



# BASEflow

## ANNUAL REPORT



2022



## 2022 - OUR YEAR OF RECOGNITION

Each year brings something new. In our first two years, we focused on getting started, clarifying who we wanted to be, and, most importantly, defining what set us apart from other organisations. Subsequent years (or *the growing years as I like to call them*) have been about finding our niche and navigating an ever-changing world rattled by pandemics, political upheaval, and uncertainty.

Now that another year has come and gone, I am proud to report that 2022 will forever be *our year of recognition*, when three hundred and sixty-five days of ideas, work and action were noticed, both locally and internationally.



**MUTHI NHLEMA**  
Team Leader







The year started on a great note with our WESNET Award. Then Malawi was hit by Tropical Storm Ana where, in addition to the loss of lives, we had boreholes contaminated, hand pumps destroyed and thousands of vulnerable people trapped in a cycle of water poverty. Our assessments led to a coordinated response in Nsanje and Chikwawa Districts, together with our partner COOPI.

Climate change is a threat to our vision of a world where no well runs dry. Persistent drought, tropical storms and devastating flash floods threaten rural groundwater supply. We cannot stand on the sidelines and simply watch or collect data, we have to drive the conversations, action and solutions!

While BASEflow was recognised for our contributions to date, we now have an even greater responsibility to act. As we enter 2023, the final year of our Strategic Plan, my indomitable team is reflecting on what the new realities of climate change mean for our work and how we must evolve to meet the existential challenges. If *the growing years* taught us anything, it is that being bold, open, innovative, and willing to collaborate will take us to a more sustainable and resilient water future.

**"I want BASEflow to be the kind of organisation that ACTS, not just talks."**

### TIMELINE 2022

-  **January**      Awarded *Most Active Water and Sanitation NGO in Malawi* by WESNET
-  **February**      Dedicated Ministry of Water & Sanitation established
-  **March**      Delivered keynote address at the National Water Conference themed "*Groundwater: Making the Invisible Visible*"
-  **August**      BASEflow wins the Global MINIMAX Competition (WASH Category)
-  **October**      Invited to chair session on National WASH Management Information Systems across Africa at the IRC *All Systems Go Symposium* in Accra Ghana
-  **December**      Presented at the UN-Water Summit on Groundwater on invitation of RWSN



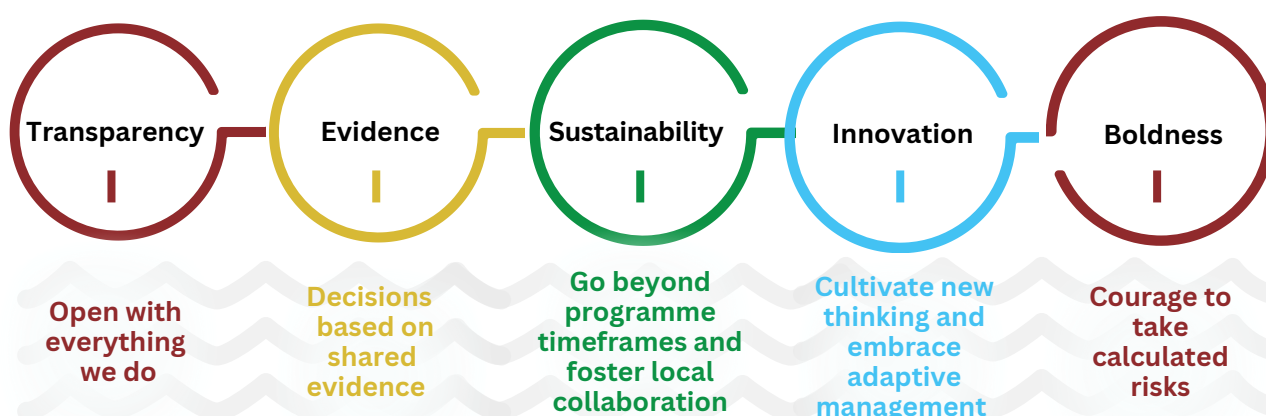


# PROFILE

## WHO WE ARE

BASEflow is a Malawian NGO and social enterprise working to improve the sustainability of groundwater sources for rural populations to access safe drinking water. Since February 2017, BASEflow has empowered public and private sector actors with the appropriate knowledge, skills, technologies, and innovations to sustainably harness groundwater. Our slogan, *(re)discover groundwater*, highlights the need to reimagine our understanding of groundwater and leverage it sustainably to meet the ever-increasing demand for this resource. Our team of specialists focuses their time and efforts to address technical, social, and institutional barriers that limit sustainable groundwater supply for future generations. To multiply our reach, we collaborate with like-minded organisations such as the Rural Water Supply Network (RWSN) and Water and Environmental Sanitation Network (WESNET).

## BASEflow Core Values



## Our 2022 Achievements at a Glance

**4,207**

water point functionality status updates by other organisations using their own resources

**159**

groundwater and surface water monitoring stations mapped across Malawi

**2,283**

people reached with flood-proof hand pumps

**51**

boreholes remediated/ decommissioned as a result of borehole forensics work

**226**

health workers trained in how to operate 100 Bleachmakers installed in 42 health facilities across Malawi

**22**

new boreholes installed under BASEflow supervision





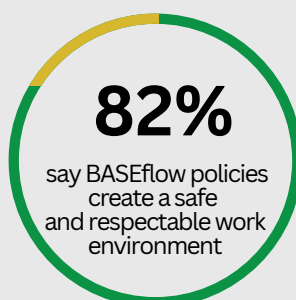
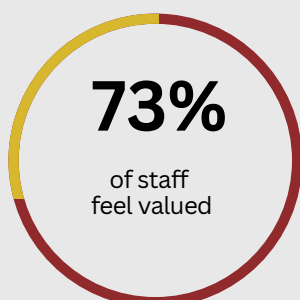
# OUR TEAM

**Top Row L to R:** Rhodrick Sagawa (Data Quality Coordinator), Tikhala Chiwaya (Resources Officer), Hector Chilimani (Ecosystem Services Program Specialist), Paul Kumpukwe (Data Quality Supervisor)

**Middle Row L to R:** Alinafe Kachali (Marketing Intern), Rodney Kananji (Data Quality Coordinator), Given Ngwira (Assistant Hydrogeologist), Feston Bwanyula (Assistant Hydrogeologist), Florence Chuka (Admin and Resources Intern), Mackenzie Banda (Driver/Project Assistant), Baleke Banda (Data Quality Coordinator), Steve Kumwenda (Program Specialist-Hydrogeology)

**Bottom Row L to R:** Thokozile Kamanga (Marketing Intern), Veronica Chinangwa (Data Quality Supervisor), Muthi Nhlema (Team Leader)

## Staff Satisfaction Survey 2022





# NGO

## STARTING AN HONEST DIALOGUE

The National Focal Group for Groundwater facilitated a Policy Dialogue on Groundwater Development and Management. This was the first-ever national water conference with 108 state and non-state agencies looking at how to improve groundwater development in Malawi.

Discussions capped a two-year intervention where BASEflow partnered in 2019 with the Scottish Environmental Protection Agency and funds from the Climate Justice Innovation Fund to implement Community Advocacy for Sustainable Rural Water Services in Malawi in Traditional Authority Kadewere in Chiradzulu District. The project sought to empower vulnerable communities to hold rural water service providers to account for failed water supply systems and a more sustainable rural water supply.

“ It is all about respect in a sector where so many people have drilling rigs, but few have the interest or expertise to professionally engage in groundwater development. ”

### Points of Discussion:

- Forensics for 21 boreholes showed 13 (62%) did not meet government minimum standards for yield or construction quality;
- Drilling companies, NGOs, and funders do not submit drilling reports to the National Water Resources Authority (NWRA), even after multiple requests to follow the law;
- A weak political economy, inadequate drilling supervision, poor inter-stakeholder coordination, conflicts of interest, and lack of enforcement all encourage drilling companies not to adhere to national standards; and
- Across the board, there is a significant lack of technical capacity in groundwater development and management.

### Policy Recommendations:

- Borehole forensics needs to be institutionalised to check the construction quality.
- Frameworks must be developed to hold NGOs, drillers, and donors to account for poor installations (i.e., Grievance Redress Mechanism).
- Tasks need to be separated (i.e., pumping tests by independent hydrogeologists and not the drilling company).
- Due diligence on drilling company capacity needs to be undertaken and shared with the general public.
- Public awareness of Malawi's water laws, regulations, and standards for groundwater development needs to be organised by NWRA.

To learn more, contact the BASEflow Programme Hydrogeologist, Steve Kumwenda - [steve@BASEflowmw.org](mailto:steve@BASEflowmw.org) or email us - [info@BASEflowmw.org](mailto:info@BASEflowmw.org)



## PUTTING OUR MONEY WHERE OUR MOUTH IS

For decades, the water sector in Malawi was plagued with challenges of inadequate financing for district water officers, increasing demands on dwindling resources, and a persistent water point non-functionality rate of 25%-30%. Policy oversight bounced around different Ministries, despite assurances from politicians about how important water was to socio-economic development. Malawi needed a dedicated Ministry of Water and Sanitation!

Tired of the talk, BASEflow put money on the table for WESNET to support a street protest and champion efforts to lobby for a standalone Ministry.

In February 2022, the Ministry of Water & Sanitation was officially established. Reflecting on their experience, WESNET, weighs in on the role and contributions of BASEflow.



**WILLIES MWANDIRA**  
National Coordinator  
WESNET

### What role did BASEflow play?

Everyone in the water sector wanted a dedicated Ministry. People talked, but BASEflow was the first to fund the campaign and urge others to join. WESNET communicated with the authorities and a march was organised to deliver our petition to the Parliamentary Committee on Agriculture and Climate Change. Now that we have a Ministry of Water & Sanitation, we have to look at how to strengthen institutions and link with other sectors. Intentions must flow from the communities up to decision-makers. Staffing gaps need to be addressed. BASEflow has to continue to play their catalytic role, and not just at the water ministry

### What kind of partner is BASEflow?

We awarded BASEflow the Most Active WASH NGO in Malawi. They are forward-looking about our sector. They monitor the functionality of water facilities across the country and their reports are critical for policymakers and the 63% of Malawians who rely on groundwater every day. BASEflow documents issues from the quality of work carried out by drillers to lapses in how the water sector is regulated.

### BASEflow engages in rural groundwater issues – is this enough?

In the future, they might consider urban WASH. If you look at the epidemics we face, we need them. Water companies need help to bridge the gaps. Urban areas have the highest cholera numbers and this is often linked to use of unprotected shallow wells. We need to collaborate with government, private sector, academics, and everyone who can help deliver services.

### What advice would you give BASEflow?

BASEflow is a Malawian NGO and is also very active in regional forums where they clearly articulate the issues. I have seen their videos – quite exciting and influential - and the policymakers do watch them!

“ I want to see BASEflow more involved in driving policy and holding people to account. ”





## THINK OUTSIDE THE SILO

The development sector has many organisations who operate independently. While the technical focus for each *silo* may differ substantially, the challenges are similar. One of the most common issues for NGOs today is poor coordination. It happens from the districts to the national level. They often work at cross-purposes and duplicate efforts.

BASEflow produced **Connecting the Train Tracks**, an animation raising awareness about poor NGO co-ordination. The video focuses on the water sector, but the message resonates for all sectors.



The NGO Regulatory Authority (NGORA) CEO, Voice Mhone, confirmed this when commenting on BASEflow's work .

### How has BASEflow collaborated with the NGO Regulatory Authority?

We have worked closely with BASEflow on a number of initiatives like the 2018 NGO Accountability Conference. Then in 2022, they supported us to develop a video about coordination. It is sometimes hard to explain why working together is so vital, but the video did this by educating and entertaining officials across Ministries, Departments and government agencies at NGORA workshops. The video highlights the importance of linkages and illustrates the negative impacts when NGOs work in parallel to government as limited resources are lost. The video highlights this really effectively.



**VOICE MHONE**  
CEO NGO Regulatory  
Authority

// **Through videos like these, BASEflow is an enabler. They have literally helped us to understand the depth of the problems.** //

BASEflow plays a key role to bring water issues to everyone's attention. They continue to play an active role within NGORA and they push us to broaden our approach and look at the full range of results.

Interested to see the video? Visit our YouTube at <https://www.youtube.com/@BASEflow8489>



# SERVICES

## DELIVERY WITH A DIFFERENCE

The funding landscape for NGOs is extremely competitive, especially to get core costs and retain good staff. In 2019, BASEflow Services was established to provide technical services at competitive rates and generate money for overheads, reserves, and reinvestment. BASEflow offers borehole forensics, drilling supervision, water point rehabilitation, artesian well remediation, data management services, and on-site bleach production. We asked one of our most valued clients for his thoughts about how BASEflow Services is doing so far.

Habitat for Humanity in Malawi largely works on shelter and WASH. We met BASEflow through our WESNET membership and found they had good ideas on how to streamline service and meet national standards. When we advertised for assistance, BASEflow stood out from multiple applicants and emerged as a partner of choice for borehole forensics, drilling supervision, and proposal collaboration.

BASEflow guided us on how to determine the optimal number of water points per person, how many boreholes the water table can support, yields in- and out of season, water quality, and any risks of contamination. The water points BASEflow helped us to identify have sustained their yields for many years. Borehole forensics work helped us save money. We asked BASEflow to work with us on a new 3 to 5-year WASH program.



**ANOCK KAPIRA**  
National Director  
Habitat for Humanity  
Malawi

BASEflow's drilling supervision showed good results. With one project, we set out to drill 16 new boreholes. It was really important that each one was drilled to government standards. We engaged BASEflow as an independent supervisor and had no major mechanical issues. The boreholes were all entered into the mWater platform and national database.

### Is there anything you would advise them to do differently?

I don't see anything to change, but I do encourage them to retain their current staff and keep attracting the best people from the market. It is a good model for sustainability. BASEflow presents what we needed and they deliver. 'BASEflow Services stands out as 'the best of the best'.

“**BASEflow offers something different. There is expertise, diligence, and delivery on time. Sometimes they even exceeded our expectations.**”





# RESILIENCE

## Hand Pump Innovation

Malawi has experienced several extreme weather events, each a little worse than the last. While the human toll cannot be understated, the damage to groundwater-dependent infrastructure was monumental.

When Tropical Storm Ana hit in January 2022, there were 200,000 households affected. Water points were submerged or destroyed, followed by microbial contamination. Then when Cyclone Idai hit in 2019, the national database of 120,934 water points (see Sharing Water Point Data below) guided targeted rehabilitation, but simply providing data for others to take action felt inadequate. We needed to do more!

In close collaboration with COOPI and with financial support from UNICEF and the Vitol Foundation, BASEflow did field assessments of water points in flood-prone areas. Two hand pump locations were identified in Chikwawa (Mpangowalimba village) and Nsanje (Kumbukani village) to test a new idea. We wanted to flood-proof hand pumps by elevating the aprons above the flood-line to reduce the risk of damage or contamination. By December, two hand pumps were raised in time for the rainy season and we are monitoring. Whatever the outcome, we recognise that groundwater resilience is vital for human survival and innovating will be a significant part of our work as BASEflow moves forward.



BEFORE



AFTER



## Sharing Water Point Data

mWater is a free cloud-based data management platform with a suite of interoperable tools for data-collection-to-analysis pathways for decision-making. mWater uses mobile phone technology for data collection and an online portal for survey design, data visualisation and remote monitoring. Using mWater, BASEflow helped to map Malawi's 120,934 water points, 285,635 sanitation facilities, and 10,337 waste disposal sites. BASEflow works with the Ministry of Water and Sanitation and partners on updates to the system as new boreholes are drilled, aquifers identified, or damaged/non-functional water points are removed or repaired.

**For more information on how to access this database, please contact the Ministry Taskforce Chairperson, Mr. Gift Jason Wanangwa on [gjwanangwa@gmail.com](mailto:gjwanangwa@gmail.com).**

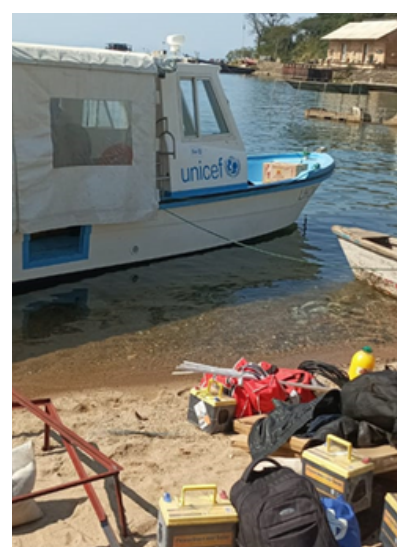
**Want to know more details about this work, visit our progress tracking console:**

[https://share.mwater.co/v3/console\\_link/70907f61dc5e44419ca2e161dceec906?share=fcbe9ee7fadb49278288a7f20902c4d4](https://share.mwater.co/v3/console_link/70907f61dc5e44419ca2e161dceec906?share=fcbe9ee7fadb49278288a7f20902c4d4)



## BLEACH REACH

In response to COVID-19, BASEflow received financial support from the Embassy of Japan and UNDP to work with the Ministry of Health to install 100 Bleachmaker units in 42 health facilities and to train 226 operators across Malawi, including on Likoma Island. Using simple electrolysis, the Bleachmaker is a low-cost portable device that uses solar-power or 12v DC batteries to convert 20L of salt water into a 0.5% chlorine concentration within 6 hours. The bleach is within WHO international standards and can be used to treat water or disinfect surfaces. Local production allows scarce resources to be used for other key ingredients in epidemic control.



“ Bleach makers need to go to more rural health facilities. ”

To learn more, contact the BASEflow Programme Ecosystem Services, Programme Specialist- Hector Chilimani - [Hector@BASEflowmw.org](mailto:Hector@BASEflowmw.org) or email us - [info@BASEflowmw.org](mailto:info@BASEflowmw.org)

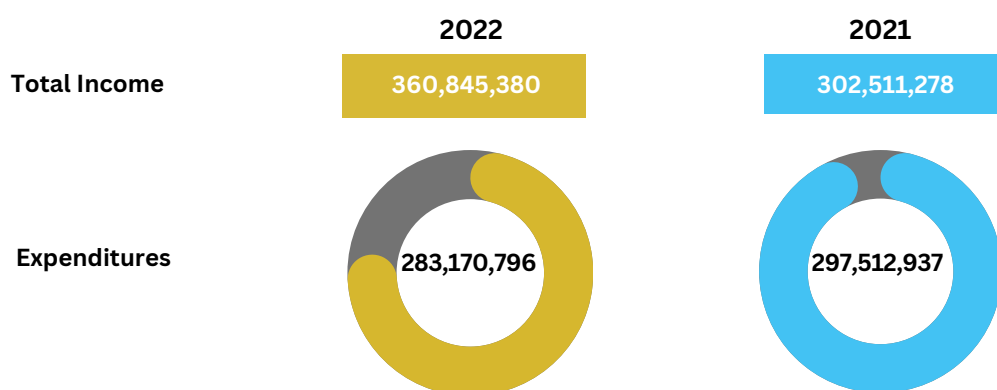




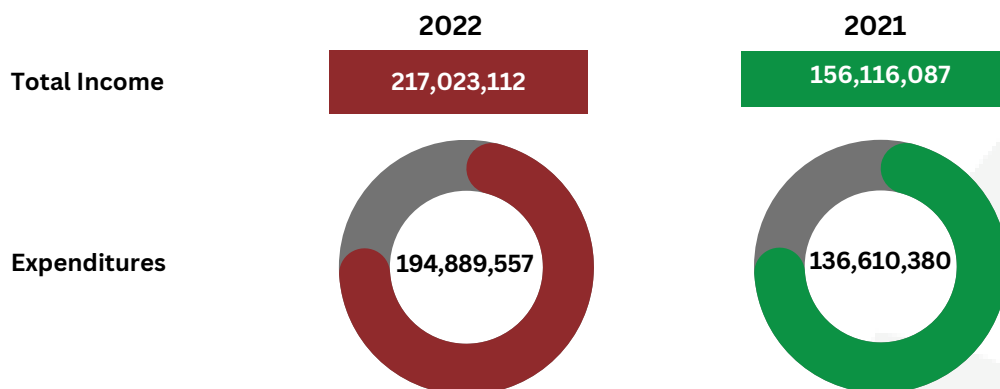
# FINANCIALS

## BASEflow Spending Profile

### NGO



### SERVICES



Our Consolidated Revenue for 2022 was 577,868,492 MWK

27%

gross profit realized from  
BASEflow services

14%

of NGO overheads were covered  
by BASEflow Services profit

5<sup>th</sup>

clean financial audit in a row



## Strategic Partners



## Networks



## Government Partners



**MINISTRY OF HEALTH**



**MINISTRY OF WATER  
AND SANITATION**





**THANK YOU**

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## Clients





# CONTACT DETAILS



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