



World
Water Day

2017 Theme:

WATER & WASTEWATER

Delivered By

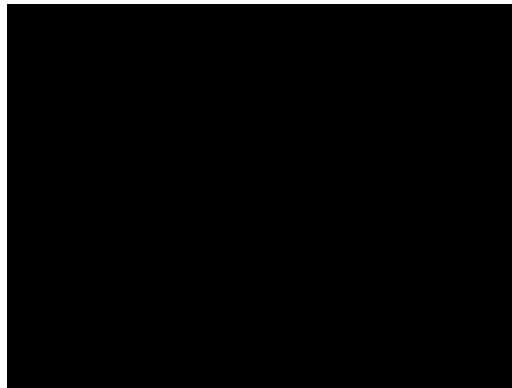
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A SHORT FILM ON THE WATER CRISIS



World Water Day

- World Water Day is held annually on 22 March as a means of focusing attention on the importance of freshwater and advocating for the sustainable management of freshwater resources.
- An international day to celebrate freshwater was recommended at the 1992 United Nations Conference on Environment and Development (UNCED).
- The United Nations General Assembly responded by designating 22 March 1993 as the first World Water Day.

2017 World Water Day Theme: Water & Wastewater

- Highlight the symbiosis between water and wastewater in the quest for sustainable development.
- Wastewater as a valuable resource in economic development.
- Safe management of wastewater as an efficient investment in the health of humans and ecosystems.
- Reduce and Re-Use Wastewater.

What Is Wastewater?

- It is spent or used water with dissolved and suspended solids originating from mainly anthropogenic sources.
- Also known as **Effluent, Sewer Water, Sewage**, wastewaters are usually discharged into surface waters such as lagoons, rivers, streams, etc.

Why Wastewater?, Cont'd

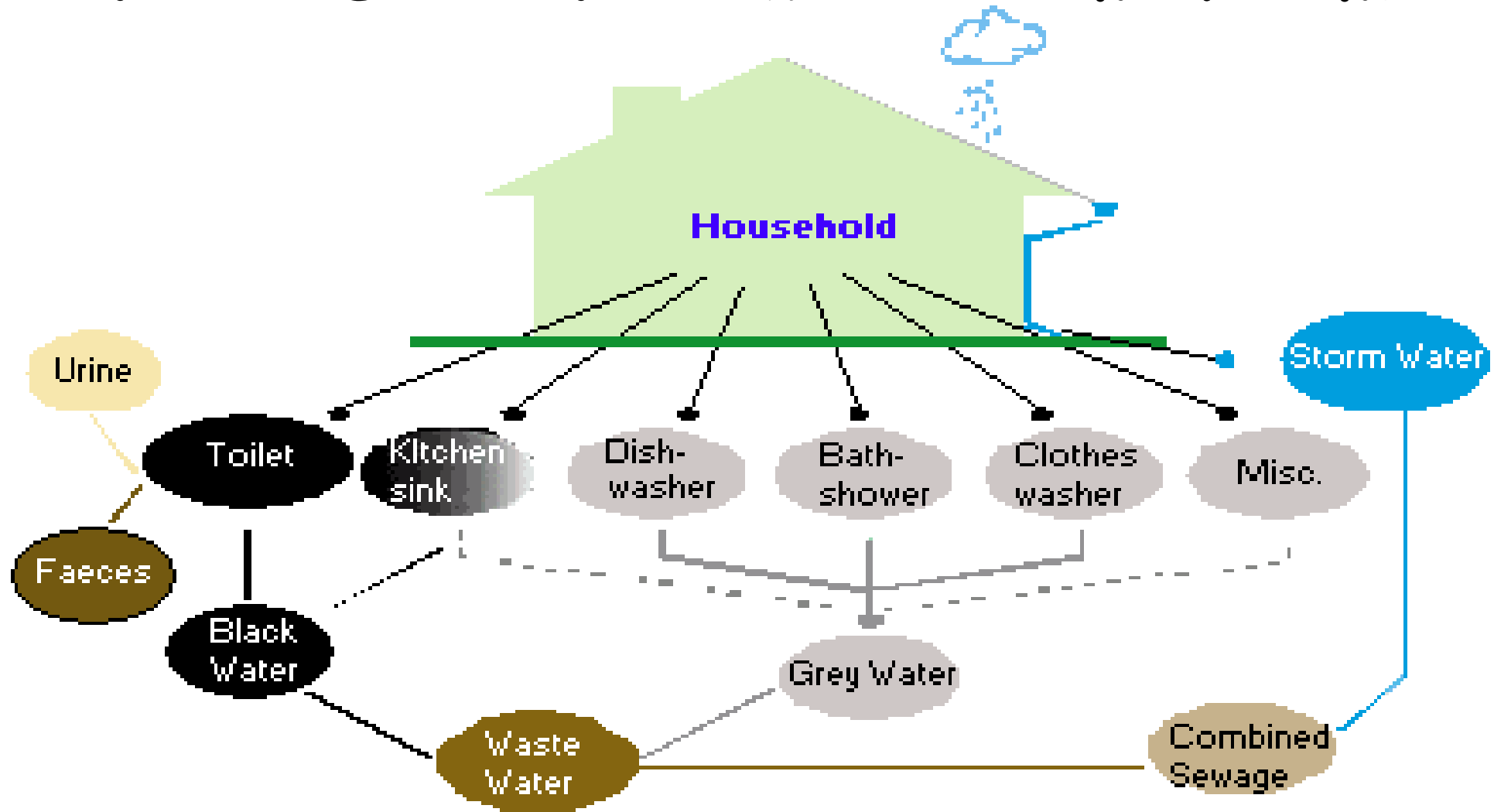
- "Severe organic pollution already affects around one-seventh of all river stretches in Latin America, **Africa and Asia**" (Barlund et al., 2016).
- Immediate cause: **growth in wastewater loadings.**
- Ultimate causes: **population growth, economic development, intensification of agriculture and low levels of wastewater treatment.**

Why Wastewater?, Cont'd

Sustainable Development Goal (SDG) target 6.3 requires us by 2030 to:

- "improve water quality by reducing pollution,
- eliminate dumping and minimize release of hazardous chemicals and materials,
- halve the proportion of untreated wastewater and
- substantially increase recycling and safe reuse globally."

Where Does Wastewater Come From?



Where Does Wastewater Come From?, Cont'd

Domestic Wastewater



Birth Control Pills
Analgetics
Other Drugs

Hospital Sewage



Drugs

Natural Waters



Agricultural Effluents



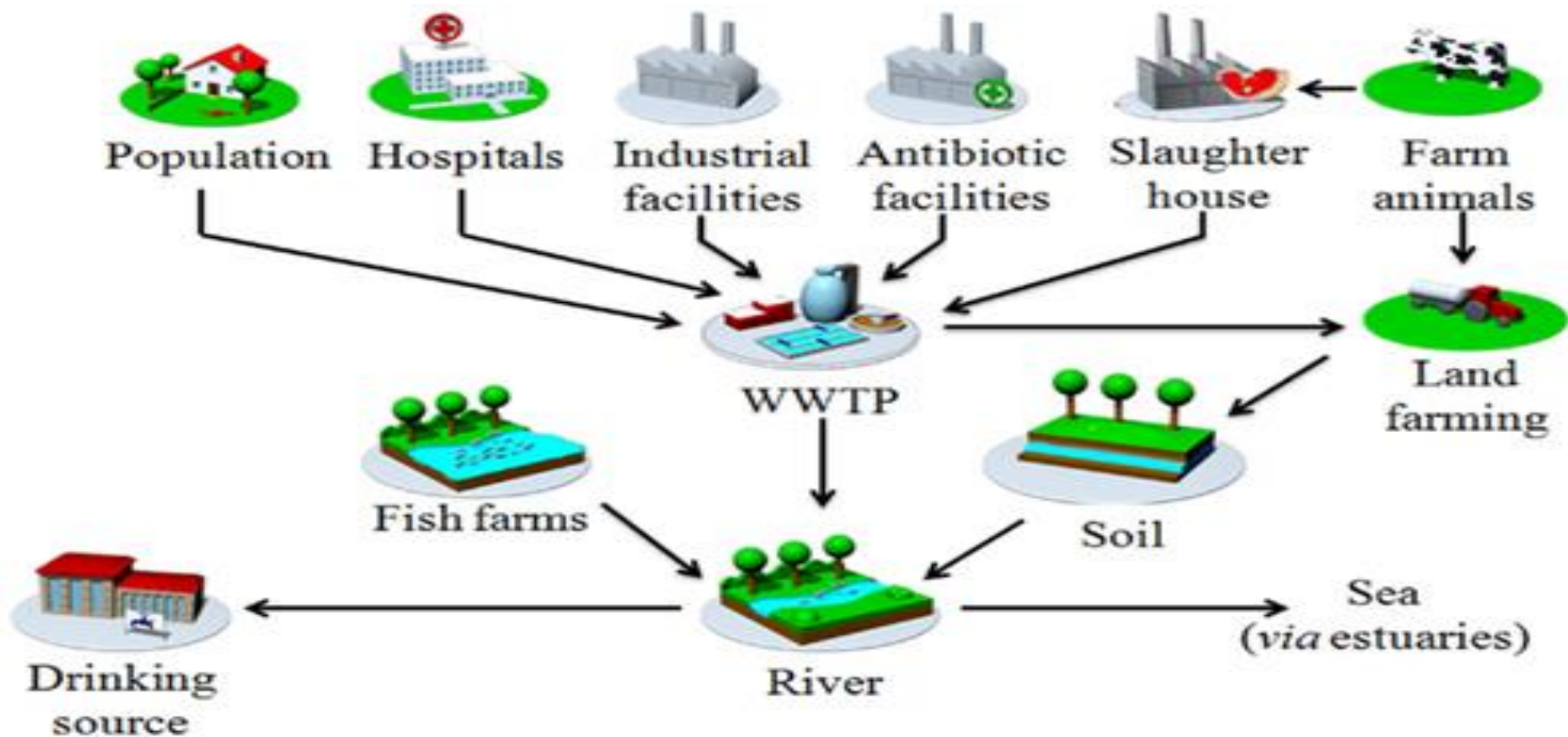
Pesticides

Industrial Wastewater



Polycyclic Aromatic
Hydrocarbons

Where Does Wastewater Come From?, Cont'd

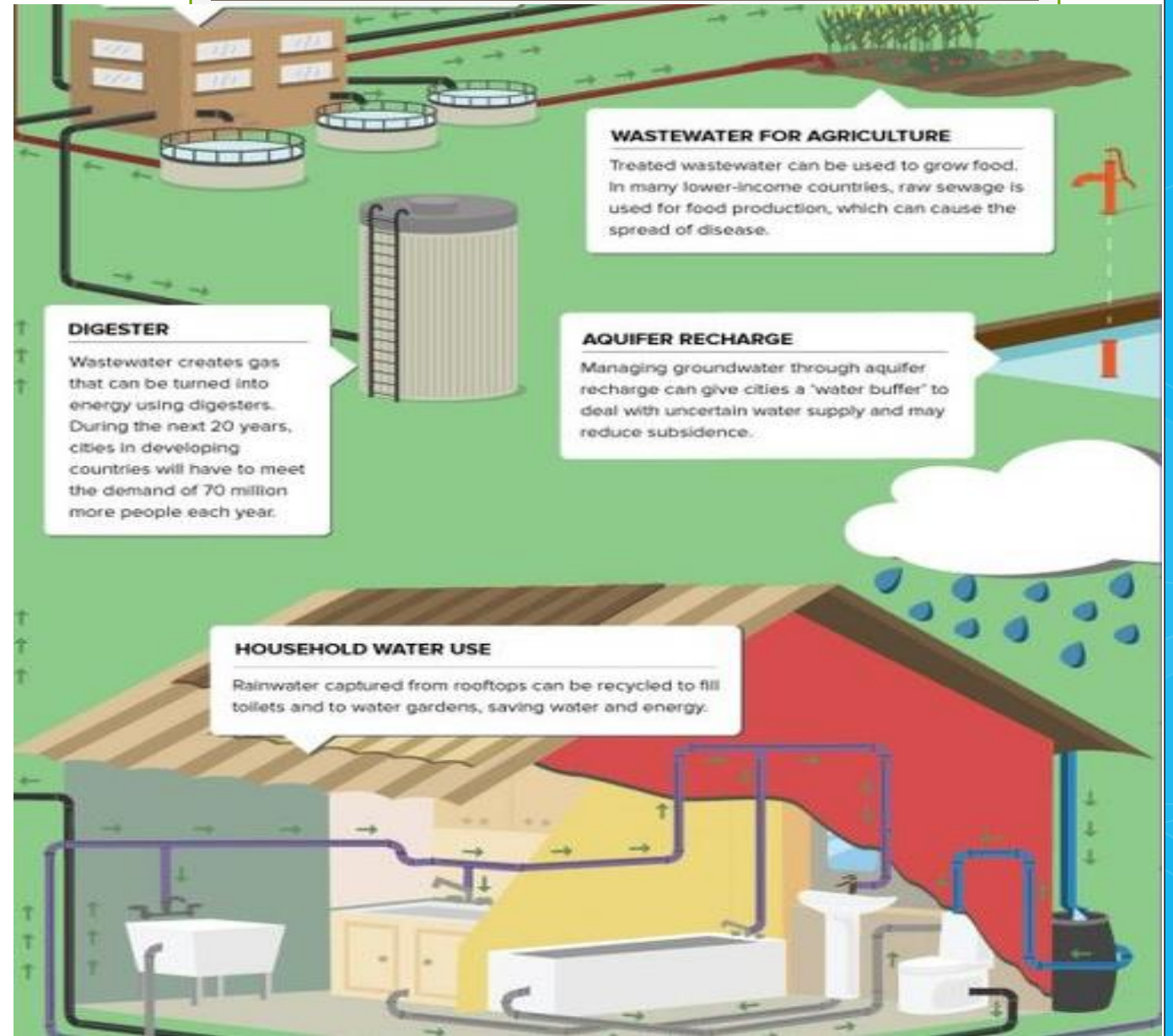


What Are the Impacts of Wastewater

- Downstream flooding
- Stream bank erosion
- Habitat destruction
- Infrastructure damage
- Contaminated streams, rivers and coastal water: ex. Ogun river incident in 2015 with the sudden growth of water hyacinth
- Reduction in abundance and biodiversity particularly as a result of untreated industrial wastewaters.

How Can We Manage Wastewater

2017 World Water Day Lecture: WASTEWATER



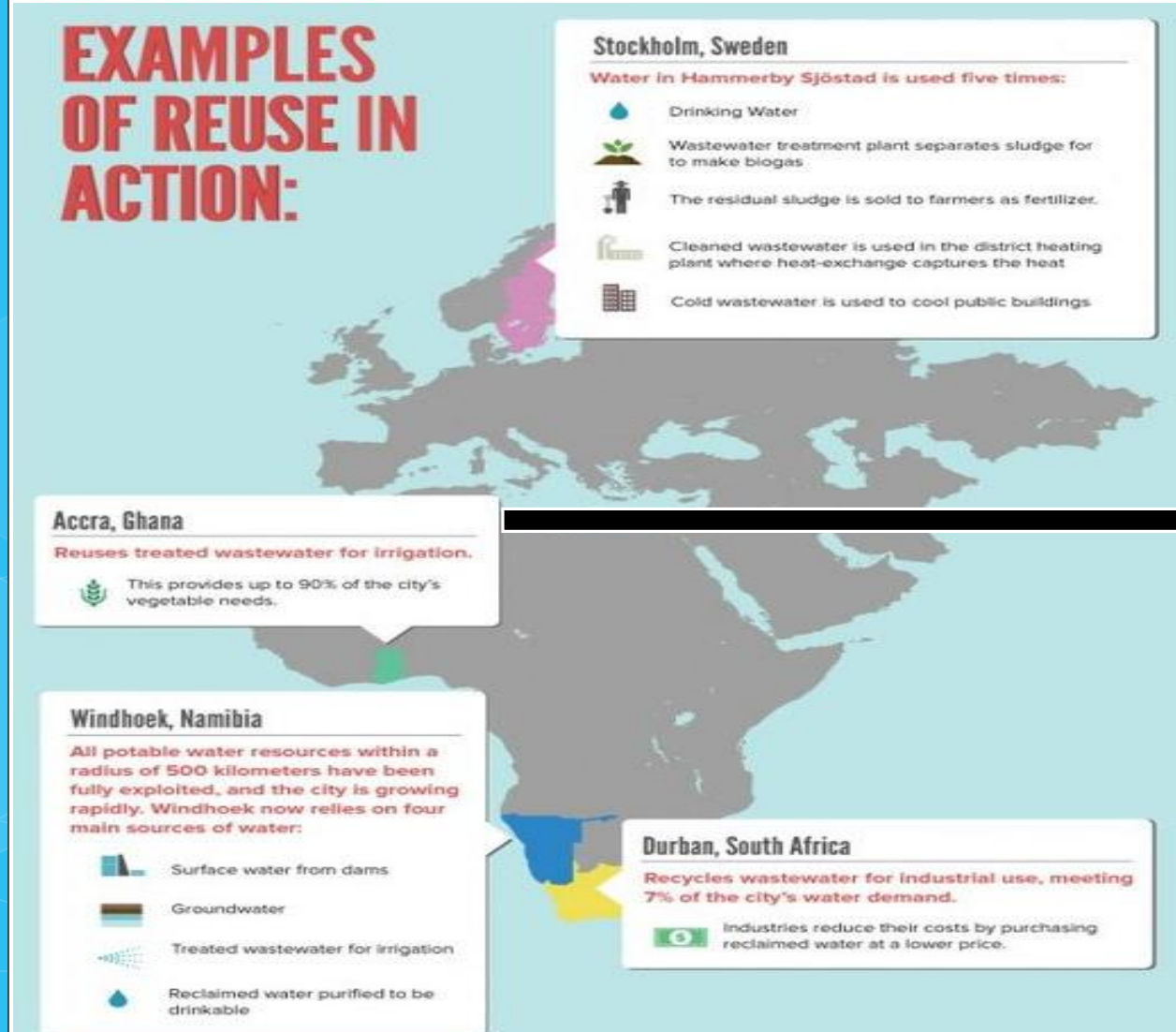
Recycling, Reuse & Treatment of Wastewater



Reduce and Re-Use
Wastewater.

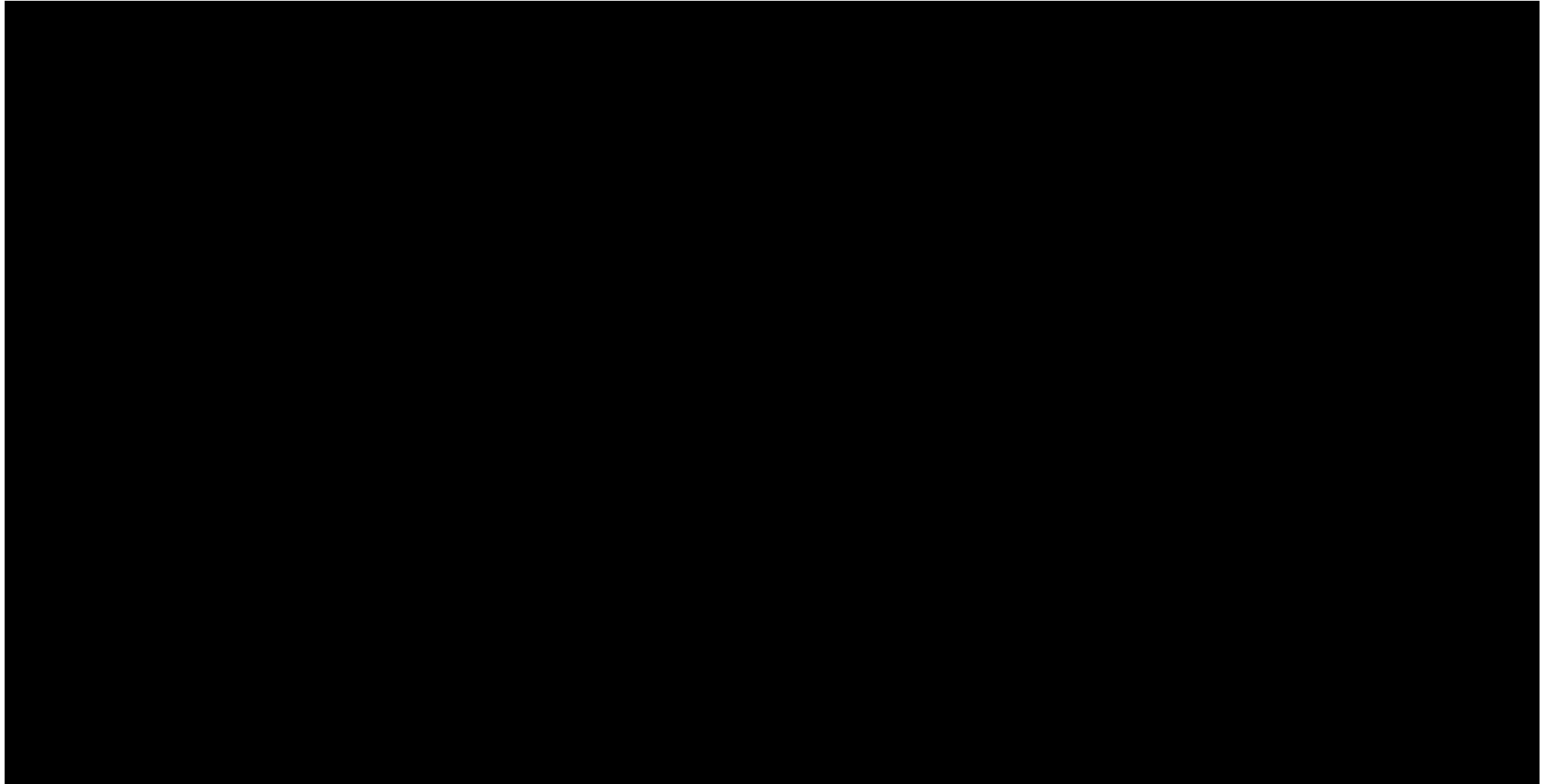
- **Wastewater and Cities:** Multipurpose distribution systems that can deliver reclaimed/recycled water for various purposes viz; gardening, vehicle and building washing, irrigation, cooling systems etc.
- **Purification of treatment of wastewaters** before discharge into local waterways or surface waters.

What Can You Do?



Wastewater irrigation in Ghana.
Photo credit Nana Kofi Acquah.

What Can You DO?, Cont'd



Regulatory Perspectives on Wastewater Management

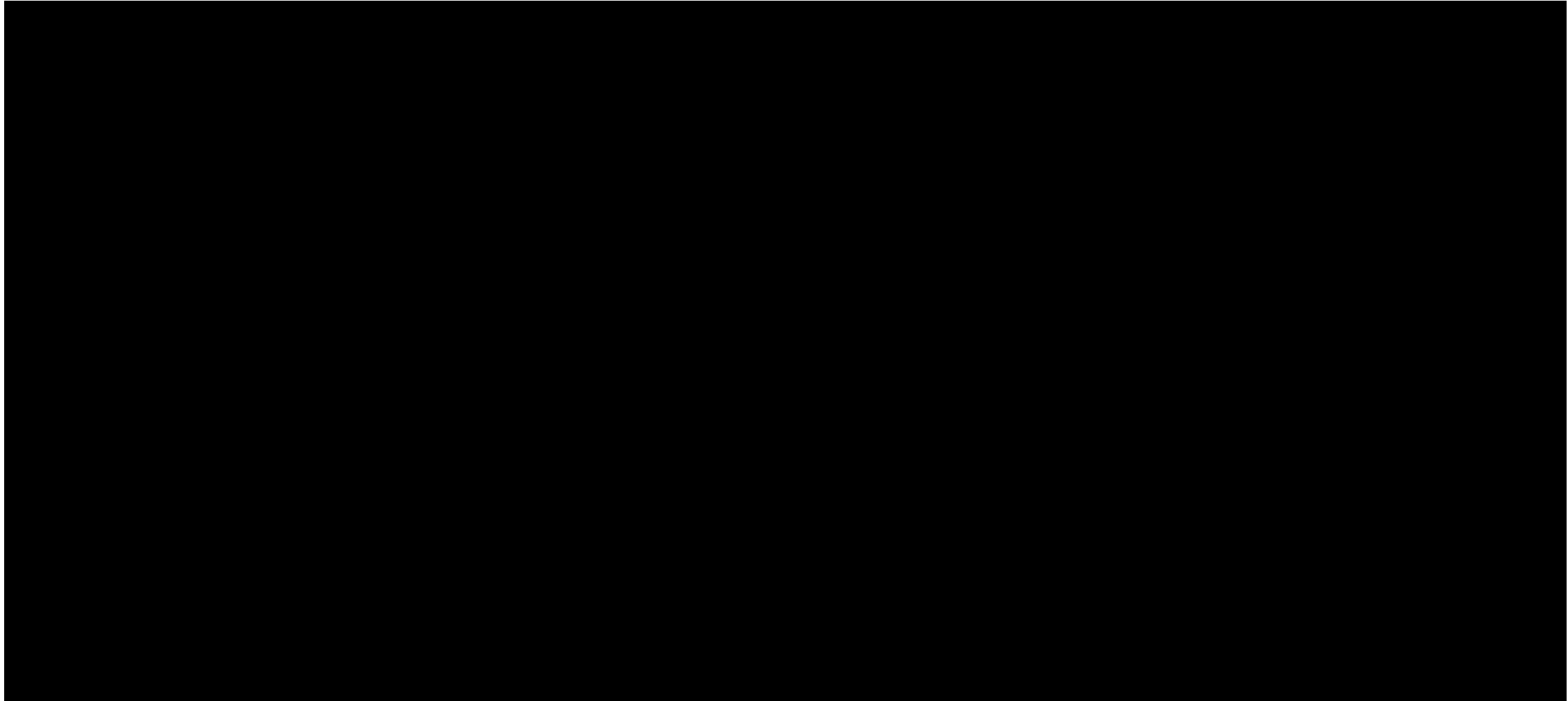
- Lagos State Wastewater Management Office
- Lagos Water Corporation
- Local governments
- Federal Ministry of Environment
- State Ministries of Environment
- Policy on the Environment
- International regulations and conventions on wastewater
- Monitoring and Implementation systems
- Municipal Wastewater Treatment Plants

What Can Researchers and NGOs Do?

- NGOs: awareness campaigns and programmes for the grassroots as well as on social media.
- Researchers and Scientists need to develop focused research on inventory, human and environmental effects, control and management of wastewaters/effluents in the Nigerian environment.
- Case Study: Our research group at the Ecotoxicology unit, University of Lagos have documented **biological effects of wastewaters from Printing industries/shops, Pharmaceutical industries, Petroleum industries, Breweries, Abattoirs, etc.**

SUMMARY & CONCLUSION

Watch This!



References

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Today is
World Water Day

What will you do to make a difference?





THANK YOU
for your
ATTENTION!