

Package ‘washdata’

July 22, 2025

Title Urban Water and Sanitation Survey Dataset

Version 0.1.4

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

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Encoding UTF-8

Language en-GB

LazyData true

RoxygenNote 7.3.1

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
Date/Publication 2024-04-12 06:40:02 UTC

Contents

indicatorsDataBGD	2
popBGD	2
ppiMatrixBGD	3
surveyDataBGD	3
Index	11

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

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

ppiMatrixBGD	<i>PPI Look-up Table for Bangladesh</i>
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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

surveyDataBGD	<i>WASH Survey Raw Data for Dhaka, Bangladesh</i>
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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

surveyDataBGD

Index

* **datasets**

indicatorsDataBGD, [2](#)

popBGD, [2](#)

ppiMatrixBGD, [3](#)

surveyDataBGD, [3](#)

indicatorsDataBGD, [2](#)

popBGD, [2](#)

ppiMatrixBGD, [3](#)

surveyDataBGD, [3](#)