

# Package ‘washdata’

January 20, 2026

**Title** Urban Water and Sanitation Survey Dataset

**Version** 0.1.5

**Description** Urban water and sanitation survey dataset collected by Water and Sanitation for the Urban Poor (WSUP) with technical support from Valid International. These citywide surveys have been collecting data allowing water and sanitation service levels across the entire city to be characterised, while also allowing more detailed data to be collected in areas of the city of particular interest. These surveys are intended to generate useful information for others working in the water and sanitation sector. Current release version includes datasets collected from a survey conducted in Dhaka, Bangladesh in March 2017. This survey in Dhaka is one of a series of surveys to be conducted by WSUP in various cities in which they operate including Accra, Ghana; Nakuru, Kenya; Antananarivo, Madagascar; Maputo, Mozambique; and, Lusaka, Zambia. This package will be updated once the surveys in other cities are completed and datasets have been made available.

**Depends** R (>= 2.10)

**Suggests** knitr, rmarkdown, spelling

**License** CC0

**Encoding** UTF-8

**Language** en-GB

**LazyData** true

**RoxygenNote** 7.3.3

**URL** <https://github.com/katilingban/washdata/>,  
<https://katilingban.io/washdata/>

**BugReports** <https://github.com/katilingban/washdata/issues>

**VignetteBuilder** knitr

**NeedsCompilation** no

**Author** Ernest Guevarra [aut, cre],  
Valid International [cph],  
Water and Sanitation for the Urban Poor [cph]

**Maintainer** Ernest Guevarra <ernestgmd@gmail.com>

**Repository** CRAN

**Date/Publication** 2026-01-20 00:20:02 UTC

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indicatorsDataBGD	<i>WASH Survey Indicators Data for Dhaka, Bangladesh</i>
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### Description

WASH survey indicators data calculated from survey raw data

### Usage

```
indicatorsDataBGD
```

### Format

A data frame with 162 variables and 1282 entries

### Examples

```
indicatorsDataBGD
```

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popBGD	<i>Population Data for Dhaka, Bangladesh</i>
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### Description

Grid-based population of Dhaka, Bangladesh

### Usage

```
popBGD
```

**Format**

A data frame with four variables:

psu primary sampling unit (PSU) ID  
zone survey enumeration area  
type slum (1) or non-slum (2)  
pop population

**Examples**

`popBGD`

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`ppiMatrixBGD`

*PPI Look-up Table for Bangladesh*

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**Description**

PPI look-up table for Bangladesh to calculate PPI score

**Usage**

`ppiMatrixBGD`

**Format**

A data frame with 10 variables and 101 entries

**Examples**

`ppiMatrixBGD`

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`surveyDataBGD`

*WASH Survey Raw Data for Dhaka, Bangladesh*

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**Description**

WASH survey raw data collected by WSUP in Dhaka, Bangladesh

**Usage**

`surveyDataBGD`

## Format

A data frame with 217 variables and 1282 entries:

```

country Country
ccode Country Code
zone Enumeration Area
type Sampling Point Type
quadrat Quadrat Number
hhid Household ID
uniqueID Unique ID
month Month of Survey
year Year of Survey
deployment Deployment
enumerator Enumerator
status Status
responseCode Response Code
draftDate Drafted On
submissionDate Submitted On
ipAddress IP Address
surveyType Survey type
psu primary sampling unit (PSU) ID
psuTime PSU ID Time Answered
latitude PSU ID Location Answered latitude
longitude PSU ID Location Answered longitude
accuracy PSU ID Location Answered accuracy
altitude PSU ID Location Answered altitude
area1 Thana
area10ther Thana Other please specify specify
area1Time Thana Time Answered
area2 Ward
slum Slum
gender Respondent gender
landOwnStatus What is the respondent land ownership status
nWomen Number of adult women aged 16 to 60
nMen Number of adult men aged 16 to 60
nOldWomen Number of older women aged _60
nOldMen Number of older men aged _60
nGirls Number of girls aged 4 15

```

nBoys Number of boys aged 4-15  
nInfants Number of infants \_3  
nMobility How many people with reduced mobility are there in this household  
water1 Main source of drinking water  
water2 Main source of drinking water Other please specify specify  
water3 Is the service provision formal or informal  
water4 Is the service provision formal or informal Don't Know  
water5 Is main source of drinking water a WSUP supported facility  
water6 Is main source of drinking water a WSUP supported facility Don't Know  
water7 Typical number of hours per day that water is available  
water8 Typical number of hours per day that water is available Don't Know  
water9 Typical days per week that water is available  
water10 Typical days per week that water is available Don't Know  
water11 Is water typically available and sufficient throughout the whole year  
water12 Is water typically available and sufficient throughout the whole year Comments  
water13 Is water typically available and sufficient throughout the whole year Don't Know  
water14 How long does it take to go there get water and come back  
water15 How long does it take to go there get water and come back Don't Know  
water16 Are you satisfied that the distance between your main water source and your home is acceptable  
water17 Are you satisfied that the distance between your main water source and your home is acceptable Don't Know  
water18 Do you consider that the queuing time at your main water source is acceptable  
water19 Do you consider that the queuing time at your main water source is acceptable Not Applicable  
water20 Do you consider that the queuing time at your main water source is acceptable Don't Know  
water21 Which household member/s usually collect the water  
water22 Which household member/s usually collect the water Other please specify specify  
water23 Typical amount of water used by your household per person per day  
water24 Typical amount of water used by your household per person per day Don't Know  
water25 Do you consider the amount of water supplied from your primary water source to be sufficient to meet your household's requirements each day  
water26 Do you consider the amount of water supplied from your primary water source to be sufficient to meet your household's requirements each day Don't Know  
water27 Do you also use water from other water sources  
water28 Do you also use water from other water sources Don't Know  
water29 Which is your usual secondary water source  
water30 Which is your usual secondary water source Other please specify specify

water31 Which is your usual secondary water source Don t Know  
water32 Typical amount of money spent on water per week magnitude  
water33 Typical amount of money spent on water per week units  
water34 Typical amount of money spent on water per week Don t Know  
water35 Are you satisfied with the price of your main water source  
water36 Are you satisfied with the price of your main water source Don t Know  
water37 Would you be willing to invest in improving your drinking water source  
water38 Would you be willing to invest in improving your drinking water source Comments  
water39 Would you be willing to invest in improving your drinking water source Don t Know  
water40 Are you satisfied with the quality of your main water source  
water41 Are you satisfied with the quality of your main water source Don t Know  
water42 What would increase your satisfaction  
water43 What would increase your satisfaction Other improvement please specify specify  
water44 What would increase your satisfaction Don t Know  
water45 Are you satisfied with the water pressure of your main water source  
water46 Are you satisfied with the water pressure of your main water source Don t Know  
water47 Who do you talk to if there is a problem with the water supply  
water48 Who do you talk to if there is a problem with the water supply Other please specify specify  
water49 Who do you talk to if there is a problem with the water supply Not Applicable  
water50 Who do you talk to if there is a problem with the water supply Don t Know  
water51 Previous source of drinking water  
water52 Previous source of drinking water Other please specify specify  
water53 Previous source of drinking water Don t Know  
water54 Typical amount of money spent per week on the previous water source magnitude  
water55 Typical amount of money spent per week on the previous water source units  
water56 Typical amount of money spent per week on the previous water source Don t Know  
water57 Why do you use the WSUP supported facility instead of the facility you used before  
water58 Why do you use the WSUP supported facility instead of the facility you used before Other  
please specify specify  
water59 Why do you use the WSUP supported facility instead of the facility you used before Don  
t Know  
san1 Usage arrangement for household\_s sanitation facility  
san2 Usage arrangement for household\_s sanitation facility Other please specify specify  
san3 Usage arrangement for household\_s sanitation facility Don t Know  
san4 How many people share use of the communal shared toilet  
san5 How many people share use of the communal shared toilet Don t Know  
san6 What kind of toilet facility do members in your household usually use

san7 What kind of toilet facility do members in your household usually use Other please specify specify

san8 What kind of toilet facility do members in your household usually use Don t Know

san9 Where does your toilet flush to

san10 Where does your toilet flush to Other please specify specify

san11 Where does your toilet flush to Don t Know

san12 Is main sanitation facility a WSUP supported facility

san13 Is main sanitation facility a WSUP supported facility Not Applicable

san14 Is main sanitation facility a WSUP supported facility Don t Know

san15 Is water available at the sanitation facility

san16 Is water available at the sanitation facility Don t Know

san17 Are you satisfied with the status of the hand washing facilities at the sanitation facility

san18 Are you satisfied with the status of the hand washing facilities at the sanitation facility Don t Know

san19 What would increase your satisfaction 1

san20 What would increase your satisfaction Other please specify specify

san21 What would increase your satisfaction Don t Know 1

san22 Is there an electric light in the sanitation facility

san23 Is there an electric light in the sanitation facility Don t Know

san24 Does the sanitation facility have a lockable door

san25 Does the sanitation facility have a lockable door Don t Know

san26 Does the sanitation facility have a container for menstrual hygiene management

san27 Does the sanitation facility have a container for menstrual hygiene management Don t Know

san28 The last time your youngest child passed stools what was done to dispose of the stools

san29 The last time your youngest child passed stools what was done to dispose of the stools Not Applicable

san30 The last time your youngest child passed stools what was done to dispose of the stools Don t Know

san31 How long does it take to go there queue for the toilet if applicable and come back

san32 How long does it take to go there queue for the toilet if applicable and come back Don t Know

san33 Typical amount of money spent on the main sanitation facility per week magnitude

san34 Typical amount of money spent on the main sanitation facility per week units

san35 Typical amount of money spent on the main sanitation facility per week Don t Know

san36 Are you satisfied with the price of the sanitation facility

san37 Are you satisfied with the price of the sanitation facility Don t Know

san38 Did you make an initial investment in the sanitation facility

san39 Did you make an initial investment in the sanitation facility Don t Know

san40 How much was the initial investment magnitude  
san41 How much was the initial investment units  
san42 How much was the initial investment Don t Know  
san43 Would you be willing to invest in improved sanitation facilities  
san44 Would you be willing to invest in improved sanitation facilities Comments  
san45 Would you be willing to invest in improved sanitation facilities Don t Know  
san46 Are you satisfied with the cleanliness of the sanitation facilities  
san47 Are you satisfied with the cleanliness of the sanitation facilities Don t Know  
san48 What would increase your level of satisfaction  
san49 What would increase your level of satisfaction Other please specify specify  
san50 What would increase your level of satisfaction Don t Know  
san51 Is everyone in the household able to get to the sanitation facility and use it  
san52 Is everyone in the household able to get to the sanitation facility and use it Don t Know  
san53 Who is not using them  
san54 Who is not using them Other please specify specify  
san55 Who is not using them Don t Know  
san56 Why not  
san57 Why not Other please specify specify  
san58 Why not Don t Know  
san59 Do all household members usually use the available sanitation facilities  
san60 Do all household members usually use the available sanitation facilities Don t Know  
san61 Who is not using them 1  
san62 Who is not using them Other please specify specify 1  
san63 Who is not using them Don t Know 1  
san64 Why are they not using the facilities  
san65 Why are they not using the facilities Don t Know  
san66 Who do you talk to if there is a problem with the sanitation facility  
san67 Who do you talk to if there is a problem with the sanitation facility Other please specify specify  
san68 Who do you talk to if there is a problem with the sanitation facility Not Applicable  
san69 Who do you talk to if there is a problem with the sanitation facility Don t Know  
san70 Do the women and girls in your household feel safe using the sanitation facilities during the day and night  
san71 Do the women and girls in your household feel safe using the sanitation facilities during the day and night Don t Know  
san72 Why not 1  
san73 Why not Don t Know 1

san74 Do the women and girls in the household feel comfortable using the sanitation facilities during menstruation

san75 Do the women and girls in the household feel comfortable using the sanitation facilities during menstruation Not Applicable

san76 Why not 2

san77 Why not Other please specify specify 1

san78 Why not Don t Know 2

san79 What materials are used by the women girls of your house during their menstruation cycle

san80 What materials are used by the women girls of your house during their menstruation cycle Other please specify specify

san81 How is the cloth washed

san82 How is the cloth washed Other please specify specify

san83 Where do you dispose of the used napkin pad

san84 Where do you dispose of the used napkin pad Other please specify specify

san85 When should you wash your hands

san86 When should you wash your hands Other please specify specify

san87 When should you wash your hands Don t Know

san88 Can you show me where you wash your hands

san89 Can you show me where you wash your hands Not Applicable

wash60 Can you show me where you store your drinking water

wash61 Can you show me where you store your drinking water Not Applicable

wash62 Can you show me where you store your drinking water Don t Know

san90 How often do you empty your pit septic tank

san91 How often do you empty your pit septic tank Other please specify specify

san92 How often do you empty your pit septic tank Not Applicable

san93 How often do you empty your pit septic tank Don t Know

san94 How much does it cost to empty magnitude

san95 How much does it cost to empty units

san96 How much does it cost to empty Not Applicable

san97 How much does it cost to empty Don t Know

san98 Who empties the pit

san99 Who empties the pit Other please specify specify

san100 Who empties the pit Not Applicable

san101 Who empties the pit Don t Know

san102 Who pays for the pit to be emptied

san103 Who pays for the pit to be emptied Other please specify specify

san104 Who pays for the pit to be emptied Not Applicable

san105 Who pays for the pit to be emptied Don t Know

- san106 Are you satisfied with the pit emptying service
- ppi1 How many household members are 12 years old or younger
- ppi2 Do all household members ages 6 to 12 currently attend a school educational institution
- ppi3 X In the past year did any household member ever do work for which he she was paid on a daily basis
- ppi4 How many rooms does your household occupy excluding rooms used for business
- ppi5 What is the main construction material of the walls of the main room
- ppi6 Does the household own any televisions
- ppi7 How many fans does the household own
- ppi8 How many mobile phones does the household own
- ppi9 Does the household own any bicycles motorcycle scooters or motor cars etc
- ppi10 Does the household own or rent sharecrop mortgage in or out 51 or more decimals of cultivable agricultural land excluding uncultivable land and dwelling house homestead land
- ppi11 Does the household own or rent sharecrop mortgage in or out 51 or more decimals of cultivable agricultural land excluding uncultivable land and dwelling house homestead land Time Answered

### Examples

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