Journey to a World Free of Untreated Wastewater

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Journey to a World Free of Untreated Wastewater

As we move with our journey, there are different interim targets and timelines:

The first timeline:

- End of SDG era in 2030

The first target:

- Halving the proportion of untreated wastewater

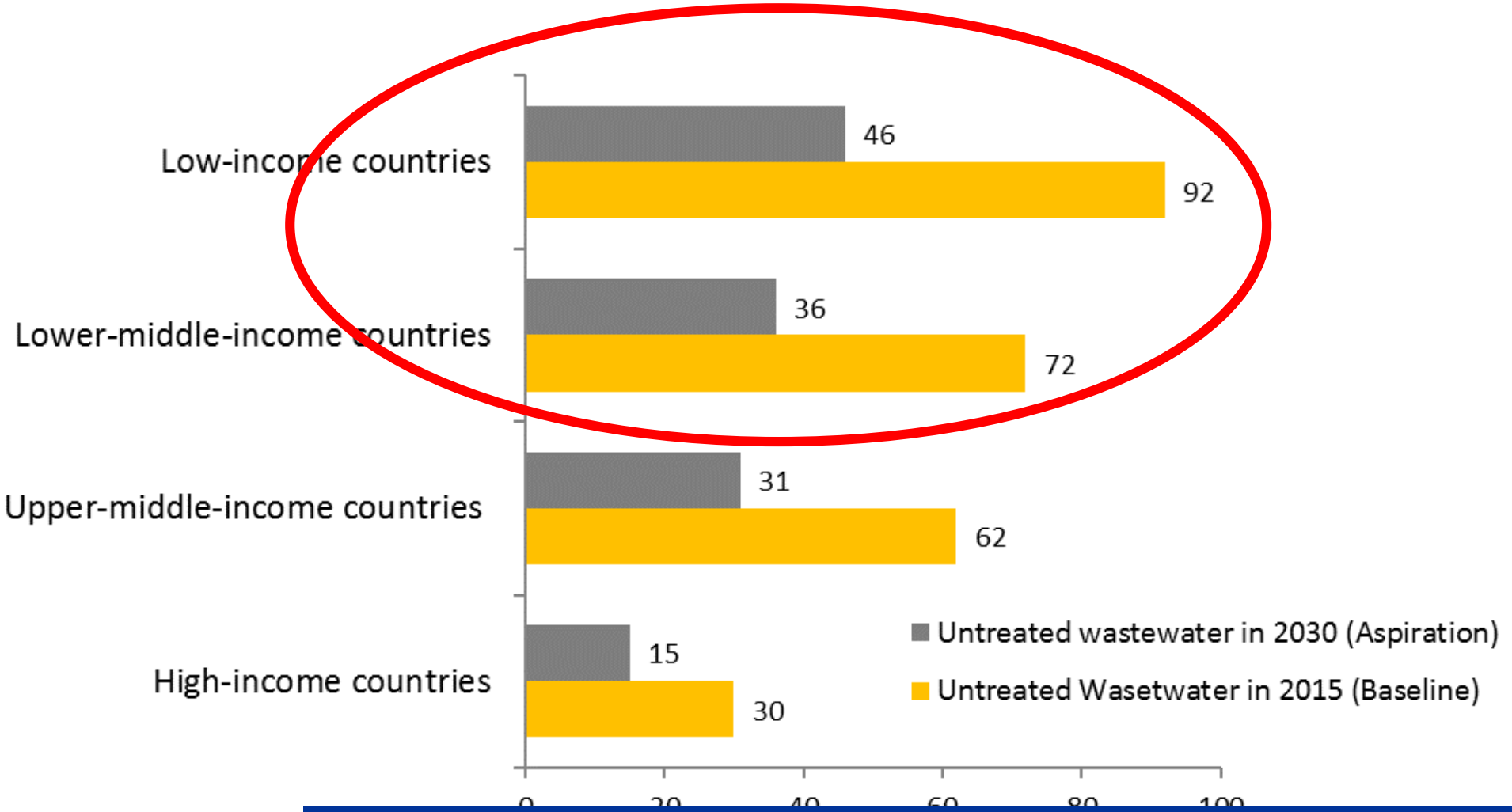
The first expectation:

- Substantially increasing recycling and safe reuse globally

Where are we now with wastewater treatment status?

Wastewater treatment with substantially increasing recycling and safe reuse globally

Wastewater treatment with any physical or chemical treatment process



Low-income and lower-middle-income countries will have to reduce large percentages of untreated wastewater

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But the global wastewater volumes in 2030 will not be the same!

2015	2030	Increase over 2015
355 billion m^3	425 billion m^3	20%

The same applies to wastewater produced at the national level, although with some country-specific variation.

Let's look at an example developing country

2015	2030	Actual 2030
WW produced: 1000 million m^3	SDG 6.3.1 target achieved	WW produced: 1200 million m^3
WW treated: 200 million m^3	Half of 800 million m^3 (400) treated	
WW untreated: 800 million m^3	400 million m^3 untreated	+200
Untreated: 80%	Untreated: 40%	

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The baseline for this country in 2030 for the next SDG-like period will not be at 40% untreated wastewater.

And we are expecting treated wastewater to produce more food

Secondary treated wastewater for non-food crops or those not eaten in raw form; tertiary treated for food production.

Affordability for developing countries?

Focus on public health dimension

Focus on environmental dimension

Treatment Level	Exposure		
	High (reuse for food production)	Medium (disposal on land or water bodies – not for food production)	Low exposure (long ocean outfall or groundwater recharge)
Advanced treatment	Safely managed	Safely managed	Safely managed
Tertiary treatment	Safely managed [1]	Safely managed [1,2]	Safely managed
Secondary treatment	Not safely managed	Safely managed [2]	Safely managed
Primary treatment	Not safely managed	Not safely managed	Safely managed
No treatment	Not safely managed	Not safely managed	Not safely managed

[1] where only advanced N,P removal then classed as 'not safely managed'
[2] where disposal is in proximity of bathing areas then classed as 'not safely managed'

Source: *Integrated Monitoring Guide for SDG 6: Step-by-step methodology for SDG 6.3.1*

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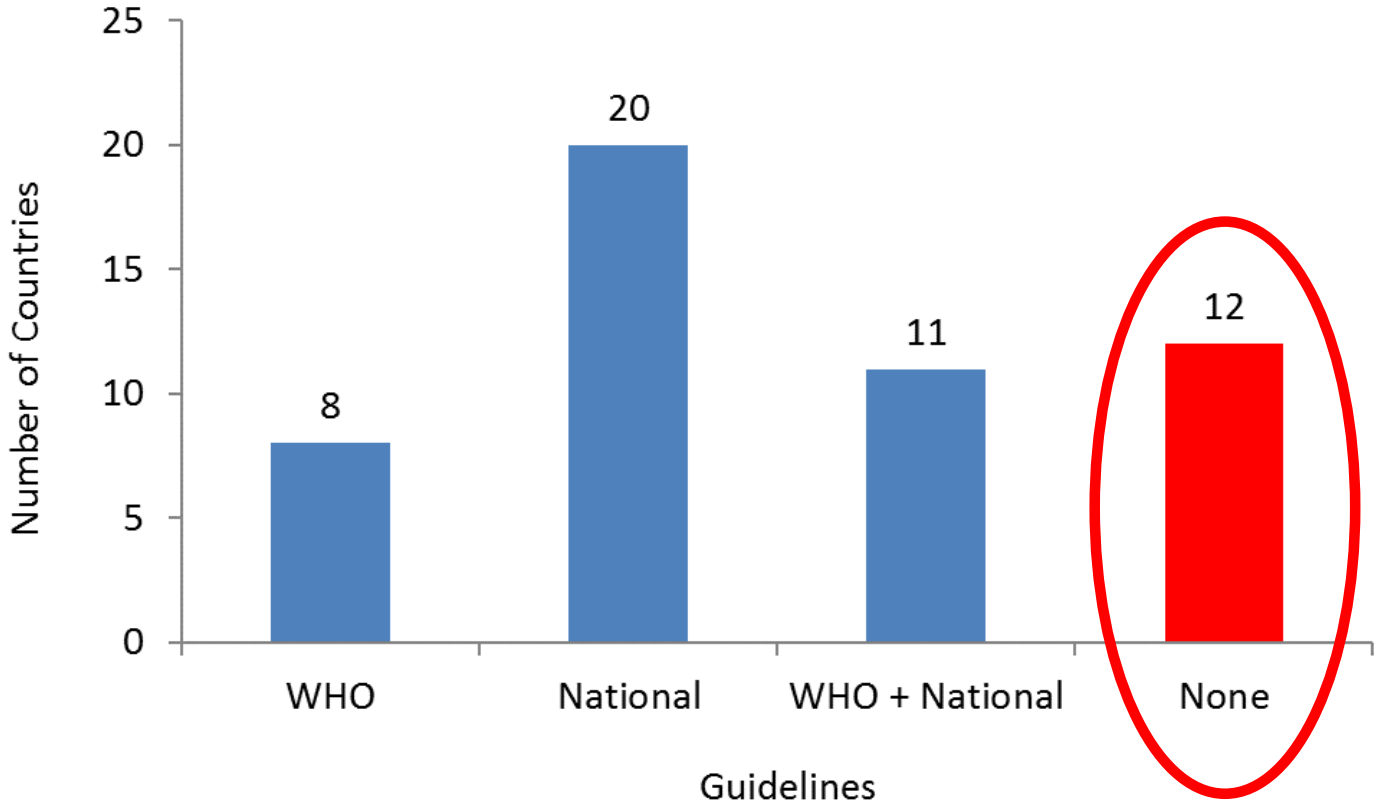
Where are we at implementing wastewater use guidelines?

Major Challenge:
Implementation



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And there are risks and costs with using untreated wastewater

Environmental Implications and costs

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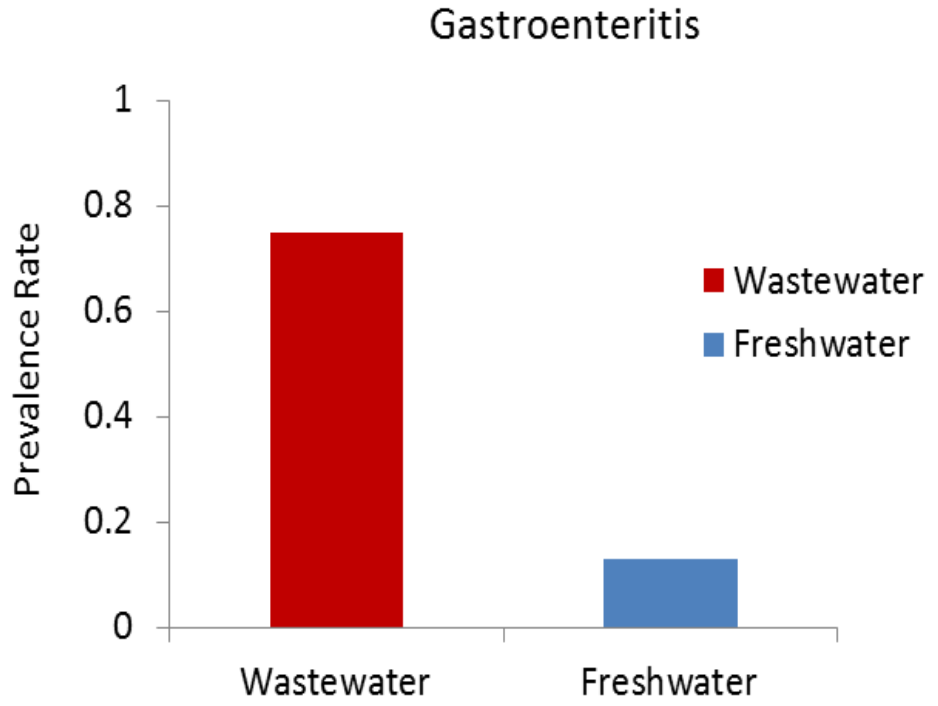
Higher prevalence rates of water borne diseases such as gastroenteritis in areas irrigated with raw wastewater (75%) than freshwater irrigated areas (13%); with associated higher annual health costs.



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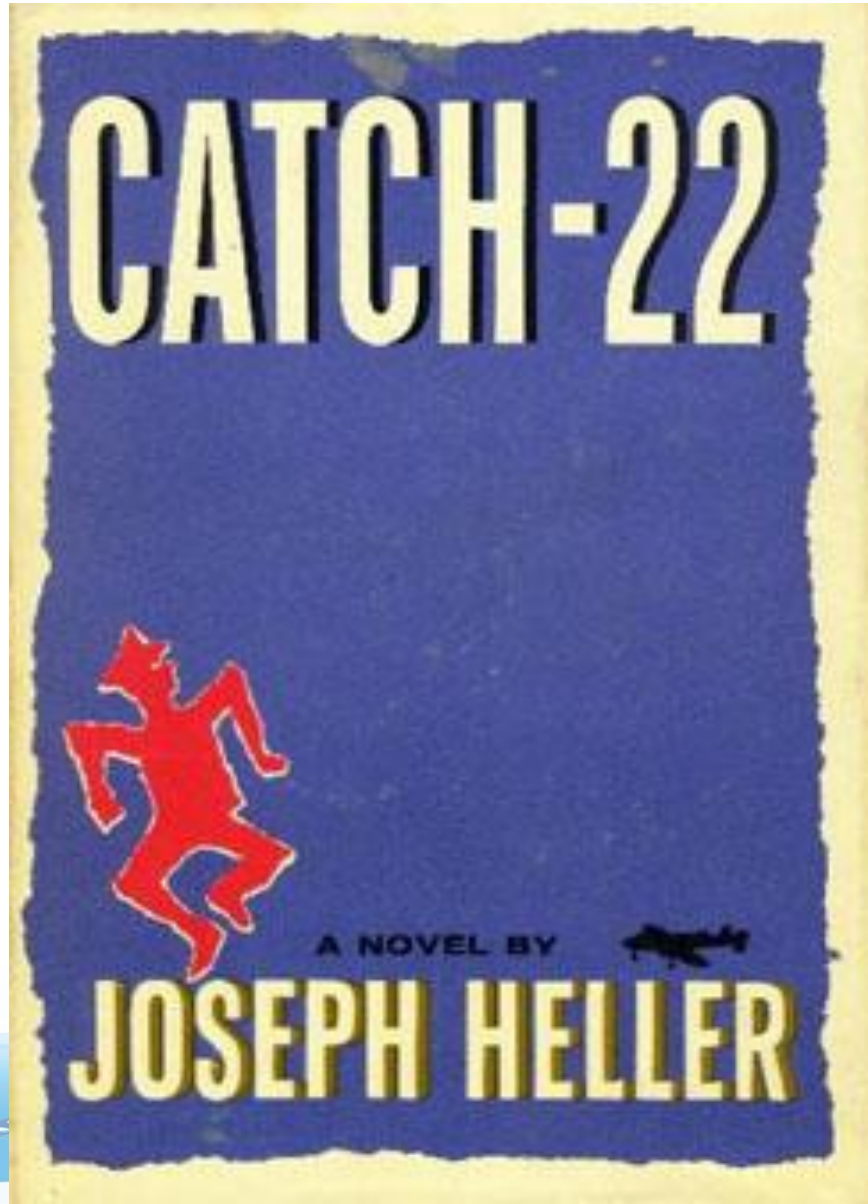
Source: *Grangier et al. (2012) Water Quality, Exposure and Health 4 (4): 187-195*

Are we in Catch-22 situation?

- A problematic situation for which the solution is denied by a circumstance inherent in the problem.
- A dilemma or difficult circumstance from which there is no escape because of mutually conflicting approaches.
- **Use of untreated wastewater benefits poor communities, but comes with health and environmental risks and costs.**



Journey to a World Free of Untreated Wastewater

We need to rethink the way we are managing wastewater today!

Over to the moderator, panel and participants

Panel

Moderator:

- Pay Drechsel, Strategic Program Leader, Urban-Rural Linkages, IWMI

Panel Members:

- Tamara Avellán, Research Fellow, UNU-FLORES
- Sarantuyaa Zandaryaa, Programme Specialist, UNESCO-IHP
- Praem Mehta, Project Leader, Water and Health, UNU-INWEH
- Serena Caucci, Researcher, UNU-FLORES
- Burcu Yazici, Turkish Water Institute, SUEN