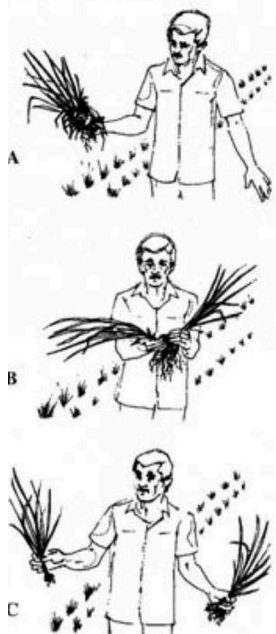




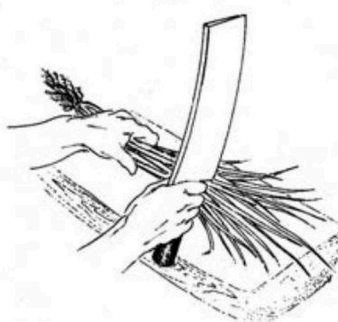


The Planting Material

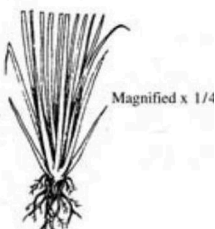


Farmer explaining the difference between conventional tillage (left of picture) and conservation tillage (right of picture).

Preparing the Slip



The Planting Piece



Contractor demonstrating the plough extension for deep ripping to members of the self-help group.

## ເປົ້າໝາຍ າຍຂອງ ນວທຸກ ລະການປົກປັກຮັກສາສິດ ວດສິມ

### ເປົ້າໝາຍ / ຈຸດປະສົງໃນການຈັດຕັ້ງປະຕິບັດແນວທາງ

The Approach focused mainly on SLM with other activities (poverty alleviation, collective bargaining for procuring services, joint produce marketing, on-farm diversification, off-farm opportunities)

- increase household food security and raise income within the group.
- provide mutual support and thereby develop collective bargaining power
- an example is the ability to attract technology training from national organisations.
- seek possible ways of acquiring equipment for all members of the group, through securing donor support or sponsorship.
- all cropland to be under conservation tillage, with all members being fully trained in the technology and having the necessary equipment

The SLM Approach addressed the following problems: - insufficient individual resources to invest in/or learn about new technology. - underlying problems of (1) food security and (2) insecure water supply for rainfed crop production due to insufficient and poorly distributed rainfall

### ເງື່ອນໄຂທີ່ສະໜັບສະໜູນໃຫ້ການຈັດຕັ້ງປະຕິບັດເຕັກໂນໂລຢີ ບົນພື້ນຖານແນວທາງ

- ກ່ຽວກັບກົດໝາຍ (ສິດນໍາໃຊ້ດິນ, ສິດນໍາໃຊ້ນໍ້າ): The existing land ownership, land use rights / water rights moderately helped the approach implementation: Small land size can hinder adoption of the technology: the group approach can help to overcome this limitation. Those with small land parcels can access and afford the technology without having to keep animals.

### ເງື່ອນໄຂທີ່ເຊື່ອງຊ້ອນໃຫ້ການຈັດຕັ້ງປະຕິບັດເຕັກໂນໂລຢີ ບົນພື້ນຖານແນວທາງ

- ສັງຄົມ / ວັດທະນະທຳ / ມາດຕະຖານ ແລະ ຄຸນຄ່າທາງສາສະໜາ: Use of draught animals seen as backward and non-progressive and gender-bias (technical operations and animal ownership traditionally male activities) Treatment through the SLM Approach: The number of practising farmers providing mutual support able to neutralise such thinking and the group approach has created an avenue for women to participate
- ມີຄວາມສາມາດ / ເຂົ້າເຖິງຊັບພະຍາກອນດ້ານການເງິນ ແລະ ການບໍລິການ: Equipment is costly and generally cannot be afforded by many Treatment through the SLM Approach: Ability to hire services from farmers in the group who have equipment
- ຄວາມຮູ້ກ່ຽວກັບການຄຸ້ມຄອງ ທີ່ດີນແບບຍືນຍົງ, ການເຂົ້າເຖິງການສະໜັບສະໜູນ ທາງດ້ານວິຊາການ: Technology was new and initially not well understood Treatment through the SLM Approach: As an organised group, the members were able to attract technical training from experts (eg KENDAT, KCTI) which was paid by local development partners and also learnt from more experienced members of the group
- ອົງກອນ: Organisational. Group formation and group dynamics Treatment through the SLM Approach: 2-3 enthusiastic, visionary individuals ensures success

## ການມີສ່ວນຮ່ວມ ລະບົບບາດຂອງພາກສ່ວນທີ່ກ່ຽວຂ້ອງທີ່ມີສ່ວນຮ່ວມ

### ພາລະບົດບາດຂອງພາກສ່ວນທີ່ກ່ຽວຂ້ອງ ທີ່ມີສ່ວນຮ່ວມໃນການຈັດຕັ້ງປະຕິບັດແນວທາງ

ແມ່ນໃຜ / ພາກສ່ວນໃດ ທີ່ເປັນເຈົ້າການ ໃນການຈັດຕັ້ງປະຕິບັດ ວິທີການ?	ລະບຸ ພາກສ່ວນທີ່ກ່ຽວຂ້ອງ	ຜົນລະບາ ບົດບາດ ໜ້າທີ່ ຂອງພາກສ່ວນທີ່ກ່ຽວຂ້ອງ
ຜູ້ມີສິດ / ສິນ / ນັກຮຽນ / ຊຸມຊົນທຸກຊົນ	Farmers, with common interests and goals, formed the group, registered and enacted their constitution. Government Ministry of Social Services facilitated the registration process. Group members liaised with technology promoters to access technical knowledge.	Working land users were work equally divided between men and women (The group has mixed membership but men tend to dominate field operations). Men traditionally own animals and have easier access to investment capital to purchase equipment than women. However, this is changing. In addition, in one group, the treasurer is a woman. The group also trains women how to use the technology. Within the first year, one woman had obtained the whole set of equipment plus a pair of oxen.

ພະນັກງານຂັ້ນສູນກາງ (ຜູ້ຊ່າງ) ຜນຜູ້ສືບທອດ ຍບາຍ	The group mobilises itself but with some support from Ministry of Agriculture extension workers.	
---	--	--

### ການລວບລວມເອົາຜູ້ນຳໃຊ້ທີ່ຕິນໃນທ້ອງຖິ່ນ/ຊຸມຊົນທ້ອງຖິ່ນ ໃນການຈັດຕັ້ງປະຕິບັດແນວທາງ ແຕ່ລະໄລຍະ

	ບຸກຄົນ ການບໍາເລີນ ການຊຸມຊົນເພື່ອຈາກພາຍ ນອກ ການຮຽນ ການສຶກສາ	
ການເລີ່ມຕົ້ນ / ຈຳນວນ ຈຳນວນ	<div><div></div><div></div><div></div><div></div><div></div></div>	public meetings; Creating awareness of technological development through open forums undertaken by agricultural extension staff. Meetings were held to plan organisational development . Farmers received information about an innovation that could be beneficial to them; they then mobilised themselves
ການວາງ ຜນ ການປະຕິບັດ	<div><div></div><div></div><div></div><div></div><div></div></div>	public meetings; The group plans its own agenda in meetings responsibility for major steps; The group is responsible for procuring equipment and inputs; they train their animals, while training on technology is provided by specialists
ຕິດຕາມກວດກາ / ການປະເມີນຜົນ	<div><div></div><div></div><div></div><div></div><div></div></div>	Mainly: measurements/observations; partly: public meetings; Group members keep yield records which are reported and discussed at meetings (without participation of specialists)
Research	<div><div></div><div></div><div></div><div></div><div></div></div>	on-farm; Farmers themselves compare cultivation methods; in addition, some research plots by KENDAT, the extension services (MoA) and students have also been set up in farmers' fields.

### ແຜ່ນວາດສະແດງ

### ການຕັດສິນໃຈໃນການເລືອກເຖິກໂນໂລຢີ ການຄຸ້ມຄອງທີ່ຕິນແບບຍືນຍົງ

ການຕັດສິນ ຈຳນວນ ດຍ	ກຳນົດສິນ ຈົນພົບຖານ
<div> <div></div> ຜູ້ຊ່າງ ຊຶ່ງຜູ້ຮຽນ (ການລິເລີ່ມຕົ້ນເອງ) <div></div> ຜູ້ຊ່າງ ຊຶ່ງຜູ້ຮຽນ, ການສະໜັບສະໜູນ ດຍຊ່າງ ການນຳ ຊຶ່ງຜູ້ຮຽນ ບໍ່ຍືນຍົງ <div></div> ພາກສ່ວນກ່ຽວຂ້ອງທັງໝົດ, ເປັນສ່ວນໜຶ່ງຂອງວິທີທາງ ບໍ່ຍືນຍົງຮຽນ <div></div> ຜູ້ຊ່າງຊ່າງ ຜູ້ກວດກາການຄຸ້ມຄອງ ທີ່ຜູ້ຮຽນ ບໍ່ຍືນຍົງ, ມີການຕິດຕາມປຶກສາຫາລືກັບ ຜູ້ຊ່າງ ຊຶ່ງຜູ້ຮຽນ <div></div> ຊ່າງຊ່າງສະເພາະດ້ານການຄຸ້ມຄອງ ຕິນ ບໍ່ຍືນຍົງຜູ້ຮຽນ <div></div> ນັກການເມືອງ / ຜູ້ຊ່າງ </div>	<div> <div></div> ປະເມີນເອກກະສານ ຄວາມຮູ້ກ່ຽວກັບ ການຄຸ້ມຄອງ ທີ່ຜູ້ຮຽນ ບໍ່ຍືນຍົງ (ຜູ້ກວດກາທີ່ ຊ່າງ ນັກນັດສິນ ຈຳນວນ) <div></div> ຜົນທີ່ ສູງ ຈາກການຄຸ້ມຄອງ <div></div> ປະສິບການສູ້ກັບ ລະຄວາມຄິດເຫັນ (ທີ່ຜູ້ຮຽນເອກກະສານ) </div>

### ການສະໜັບສະໜູນໂຕ ນັກ ນັກສູນສູນຄວາມອາດສາມາດ ລະການຄຸ້ມຄອງຄວາມຮູ້

### ກິດຈະກຳ ດັ່ງດຸ່ມນີ້ ແມ່ນເປັນພາກໜຶ່ງຂອງແນວທາງ

- ການສູ້ຄວາມສາມາດ / ການຝຶກອົບຮົມ
- ການບໍາລານ ຫຼືປຶກສາ
- ສະຖາບັນການສູ້ຄວາມເຂັ້ມ ຂງການພັດທະນາອົງການຈັດຕັ້ງ
- ຕິດຕາມກວດກາ ລະເມີນຜົນ
- ການຄຸ້ມຄອງ

### ການສ້າງຄວາມອາດສາມາດ / ຝຶກອົບຮົມ

ໄດ້ສະໜັບສະໜູນຝຶກອົບຮົມໃຫ້ແກ່ພາກສ່ວນກ່ຽວຂ້ອງດັ່ງດຸ່ມນີ້	ຮູບແບບການຝຶກອົບຮົມ
<div> <div></div> ຜູ້ຊ່າງ ຊຶ່ງ <div></div> ພະນັກງານພາກສະໜາ ທີ່ປຶກສາ <div></div> group members, SWC specialists (2), extensionists/trainers (3) </div>	<div> <div></div> ການເຮັດຕົວຈິງ <div></div> ຕົວຕັ້ງ <div></div> ເນື້ອທີ່ສ່ວນທິດລອງ <div></div> ກອງປະຊຸມ <div></div> ຜູ້ກສູດ </div>

### ກວມເອົາຫົວຂໍ້

The main element is farmer-to-farmer training within the group on use of appropriate equipment, equipment maintenance, animal health and care. Members attend training courses organised by extension staff and NGOs including KENDAT and Operation Comfort (from Central Kenya). Apart from courses, there are demonstration areas on research sites and group plots, as well as farm visits amongst and between

## ການບໍລິການທາງດ້ານການໃຫ້ຄໍາປຶກສາ

### ໄດ້ຮັບການບໍລິການທາງດ້ານການໃຫ້ຄໍາປຶກສາ

ນິພົນທິຊີວະກຳ ສິນສູນຄົມຄວາມ

Name of method used for advisory service: Innovative farmers support; Key elements: Identify innovative farmers in an area, Supporting them to come together, Providing new technology training; 1) Advisory service was carried out through: Other: governmental, non-governmental and group members 2) Advisory service was carried out through: Other: governmental, non-governmental and group members; Extension staff: mainly government employees 3) Target groups for extension: land users; Activities: Training on use of appropriate equipment, equipment maintenance, animal health and care etc

Advisory service is inadequate to ensure the continuation of land conservation activities; The performance of the technology is very impressive and rapidly adopted by group members. However this is dependent on the group ie 2-3 enthusiastic and innovative members are required for a successful group. Further expansion is limited by weak extension support.

Extension is carried out through governmental and non-governmental specialists, equipment sales person and well-informed group members. This is facilitated by the way groups formed and tapped into the extension advice, and also shared information amongst themselves. Extension is carried out through governmental and non-governmental specialists, equipment sales person and well-informed group members. This is facilitated by the way groups formed and tapped into the extension advice, and also shared information amongst themselves.

## ຄວາມເຂັ້ມແຂງຂອງສະຖາບັນ

### ສະຖາບັນ ໄດ້ຮັບການສ້າງຄວາມເຂັ້ມແຂງ

ບົດບັນຍັດ  
ມີ, ມີ ສູນຄົມຄວາມ  
ມີ, ພະນັກງານ  
ມີ, ສູນຄົມຄວາມ

### ໃນລະດັບດັ່ງລຸ່ມນີ້

ທຸກໆຄັ້ງ  
ລະດັບພາກພື້ນ  
ຫຼັກຖານ

ອະທິບາຍສະຖາບັນ, ພາລະບົດບາດແລະຄວາມສັບຜິດຊອບ, ສະມາຊິກ, ແລະອື່ນໆ.

### ຮູບແບບການສະໜັບສະໜູນ

ທາງດ້ານການເງິນ  
ການສ້າງຄວາມອາດສາມາດ / ການຝຶກອົບຮົມ  
ອຸປະກອນ

### ລາຍລະອຽດເພີ່ມເຕີມ

## ການຕິດຕາມ ແລະ ປະເມີນຜົນ

bio-physical aspects were ad hoc monitored. Indicators: work undertaken technical aspects were ad hoc monitored. Indicators: rate of adoption, attitudinal changes socio-cultural aspects were regular monitored through observations; indicators: yield/area with the data from research station being occasionally analysed and results shared out economic / production aspects were ad hoc monitored through measurements; indicators: acreage area treated aspects were ad hoc monitored through measurements; indicators: as membership feedback af meetings no. of land users involved aspects were ad hoc monitored through observations; indicators: None management of Approach aspects were regular monitored through observations; indicators: None There were few changes in the Approach as a result of monitoring and evaluation: The success of the technology - conservation agriculture - has strengthened group collective bargaining power to attract further extension input support, regular visitation and advice on best agronomic practices. There has also been a move to encourage women's uptake of the technology.

## ການຄົ້ນຄວ້າ

ການວິໄຈ ອົງການຮັກສາສິດທິຂອງບັນດາ

ສິດທິ  
ເສດຖະສາດ / ການຕະຫຼາດ  
ລະບົບນິເວດ  
ເຕັກນິກ ນິເວດ

On-farm research is carried out by KENDAT, who conduct field trials to investigate the best technological practices. The data is collected in collaboration with participating farmers. The field research activities have included long-term experiments, demonstration sites and field days.

Research was carried out on-farm

## ການສະໜັບສະໜູນທາງການເງິນ ແລະ ອຸປະກອນຈາກພາຍນອກ

### ງົບປະມານປະຈຳປີ ໃນກິດຈະກຳ ການຄຸ້ມຄອງທີ່ດິນແບບຍືນຍົງ ທີ່ເປັນສະກຸນເງິນໂດດລາ

< 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: local community / land user(s) (Self-help group members): 100.0%

### ການບໍລິການ ຫຼື ສົ່ງກະຕຸກຊຸກຍູ້ ດັ່ງລຸ່ມນີ້ ແມ່ນໄດ້ສະໜອງໂດຍຜູ້ນຳໃຊ້ທີ່ດິນເອງ

ການສະໜັບສະໜູນທາງດ້ານການເງິນ / ອຸປະກອນ ສະໜອງໂດຍຜູ້ນຳໃຊ້ທີ່ດິນເອງ  
ຫຼັກຖານ  
ສິນເຊີຍ  
ສິດທິ ຫຼື ເຄື່ອງມືອື່ນໆ

## ເງິນສະໜັບສະໜູນອຸປະກອນ / ສະໜອງໃຫ້ຜູ້ຊົມໃຊ້ທີ່ດິນ

Two year loans are available from international development partners (SNV).

ອຸປະກອນ: ເຄື່ອງກິນຈັກ  
2 year loan possible

Technical training and back up

ງົບປະມານທາງການສູນ  
ງົບປະມານທາງການສູນ

- ☐ ຮ່າງງານຂອງສູນສຶກສາ ສິດສິນ
- ☐ ການອາສາ
- ☐ ລົງເຂົ້າ - ອາຫານ
- ☐ ຈາກເປັນເງິນສົດ
- ☐ ສືບການສະໜັບສະໜູນ ມູນຄ່າກວດກາຄຸນນະພາບ

**ເຄດິດ**

ເງື່ອນໄຂ Two year loans are available from international development partners (SNV). Generally 50% is repaid in the 1st year, 50% in the 2nd year. These loans are used to purchase equipment, with group members acting as guarantors for each other.

ຜູ້ສະໜັບສະໜູນ: ອົງກອນ: The community contributed a considerable percentage (through labour and time). KENDAT (NGO, Kenya) mainly provided training and extension, whereas SNV (NGO, Netherlands) gave credits. Details of the breakdown are not available.

ຜູ້: ສືບສິນເຊື້ອ: n.a.

**ການວິເຄາະຜົນກະທົບ ລະຫວ່າງການລວມ**

**ຜົນກະທົບຂອງການນຳໃຊ້ແນວທາງ**

ການຈັດຕັ້ງປະຕິບັດ ວິທີທາງ ສາມາດຊ່ວຍຜູ້ນຳໃຊ້ ສິດສິນ ນັກກັດຕັ້ງປະຕິບັດ ລະຫວ່າງສາ ເຕັກ ນັກສຶກສາ ຄຸນນະພາບ ທີ່ດີນີ້ ບໍ່ມີຂໍ້ມູນ ຄື

These improvements include in situ moisture conservation (reduced evaporation and runoff), water harvesting, increased soil fertility and reduced soil loss.

Did other land users / projects adopt the Approach? ☐ ☐ ☐ ☐

Many self-help groups have arisen and are addressing their particular problems related to conservation agriculture.

**ສິ່ງກະຕຸກຊຸກຍູ້ໃຫ້ຜູ້ນຳໃຊ້ທີ່ດິນ ໃນການປະຕິບັດການຄຸ້ມຄອງທີ່ດິນ ແບບຍືນຍົງ**

- ☐ ການຜະລິດເພີ່ມຂຶ້ນ
- ☐ ການ ລົງເຂົ້າ (ຄວາມສາມາດ), ການປັບປຸງຄຸນນະພາບ ທີ່ດິນ, ຜົນປະໂຫຍດອັດຕາສ່ວນ
- ☐ ຫຼຸດຜ່ອນດິນເຊື້ອມູ ຊຸມ
- ☐ ຫຼຸດຜ່ອນຄວາມສ່ຽງຂອງ ພື້ນທີ່
- ☐ ການຫຼຸດຜ່ອນພາລະວຽກ
- ☐ ການຊຸກຍູ້ເງິນ / ເງິນອຸດົມ
- ☐ ກິດລະບຽບ ລະຫວ່າງການ(ລະອຽດ) / ການບັງຄັບ ສູນ
- ☐ ກຽດສັກສີ, ຄວາມກົດດັນທາງສັງຄົມ / ການຕິດຕັ້ງທາງສັງຄົມ
- ☐ ລວມເຂົ້າມາກັບການເຄື່ອນຍ້າຍ ຫຼັກ ຄຸນນະພາບ / ຄຸນນະພາບ
- ☐ ຄວາມຮັບຮູ້ທາງສິດສິນ ວັດຖຸ
- ☐ ພາສາ ລະຫວ່າງເຂົ້າຮູ້, ສົມບັດສິນທຸກ
- ☐ ການປັບປຸງ ຄວາມຮູ້ ລະຫວ່າງສາມາດ ຂອງການຄຸ້ມຄອງ ທີ່ດິນ ບໍ່ມີຂໍ້ມູນ
- ☐ ການປັບປຸງຄວາມງົດງາມ
- ☐ ການຫຼຸດຜ່ອນຂີ້ເຫຼືອ ຫຼື

**ຄວາມຍືນຍົງຂອງການຈັດຕັ້ງປະຕິບັດກິດຈະກຳຂອງແນວທາງ ຜູ້ນຳໃຊ້ ສິດສິນ ສາມາດຈັດຕັ້ງປະຕິບັດຕາມ ນວທາງ ລະຫວ່າງ ດຍປາດສະຈາກການ ສະໜັບສະໜູນຈາກພາກສ່ວນອື່ນ?**

- ☐ ບໍ່ມີ
- ☐ ມີ
- ☐ ບໍ່ມີຂໍ້ມູນ

Land users can continue group formation and the associated activities without external support because they can seek technical support for the specific activities.

**ບົດສະຫຼຸບ ລະຫວ່າງການທີ່ ສືບ**

**ຄວາມເຂັ້ມແຂງ: ທັດສະນະມຸມມອງ ຂອງຜູ້ນຳໃຊ້ທີ່ດິນ**

- Collective bargaining power is achieved through good accounting and positive group financial status. This tends to attract donor support for further collective activities.
- Sharing of technological knowledge, as well as equipment, within the groups and exchange between groups.

**ຄວາມເຂັ້ມແຂງ: ທັດສະນະມຸມມອງ ຂອງຜູ້ປ່ອນຂໍ້ມູນເອງ**

- Easier for extension services to target a group of like-minded farmers than individuals (How to sustain/ enhance this strength: Encourage further self-help group formation)
- Self-help groups are self-sustaining (How to sustain/ enhance this strength: Ensure continual success by providing refresher courses on technology by extensionists, introduce innovations to keep group interest alive.)

**ຈຸດອ່ອນ / ຂໍ້ເສຍ / ຄວາມສ່ຽງ: ທັດສະນະມຸມມອງ ຂອງຜູ້ນຳໃຊ້ທີ່ດິນ ວິທີການແກ້ໄຂແນວໃດ**

- Greater time and energy input from the innovative farmers, because they pass on their knowledge without direct reward Farmers gain confidence and status in the group or area as leaders.

**ຈຸດອ່ອນ / ຂໍ້ເສຍ / ຄວາມສ່ຽງ: ທັດສະນະມຸມມອງ ຂອງຜູ້ປ່ອນຂໍ້ມູນ ເອງວິທີການແກ້ໄຂແນວໃດ**

- Self-help groups are not optimal where some individuals are relatively poor and cannot afford contributions modify arrangements to permit higher contributions by more financially able members who then get a greater share of the profits.



ການລວບລວມ  
Frederick I. Kihara

Editors

ການທົບທວນຄືນ  
Fabian Ottiger  
Deborah Niggli

ວັນທີຂອງການປະຕິບັດ: Jan. 20, 2009

ປັບປຸງລ່າສຸດ: April 4, 2018

#### ບຸກຄົນທີ່ສ້າງ

Frederick I. Kihara (pdo@africaonline.co.ke) - ຜູ້ຊີ້ນຳຊາວ ດຽວການຄຸ້ມຄອງ ທີ່ດີນີ້ ບໍ່ມີຍິງ  
Boniface Kiteme (b.kiteme@africaonline.co.) - ຜູ້ຊີ້ນຳຊາວ ດຽວການຄຸ້ມຄອງ ທີ່ດີນີ້ ບໍ່ມີຍິງ  
Ceris A. Jones (cjones@agronomica.org) - ຜູ້ຊີ້ນຳຊາວ ດຽວການຄຸ້ມຄອງ ທີ່ດີນີ້ ບໍ່ມີຍິງ

#### ການບັນຍາຍລາຍລະອຽດ ໃນຖານຂໍ້ມູນ ຂອງ WOCAT

[https://qcat.wocat.net/lo/wocat/approaches/view/approaches\\_2357/](https://qcat.wocat.net/lo/wocat/approaches/view/approaches_2357/)

#### ຂໍ້ມູນການເຊື່ອມໂຍງຂໍ້ມູນການຄຸ້ມຄອງການນໍາໃຊ້ດິນແບບຍືນຍົງ

Technologies: Labour de conservation à petite échelle [https://qcat.wocat.net/lo/wocat/technologies/view/technologies\\_940/](https://qcat.wocat.net/lo/wocat/technologies/view/technologies_940/)

Technologies: Labour de conservation à petite échelle [https://qcat.wocat.net/lo/wocat/technologies/view/technologies\\_940/](https://qcat.wocat.net/lo/wocat/technologies/view/technologies_940/)

#### ເອກກະສານ ແມ່ນໄດ້ອໍານວຍຄວາມສະດວກໂດຍ

##### ສະຖາບັນ

- Agronomica - ລາຊະອານາຈັກກັງກິດ
- Centre for Training and Integrated Research in ASAL Development (CETRAD) - ເຄັນຍາ
- University of Bern, Institute of Geography (GIUB) - ສະວິດເຊີ ລນ

##### ໂຖງານ

- Book project: where the land is greener - Case Studies and Analysis of Soil and Water Conservation Initiatives Worldwide (where the land is greener)

#### ການອ້າງອີງທີ່ສໍາຄັນ

- Liniger HP and Thomas DB (1998) GRASS - Ground Cover for Restoration of Arid and Semi-arid Soils. Advances in Niggi SN (2003) Rainwater Harvesting for improved land productivity in the Greater Horn of Africa. Kenya Mutunga CN (1995) The influence of vegetation cover on runoff and soil loss - a study in Mukogodo, Laikipia district Kenya. MSc Kihara FI (1999) An investigation into the soil loss problem in the Upper Ewaso Ng'iro basin, Kenya. MSc. Thesis. University of:

This work is licensed under [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International](#)

