



A YE MASTERCLASS

WORLD WATER DAY SPECIAL

POOP AND PONDER

We bring you an eye-opener on the water-wastewater cycle, our flush-and-forget toilets, and our unsustainable lifestyles

*Open for
all curious
minds!*

With

Bhitush Luthra

An expert on
water, wastewater,
and sanitation
management



Date:
Wednesday,
March 22, 2023

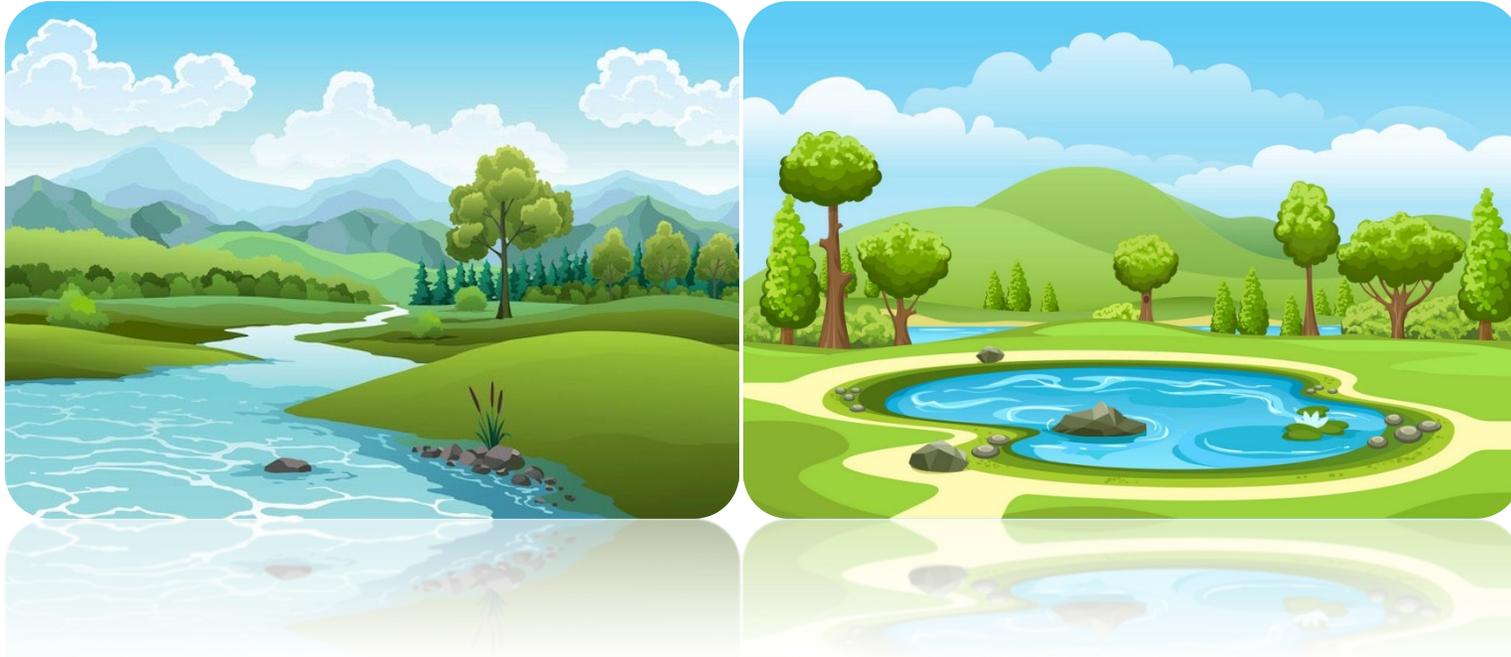
Time:
4–5 PM

Platform:
Zoom

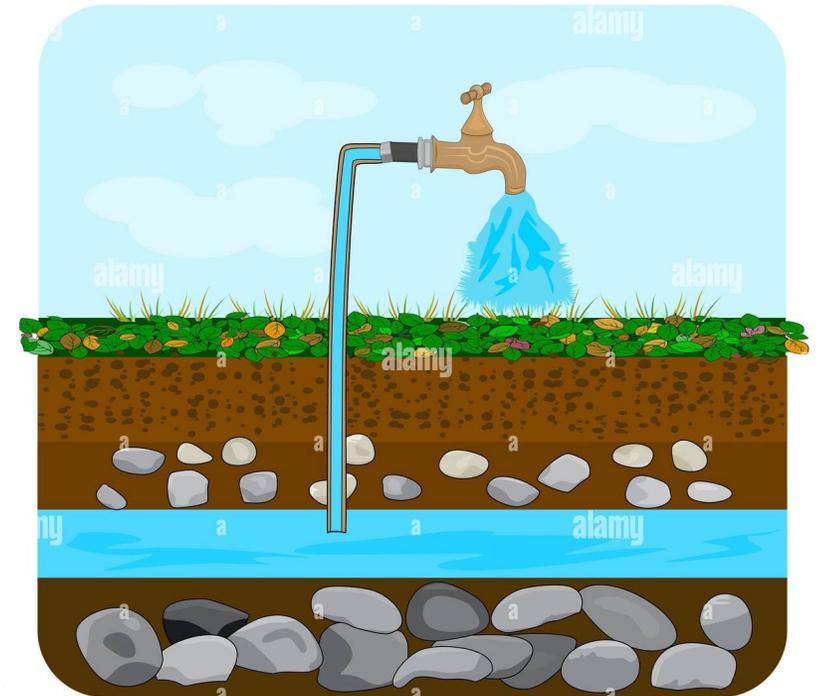
**Last date for
registration:**
Tuesday,
March 21, 2023

Where do we get the water in our taps from?

a) Surface Water



b) Ground Water



Is this an example of ground water or surface water?

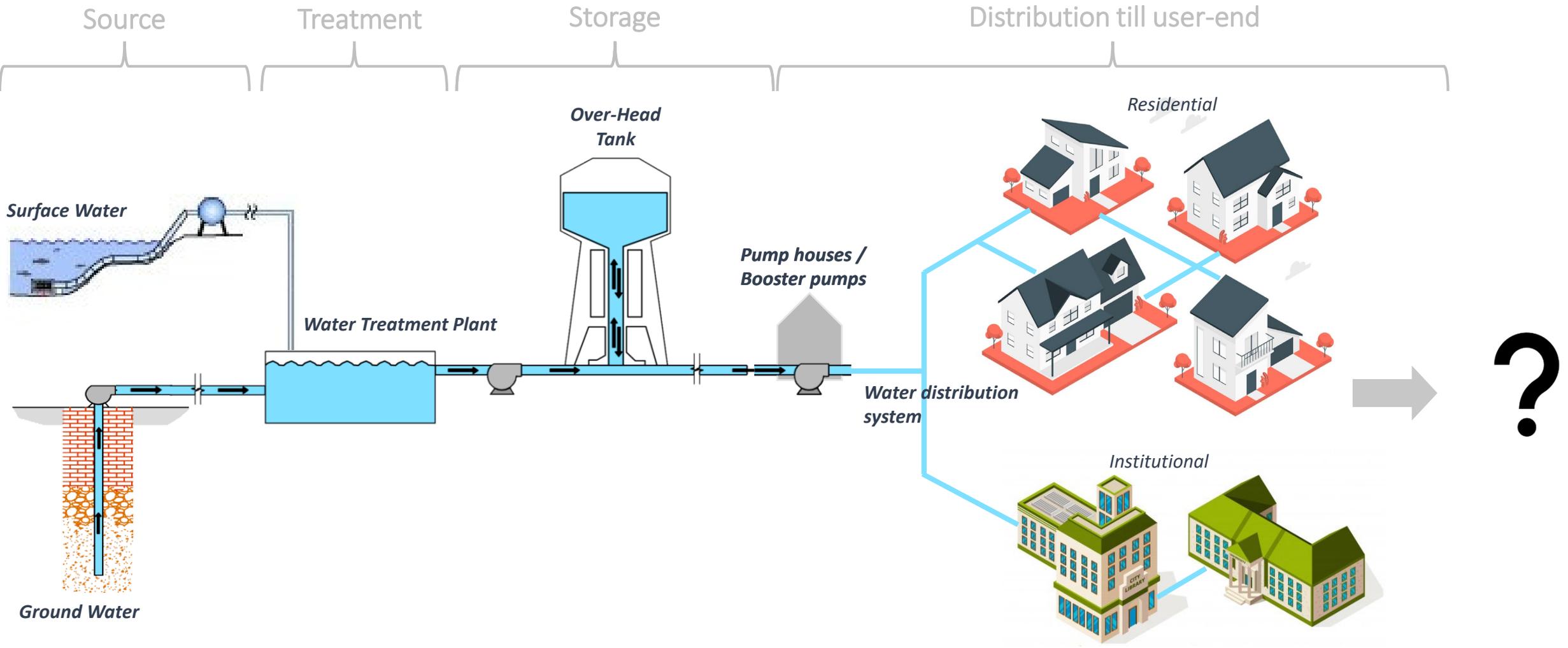


An example of surface water



Can we drink this water directly?

Understanding the water supply system



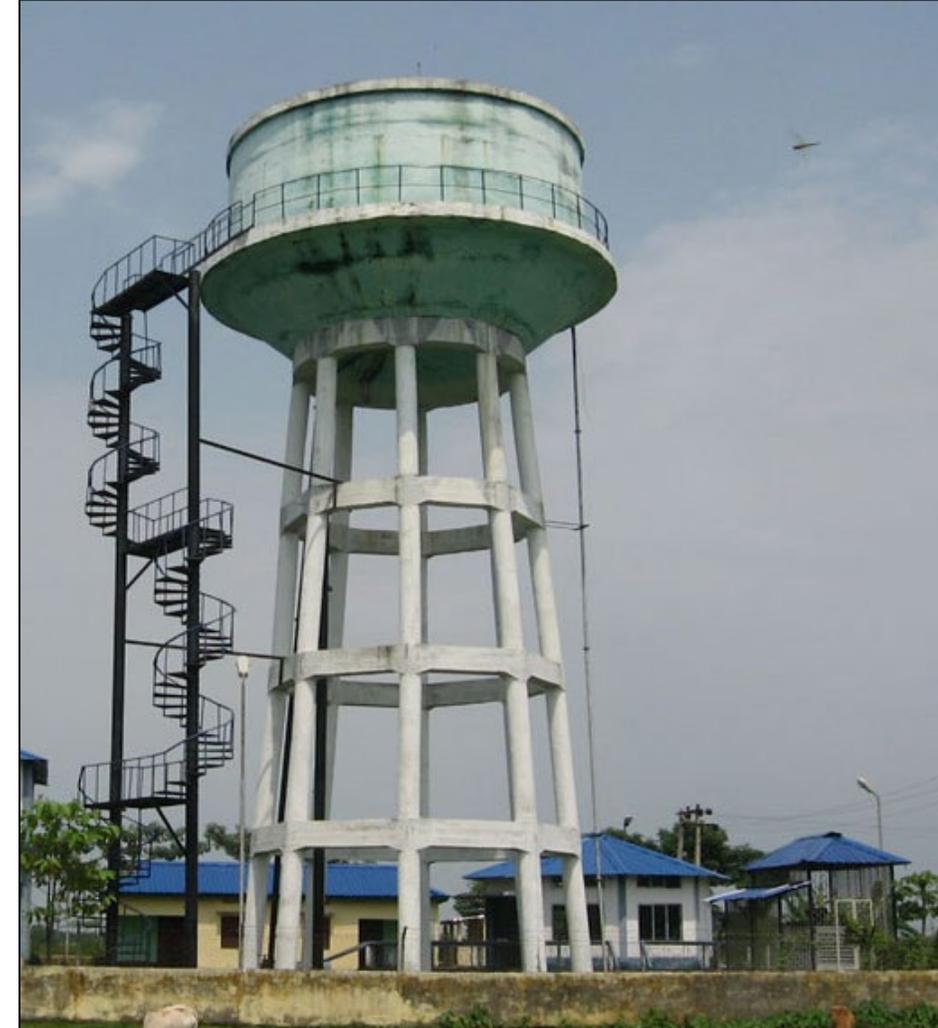
Water Supply Pipeline



Water Treatment Unit



An Overhead Tank



Availability of water in these sources is limited but.....



To cater to increased demand more and more water is getting extracted which is resulting in ...



Drying of water bodies like rivers and lakes



Depletion of ground water

Let's now discuss about used water

What are different kinds of used water?



Domestic Used Water



Industrial Used Water

Average domestic water consumption in daily activities

Water consumption in domestic activities



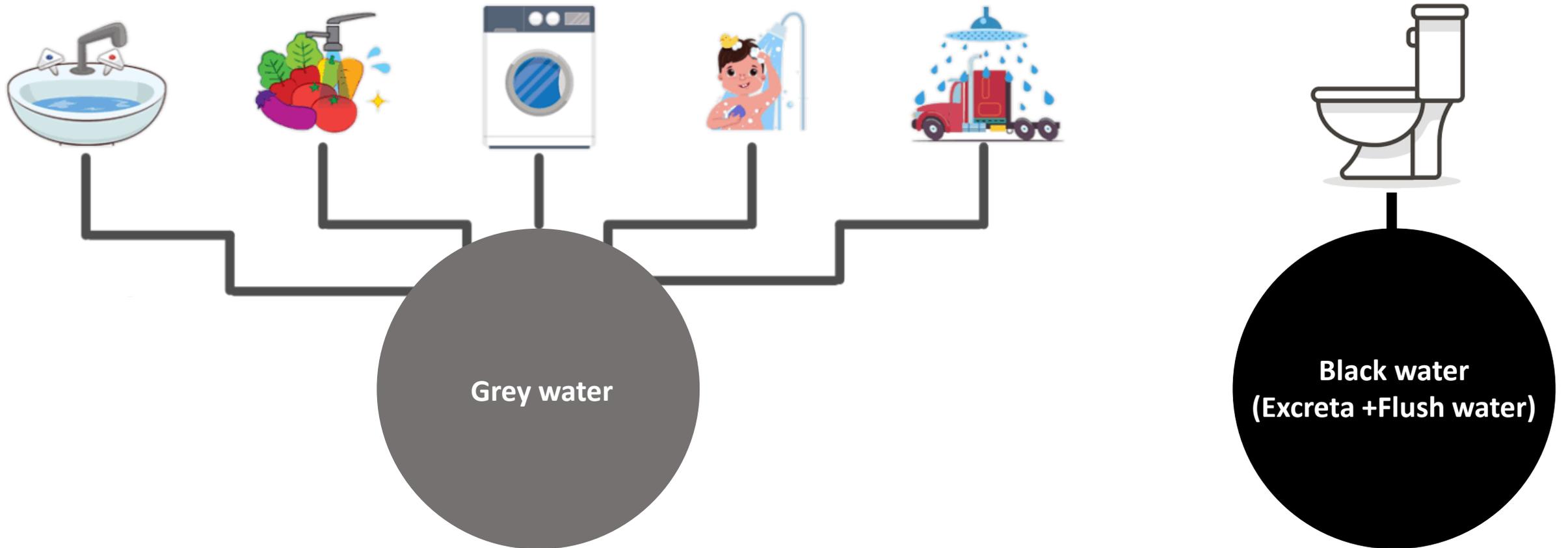
Source: Shaban. A, 2008, *Water Poverty in Urban India: A Study of Major Cities*, In: UGC-Summer Programme, June 30- July 19, 2008, Jamia Millia Islamia, New Delhi

80% of total water utilised goes out as used water – **Toilets and bathrooms contribute the most**

Average water consumption – 135 litres per capita per day (LPCD)

Average used water generated – 108 LPCD

Domestic Used Water



What is Excreta?



Pee (urine)
(rich in nutrients)

+



Poo (faeces)
(rich in carbon and pathogens)

How much poop do we produce every day?



**100 – 250 gms
per person per day**

**India produces minimum
140,00,00,00,000 grams of poop every
day**

75-80% of excreta is water

It contains pathogens

What are the constituents of used water?

Physical impurities (suspended materials)

Chemical impurities (organic and inorganic wastes)

Pathogens (Bacteria, protozoa, fungi etc)





What happens once you flush down your excreta?

Sanitation

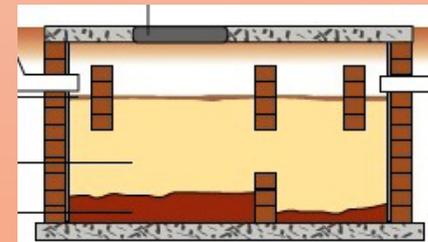
The means of collecting and disposing of excreta and community liquid wastes in a hygienic way so as not to endanger the health of individuals and the community as a whole.

Sanitation

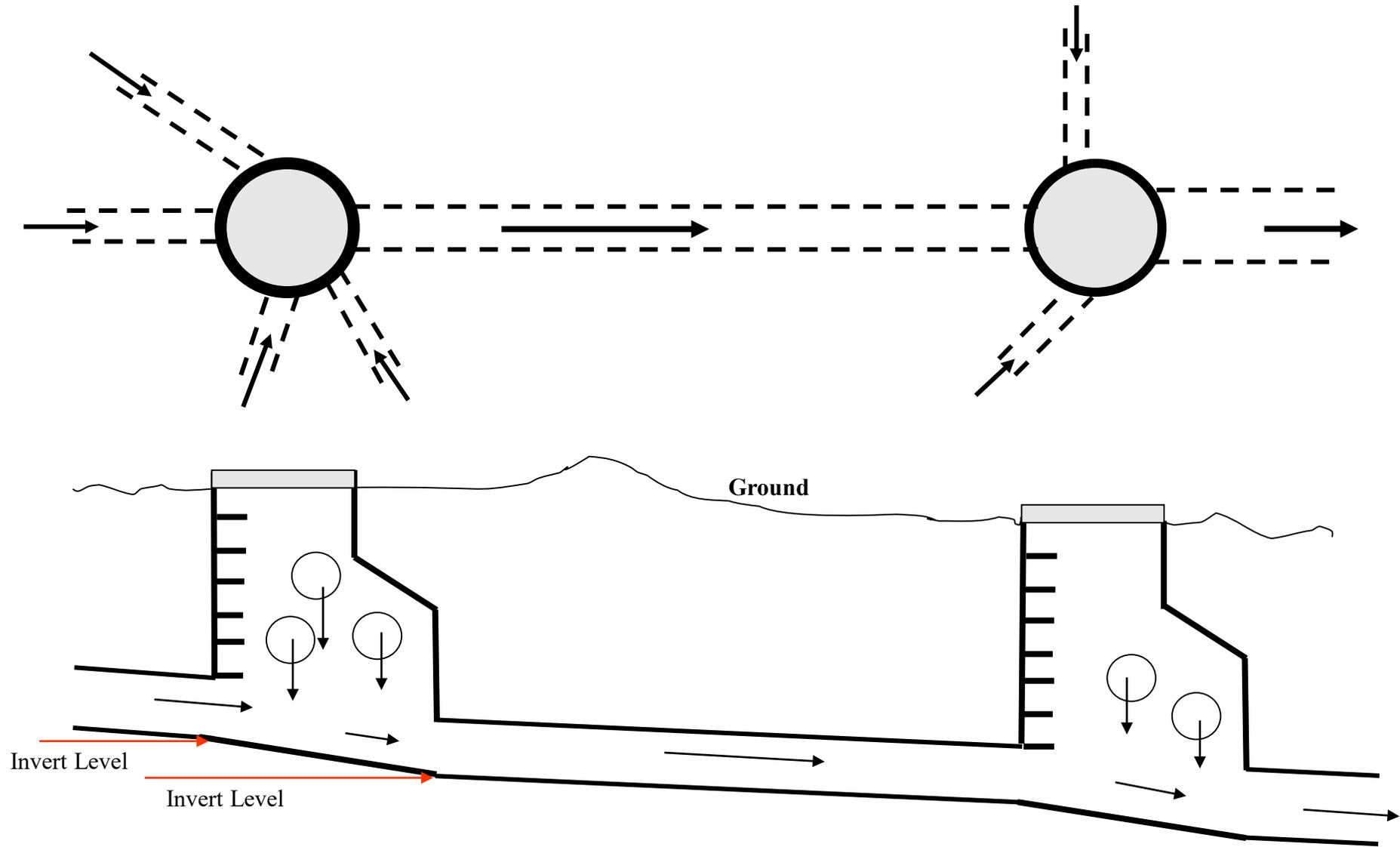
Off -Site
(Piped Sewer System)



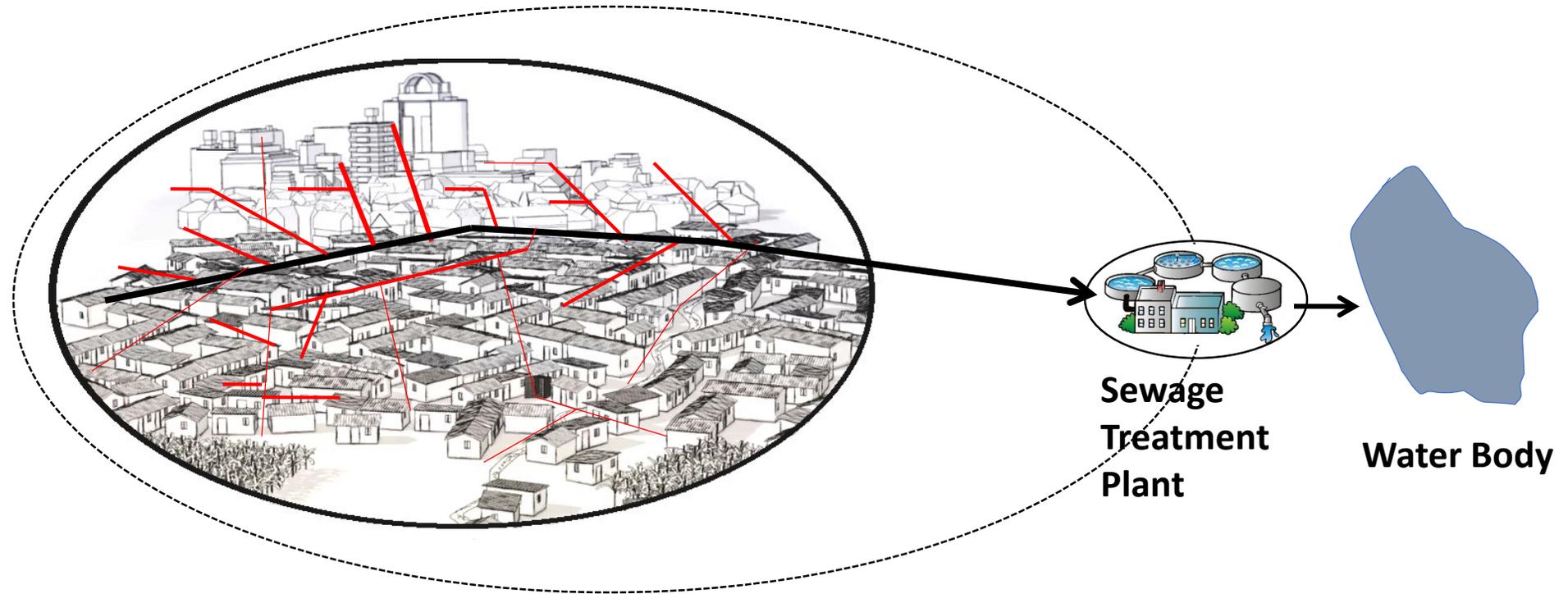
Onsite
System



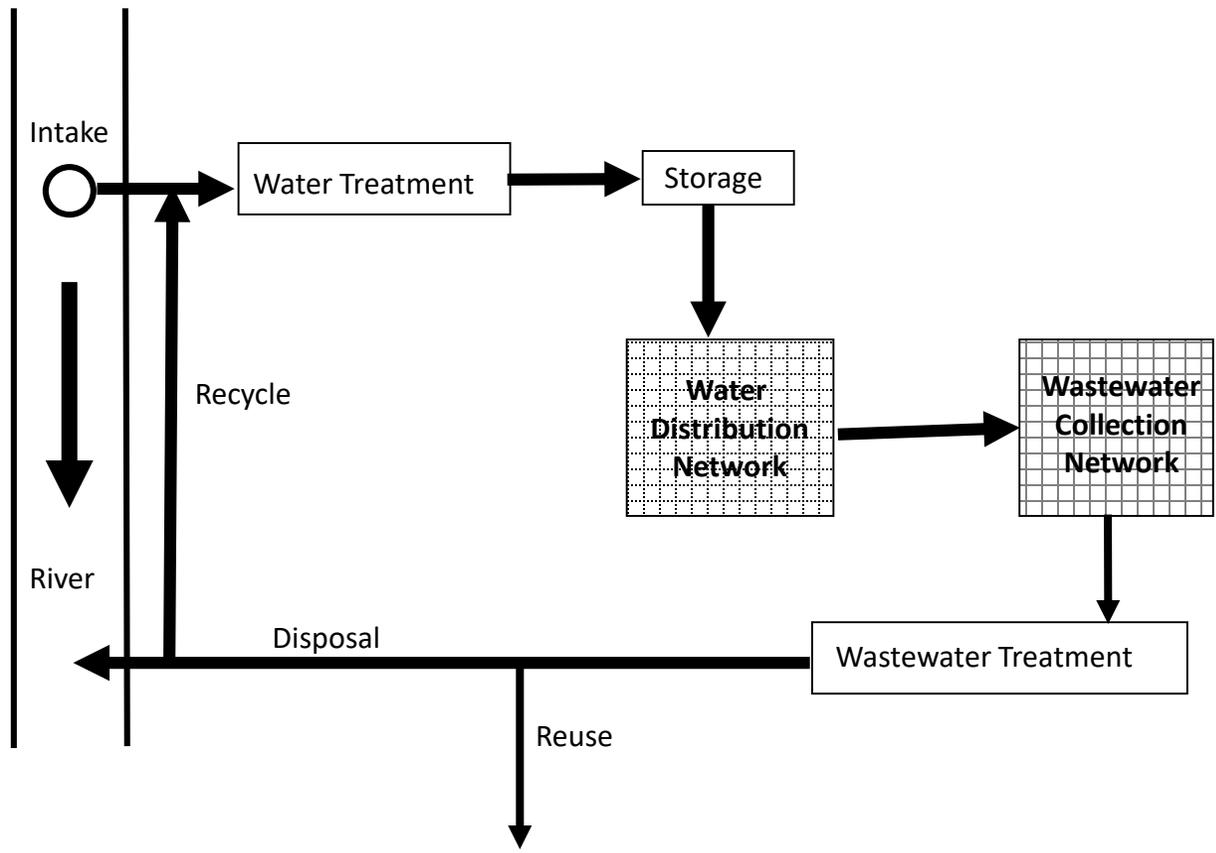
Offsite system - Sewerage network



Centralised Sewerage System



This is a costly affair to implement and maintain, hence till date only 35% of the country has access to sewerage network.



Out of total 72,368 MLD used water generated every day in India, only 20,235 MLD is treated rest all is dumped untreated in water bodies

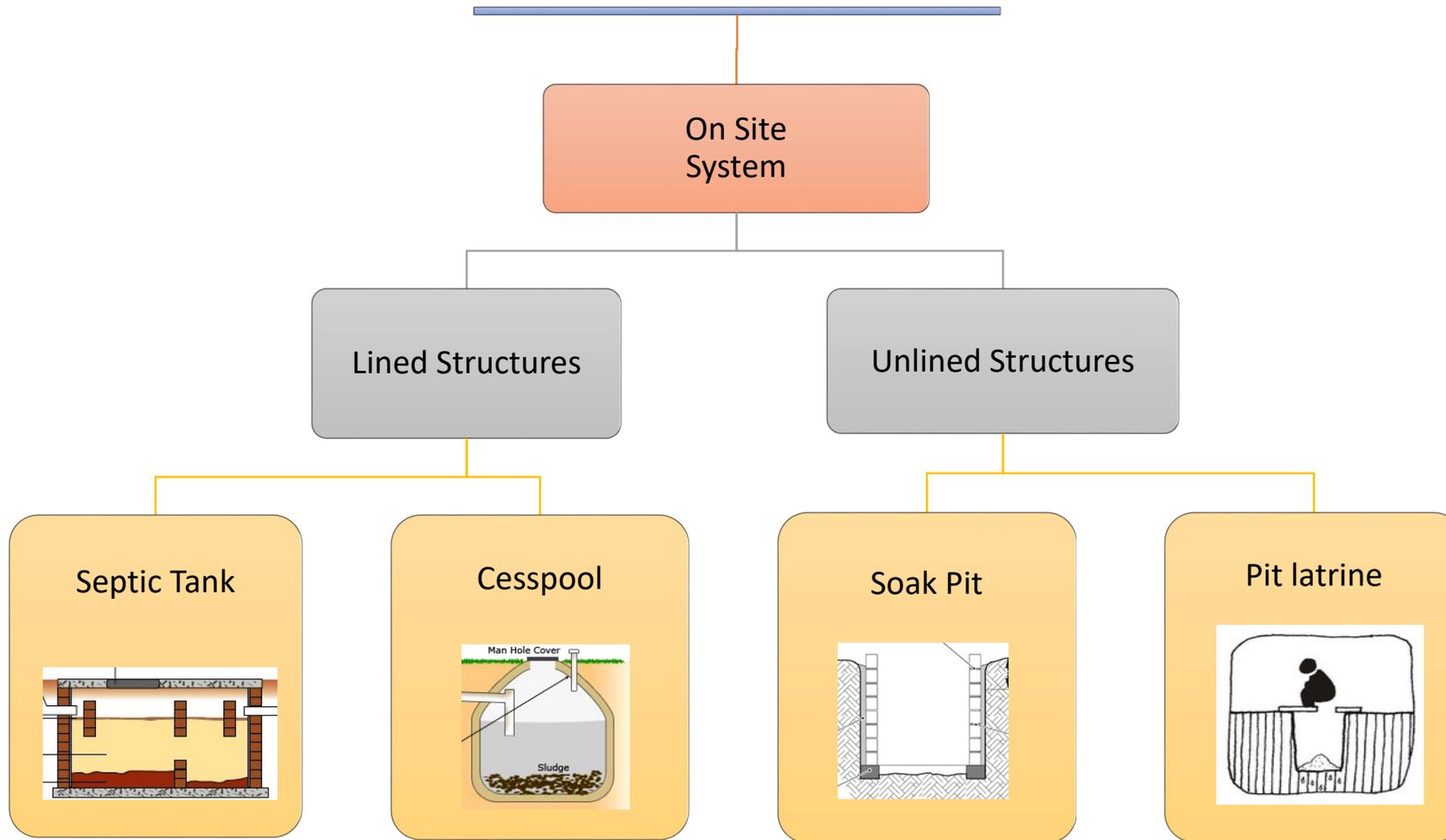
Increase in
Water Supply

Increase in
production of
Used water

Pollution of
water bodies
and ground
water

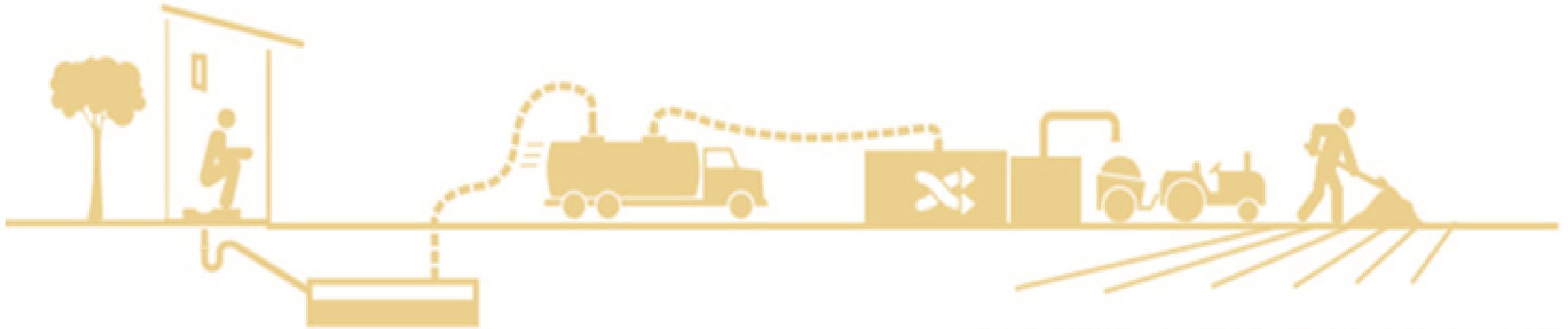


Population that is not connected to sewerage system depend on onsite sanitation systems



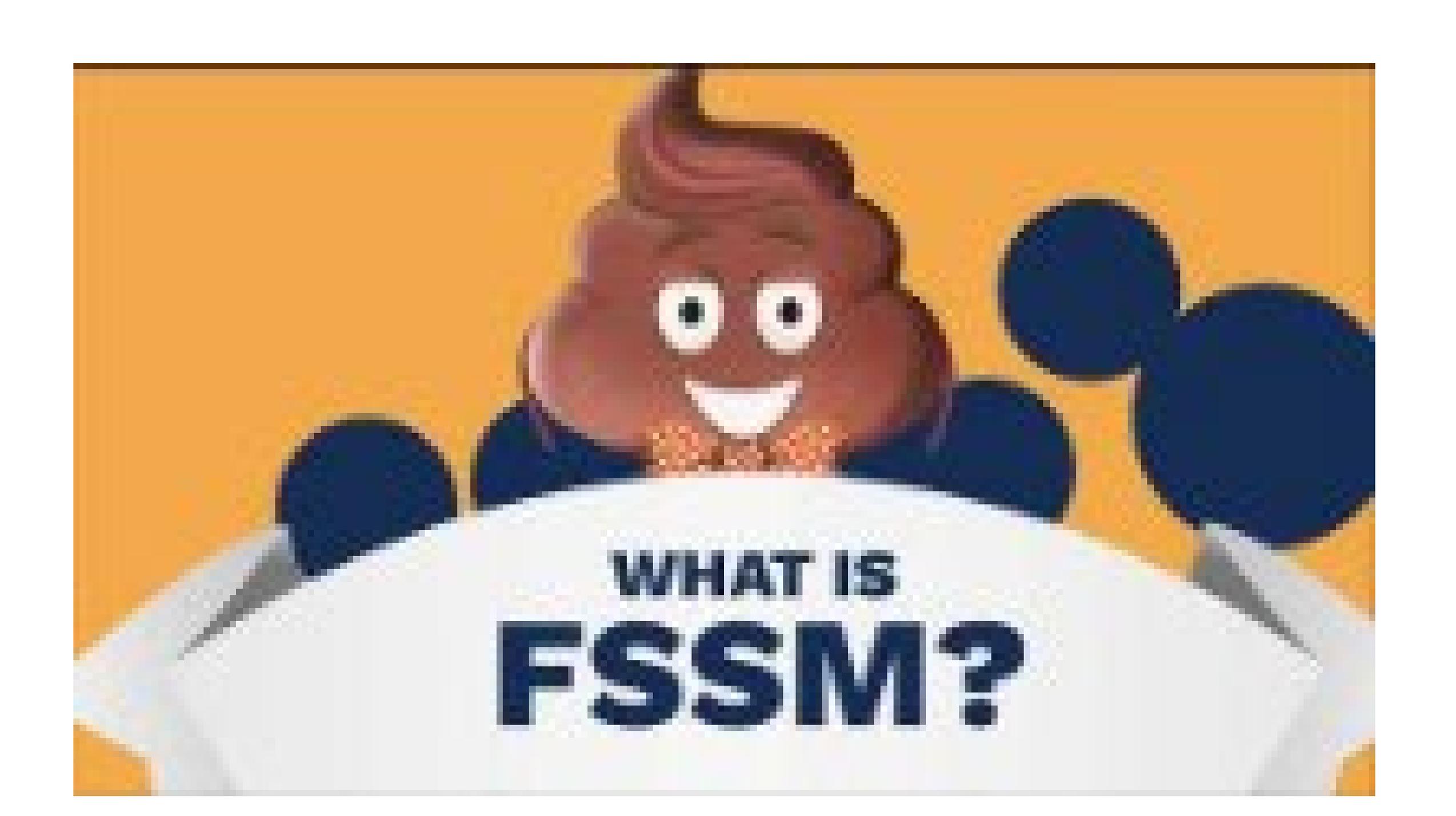
Managing the contents of these onsite structures is called Faecal Sludge and Septage Management

Faecal Sludge & Septage Management (FSSM)



Source: Water, Sanitation and Hygiene, BMGF, 2010.

Faecal sludge (septage) management involves collection, treatment and proper disposal/ reuse.



WHAT IS
FSSM?



State of Sanitation in India

Sanitation is the most neglected sector of our country. Everybody just wants to throw the waste out of sight; nobody is concerned about the fate of that waste, with a belief that environment will automatically take care of it. But unfortunately it's not true.

The effects of poor sanitation seep into every aspect of life be it health, nutrition, development, economy, dignity, empowerment or environment.

What can we do to contribute to water and used water management

Reduce

- Let's use bucket while bathing, instead of shower
- Let's use smaller button on cistern while flushing post urination
- Do not leave the tap on, unnecessarily

Ask

- Do we have a rainwater harvesting system in place at your school/society/ home
- Do we timely empty our septic tank, if you have one
- Ask the sanitary worker to wear proper gears before accessing the septic tank
- Where does the used water of your home/society/school go to

Reuse

- Reuse the reject water from RO for mopping, washing car etc.
- Check if your society has a treatment plant, is the treated water reused or just disposed away

ATHENA
INFONOMICS

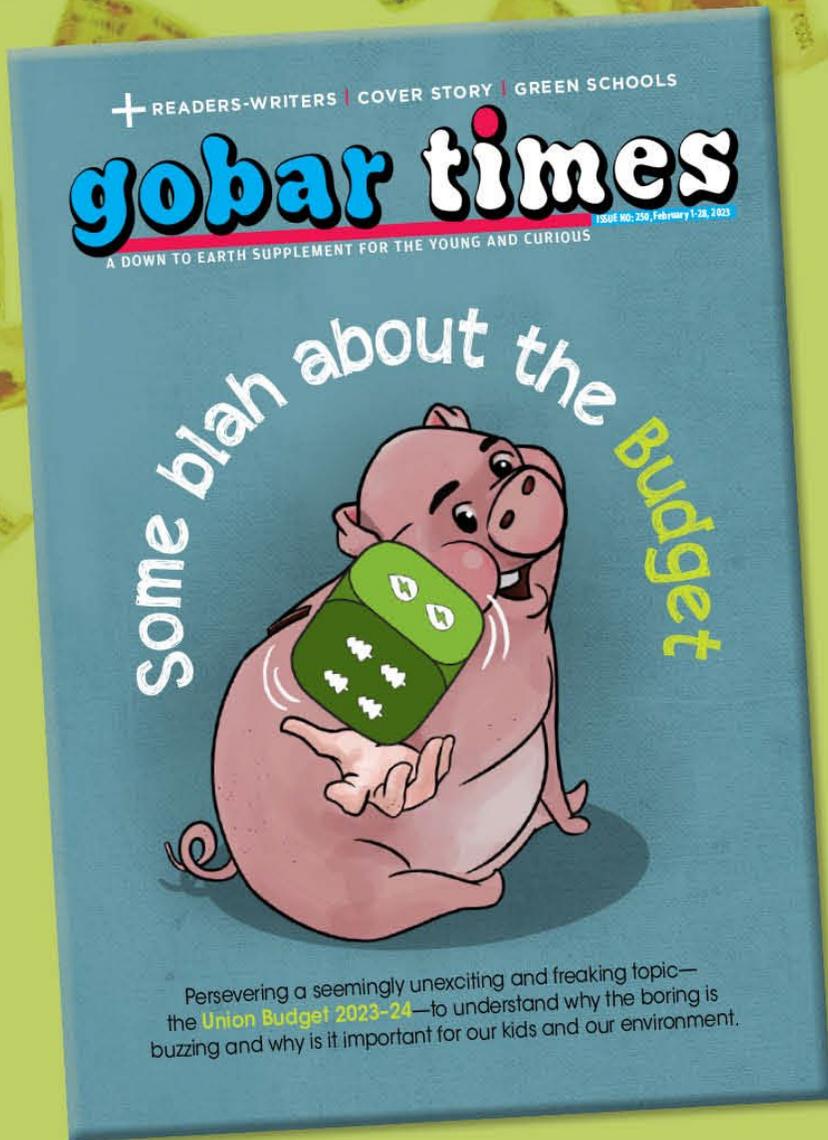
Thank you

You can reach out to me at -
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www.athenainfonomics.com



Thank you



Going blah... blah... about the budget!

Read our edition to persevere the freaking topic of the Union Budget and understand what's in it there for our kids and our environment. Also, find inside some fresh stories from our little champs.

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