Package: kalaiwash (via r-universe)

November 13, 2026

Title Household Water Insecurity and Drinking Water Service Levels from the Kalai Project in Nampula, Mozambique

Version 0.2.0

Description Baseline (November 2024) and endline (June 2025) household survey data from the Kalai water, sanitation and hygiene project of HELVETAS in Larde, Memba, Moma and Mecuburi districts, Nampula Province, Mozambique. The data cover 275 household interviews and include the primary drinking water source classified with the WHO/UNICEF Joint Monitoring Programme (JMP) service ladder, water collection times and volumes, sanitation and handwashing practices, and the 12-item Household Water Insecurity Experiences (HWISE) Scale with its summary score and insecurity level.

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`kalaiwash` *kalaiwash: Household water insecurity and drinking water service levels from the Kalai project in Nampula, Mozambique*

Description

Baseline (November 2024) and endline (June 2025) household survey data from the Kalai water, sanitation and hygiene project of HELVETAS in Larde, Memba, Moma and Mecuburi districts, Nampula Province, Mozambique. Each row is one household interview. Variables cover the primary drinking water source and its WHO/UNICEF Joint Monitoring Programme (JMP) service level, water collection times and volumes, sanitation and handwashing practices, and the 12 items of the Household Water Insecurity Experiences (HWISE) Scale with the summary score (0 to 36) and insecurity level. The HWISE items are ordered factors whose levels refer to the number of times in the last four weeks: Never (0), Rarely (1 to 2), Sometimes (3 to 10), Often (11 to 20) and Always (more than 20). Derived variables were recalculated in R from the raw survey responses and checked against the original Excel calculations; see `data-raw/data_processing.R`.

Usage

```
kalaiwash
```

Format

A tibble with 275 rows and 34 variables

survey_date Date of the interview

survey_type Survey round: Baseline (November 2024) or Endline (June 2025)

district District of Nampula Province where the household is located

community Name of village

gender Whether the respondent is male or female

household_size The number of people living and eating together in the household including the respondent

source Household's primary drinking water source

collect_yesterday If anyone in the household collected drinking water yesterday

total_liters Total liters collected in past 24 hours, derived from the number of 25, 20, 15, 10 and 5 liter containers used to collect water yesterday

oneway_travel Estimate of how long household member had to walk to get to the water source in minutes (not round-trip)

wait_time The last time household member went to the source, estimate of how long to wait to collect water from the source in minutes

total_collect_time Total collection time in minutes: twice the one-way walk (oneway_travel) plus the wait time (wait_time)

satisfied Whether the respondent is satisfied with the water service

notsatisfied_why Why not satisfied with your water service

defecation_place The places where adult men and women defecate and where children's faeces are disposed of within the household

handwash_demo Willing to show where and how handwashing happens

soap_ash Household demo uses soap or ash or another cleanser to wash hands

water_wash Household demo uses water to wash hands

jmp_improved If the Water source is "improved" or "unimproved" according to the JMP classification, derived from source: Improved for borehole with handpump, protected dug well (with or without handpump), public tap or standpipe, mechanized borehole, protected spring and piped water; Unimproved otherwise

jmp_water_service JMP drinking water service level derived from source and total_collect_time: Surface water; Unimproved (other unimproved source); Limited (improved source, total collection time over 30 minutes); Basic (improved source, total collection time of 30 minutes or less)

hwise_worry In the last 4 weeks, how frequently did you or anyone in your household worry you would not have enough water for all of your household needs?

hwise_interrupt In the last 4 weeks, how frequently has your main water source been interrupted or limited (e.g. water pressure, less water than expected, river dried up)?

hwise_clothes In the last 4 weeks, how frequently have problems with water meant that clothes could not be washed?

hwise_change_plans In the last 4 weeks, how frequently have you or anyone in your household had to change schedules or plans due to problems with your water situation? (e.g. caring for others, household chores, agricultural work, IGA, sleeping)

hwise_change_meal In the last 4 weeks, how frequently have you or anyone in your household had to change what was being eaten because there were problems with water (e.g., for washing foods, cooking, etc.)?

hwise_nohandwash In the last 4 weeks, how frequently have you or anyone in your household had to go without washing hands after dirty activities (e.g., defecating or changing diapers, cleaning animal dung) because of problems with water?

hwise_no_bodywash In the last 4 weeks, how frequently have you or anyone in your household had to go without washing their body because of problems with water (e.g., not enough water, dirty, unsafe)?

hwise_drinking In the last 4 weeks, how frequently has there not been as much water to drink as you would like for you or anyone in your household?

hwise_angry In the last 4 weeks, how frequently did you or anyone in your household feel angry about your water situation?

hwise_sleepthirsty In the last 4 weeks, how frequently have you or anyone in your household gone to sleep thirsty because there wasn't any water to drink?

hwise_nowater In the last 4 weeks, how frequently has there been no useable or drinkable water whatsoever in your household?

hwise_shame In the last 4 weeks, how frequently did you or anyone in your household feel ashamed/excluded/stigmatized?

hwise_score Sum of the 12 HWISE items scored Never 0, Rarely 1, Sometimes 2, Often or Always 3; range 0 to 36

hwise_insecurity_level Water insecurity level from hwise_score: 0 to 2 "No-to-marginal", 3 to 11 "Low", 12 to 23 "Moderate", 24 to 36 "High"

Source

Household surveys of the Kalai project of HELVETAS Swiss Intercooperation in Nampula Province, Mozambique, collected in November 2024 and June 2025. The raw data file was provided by John Brogan and added to the repository on 2026-08-28.

Examples

```
# households by survey round and JMP drinking water service level
table(kalaiwash$survey_type, kalaiwash$jmp_water_service)

# median HWISE score by survey round
tapply(kalaiwash$hwise_score, kalaiwash$survey_type, median)
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