

Package: rwpfunctionality (via r-universe)

September 24, 2026

Title Water point functionality in sub-Saharan Africa and South Asia

Version 0.0.1

Description Water point monitoring data associated with the paper
``[Rural water point functionality estimates and associations:
evidence from nine countries in sub-Saharan Africa and South
Asia](https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2023WR034679)"
(Murray, Anna L et al., 2024).

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Encoding UTF-8

Roxygen list(markdown = TRUE)

Depends R (>= 2.10)

LazyData true

Language en-GB

Date 2024-03-11

Config/Needs/website rmarkdown, tidyverse, kableExtra

URL <https://github.com/openwashdata/rwpfunctionality>

BugReports <https://github.com/openwashdata/rwpfunctionality/issues>

X-schema.org-keywords open data, washdata, water points,
functionality, rural water supply, water committees, Ethiopia,
India, Malawi, Mali, Mozambique, Nepal, Niger, Rwanda, Uganda

X-schema.org-spatialCoverage Ethiopia, India, Malawi, Mali,
Mozambique, Nepal, Niger, Rwanda, Uganda

X-schema.org-temporalCoverage 2017-05-22/2020-12-19

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Repository <https://openwashdata.r-universe.dev>

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Contents

rwppfunctionality 2

Index 5

rwppfunctionality	<i>Water point functionality in sub-Saharan Africa and South Asia</i>
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Description

Water point monitoring data associated with the paper "[Rural water point functionality estimates and associations: evidence from nine countries in sub-Saharan Africa and South Asia](#)" (Murray, Anna L et al., 2024).

Usage

rwppfunctionality

Format

- A tibble with 1793 rows and 52 variables
- id** Row number assigned during processing
 - country** Name of the country
 - admin1** Administrative unit 1
 - admin2** Administrative unit 2
 - admin3** Administrative unit 3
 - instance_wp** Survey ID
 - subdate_wp** Submission date
 - latitude_wp** Latitude
 - longitude_wp** Longitude
 - elevation_wp** Elevation
 - commid_wp** Community ID
 - dataorg_wp** Code for country program
 - timepoint_wp** Data collection time point
 - cwfunded_wp** Charity water-funded water point
 - cwid** Charity water point ID
 - wptype** Water point type
 - pumptype** Pump type
 - drillmethod** Methodology used to dig the well or borehole
 - pipeds_source** Source of piped water
 - pipeds_pump** Infrastructure through which water travels from the source to the storage tank

rehabyn This water point has undergone rehabilitation with the assistance of an outside organization since its construction

qtyhh_wp Number of households served by this water point, either presently or during its last operational period

whomanage_wp Primarily responsible for managing this water point

wp_age Years between the reported construction year of the water point and the year of the survey

rehab_age Years between the reported most recent rehabilitation year of the water point and the year of the survey

qtypeople_wp Number of people served by this water point, either now or the last time it was working

wateravailable Water availability from this water point

functional3 Functionality rating for water point: 'Abandoned or not functional' means no water available >1 year or no water available today OR (water available, but insufficient quantity AND downtime reported in prior 2 weeks), 'Partially functional' means water is available with sufficient quantity - 20L in 5 min - but downtime reported in prior 2 weeks or water is available, but insufficient quantity - 20L in 5 min - and no downtime reported in prior 2 weeks and 'Functional' means water is available, sufficient quantity is available - 20L in 5 minutes - and no downtime reported in prior 2 weeks

whynowatertoday_wp Reason for unavailability of water from this water point today

whynowatertoday_wp_other Other reason for water not being available today

minutesfill20l Time required to fill the 20 liters container

brokendays_wp Number of days it took to repair water the point last time it broke down

qtypmonthsnowater_wp Number of months in the past year when water was not available from this water point because it was dry

downtime2weeks Water has not been available from this water point for a full day or more due to breakdown, seasonal dryness, or lack of fuel or electricity in the past two weeks

lockedfullday_wp Service has been turned off or the water point has been locked in the past year by the management for reasons other than breakdowns

pumpstrokes Number of pump strokes needed until water begins to flow

photo_wp Photograph of the water point

grant_number_wp Water grant number

wc_present_wp Existence of water committee in this community that manages water points used for drinking

paytocollect_wp Obligation for people to contribute money to collect water in this community

balance_any_dollars_wp Amount of money saved by the committee (converted to USD)

improved_wponly_wp Number of improved water point types used in the community

qtyhh_c_wp Number of households in this community

wc_admin_index_wp Administrative index for water committee: 'Inadequate' means WC hasn't met in >6 months, 'Minimum' means WC has reported to have met within 6 months, 'Moderate' means WC has reported to have met within 6 months, and has at least 1/3 female members and 'Advanced' means WC has reported to have met within 6 months, has at least 1/3 female members, AND has record of a meeting within previous 6 months

wc_finance_index_wp Finance index for water committee: 'Inadequate' means WC does not collect fees, 'Minimum' means WC reports a fee collection system, 'Moderate' means WC reports collecting fees and reports having savings and 'Advanced' means WC reports collecting fees and reports having savings, can demonstrate a fee collection or balance, and reports that money is kept in a cash box, bank account, mobile money, or borehole banking

wc_maint_index_wp Maintenance index for water committee: 'Inadequate' means WC cannot identify a person for water point maintenance, 'Minimum' means WC can identify a person for water point maintenance, 'Moderate' means WC can identify a repair person and that person has had training. Plus, the community has access to tools and spare parts and 'Advanced' means WC can identify a repair person and that person has had training. Plus, the community has access to tools and spare parts AND reported that someone has performed preventive maintenance within the past year

wc_mgmt_index_wp Overall management index for water committee: 'Inadequate' means WC is inadequate in any of the above indices, 'Minimum' means WC meets minimum level in all above indices, 'Moderate' means WC meets moderate level in all above indices and 'Advanced' means WC meets moderate level in all above indices AND advanced level in at least one of the above

wc_savings_wp Existence of money saved from water committee to repair water points

wpqty_wp Number of drinking water points in this community, working or not

pop_1000 Population aggregated for a 1-km radius around the water point (data from <https://www.worldpop.org/>)

annual_rain Average annual mm of precipitation for administrative unit 2 (average from 1991-2020, from <https://climateknowledgeportal.worldbank.org/>)

season Season of data collection, according to historical rainfall amounts (from <https://climateknowledgeportal.worldbank.org/>)

Index

* **datasets**

 rwpfunctionality, [2](#)

rwpfunctionality, [2](#)