

Business Models in Sanitation

Miriam Otoo

International Water Management Institute, Sri Lanka

In cooperation with:



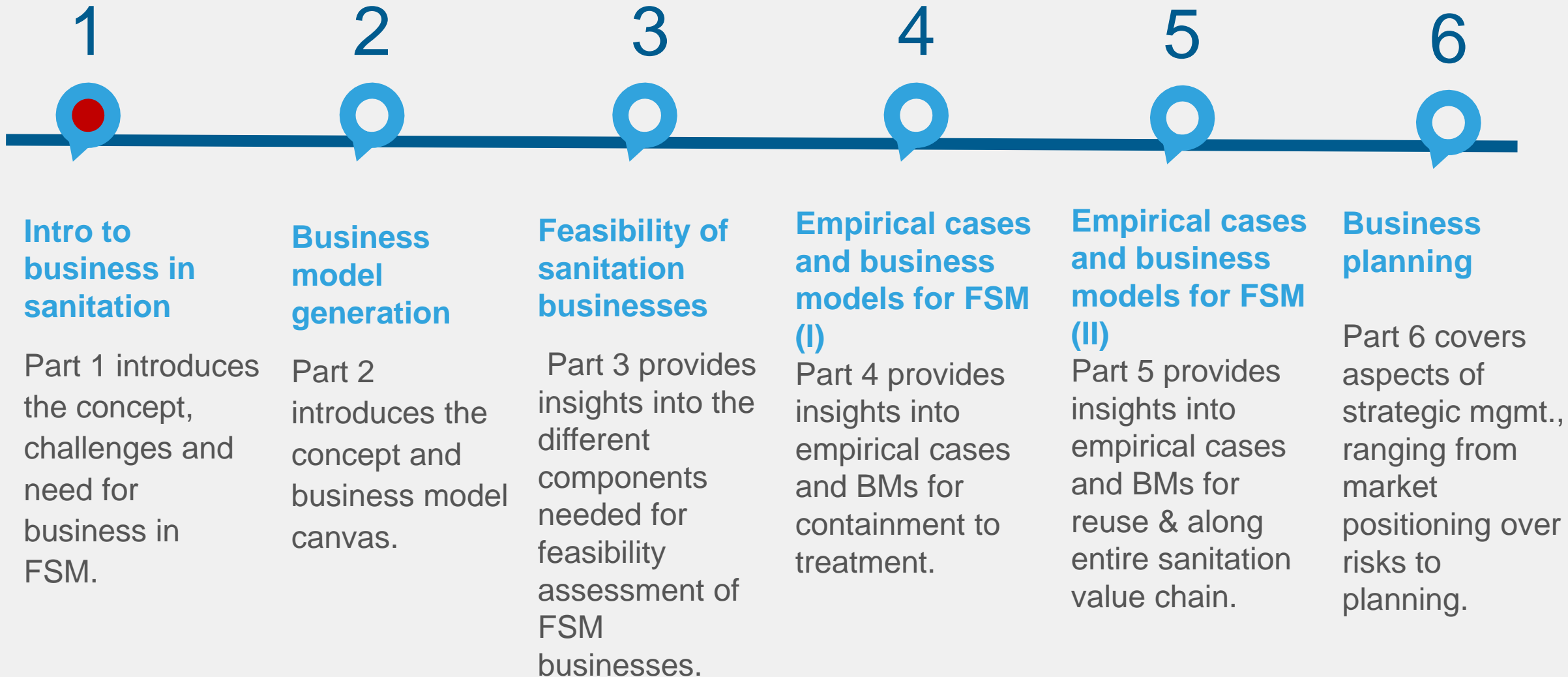


Learning Objectives of Session

Upon completion of this session, you will:

- ♻️ Understand the relevance of business in FSM.
- ♻️ Be conversant with the business model canvas and use it to conceptualize your own business idea.
- ♻️ Be conversant with real-life FSM business cases and models.
- ♻️ Understand how to conduct a feasibility assessment for an FSM business model.

Session structure



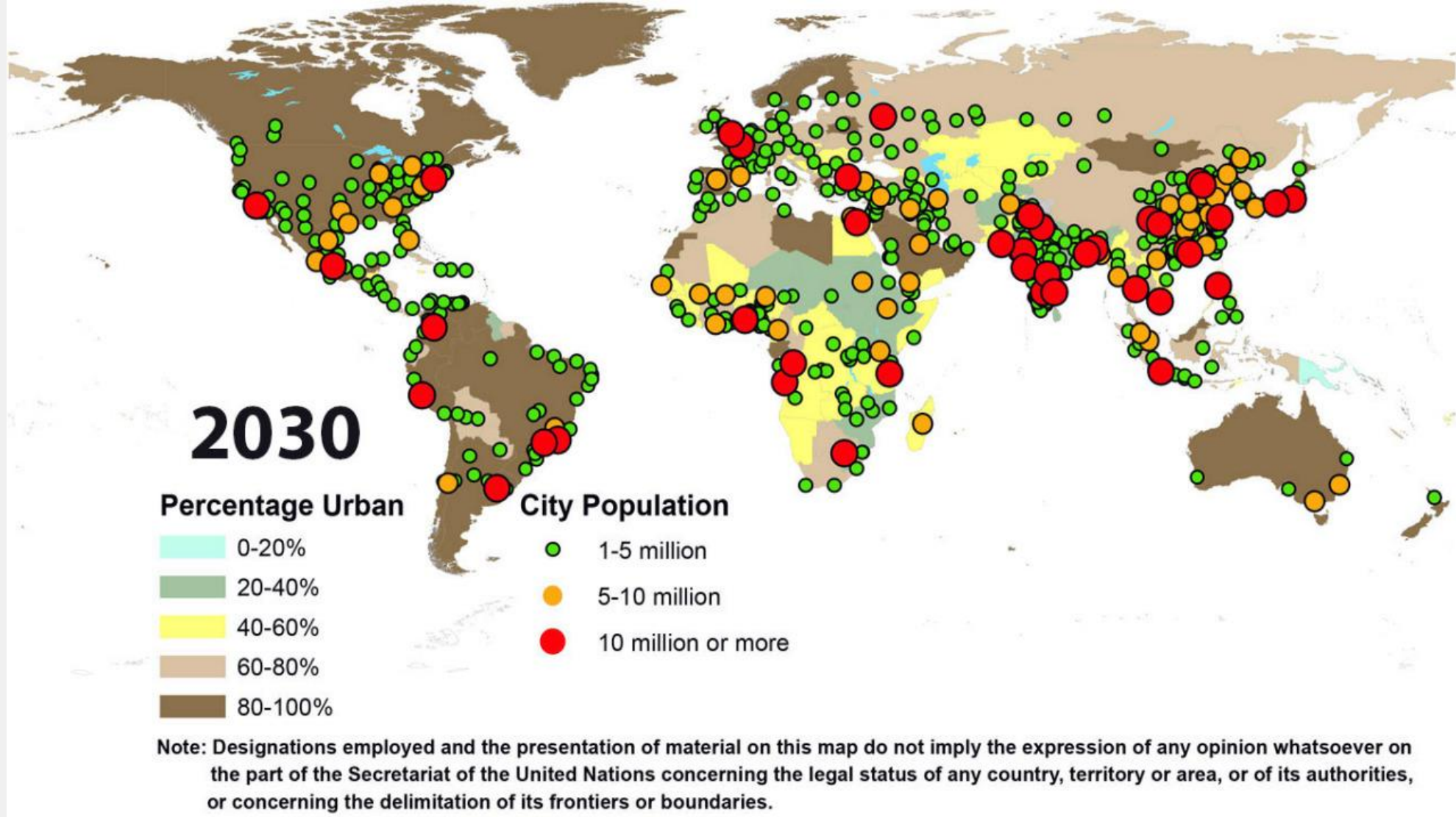
1. The Need for Business in Sanitation

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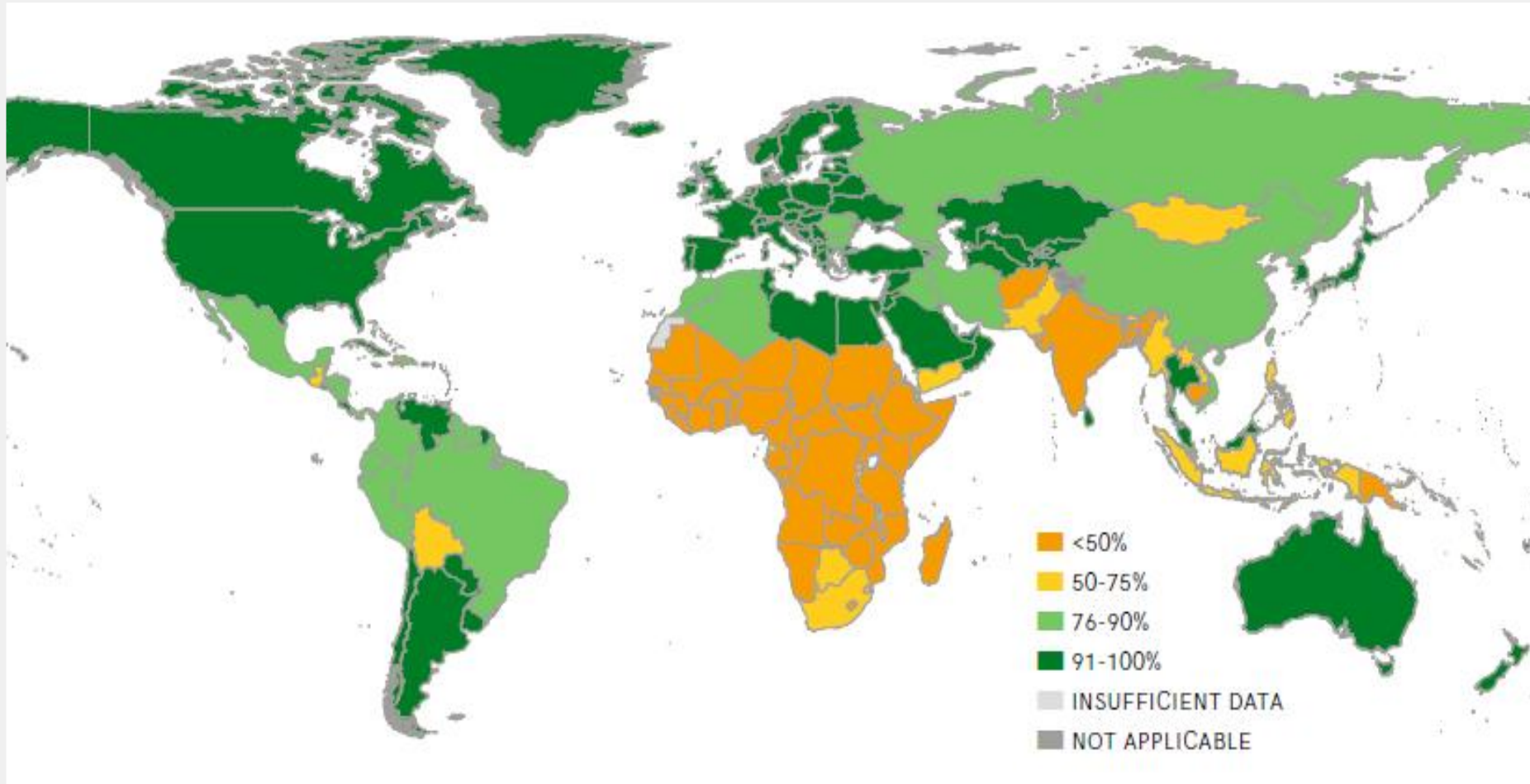


~844 million without access to improved water

~2.3 Billion without access to improved sanitation

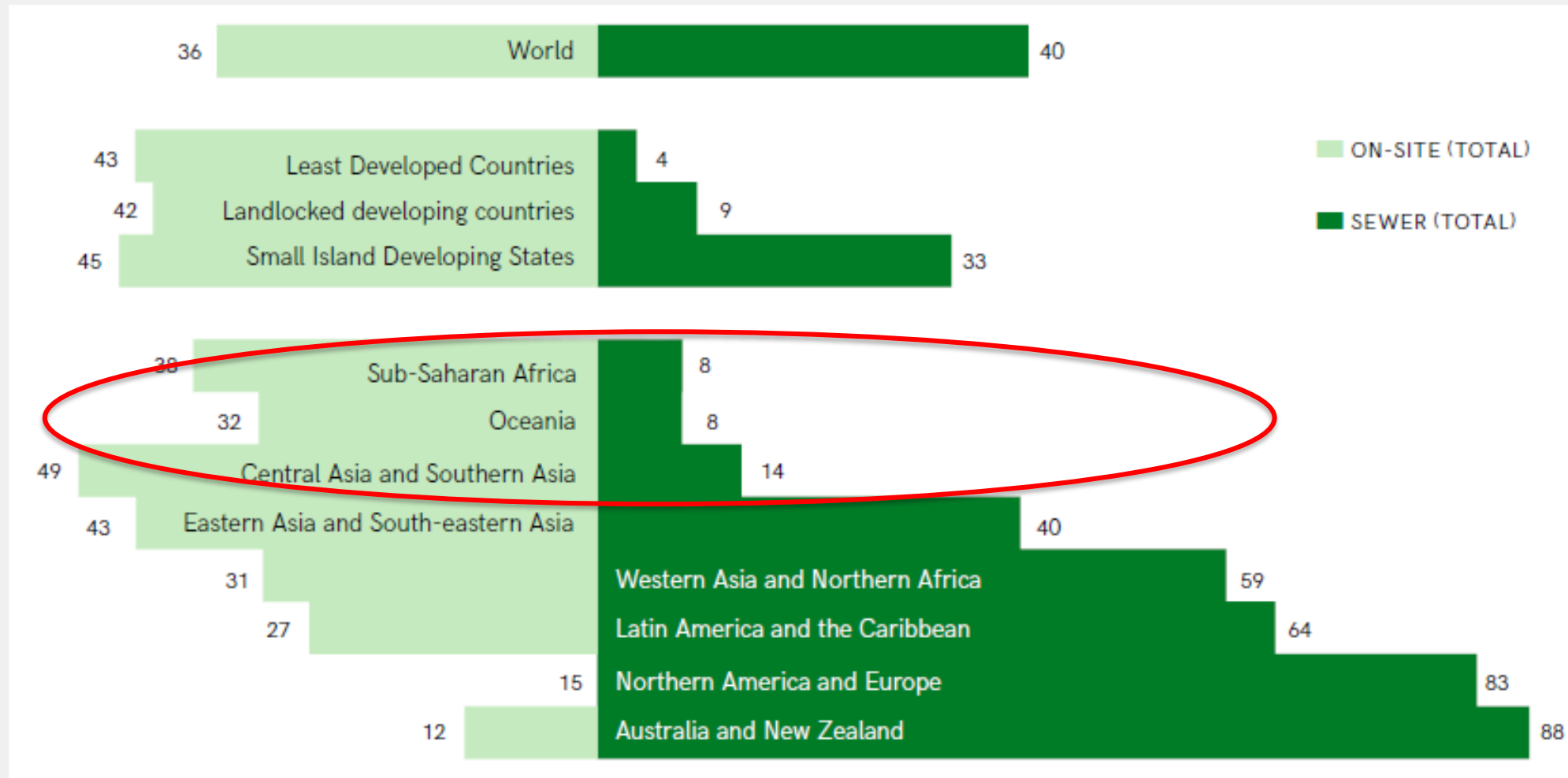
Water demand will at least double until 2035

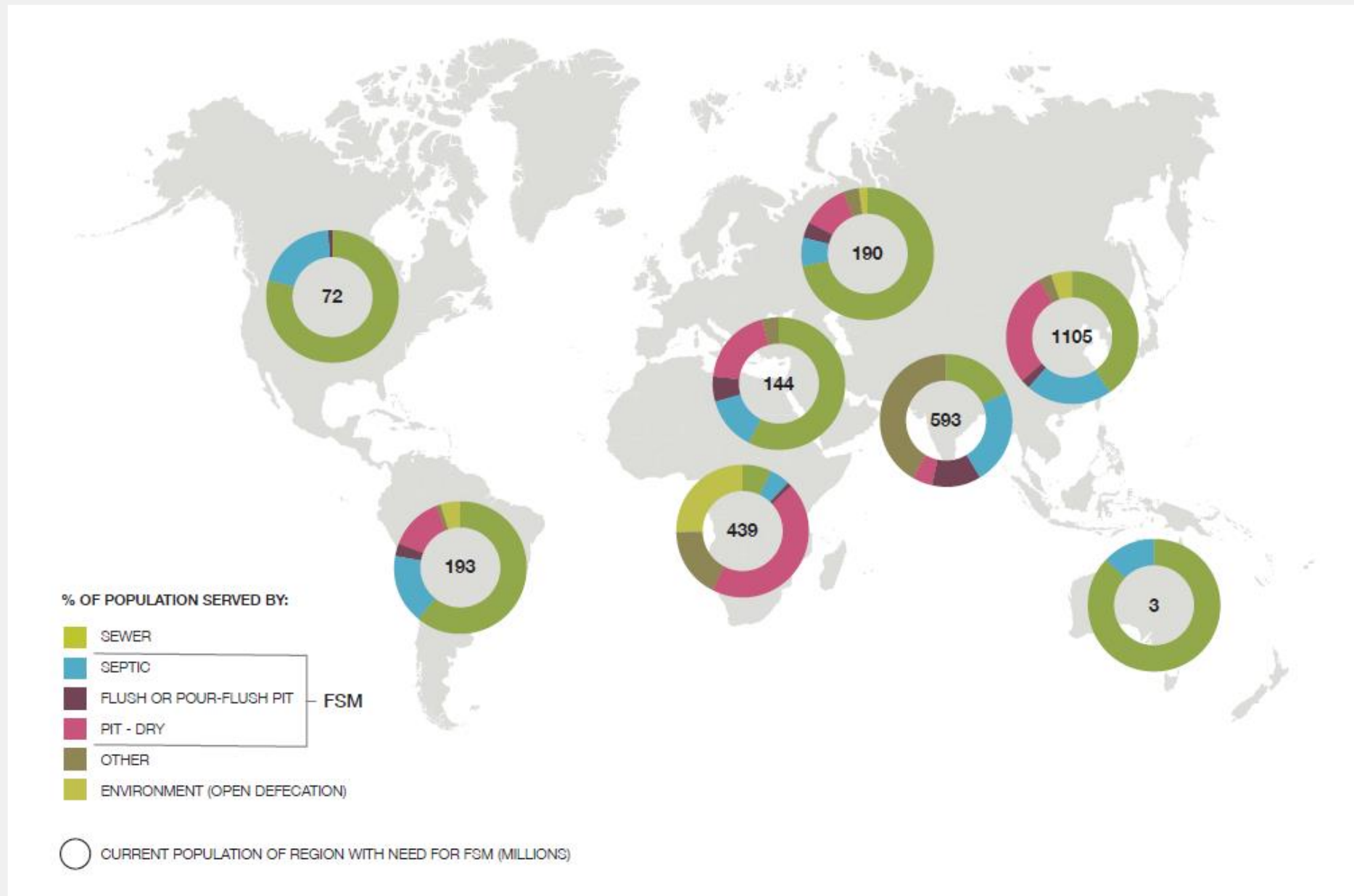
Toilet coverage - globally



2 out of 5 people used safely managed sanitation services

Globally equal number of people using sewer and on-site sanitation but NOT in Africa and Asia





More than 850 million people in India are dependent on FSM!



SANITATION SERVICE CHAIN

ACCESS TO TOILET



EMPTYING & TRANSPORT



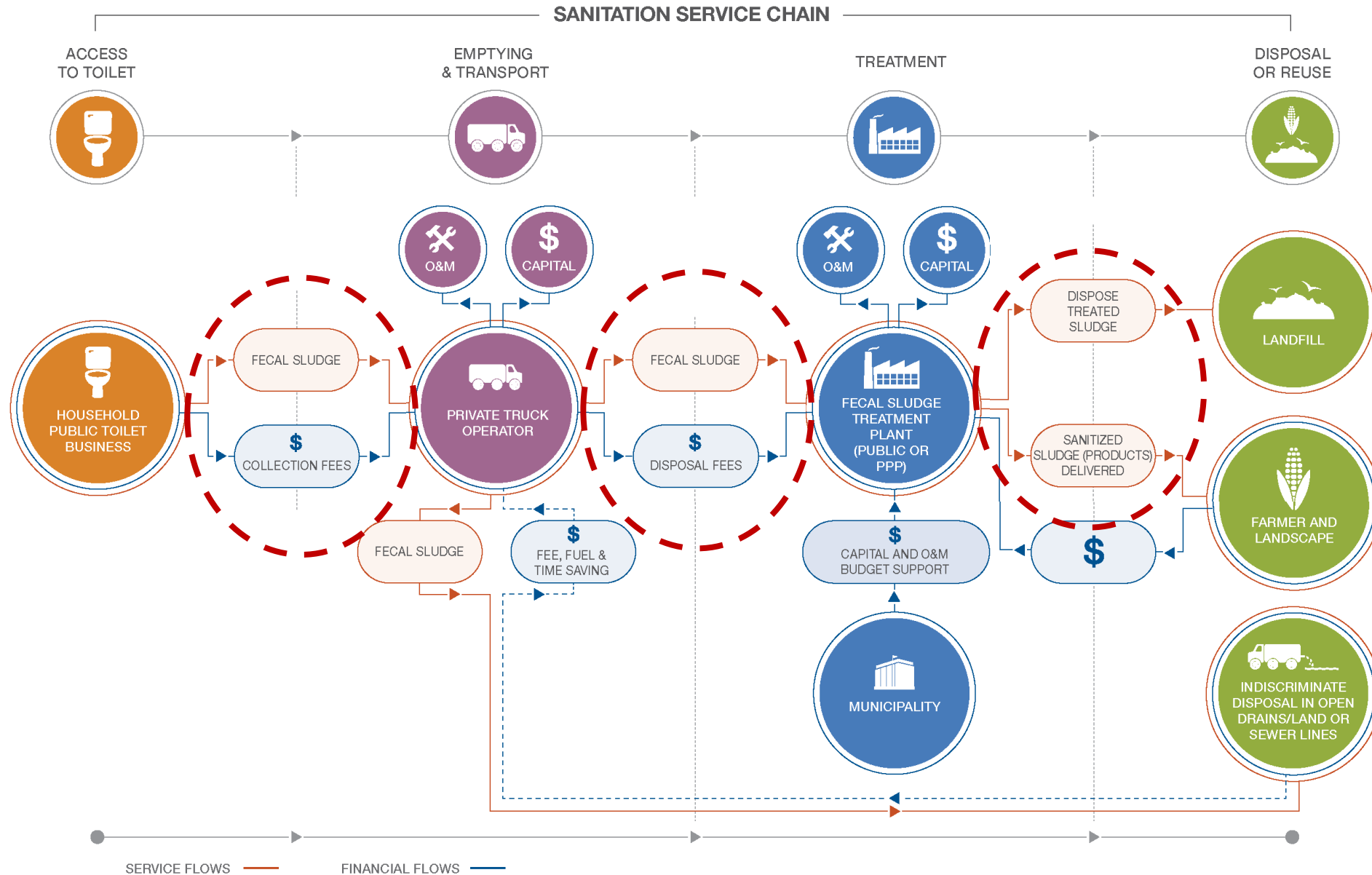
TREATMENT



DISPOSAL OR REUSE

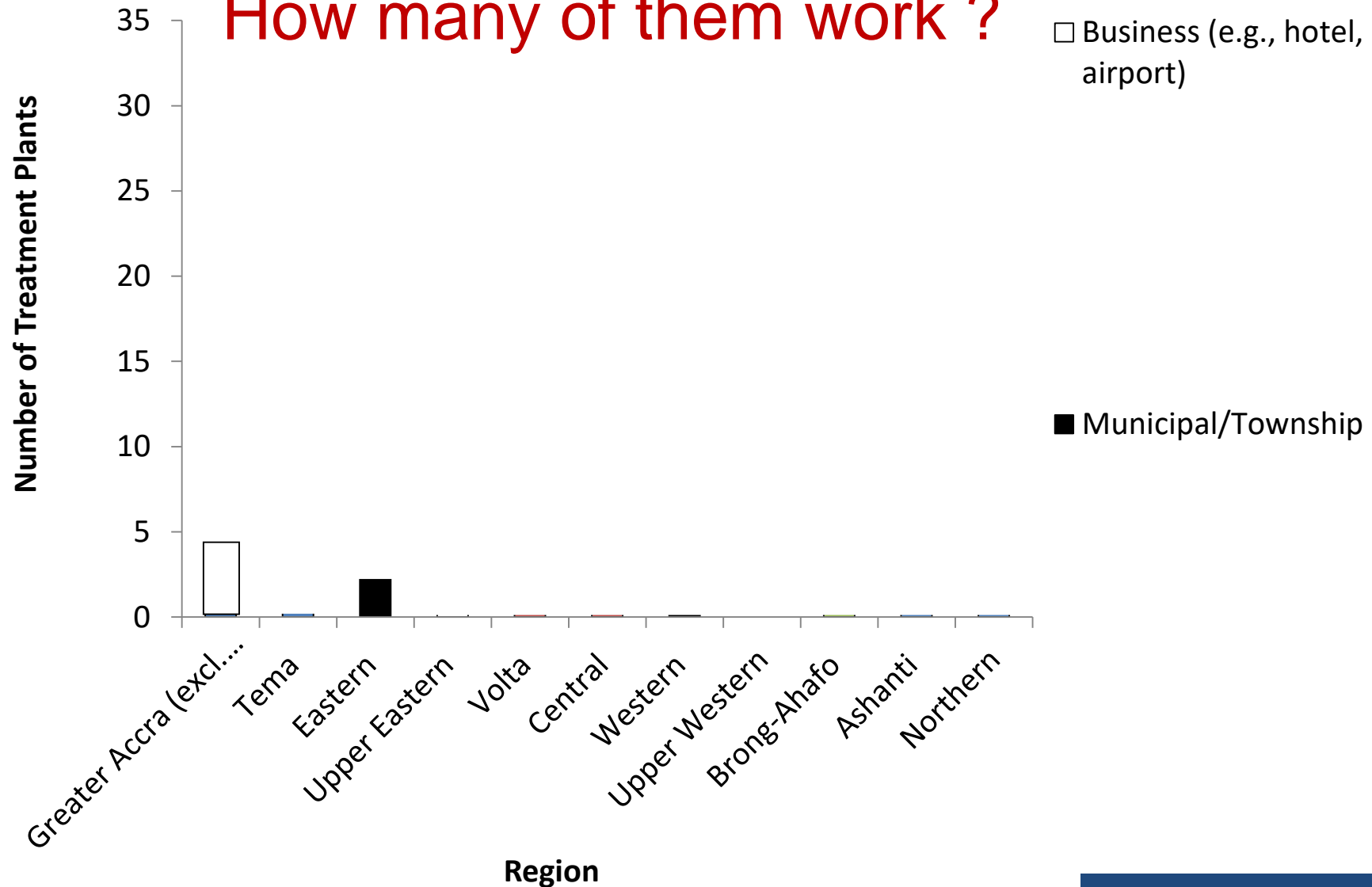


What really happens when the pit is full?



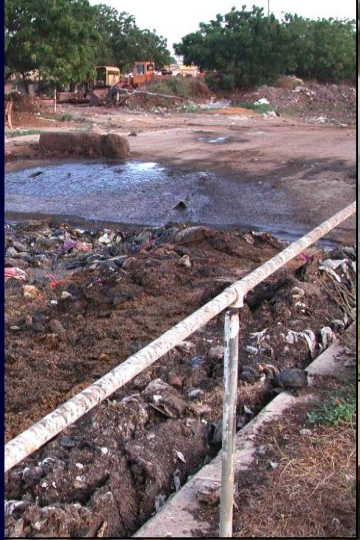
Operational Status

How many of them work ?





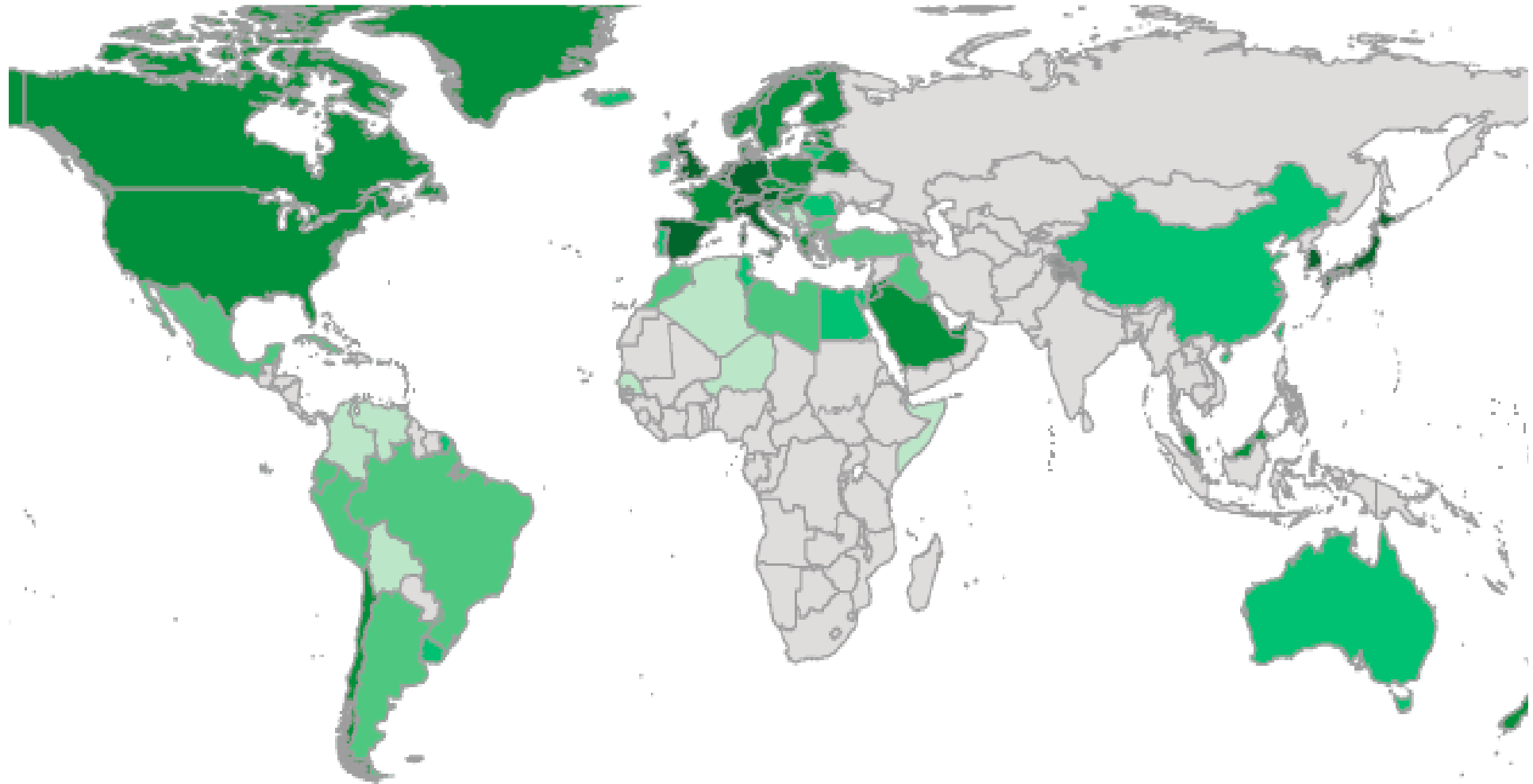
- **We are still struggling with getting treatment plants to work.**
- **Across the developing world, around 10% of wastewater gets treated.**
- **Approx. 80% of all water pollution has been associated with poor fecal sludge management.**
- **There are hardly any treatment plants for the more than 100 million septic tanks and pit latrines in India (example).**



Unsafe waste disposal is a source of health hazards and environmental pollution!




4.1 billion people DO NOT have safely managed sanitation services



Waste management cannot keep pace with urbanization...



The Challenge we face



• POOR SANITATION COST THE WORLD US\$222.9 BILLION IN 2015

= 0.9% global GDP or more than 50 times the cost of the Rio Olympics

What is cost of poor sanitation?

- Economic burden of poor sanitation is heaviest in Asia pacific ~ USD 172.3 billion in 2015.
 - ❖ **India suffers worst amongst all nations – USD 106.7 billion in 2015.**
 - ❖ \$9.2 billion USD/year in South east Asia – for Cambodia, Indonesia, Lao, Philippines and Vietnam.
- Investment in sanitation (WHO 2012):
 - ❖ **USD5.5 for each USD1 invested in sanitation**
 - ❖ Increasing evidence that benefits of waste management are higher than costs

The targets we set

- Current levels of financing (annually 0.1% of GDP) can cover the capital costs of achieving universal basic WASH services by 2030.
- To achieve the full WASH SDGs 6.1 and 6.2 about three times the current investment levels are required.
- **However, sustained universal coverage requires more than capital inflows:**
 - **Financial and institutional strengthening will be needed for effective service delivery.**

Causes of poor sanitation and insufficient waste(water) management

High dependency on subsidies

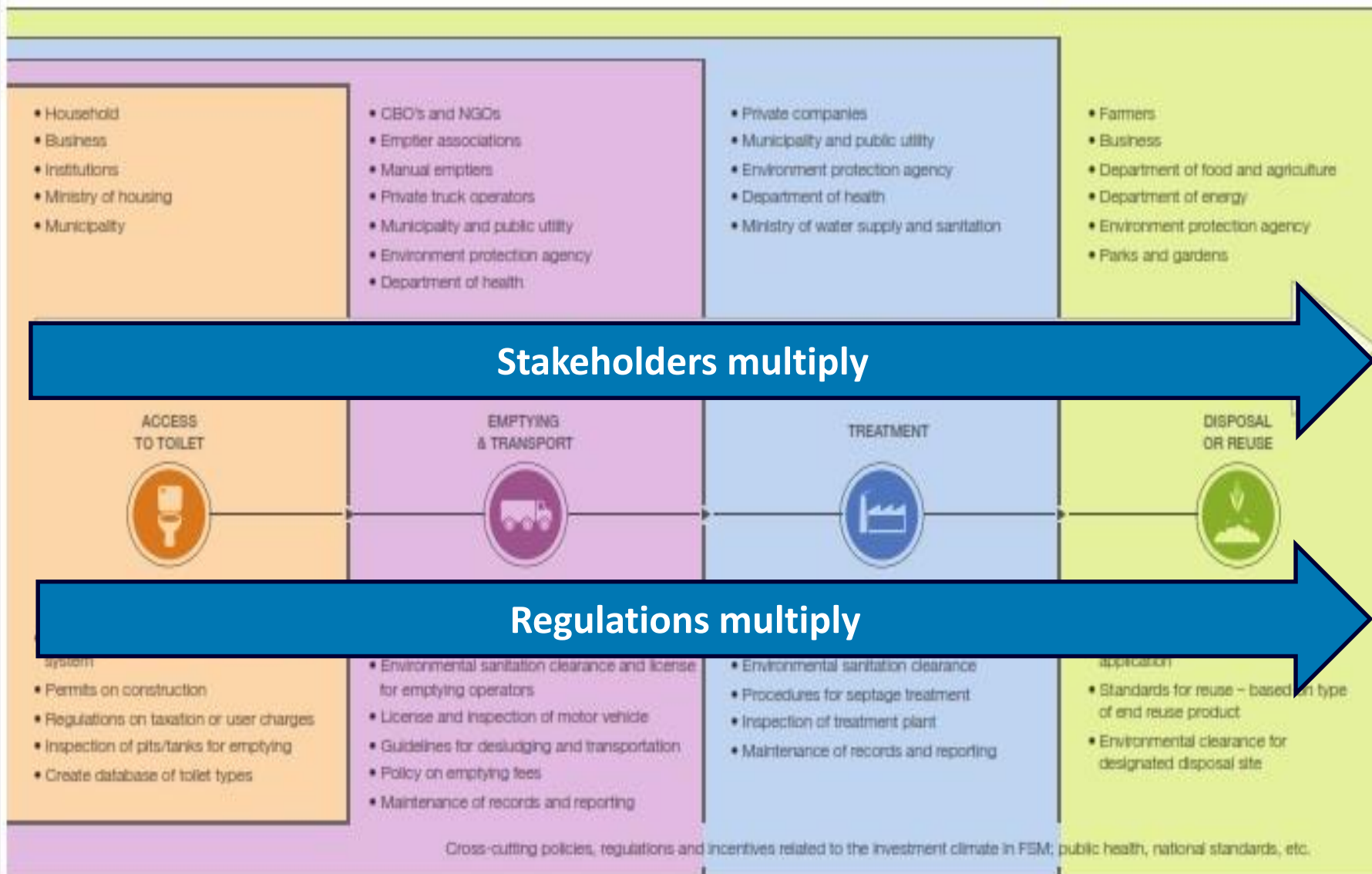
Insufficient incentives

Weak management capacities

Insufficient (access) financing

Gaps in
BUSINESS THINKING/ MODELS!

Effective and sustainable FSM and Service Delivery requires:



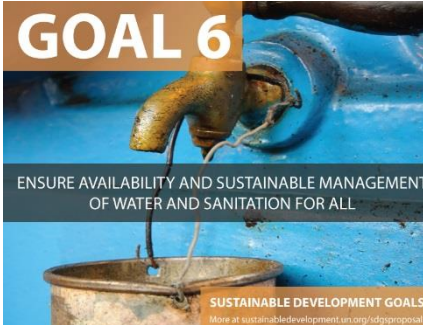
- **Market-driven mechanisms/ business models**
- **Strong local capacities** across the whole sanitation service chain
- **Effective regulations and supportive policies;**
- **Institutional linkages** across P&P sectors supported by viable business models;
- **Safe disposal and/or resource recovery and reuse**

The multiplier effect of sustainable service delivery on different SDGs



Multiplier Effect

GOAL 6



ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

SUSTAINABLE DEVELOPMENT GOALS
More at sustainabledevelopment.un.org/sdgsproposal

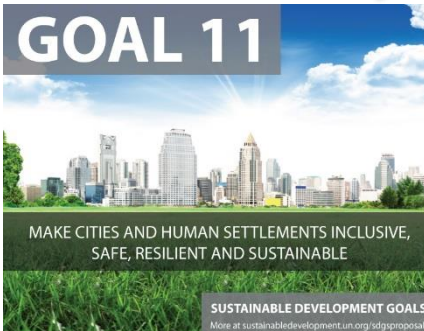
GOAL 15



PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS

SUSTAINABLE DEVELOPMENT GOALS
More at sustainabledevelopment.un.org/sdgsproposal

GOAL 11



MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE

SUSTAINABLE DEVELOPMENT GOALS
More at sustainabledevelopment.un.org/sdgsproposal

GOAL 12



ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

SUSTAINABLE DEVELOPMENT GOALS
More at sustainabledevelopment.un.org/sdgsproposal

GOAL 13

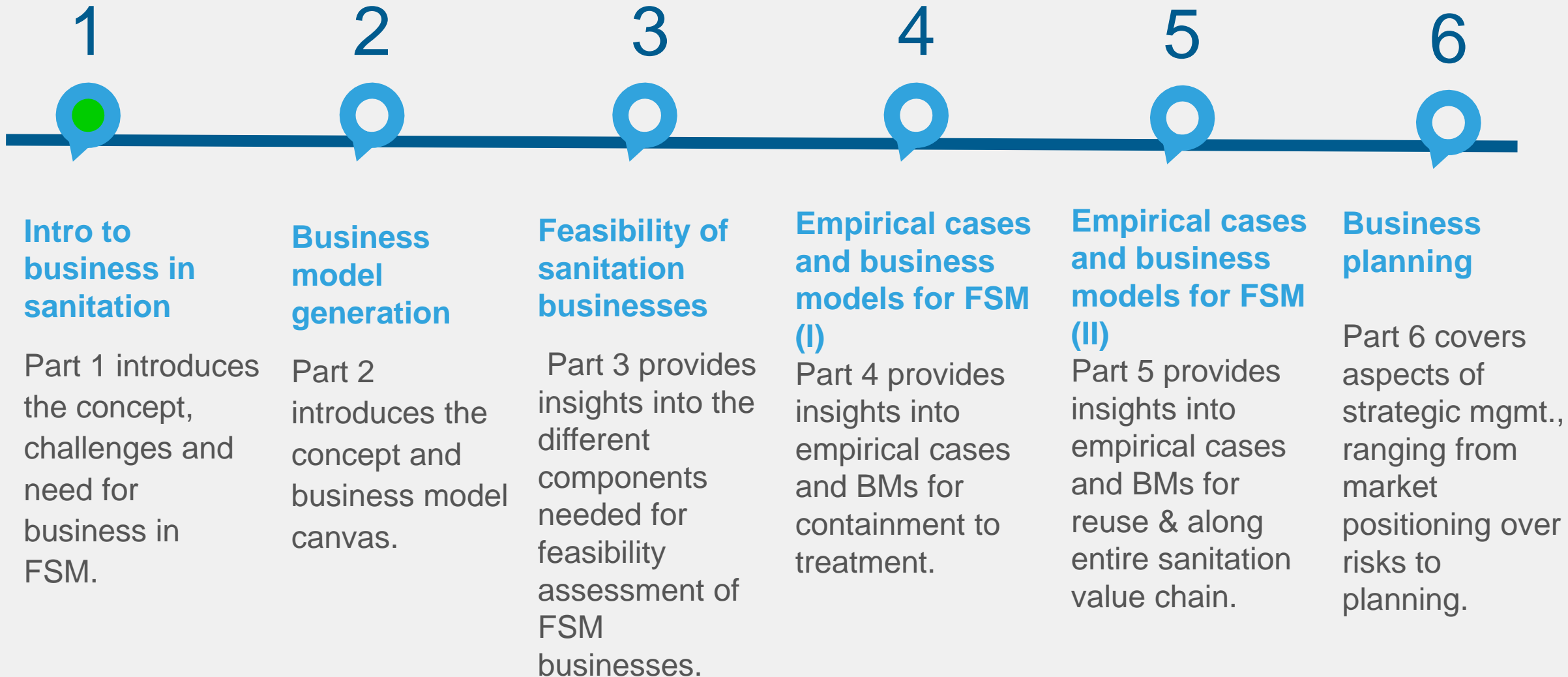


TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS*

Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.





SUSTAINABLE DEVELOPMENT GOALS
More at sustainabledevelopment.un.org/sdgsproposal

Session structure



2. Business Model Generation

This component will allow you to:

-  Understand the different building blocks of a business model
-  Be conversant with real-life FSM business case examples
-  Explore processes and challenges in developing a specific business model
-  Be able to apply the Business Model Canvas for FSM business ideas

3. Feasibility assessment of sanitation businesses

This component will allow you to:

- ♻️ Understand the importance of testing the feasibility of your FSM business model
- ♻️ Get to know two assessment methods: feasibility study and minimum viable product/ service (MVP)
- ♻️ Explore the assessment criteria of a feasibility study
- ♻️ Know the main components of a business plan

4 & 5. Cases and business models for FSM

This component will provide insights into different empirical cases with related business models on FSM from Asia/Africa, including:

- ♻️ Models for **toilet access** and in-situ energy recovery
- ♻️ Models for **emptying and transport** of fecal sludge
- ♻️ Models linking **emptying, transport and treatment**
- ♻️ Models emphasizing **reuse** at the end of the service chain
- ♻️ Models covering the **entire sanitation service chain** from toilet access to reuse.

6. Business planning for implementation

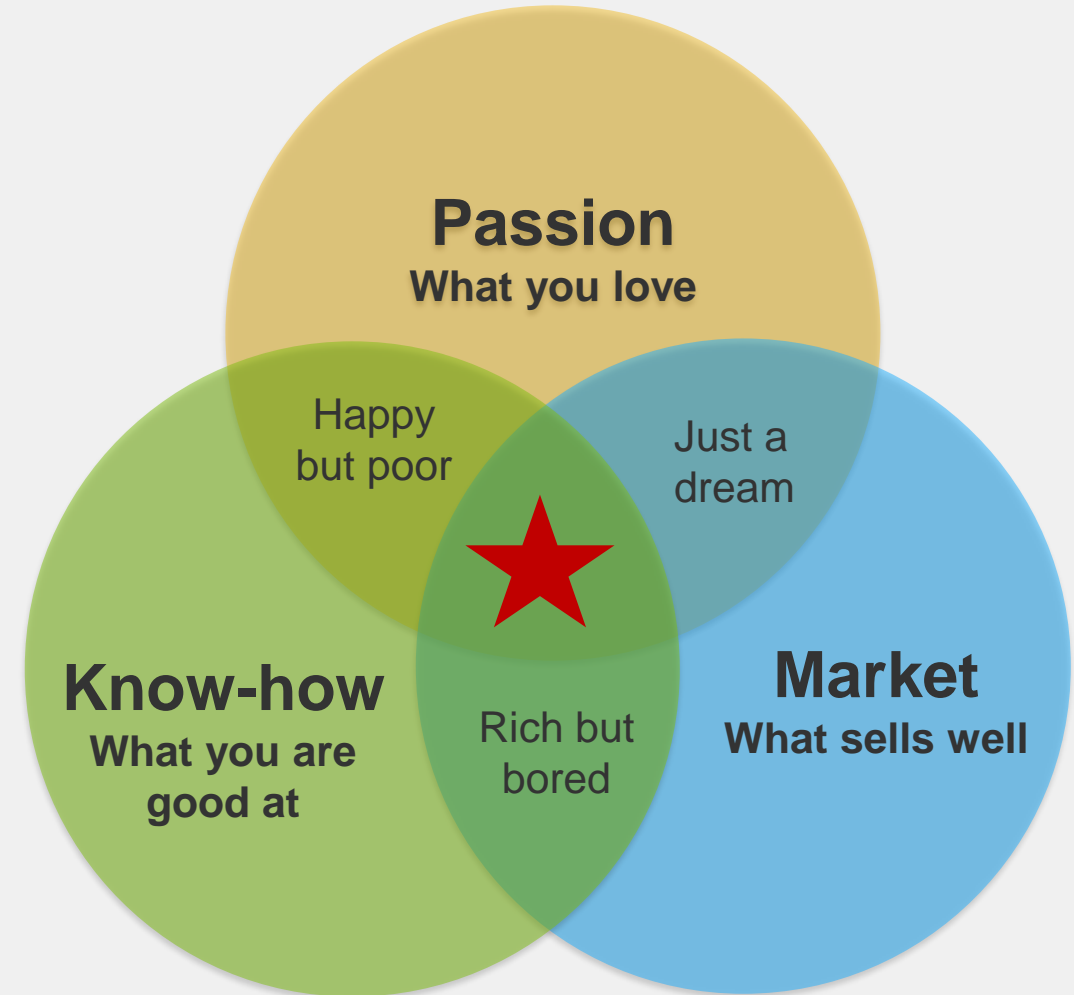
This component will allow you to:

- ♻️ Identify **Strengths** and **Weaknesses** of your business model and **Opportunities** and **Threats** in the business environment
- ♻️ Set objectives for your business
- ♻️ Understand how objectives can be turned into an action plan

Group work

Come up with a good FSM business idea!

- ♻️ The task is to come up with a good business idea in a small group
- ♻️ The business idea has to be in line with the group's Sweet Spot
- ♻️ You have a full day to conceptualize your business and bring it to life.







Source: adapted from <http://www.ericfeng.com/>

Come up with your own FSM business idea by identifying your sweet spot:







■ List of references

-  RAO, K., KVARNSTRÖM, E., DI MARIO, L., DRECHSEL, P. (2016). *Business models for fecal sludge management*. Colombo, Sri Lanka: International Water Management Institute (IWMI). CGIAR Research Program on Water, Land and Ecosystems (WLE). 80p. (Resource Recovery and Reuse Series 6).
-  Image source: Puzzle piece icon by [Recicon](#) from www.flaticon.com [Accessed: 01.12.2018]
-  Unless otherwise noted, all images from IWMI flickr library www.flickr.com/photos/iwmi/
-  Unless otherwise noted, all graphics and case studies from RAO, K., KVARNSTRÖM, E., DI MARIO, L., DRECHSEL, P. (2016). *Business models for fecal sludge management*. Colombo, Sri Lanka: International Water Management Institute (IWMI). CGIAR Research Program on Water, Land and Ecosystems (WLE). 80p. (Resource Recovery and Reuse Series 6).

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 -  Otoo, M. 2019. University Curriculum on Business Development in Fecal Sludge Management. Colombo, Sri Lanka: International Water Management Institute (IWMI). CGIAR Research Program on Water, Land and Ecosystems (WLE).

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