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Self-supply and market-based approaches for safe drinking water in lower income countries

Tim Foster & Cindy Priadi

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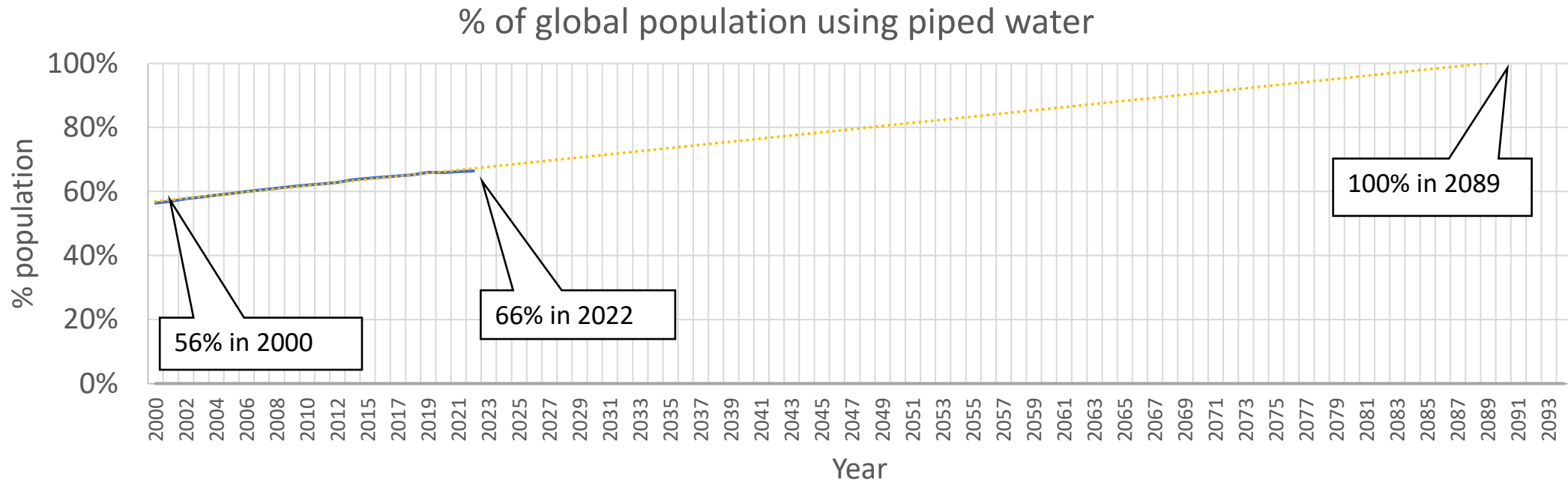


PRESENTATION BRIEF

- Session number: T2C3
- Name of presenter: Dr Tim Foster & Dr Cindy Priadi
- Institution: University of Technology Sydney & Universitas Indonesia
- Key phrases:
 - Drinking water
 - Self-supply
 - Market-based approaches



Universal access to piped water won't be achieved until 2089; challenge even greater for 'safely managed' piped supply



How can market-based approaches help get water to the premises and make it safe to drink even when piped systems are absent?

Data source: WHO/UNICEF Joint Monitoring Programme

Self-supply and market-based approaches are separate but related concepts premised on household demand

Self-supply

Households own and manage their own water supply, typically by investing in and installing a private well or rainwater tank on their premises



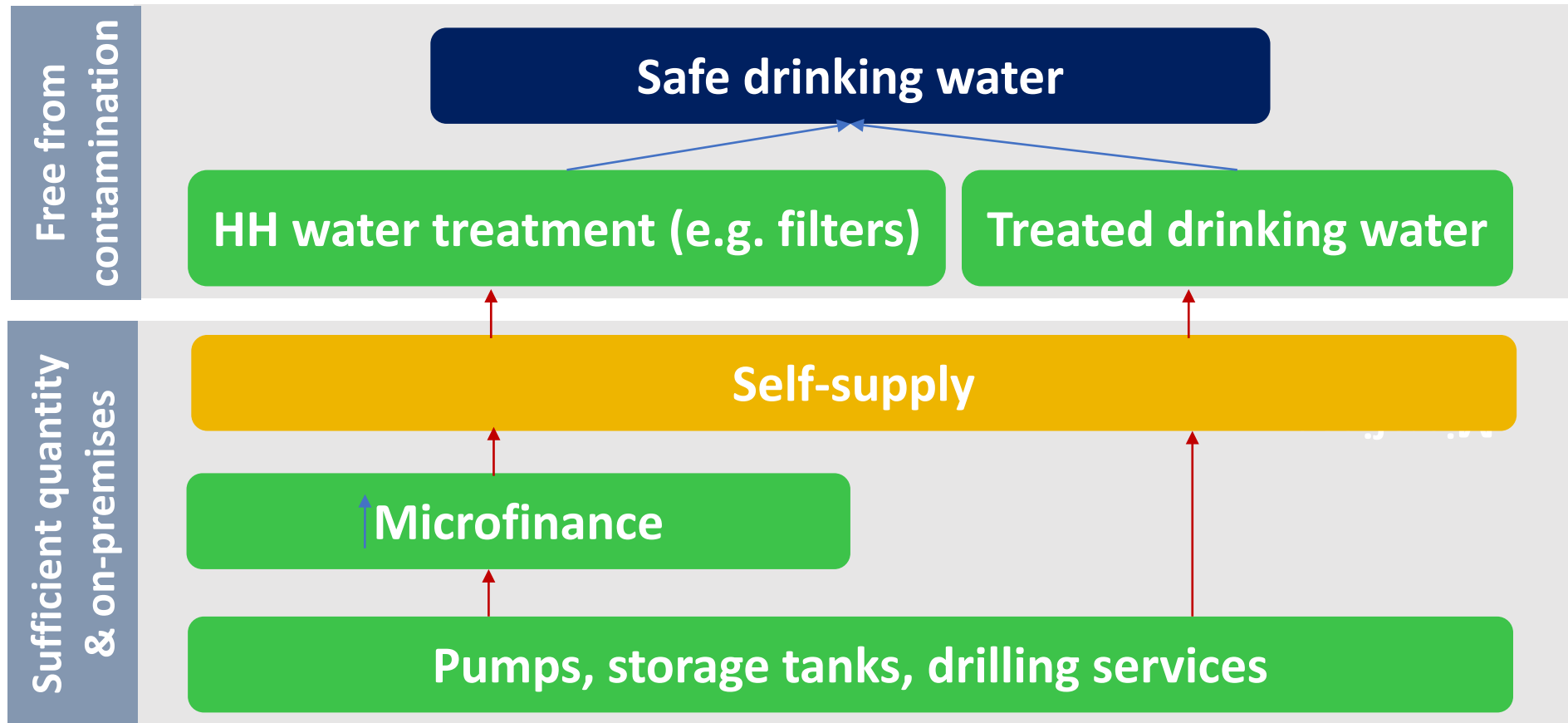
Market-based approach

Building the market of goods and services by strengthening the private sector (supply side) and/or increasing the willingness of end users to pay (demand side)

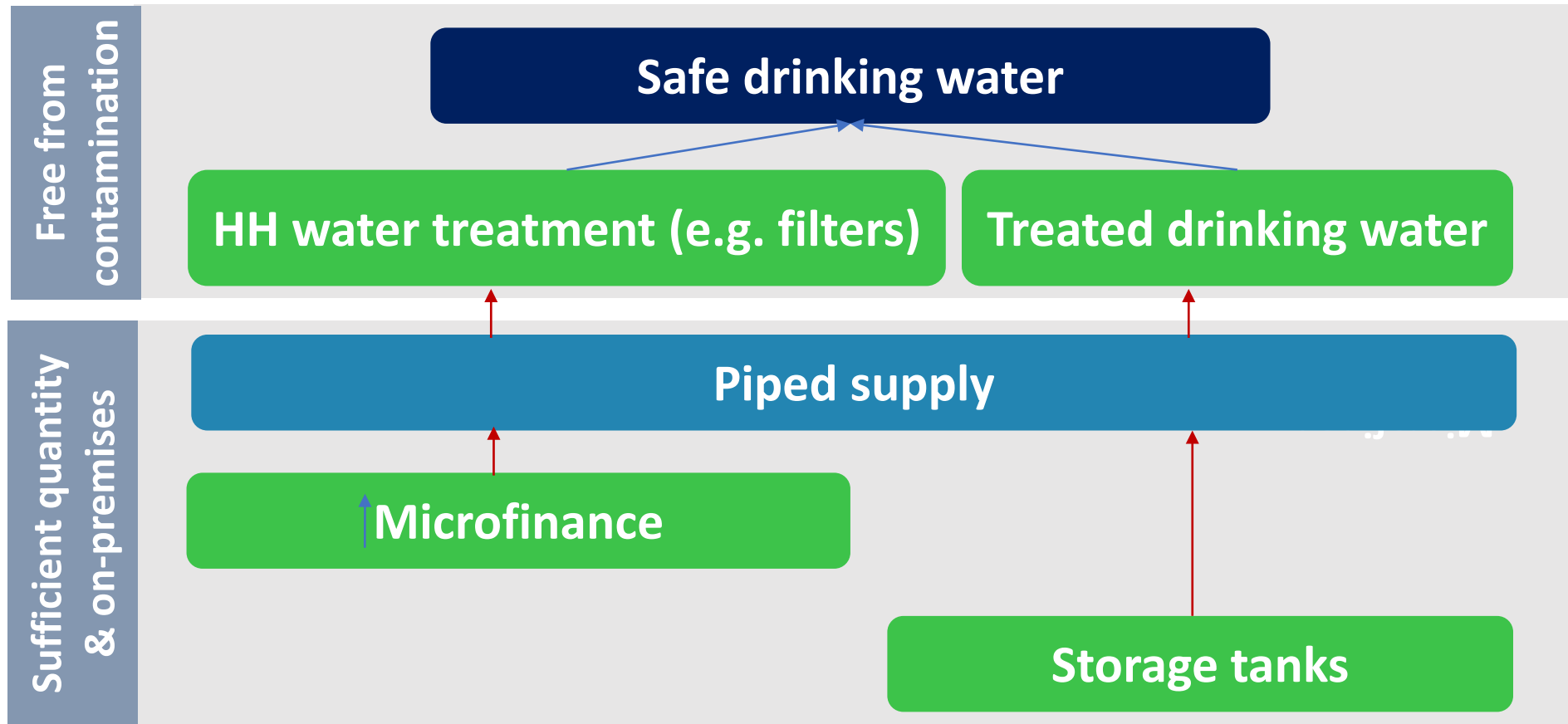


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Self-supply and market-based solutions for safe drinking water are inextricably linked

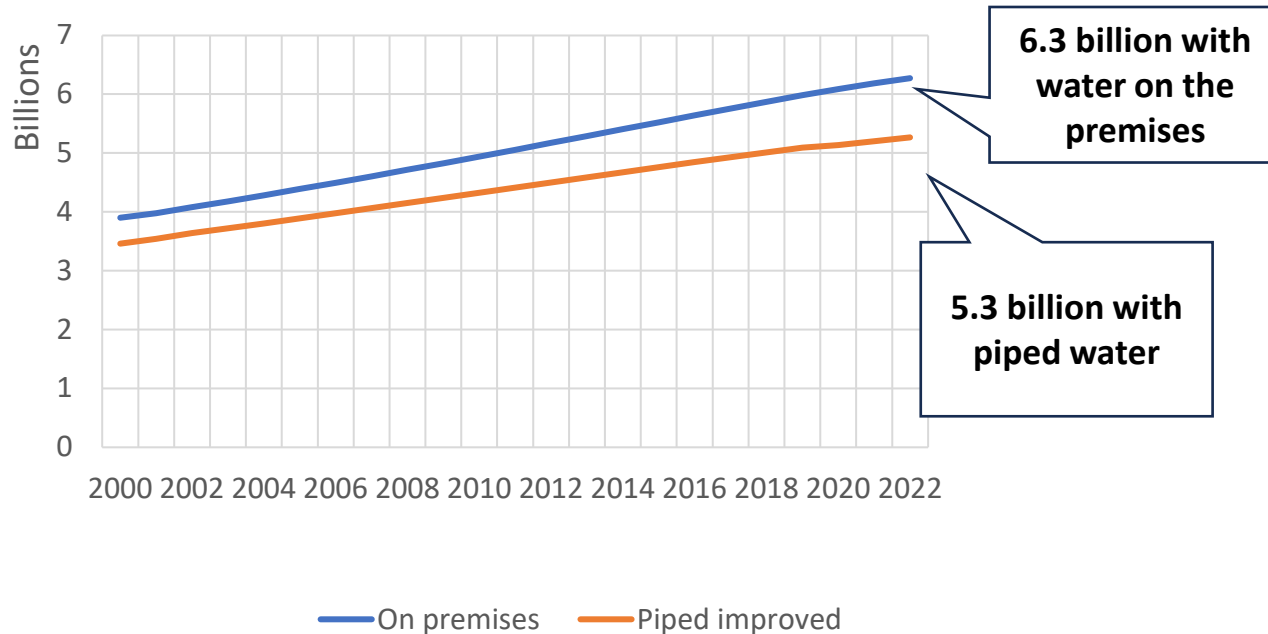


Market-based solutions also help households connect to piped water, and address quality and reliability issues

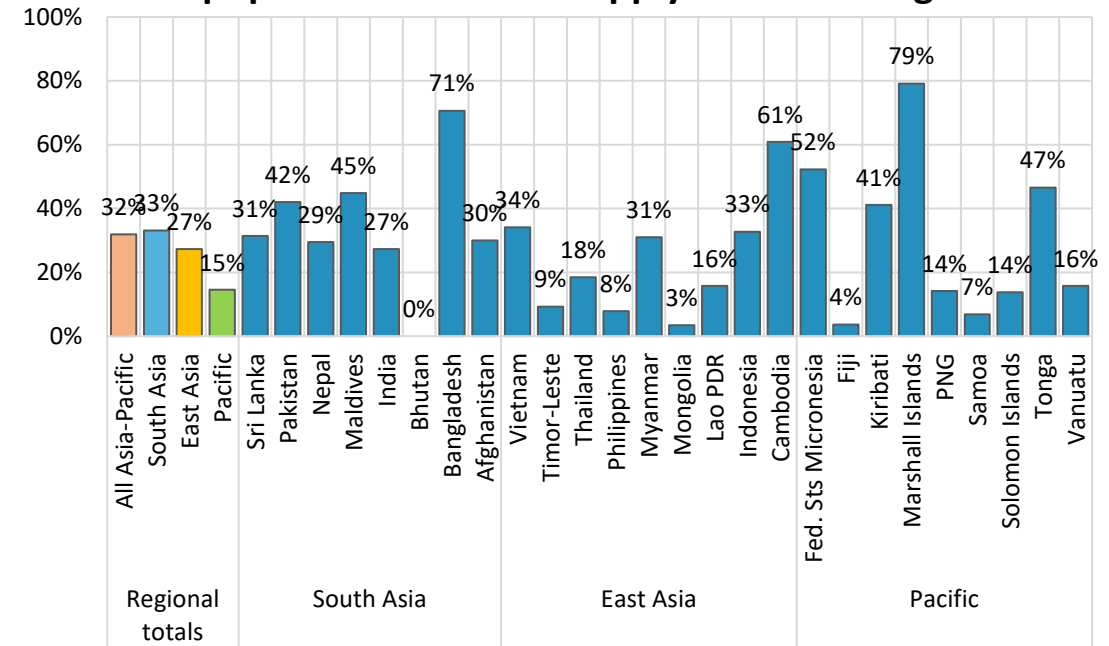


>1 billion people globally self-supply their drinking water, including 1/3 of the population in LMICs in Asia Pacific

Global population self-supplying their drinking water



% of population who self-supply their drinking water



The ubiquity and growth of self-supply reflect thriving markets for drinking-water goods and services

Data sources: WHO/UNICEF Joint Monitoring Programme; Foster et al (2021)

Markets in Asia have driven widespread uptake of water supply products with minimal need for public funding

>20 million privately owned No. 6 suction handpumps in Bangladesh



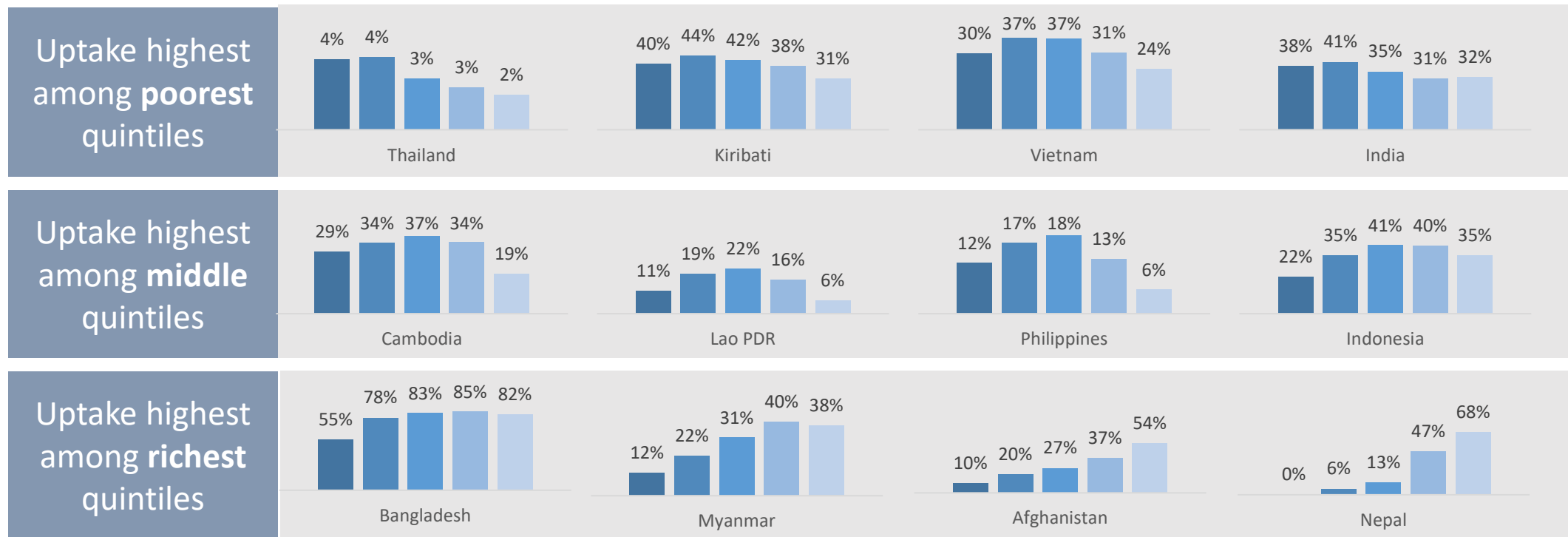
>20 million privately owned electric pumps installed in urban Indonesia



Photo credits: University of Technology Sydney, Universitas Indonesia, UNICEF

Equity a key consideration for market-based solutions, but self-supply shows this plays out in different ways

% of rural population self-supplying their drinking water by wealth quintile

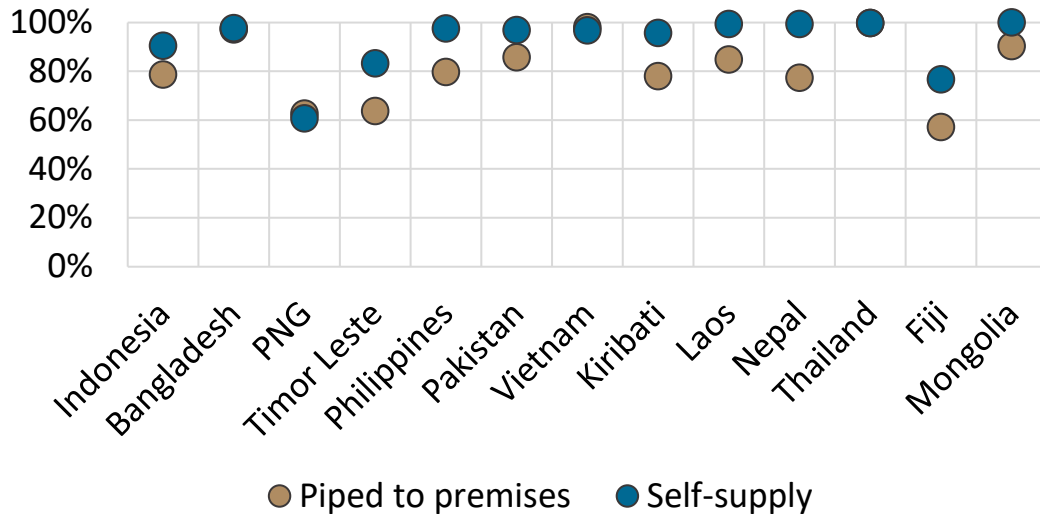


■ Poorest ■ Poorer ■ Middle ■ Richer ■ Richest

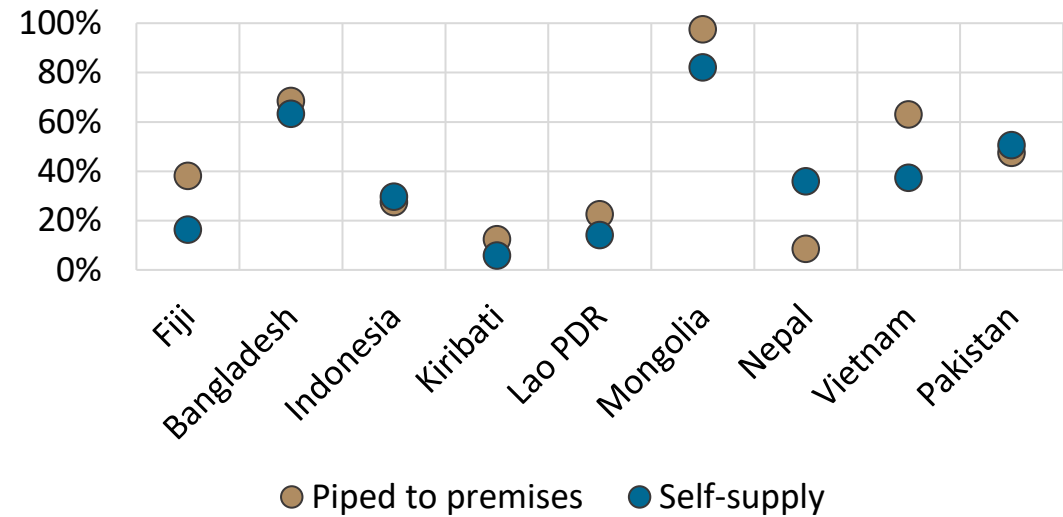
Data sources: Nepal MICS (2019), India DHS (2015-16), Bangladesh MICS (2019), Afghanistan DHS (2015) Vietnam MICS (2020-21) Thailand MICS (2015-16); Philippines DHS (2017), Myanmar DHS (2015-16), Lao PDR MICS (2017), Indonesia DHS (2017), Cambodia DHS (2014);

Despite a lack regulation, performance of self-supply is comparable (and sometimes better) than piped supply

% of rural households with water always sufficient in the last month or 2 weeks



% of rural households with source water free from E. coli



Market-based solutions that help households address poor water quality are important for both self-supplied and piped water

Data sources: Pakistan DHS (2017-18), Nepal MICS (2019), India DHS (2015-16), Bangladesh MICS (2019), Afghanistan DHS (2015) Vietnam MICS (2020-21) Timor Leste DHS (2016), Thailand MICS (2015-16); Philippines DHS (2017), Myanmar DHS (2015-16), Mongolia MICS (2018), Lao PDR MICS (2017), Indonesia DHS (2017), Cambodia DHS (2014); Fiji MICS (2021), Indonesia SKAM-RT (2020) Kiribati MICS (2018-19)

How to maximise opportunities whilst mitigating risks?



Self-sustaining
Demand driven
Less reliant on public financing



Equity concerns
Lack of regulation



THANK YOU

