

Development of a Toolkit for Participatory Management of Rural Watersheds in Kenya

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Introduction

Effective public participation is a foundation for sustainable watershed management, yet there are no demonstrated methods for its achievement in tropical semi-arid rural grassland watersheds of Kenya which support critical downstream water services. Within the Sustainable Management of Watersheds (SUMAWA) multidisciplinary international research project, a set of tools have been adapted and tested to engage local communities and stakeholders in a dialogue and decision-making process to improve the development and management of the River Njoro Watershed and reverse declining water quality and quantity problems.

The River Njoro Watershed



Location of the Study Area



Generalized land cover & GPS Locations of Recent Site Visits

Adaptation of Participatory Methods & Tools

Participatory Rural Appraisal (PRA) data gathering, problem analysis, opportunity assessment, and action planning tools were modified to focus on water-related resource problems in the River Njoro Watershed in Kenya. The set of tools was applied in a series of discussions held over a 2 week period with a group of 25-40 community representatives in each of the five communities residing along the length of the River Njoro.

Community Identified Problems

1. Domestic water scarcity
2. Water-borne diseases from polluted river water
3. Low incomes and unemployment
4. Poor community cooperation & weak institutions
5. Fuel wood scarcity
6. Poor roads & inadequate infrastructure
7. Siltation & flooding

Common Pool Resources Uses and Benefits

COMMUNITY (location)	NESSUIT (upper)	NJORO (middle)	NGATA (middle)	BARUTI (lower)	LAKE (mouth)
RESOURCES USED	surface water (SW), pasture, forests, riparian land & vegetation	SW & GW, river flow, river bed & bank materials, riparian land & vegetation	SW & GW, land, vegetation	SW & GW, land, vegetation, bed/bank materials	SW & GW, land, vegetation
BENEFITS	domestic & livestock water supply, grazing, timber sales, fuel wood sales, crops, honey, medicines	M&I water supply, waste water dilution, irrigation, water vending, crops, construction, fodder, medicines	M&I water supply, irrigation, water vending, crops, fodder, medicines	M&I water supply, irrigation, water vending, sand mining, fodder, construction, medicines, honey	bird and wildlife habitat sanctuary, tourism
PRIORITY PROBLEMS	1 st – 6 2 nd – 1 3 rd – 2	1 st – 1 and 2 2 nd – 3 and 5 3 rd – 4	1 st – 1 2 nd – 2 3 rd – 3 and 4	1 st – 1 2 nd – 2 3 rd – 7	



Common Themes for Community Action

1. Restoring and protecting the riparian buffer zone
2. Local enforcement of river pollution laws (e.g. community patrols)
3. Education and awareness raising on rules, policies and regulations
4. Rehabilitation and new construction of supply & sanitation infrastructure
5. Agro-forestry and riparian tree planting programs
6. Development of a riparian management plan
7. Clarification and enforcement of laws governing water abstraction

Conclusions

Application and testing of the toolkit in the River Njoro Watershed demonstrates how a viable participatory process for engaging local communities in a dialogue with scientists, policy makers, and other watershed stakeholders to identify local perceptions and priorities for watershed management and common objectives and options on which watershed action plans can be developed. These tools also help identify community actors and local institutions and enlist their support to develop local and watershed-wide options to achieve win-win solutions to watershed resource management challenges.

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University of Wyoming, USA

Kenya Department of Fisheries



Egerton University, Kenya



Kenya Wildlife Service



Moi University, Kenya



University of California-Davis, USA

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