There is a need to find crops that can withstand a high water table and still have a high yield (Örjan Berglund (Lennart Hjelms väg 9, Uppsala))

Using water tolerant crops on cultivated peat soils, Recare (Sweden)

Grödval på odlade torvjordar

DESCRIPTION

Using water tolerant crops might prolong the use of cultivated peat soils.

Aims / objectives: To find crops that have a high yield even though the ground water level is high.

Methods: Compare Reed canary grass and Tall fescue with Timothy that normally is grown within this area.

LOCATION

Location: uppsala, Uppsala län, Sweden

Geo-reference of selected sites

- 17.42983, 60.0279

Initiation date: 2014

Year of termination: 2019

Type of Approach

- ☐ traditional/ indigenous
- ☐ recent local initiative/ innovative
- ☑ project/ programme based

There is a need to find crops that can withstand a high water table and still have a high yield. (Örjan Berglund (Lennart Hjelms väg 9, Uppsala))

APPROACH AIMS AND ENABLING ENVIRONMENT

Main aims / objectives of the approach

The Approach focused on SLM only

To find crops with high yield that can be grown on peat soils with high ground water table and low bearing capacity.

The SLM Approach addressed the following problems: To find an alternative use of these lands to postpone abandonment.

Conditions enabling the implementation of the Technology/ ies applied under the Approach

- **Legal framework (land tenure, land and water use rights)**: The existing land ownership, land use rights / water rights greatly helped the approach implementation: Private farms can themself deside what crops to grow.

Conditions hindering the implementation of the Technology/ ies applied under the Approach

- **Social/ cultural/ religious norms and values**: What other crop to choose? Treatment through the SLM Approach: Talking to the farmers to find crops they were interested in testing.
- **Availability/ access to financial resources and services**: What to do with the new crop? Treatment through the SLM Approach: Develop a local system that could use the crop for energy production or biogas production.

PARTICIPATION AND ROLES OF STAKEHOLDERS INVOLVED

Stakeholders involved in the Approach and their roles

What stakeholders / implementing bodies were involved in the Approach?	Specify stakeholders	Describe roles of stakeholders
local land users/ local communities	not implemented, Field trial.	
SLM specialists/ agricultural advisers		
national government (planners, decision-makers)		

Involvement of local land users/ local communities in the different phases of the Approach

	none	passive	external support	interactive	self-mobilization
initiation/ motivation		✓			
planning				✓	
implementation				✓	
monitoring/ evaluation		✓			
Research	✓				

Flow chart

Decision-making on the selection of SLM Technology

Decisions were taken by

- [ ] land users alone (self-initiative)
- [ ] mainly land users, supported by SLM specialists
- [ ] all relevant actors, as part of a participatory approach
- [x] mainly SLM specialists, following consultation with land users
- [ ] SLM specialists alone
- [ ] politicians/ leaders

Decisions were made based on

- [ ] evaluation of well-documented SLM knowledge (evidence-based decision-making)
- [ ] research findings
- [ ] personal experience and opinions (undocumented)

TECHNICAL SUPPORT, CAPACITY BUILDING, AND KNOWLEDGE MANAGEMENT

The following activities or services have been part of the approach

- [x] Capacity building/ training
- [x] Advisory service
- [ ] Institution strengthening (organizational development)
- [x] Monitoring and evaluation
- [x] Research

Capacity building/ training

Training was provided to the following stakeholders

- [ ] land users
- [ ] field staff/ advisers
- [x] Not relevant, This is a field trial,

Form of training

- [ ] on-the-job
- [ ] farmer-to-farmer
- [ ] demonstration areas
- [ ] public meetings
- [ ] courses

Subjects covered

Advisory service

Advisory service was provided

- [ ] on land users' fields
- [ ] at permanent centres

This is a field trial. We are in the process of evaluating this.

Monitoring and evaluation

bio-physical aspects were regular monitored by project staff through observations; indicators: None bio-physical aspects were regular monitored by project staff through measurements; indicators: None economic / production aspects were regular monitored by project staff through observations; indicators: None economic / production aspects were regular monitored by project staff through measurements; indicators: None area treated aspects were regular monitored by project staff through observations; indicators: None management of Approach aspects were regular monitored by project staff through observations; indicators: None management of Approach aspects were regular monitored by project staff through measurements; indicators: None There were no changes in the Approach as a result of monitoring and evaluation: None There were no changes in the Technology as a result of monitoring and evaluation: None

Research

Research treated the following topics

- [ ] sociology
- [ ] economics / marketing
- [ ] ecology
- [ ] technology
- [x] Agronomic, Soil Science

Research is ongoing by SLU and not evaluated yet.

Research was carried out on-farm

FINANCING AND EXTERNAL MATERIAL SUPPORT

Annual budget in USD for the SLM component

- [ ] < 2,000
- [ ] 2,000-10,000
- [ ] 10,000-100,000
- [ ] 100,000-1,000,000
- [ ] > 1,000,000

Precise annual budget: n.a.

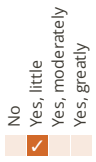
Approach costs were met by the following donors: international (Recare Project): 75.0%; government (Swedish University of Agricultural Sciences): 25.0%

The following services or incentives have been provided to land users

- [ ] Financial/ material support provided to land users
- [ ] Subsidies for specific inputs
- [ ] Credit
- [ ] Other incentives or instruments

IMPACT ANALYSIS AND CONCLUDING STATEMENTS

Impacts of the Approach



Did the Approach help land users to implement and maintain SLM Technologies?
This is what we are going to evaluate during the project.

Main motivation of land users to implement SLM

- [x] increased production
- [x] increased profit(ability), improved cost-benefit-ratio
- [ ] reduced land degradation
- [ ] reduced risk of disasters

Sustainability of Approach activities

Can the land users sustain what hat been implemented through the Approach (without external support)?

- [ ] no

- [ ] reduced workload
- [ ] payments/ subsidies
- [ ] rules and regulations (fines)/ enforcement
- [ ] prestige, social pressure/ social cohesion
- [ ] affiliation to movement/ project/ group/ networks
- [ ] environmental consciousness
- [ ] customs and beliefs, morals
- [ ] enhanced SLM knowledge and skills
- [x] aesthetic improvement
- [ ] conflict mitigation

- [x] yes
- [ ] uncertain

CONCLUSIONS AND LESSONS LEARNT

Strengths: land user's view

- It is easy to implement. The farmer already have all machines and equipments.

Strengths: compiler's or other key resource person's view

- It is easy to implement. The farmer already have all machines and equipments.

Weaknesses/ disadvantages/ risks: land user's viewhow to overcome

- Maybe it will be hard to sell the crop with a profit.

Weaknesses/ disadvantages/ risks: compiler's or other key resource person's viewhow to overcome

- It might not be a crop that has a high demand.

REFERENCES

Compiler
Örjan Berglund

Editors

Reviewer
David Streiff

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Resource persons
Örjan Berglund (orjan.berglund@slu.se) - SLM specialist

Full description in the WOCAT database
https://qcat.wocat.net/af/wocat/approaches/view/approaches_2667/

Linked SLM data
n.a.

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