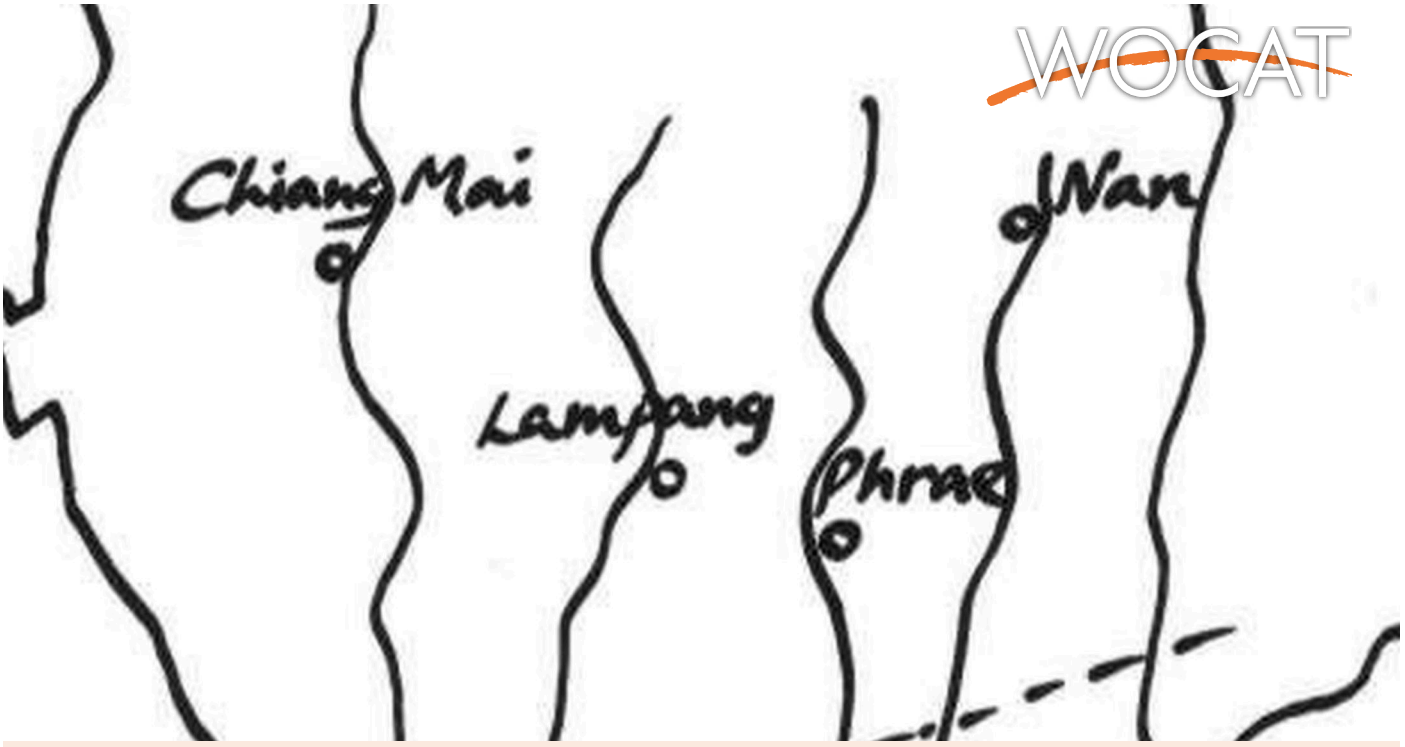


sketch map of the Upper North part of Thailand

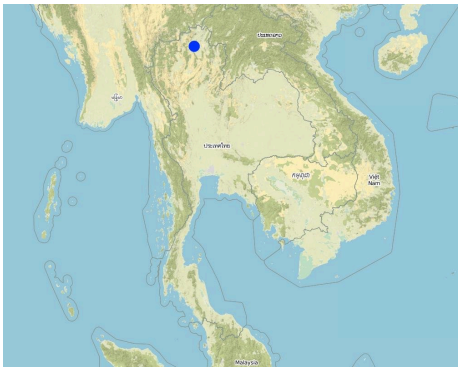
Vegetative erosion control and conservation cropping system (Thailand)

DESCRIPTION

This approach is 'the way' or 'how' the 'vegetative erosion control and conservation cropping system' has been implemented in the Upper North region of Thailand.

Aims / objectives: The purpose of this approach is to have sloping land used in a sustainable way, by planting hedgerows along the contour line, allowing enough space for growing cash- and other crops. In the process, government officers will work with sloping land farmers, promoting them to do the system by giving assistance in the form of necessary farm inputs and wage for doing the work. The work starts with site selection, land preparation, alignment of contour lines, establishing hedgerows, growing crops -- cash crops and tree crops, etc. At the same time extension workers will provide farmers with training in various aspects of SWC, and visits to demonstration fields and farms.

LOCATION



Location: Upper North, Thailand

Geo-reference of selected sites

- 99.73, 19.499

Initiation date: n.a.

Year of termination: n.a.

Type of Approach

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

A sketch map of the Upper North part of Thailand.

Organogram

APPROACH AIMS AND ENABLING ENVIRONMENT

Main aims / objectives of the approach

The Approach focused mainly on SLM with other activities (Cropping system that will enable farmers to earn reasonable income for their living.)

1. To reduce soil erosion. 2. To improve soil fertility. 3. To increase crop yied and income.

The SLM Approach addressed the following problems: Accelerated soil erosion and land degradation, low soil productivity, poor water conservation, low income, damaged environment.

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

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

- **Social/ cultural/ religious norms and values**: Low literacy rate Treatment through the SLM Approach: Improve education.
- **Institutional setting**: The number of extension workers is few. Treatment through the SLM Approach: Employ more of them.
- **Legal framework (land tenure, land and water use rights)**: Farmers without land title are reluctant to implement SWC. Treatment through the SLM Approach: Promote land reform programme. This type of approach/technology does not need too much of involvement in the land use right or ownership, particularly when there is no major disturbance of soil surface for constructing structural measures.
- **Knowledge about SLM, access to technical support**: Technologies take long time to show benefit. Treatment through the SLM Approach: 1. Find technologies which give short-term benefit. 2. Create awareness to farmers.

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: H'mong, Akha, Kare, etc. Also poor peasant farmers	
national government (planners, decision-makers)	Land Development Department	
international organization		

Lead agency

Alley cropping was designed by IITA and grass strip by Australian specialists. They were introduced into Thailand around 1985 and subsequently adapted by national specialists for applying in the Northern Agricultural Land Development Project, supported by the World Bank.

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

	none	passive	external support	interactive	self-mobilization	
initiation/ motivation	✓					
planning		✓				public meetings
implementation		✓				responsibility for minor steps
monitoring/ evaluation		✓				public meetings;
Research	✓					

Flow chart

Organogram

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
- [x] Institution strengthening (organizational development)
- [x] Monitoring and evaluation
- [x] Research

Capacity building/ training

Training was provided to the following stakeholders

- [x] land users
- [ ] field staff/ advisers
- [x] extensionists/trainers, school children/students,

Form of training

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

Subjects covered

Short training (1-2 days) in cropping system and land use management at a nearby locality where technicians explain how the approach is useful for farmers and how to do.

Advisory service

Advisory service was provided

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

Name of method used for advisory service: TAF; Key elements: Training, Action, Follow-up.; 1) Advisory service was carried out through: Government's existing extension system. Extension staff: Mainly government employees 3) Target groups for extension: land users; Activities: To know how to cope with soil degradation problem

Advisory service is inadequate to ensure the continuation of land conservation activities; There are too few SWC extensionists to work with farmers efficiently, making the activity not so well handled and maintained.

Institution strengthening

Institutions have been strengthened / established

- [ ] no
- [ ] yes, a little
- [x] yes, moderately
- [ ] yes, greatly

at the following level

- [x] local
- [ ] regional
- [ ] national

Describe institution, roles and responsibilities, members, etc.

Type of support

- [ ] financial
- [x] capacity building/ training
- [ ] equipment

Further details

Monitoring and evaluation

technical aspects were ad hoc monitored through observations; indicators There were few changes in the Approach as a result of monitoring and evaluation: 1. Change in cropping system to fit the farmers' need and market. 2. Some farmers have expanded more area for SWC approach.

Research

Research treated the following topics

- [x] sociology
- [x] economics / marketing
- [ ] ecology
- [x] technology

Research mainly concerns technology development and efficiency in decelerating soil ersoion and improving soil fertility.

Research was carried out both on station and 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
- [x] 100,000-1,000,000
- [ ] > 1,000,000

Precise annual budget: n.a.

Approach costs were met by the following donors: government (national - Dept. of Land Development.): 100.0%

The following services or incentives have been provided to land users

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

Financial/ material support provided to land users

	partly financed	fully financed
agricultural: seeds Only during establishment		✓
agricultural: seeds: fertilizers Only during establishment		✓
Biocides Only during establishment		✓
community infrastructure Only during establishment		✓

Labour by land users was

- [ ] voluntary
- [ ] food-for-work
- [ ] paid in cash
- [x] rewarded with other material support

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? They are more aware of what they should do to improve soil and water management such as mulching, green manuring fertilizer application and addition of organic matter.				✓
Did other land users / projects adopt the Approach? Such as Thai-Australian Highland Development Project				✓

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

- 1. Improve soil fertility and productivity
- 2. Increase income
- 3. Attain sustainable land use.

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

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

- 1. Require more labour to create and maintain 1. Grow fast-growing tree specie,
- 2. Certain part of the land cannot be used to grow crops. 2. Hire more labourers from the increased income.

- 1. The approach can reduce soil loss/runoff (How to sustain/ enhance this strength: Try to integrate annual cash crops and fruit trees)
- 2. Improve soil fertility
- 3. Conserve soil moisture
- 4. Increase yield/income
- 5. Preserve the environment
- 6. Easily implemented by farmers
- 7. It requires low cost.

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

- 1. More labour intensive than normal farming practice Good labour management

REFERENCES

Compiler
Samran Sombatpanit

Editors

Reviewer
Fabian Ottiger

Date of documentation: Jan. 13, 2009

Last update: Julie 6, 2017

Resource persons
Samran Sombatpanit (sombatpanit@yahoo.com) - SLM specialist
Sawatdee Boonchee (boonchee@thai2k.com) - SLM specialist
Philippe Zahner (philippe.zahner@deza.admin.ch) - SLM specialist

Full description in the WOCAT database
https://qcat.wocat.net/af/wocat/approaches/view/approaches_2417/

Linked SLM data
Technologies: Growing cover crops for weed control https://qcat.wocat.net/af/wocat/technologies/view/technologies_3306/

Documentation was faciliated by

Institution
- Swiss Agency for Development and Cooperation (DEZA / COSUDE / DDC / SDC) - Switzerland
- World Association of Soil and Water Conservation (WASWC) - China

Project
- n.a.

Key references

- Sajjapongse, A.., C.Anecksamphant and S. Boonchee. 2000. ASIALAND Management of Sloping Land Network. Special Lecture, LDD Technical Meeting, February 15-18, 2000, Chjiang Mai, ThailandOther documents of IBSRAM: Department of Land Development, Bangkok 10900, ThailandIBSRAM. P.O. Box 9-109, Bangkok 10900, Thailand
- Other documents of IBSRAM: IBSRAM. P.O. Box 9-109, Bangkok 10900, Thailand