Cut-off drains dug to avoid excessive runoff in a field

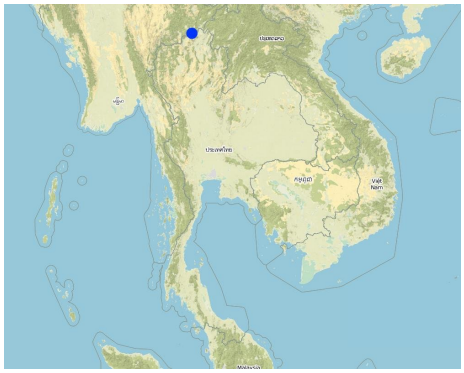
Cut-off drain (Thailand)

DESCRIPTION

This approach is the 'way' or 'how' the cut-off drain has been implemented on steepland in northern Thailand.

Aims / objectives: The cut-off drain is a kind of soil conservation measure which functions in the way that excess runoff will gather in these drains, which are constructed parallel with each other, and leave the cropped field without causing damage to it. This cut-off drain will be constructed only on steepland with large acreage. Fields smaller than 0.16 ha will not have it. The digging of the cut-off drain will be done before rainy season, using one hand hoe breadth and 20-30 cm deep. In the following year, loose earth material may be dug up and the drain may eventually be as large as 40 cm wide and 40 cm deep. This is an indigenous practice which farmers do it by themselves in their farm and they are not paid for their wages by any agency. In some cases poorer people may be hired by richer ones to dig cut-off drains. State agencies and extension workers have never promoted this T and A anywhere.

LOCATION



Location: Amphur Mae Fa Luang, Thailand

Geo-reference of selected sites

- 99.545, 20.252

Initiation date: n.a.

Year of termination: n.a.

Type of Approach

- [x] traditional/ indigenous
- [ ] recent local initiative/ innovative
- [ ] project/ programme based

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APPROACH AIMS AND ENABLING ENVIRONMENT

Main aims / objectives of the approach
The Approach focused on SLM only

1. To drain runoff water, 2. To reduce soil erosion, 3. To stabilize crop yield.

The SLM Approach addressed the following problems: Steepland in the North, where rainfall is high, has been brought to cultivation. There apparently was a sign of excessive runoff from the land, farmers in the past therefore started to dig the ditch to drain water away to the side of the field.

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

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

- **Knowledge about SLM, access to technical support**: The cut-off drain will not be implemented in small fields, e.g. a field < 0.16 ha. Treatment through the SLM Approach:

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	Specific ethnic groups: E-kaw, Lahu, Lisu, Mien, Khin, Thai Yai, Haw Chinese, H'mong	Farmers do it by themselves. Farmers feel it is necessary to construct the cut-off drain so they will do it inspite of being resource poor if conditions for doing it apply.

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	✓					responsibility for major steps
monitoring/ evaluation	✓					
Research	✓					

Flow chart

Decision-making on the selection of SLM Technology

Decisions were taken by
- [x] land users alone (self-initiative)
- [ ] mainly land users, supported by SLM specialists
- [ ] all relevant actors, as part of a participatory approach
- [ ] 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
- [ ] Capacity building/ training
- [x] Advisory service
- [ ] Institution strengthening (organizational development)
- [ ] Monitoring and evaluation
- [x] Research

Advisory service

Advisory service was provided
- [x] on land users' fields
- [ ] at permanent centres

Name of method used for advisory service: Farmer to farmer; Key elements: Simplicity, Low cost, Functionality

Research

Research treated the following topics
- [ ] sociology
- [ ] economics / marketing
- [ ] ecology
- [ ] technology
- [x] socio-economics, bio-physical

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: other (Personal fund): 100.0%

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

	No	Yes, little	Yes, moderately	Yes, greatly
Did the Approach help land users to implement and maintain SLM Technologies? Construction of cut-off drains			✓	
Did other land users / projects adopt the Approach? This is considered a way of farming only and may not be regarded as important.	✓			

Main motivation of land users to implement SLM
- [x] n.a.

Sustainability of Approach activities

Can the land users sustain what hat been implemented through the Approach (without external support)?
- [ ] no
- [x] yes
- [ ] uncertain

CONCLUSIONS AND LESSONS LEARNT

Strengths: land user's view
- Reduce soil loss in large areas grown to field crop
- Can use as a path in the field

Strengths: compiler's or other key resource person's view
- Reduce soil loss in large areas grown to field crop (How to sustain/ enhance this strength: Adjust the gradient not to be too steep so the effect from scouring can be decreased)
- Can use as a path in the field
- Reduce soil loss in large areas grown to field crop (How to sustain/ enhance this strength: Adjust the gradient to be less steep, to

Weaknesses/ disadvantages/ risks: land user's viewhow to overcome
- None

Weaknesses/ disadvantages/ risks: compiler's or other key resource person's viewhow to overcome
- A part of cropped area is lost. No way

prevent excessive scouring)
- Can use as a path in the field

REFERENCES

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Full description in the WOCAT database
https://qcat.wocat.net/af/wocat/approaches/view/approaches_2622/

Linked SLM data
Technologies: Cut-off drain https://qcat.wocat.net/af/wocat/technologies/view/technologies_1405/
Technologies: Cut-off drain https://qcat.wocat.net/af/wocat/technologies/view/technologies_1405/

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Project
- n.a.

Key references

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