

Using Mobile Phones for Monitoring Functionality of Rural Water Sources In Uganda

WSP- RWSN Webinar Series

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Introduction

- ❑ Mobile Phones for improved access to water (M4W) is an initiative aimed at improving functionality of rural drinking water sources. <http://m4water.org/>
- ❑ A multi-stakeholder collaborative initiative:
 - SNV, IRC/Triple-S, Makerere University, Water Aid, Ministry of Water
- ❑ Implementation being done in 8 districts:
 - Lira, Kabarole, Arua, Kasese, Kyenjojo, Masindi, Amuria, Katakwi
- ❑ M4Water objectives
 - Improving efficiency in reporting faults
 - Triggering action for response to non-functional sources
 - Improving efficiency in updating information systems

Main System Uses

☐ Monitoring data

- Data collected on status of water points
- Data stored in the District Water Manag't Info Systems
- Data may be used for updating the national database

☐ Reporting faults

- Care taker or community member sends an SMS to 8888
- System prompts HPM to conduct an assessment
- Spare parts bought, fixed, water source repaired

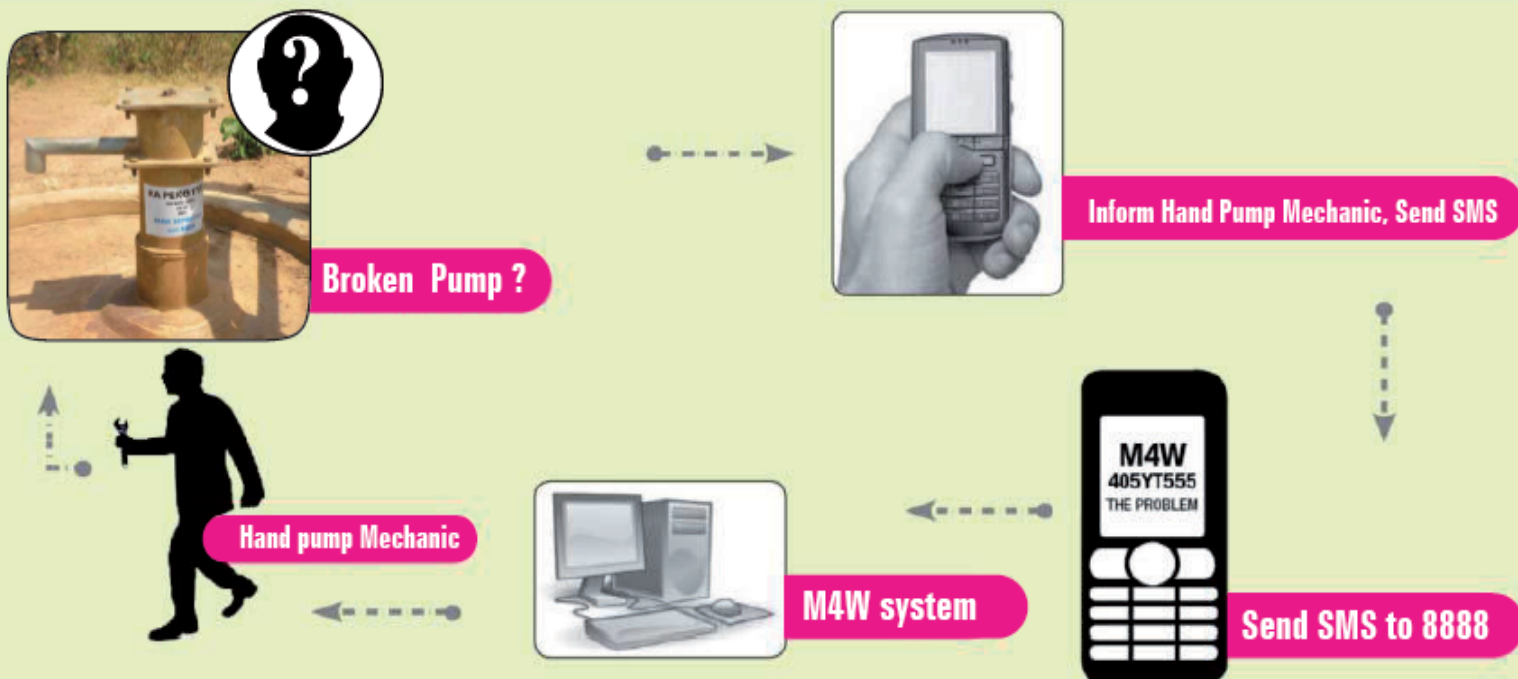
☐ Inspection information

- H/As collect sanitation information
- Information is sent into the system at district
- Information collected based on MWE guidelines

Reporting a Fault

M4 Water System

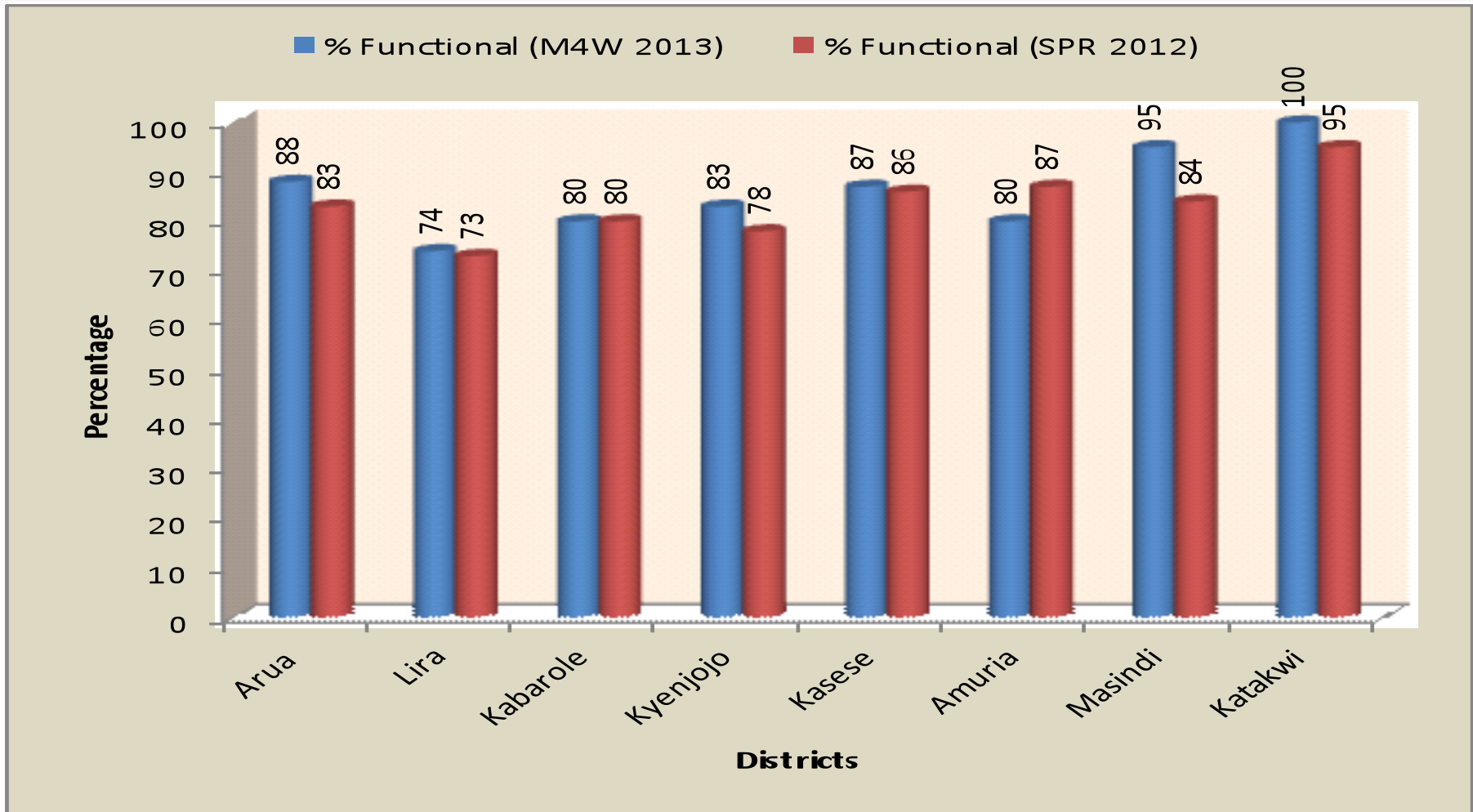
Improving functionality of water points for increased access to safe water



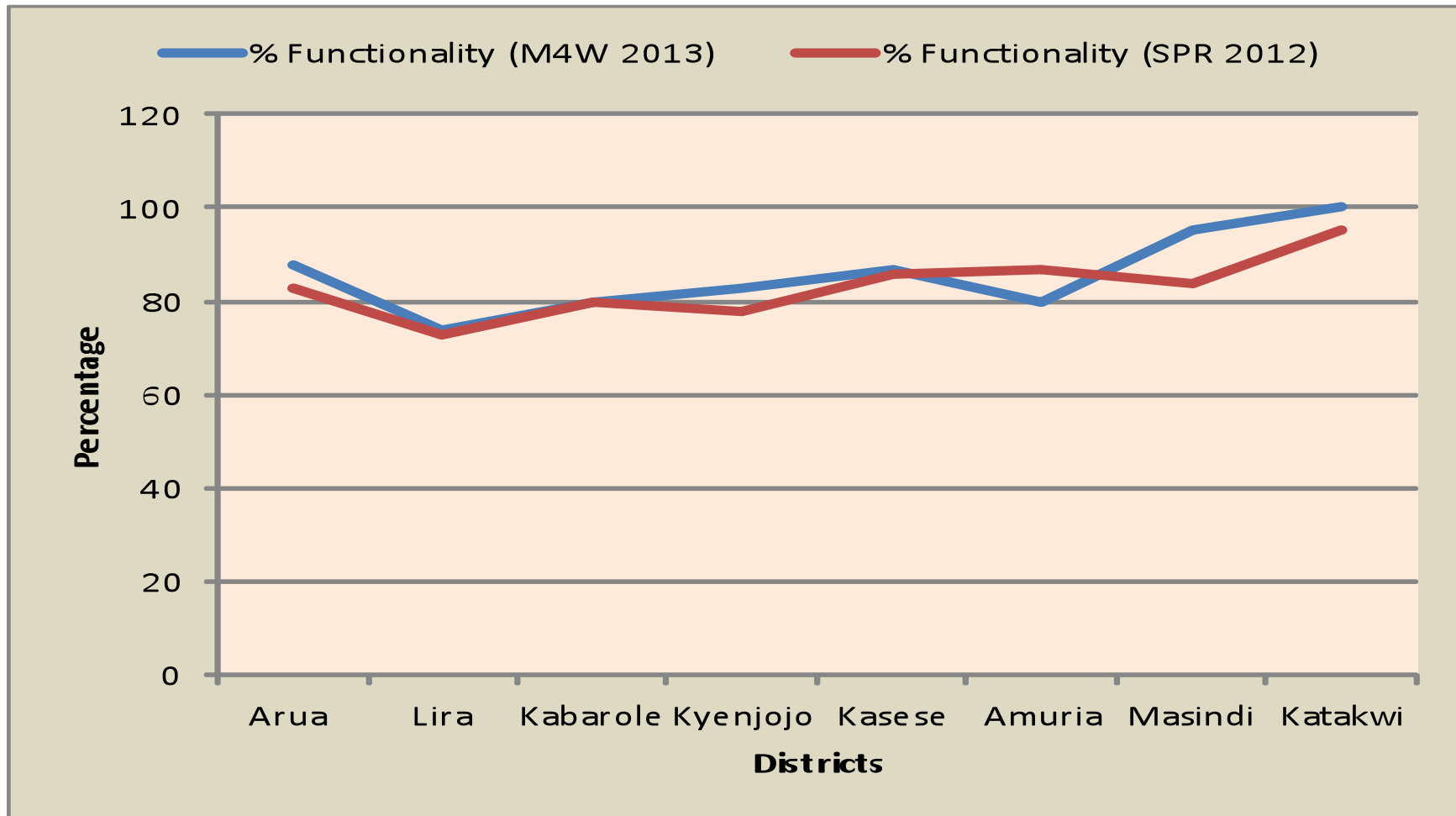
Key Achievements

- ❑ Aailed data for management of water sources
 - District Water Officers can regularly monitor functionality
- ❑ Average response rate has improved
 - Closed tickets in the M4W system at <http://m4water.org/m4w/>
- ❑ Community involvement in O&M
 - Water User Committees collecting funds from users
- ❑ Reduced costs of acquisition of data
 - Cheaper to update District Water Management Information Systems

Functionality (M4W vz SPR)



Improved Functionality?



Uniqueness of M4W System

- ❑ Monitoring component tracks national indicators
- ❑ Uses government structures at national & district
- ❑ Provides instant data for updating databases
- ❑ Data collection at local level, reporting at national
- ❑ Data easily accessible to the public (<http://openxdata.org>)
- ❑ Encourages community involvement in Operations and Maintenance activities

Costs for Nationwide Deployment

No.	Item Description	US \$
1	Hardware (280,000 for 1,400 Sub Counties)	156,800
2	Insurance (10% of Hardware) @ year	15,680
3	Data collection (2000/= @ for 144,000)	115,200
4	System Support (5M @ month for 1 year)	24,000
5	Data Center (500,000/= @ month for 1 year)	2,400
	Training and support costs (eight districts)	51,824
6	Total Projected for Initial Deployment	314,080
7	Subsequent Recurrent Costs @ year	46,080

Emerging Issues/Challenges

- ❑ Cost of rolling out the system to the community
 - Community sensitization to encourage ownership
- ❑ Capacity building on system use
 - Retraining of District staff and the HPMs
- ❑ Need for uniform Unique identifiers
 - Consultations with Ministry of Water and Environment
- ❑ Network connectivity issues
 - Toll free line sought in consultation with Ministry of Water
- ❑ Sustainability of the system
 - After roll out of M4W, institutional home to be MWE



Thank You!