Package: floodresponsemw (via r-universe)

November 13, 2026

Title Water Point Assessments - USAID Flood Response Malawi 2019-2020

Version 0.0.2

Description Field-level data on rural water point status and functionality across Malawi, collected during the USAID Flood Response initiative (2019-2020). Includes GPS locations, flood impact indicators, pump functionality, water quality measurements, and microbial contamination data from mWater mobile assessments.

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`floodresponsemw` *Malawi USAID Flood Response – Water Point Assessment 2019 - 2020*

Description

This dataset contains detailed field-level information on the status and functionality of rural water points across Malawi, collected as part of the USAID Flood Response initiative between 2019 and 2020. The data was gathered using the mWater mobile data collection platform, enabling standardized, GPS-tagged assessments directly from field locations.

Usage

```
floodresponsemw
```

Format

A tibble with 684 rows and 45 variables

submitted_on Date when the water point assessment form was submitted.

water_point_name Name or identifier of the water point site.

latitude Latitude coordinate of the water point location.

longitude Longitude coordinate of the water point location.

total_users_of_water_point Number of people currently using the water point.

water_point_photos Photos taken to show the current condition of the water point.

likely_submerged_during_flood Whether the water point was likely submerged during recent flooding (Yes or No).

evidence_submerged Evidence observed that the water point was submerged.

evidence_not_submerged Evidence observed that the water point was not submerged.

functional_status Current operational status of the water point.

pumpable_at_visit Whether water could be pumped during the visit (Yes or No).

reported_problems List of problems reported or observed (e.g., broken parts, contamination).

reported_problems_other Additional problem descriptions not in the predefined list.

water_quality_problems Specific issues related to water quality (e.g., bad smell, taste, turbidity).

civil_works_problems Structural or construction related issues affecting the water point.

civil_works_photo Photo documenting the civil works issue.

pump_problems Mechanical issues related to the pump (e.g., broken handle).

pump_problems_other Additional pump issues not listed in predefined options.

pump_problems_photo Photo documenting the pump issue.

pump_operational_feel Assessors impression of the pumps functionality during operation.

time_to_pump_20l Time taken to pump 20 liters of water (in seconds).

strokes_to_yield_water Number of strokes required to start yielding water.

sediment_presence Whether visible sediment was present in the water.

electrical_conductivity_magnitude Measured electrical conductivity value of the water.

electrical_conductivity_units Units used to measure electrical conductivity (e.g., uS/cm).

total_dissolved_solids_ppt Total dissolved solids in parts per thousand (ppt).

ph pH level of the water sample.

fluoride_ppm Fluoride concentration in parts per million (ppm).

ammonia_mg_per_l Ammonia concentration in milligrams per liter (mg/L).

nitrate_mg_per_l Nitrate concentration in milligrams per liter (mg/L).

free_chlorine_mg_per_l Free chlorine concentration in milligrams per liter (mg/L).

arsenic_magnitude Measured value of arsenic in the water.

arsenic_units Units used to measure arsenic concentration.

turbidity_magnitude Turbidity level measured using a turbidity tube.

turbidity_units Units used for turbidity measurement (e.g., NTU).

temperature_magnitude Temperature of the water sample (numeric value).

temperature_units Units used for temperature (e.g., degree Celcius).

temperature_time Time the temperature was recorded.

comments Additional remarks or observations by the enumerator.

sample_type Type of water sample collected (e.g., raw, treated).

sample_date Date the water sample was taken.

mpn_100ml Most probable number (MPN) of bacteria per 100 ml of water.

upper_95_ci_100ml Upper 95 percentage confidence interval of MPN per 100 ml.

health_risk_category Risk classification based on MPN results (e.g., low, medium, high).

color_change_image Image showing color change in test compartments used for bacterial analysis.

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