

RURAL WATER SUPPLY GLOBAL STUDY

An Analysis of the Impact of Institutional Rules on Rural Water Supply Sustainability UGANDA COUNTRY STUDY

GENERAL OBJECTIVE OF GLOBAL STUDY

The Global Study on Rural Water Supply (RWS) was initiated by the UNDP - World Bank Water and Sanitation Program to analyze the impact of institutional rules on sustainability of rural water supply in six countries. These were, Benin, Bolivia, Honduras, Indonesia, Pakistan and Uganda. The study was conceptualized on the basis that rural water and sanitation projects responding to community demand have a greater chance of being sustained by the benefactors.

"Although demand responsive projects appear to have greater prospects of sustainability, in many countries, government support to the RWS sector has often focused on designing and constructing systems based on prescribed needs, with little consideration given to demand or sustainability of services".

- Terms of Reference of the Global Study.

The aim of the study was to evaluate the comparative impact of different project rules and applications, in terms of their responsiveness to demand, on the sustainability of RWS projects at community level.

UGANDA PROJECT BACKGROUND

The Uganda component of the Global Study was launched in November 1996, taking Rural Water and Sanitation Eastern Uganda Project Phase I (RUWASA I) as a case study.

RUWASA was started in 1991 with funding from Danish International Development Agency (DANIDA) of about US \$ 35m for the first phase of 5 years. The Uganda Government's contribution was estimated at 6% of the total project cost.

RUWASA I covered 8 districts with an area of 21,500 sq. kms. and a population of approximately 4.18 million (about 25% of the country's total population).

SPECIFIC OBJECTIVES FOR THE UGANDA COUNTRY STUDY

- To assess the impact of project rules on the sustainability of rural water supply and contribute towards defining better rules for future projects and policy design.
- To utilize the results of the study in shaping and monitoring RUWASA Phase II and make an input to sector policy.
- To contribute globally to a better understanding of the nature of demand and linkages to sustainability, and facilitate design improvement of future RWS projects.

ANALYSIS

The Uganda study sample was selected from 16 communities/Local Councils 1 (LC1s), using a two stage cluster sample technique in Kamuli and Mukono Districts that are part of RUWASA I catchment area.

In each community, 16 households were systematically sampled from which interviews were conducted. Group interviews were also carried out in each community with members of Water User Committees (WUC), while 16 water points were technically assessed using a technical water evaluation questionnaire.

Two Focus Group Discussions (FGDs) of female and male members were organized in each community. Interviews were also conducted with project and sector staff.

Each community was qualitatively assessed using a questionnaire.

Project documents were consulted to obtain information on rules and sector policy insights.

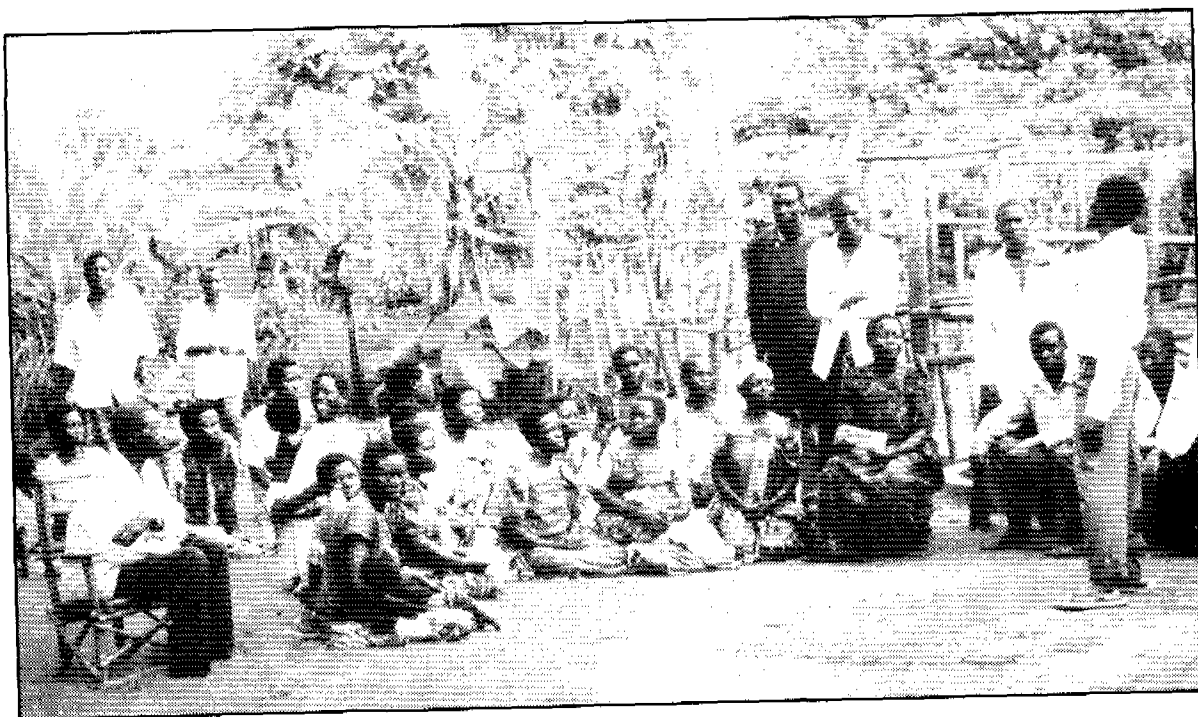
FINDINGS

From the analysis, findings were determined on the following basis:

- Responsiveness to Demand,
- Factors/Rules in Project Implementation,
- Sustainability of projects, and
- Institutional Rules and RWS.

Community Selection and Prioritization Criteria

- Overall, no strict rules were followed within RUWASA I.
- The only pre-condition of minimum latrine coverage before water provision was effected during project implementation.
- The rest of the requirements were initiated during project implementation as guidelines.
- RUWASA I was supply-driven.
- Project idea externally initiated, but community consent and participation was sought before project implementation.



Community consultation in progress

RESPONSIVENESS TO DEMAND

Three categories of rules relating to demand responsiveness were considered in this study:

- Community selection and prioritization criteria,
- Technical options and service levels, and
- Financing policy.

Technical Options and Service Levels

- No technical options were offered to users.
- Users were not informed of the capital costs involved.
- Users participated in locating the sites for the facilities.
- Final decision rested with the project technicians depending on technical considerations.

Financing Policy

- No cash contributions were required up-front.
- Cash contributions (non-standardized) were required to feed construction workers and for Operations and Maintenance (O&M).
- Labour and in-kind contributions (non-standardized) were solicited during construction.

FACTORS/RULES IN PROJECT IMPLEMENTATION

Construction and Supervision

- Minimal community role in construction and supervision.

Operations and Maintenance

- Full community involvement through a system of committees, caretakers, area-based mechanisms, and by-laws.
- Backstopping support provided by project staff, partners, district staff, and extension workers.

Training

- 50.4% of household respondents, or a member of their household, had attended training sessions.

Asset Ownership

- All communities (100%), and 80.9% of household respondents thought the water system belonged to them.

SUSTAINABILITY OF PROJECTS

Indicators of Sustainability

Five indicators were used in the study. They are:

- Physical condition of water source and quality of service,
- Consumer satisfaction,
- O&M practices,
- Financial management, and
- Ability and willingness to sustain the water supply system

Physical Conditions/Quality of Service

- High Physical Conditions Scores (SPC) found 64.5% of the systems had not failed in the one year preceding the study.
- No system had failed four or more times during the last year.

- However, environs of the water systems were often poorly cleaned especially the protected springs.

Consumer Satisfaction

- 70.3% of households had not used any other source, or if at all, only irregularly.
- 77.7% households were satisfied with the yield of their sources
- 84.0% and 78.1% of household respondents rated the water color and taste/texture, respectively, as good.

Operation and Maintenance Practices

- Low frequency of system failures (see above).
- Quick response to repair requests (50.0% of the communities reported that breakdowns took only one day to repair).
- O&M personnel existing and functional. (87.5% of the communities had a functioning caretaker and a treasurer, while 93.8% affirmed the existence of technical assistance whenever needed).

Financial Management Practices

- No operational bank accounts (only a treasurer existed).
- No fixed tariff on users. Contributions only solicited when there are breakdowns.
- No savings. No preparedness to deal with major breakdowns.

Ability and Willingness to Sustain System

- 38.3% of the households had never paid any contribution towards maintenance.
- Compared to about half who thought it was fair, 24% of those who had contributed thought the cost of maintenance was expensive.
- 70.8% of those who ever contributed to O&M had not found difficulties in raising the contribution.
- 56.3% and 75.0% of households and communities respectively thought their communities had no capacity to replace their systems when they become obsolete.
- 66.6% of respondents expressed willingness to pay more than they were paying to finance improved service.

- Willingness to sustain system was generally higher for protected springs and dug-wells than boreholes.
- Average score of overall sustainability was 6.02 (on a scale 1-10, weak-strong).

INSTITUTIONAL RULES AND RURAL WATER SUPPLY

The study focused on the relationship between Project Rules applied in RUWASA and the demand responsive indicators for sustainability in relation to the rules. However, the study may have been too soon to meaningfully judge the sustainability of the water systems which are not more than five years old in the case of RUWASA I. The findings can be summed as follows:

Project Initiation and Sustainability:

- High scores were found to be positively related with high levels of:
 - consumer satisfaction, and
 - willingness to sustain water system.
- Communities where people participated in the decision-making and perceived the project idea as their own, were more likely to be satisfied with the water systems and hence more willing to sustain it.
- However, high scores were negatively correlated with O&M practices. No significant relationship was found between project initiation and physical conditions of the water source as well as the financial management practices.

Informed Choice

The three sustainability indicators that tested positively to informed choice were:

- physical condition of the water system
 - consumer satisfaction, and
 - willingness to sustain the system.
- No significant relationship was found between informed choice and O&M, or financial management.

Contribution of Cash

- Communities that scored high on contribution of cash towards O&M were found to have:
 - Better O&M and financial management practices.
- The implication is that where community members are required to pay cash contributions, they are more likely to be keen to ensure that their money is put to good use.

Contribution of Labour

- Communities which scored high on labour contributions were less likely to have:
 - Satisfied consumers,
 - Better O&M and financial management practices.
- Similarly, significant correlation was neither found between labour contributions and physical condition of water source nor willingness to sustain the system.



Community participation through contributions

Training of Committees:

- Training at household level was found to be positively significant related to:
 - consumer satisfaction, and
 - willingness to sustain the system.
- No significant correlation between trained community members and physical condition of the water sources, or with O&M and financial management practices.

Gender Analysis

- No significant difference between men and women in the participation of project activities apart from the tendency for women to contribute more toward building the systems, while men participated more in training sessions.

CONCLUSION**What worked?**

- Effective mobilization, sensitization, and actual involvement of users in implementation.
- Clearly established O&M structures and guidelines.
- Training, both at household and community level.

What other factors explain the observed sustainability?

The newness of the systems.

What did not work?

- Pre-condition of latrine coverage - this served to increase latrine coverage/ installation, but not necessarily sustainability and usage of latrines.
- Existing financial management by communities does not guarantee long-term sustainability; no preparedness for major repairs and replacement.

IMPLICATIONS FOR FUTURE PROJECTS

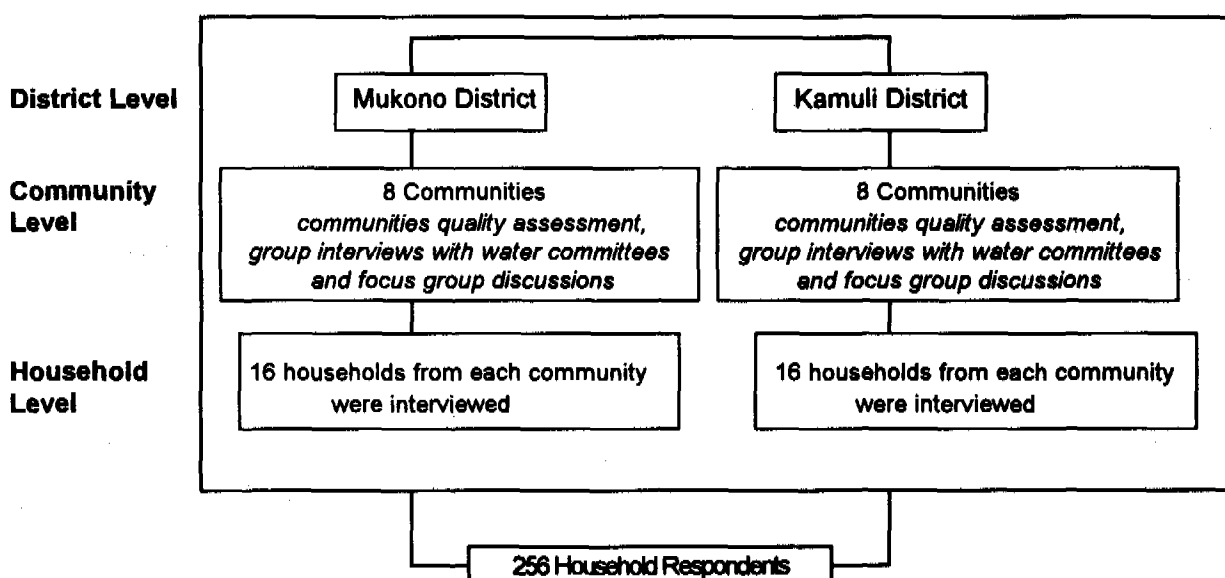
- Overall sustainability was relatively high with only 'scattered' attributes of demand responsiveness; it could be higher with greater demand responsiveness.
- Need to provide financial management information in order to generate savings and promote system security; hence a possibility of long-term sustainability.
- Need to make the post of care-taker a paid one to ensure responsibility and accountability for routine maintenance.
- Effective implementation of software before hardware will contribute greatly to sustainability.



Repair of pump by a caretaker

DATA MANAGEMENT AND ANALYSIS

METHODOLOGY



Reference:

An Analysis of the Impact of Institutional Rules on Rural Water Sustainability. Uganda Country Report
N. Asingwire, D. Muhangi, July 1997

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