



Working Paper

**WATER USERS ASSOCIATION SUPPORT
INITIATIVE:
An Overview**

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WATER USERS ASSOCIATION SUPPORT INITIATIVE REPORT NO: 1

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LIST OF ACRONYMS AND ABBREVIATIONS

NRM³ – Natural Resources Monitoring, Modelling and Management

WUA – Water Users Associations

RWUA –River Water Users Associations

LWMI - Local water management institutions

SUMMARY

In the Upper Ewaso Ngiro North River Basin concerns of fresh water shortage, pollution, aquatic habitat and community modification and unsustainable exploitation of fisheries resources are growing. Upstream water users continue to abstract river water during the dry season (low flow conditions) leading to inadequate river flows in the lower reaches and ultimately the drying up of the river downstream. This has resulted in conflicts and huge economic losses for downstream water users. Water users associations (WUA) have been unable to address these problems due to:

1. Lack of data and awareness of their projects impacts on downstream water users;
2. Lack of capacity to mobilize members for action;
3. Lack of financial resources to invest in water saving technologies and approaches;
4. Failure of the District Water Office to acknowledge the complementary role that the WUAs can play in river water management;
5. Lack of capacity in conflict management; and
6. Lack of common vision among the members of WUAs.

Discussion with stakeholders identified a dire need to address the problem and hence the genesis of this initiative which will give special attention to information, governance process and institutions issues and their role in sustainable water management.

The **initiative's goal** is to contribute to sustainable water resources management in the upper Ewaso Ngiro North Basin by adapting and applying tools for improved river water use and conflict management. The **specific objectives** of the initiative are:

1. Create awareness of water scarcity and develop a common vision on water management
2. To undertake a sustainable development appraisal on water management (water abstraction, allocation and conflict management) issues.
3. Assist the water users associations (WUA's) and District Water Office in monitoring river water availability and abstraction, and in implementing the agreed plan of action on water use and allocation.
4. To disseminate research findings.

Key words: Water management, Ewaso Ngiro North Basin, Water Users Associations, Kenya, Local institutions.

INTRODUCTION

BACKGROUND

In the Upper Ewaso Ngiro North River Basin concerns of fresh water shortage, pollution, aquatic habitat and community modification and unsustainable exploitation of fisheries resources are growing. Under the growing demand, the supply is not sufficient and conflicts over the use and the allocation of water resources arise. Based on discussion with stakeholders (Gichuki and Njeru, 2000), there is a dire need to examine the dynamic inter-linkage between physical water resources systems and the larger social, economic and institutional context within which water resources are managed and to propose ways and means of developing effective local water management systems. Special attention needs to be given to issues of information, governance process and institutions. Consequently, the need to:

1. Document water resources availability and viable options for demand and supply management.
2. Examine the wide variety of stakeholders whose individual and/or collective decisions influence water use patterns and, ultimately, water management needs and options.
3. Identify how flexible “bottom up” approaches to the complex water management systems can toward less stressful and conflict-ridden paths in the future.
4. Clarify the role of the stakeholders and identify the framework under which they could work together to assure appropriate justice, equity, sustainability and fair play in the water sector.

THE PROBLEM

As the financial resources of the central government declines, local participatory approaches to water management have been proposed as alternatives to centralized initiatives managed by the government. This handing over (or abandonment) is taking place at a time when water scarcity and associated conflicts are intensifying. Water scarcity and associated conflicts in the upper Ewaso Ngiro North Basin have been increasing due to:

1. Insufficient water particularly during the dry seasons;
2. Inadequate flood water storage to reduce dependency on dry season flows;
3. Inefficient use of water resources;
4. Inadequate enforcement of water laws;
5. Diverse perception on water availability and inequity and the water users’ perceived gains and losses arising from use or non-use of water; and
6. Lack of information on downstream water situation and associated impacts.

Upstream water users continue to abstract river water during the dry season (low flow conditions) leading to inadequate river flows in the lower reaches and ultimately the drying up of the river downstream. This has resulted in conflicts and huge economic losses for downstream water users. Water users associations (WUA) have been unable to address these problems due to:

7. Lack of data and awareness of their projects impacts on downstream water users;
8. Lack of capacity to mobilize members for action;

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9. Lack of financial resources to invest in water saving technologies and approaches;
10. Failure of the District Water Office to acknowledge the complementary role that the WUAs can play in river water management;
11. Lack of capacity in conflict management; and
12. Lack of common vision among the members of WUAs.

Consequently, the rivers flowing north and west off Mount Kenya are subject to increasing abstraction to the extent that water supply for downstream communities and the environmental demands of the river and riparian zone are severely affected. This has intensified the conflicts among users and among uses.

Under conditions of conflicts, efficient water management is crucial in order to maximize the benefits and spread them as widely as possible. The solution to the above problems requires many interventions. The main ones include:

1. Creating public awareness of the nature and extent of the problem and impending environmental, political, social and economic impacts.
2. Evaluation of alternative technological solutions in terms of their technical, social and economic feasibility.
3. Identifying policy and institutional requirements for the implementation of proposed solutions.
4. Developing appropriate approaches to resolving water related conflicts.
5. Building the capacity of different actors to effectively contribute to the solution of the problems.

WATER USERS ASSOCIATIONS' REQUEST FOR ASSISTANCE

Natural Resources Monitoring, Modelling and Management Project (NRM³) is viewed as an independent party that can support these self-help initiatives during this critical period of drought and the transition from central government to local water management systems (Gichuki and Njeru, 2000). Consequently, NRM³ has received numerous requests for technical assistance in addressing water management challenges. The initial request from water users association for assistance started in 1996 mainly from horticulture producing companies requesting for climate, soils and hydrological data for planning irrigation development. During the 1999/2000 drought, there were requests to extending our monitoring network to cover additional irrigation water abstraction and to provide technical assistance in mobilizing the members and undertaking studies on situation analysis and identifying the way forward.

THE OPPORTUNITIES

Existing research platform and databases: Water resources of the Upper Ewaso Ng'iro North River have been monitored for over 50 years. Water abstractions have been monitored on selected river reaches during the last 5 – 10 years. This data has been consolidated and stored in relational and GIS databases of rainfall, flow and abstraction data. NRM³ and its partners have been working on water issues in the basin for over 15 years. They have

developed methodologies and tools for water management that will be applied in developing guidelines for local level river water management.

Water management tools: NRM³ and ASP have undertaken extensive research on water management aimed at improving decision making at farm, community, district and basin levels and developed the following tools:

1. Water awareness campaign (Kiteme and Mathuva, 1995);
2. Development approaches for sustainable use of water resources in Laikipia (Wiesmann, 1998);
3. Long-term hydro-meteorological monitoring (Gichuki et. al., 1998);
4. Natural resources information system (Gichuki et. al., 1998);
5. Basin hydrological model (Lindsay, 1999); and
6. Water allocation and accounting model¹ (Gikonyo, 1998)
7. Chartlogger (a tool for converting analogue chart data to digital data) (Gichuki and Njeru, 1999)

Revised water policy and water act: The role of the government in the water sector has been redefined with emphasis on regulatory and enabling functions as opposed to direct service provision (GoK, 1999). The new water policy is articulated in many policy statements addressing water resources management², water supply and sewerage development³, institutional arrangements⁴ and financing of the water sector⁵. The main policy statements include:

1. Decentralization of the decision making process in relation to water resources management to the most appropriate levels (national, basin, sub-basin and catchment);
2. Use of a multi-objective approach, incorporating environmental impact statements to minimize negative upstream and downstream environmental impacts;
3. Establishment of comprehensive water resources databases⁶, at all levels of management, on a self-sustaining basis;

¹ A tool for water accounting and monitoring has already been established by NRM³ and needs to be applied and tuned to the needs of the water users associations. Already formulated requests (by the water users themselves and the relevant ministries) are to support the self-help associations in monitoring their water resources and their use, and in improving the water allocation and increasing water use efficiency (including runoff harvesting). Through collaboration and participation of different river water associations the method will be adjusted to meet the needs of the users.

² Water resources management policy statements address the protection of available water resources and their sustainable, rational and economical use.

³ Water and sewerage development policy objectives are to 'supply water of good quality and in sufficient quantities to meet the various water needs while ensuring safe disposal of wastewater and environmental protection.'

⁴ Policy statements are aimed at establishing an efficient and effective institutional framework to achieve the systematic development and management of the water sector.

⁵ Policy on financing the water sector are aimed at developing a sound and sustainable financing system for effective water resources management, water supply and sanitation development.

⁶ An information system will be established to make water resources information accessible to facilitate informed decision-making.

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4. Creating an enabling environment for all actors to operate effectively and efficiently⁷; and
5. Application of the ‘user pays’ principle. That is, water will be considered as an economic good and the abstractor charged a fee commensurate with the amount of water abstracted.

Private investment in water supply projects: Individuals and communities have had to invest more (financial and participation in decision making or labour contribution) in water development to cope with the increasing water demand arising from increase in irrigated area, human and livestock population and increased consumption per capita. In the processes the community has gained water management experience in water supply, communal partnership, water supply businesses, and roof catchment and storage systems.

River water users associations: River water users associations (RWUA) are emerging to complement the government’s initiatives (which are currently limited by financial resources and political will) in addressing the enormous and difficult task of managing the river abstractions. RWUA have been established on a self-help initiative in several sub-basins⁸ mainly to mitigate water use conflicts. Some WUAs have already put in place measuring devices but lack the capacities and funds to monitor the water availability and use.

Growing political support: As the water scarcity and associated conflicts intensify, local politicians are getting involved and have expressed their interests and commitments to ensure that the water resources problems are addressed for the benefits of all basin inhabitants.

Willingness of the water users to resolve the issues: The individual members of water user associations and representatives of large scale irrigators have expressed their commitment to supporting initiatives aimed at improving water governance and water use efficiency. The affected water stakeholders share a common interest: **to improve water management for the benefits of downstream and upstream water users.**

THE LOGICAL FRAMEWORK OF THE INITIATIVE

THE OVERALL GOAL

The recently introduced policy changes calls for increased participation of local communities in the management of water resources and improvements of water governance. The initiative therefore aspires to contribute to improved water management by empowering communities and government officers to move towards achieving fair and reasonable water allocation and efficient water use for the benefit of all basin inhabitants. The initiative will bring together water users, technical experts, and local politicians to identify how best to address water scarcity issues thereby minimizing water conflicts.

The **initiative’s goal** is to contribute to sustainable water resources management in the upper Ewaso Ngiro North Basin by adapting and applying tools for improved river water use and conflict management. The **specific objectives** of the initiative are:

⁷ The Government will encourage active participation of beneficiaries in the development and operation of water supplies, in line with the Government policy of Cost Sharing (GoK, 1998).

⁸ Ngare Nothing, Ngushishi, Burguret, Nanyuki and Naro Moru river systems.

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5. Create awareness of water scarcity and develop a common vision on water management
6. To undertake a sustainable development appraisal on water management (water abstraction, allocation and conflict management) issues.
7. Assist the water users associations (WUA's) and District Water Office in monitoring river water availability and abstraction, and in implementing the agreed plan of action on water use and allocation.
8. To disseminate research findings.

LOGICAL FRAMEWORKS

RAISE AWARENESS AND DEVELOP A COMMON VISION

Rationale: A prerequisite to sustainable water resources management is participation of a broad range of stakeholders in order to ensure a comprehensive approach to water resources management. Participation can only be attained if the stakeholders are aware of the constraints and opportunities of their water resources system and have a common vision on how to move forward. Public awareness is also needed in order to mobilize effective support for sustainable water management and induce the changes in behavior and action that are required to achieve this. Additionally, public awareness and subsequent pressure for action may be vital in fostering the political will to act.

Goal: Raise awareness of water scarcity and associated conflicts and facilitate the development of a common vision.

Purposes: The main purposes are:

1. Synthesize experiences on water awareness campaigns;
2. Provide knowledge on water scarcity and associated conflicts and on the limitations of the current legal framework and water users associations.

Outputs: The main outputs include:

1. [Experiences, major findings and proposed action plans of Water Awareness Campaign undertaken by LRP discussed and used as basis for the way forward;](#)
2. [Challenges and prospects for local water management;](#)
3. [Potentials and limitation of current policy and legal framework highlighted;](#)
4. [Experiences of Water Users Association in water governance at project level highlighted;](#)
5. [Experiences of River Water Users Association in water governance highlighted;](#)
6. [River water stakeholders and their concerns;](#)
7. [Rivers of the upper Ewaso Ngiro North Basin](#)
8. [Water scarcity and associated conflicts highlighted;](#) and
9. [Managing wetland ecosystems.](#)

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Time frame: December 2000 to February 2002

PARTICIPATORY PROBLEM IDENTIFICATION AND SEARCH FOR SOLUTION

Rationale: Most of the current approaches to solving water related problems rely very heavily on technical data and fail to take into consideration the perceptions of the stakeholders. No matter what the scientific data may show about the water availability, there are local perceptions of the availability of water resources, which are very difficult to change. For example, it is very difficult to convince a water abstractor at the upper end of the catchment that he is contribution to the water shortage downstream when he sees that his water abstraction is only a small percentage of the river flow. This is because he lacks the appreciation of the fact that huge abstractions consist of many small abstractions and transmission loss of the river⁹.

Goal: Improved local participation in water resources management.

Purposes: To develop a methodology for participatory assessment of water supply, demand, water allocation, abstraction monitoring and for conflict resolution.

Outputs: The main outputs include:

1. [Methodology for participatory assessment and appraisal of current situation, dynamics and development options;](#)
2. [Snapshot of the Nanyuki River water abstraction;](#)
3. [Snapshot of the Burguret River water abstraction;](#)
4. [Snapshot of the Ngushishi River water abstraction;](#)
5. [Sirimon River profile and framework for action;](#)
6. [Nanyuki River profile and framework for action;](#) and
7. [Naro Moru River profile and framework for action.](#)

Time frame: December 2000 to February 2002

WORKING WITH THE GOVERNMENT TO IMPLEMENT AGREED ACTIONS

Rationale: There are many government departments involved in water resources management. The Department of Culture and Social Services deals with issue on registration of water users associations, their bylaws and election of office bearers, the Land Development Division of the Ministry of Agriculture is involve in soil and water conservation, irrigation and drainage issues, the Forest Department of the Ministry of Natural Resources deals with water catchment under forest land use, Kenya Wildlife Services deals with water catchment management in area under national parks and game reserves, and Ministry of Water Resources deals with water resources management issues. The support of government departments to water users association is a prerequisite to successful community water management.

Goal: Improved management of land and water resources through government and water users' associations partnerships.

Purposes: The main purposes are:

⁹ Evapotranspiration and seepage loss in the riverine areas.

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1. Facilitate growth of partnerships between government and non-government organisations;
2. Enhance capacity of government officers and water user association leaders to address water management problems.

Outputs: The main outputs include:

1. Capacity of actors enhanced
2. Development of water allocation guidelines
3. Development of conflict management strategies

Achievements: The achievements include:

1. Training of communities and District water officers on flow measurements, use of water information system, basic water accounting and water governance issues
2. Development of water allocation guidelines
3. Development of conflict management strategies
4. Promoting efficient water use
5. Participatory monitoring and evaluation

Time frame: Feb 2002 to August 2002

DISSEMINATION OF RESEARCH FINDINGS

Rationale: Experiences gained in working with government officers and water users associations should be disseminated widely to ensure that others do not waste time and resources re-inventing the wheel. On-going efforts in hydro-meteorological monitoring and development of a water information system should be enhanced to (a) package data and information appropriately for use by water professionals and other stakeholders; (b) make information more readily available; and (c) develop mechanisms that would minimize misuse of data and information.

Goal: Widespread dissemination of lessons learnt.

Purposes: The main purpose is to disseminate knowledge on actions and processes required to achieve sustainable water resources management in this and similar environments.

Outputs: The main outputs include:

1. Workshops
2. Manuals
3. Journal articles

Achievements: The achievements include:

1. Stakeholders meeting share the research findings
2. Manuals on “How to” (a) develop a participatory monitoring programme involving WUAs, DWO and researchers; (b) undertake sustainable development appraisal; (c) undertake participatory water allocation; (d) undertake participatory conflict management.
3. Journal articles (4)

Time frame: February 2002 to July 2002

IMPLEMENTATION ISSUES

SCOPE OF THE INITIATIVE

Due to budgetary, time and manpower constraints, the Mount Kenya tributaries of the Ewaso Ngiro have been categorised according to priority for action in this assignment. The criteria used to select the different priority groups are as follows:

- That there is an existing water users association on the river
- That the low flow situation in the river is known to be severely strained with respect to availability of flow
- That the river will act as a suitable testing ground for the methodology with a diverse set of abstractors
- That the river is within the NRM³ monitoring network. This will help to cross check river flow information and will provide long term data if required.

Based on these criteria the river sub-basins to be studied in order of priority are Ngusishi, Nanyuki, Ngare Nything¹⁰, Naro Moru, Burguret, Ontulili.

COLLABORATORS

NRM3 will be the lead institutions with technical backstopping from CDE. The main collaborators in this initiative are:

1. Water users associations
2. Government officers in Ministries of Water Development, Natural Resources, Agriculture, Culture and Social Services, Ewaso Ngiro North Development Authority, Ewaso Ngiro North Catchment Board
3. Non-governmental Organisations involved in water development
4. ASP – Actors’ strategies and perceptions for sustainable resource management and planning;
5. CETRAD – Centre for training, research and development; and
6. Consultants (Rural Focus and Gikonyo J.)

¹⁰ The Ngare Nything is a tributary of the Ngare Ndare and is within the Ewaso Ngiro basin. The river is not one of the rivers that have fallen within the NRM³ monitoring network. However, the presence of a well established WUA has increased the priority ranking of the river.

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