ConCaD consulting capacity development for urban sanitation services

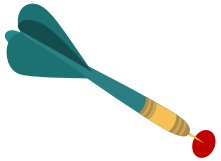
eawag aquatic research

# Part 1 – Sanitation Diagnostics

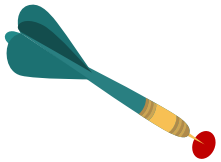
## 1.1 What is Citywide Inclusive Sanitation?

Inclusive urban sanitation – Capacity development for consultants

# Learning Goals



- Identify the main elements of Citywide Inclusive Sanitation



- Explain how Citywide Inclusive Sanitation differs from conventional urban sanitation approaches

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# Outline

- Urbanisation and housing
- Urban sanitation and public health
- Equity and sanitation
- Citywide Inclusive Sanitation and the SDGs
- Using a mix of sanitation technologies

# Urbanisation and housing

Mukuru, Nairobi
© J. Miller

# Urbanisation

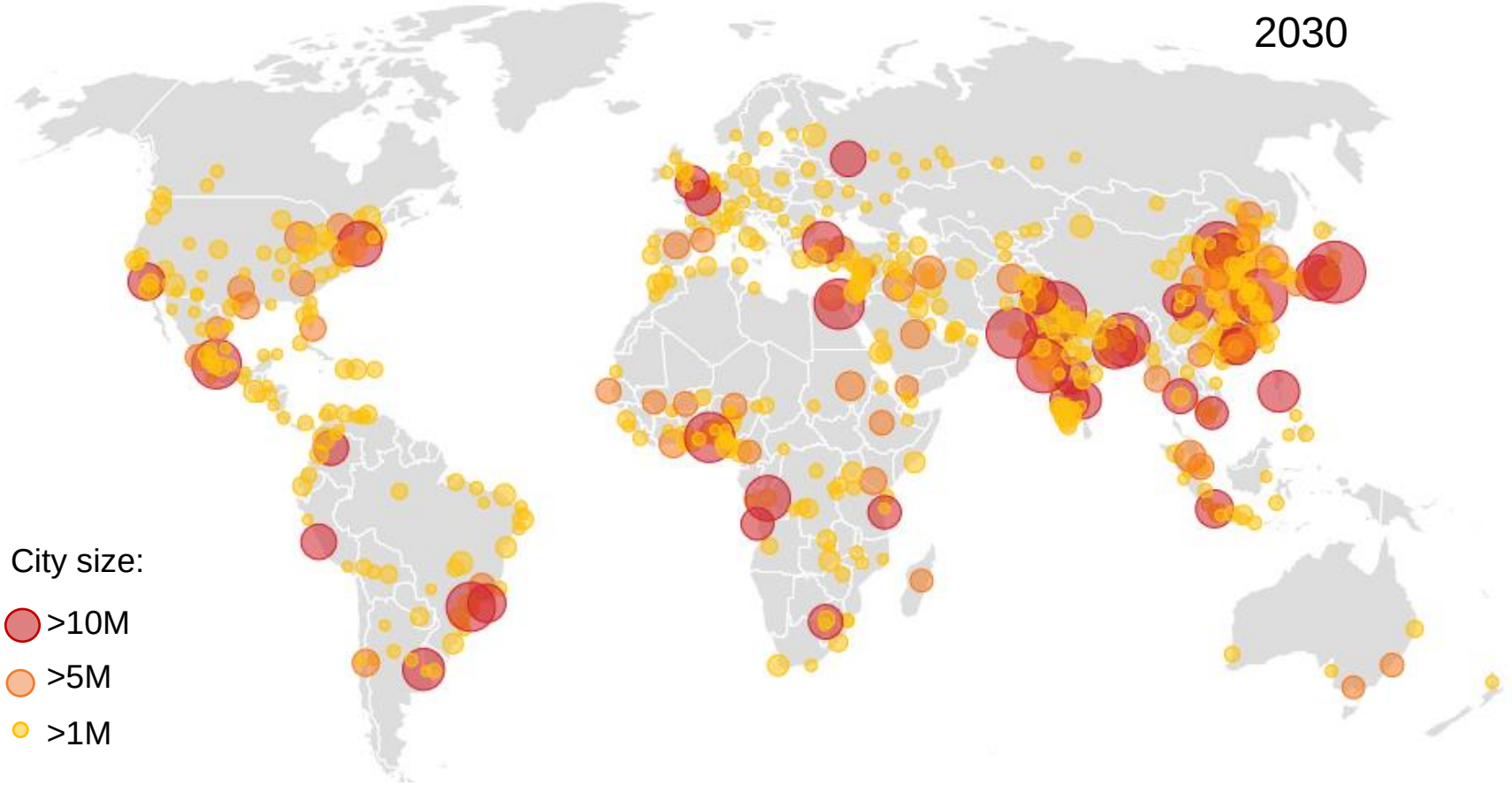
© D. Crosweller

Kibera, Nairobi

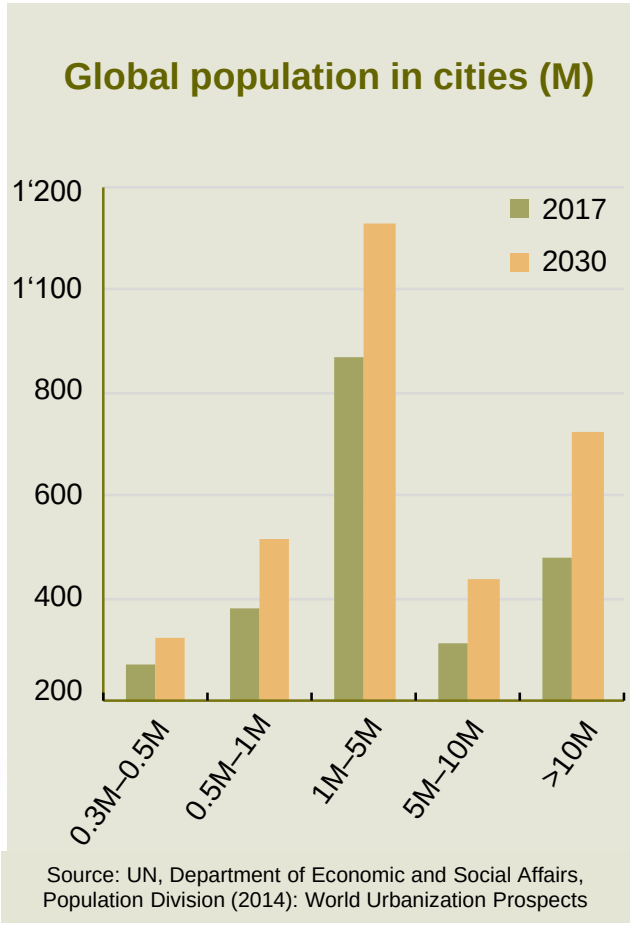
© WSP staff

Dhaka

# Big cities are growing…

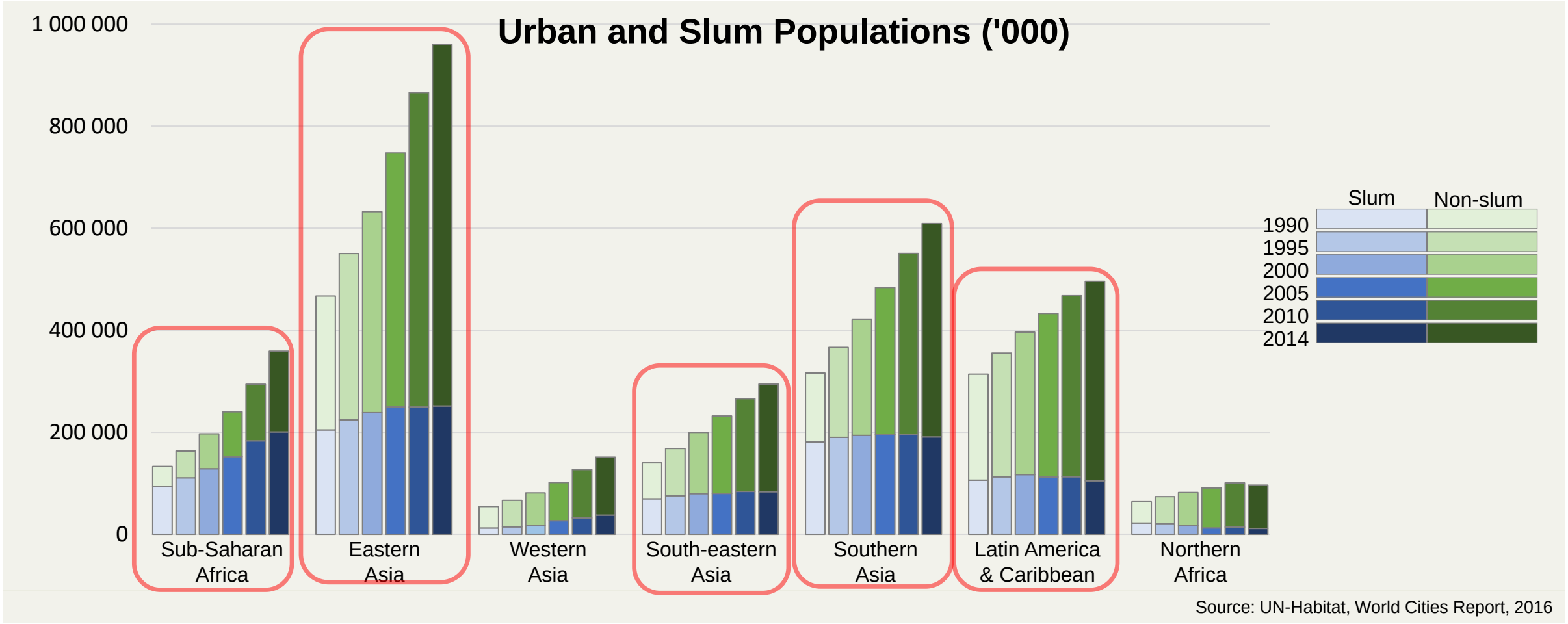



Source: The Economist, 4 Feb 2015




Source: UN, Department of Economic and Social Affairs, Population Division (2014): World Urbanization Prospects

# …and slums too



# Low-income housing

Jakarta, Indonesia

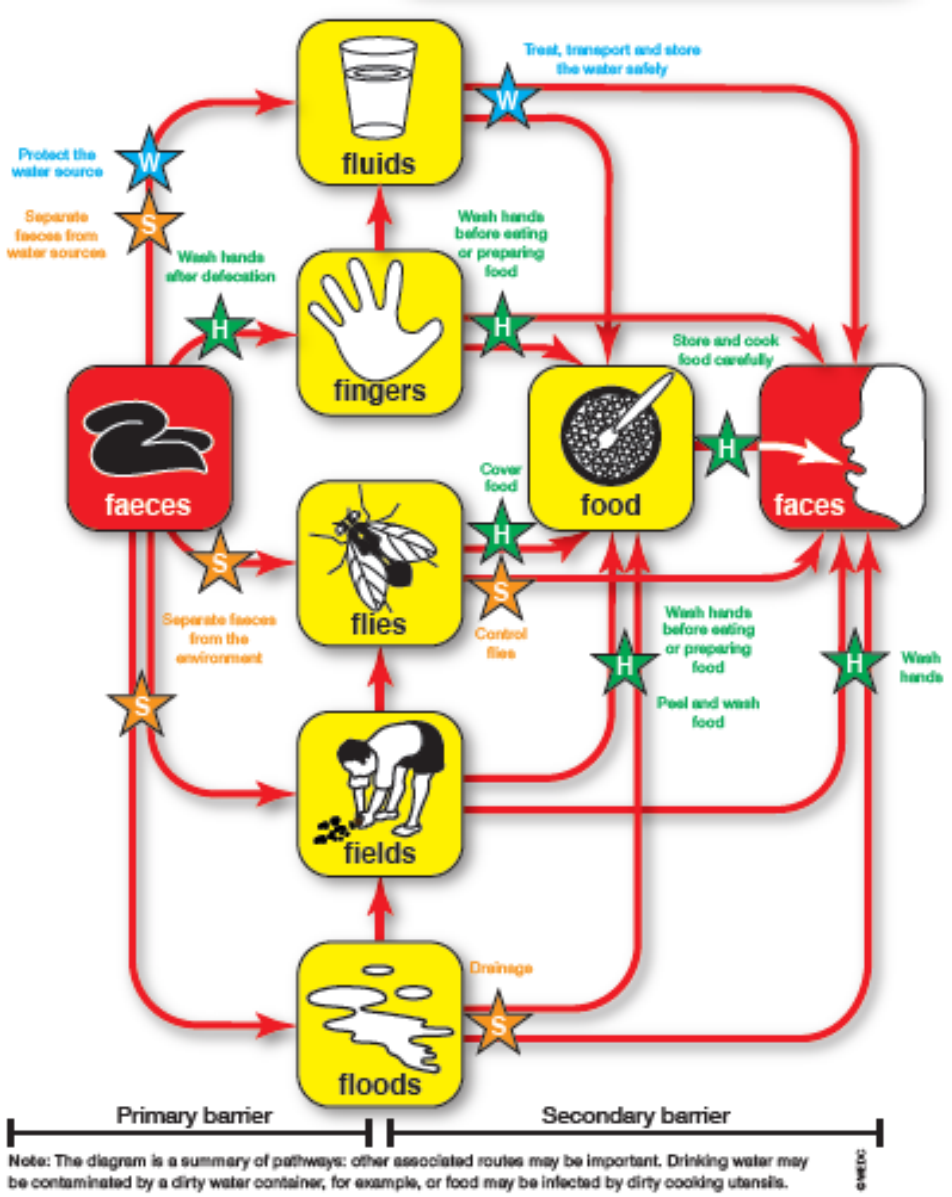
Nouakchott, Mauritania

© J. Chenal

# Urban sanitation and public health

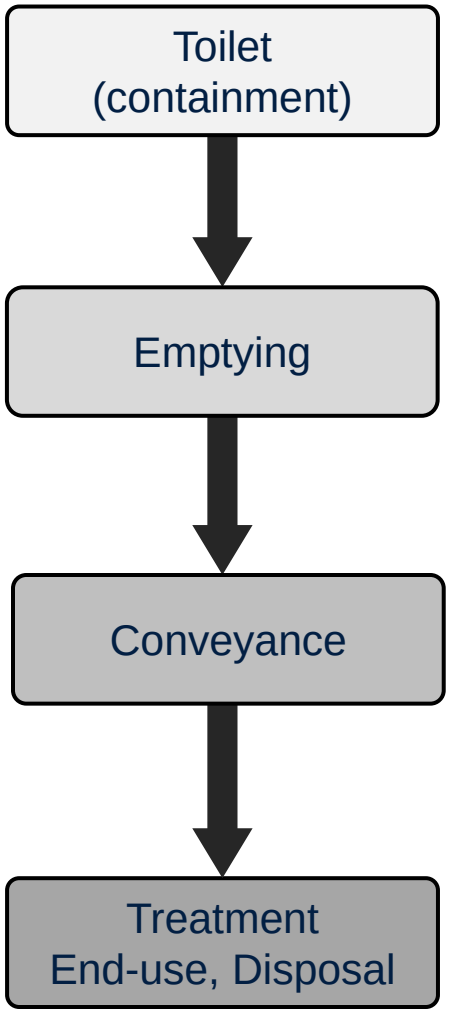
# F diagram

- All key words are "F"
- Shows  movement of pathogens
  from the faeces of a sick person
  to a potential new host.



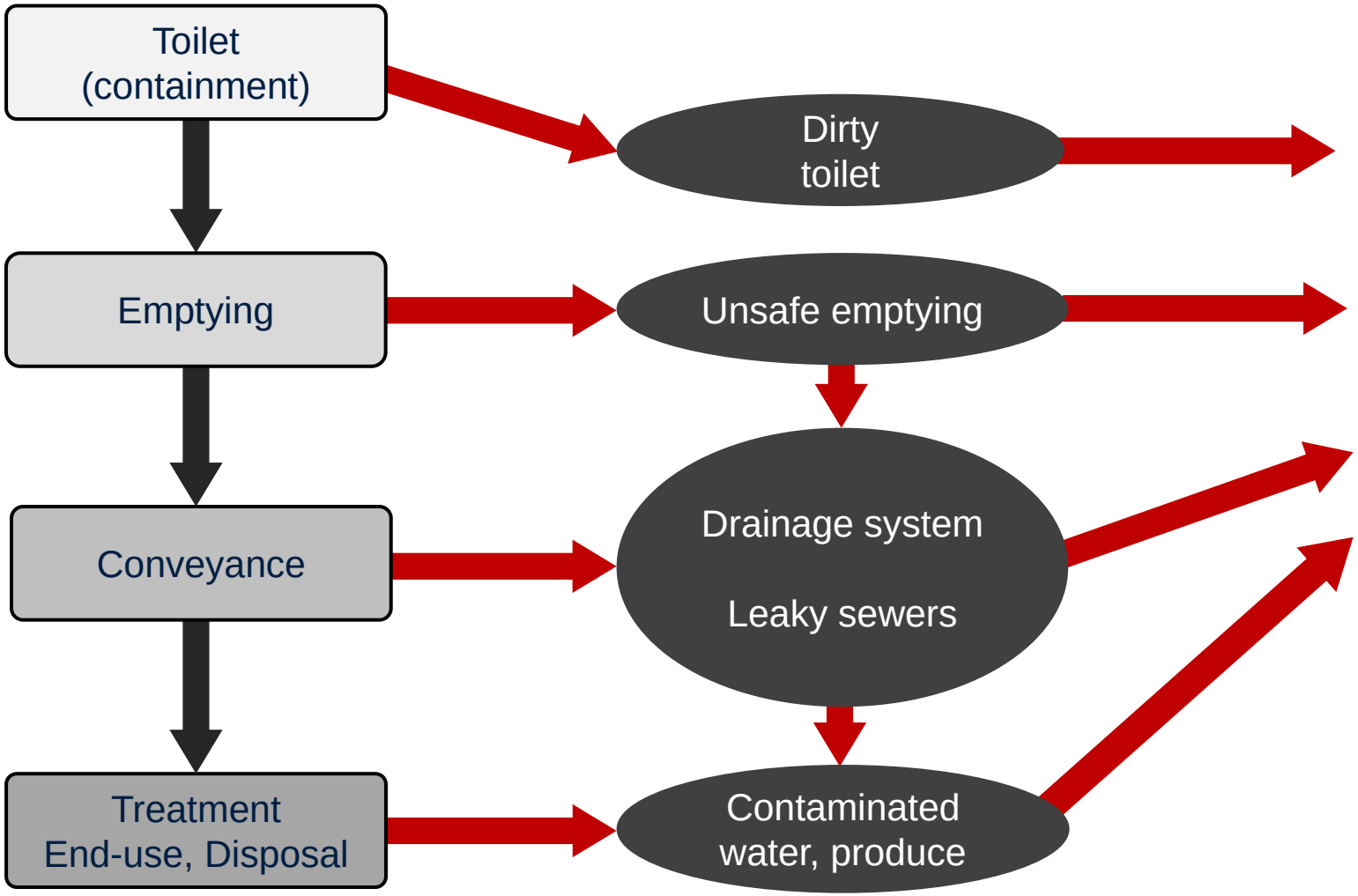

© WEDC

## The urban ‘f-diagram’



# Urban sanitary services and public health

## The urban ‘f-diagram’



© Georges Mikhael / GOAL / WEDC

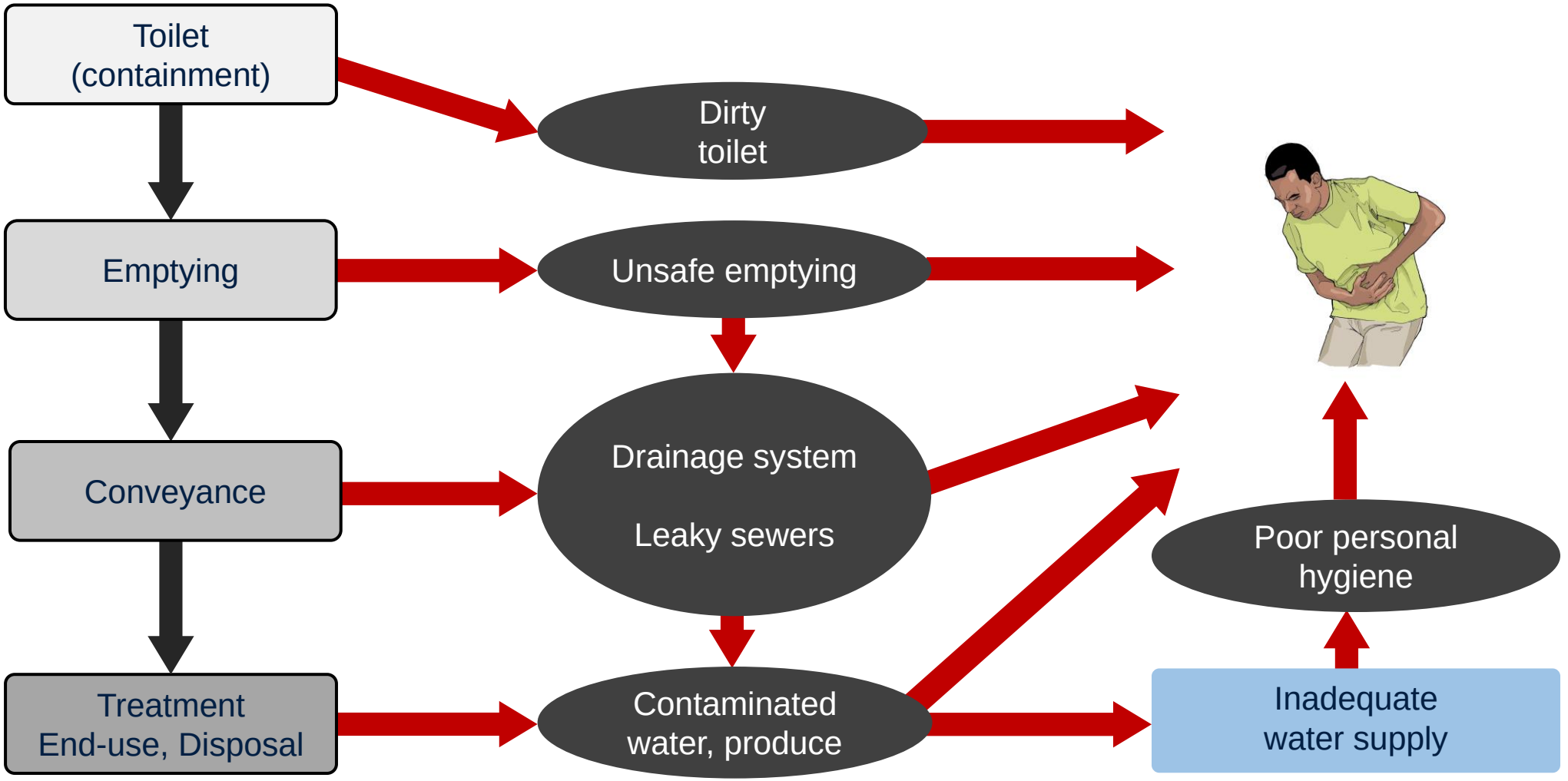
Manual pit emptying in Freetown, Sierra Leone

© Peter Hawkins

Faecal waste dumping in Freetown, Sierra Leone

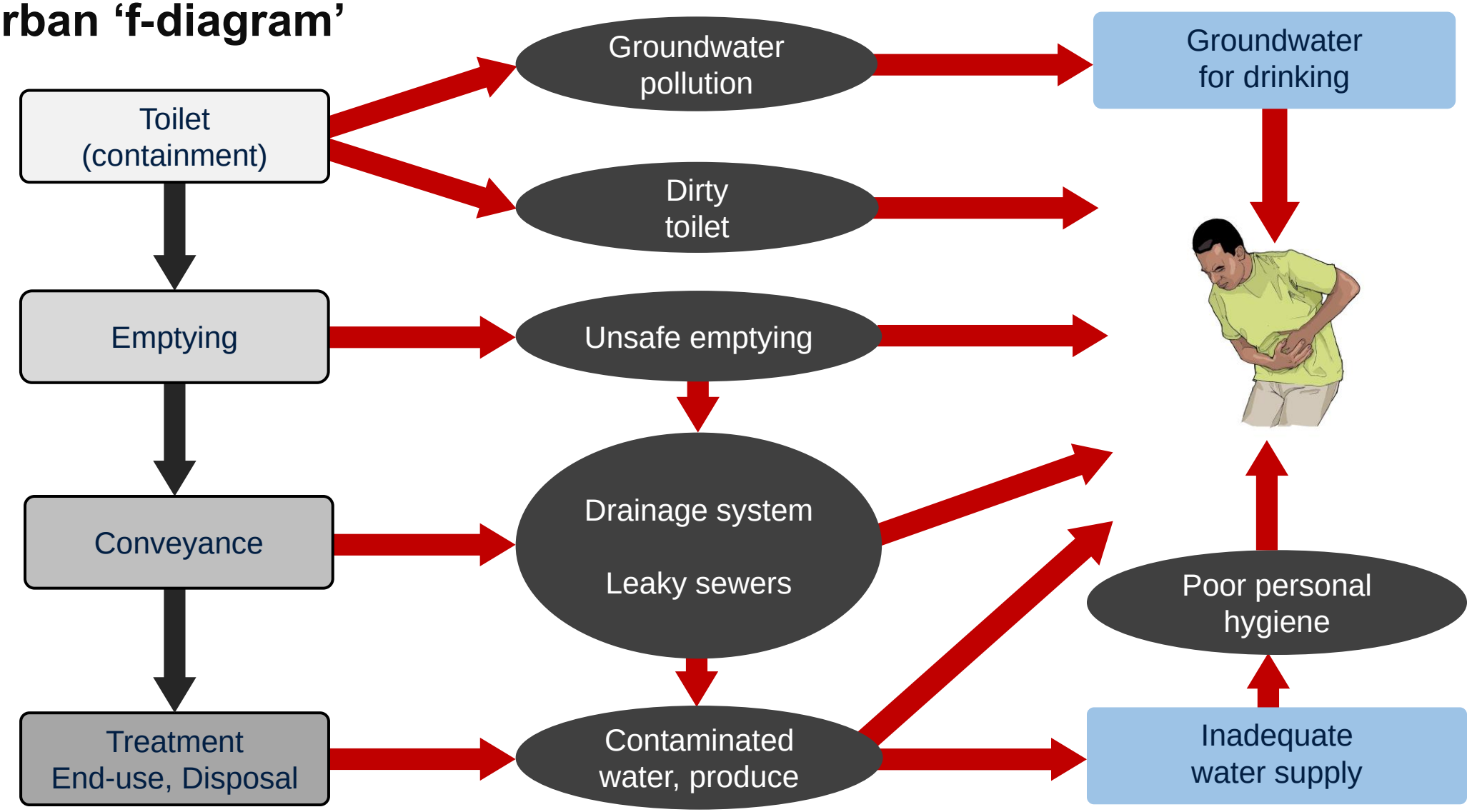
# Urban sanitary services and public health

## The urban ‘f-diagram’



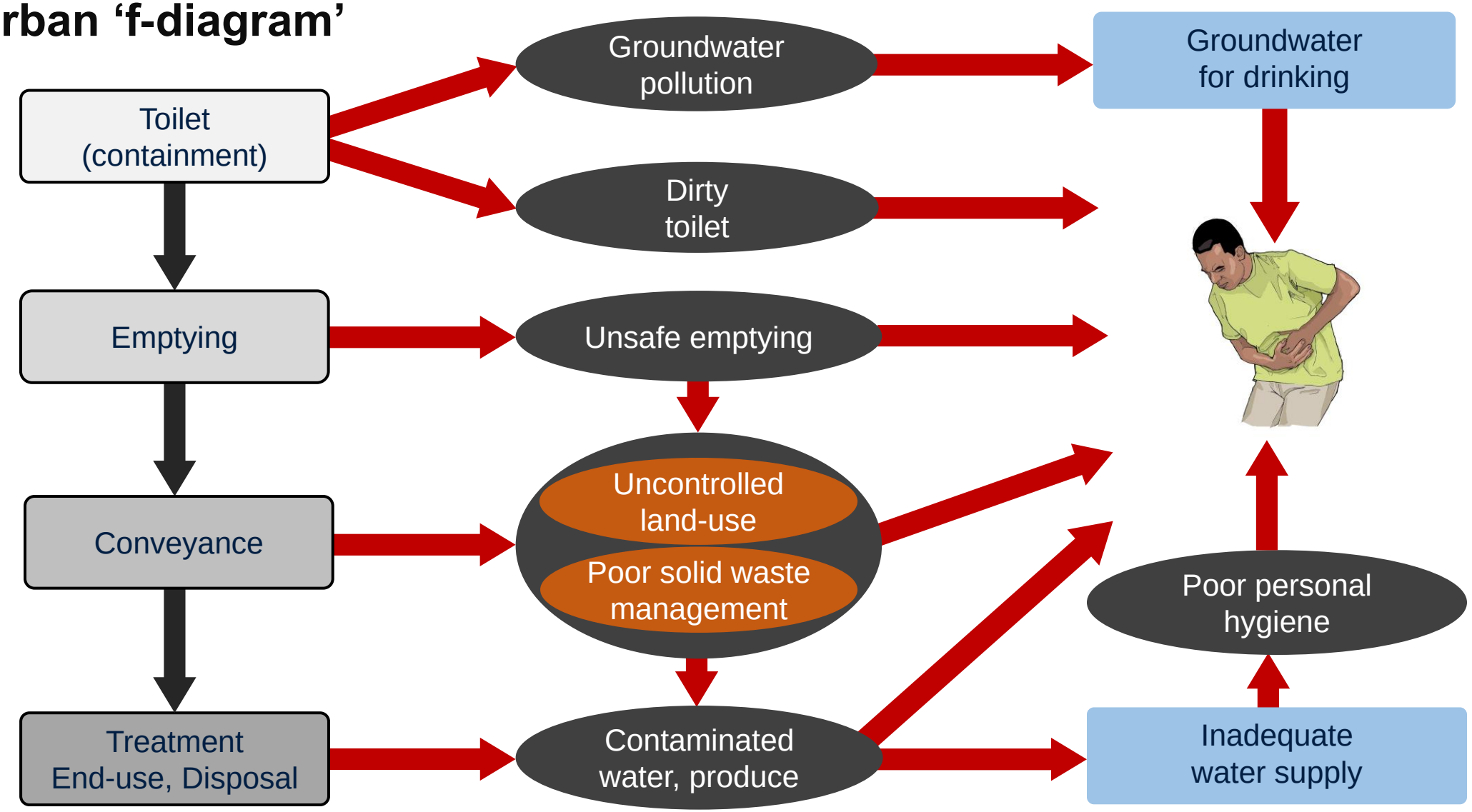
# Urban sanitary services and public health

## The urban ‘f-diagram’



# Urban sanitary services and public health

## The urban ‘f-diagram’



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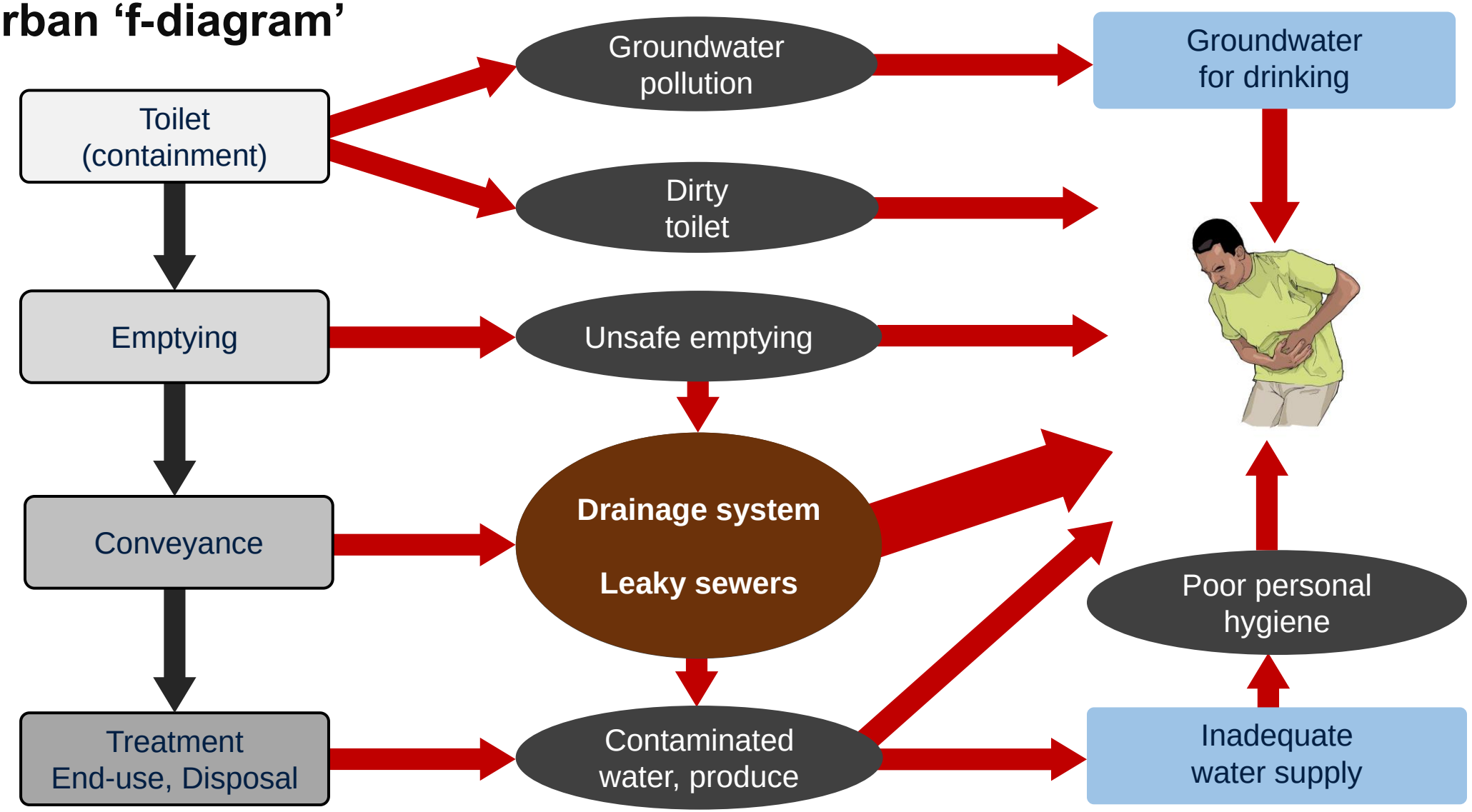
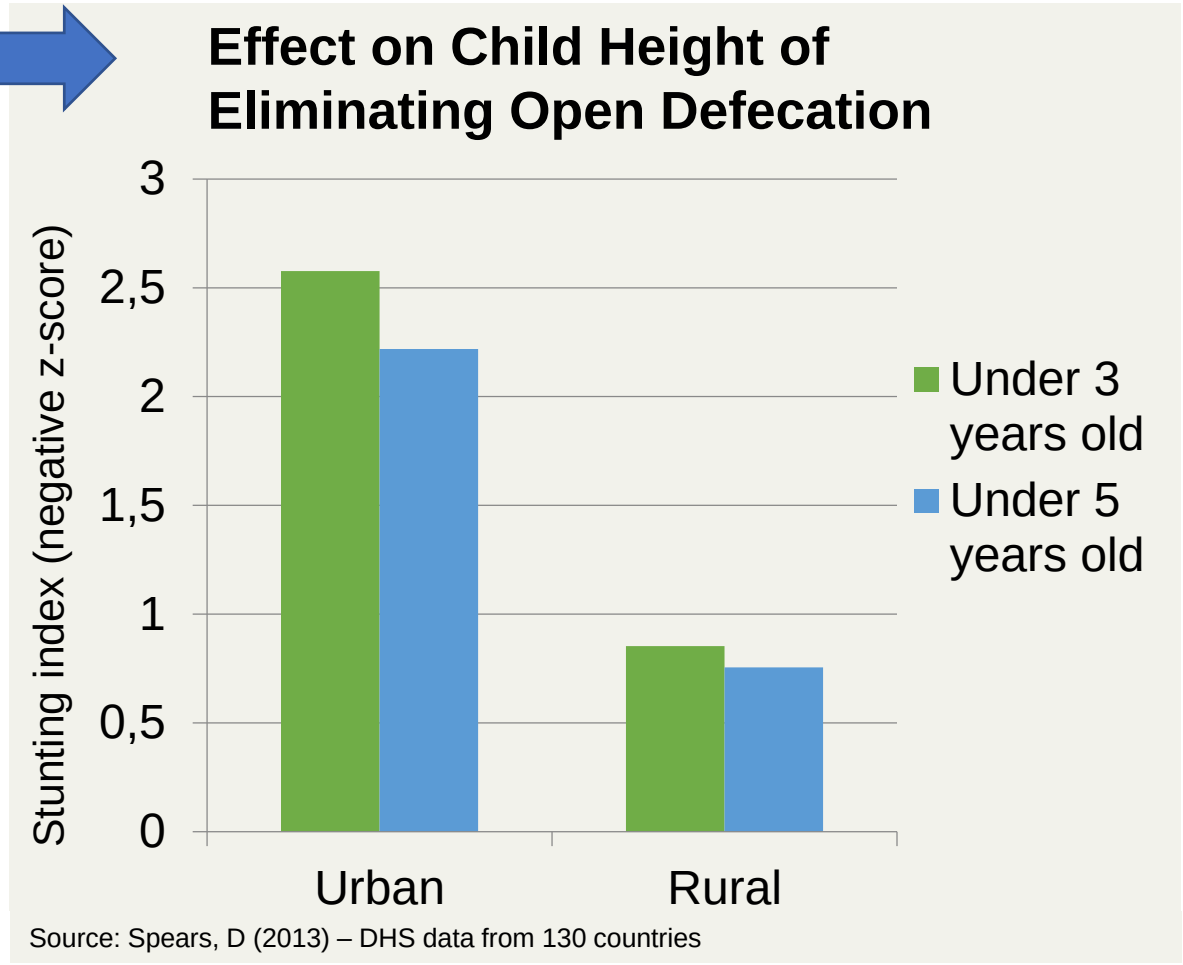


# Faecal contamination is associated with stunting

© WaterAid/ Ronny Sen




Source: Spears, D (2013) – DHS data from 130 countries

# Faecal contamination is associated with stunting

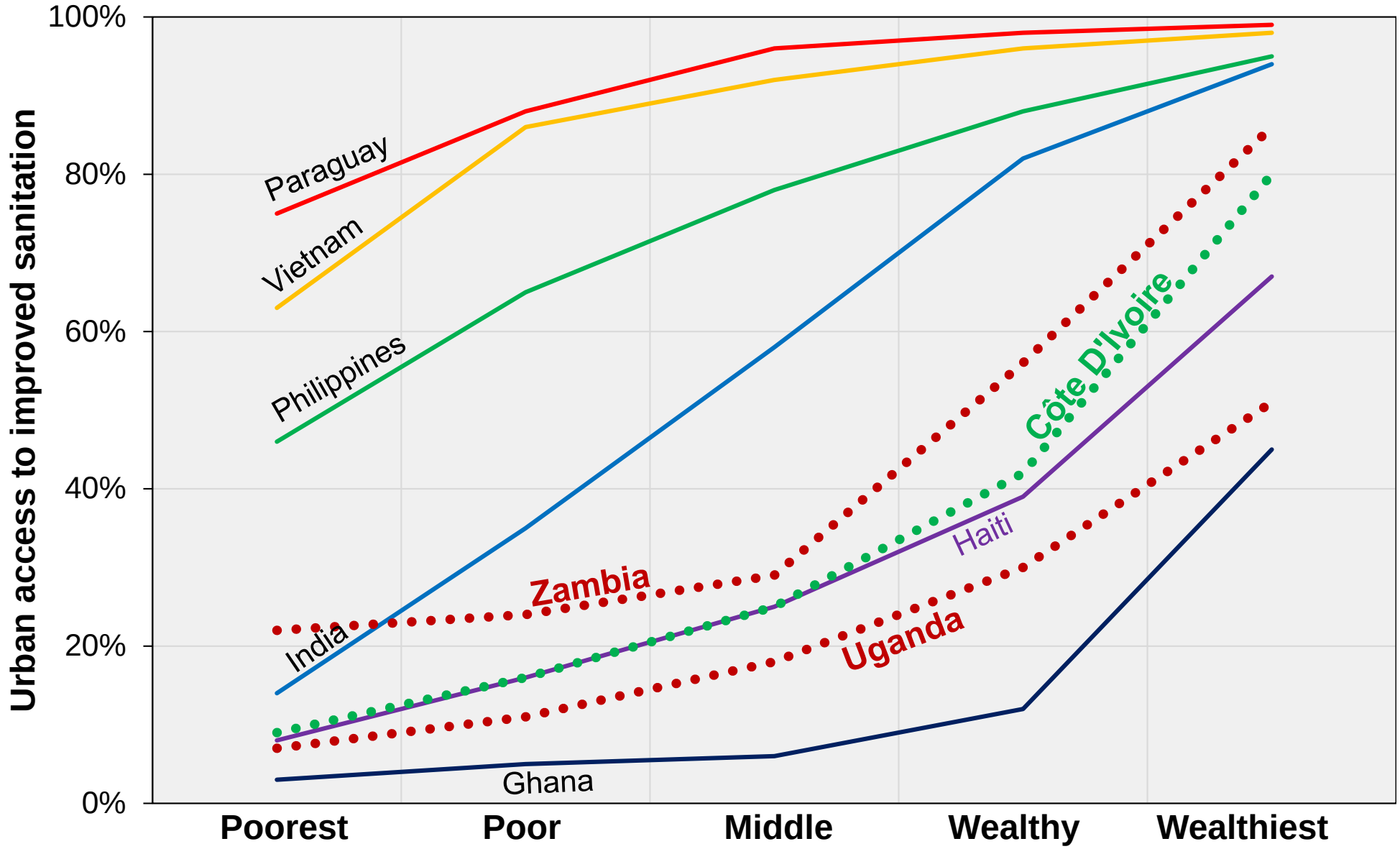
© WaterAid/ Ronny Sen

Stunting index is a good indicator of a child's future:

- low educational achievement
- reduced earning potential
- damage to national economy

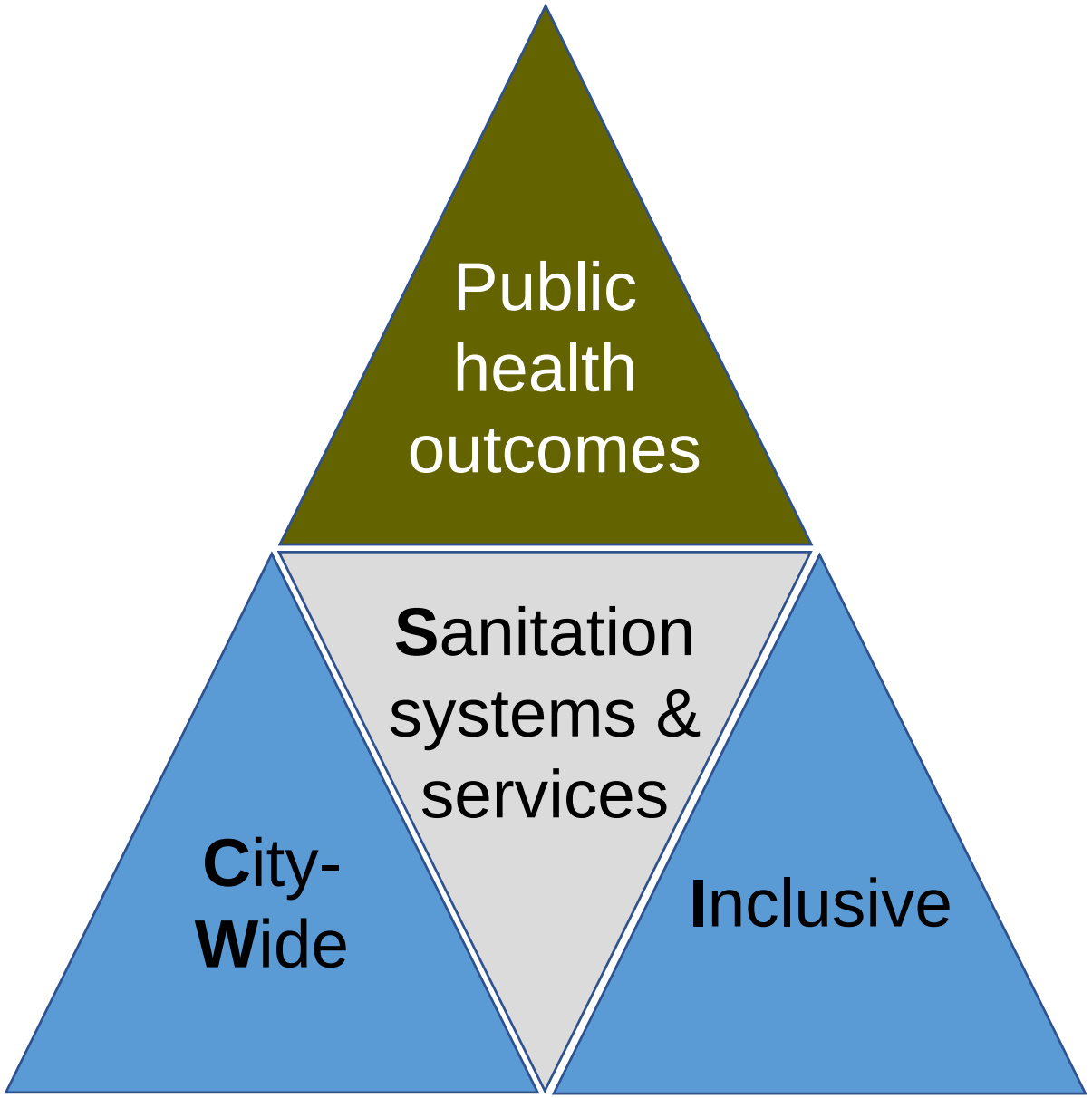
# Equity and sanitation

# Current sanitation services are not inclusive




Source: UNICEF/WHO Joint Monitoring Program (2015) Progress on Sanitation and Drinking Water: 2015 update and MDG Assessment

# Citywide Inclusive Sanitation (CWIS)



# Key concepts Part 1

*Instructions*

In your table-group:

- Make a list of <u>at least five</u> key words that have been discussed in this session.
- Write them on A3 paper so that everyone in the group can see the words.

4 mins

Click here to start timer

# Key concepts Part 1

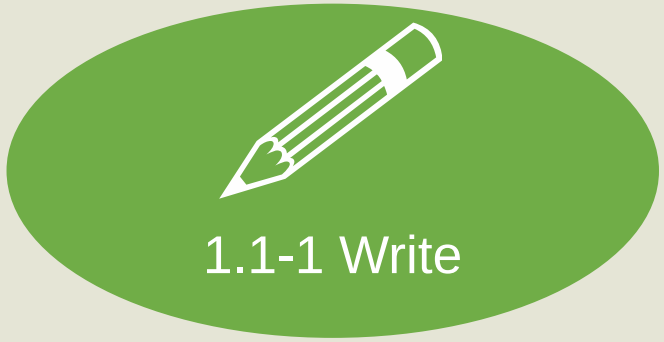
Circle the words you identified, otherwise, write the word(s) down so you have these five words visible to all at your table.

1 mins

**Clues for 5 words used in next activity**

1. CW in CWIS without a hyphen (-) (8 letters)
2. The S in CWIS (10 letters)
3. CWIS must be this. The I in CWIS. (9 letters)
4. CWIS helps to achieve this in the general public. (Starts with H) (5 letters)
5. Linked or coordinated. Starts with I. (10 letters)

# Key concepts Part 2 – Word Finder



This is an individual exercise:

*Instructions*

Open your Participants Resource Booklet (yellow cover) to page 1 and follow the instructions for the word finder activity.

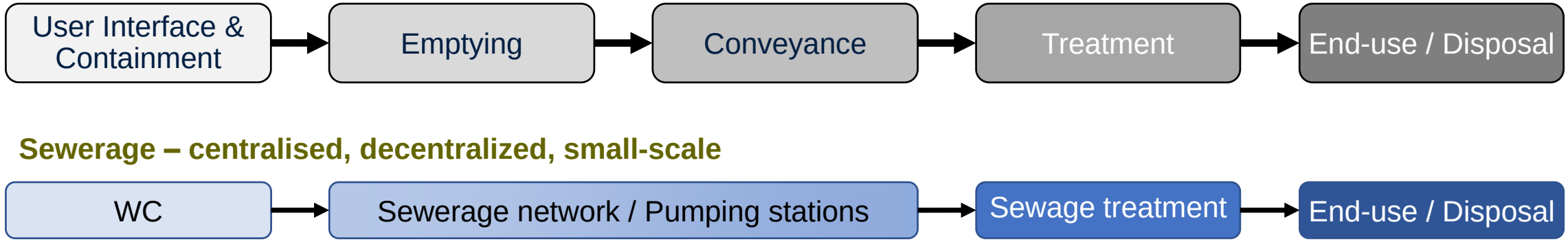
5 mins

Click here to start timer

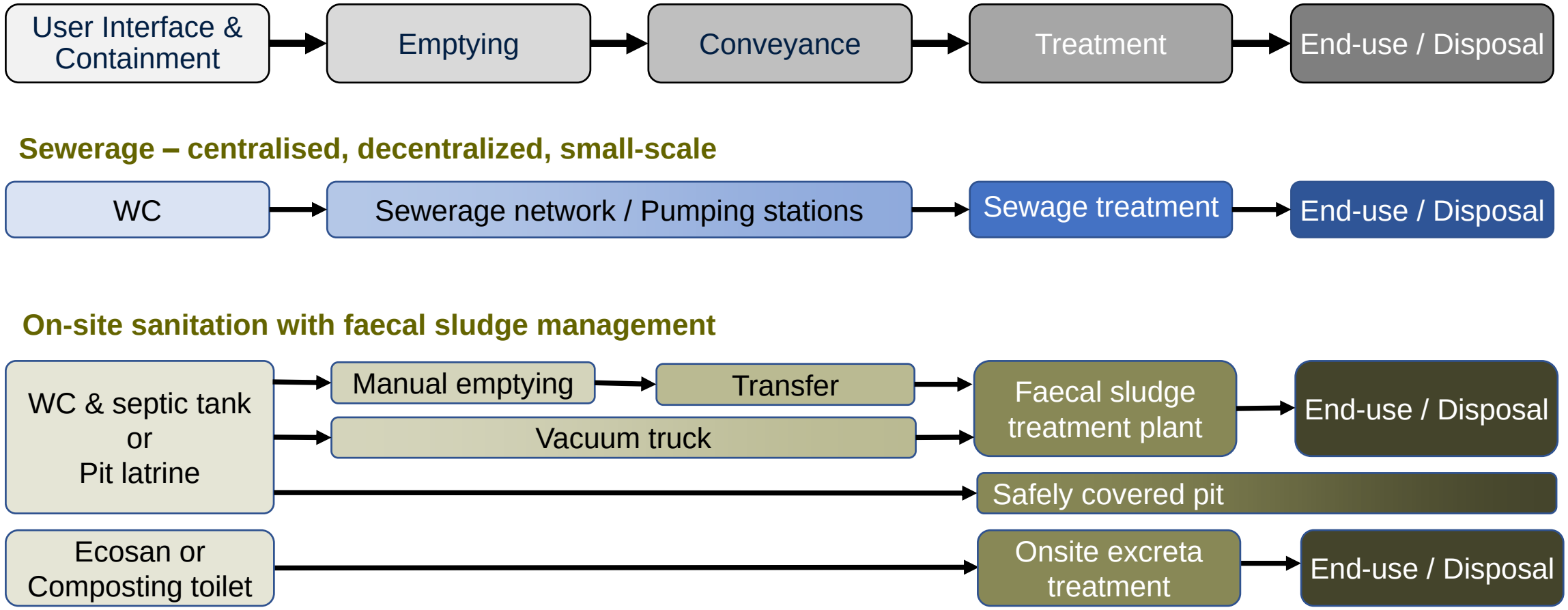
# City-wide Inclusive Sanitation and the SDGs

# Meeting the Sanitation SDGs

# Meeting the Sanitation SDGs



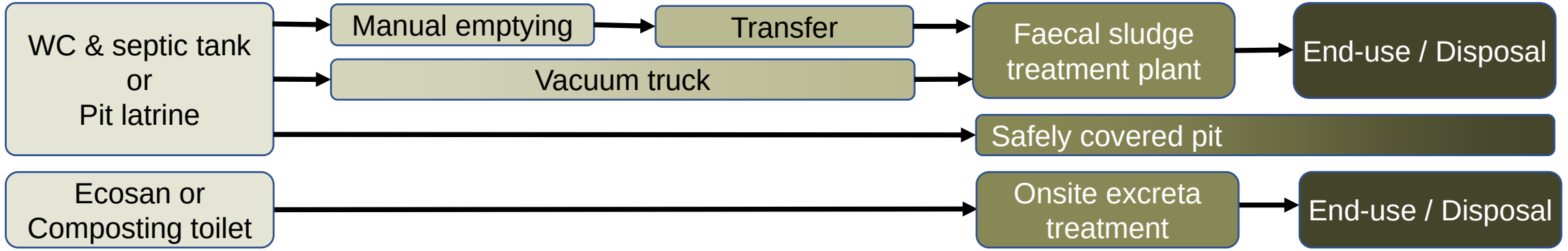
# Meeting the Sanitation SDGs



# Meeting the Sanitation SDGs

## Sewerage – centralised, decentralized, small-scale

## On-site sanitation with faecal sludge management




## Container-based sanitation

# Meeting the Sanitation SDGs

User Interface & Containment → Emptying → Conveyance → Treatment → End-use / Disposal

**Sewerage – centralised, decentralized, small-scale**

WC → Sewerage network / … → Sewage treatment → End-use / Disposal

**On-site sanitation with faecal sludg…**

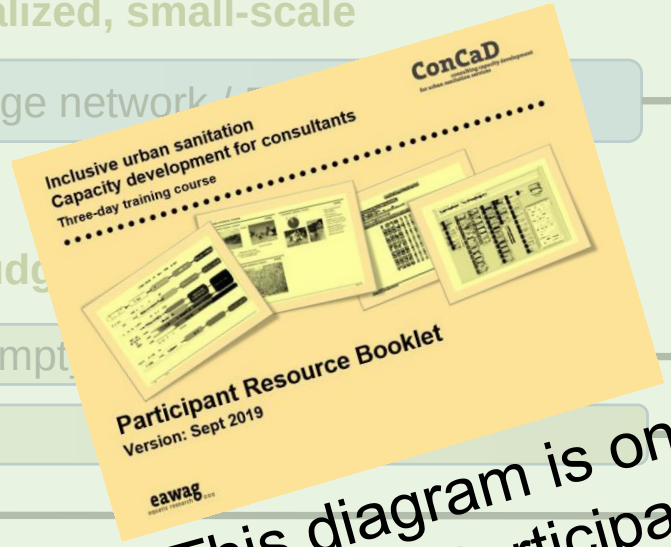
WC & septic tank or Pit latrine → Manual empt… → Faecal sludge treatment plant → End-use / Disposal

WC & septic tank or Pit latrine → Safely covered pit

Ecosan or Composting toilet → Onsite excreta treatment → End-use / Disposal

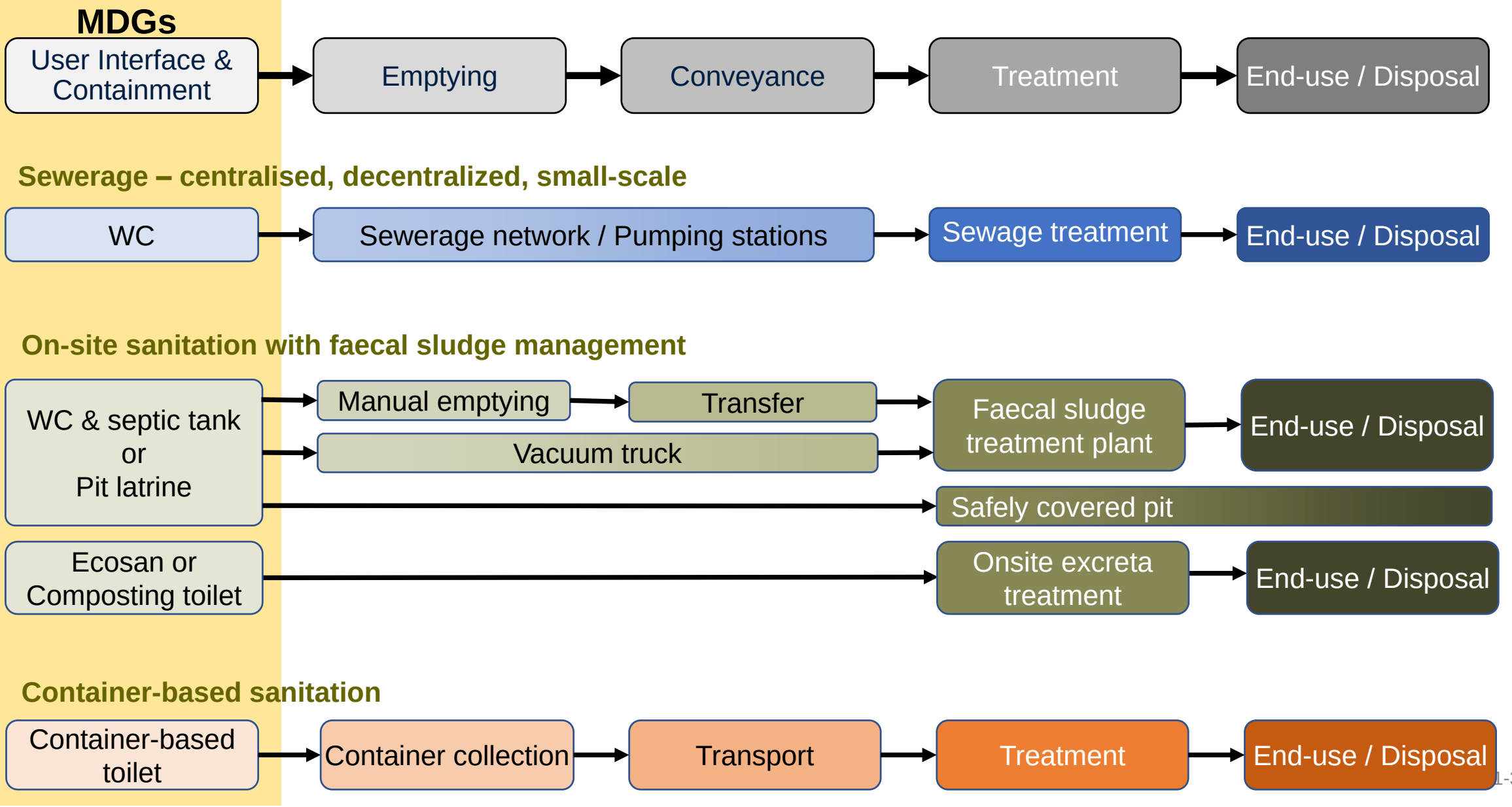
**Container-based sanitation**

Container-based toilet → Container collection → Transport → Treatment → End-use / Disposal




This diagram is on page 2 of Participant Resource Booklet.

# Meeting the Sanitation SDGs



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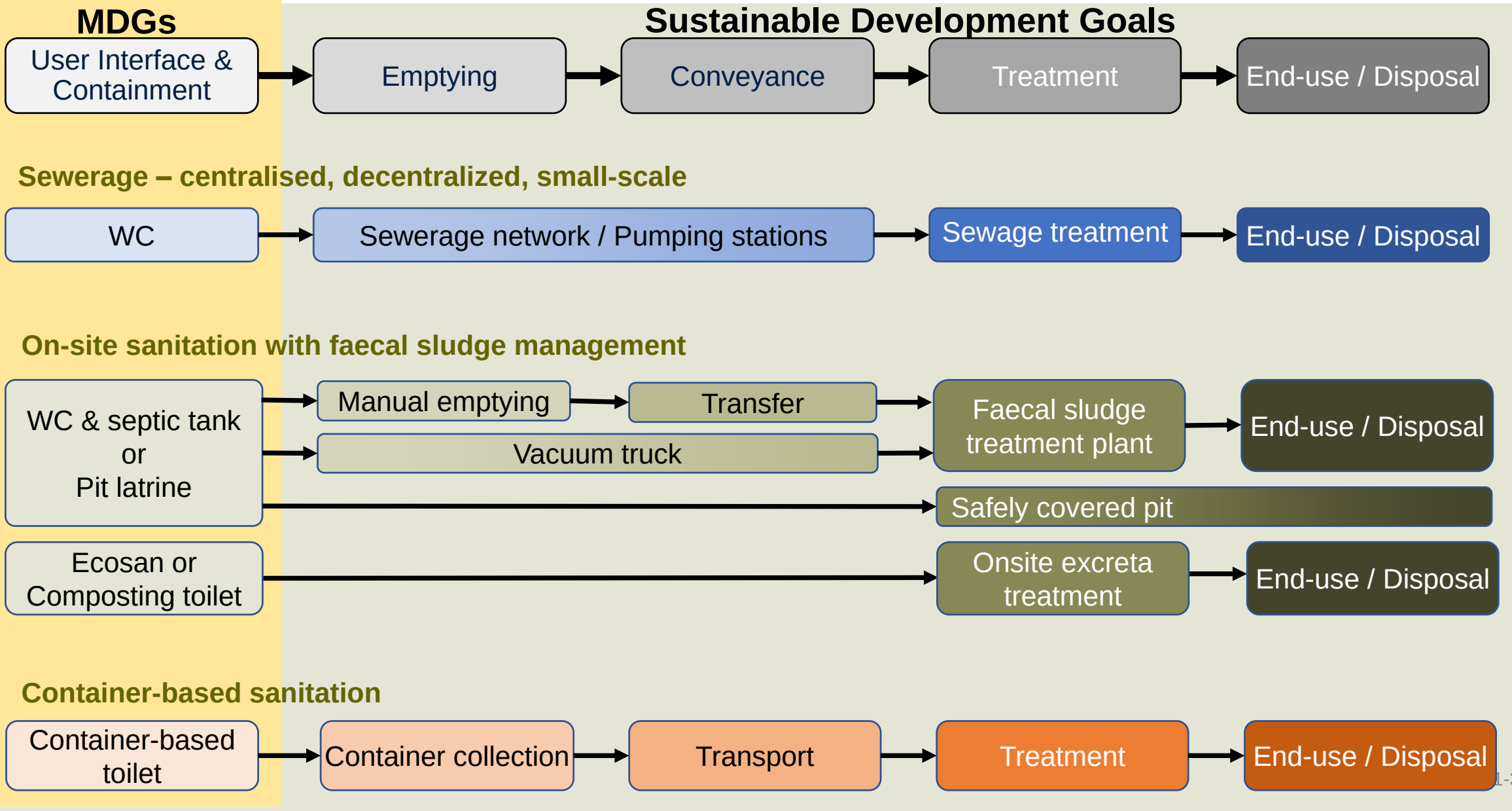
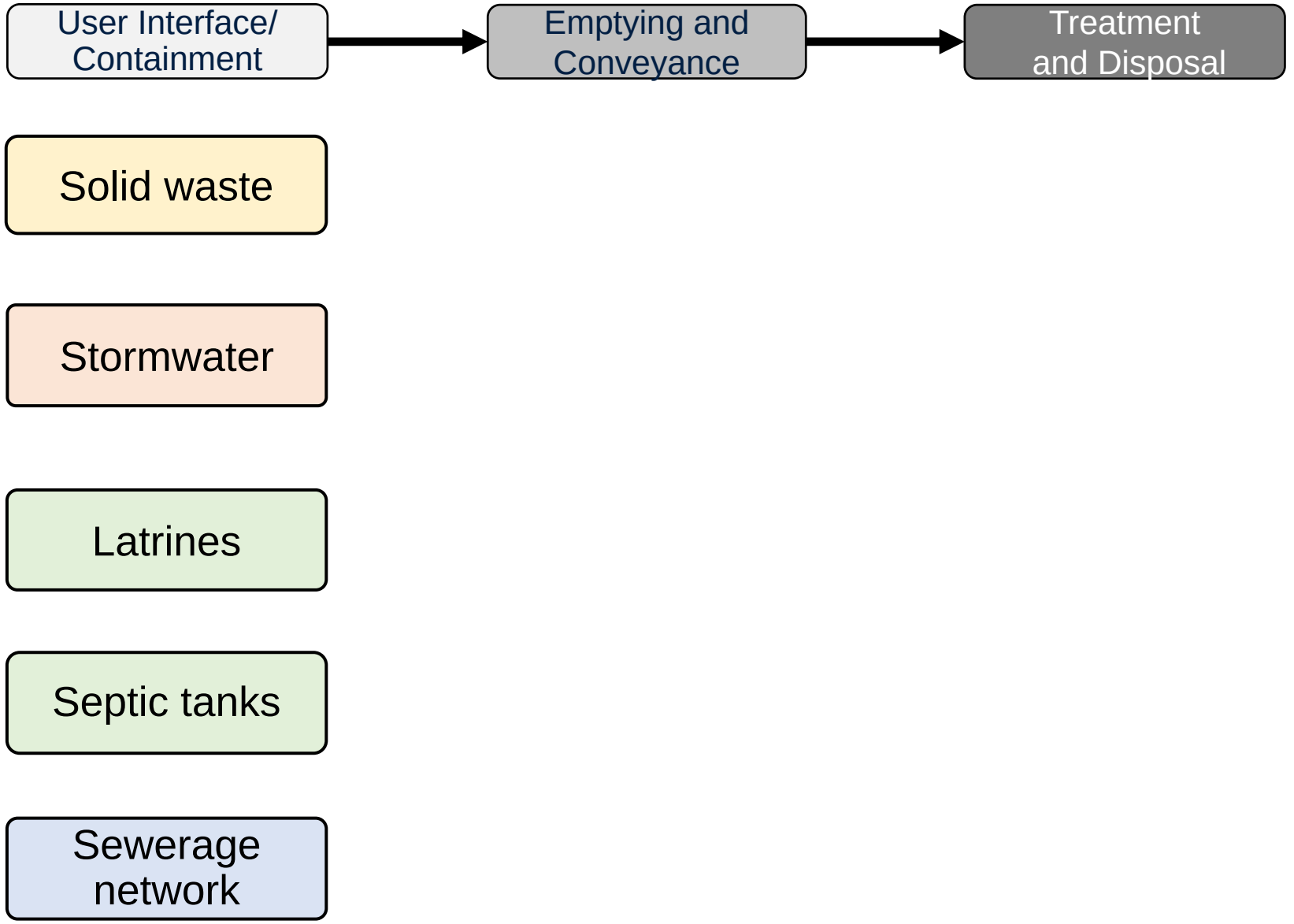


# Coordinating urban sanitary services



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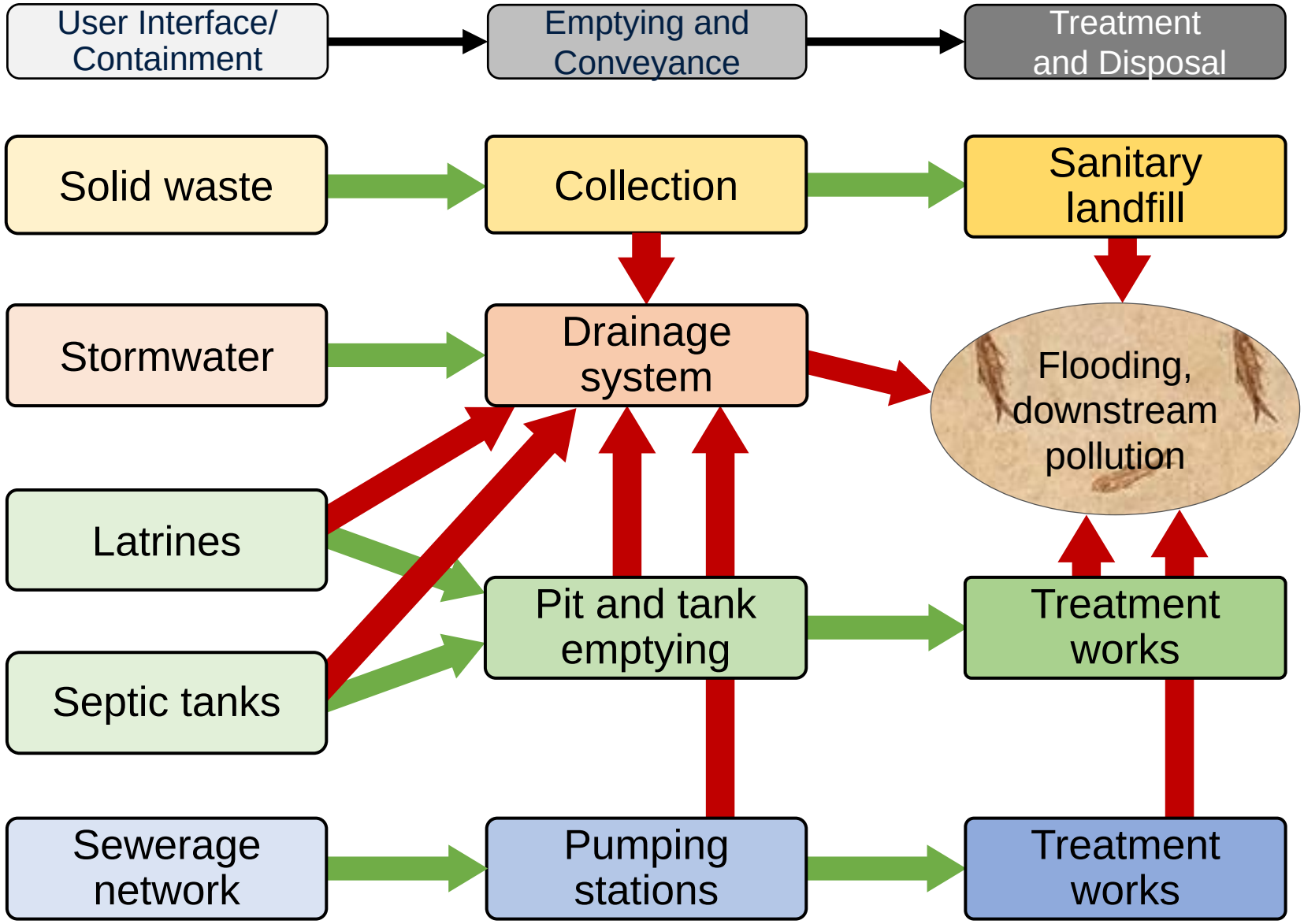

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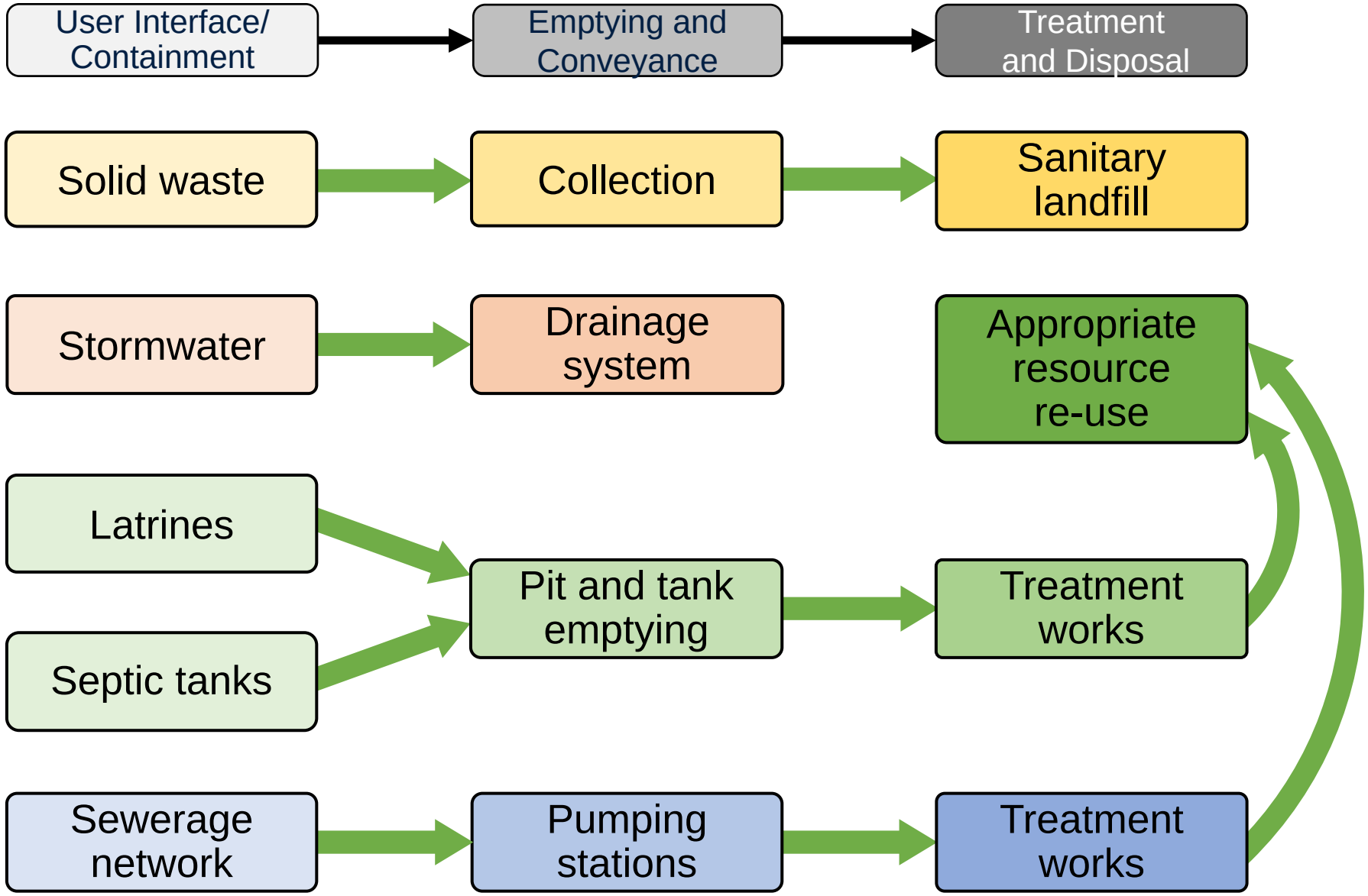

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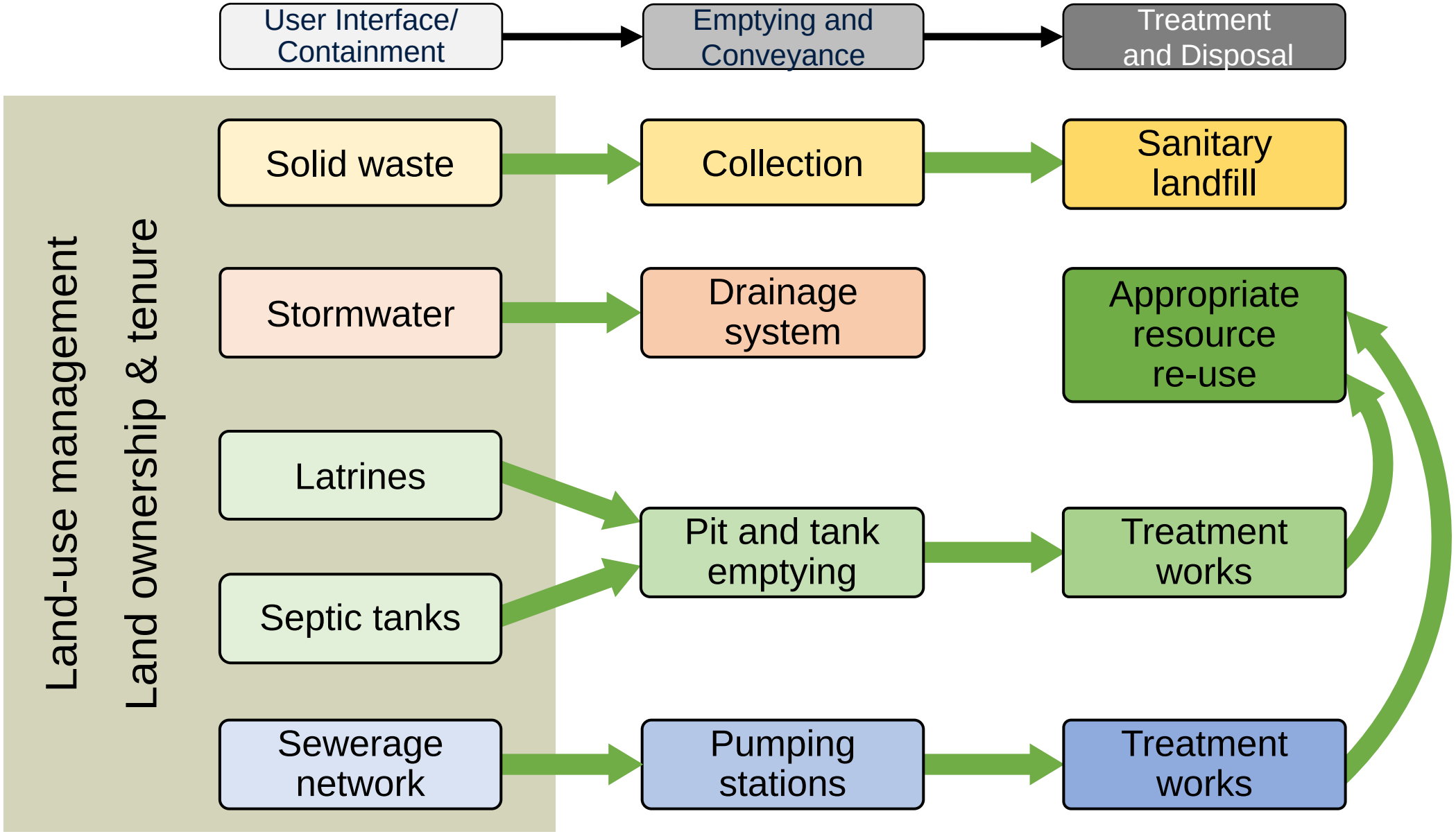

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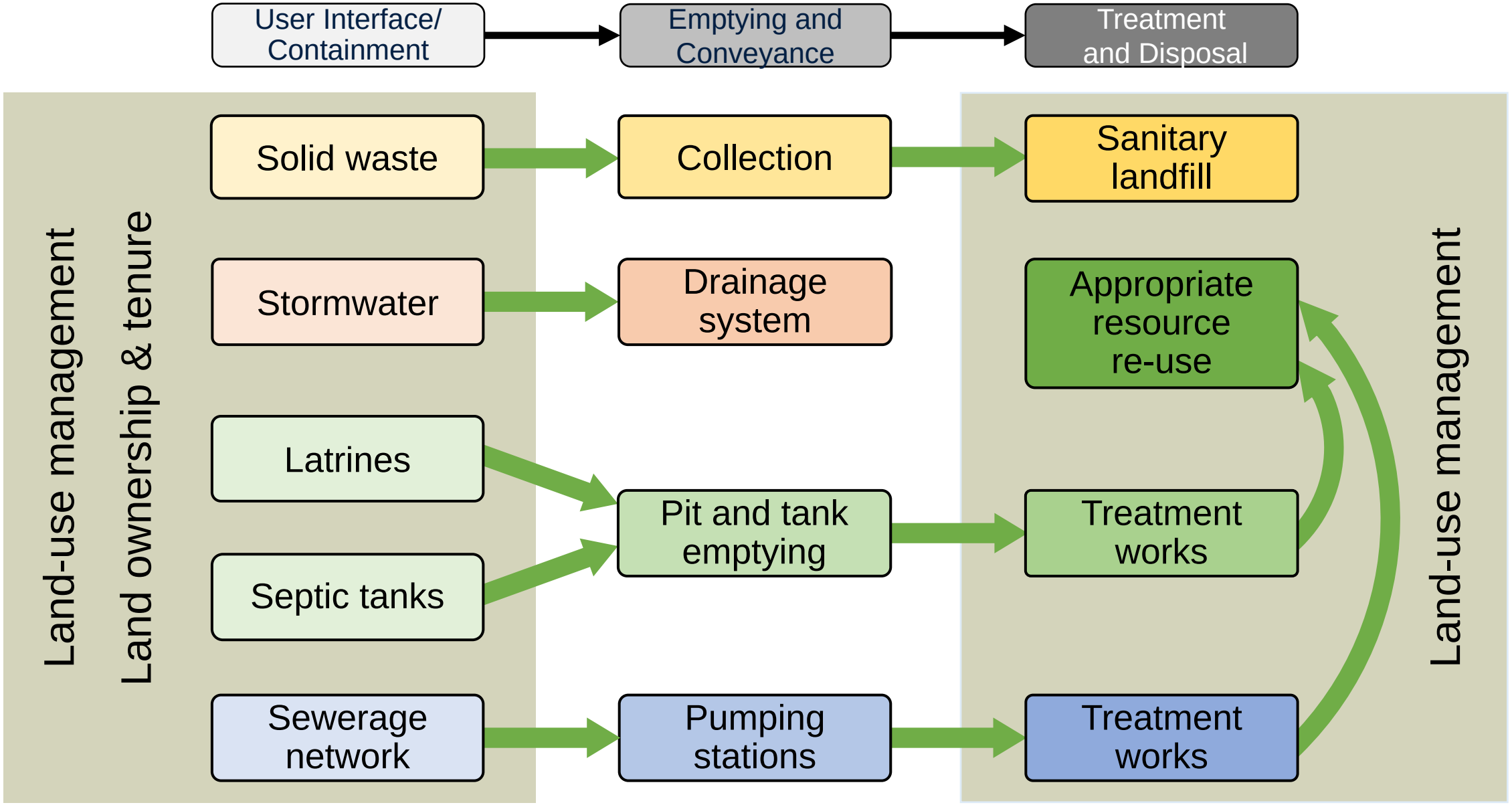
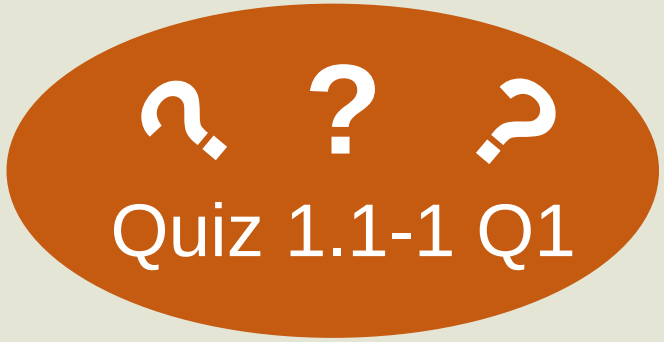


# CWIS intro Quiz Q1



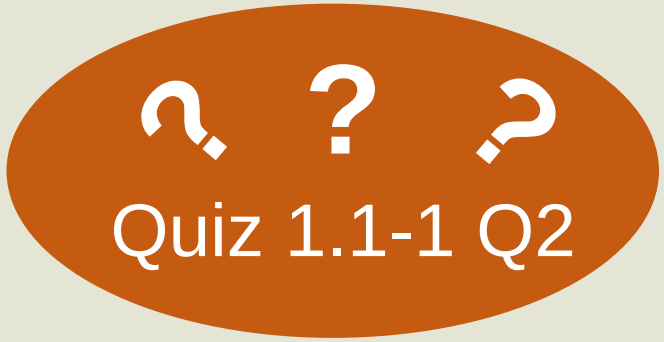

**What are the benefits of inclusive sanitation approaches?**

a. Reduction in disease transmission routes
b. Increased equity and improvements in the lives of the poor
c. Potentially less stunting, improved educational and earning potential

1 min

*More than one answer may be correct*

# CWIS intro Quiz Q2




**Why does coordinated management of sanitary services have better outcomes than separately managed services?**

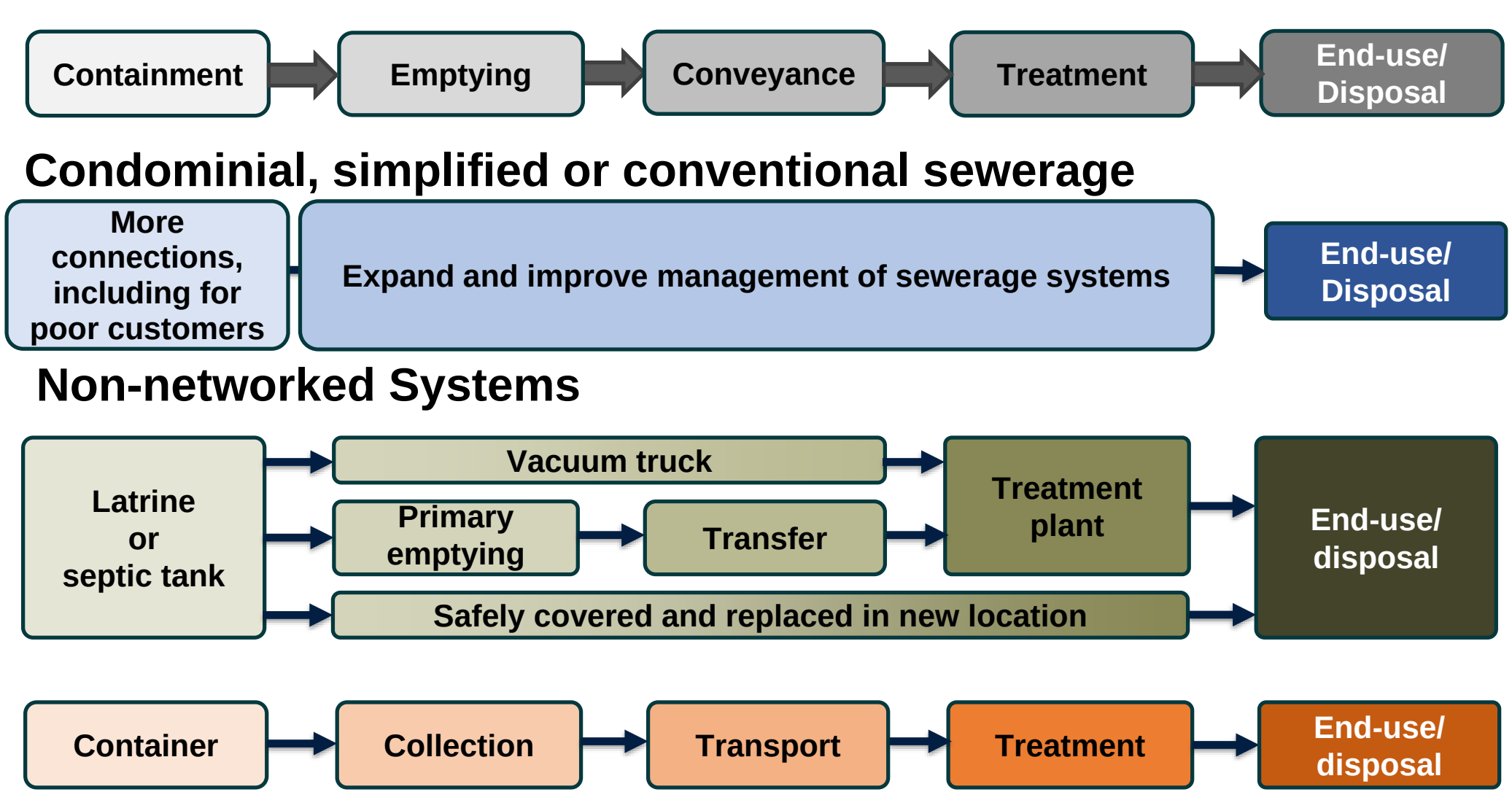
**Because:**

a. It's simpler and less expensive
b. Sanitary services are interrelated and each one impacts the others
c. People want to live in clean environments and cannot make all the changes themselves

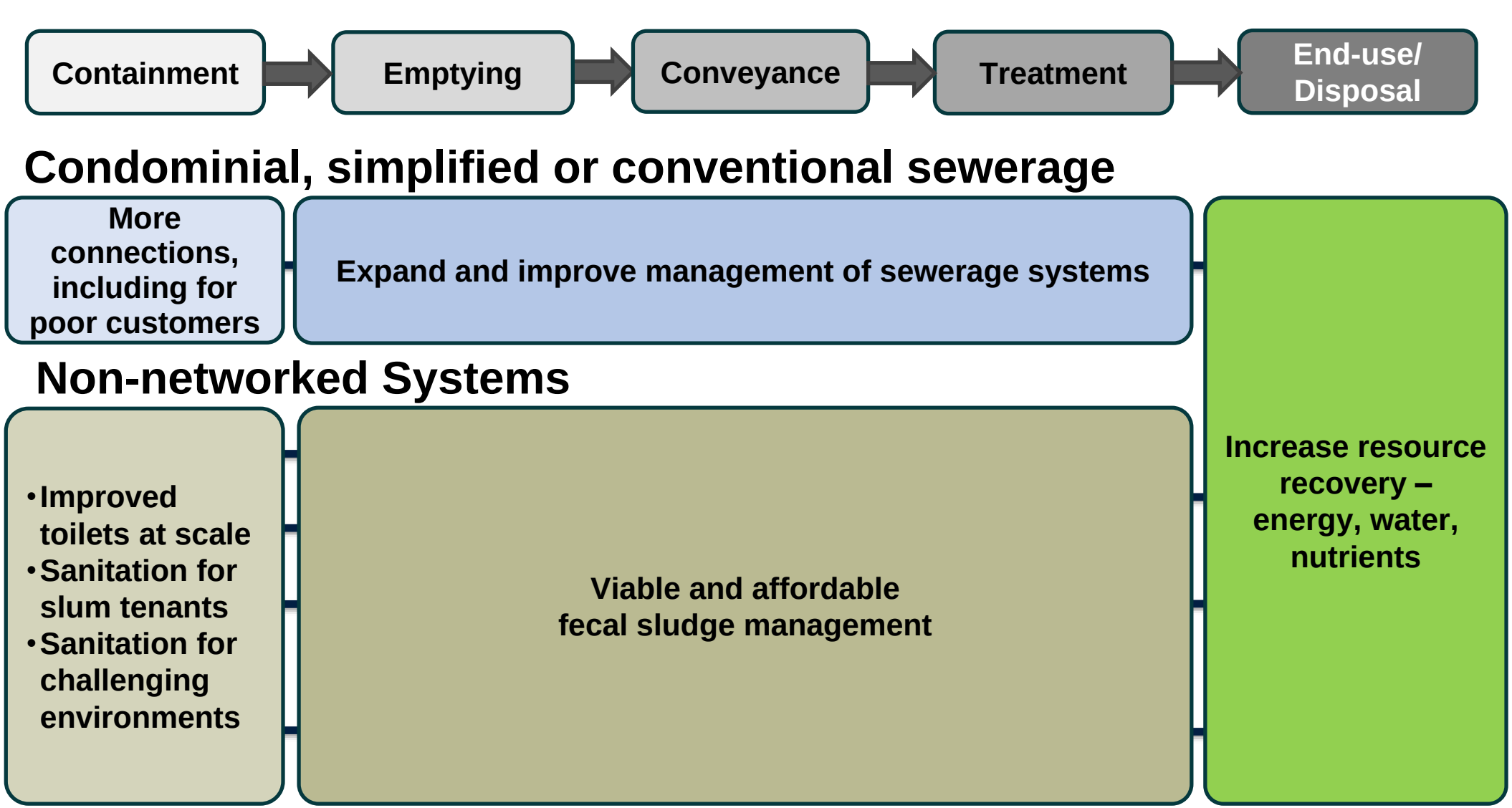
1 min

*More than one answer may be correct*

# Citywide Inclusive Sanitation agenda



# Citywide Inclusive Sanitation agenda



# Using a mix of sanitation technologies

# A mix of sanitation technologies and services

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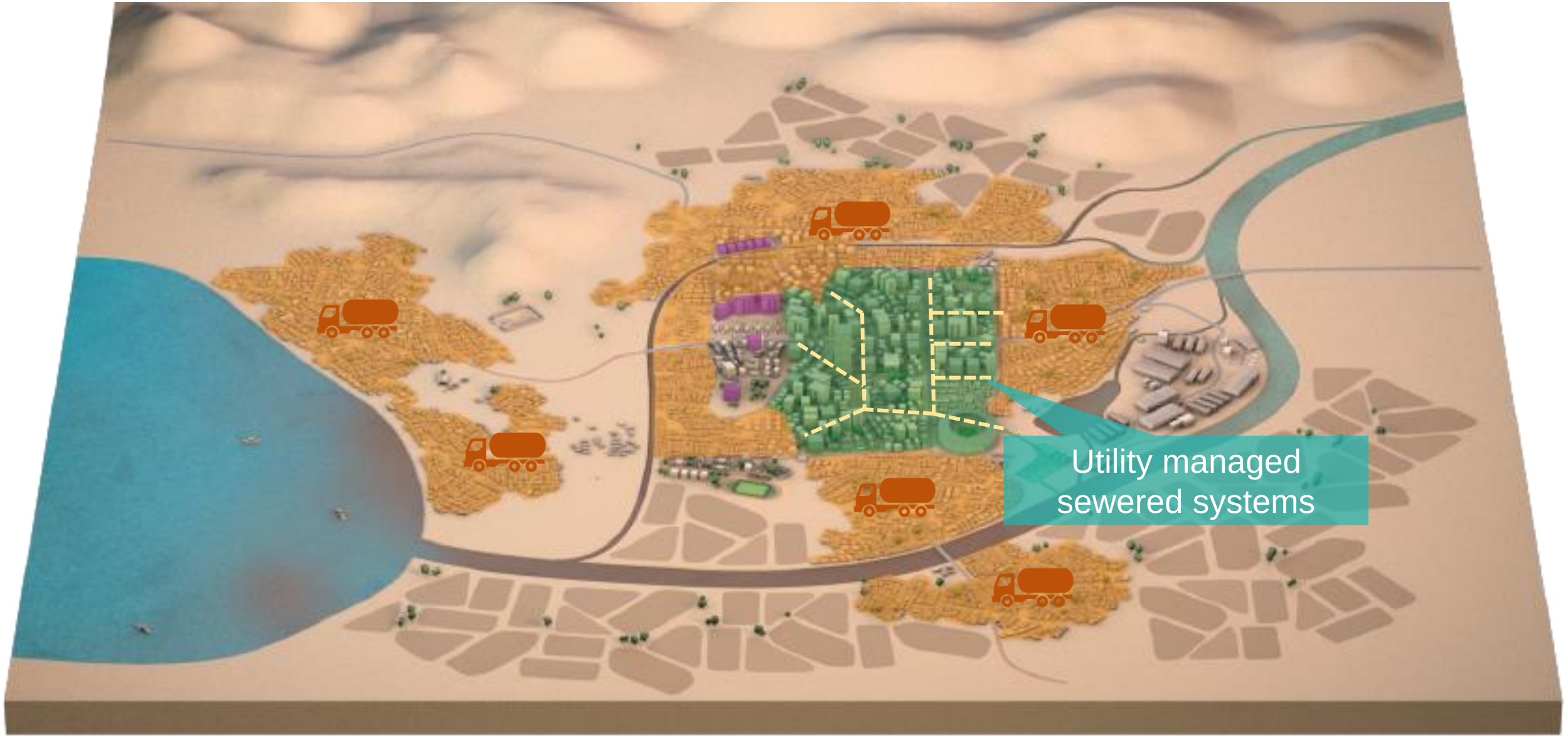
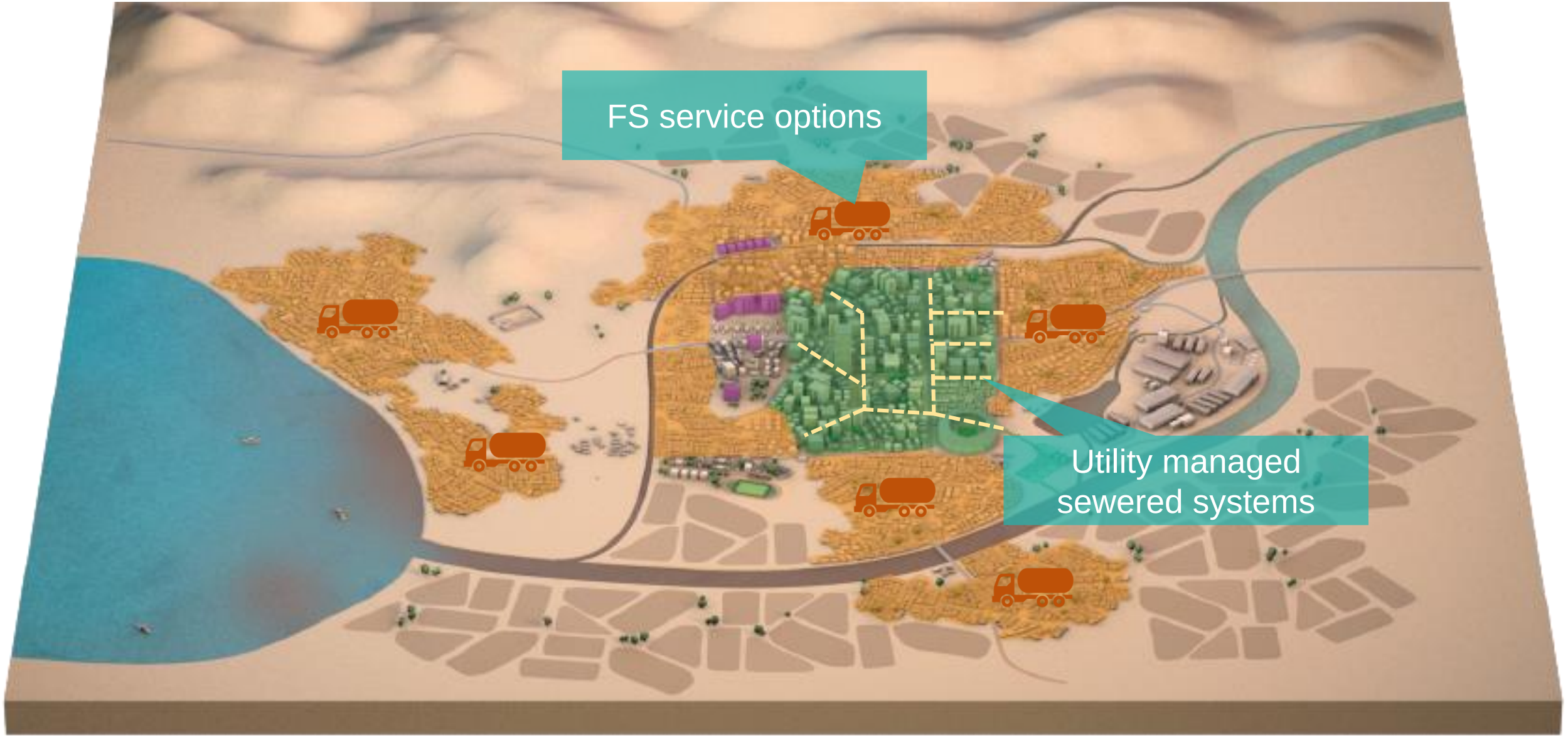
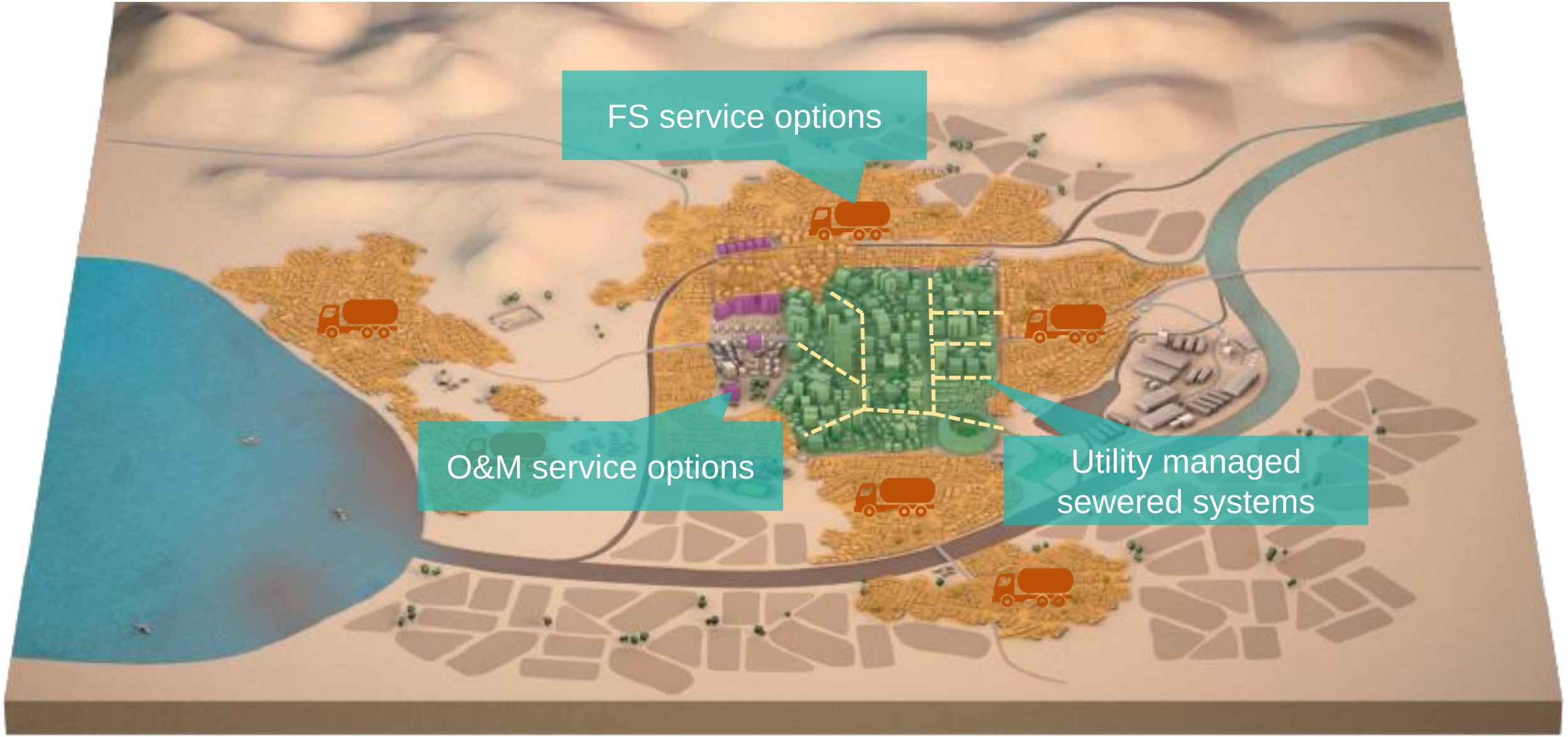


# A mix of sanitation technologies and services



# A mix of sanitation technologies and services



# CWIS overview card activity

*Instructions*

Close your PowerPoint handouts.
The trainer will give you cards with words or phrases on them. Sort these into three groups:

1. What CWIS **is**
2. What CWIS **is not**
3. What **could** describe or be CWIS under some circumstances

3 mins

For each set of cards, put the ones that you have been involved with at the top of the group.

# City-wide Inclusive Sanitation is…

- ✓ Based on evidence of how, why and where sanitation services are failing
- ✓ Addressing the entire sanitation service chain
- ✓ A mix of sewered and non-sewered services
- ✓ Linked with solid waste management, drainage, water supply, land-use management and housing
- ✓ Inclusive of all citizens, rich and poor, formal and informal settlements

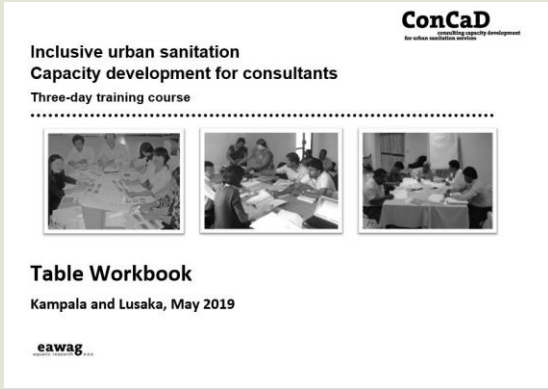
and it is **not:** ✓

- ✘ Based on **assumptions** about what is needed
- ✘ Focused only on building **infrastructure**
- ✘ **Only** FSM, on-site sanitation or sewerage
- ✘ **Only** sanitation projects for slums

# Summary so far….

Table group 1.1-3

Open Activity 1.1-3 in Table Workbook (page 1) and follow instructions




**Problems??**

**CWIS solutions???**

5 mins

Click here to start timer

# Video: Paths to CWIS

Watch video

This animation provides an overview of how to work towards SDGs within the timeframe 2015 to 2030 for a generic city.

*Trainer: Show the animated CWIS video (separate file, not embedded into this Power Point).*

5 mins

# Summary (1)

✓

- Any **unsafely managed faecal waste is a hazard** for the whole urban environment
- Poor sanitation is linked to **stunting, poor health and low productivity**
- **"Business as usual" is failing** to deliver effective, inclusive sanitation
- Safely managed sanitation can be achieved by **a mix of sewered and non-sewered sanitation** services
- Sanitation is **more effective when integrated** with
  - Water supply and drainage
  - Solid waste management

# Summary (2)

**City-wide Inclusive Sanitation** addresses:

- both non-sewered and sewered services
- from the city centre to the unplanned and low-income areas
- responding to the ever-changing and ever-growing needs of the city