

All systems go Africa

Improving functionality of rural community water points
through service contracts. A case of Chiradzulu district, Malawi

All systems go Africa
19-21 October 2022





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IMPROVING FUNCTIONALITY OF RURAL COMMUNITY WATER POINTS THROUGH SERVICE CONTRACTS.

A case of Chiradzulu District, Malawi



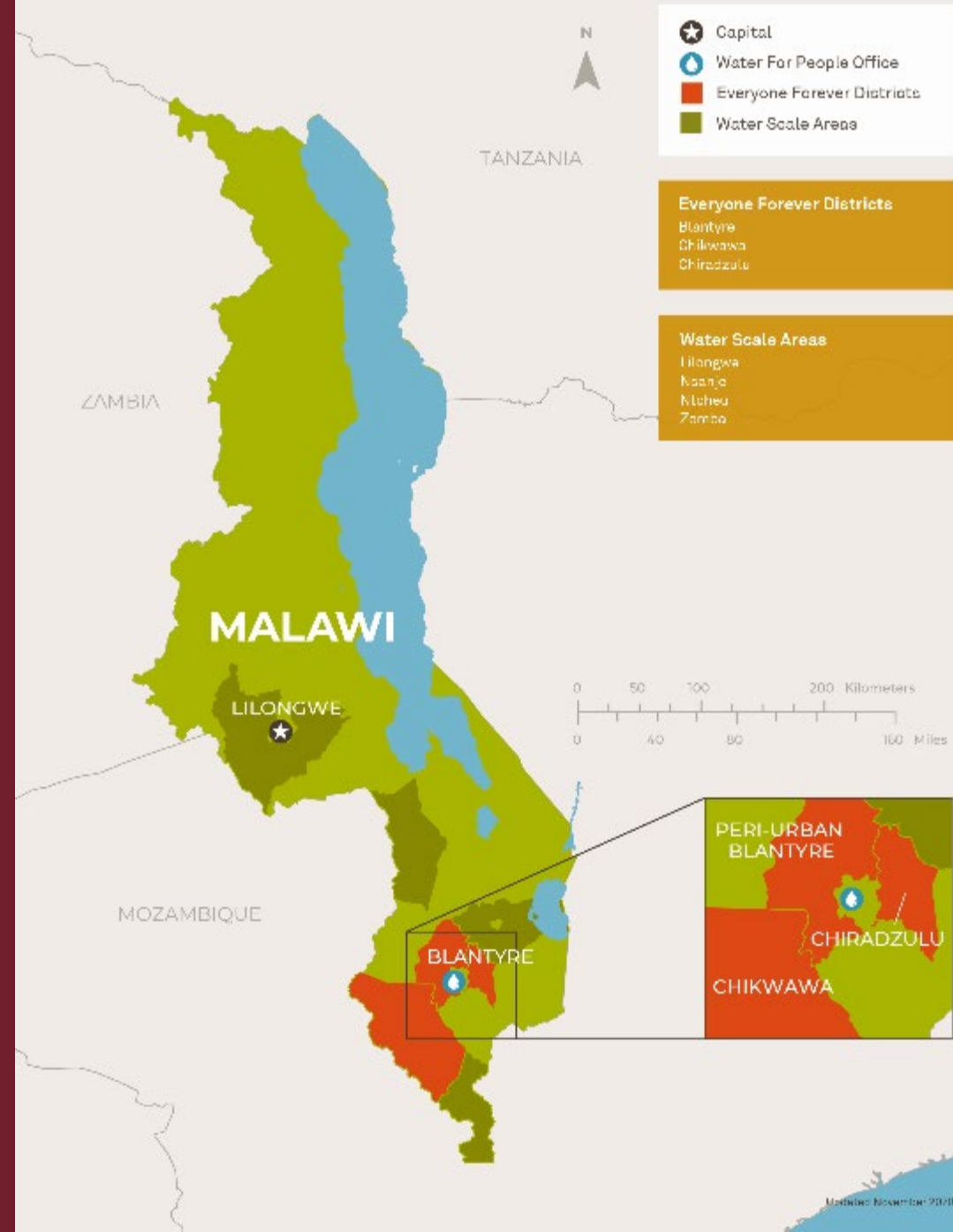
Presentation Outline

A woman is walking away from the camera down a dirt path in a village. She is carrying a large yellow plastic container on her head and a smaller white plastic container in her right hand. The path is flanked by brick buildings. In the background, there are more buildings and trees under a clear sky. A yellow brushstroke graphic is drawn across the top of the image, partially overlapping the title.

1. Background Information
2. Implementation Arrangement
3. Methodology
4. Results & Discussion
5. Lessons Learnt
6. Conclusion & Recommendation

1.0 Background Information

- Chiradzulu District is in southern Malawi, with a total population of 356,875 people.
- The district lies on the River plain to the east, while the west is dominated by highlands, valleys, and hills.
- The geology of the District, including the type of aquifers, is varied. Underground rocks are made up of weathered and fractured basement aquifers.
- Water yield in this geological formation is usually low, and the risk of a dry borehole is high.



1.1 Background information: Community Water Access

- In Chiradzulu, access to improved water source is at 89% and the majority are served through handpumps (90.1%)
- Water points are managed through community based management model: Volunteers as a water point committee
- Since the 1980s, there has been widespread adoption of community-based management in low income countries.
- Low community water service levels are some of the visible symptoms of the widespread failure of community based management.
- In 2019, Water point functionality was at 73% in Chiradzulu¹.

¹ Water For People (2019). Annual Monitoring Report



1.2 Our Approach



- Applying the Everyone Forever model, Water For People in Malawi is working to ensure that safe drinking water services are made permanent for every household, health clinics, and schools.
- The Everyone Forever model is a system-strengthening approach to water, sanitation, and hygiene (WASH), implemented at the district level with strategic influence to scale nationally.
- Since 2010, Water For People, through the Everyone Forever model has fundamentally shifted the industry's approach to the crisis while addressing Sustainable Development Goal number 6 (SDG 6) by identifying and training Area Pump Mechanics as skilled individuals to be supporting communities on major maintenance of handpumps as a business.

2.0 Implementation Arrangement - A Paradigm Shift



- Water For People, in collaboration with Basic Services Development Agency (BASEDA) a local NGO in conjunction with the service authority, is promoting the Identification and training of Area Pump Mechanics (APM) for hand pump maintenance.
- A total of **41 APMs** have been identified and trained in Chiradzulu and also supported with tool kits and bicycles.
- Initially, repair contracts were for major repairs only which had less impact on improving the functionality of community handpumps.
- The service contracts allow handpumps to undergo preventive maintenance to improve their functionality and increase their life span = communities still have access to improved water sources overall

3.0 Methodology

Levels of service² metrics:

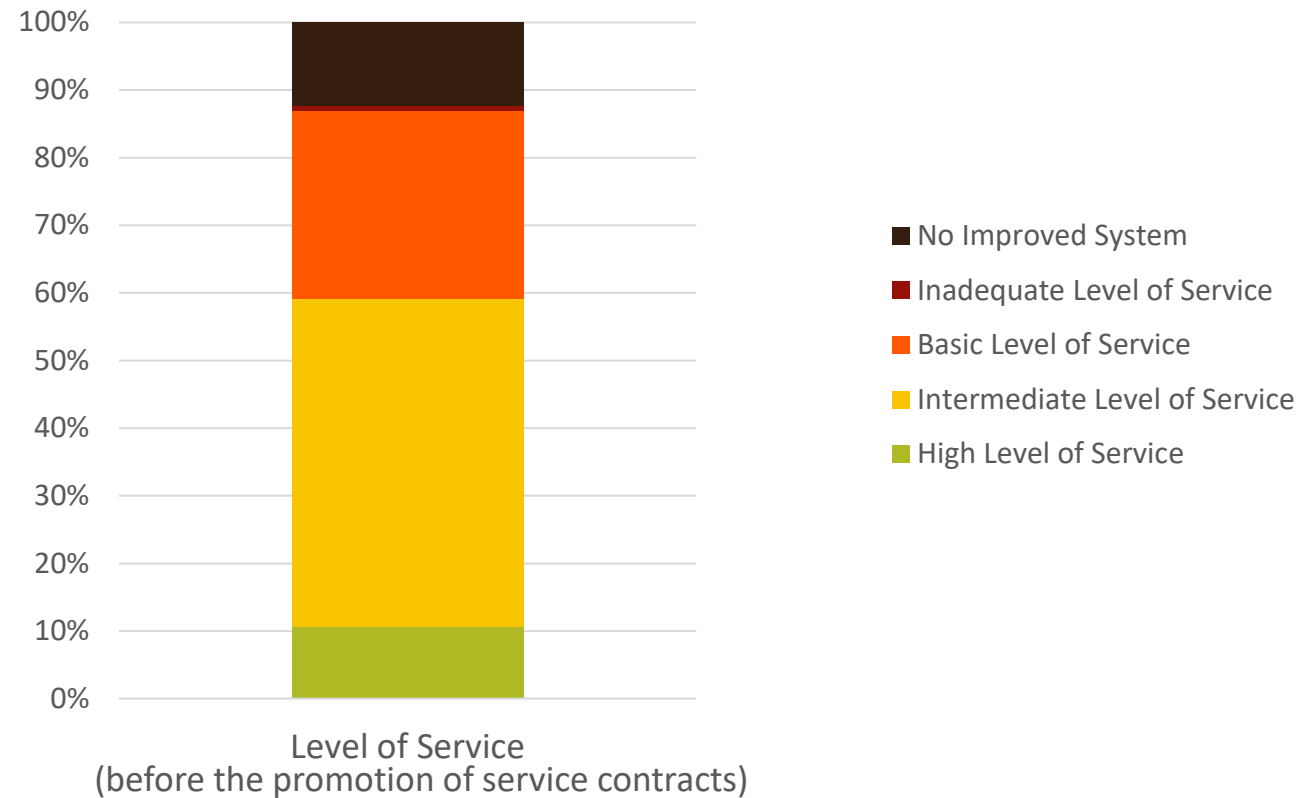
- Water Point/System Is Improved
- The Source of The Water Point/System Is Protected
- Water Point/System Infrastructure Is in Good Physical Condition and Is Functional
- Number of Users of Water Point/System Meet Standard
- Water Is Available on The Day of The Visit
- Water Point/System Was Not Broken or Out of Service For 1 Day or More a Month in The Last Year
- Water Point/System Has Adequate Water Quality (bacteria, turbidity and other contaminates of concern)
- Water Point/System Has Adequate Water Quantity

Scores	Color	Label
0	Black	No Improved System
1-2	Red	Inadequate Level of Service
3-5	Orange	Basic Level of Service
6-7	Yellow	Intermediate Level of Service
8	Green	High Level of Service

²Availability of improved water sources that are meeting government standards.

4.0 Results and Discussion (Baseline)

Chiradzulu 2019 Water Point Level of Service

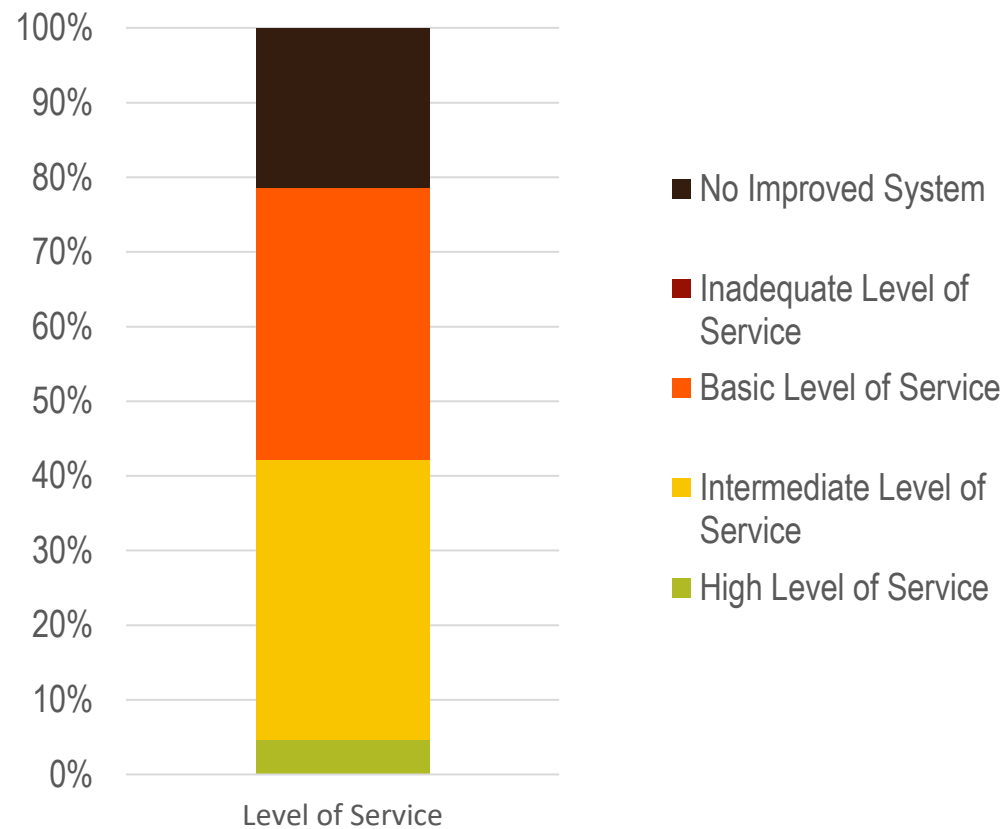


4. 1 Results and Discussion (Baseline)

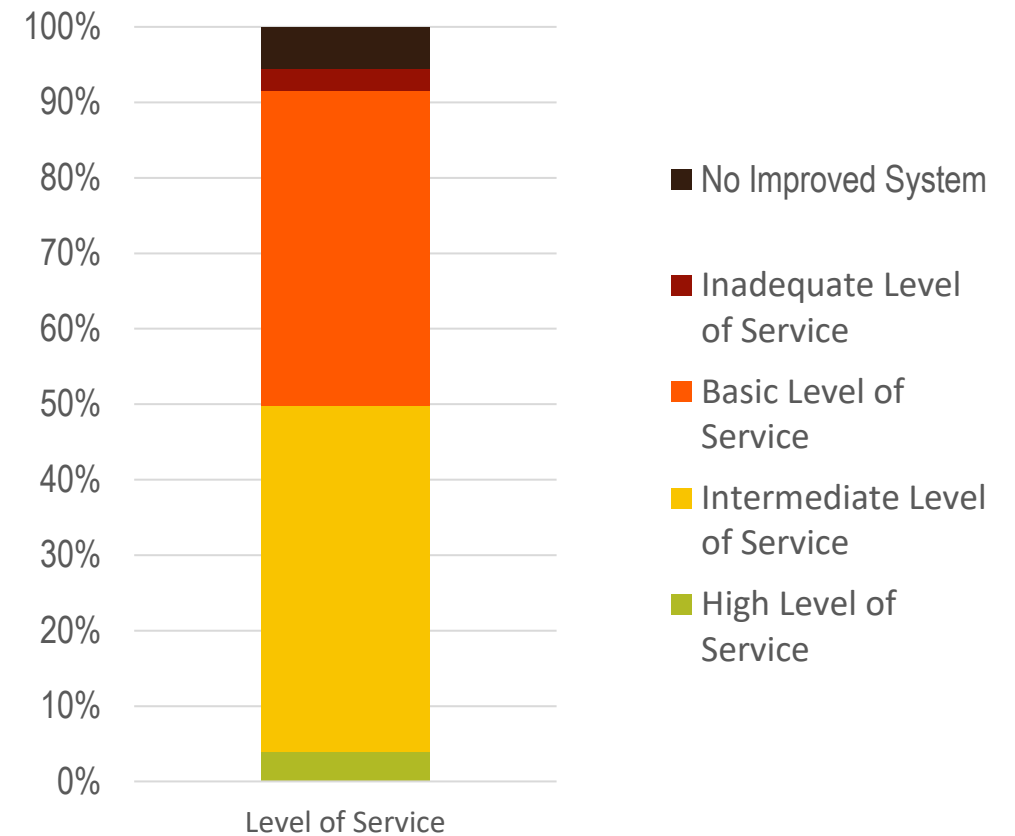
Metric	Meets Metric Requirements	Does Not Meet Metric Requirements	% meeting metric requirement	% not meeting metric requirement
Water Point/System Is Improved.	1617	0	100%	0%
The Source of The Water Point/System Is Protected.	1566	50	97%	3%
Water Point/System Infrastructure Is in Good Physical Condition and Is Functional.	949	667	59%	41%
Number of Users of Water Point/System Meet Standard	638	979	39%	61%
Water Is Available on The Day of The Visit	1314	302	81%	19%
Water Point/System Was Not Broken or Out of Service For 1 Day or More a Month in The Last Year	922	694	57%	43%
Water Point/System Has Adequate Water Quality (bacteria, turbidity and other contaminates of concern)	1202	44%	96%	4%
Water Point/System Has Adequate Water Quantity	1407	80	95%	5%

4.2 Results and Discussion

Likoswe 2019 Water Point Level of Service



Mpunga 2019 Water Point Level of Service



4.3 Hand Pump Service Contracts Arrangements



Service contracts are arrangement in two form between the APM and WPC. However, the shop owners also play a critical role in the service contract through stocking of spare parts;

1. Annual Routine Preventive Maintenance Contract

- WPC pay a lumpsum fee ranging between \$5 to \$ 12 per year to APM. The fee covers three annual visits for routine maintenance service (Replacing fast wearing parts).

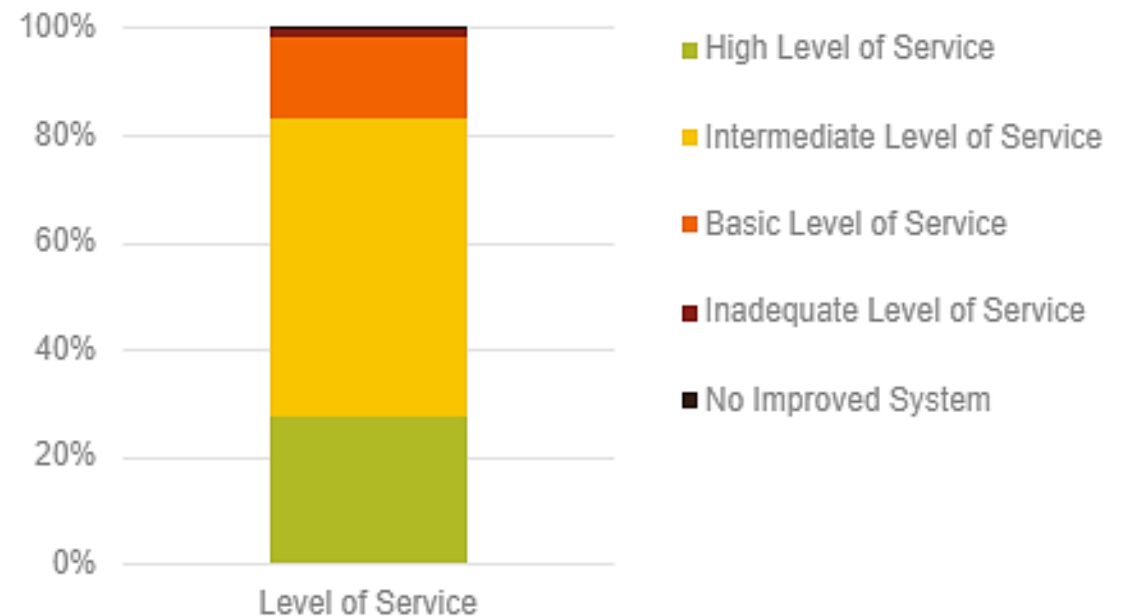
2. Major Repair Contract

- WPC pay a lumpsum fee ranging between \$3 to \$12 per repair. If the handpump breakdown whilst under a preventive maintenance service, contact the APM will provide the service free of charge. The WPC will only shoulder the cost of materials.

4.4 Water Level of Service (2022)

No	Name of Traditional Authority	Total of APMs	Total Number contracts
1	Kadewere	9	113
2	Chitera	3	8
3	Mpunga	3	250
4	Likoswe	5	71
5	Sandrack	3	11
6	Onga	2	23
7	Ntchema	3	4
8	Mpama	6	12
9	Nkalo	4	18
10	Maoni	3	22

Chiradzulu 2022 Water Point Level of Service

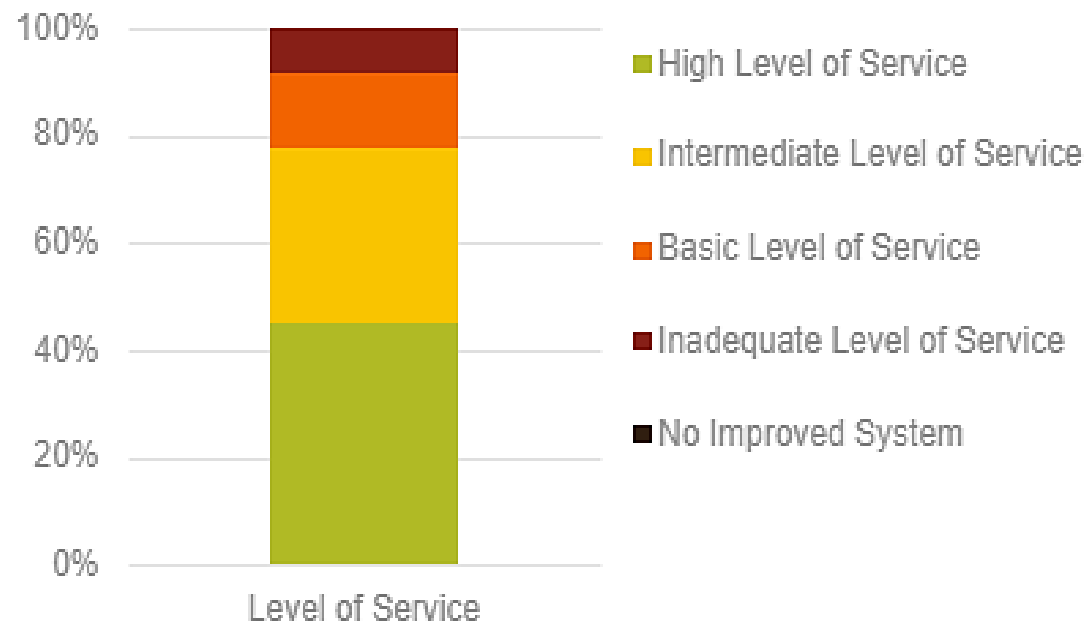


4.5 Service Contract -Water Level of Service Metrics in 2022

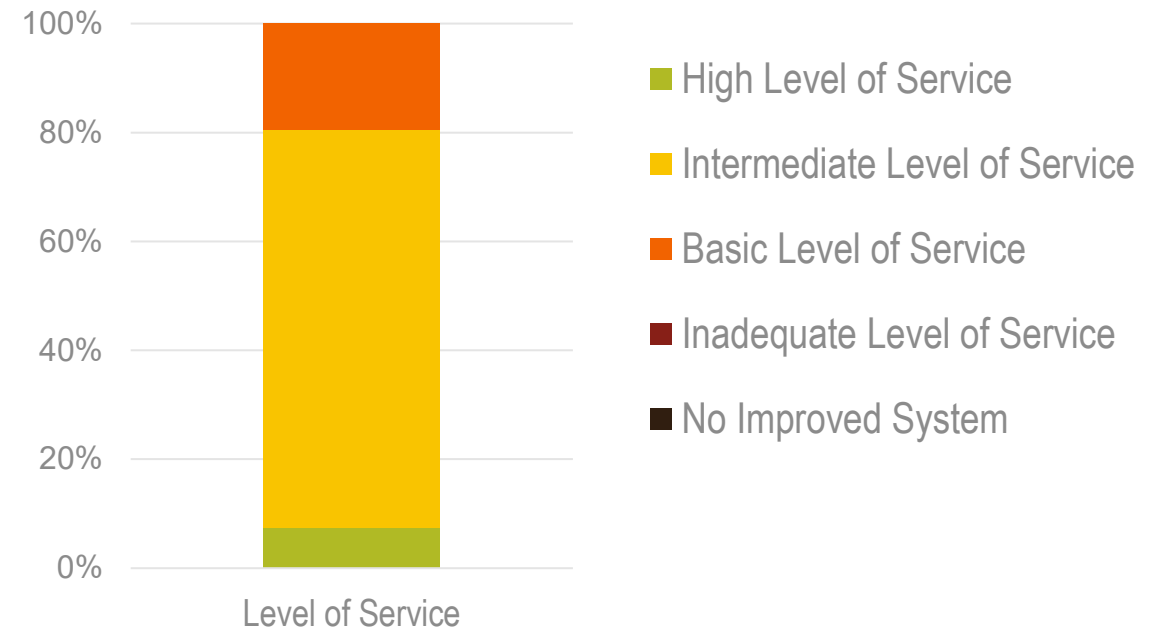
Metric	Meets Metric Requirements	Does Not Meet Metric Requirements	% Meeting metric requirement (2019)	% Meeting metric requirement (2022)
Water Point/System Is Improved	1601	0	100%	100%
The Source of The Water Point/System Is Protected	1587	14	97%	99%
Water Point/System Infrastructure Is in Good Physical Condition and Is Functional	1341	260	59%	84%
Number of Users of Water Point/System Meet Standard	1037	570	39%	65%
Water Is Available on The Day of The Visit	1392	209	81%	87%
Water Point/System Was Not Broken or Out of Service For 1 Day or More a Month in The Last Year	1224	377	57%	76%
Water Point/System Has Adequate Water Quality (bacteria, turbidity and other contaminates of concern)	319	1219	96%	21%
Water Point/System Has Adequate Water Quantity	1391	92	95%	94%

4.6 Level of Service for Non-Performing TAs

Likoswe 2022 Water Point Level of Service



Mpunga 2022 Water Point Level of Service



5.0 Lessons Learnt



- The service contract arrangement has created a platform for continued monitoring of functionality of handpumps by the District Water Office. Through the routine visits and routine preventive maintenances conducted the APM provides monthly reports for the condition and status of all handpumps within an APM's catchment hence reducing the operational costs for District Water Office.
- The network of legally recognized APMs has eliminated bush area mechanics (Unregistered) who lack expertise and capacity to conduct routine and major borehole repairs.



5.1 Conclusion & Recommendation



There is a significant correlation between improved functionality of community handpumps and increased community water level of service which also translates into improved satisfaction levels for water users in Chiradzulu district.

Improved awareness of communities (water service providers) around service contracts is an opportunity to improve on skilled operation and management of community handpumps and prolonged lifespan of community handpumps through the engagement of the private sector.

As Recommendation:

- The contract service fee must be standardized and regulated by the District Council (Capping) to protect the communities from being duped whilst promoting market liberalization for the APMs.
- Lobby for elimination of dependency syndrome of WPC on politicians for borehole repairs to promote service contracts



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