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**TRANSFORMATION TOWARDS SUSTAINABLE  
AND RESILIENT WASH SERVICES**

**Getting the message across: an experiment in radio-based  
water resources management education in Malawi**

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*Recent studies have recommended leveraging on the potency of media advocacy in attaining the goals of sustainable safe water as key to healthy and prosperous communities. This paper describes the experience of trialling a 6-week radio pilot focussed on water resources management and tracking its effectiveness using SMS technology and field interviews with radio listener groups. Despite a short broadcast period, the radio pilot registered measurable traction with audiences due to a 56% response rate to the SMS tracking system, evidence of behaviour change at village-level and cases of unsolicited queries from the general public demanding for more information. Though effective, any radio-based intervention, at-scale, has to be complemented with field support to receptive communities that could act as model villages. This could be achieved through close collaboration with local government extension networks and the establishment of a community of practise to act as a referral system for queries.*

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## **Background**

Malawi is a Southern African country with a burgeoning population of close to 16 million, 80% of whom live in rural areas. Even though government records report a national water access rate of between 83% - 85%, such figures belie a dire non-functionality rate whereby 30% of water supply systems are not functioning at any one time. Additionally, as a result of dwindling water resources and severe natural disasters, there is a growing awareness within Malawi's water sector of the need for a paradigm shift towards actionable integrated water resources management from the household to national level. However, with the current financial and human resources constraints, such a paradigm shift will require a cost-effective approach that could educate the wider populace and create a space that connects many voices with the right knowledge/capacities to ensure sustainable services and resources for the long term. One common pathway for mass education has been through the use of media advocacy.

Recent studies have recommended leveraging on the potency of media advocacy in attaining the goals of sustainable safe water as key to healthy and prosperous communities. Unlike channels of communication e.g. public relations, media advocacy emphasizes the constructive engagement of the media in championing one or several development-related goals in a structured or ad-hoc campaign. Certain information may be directed towards decision-makers whose support is needed to influence policy, while different but related information is aimed at current or potential audiences in order to avert a particular social challenge, in this case, the water resources management challenges in rural Malawi. Radio is considered a prime electronic medium of the rural masses, because it crosses barriers of isolation and illiteracy, and is the most affordable form of mass media advocacy for proliferation of social and economic benefits which result when ordinary people have access to, and act on, appropriate information.

It is against this background that BASEflow, in partner with the University of Strathclyde and with financing from the Scottish Government's Climate Justice Fund (CJF), embarked on a radio pilot to determine the effectiveness of using community radios as a pathway for communicating information around improved water resources management to the rural poor, especially the hard-to-reach. The radio pilot was trailed in mid-2017 and focused on 13 districts in Southern Malawi. This radio pilot not only provided an opportunity to test a critical dissemination pathway for user communities to translate the breadth of technical

information into everyday life, but could further contribute to existing knowledge by giving an exemplar of how to implement a mass media advocacy model for generating community support for changes in community norms on water challenges in Africa.

## Implementation methodology

### Partnership arrangement and coordination

BASEflow leveraged the experience, expertise and networks of local partners and stakeholders, prior and during implementation. Ranging from contractual to non-contractual arrangements, these partnerships/arrangements were based solely on the need for a specific capacity to deliver specific tasks at each stage of implementation. These stages of implementation, and their associated key tasks, were as follows:

#### *Pre-broadcast stage*

- Technical production of the radio pilot including theme song/jingle development
- Development of impact monitoring strategy for collecting gauging listener reception/feedback
- Mobilization of Water Point Committees into Radio Listener Groups
- Identification and contracting of 6 community radio stations with southern region coverage

#### *Broadcast stage*

- Regional broadcast of the radio pilot on the community radio stations
- Collection and collation of general public and listener group feedback

#### *Post-broadcast stage*

- Evaluation of Radio Pilot Effectiveness
- Documentation and submission of evaluation results and recommendations to funder
- Distribution of incentives to general public and listener groups

Partner name	Partner type	What key role did they play?
WASH Media Forum	Local non-profit network of journalists	Production of radio pilot, support establishment of Radio Listener Groups
Umodzi Consulting	Local for-profit consulting firm (URL: <a href="http://www.umodziconsulting.com/about-us">http://www.umodziconsulting.com/about-us</a> )	Train listener groups in how to respond to the SMS system, collect and collate feedback from the general public, conduct focus groups discussions to evaluate series' effectiveness
District Water Officer's Forum	A public sector network of water officers	Identify and mobilize Water Point Committees for Radio Listener Group training

BASEflow's overall role involved project management, thought leadership, strategic guidance and relationship building to facilitate cohesive management all the *moving parts* of the radio pilot to ensure clear directional focus and field effectiveness.

### The Madzi Ndiye Moyo radio pilot

The radio pilot comprised of 6 (six) - 5min radio spots under the program name, *Madzi Ndiye Moyo (Water Is Life Itself)*, which is a derivative of the common slogan, *Madzi Ndi Moyo (Water Is Life)*. Each episode had the follow key elements/segments:

- A theme song, *Madzi Awo! (There is the water!)* was created to differentiate the radio pilot from other radio content and, thus, create audience recognition.
- A welcoming female 'story-teller', with a 'can-do' attitude, providing the information in local language. This was a recommendation from the WASH Media Forum based on their experience creating edutainment programming.

- Music, from the “Water Is Life” album<sup>1</sup> by the Wailing Brothers, interspersed throughout the radio spot. Each song had a message that was directly related to the episodic theme, further emphasizing the message through song.
- Short radio sketches exemplifying the focal topic for the day, where applicable, to illustrate the message within the episode through role play and add variety to the episode.
- Competition segment where 10 people each week would win a cap if they provided the best response to a simple question. To get the question, listeners were encouraged to send an SMS text message with the word “Madzi” (meaning “Water”) to a designated number, 5338, following which they would receive and respond to the question “What did you learn today?”. The listeners would then respond by providing: Their Name, District where the listener was writing from and Answer to the question. The text message responses would be collated for analysis on the Esoko SMS Tracking system<sup>2</sup>.

The format, above, was developed in consultation with the WASH Media Forum, leveraging their experience and knowledge of what was feasible given the nature of the content. The choice of the 5-minute episode length was based on deliberate to ensure maximum content retention, which was further enhanced by focussing on one specific topic delivered in simple jargon-free language. The 6 episodes, in chronological order, were:

- Episode 1: Importance of Groundwater in Rural Malawi
- Episode 2: Floods and Drought
- Episode 3: Drilling Practice
- Episode 4: Borehole Banking
- Episode 5: Permaculture and the Water Resources Act
- Episode 6: Climate Change Resilience

Besides being focal areas of the CJF programme, the topics were also identified as key areas of probable local community (ground)water-related interest that could generate engagement value.

### **Radio listener groups**

The purpose of these listener groups was to (i) gauge general reception; (ii) assess level of message/content retention and; (iii) further ascertain any evidence of behaviour change as a result of the radio pilot at village-level. Following discussions with the District Water Officer Forum leadership, it was agreed that the listener groups be distributed across 9 separate districts, one group in each, to ensure diversity of feedback across the target Southern Region of Malawi.



**Photograph 1. One of the radio listener groups**

Source: BASEflow photo library

To ensure objectivity and undue influence/bias, BASEflow engaged Umodzi Consulting to lead on setting up the listener groups in the districts in close coordination with the District Water Officer forum. Resultantly, no BASEflow or WASH Media Forum representative participated in the establishment of the listener groups as both parties had an inherent interest in the radio pilot succeeding. The listener group training attracted 60 participants including water point committee members, District Water Officers, local extension workers from the participating districts. Due to budgetary constraints, the listener group trainings were conducted for no more than 3 hours each and the 9 districts were clustered into 4 groups for ease of access and cost effectiveness.

In addition to providing information about the radio pilot, the listener groups were further oriented in the Impact Monitoring Strategy for the radio pilot; specifically, a series of 5 weekly questions which each member would receive, and respond to, via SMS. The questions were as follows:

- Did you like the programme?
- If YES, what did you like the most about this week's programme?
- If NO, what did you dislike the most about this week's programme?
- Why didn't you listen to the programme?
- If YES or NO, what radio station were you listening to?

Post-broadcast, Umodzi Consulting conducted Focus Groups Discussions with the 4 most responsive listener groups, based on number of SMS responses to the 5 questions abovementioned. The purpose of the group discussions was to further ground-truth the SMS feedback at village-level particularly message retention and evidence of self-adoption of new behaviours. To guide the discussions, the following questions were devised:

- Which was your favorite episode?
- Which was your least favorite episode?
- Was there anything new you learnt from the program that you didn't know? If yes, what?
- Have you applied anything you heard from the program? If yes, what? If not, why not?
- Is there a radio station you would have preferred the program was on?
- Is there a similar radio program that you listen to?
- How does it compare with *Madzi Ndiye Moyo*?
- If you could change one thing about the programs – what would it be?
- What message really made a difference in your life?

Lastly, BASEflow followed up with 2 listener groups to perform a recall test to assess the level of content retention and maintenance of newly adopted behaviours, 4 (four) months after the end of the radio pilot.

## Key results and findings

### Radio listener groups

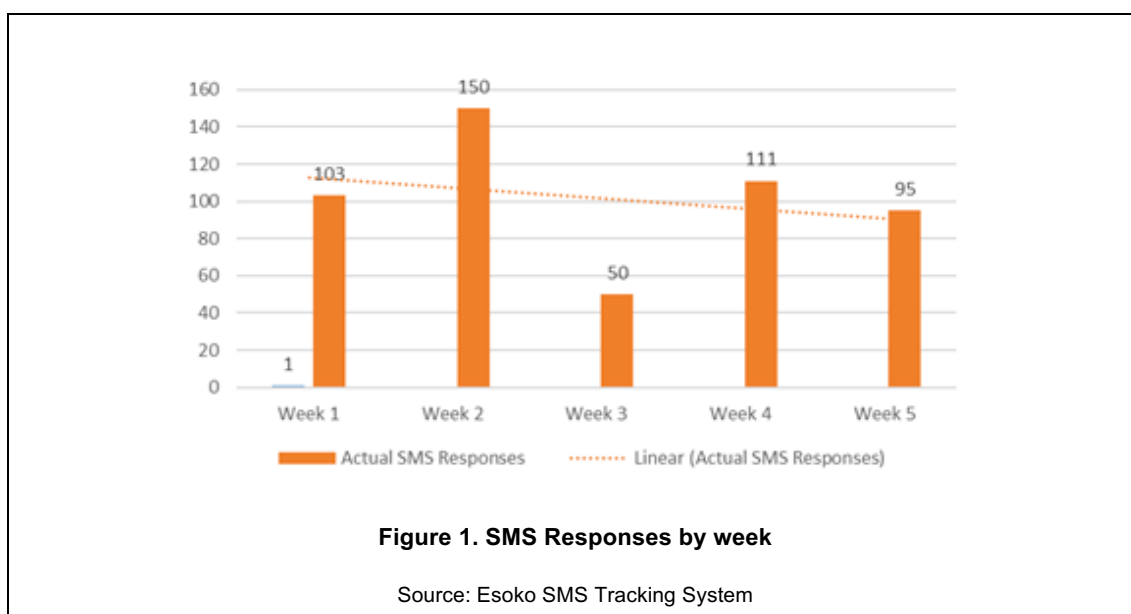
4 focus groups discussions, with 49 listener group and community members, were facilitated across 4 districts where the most responsive listener groups were located. All 4 groups indicated that there were no similar radio programs they were listening to, proving the uniqueness of the radio pilot. Additionally, the groups indicated that the borehole banking (60% of mentions) and permaculture or wastewater reuse episodes (40% of mentions) were the ones that made a difference in their lives. However, in terms of what they had actually applied in their lives: reforestation (67% of mentions), permaculture (17% of mentions) and borehole banking (16% of mentions) were highlighted. One interesting observation was that listener groups preferred national broadcasters (100% of mentions) and not community-based operators which *goes against the grain* as regards perceived listener preferences. Further to this, the groups unanimously indicated that episode's duration, of 5 minutes, was too short and requested for longer and more comprehensive content (10-15 minutes being the most preferred).

Lastly, the recall test revealed, and verified, that only one of the two listener groups still practiced what they had learnt through the radio pilot, i.e. permaculture or wastewater reuse, while the other group had trouble remembering the content of the episodes let alone what they had learnt. Through further interrogation, our observation was that the difference in level of content retention and maintenance of new behaviours between the two listener groups could be attributed to differences in (i) level of involvement of community leadership whereby the group that had positive involvement of the local chief showed higher motivation to adopt new behaviours as compared to the group where the chief was visibly disinterested and; (ii) the age of the listener group members which ties in with willingness to innovate whereby the more

elderly the members the more set they are in their ways of doing things. However, this assertion should be subject for further research to ascertain the validity of this claim.

### General public response

The SMS tracking system registered a total of 875 *Madzi* requests for the competition question with 492 responding to the question representing a response rate of 56%. During the radio pilot, Umodzi Consulting submitted weekly response reports, through email, providing a quick overview of the volume of SMS traffic. Refer below for the SMS response overview by week:



Despite instructions to the contrary, a large majority of SMS texts did not include their district of origin in their SMS text message which made it difficult to assess coverage of the radio pilot. However, using the list of best weekly responses, the district distribution, by proxy, indicated audience listenership in 10 of the 13 Southern Region districts and 2 districts outside of the target region, all in the Central Region of Malawi.

### Unsolicited feedback

During the broadcast of the radio pilot, BASEflow also received unsolicited feedback from listeners concerning areas requiring improvement or enhancement in case of future programming. These were as follows:

- *“I wanted to propose ..... adding the element of ‘Drama and Music’ in a 10- 15-minute radio slot in order to attract more attention and flavor, as it would bring variety in the production of the slots”* – District Water Officer
- *“These are important issues! It would be better if each topic was explored over several weeks rather than in short episodes.”* – phone call from listener group member
- *“Encouraging people to collect money to start a borehole bank where they charge interest on borrowed money is haram according to Islam”* – anonymous listener, WhatsApp Voicenote

Additionally, one of the community radio stations received 10 walk-in queries from community-based organizations seeking clarification and material support to address specific development challenges whose solution were mentioned in the radio pilot. Though being referred to BASEflow, only one organization followed through with their query.

### Lessons learnt and recommendations

Evidently, the radio pilot registered measurable traction with the general public and village-level groups, based on the SMS tracking and field interviews, and further validated the potential of radio as a powerful medium for addressing the challenges of non-functional handpumps, dwindling water resources and increased severity of natural disasters. Further to this, the consistent feedback requesting for more

comprehensive content, with added variety, and the number of unsolicited queries, proves that there is an unmet appetite for radio-content which speaks to local realities and provides actionable solutions around water resources management. However, despite these positive strides given its short 6-week broadcast, the radio pilot design did not consider the possibility of general public queries for more actionable information; an oversight which was a missed opportunity to extend the impact of the radio pilot.

Additionally, the recall test provided intriguing insights into enablers for positive behavior change e.g. involvement of community leadership; however, communities need accessible hands-on guidance to encourage and motivate them through the stages of behavioral change, particularly communities that are struggling to internalize the said behavior. Thus, radio-based interventions may trigger behavior change, but cannot maintain it in the long term.

As such, we recommend, building off these lessons and experiences, that any potential scale-up of radio-based interventions around water resources management must:

- Extend the duration to no longer than 15 minutes and incorporate edutainment elements including theme song, radio play segment that follows a single community/family as it learns better water resources management approaches, phone-in segment (including SMS) where listeners engage with technical experts and a competition segment to encourage audience feedback.
- explore a feedback or referral mechanism which directs listeners to a community of practice: a team of experts in key dimensions of water resources management, where they can access technical advice tailored to their local situation. Alternatively, this could be explored through having interactive episodes where members of the community of practice respond to phone-ins or SMS messages in real time.
- Be complemented by field-level support for target communities through an existing local government extension network. This complementary function could potentially also help create a cluster of model villages in integrated water resources management that neighboring communities could learn from within their vicinity.

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## Notes

<sup>1</sup> URL: <https://itunes.apple.com/gb/album/id1169084450>

<sup>2</sup> Esoko is suite of mobile and web-based tools for data collection coupled with field deployment; URL: <https://www.esoko.com/>

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