Catchment planning in action: local farmers and extension workers discuss technical interventions based on a participatory map.

Catchment Approach (Kenya)

DESCRIPTION

A focused approach to integrated land and water management, including soil and water conservation, where the active participation of the villagers - often organised through common interest groups - is central.

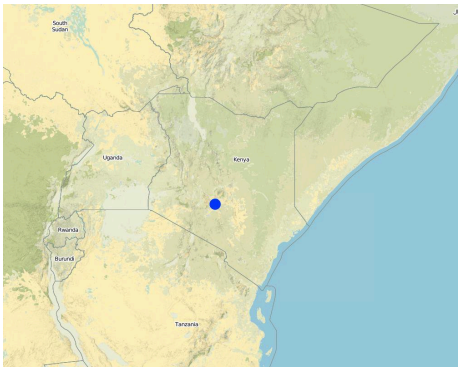
The catchment approach promotes sustainable land management systems by conservation of a defined area (so-called micro-environments) through the active participation of the communities living there. It was launched in Kenya in 1988 to achieve greater technical and social impact - and at a more rapid pace - than the previous focus on individual farmers. This case focuses on a single catchment in a subhumid area of Central Kenya. The emphasis is on structural measures - especially fanya juu terraces - but vegetative systems are promoted also. Other activities are supported such as spring protection, improved crop and animal husbandry, agroforestry, fodder production, fish ponds and others. The specific objectives are to stimulate the implementation of a variety of SWC measures leading simultaneously to improved production. Each approach area is defined by cultural/administrative boundaries rather than strict hydrological watersheds or catchments (as its name confusingly implies).

A conservation committee is elected from amongst the focal community before problem identification begins. Technical staff from relevant government and non-government agencies (NGOs) are co-opted onto the committee. The approach then involves participatory methods of appraisal and planning of solutions. Land users, together with the co-opted subject matter specialists, pool their knowledge and resources. Common Interest Groups (CIGs) are formed, with the aim of self-help promotion of specific farm enterprises. Training is given to the members of the CIGs by the Ministry of Agriculture. The farmers carry out the majority of the work themselves: monetary or other tangible incentives are few. The end result is the micro-environment (catchment area) conserved for improved production, and left in the hands of the community to maintain and sustain.

The catchment approach was developed under the National Soil and Water Conservation Programme - supported by (Swedish) Sida - and continues to be promoted as the Focal Area Approach (FAA) under the National Agricultural and Livestock Extension Programme (NALEP), which is again supported by Sida. However, under NALEP there is less emphasis on soil and water conservation than the previous programme, and more focus on promotion of productive enterprises.

The catchment approach is linked to cultural or administrative boundaries, rather than to hydrological watersheds. This emphasis on social units and integrated land management is becoming more common worldwide. In Kenya the approach is constantly evolving and has recently been renamed the 'Focal Area Approach'.

LOCATION



Location: Centre latitude:-0.721 Centre longitude:: 37.156, Central Province /Muranga District/Kangema divi, Kenya

Geo-reference of selected sites

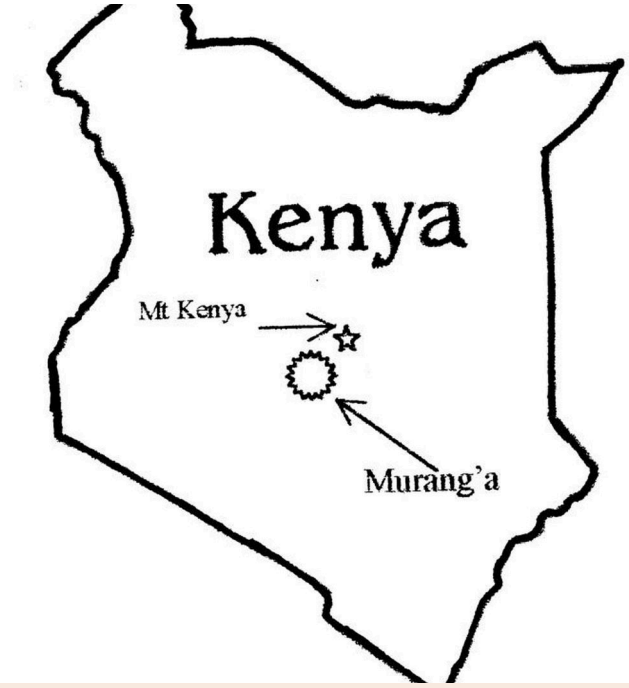
- 37.156, -0.721

Initiation date: 1987

Year of termination: 2000

Type of Approach

- ☐ 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 mainly on SLM with other activities (The approach also included other activities like energy saving technologies and Agroforestry. It also involved collaboration with othe sectors like public health, fisheries, water. Also new technologies were introduced like water prospecting.) The main aims are to contribute to increased production among farmers and pastrolist through advise on sound land husbandry, conserve agricultural lands affected by erosion, create awareness on importance of soil conservation and introduce on-farm tree planting practices.
The SLM Approach addressed the following problems: lack of tangible and assessable impact of SWC activities, technically or socially, slow implementation of SWC, underlying problems of poverty, declining soil fertility, soil erosion and fuelwood shortage.

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 moderately helped the approach implementation: Most land is individually owned, so there is no problem in that situation. Where land is rented, land users need to be persuaded to co-operate.

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

- **Availability/ access to financial resources and services**: Lack of capital hinders farmers from investing in structures. Treatment through the SLM Approach: farmers to work in group so that they can pool resources.
- **Institutional setting**: There was no institutional linkages to provide synergy Treatment through the SLM Approach: collaboration forums through PRA were encouraged.
- **Knowledge about SLM, access to technical support**: Lack of knowledge on better ways of conservation. Treatment through the SLM Approach: training was carried out through courses, fielddays and demonstration.

PARTICIPATION AND ROLES OF STAKEHOLDERS INVOLVED

Stakeholders involved in the Approach and their roles

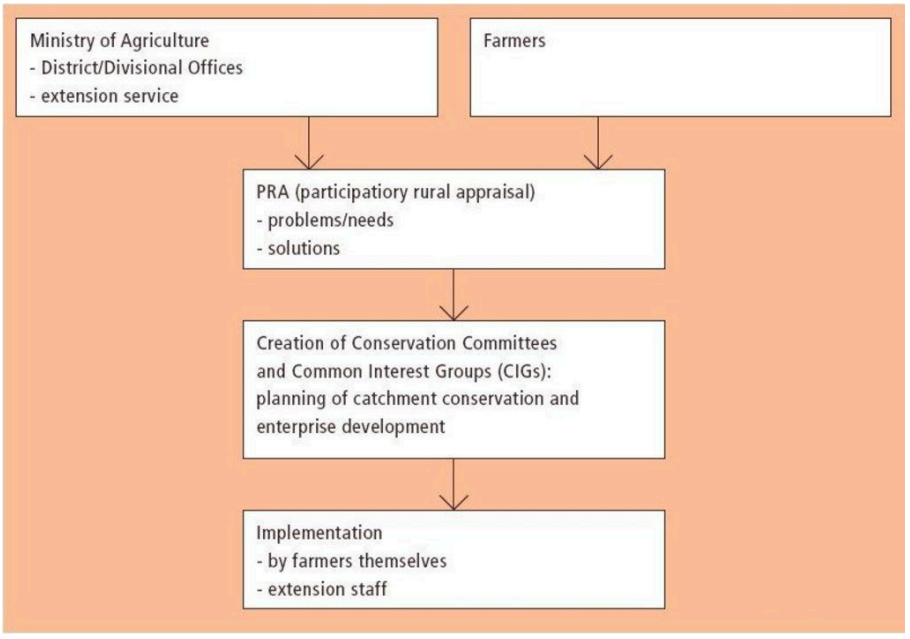
What stakeholders / implementing bodies were involved in the Approach?	Specify stakeholders	Describe roles of stakeholders
local land users/ local communities		Working land users were work equally divided between men and women. Groups consist out of both. Many joint activities but men and women still stick to some traditional gender-related agricultural activities. For example women often concentrate on food crops, men on cash crops. The poor resource group has been involved by participating in trainings, in election of catchment committee and during committee meetings.
SLM specialists/ agricultural advisers		
teachers/ school children/ students		
national government (planners, decision-makers)	Ministry of Agriculture, politicians	

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

	none	passive	external support	interactive	self-mobilization	
initiation/ motivation				✓		public meetings; they were involved in making decisions on boundaries.
planning				✓		rapid/participatory rural appraisal, public meetings, interviews/questionnaires; they were involved in providing information during the PRA and also the formulation of the community action plan
implementation					✓	responsibility for major steps; they were invoved in the actual work in the farms. implemented by community members
monitoring/ evaluation		✓				Mainly: interviews/questionnaires; partly: reporting;
Research	✓					only during trainings

Flow chart

Activities and actors within the Catchment approach.



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
- 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
- ✓ Advisory service
- ✓ Institution strengthening (organizational development)
- ✓ Monitoring and evaluation
- ✓ Research

Capacity building/ training

Training was provided to the following stakeholders

- ✓ land users
- field staff/ advisers
- ✓ extensionists/trainers, school children/students (2), teachers (3)

Form of training

- ✓ on-the-job
- ✓ farmer-to-farmer
- ✓ demonstration areas
- ✓ public meetings
- ✓ courses

Subjects covered

including layout of measures; agroforestry; soil erosion and measures to control it; energy conservation; food preservation - as well as for specific farm enterprises. Carried out mainly through farm visits by Ministry of Agriculture agents.

Advisory service

Advisory service was provided

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

Name of method used for advisory service: Catchment Approach: Formation of Conservation Committees. Implementation of techniques/technologies, Training on techniques/technologies, farm visits, field demonstrations, field days.
Advisory service was carried out through: Government's existing extension system (Both generalists and SWC specialists.) Extension staff: Mainly government employees.
Advisory service is quite adequate to ensure the continuation of land conservation activities; There are extension staff posted at locational level who are well trained.

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

bio-physical aspects were regular monitored through observations technical aspects were ad hoc monitored through measurements socio-cultural aspects were ad hoc monitored through observations area treated aspects were regular monitored through observations no. of land users involved aspects were regular monitored by 0 through measurements; indicators: None management of Approach aspects were ad hoc monitored by 0 through observations; indicators: None There were few changes in the Approach as a result of monitoring and evaluation: There have been few changes, but there is some enhanced collaboration between agencies, and - more income generating activities have been identified and implemented through common interest groups for crop production, marketing and livestock.

Research

Research treated the following topics

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

Specific problems are researched as they arise. A strong research-extension linkage is being built up. Monitoring of the progress of the overall programme also takes place.

FINANCING AND EXTERNAL MATERIAL SUPPORT

Annual budget in USD for the SLM component

- [x] < 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 (SIDA/trainnig, transport allowances etc): 70.0%; government (national - Office, personell): 20.0%; local community / land user(s) (Labour, materials): 10.0%

The following services or incentives have been provided to land users

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

Labour by land users was

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

Credit

Conditions: This is not provided directly, though a savings and credit 'stakeholder kitty' revolving fund is being promoted and developed.
Credit providers: n.a.
Credit receivers: n.a.

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? Intensified use of manures. The land user also adopted the construction of retention ditches. The improvements to SWC are moderate: these have been mainly through fanya juu and level bench terraces			✓	
Did the Approach improve issues of land tenure/ user rights that hindered implementation of SLM Technologies?			✓	

The approach through catchment committee was able to persuade the prople leasing land to undertake conservation measures.

Did other land users / projects adopt the Approach?
Spread has been limited to one Non-Governmental Organisation in this particular case study area.

Main motivation of land users to implement SLM

☑ n.a.

Sustainability of Approach activities

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

- ☐ no
- ☐ yes
- ☑ uncertain

CONCLUSIONS AND LESSONS LEARNT

Strengths: land user's view

- Much improved extension/training - research linkages have been forged (How to sustain/ enhance this strength: Continue focussed training/strengthen research-extension linkage.)
- New and productive farm enterprises have been promoted under the catchment approach alongside better SWC (How to sustain/ enhance this strength: Continue to introduce/support where appropriate through Common Interest Groups.)

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

- Genuine community participation has been achieved under this approach (How to sustain/ enhance this strength: Continue with participatory training.)
- There is evidence of 'ownership' by the community which implies a feeling that what has been achieved is due to communal efforts and belongs to them (How to sustain/ enhance this strength: Further training is more effective when benefits are appreciated in this way.)

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

- Lack of material incentives like seeds and fertilizers Assist the farmers with the credit.

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

- In many places there is a lack of availability of inputs Provide better credit facilities for CIGs/farmers generally.
- Technologies tend to be implemented uniformly, not site-specifically SWC practices should be matched to each particular situation, eg structural measures such as fanya juu terraces should be promoted only where necessary, that is where agronomic and vegetative measures do not provide sufficient protection.
- As yet uncertainty about continuation in specific areas if direct support stops after only one year Don't abruptly terminate this support after one year: continue approach for at least two or three years in each catchment (approach area).
- inadequate funding Increase the funding.
- Too small an area (of the country) is currently covered by NALEP More staff required: more effective use of staff.

REFERENCES

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Resource persons

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Full description in the WOCAT database

https://qcat.wocat.net/af/wocat/approaches/view/approaches_2361/

Linked SLM data

Technologies: Les terrasses fanya juu https://qcat.wocat.net/af/wocat/technologies/view/technologies_1336/
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Technologies: Les terrasses fanya juu https://qcat.wocat.net/af/wocat/technologies/view/technologies_1336/
Technologies: Drainage Biofilter https://qcat.wocat.net/af/wocat/technologies/view/technologies_6259/
Technologies: Grassing of Recharge Areas https://qcat.wocat.net/af/wocat/technologies/view/technologies_5934/

Documentation was faciliated by

Institution

- Food and Agriculture Organization of the United Nations (FAO) - Italy
- Ministry of Agriculture and Livestock Development of Kenya (MoA) - Kenya

Project

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

Key references

- The catchment approach is linked to cultural or administrative boundaries, rather than to hydrological watersheds. This emphasis on social units and integrated land management is becoming more common worldwide. In Kenya the approach is constantly evolving and has recently been renamed the 'Focal Area Approach'.: