisture retention)
-  Integrated pest and disease management
-  Climate risk awareness and seasonal planning

Training is delivered through **farmer field demonstrations**, group training sessions, and peer learning models.

3. Key Learning Insights

What Worked Well

- **Improved seed + GAP combination** delivered higher yield gains than seed alone
- Farmers trained through **demonstration plots** showed faster adoption
- Peer-to-peer learning increased trust and sustained practice uptake

- Women farmers actively adopted soil and post-harvest practices when training was accessible

Challenges Identified

- Limited access to complementary inputs (fertilizers, tools)
- Climate shocks (dry spells, floods) still pose adoption risks
- Market access constraints reduce incentives for surplus production
- Resource-poor farmers require phased adoption support

4. Early Outcomes & Observed Changes

- Increased farmer knowledge of climate risks and adaptation options
- Improved crop establishment and field management
- Higher yields reported among farmers adopting improved seeds with GAP
- Reduced crop losses due to better pest and soil management
- Greater confidence among farmers to invest in climate-resilient practices

5. Gender, Youth & Inclusion

CSA interventions intentionally promote **inclusive participation**:

- Women engaged in seed selection, soil fertility, and post-harvest handling
- Youth involved in demonstration management and agribusiness activities
- Group-based training reduced barriers to participation for vulnerable households

6. Monitoring, Evaluation & Learning (MEL)

RNU integrates **Monitoring, Evaluation, Accountability, and Learning (MEAL)** across CSA activities:

- Pre- and post-training assessments
- Adoption tracking of CSA practices
- Yield and income monitoring
- Farmer feedback and learning reflection sessions

Learning insights are continuously used to refine training content and delivery.

7. Policy & Programming Implications

This learning brief highlights that:

- CSA adoption is most effective when **technologies are bundled with training**
- Infrastructure, extension services, and market access are critical enablers
- Local partnerships strengthen sustainability and scale
- CSA programming must be **context-specific and pro-poor**

8. Conclusion

Climate-Smart Agriculture offers a viable pathway to strengthen food security, resilience, and rural livelihoods in Northern Uganda. RNU's experience demonstrates that **locally adapted CSA practices**, combined with strong community engagement and learning systems, can deliver meaningful and scalable impact in fragile and climate-vulnerable settings.

9. About Resilient North Uganda (RNU)

Resilient North Uganda is a community-based organization working to **build climate-resilient livelihoods** through climate-smart agriculture, livelihood diversification, and inclusive rural development in Northern Uganda.

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