WASTEWATER NEEDS NOT TO BE A THREAT IN THE WEST INDIAN OCEAN REGION

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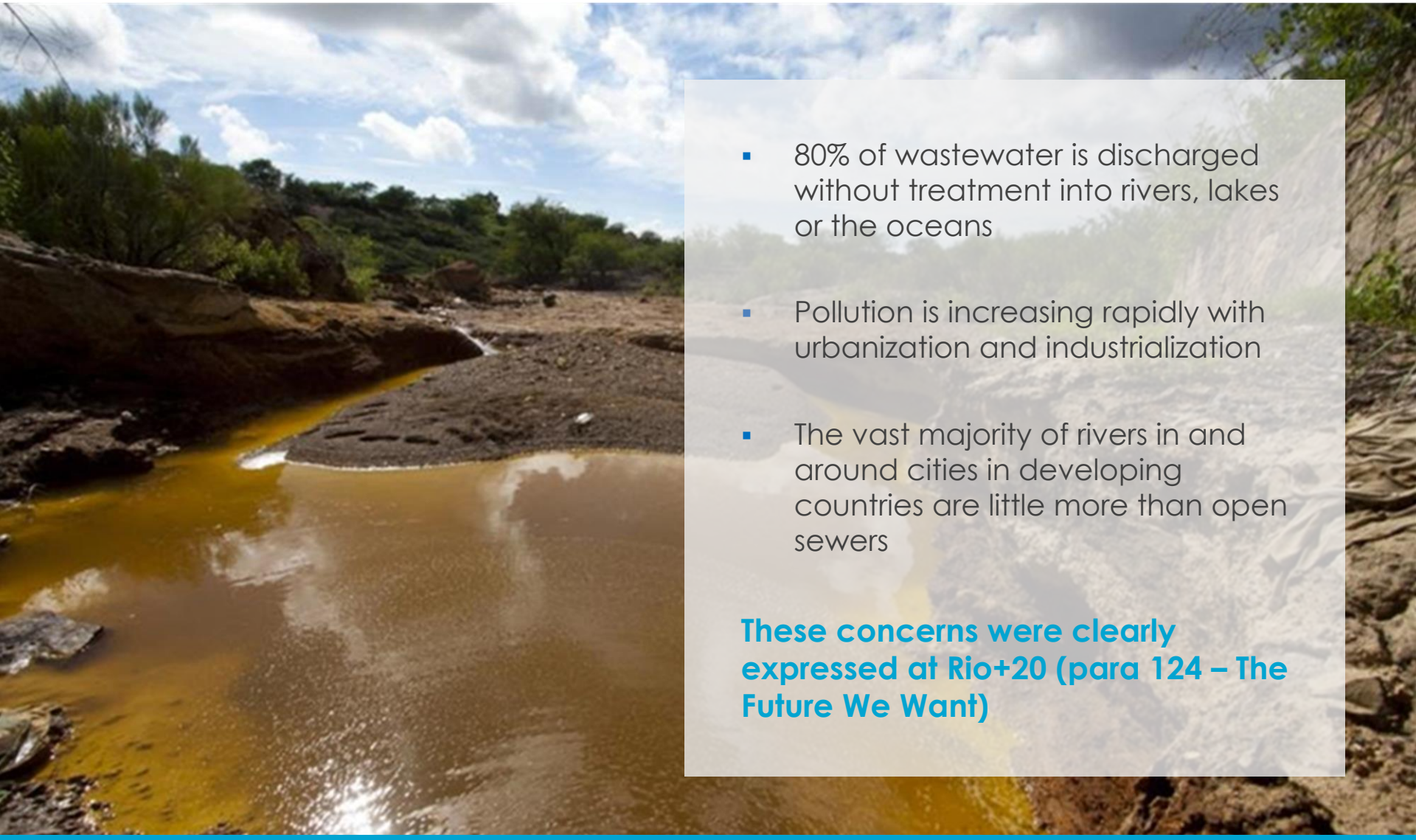
GPA Global Programme of Action for the Protection of the Marine Environment from Land-based Activities

UNEP

Wastewater management needs to be a priority



- 80% of wastewater is discharged without treatment into rivers, lakes or the oceans
- Pollution is increasing rapidly with urbanization and industrialization
- The vast majority of rivers in and around cities in developing countries are little more than open sewers

These concerns were clearly expressed at Rio+20 (para 124 – The Future We Want)

Wastewater challenges? The WIO region is not an exception

The main root causes are:

- Poor sewage systems
- Runoff from small scale mining operations
- Urban storm water
- Run off from agricultural activities
- Lack of knowledge on selection of appropriate technology
- Inadequate legal and regulatory framework
- Uncoordinated approach to coastal management
- Variation in institutional arrangements
- Low Stakeholder Involvement in wastewater management

Some illustrations from the WIO region

Child drinking unsafe water in Nairobi, Kenya. Photo by IVY ALICIA

Contaminated water point in Mogadishu, Somalia from the Johwar floods, source: Somali news

Woman fetching water during the dry season from a polluted source in Mozambique

Discharge of untreated acid mine water, West Rand, South Africa (Photo Credit: John Wesson)

Responses

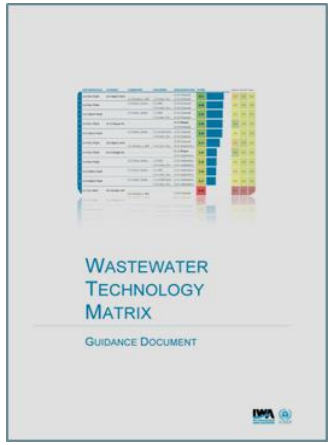
A. Adequate & tailored technology for wastewater management as a decision support tools


Photo Credit: Ben Lepper

- The wastewater technology matrix is one such tool for decision-making in selecting appropriate wastewater systems in urban areas.

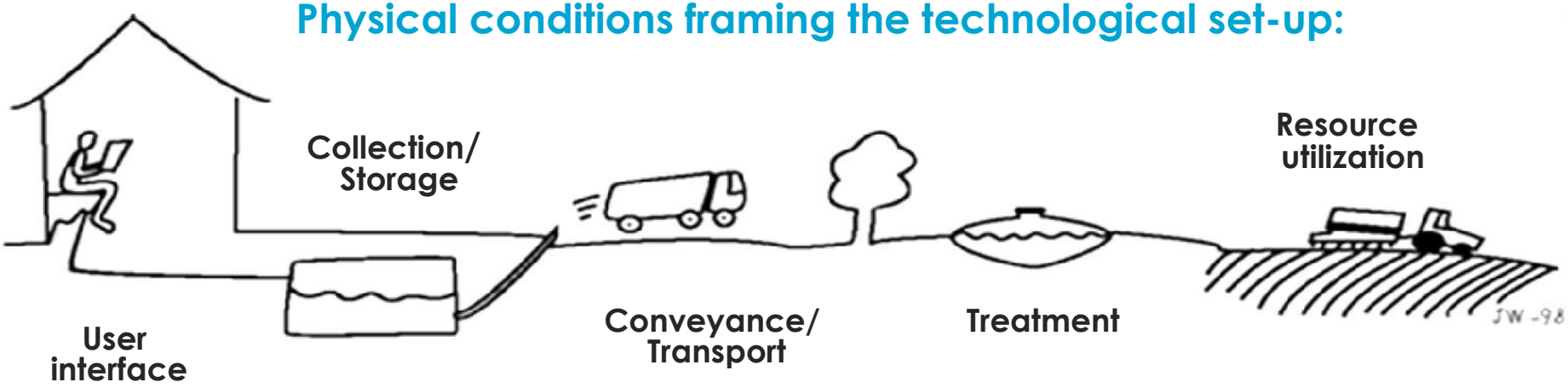
- To be successful and sustainable, waste water management technologies need to go hand in hand with supportive policies.


Source: Montana water center

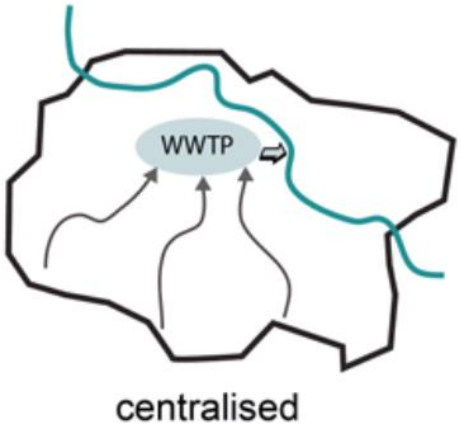


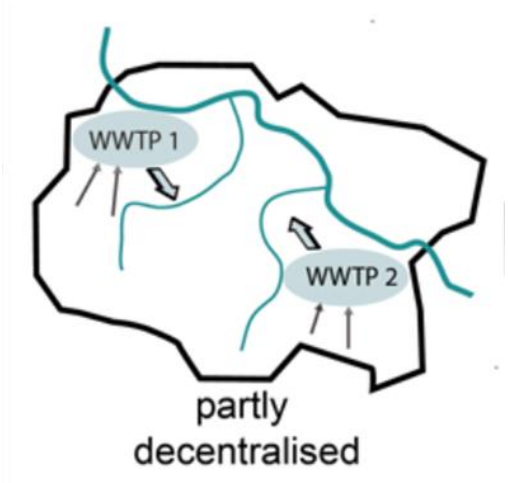
Responses

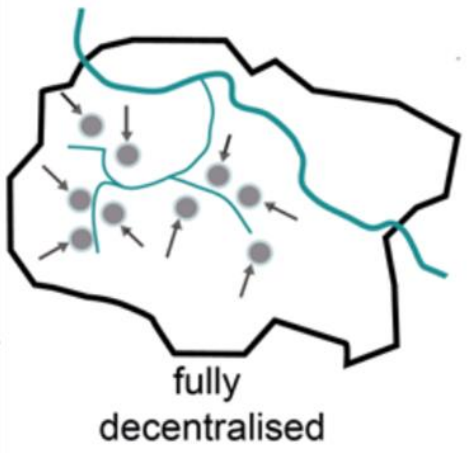
Physical conditions framing the technological set-up:



Approaches: centralized vs decentralized:





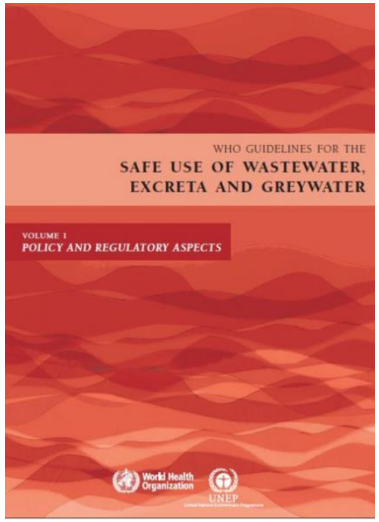


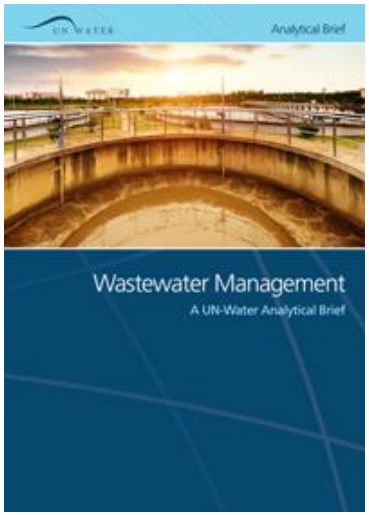
Source: Parkinson et al. 201438

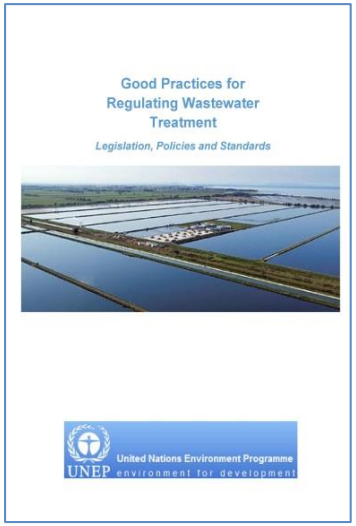
Responses

B. Supportive policies

- Contextual structures serving as guides
- Additional guidelines that enable better functioning
- Selected methods to help guide & determine present and future decisions

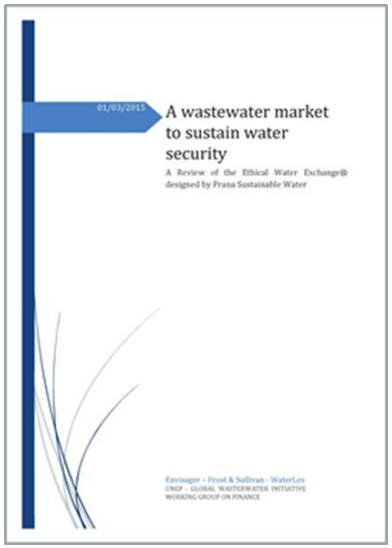






Responses

C. Innovative Financial Mechanisms



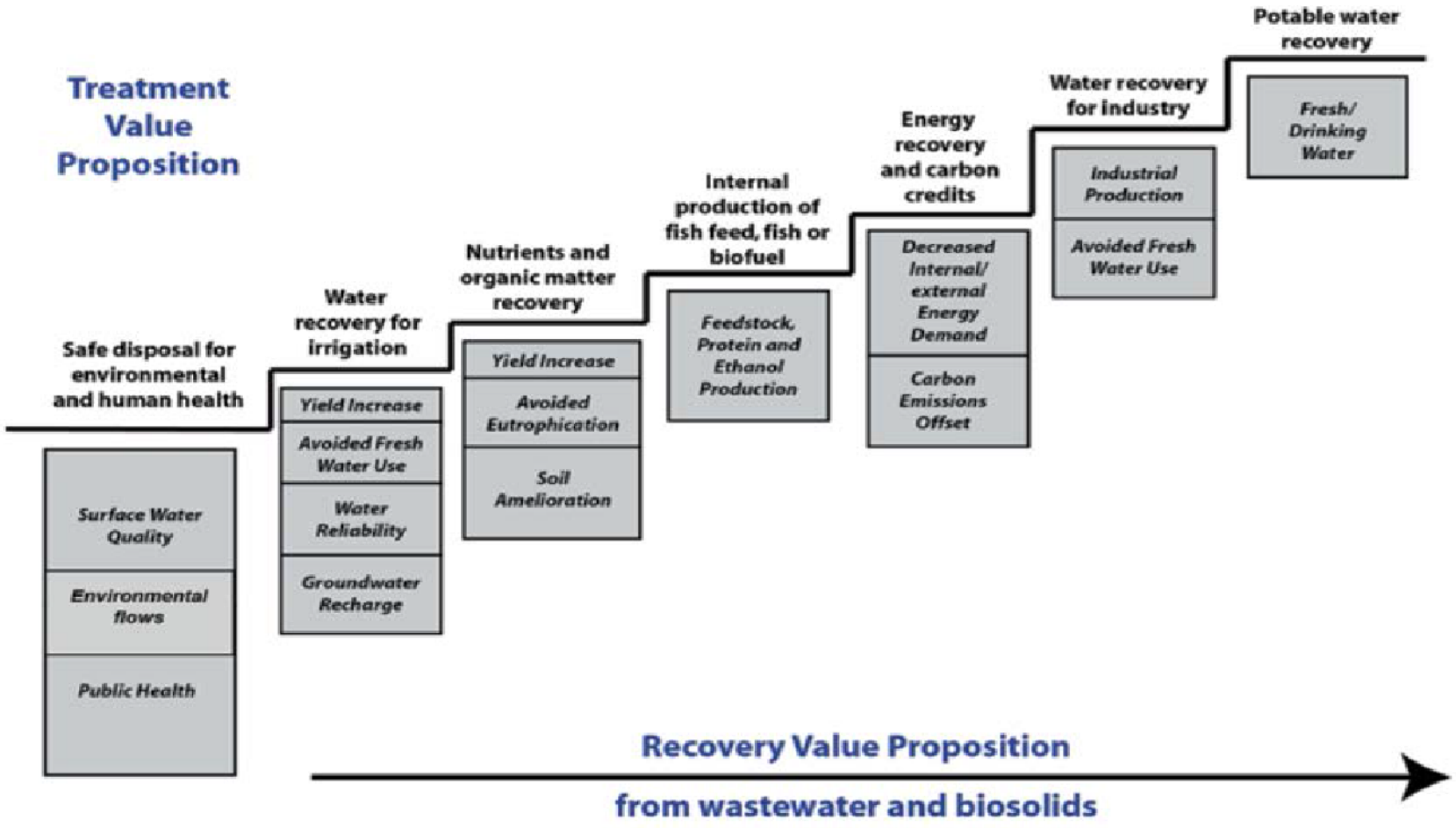
- Stick/carrot-Incentives for good doers
- Polluters Pays Principle/Users pays principles
- Public-Private-Partnership
- Could wastewater be another commodity such as carbon footprint?

Mobilizing the necessary financial resources requires recognition of the need for reliance on new ways of financing urban sanitation, sewerage and wastewater management.

Sludge treated to produce renewable energy, Aqualogy, UK

Responses

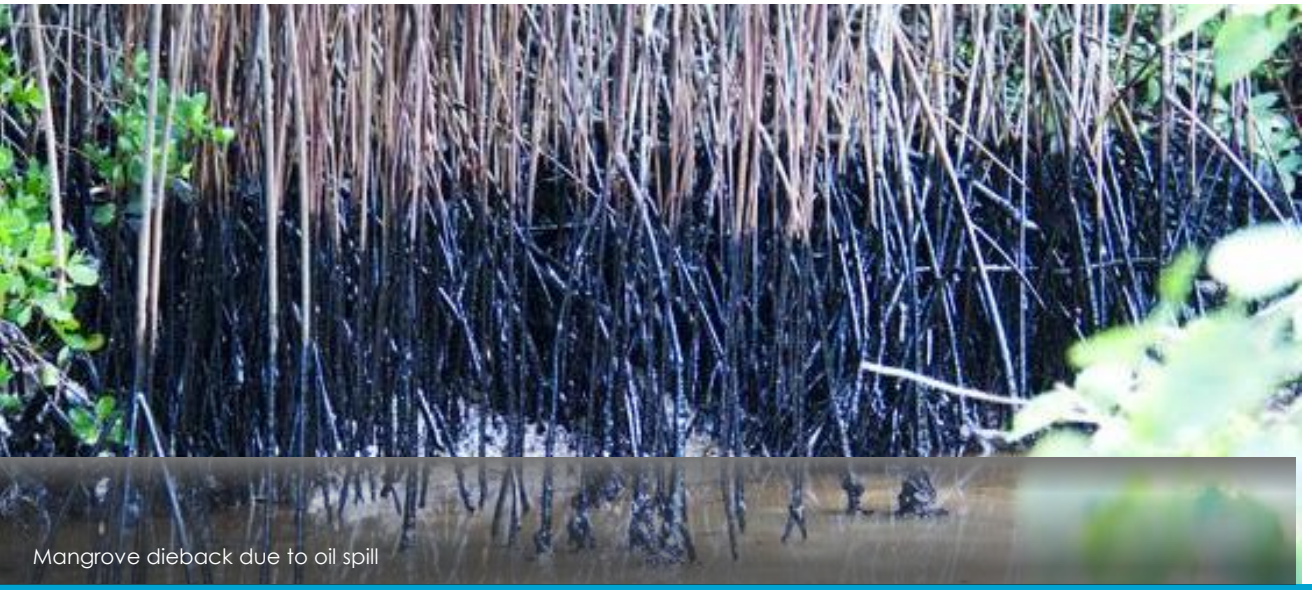
- Wastewater has an economic value in all its competing uses and should be recognized as an economic good



Ladder of increasing value propositions related to wastewater treatment based on increasing investments and cost recovery potential (Source: IWMI)

Conclusions

Waste water management is typically one of the responsibilities of all contracting parties of the Nairobi Convention as it aims to protect the environment for the good of the general public, but more importantly it is the responsibility of each of us!



Mangrove dieback due to oil spill

Endangered West Indian ocean coelacanth due to deep sea trawling (Science Photo library)

Conclusions

Contracting countries may consider:

- Updating data on wastewater management strategies
- Adopting pertinent and flexible policy and institutional frameworks for close interaction between various players
- Using a combination of the available mechanisms-legal, regulatory and financial regimes for a sustainable wastewater management and reuse
- Creation of platforms through which appropriate blending of knowledge systems and requirements can occur

This will require contracting parties to take a decision to better manage wastewater within the WIO region.

Illustration of destructive fishing practices in the WIO

Thank you for your attention!