

# Package ‘washdata’

May 8, 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

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**Repository** CRAN

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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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