SMALLHOLDER FARMERS ADAPTATION TO A CHANGING CLIMATE—EASTERN UGANDA CASE STUDY

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Outline

Section 1: Introduction
Section 2: What Government of Uganda is doing in climate change adaptation
Section 3: What smallholders are doing to adapt to climate change
Section 4: Other Projects
Section 5: Lessons Learnt from various Climate Change Adaptation strategies
Section 6: Food for Thought
What is happening at National Level?

National climate change policy

• Theme is “Transformation through climate change mitigation and adaptation.”

• The organizational chart (next slide)
  - Chart is civil-society blind
  - No smallholders and their climate change organizational and management structures
  - Promoting Conservation Agriculture instead of a diversity of approaches
  - Smallholders not identified under vulnerable groups
  - Nevertheless, policy in Uganda has made a good start
Government of Uganda, COMESA and UNDP project on CSA

- Project title: *Enhancing adoption of Climate Smart Agriculture (CSA) practices in Uganda’s farming Systems*
- Project aim: *integrating CSA for a climate change resilient society*
- Remarkable results in a short time of 2 years
- CSA adaptation practices evident in school gardens and smallholder farmer gardens e.g. minimum tillage, soil erosion control structures, timely planting, proper weed management, etc.
- Outstanding results e.g. increased numbers of CSA adopters, improved school feeding programme, increased area of land under CSA practices, etc.
Government of Uganda, COMESA and UNDP project on CSA Cont’d

- However: little investment from Central and Local government, limited technical capacity at district and sub-county levels, only Conservation Agriculture (CA) approach promoted, 2 training guides being developed will be very useful if they promote more active learning and take in account different interests of smallholders
Responding to a Changing Climate

<table>
<thead>
<tr>
<th>Changing Climate Issues</th>
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<tbody>
<tr>
<td>- Unpredictable and erratically distributed rainfall amounts at times causing storms</td>
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<td>- Unpredictable seasonal patterns with more rainfall deficient seasons</td>
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<td>- Increased frequency of prolonged and severe droughts unusually high rise in temperatures during the day</td>
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<td>- Low water availability</td>
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<td>- Reduced diversity of shrubs, herbs, tree species, fish, etc.</td>
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<td>- Changes of crop growing conditions even within same season</td>
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Responding to a Changing Climate (cont’d)

<table>
<thead>
<tr>
<th>Smallholder Adaptation Practices</th>
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<tr>
<td>• Mixing many seed varieties</td>
<td>• Selective weeding</td>
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<td>• Sowing with the very first rains</td>
<td>• Dense planting</td>
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<td>• Planting companion crops in same field</td>
<td>• Soaking seeds and vines</td>
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<td>• Staggering sowing sessions</td>
<td>• Growing crops in agroforestry environment</td>
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<td>• Cover plants</td>
<td>• Keeping low maintenance livestock</td>
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<td>• Mulching</td>
<td>• Seasonal migrations of livestock</td>
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<td>• Shrubs in gardens</td>
<td>• Trees + creepers cropping</td>
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<td>• Drought tolerant livestock and crops</td>
<td>• Fishing communities – governance of fishing times and methods</td>
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Other Projects in Uganda

- FAO - EU funded 14 million Euro Global Climate Change Alliance (GCCA) Uganda project on Agriculture Adaptation to Climate Change in Central Cattle Corridor 6 districts. Project ended and according to Mr. S. Mutabazi of MAAIF:
  - contributed to increasing knowledge on climate change
  - built capacities of farmers and government officials

- FEED THE FUTURE- USAID funded project through the National Farmers Federation and Minimum Tillage Project

- An NGO specifically promoting Conservation Agriculture whose projects have ended

From these projects: Government CSA; FAO Cattle Corridor; FEED THE FUTURE, CA NGO and TICSA projects, we learn some lessons.
New Lessons Learnt

- No one single approach is risk proof!
- Climate change adaptation planning processes should be more participatory
- National climate change adaptation planning to be done simultaneously with localized planning - engaging smallholder farmers as co-planners
- More specific lessons:
  - Smallholders have different climate change adaptation practices. Need for detailed assessments to determine which practices work best for smallholder farmers
  - Smallholders always pursue several objectives on same fields at the same time
  - Smallholders calendars are based on seasonal patterns. Interventions should work around cropping seasons and livestock management patterns
  - Smallholders prefer practices that carry few risks even if they provide less yields
  - Unlikely that smallholders will access sufficient water for general use and irrigation. Emphasis be placed on practices that maximize use of rainwater
  - Smallholders do not make net gains when food prices rise. Households spend bulk of income on food related needs. Placing emphasis on crops that serve both food and cash needs is a more appropriate strategy
New Lessons Learnt Cont’d

- More specific lessons (Cont’d):
  - Agricultural insurance for smallholders is hard to implement
  - Climate adaptation messages can be integrated in wider smallholder farmers activities – beyond agriculture.
  - There is need to repack information for various categories of smallholder farmers. Information be presented in more diverse, functional and user-friendly formats
  - Among smallholders is an emerging bulge of youth and young adults - this category needs specific, customized training
  - Smallholders agriculture remains the single largest source of employment and income in rural areas. Strengthening adaptation should include creating more employment and entrepreneurial opportunities
  - And the mother of lessons:
    - Even with the climate change challenges, smallholders can still improve their livelihoods through agriculture if the adaptation strategies are carefully implemented.