

# Wastewater, and the Role of Utilties to Achieve the SDGs

#### MARIE R. SAGEN

inspiring change

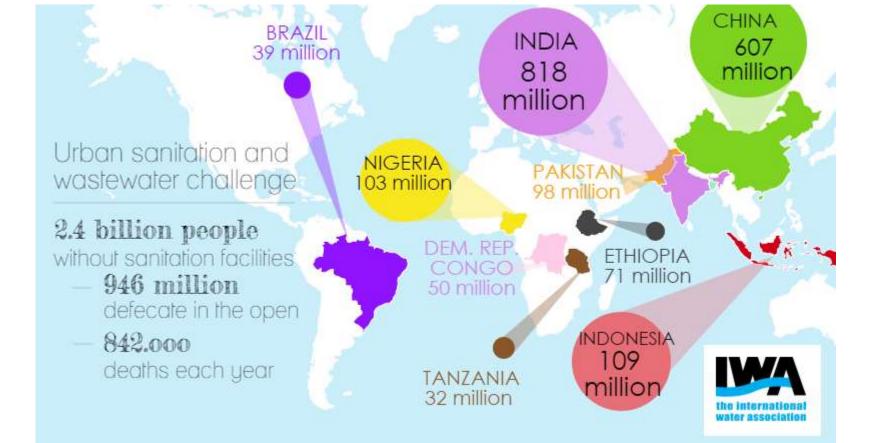
# THE CHALLENGE TODAY



 1 in 3 people, or 2.4 billion, are still without sanitation facilities

 More than 80 percent of wastewater is discharged untreated into water bodies

# SANITATION







USD 260 billion per year

Source: World Bank/2005 and/or 2006

Global economic loss:

sanitation are enormous and extend to areas such as education, environment and tourism.

The economic impacts of poor

Economic impacts of poor sanitation

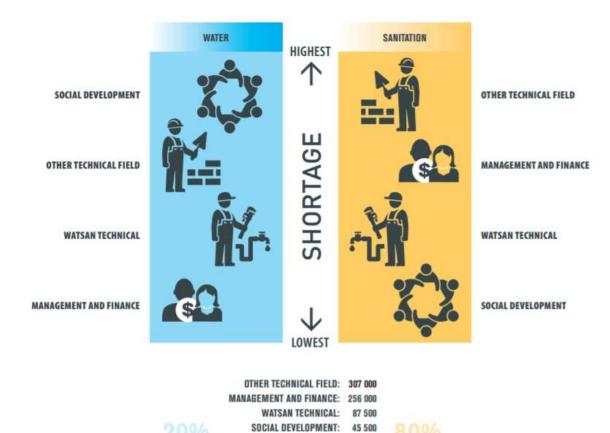
SANITATION





### SANITATION





#### TOTAL OVERALL SHORTAGE 696 000\*

 This overall shortage excludes the Pphilippines as that country did not segregate into the same categories.

The segregation of shortages according to job categories was only done in nine countries in phase 2, and here rounded total figures are presented.

## THE CHALLENGE TODAY



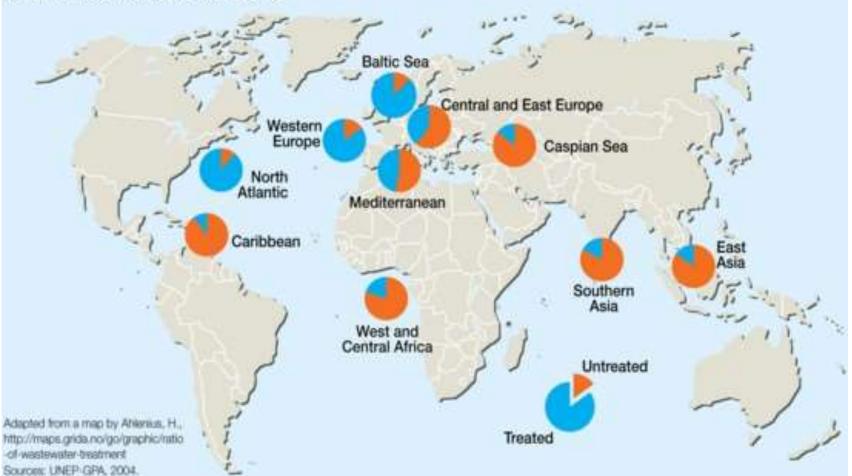
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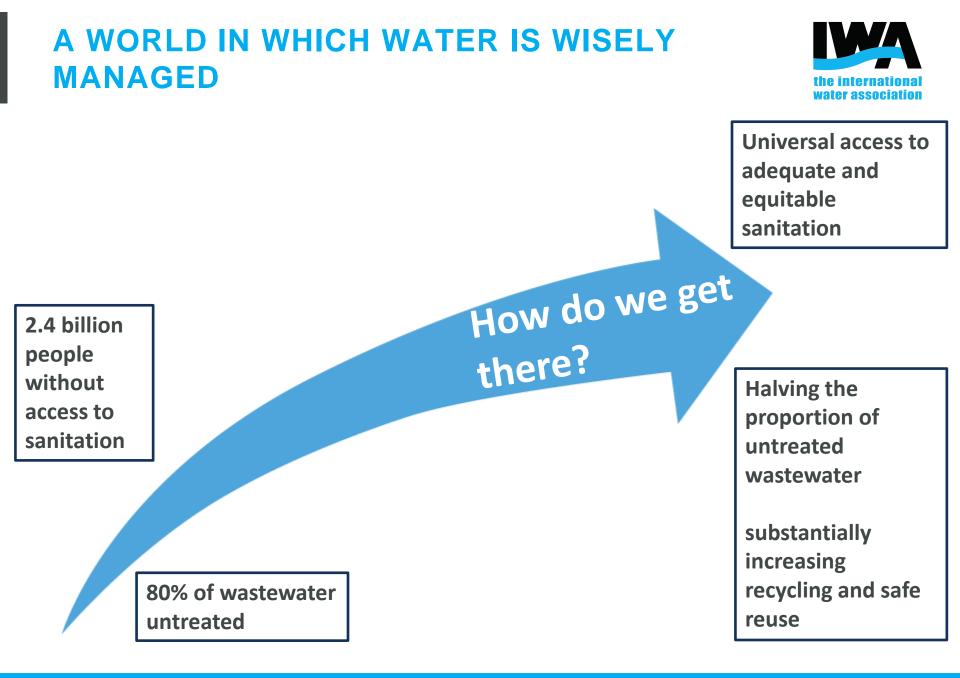
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### WASTEWATER

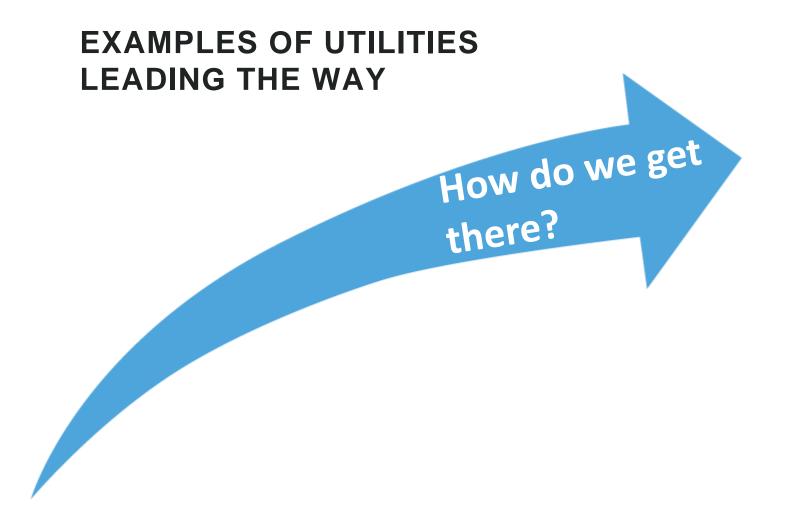


#### Ratio of wastewater treatment









#### UGANDA – CITY AND UTILITY PARTNERSHIP TO ACCELERATE SUCCESS





- Free joint call center for better services
- Public-private-partnership and certification system with pit emptiers
- Sludge reuse and energy recovery from treatment plants
- GIS mapping and home visits

#### **NETHERLANDS – REUSE THAT CHANGED THE REGULATION**





• Production 1000 ton P for fertilizer (3 ton/day)

- 400 000 EUR savings per year
- Authorised by law



# **AUSTRALIA – WASTEWATER MINING**





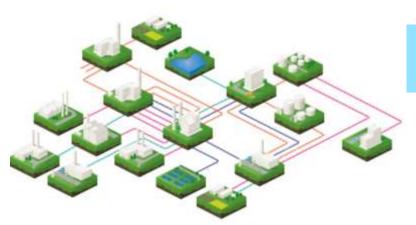
#### Purple pipes with reclaimed water

- Irrigation of parks & recreational areas
- Aquifer Reserves
- Toilet flushing
- Washing cars



#### DENMARK – PARTNERSHIPS FOR AN INDUSTRIAL SYMBIOSIS





- Commercial agreements between industrial partners
- Over 30 resource streams today



- Resource savings, for example 3 million m3 water
- Economic savings, 1 million EUR per year
- Reducing CO2 emissions, with 275 000 tons per year



#### **THANK YOU**

www.iwa-network.org

inspiring change