



Drinking Water for All

**Clean water access:
where and how to improve it**

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OPENCLASSROOMS

Access to clean drinking water

2 billion people do not have access to safe drinking water



Death toll per year
870000 in 2016



Up to 50% of
hospital beds

Diarrhea reduces
medicine efficiency

Skyrocketing
health costs



Lifetimes wasted
carrying water

Impairs girls education

Sanitation is key

Human faeces are the primary source of water contamination

2.5 billion people do not have
easily access to toilets



Time spent queueing for toilets



Impaired development

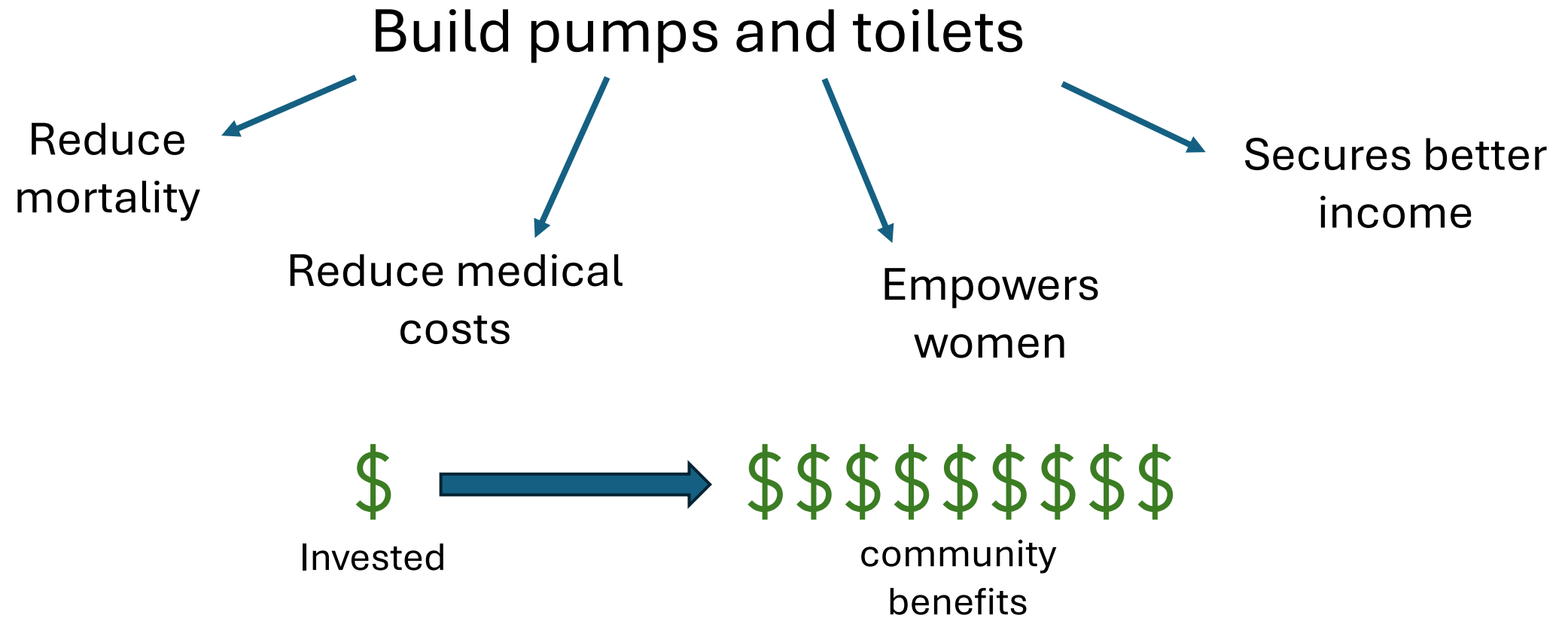
Open defecation



Contamination of community water

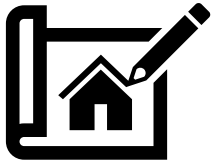
Our mission

Reduce poverty through clean water



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Reduce poverty through clean water



Domain 1: Service creation

Which new infrastructure are adapted to each country?



Domain 2: service modernisation

Which countries have existing, yet inefficient infrastructure?



Domain 3: consulting

Among the countries which need help, which ones have "stable enough" administration to support water projects?

→ Need a tool to summarize available information

Available data, indicators and indices

Population and regions

Source: UN



Years:
2000 to 2018

Population: Estimation of the population per country.

Region: Each country assigned to a region according to geographical and cultural parameters.

Can be divided by urban and rural areas

Available data, indicators and indices

Rate of access to water services

Source: WHO



Years:
2000 to 2017

Percentage of population living max. 15 minutes
away from an **improved water source**.

Piped water, boreholes, protected wells and springs, packed or delivered water.

At least Basic service

No water quality requirement

Safely managed service

No fecal contamination

No primary chemical contamination

Available data, indicators and indices

Water, Sanitation and Hygiene (WASH) mortality

Source: WHO



Years:
2016

Estimation of the casualties due to the consumption, or contact with unsafe water.

WASH mortality rate

Number of deaths per
100 000 people

WASH death toll

Raw number of deaths

Available data, indicators and indices

Political Stability and Absence of Violence Index

Source: World Bank

Years:
2000 to 2018



Aggregation of several indexes. Measures perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means.



Should not be used to predict future instability.

Data summarized

We work with 6 tables without notable pre-treatment

5 tables from the UN

Water service
access

WASH mortality

Population

Geographical areas

Political stability

1 extra table to help
data management

Year
(1 column with the
year)

User stories

User story	Specific measure to use	Vizualization	Page
Understand political stability in the world	Average political stability per region	World map	World View
Vizualize the evolution of rural and urban population	Rural and urban population	lineplot	World View
Vizualize the evolution of the access rate to clean water	Safe water service, basic water service	Stacked barplot	World View
Vizualize the death toll per continent	WASH death rate, rate of access to basic water services	scatter plot	World View
See the data for specific years	Years	Time slicer	World View

→ World View

User stories

User story	Specific measure to use	Vizualization	Page
Domain 2 (Modernisation and services) : Identify the country which badly need to improve the quality of their services	WASH mortality rate and rate of access to water services.	Dotplot per country	Continent View
Domain 3 (consulting) : Visualize the efficiency of governmental water policy and political stability	Mortality rate due to water Rate of access to water services Political stability	Continent map of political stability rate	Continent View
Vizualize the countries with the worse WASH death toll	WASH death toll	Barplot per country	Continent View
Filter countries per political stability	Political stability	Filter slider	Continent View
Filter data per type of population	Population type	Filter selector	Continent View
Select region to vizualize	Region	Filter selector	Continent View

→Regional View

User stories

User story	Specific measure to use	Vizualization	Page
Domain 1 (Service creation) : Identify the type of service to create	Access to safely managed water services Rural, urban and total population	Grouped barplot with the 3 granularities	National View
Vizualize the evolution of the political stability in this country	Political stability index	Line plot	National View
Rank the country per mortality rate and death toll	WASH mortality and death toll	cards with values and world rank	National View
Select country to vizualize	Country	Filter selector	National View

→ National View

Thank you for your
attention

