Climate change adaptation and mitigation in agriculture – potential links of NRC led projects/programs with LADA/WOCAT

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Developing Adaptation Options

Stakeholder Engagement

Approach

- Assess current vulnerability, risks and local livelihoods by agro-ecological zone
- Assess future climate risks
- Enhance institutional & technical capacities for adaptation
- Identify, validate and test adaptation options
- Design location-specific adaptation strategies
- Up-scaling and mainstreaming in annual (sectoral) development plans

Guiding principles

- Building on what already exists
- Gender perspective
- Participatory process
- Cross-sectoral coordination
- Linking bottom to top & vice versa

Identifying, validating and testing adaptation options

Blending local and scientific knowledge - farmers and national research institutions as key partners

1. **Agronomic management**
2. **Water harvesting & use efficiency**
3. **Land & Soil management**
4. **Cropping patterns & crop intensification**
5. **Alternative crops & farming systems**
6. **Post harvest practices**
7. **Energy use**

Testing of location specific practices

Developing options menu for now and future

1. Drainage
2. Mini ponds for seasonal drought spells in rice
3. Different cropping calendar
4. Drought/salt tolerant varieties
5. Mulching/compost
6. Terracing
7. Seed storage (dry)

Institutional and Technical Capacity Building

- Link bottom up livelihood perspectives & government led top down perspectives
- Technical coordination group for CCA within AG lead agencies & research institutes at national & local levels
- Mechanism and M &E system to validate adaptation options
- Technical trainings
- Knowledge sharing (incl. inter-country learning, documentation of adaptation practices in TECA database)

Some key Lessons ...

- Current climate variability is a suitable entry point to mobilize farmers to address current & future climate risks; DRR/SLM & CCA go together;
- address CCA within the broader vulnerability context/cross-sectoral
- Adaptation is not new ! Tools and methods exist - new is anticipatory way of thinking and an iterative learning plus planning process
- There are no “one fits all” adaptation practices; Go for option menus by AEZ! Farmers take only what benefits; framework conditions may change
- Push for doing better on known sustainable land and water management practices (no-regret)
- Initiate frameworks and processes for adaptation NOW - building in a long-term perspective - based on better impact assessments
- Re-think the role of research + R&D linkages and extension services

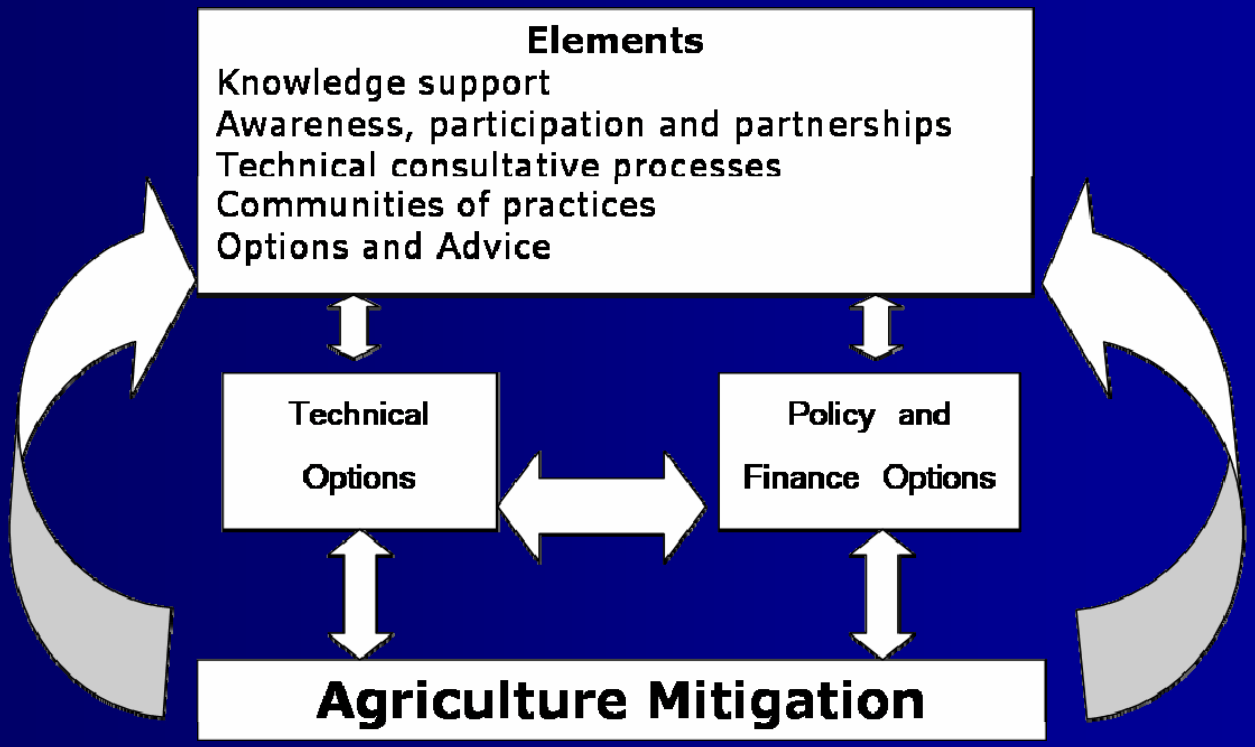
DRR/CCA projects – potential links LADA/WOCAT

- global/national WOCAT databases/case studies as source for adaptation technologies/approaches in local/national context incl. adoption potential
- learn from national/local LADA/WOCAT methodologies (technology description, monitoring)
- exchange methodologies regarding local situation assessment for CCA
- capitalize on overlaps between existing FAO CCA projects and LADA/WOCAT countries → e.g. Philippines
- possibly develop future projects linking CC and land degradation
- simplified quick assessments/easy and widely replicable methodologies and indicators?

Mitigation of climate change in Agriculture (MICCA) Project

- since Feb 2010 5year multi-donor trust fund project (3.9 million $ for 2yrs secured, 60.7 million $ envisioned)
- led by FAO NRC division (Marja-Liisa Tapio-Bistrom) in collab with other FAO divisions (AGA, ESA, AGP, …)
- Outcome: better realization of opportunities in agriculture mitigation of climate change by developing countries

MICCA Project – Components



MICCA will ...

- produce a better knowledge base for mitigation in AG by life cycle analysis of major products in different farming systems
- consolidate and systematize data on emissions and mitigation potential through expert consultations supporting the IPCC
- test in practice in pilots the concepts and modalities for integrating small farmers into cc mitigation
- support UNFCCC negotiation process with information on mitigation potential and options in agriculture
- build capacity in developing countries on institutional requirements and options for mitigation (3-5 pilot countries)

MICCA Project – potential links LADA/WOCAT

- tap LADA/WOCAT knowledge base to identify most promising SLM technologies incl. adoption potential for targeted assessment of mitigation potential
- learn from national/local LADA/WOCAT methodologies (technology description, monitoring & assessment, policy decision support)

- may add mitigation component to existing national/local LADA/WOCAT pilots, build on research links
- carbon sequestration module for LADA/WOCAT ?

Thank you !

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