



Water Resource Users Association for the management of water resources in a river sub-catchment. (ເຄີນຢາ)

ຄຳອະທິບາຍ

WRUA are associations of water users and riparian land owners who have associated for the purposes of cooperatively sharing, managing and conserving a common water resource.

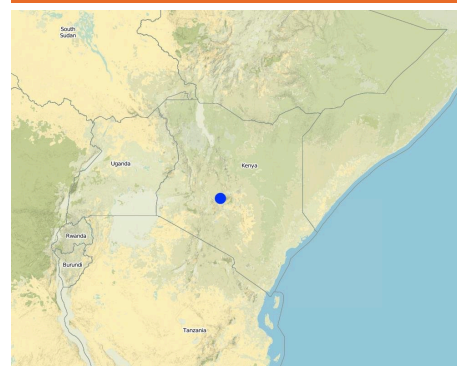
Aims / objectives: The overall objective is to facilitate everybody in the river sub-catchment with sufficient and good quality water supply even during dry spells. Further objectives are to conserve the water catchment, to manage the resources properly, to preserve riverine forests and the riparian ecosystem, stop pollution and establish water use rules that are broadly accepted.

Methods: The WRUA is an association of stakeholders who wants to achieve the objectives mentioned above. During the regular meetings each stakeholder can raise his voice, express his needs and vote in a democratic manner. For outsiders and the government it is also an official contact in terms of water resources. The WRUA members arrive at a decision together and thus lead to direct democratic and sustainable development. Together, they accomplish the activities mentioned below.

Stages of implementation: First, a WRUA needs to register at the regional WRMA (Water Resources Management Authority) office, this ensures legal security for the WRUA. The WRMA provides the WRUA with technical and administrative advisory and is part of the Ministry of Water and Irrigation. The members of the WRUA conduct a water abstraction survey in the sub-catchment to identify all legal and illegal water abstractions. It is crucial to know the accurate water flows before you can conserve the water resources. The goal is to convince illegal abstractions to apply for a permit to legalise the abstractions. The WRUA organises meetings, called barazzas, with the local chief and the riparian land users. In these meetings special conservation measures applied in the riparian area are discussed together with land management specialists. The conservation measures are cutting of water guzzling trees, planting of water-friendly indigenous trees, raise public awareness of pollution, rehabilitation of riverbanks and introduction of new technologies like drip irrigation and rooftop water harvesting. To raise public awareness of the importance of the riparian area, the WRUA members conduct a pegging campaign along the main river of the sub-catchment. The water act 2002 dictates a riparian area of at least 6 metres on either side of the river. This area is being delineated to indicate the location of the protected to the land users. During water shortages (for example a dry spell), the WRUA publishes rules for water abstractions to ensure water supply for all land users.

Role of stakeholders: Furthermore, the WRUA is an important tool for stakeholders for communication and conflict management related to water resources. Due to the immense importance of water for ecosystem services a proper management of this resource is required.

ສະຖານທີ່



ສະຖານທີ່: Nyeri/Naro Moru, Kenya/Central Province, ເຄີນຢາ

ການຄັດເລືອກພື້ນທີ່ ທີ່ອີງໃສ່ຂໍ້ມູນທາງພູມິສາດ

- 37.02295, -0.16917

ວັນທີເລີ່ມຕົ້ນ: 2002

ປີຂອງການສິ້ນສຸດ: n.a.

ປະເພດຂອງແນວທາງ

- ຜູ້ເຝິກອົງ / ທຸກຊັງຖືກ
- ການລິເລີ່ມ ພາຍໃນ ນປະເທດສິດສິນຄ້າ / ນະວັດຕະກຳ
- ພາຍໃນ ຄຸງການ / ຜນງານ
- government

ເປົ້າໝາຍ / ຈຸດປະສົງໃນການຈັດຕັ້ງປະຕິບັດແນວທາງ

The Approach focused mainly on SLM with other activities

The objective of implementing a governmental promoted association was to counter the numerous conflicts that have arisen around water resources. The water resources were distributed inequitably and the riparian ecosystem was damaged. Therefore WRUAs were built to improve water quality and increase water quantity by implementing protective measures in riparian zones, mediate conflicts concerning water, stop river pollution and establish water use rules.

The SLM Approach addressed the following problems: The WRUA was formed when some non-riparian water abstractors had no more water because the river was running dry.

Meanwhile also bad land use practices in the riparian zones of Kapingazi river diminished water quality. Due to forest clearing close to the river, the soil lost its water storage capacity, even worse indigenous trees were replaced by water guzzling trees like eucalyptus. The knowledge about conservation measures in the riparian areas was very low.

ເງື່ອນໄຂທີ່ສະໜັບສະໜູນໃຫ້ການຈັດຕັ້ງປະຕິບັດເຕັກໂນໂລຢີ ບົນພື້ນຖານແນວທາງ

ເງື່ອນໄຂທີ່ເຊື່ອງຊ້ອນໃຫ້ການຈັດຕັ້ງປະຕິບັດເຕັກໂນໂລຢີ ບົນພື້ນຖານແນວທາງ




- ອື່ນໆ: There are land users who do not want to implement the proposed technologies. Some land users do not agree with the ideas of the WRUA, others are just conservative and want to continue their old habits. Treatment through the SLM Approach: Restless spreading of the ideas and reasons of the WRUA can maybe convince some land users.

ການມີສ່ວນຮ່ວມ ລະບົບບາດຂອງພາກສ່ວນທີ່ກ່ຽວຂ້ອງທີ່ມີສ່ວນຮ່ວມ

ພາລະບົດບາດຂອງພາກສ່ວນທີ່ກ່ຽວຂ້ອງ ທີ່ມີສ່ວນຮ່ວມໃນການຈັດຕັ້ງປະຕິບັດແນວທາງ

ແມ່ນໃຜ / ພາກສ່ວນໃດ ທີ່ເປັນເຈົ້າການ ໃນການຈັດຕັ້ງປະຕິບັດ ວິທີການ?	ລະບຸ ພາກສ່ວນທີ່ກ່ຽວຂ້ອງ	ພັນລະນາ ບົດບາດ ຫຼັກໆ ຂອງພາກສ່ວນທີ່ກ່ຽວຂ້ອງ
ຜູ້ປົກຄອງ ຊຸມ / ນະຄອນ / ຊຸມຊົນທ້ອງຖິ່ນ	Especially riparian land users	All riparian users were addressed no matter what social or economical status they had. However it must be said that the riparian land users are among the more privileged ones, because they have direct access to water resources. In this sense, non-riparian land users were disadvantaged, because they could not profit of the seedling distribution. Non-riparian users were not target of the approach. The men/women ratio of the addressed land users depended strongly on the point in time the meetings were scheduled. At a morning meeting in a downstream area, 60% of the present land users were women. The reason is that many men were not available at this time, so the wife replaced them. In an upstream area, there were mostly men attendant. In this region, the land ownership traditionally belongs to the man of the family. That is the reason why mostly men are addressed and participated at the barazza meetings. In case the husband is not available, the wife participates at the meeting.
ຜູ້ຊີ້ນຳການ ການນຳຄຸນຄ່າ ທີ່ເປັນ / ທີ່ປຶກສາດຽນກະສິກຳ		
ພະນັກງານຂັ້ນສູນກາງ (ຜູ້ຕັ້ງ / ຜູ້ຊີ້ນຳ) ບາງ	Water Resources Management Authority	

ບົດປຶກມ
 ການເປັນປະຊາທິປະໄຕ
 ການຊຸມຊົນເພື່ອຈາກພາຍ
 ນອກ
 ການຮຽນມື
 ການເປັນປະຊາທິປະໄຕ



3/5

ການສ້າງຄວາມອາດສາມາດ / ຝຶກອົບຮົມ

ໄດ້ສະໜັບສະໜູນຝຶກອົບຮົມໃຫ້ແກ່ພາກສ່ວນກ່ຽວຂ້ອງດັ່ງລຸ່ມນີ້

- ຜູ້ມີສິດສິນ
- ພະນັກງານພາກສະໜອງ ທີ່ປະກອບ

ຮູບແບບການຝຶກອົບຮົມ

- ການເຮັດຕົວຈິງ
- ຕົວຕົວ
- ເນື້ອທີ່ສ່ວນທົດລອງ
- ກອງປະຊຸມ
- ຫຼັກສູດ

ກວມເອົາຫົວຂໍ້

The most recent knowledge in riverbank protection and land conservation was communicated by the WRMA to the WRUA and from the WRUA to the land users. Subjects treated are planting of waterfriendly indigenous trees and chopping of water guzzling eucalyptus trees, as well as riverbank stabilization with trees and Napier grass. Pegging techniques were introduced to outline the riparian area. Furthermore, pollution prevention and new water-saving land use technologies were discussed.

ການບໍລິການທາງດ້ານການໃຫ້ຄໍາປຶກສາ

ໄດ້ຮັບການບໍລິການທາງດ້ານການໃຫ້ຄໍາປຶກສາ

- ນິພົນທີ່ຊ່ອງຜູ້ມີສິດສິນ
- ສູນຄຸ້ມຄອງ

Name of method used for advisory service: Technical and institutional advisory; Key elements: Conservation advisory, Administrative advisory; The WRMA provides technical training for the WRUA members concerning planting of waterfriendly/water guzzling trees, riverbank stabilization with trees and Napier grass, pollution prevention, new water-saving land use technologies and also climate change issues that rose recently. The WRUA wrote also a sub-catchment management plan in cooperation with WRMA advisors.

Advisory service is very adequate to ensure the continuation of land conservation activities; Campaigns are being done as planned, but patrolling is not that profound.

ຄວາມເຂັ້ມແຂງຂອງສະຖາບັນ

ສະຖາບັນ ໄດ້ຮັບການສ້າງຄວາມເຂັ້ມແຂງ

- ບໍລິມະສິດ, ສິນຄ້າ
- ມີ, ພະນັກງານ
- ມີ, ຫຼາຍ

ໃນລະດັບດັ່ງລຸ່ມນີ້

- ທຶນງົບ
- ລະດັບພາກພື້ນ
- ຫຼັກສູດ

ອະທິບາຍສະຖາບັນ, ພາລະບົດບາດແລະຄວາມຮັບຜິດຊອບ, ສະມາຊິກ, ແລະອື່ນໆ.

ຮູບແບບການສະໜັບສະໜູນ

- ທາງດ້ານການເງິນ
- ການສ້າງຄວາມອາດສາມາດ / ການຝຶກອົບຮົມ
- ອຸປະກອນ
- Seedling were bought locally

ລາຍລະອຽດເພີ່ມເຕີມ

The seedlings were bought from local community based organisations.

ການຕິດຕາມ ແລະ ປະເມີນຜົນ

bio-physical aspects were None monitored by land users through observations; indicators: surviving trees were counted There were several changes in the Approach as a result of monitoring and evaluation: It turned out that areas for the seedling distribution should be identified in a first step. Also care taking of the seedlings is an important step to ensure the survival, since 25% of the seedlings died. 4 out of ten drip irrigation demonstration plots were relocated. There were no changes in the Technology as a result of monitoring and evaluation

ການສະໜັບສະໜູນທາງການເງິນ ແລະ ອຸປະກອນຈາກພາຍນອກ

ງົບປະມານປະຈຳປີ ໃນກິດຈະກຳ ການຄຸ້ມຄອງທີ່ດິນແບບຍືນຍົງ ທີ່ເປັນສະກຸນເງິນໂດລາ

- < 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: government (Water services trust fund): 57.0%; local government (district, county, municipality, village etc) (Laikipia Wildlife Forum): 43.0%

ການບໍລິການ ຫຼື ສົ່ງກະຕຸກຊຸກຍູ້ ດັ່ງລຸ່ມນີ້ ແມ່ນໄດ້ສະໜອງໂດຍຜູ້ນຳໃຊ້ທີ່ດິນເອງ

- ການສະໜັບສະໜູນທາງດ້ານການເງິນ / ອຸປະກອນ ສະໜອງໂດຍຜູ້ນຳໃຊ້ທີ່ດິນ
- ຫຼັກສູດ
- ສິນເຊື້ອ
- ສິດທິ ຫຼື ເຄື່ອງມືອື່ນໆ

ເງິນສະໜັບສະໜູນອຸປະກອນ / ສະໜອງໃຫ້ຜູ້ຊົມໃຊ້ທີ່ດິນ

Got the seedlings

ກະສິກຳ: ນັບ, ຄຸ້ມ

ຮ່ຳງານຂອງຜູ້ມີສິດສິນ

- ການອາໄສ
- ລຽງເຂັ້ມ - ອາຫານ
- ຈຸດປະສານສື່
- ສູນການສະໜັບສະໜູນ ອຸປະກອນດ້ານອື່ນ

ການວິເຄາະຜົນກະທົບ ແລະ ສະໜອງ

ຜົນກະທົບຂອງການນຳໃຊ້ແນວທາງ

ງົບປະມານທຶນ
ງົບປະມານເພີ່ມເຕີມ

ການຈັດຕັ້ງປະຕິບັດ ວິທີທາງ ສາມາດຊ່ວຍຜູ້ຢູ່ໃນ ພື້ນທີ່ ນັກນັກຕັ້ງປະຕິບັດ ລະບົບລະບົບສາ ເຕັກ ນັກລະບົບລະບົບຄອງ ທີ່ດີນີ້ ບໍ່ມີບາງ ຄູ່
Water quality has been improved, riverine wildlife habitats have been enlarged, water storage capacity of the riparian zone has been ameliorated, vegetation cover and biodiversity have been increased.

ການຈັດຕັ້ງປະຕິບັດ ວິທີທາງ ສາມາດສ້າງຄວາມເຂັ້ມ ຂອງສັງຄົມ ລະບົບຄອງກິດຈະກຳ

Did other land users / projects adopt the Approach?

Even land users who did not participate at the barazzas finally implement the proposed technologies, because they communicated with other land users.

ສິ່ງກະຕຸກຊຸກຍູ້ໃຫ້ຜູ້ນຳໃຊ້ທີ່ດິນ ໃນການປະຕິບັດການຄຸ້ມຄອງທີ່ດິນ ແບບຍືນຍົງ

- ການຜະລິດເພີ່ມຂຶ້ນ
- ກຸ່ມ ລະບົບລະບົບ (ຄວາມສາມາດ), ການປັບປຸງຄຸນ ສຸດຍາວ, ຜົນປະ ຫຍດອັດຕາສ່ວນ
- ຫຼຸດຜູ້ຢູ່ໃນເຂື່ອນ ຊຸມ
- ຫຼຸດຜູ້ຢູ່ໃນຄວາມສ່ຽງຂອງ ພື້ນທີ່
- ການຫຼຸດຜູ້ຢູ່ໃນພາລະວັງກ
- ການຊຸກຍູ້ເງິນ / ເງິນອຸດ ນ
- ກິດຈະກຳ ລະບົບລະບົບການ (ລະບົບ) / ການບັງຄັບ ສຸດ
- ກຸ່ມສັກສີ, ຄວາມກົດດັນທາງສັງຄົມ / ການຕິດຕັ້ງທາງສັງຄົມ
- ລວມເຂົ້າມາກັບການເຄື່ອນ ຫຼັກ ຄຸນນະ ກຳ / ເຄື່ອນຍ້າຍ
- ຄວາມຮັບຮູ້ທາງສັງຄົມ ວັດສະ ຕຸ
- ພາສີ ລະບົບລະບົບ, ສົມບັດສັນທຸ
- ການປັບປຸງ ຄວາມສາມາດ ຂອງການຄຸ້ມຄອງ ທີ່ດີນີ້ ບໍ່ມີບາງ
- ການປັບປຸງຄວາມງົດງາມ
- ການຫຼຸດຜູ້ຢູ່ໃນເຂື່ອນ ສຸດ
- law

ຄວາມຍືນຍົງຂອງການຈັດຕັ້ງປະຕິບັດກິດຈະກຳຂອງແນວທາງ

ຜູ້ຢູ່ໃນ ສາມາດຈັດຕັ້ງປະຕິບັດຕາມ ນວທາງ ດຍປາດສະຈາກການ ສະ ບັບສະ ນຈາກພາກສ່ວນພາຍນອກ?

- ບໍ່ມີ
- ມີ
- ບໍ່ມີ

Under the condition that they keep applying the conservation measures. Public awareness raising and patrols by the WRUA have to continue.

ບົດສະຫຼຸບ ລະບົບຮຽນທີ່ ສຸດ

ຄວາມເຂັ້ມແຂງ: ທັດສະນະມຸມມອງ ຂອງຜູ້ນຳໃຊ້ທີ່ດິນ

- The meetings show a good turn up of people, this shows that they are needed. (How to sustain/ enhance this strength: Maybe even more land users can be motivated to show up at the meetings.)
- A main advantage is that it is easy to communicate among the water stakeholders. (How to sustain/ enhance this strength: Regular meetings should be scheduled.)

ຄວາມເຂັ້ມແຂງ: ທັດສະນະມຸມມອງ ຂອງຜູ້ປ່ອນຂໍ້ມູນ

ຈຸດອ່ອນ / ຂໍ້ເສຍ / ຄວາມສ່ຽງ: ທັດສະນະມຸມມອງ ຂອງຜູ້ນຳໃຊ້ທີ່ດິນ ວິທີການແກ້ໄຂແນວໃດ

- Not all riparian members are totally committed to the activities of the WRUA. Try to persuade them to show more motivation.

ຈຸດອ່ອນ / ຂໍ້ເສຍ / ຄວາມສ່ຽງ: ທັດສະນະມຸມມອງ ຂອງຜູ້ປ່ອນຂໍ້ມູນ ເອງວິທີການແກ້ໄຂແນວໃດ

ເອກະສານອ້າງອີງ

ການລວບລວມ

Manuel Fischer

Editors

ການທົບທວນຄືນ

Fabian Ottiger

ວັນທີຂອງການປະຕິບັດ: Sept. 17, 2013

ປັບປຸງລ່າສຸດ: June 12, 2017

ບຸກຄົນທີ່ສຳຄັນ

Manuel Fischer (manulfischer@students.unibe.ch) - ຜູ້ຊີ້ວາງ ດຸນການຄຸ້ມຄອງ ທີ່ດີນີ້ ບໍ່ມີບາງ
Martin Ndung'u - ຜູ້ຊີ້ວາງ ດຸນການຄຸ້ມຄອງ ທີ່ດີນີ້ ບໍ່ມີບາງ

ການບັນຍາຍລາຍລະອຽດ ໃນຖານຂໍ້ມູນ ຂອງ WOCAT

https://qcat.wocat.net/lo/wocat/approaches/view/approaches_2477/

ຂໍ້ມູນການເຊື່ອມໂຍງຂໍ້ມູນການຄຸ້ມຄອງການນຳໃຊ້ທີ່ດິນແບບຍືນຍົງ

n.a.

ເອກະສານ ແມ່ນໄດ້ອຳນວຍຄວາມສະດວກໂດຍ

ສະຖາບັນ

- University of Bern, Institute of Geography (GIUB) - ສະວິດເຊີ ລນ
- Water Resource Use Association Naro Moru (WRUA Naro Moru) - ເຄັນຍາ

ຖານ

- n.a.

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