

Wealth Inequality- adjusted Sanitation Index

20th SanCoP Meeting
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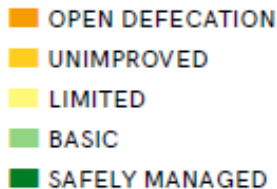
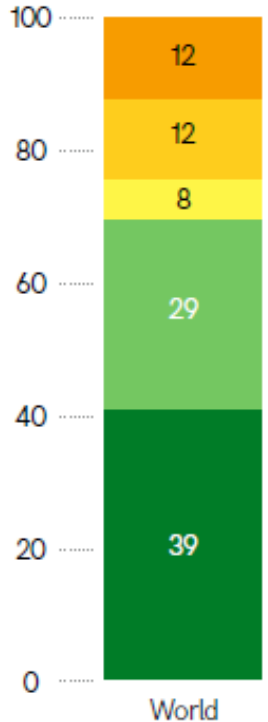
Background



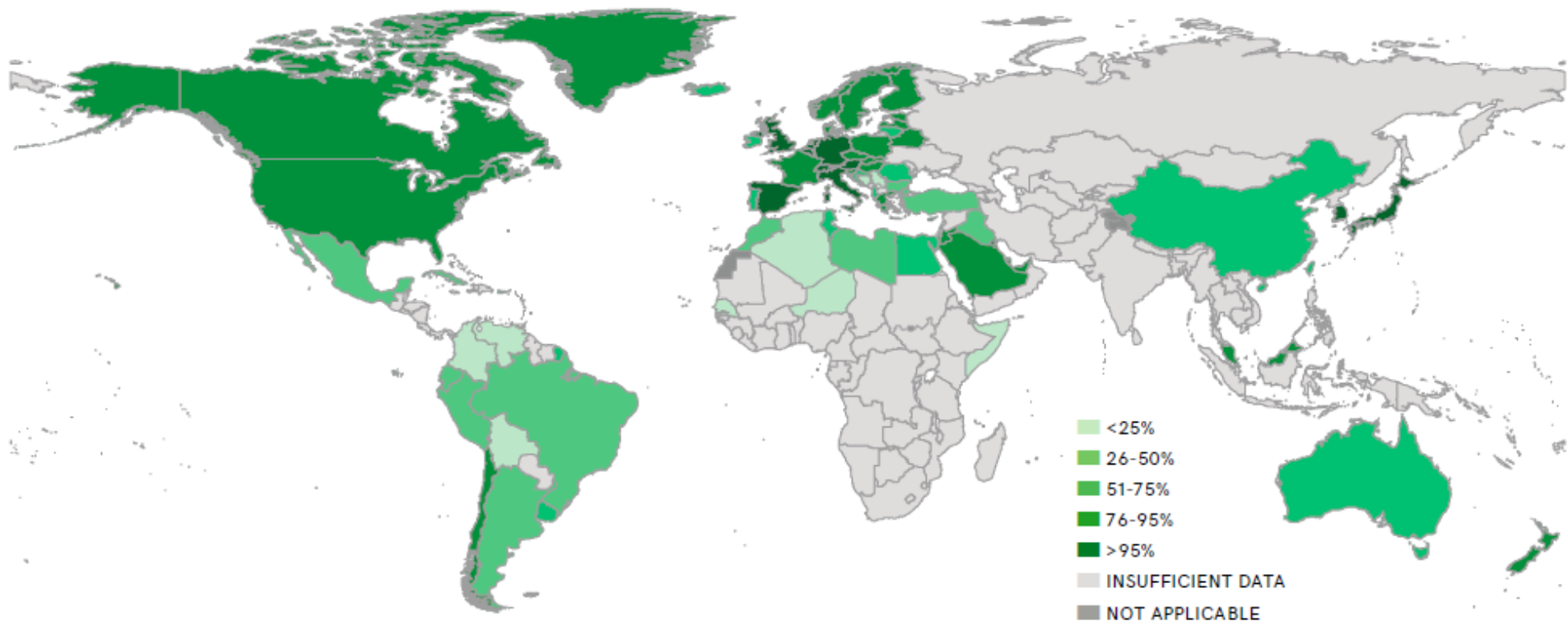


New monitoring framework

- SDG 6.2 core indicator is ‘safely managed’
- JMP tracks progress across the revised sanitation service ladder
 - **Safely managed**
 - Basic
 - Limited
 - Unimproved
 - Open defecation

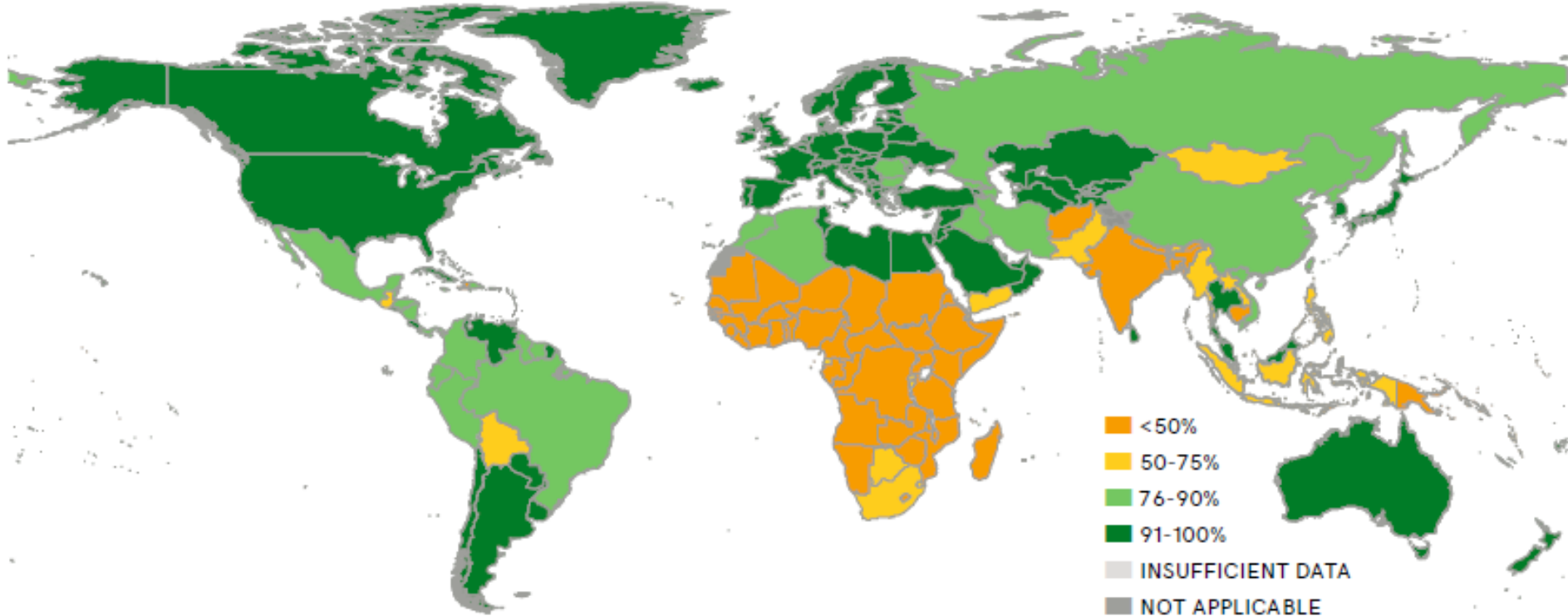


Proportion of population using safely managed sanitation services, 2015



JMP (2017) Progress on drinking water, sanitation, and hygiene: 2017 update and SDG Baselines. Geneva. WHO/UNICEF.

Proportion of population using at least basic sanitation services, 2015



JMP (2017) Progress on drinking water, sanitation, and hygiene: 2017 update and SDG Baselines. Geneva. WHO/UNICEF.

Risks of the new monitoring framework



‘Safely managed’ puts focus on public health and raises the ambition.

But data gaps can result in weakened **accountability**

There is also a risk of perverse **incentives**

Communicating **equity** measures becomes more complicated



How can the sanitation index address these risks?

The Sanitation Index (SI) combines data on coverage across the ladder into a single number. As such, it:

- Facilitates a comparison of countries without losing the ambition for safely managed services for all (**accountability**)
- Recognises progress at lower rungs of the ladder (**incentives**)
- Enables the integration with other indicators such as wealth quintiles to develop inequality measures (**equity**)

The sanitation index

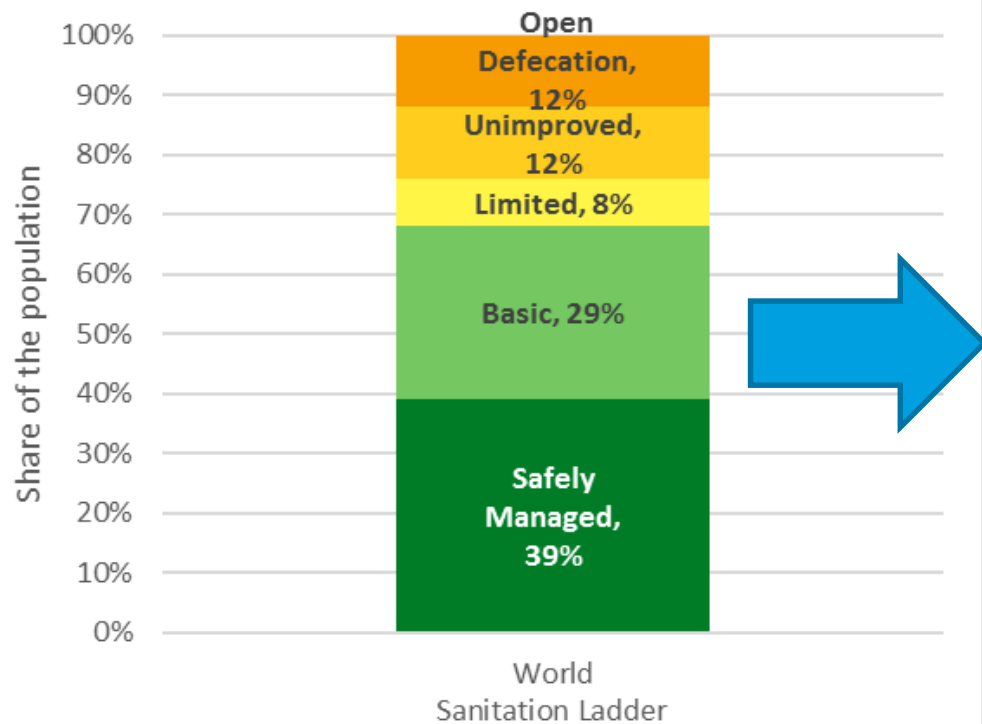


Methodology

1. Each rung of the service ladder assigned a weight:
 - Safely managed = 1
 - Basic = 0.75
 - Limited = 0.5
 - Unimproved = 0.25
 - Open defecation = 0
2. % of population using each level of service multiplied by service weight, giving 5 component values.
3. Sanitation Index (SI) equals the sum of the component values, and will be between 0-1 where:
 - 0 = 100% OD
 - 1 = 100% Safely managed

Methodology

World
Sanitation Ladder



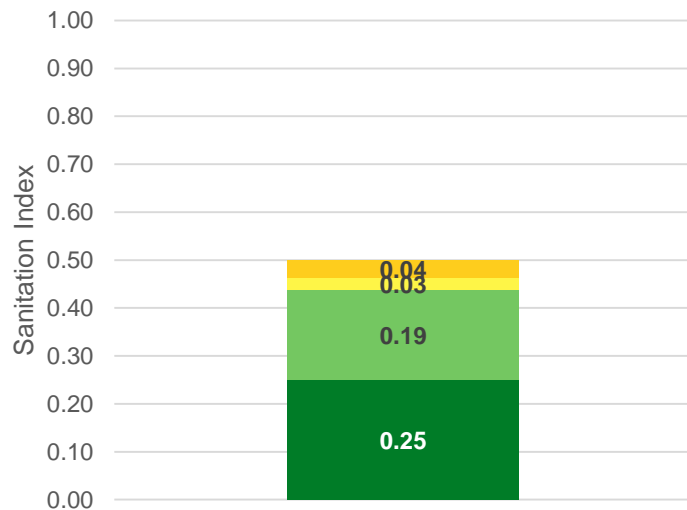
World (2015)
Sanitation Index: 0.68



Examples

Example countries	Service Ladder				
	SM	B	L	U	OD
Country A	25%	25%	5%	15%	30%
Country B	25%	25%	25%	15%	10%

Country A
Sanitation Index: 0.5



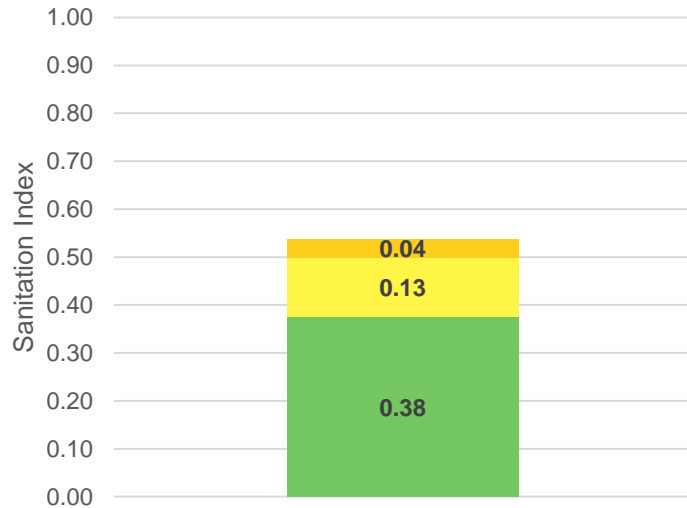
Country B
Sanitation Index: 0.6



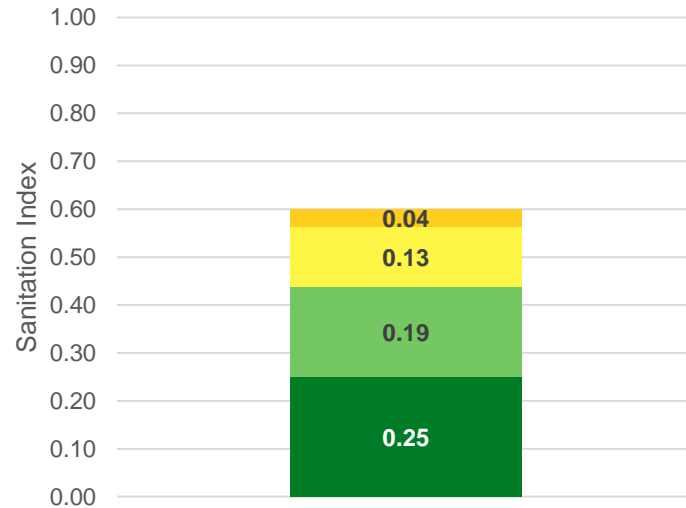
Examples

Example countries	Service Ladder				
	SM	B	L	U	OD
Country C	0%	50%	25%	15%	10%
Country B	25%	25%	25%	15%	10%

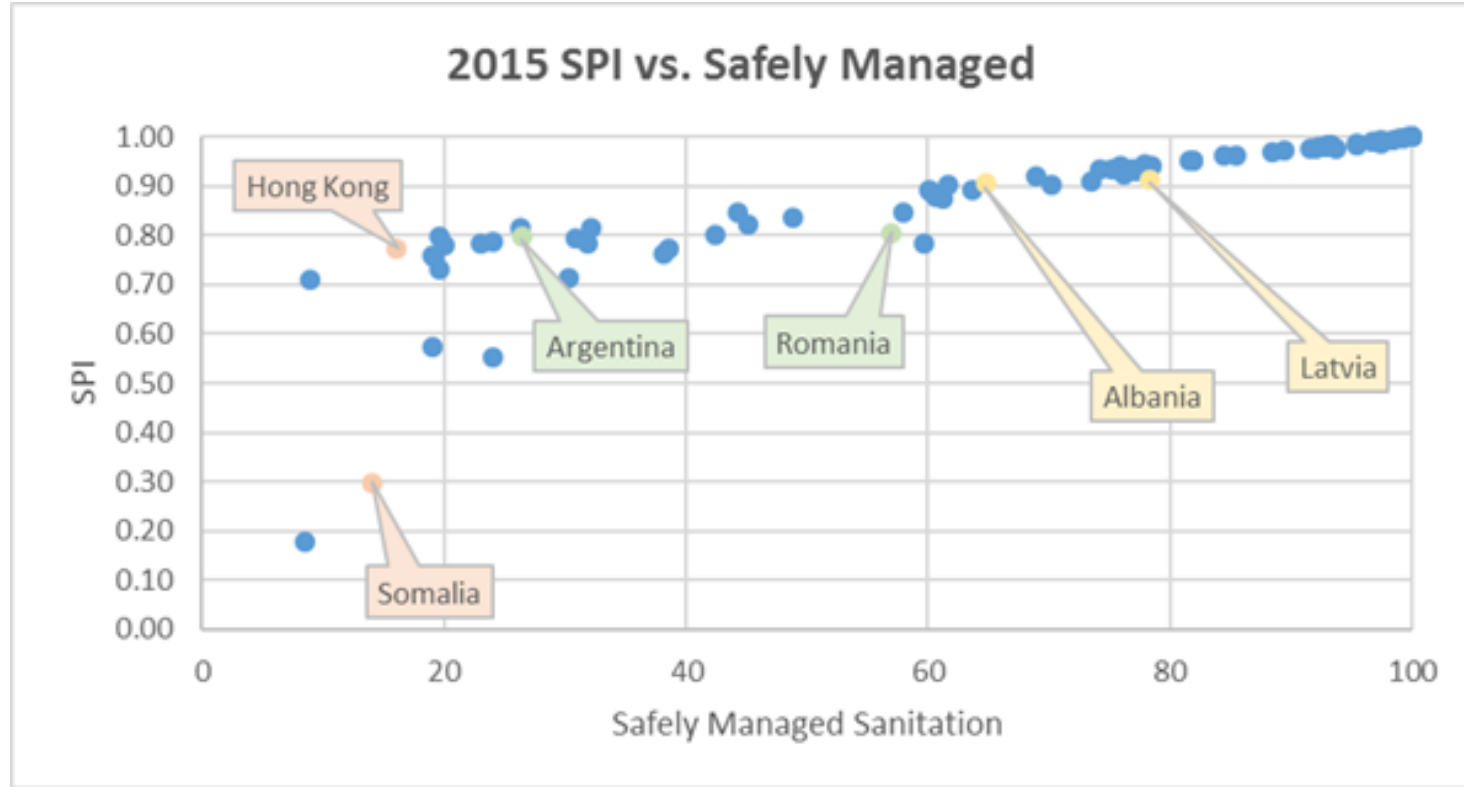
Country C
Sanitation Index: 0.54



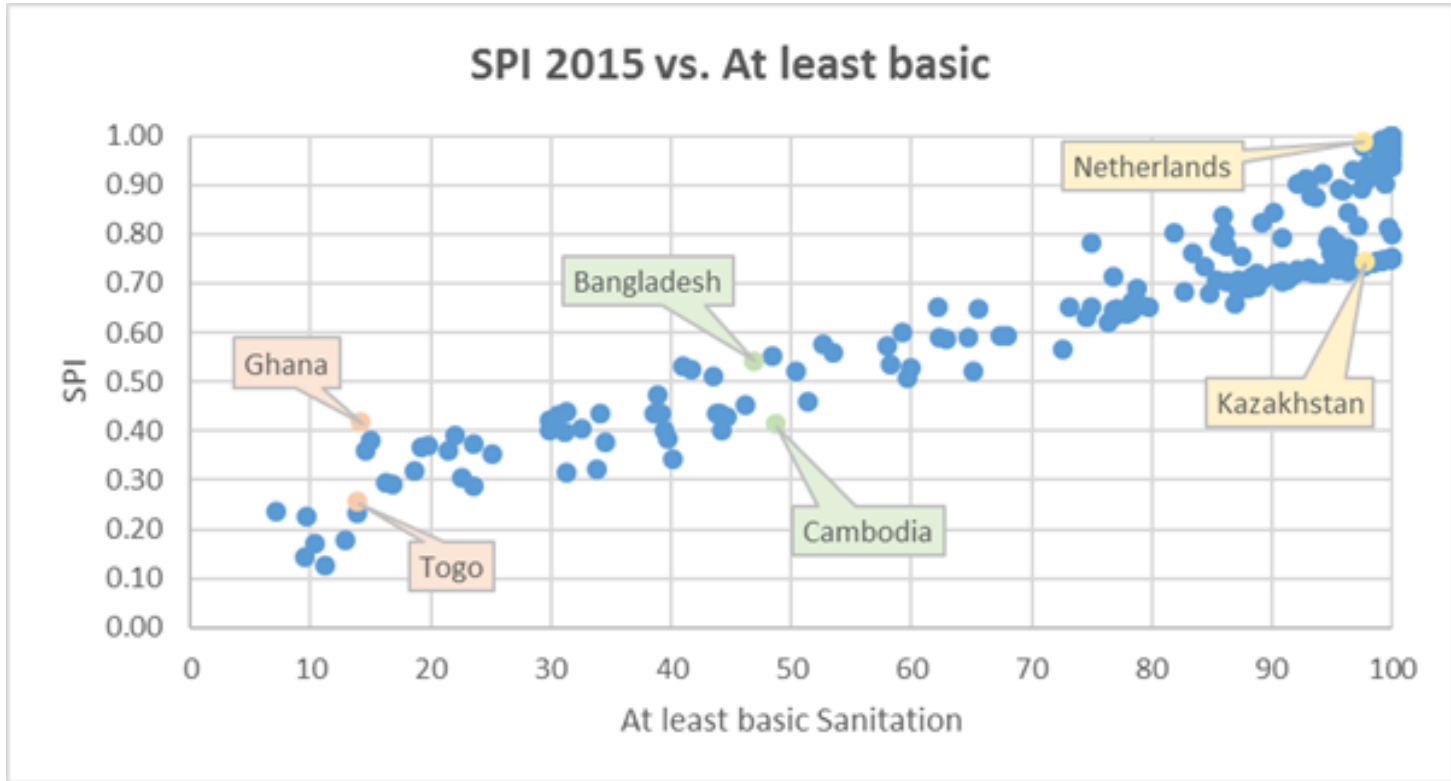
Country B
Sanitation Index: 0.6



What is the added value of a SI?



What is the added value of a SI?



Wealth Inequality-adjusted Sanitation Index



The Wealth Inequality-adjusted Sanitation Index

- Follows very similar methodology to the Inequality-adjusted Human Development Index
- SI is 'discounted' according to the level of wealth-based inequality in services (JMP data)
- The WI-SI equals the SI when there is no inequality in levels of access across wealth quintiles, but falls below the SI as inequality rises.

Methodology

- Calculate Atkinson measure of inequality:

$$A = 1 - g/\mu$$

g = geometric mean, and

μ = arithmetic mean of the wealth quintile distribution

- 'Discount' SI value according to A: $WI-SI = (1 - A) * SI$

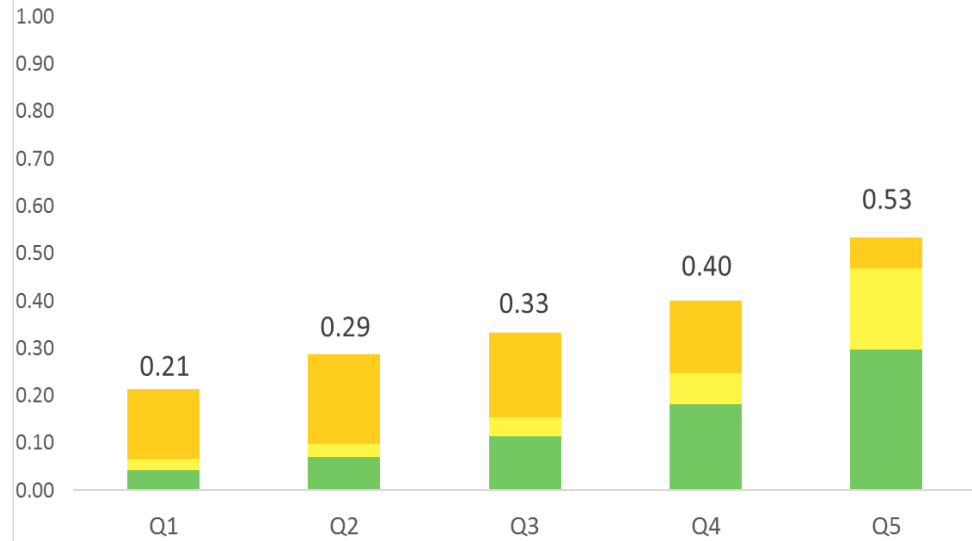
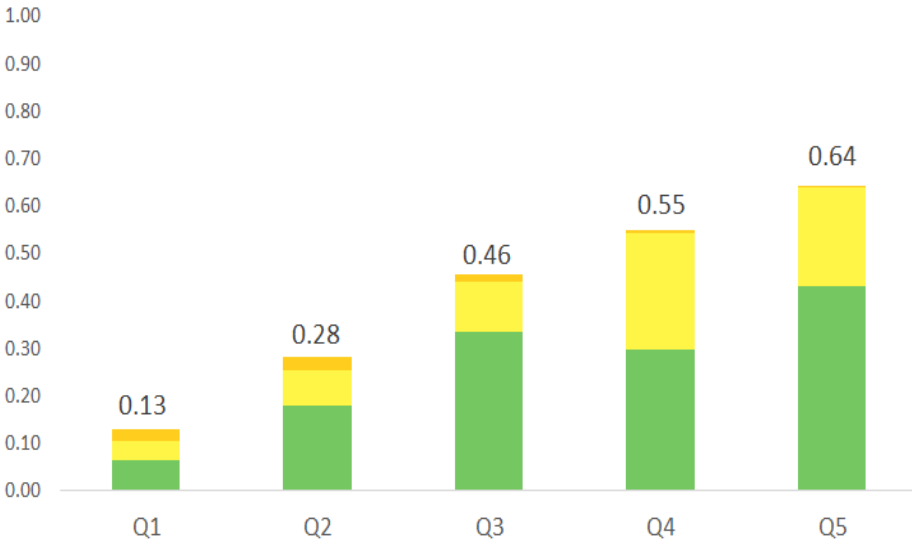
Examples

Zimbabwe:

- $SI = 0.44$
- $WI-SI = 0.38$

Uganda:

- $SI = 0.37$
- $WI-SI = 0.35$



Change in ranking SI vs WI-SI

Best / worst performers (2015)

Country	SI	Rank	WI-SI	Rank	Rank
DRC	0.37	67	0.37	58	+9
Uganda	0.37	68	0.35	62	+6
Guinea Bissau	0.36	70	0.34	65	+5
Sierra Leone	0.36	69	0.35	64	+5

Mauritania	0.43	55	0.31	70	-15
Angola	0.40	60	0.30	71	-11
Côte d'Ivoire	0.40	61	0.32	68	-7
Lesotho	0.44	49	0.38	56	-7

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