Socio-Economic Analysis of the Costs of inaction of plastic debris leakage

The case of uMngeni River catchment in KwaZulu-Natal, Durban, South Africa

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Sweden – South Africa Bilateral Cooperation on climate change and environment

SwAM and Oceans and Coasts cooperate on:

» Source to Sea

» Marie Spatial Planning

» Environmental monitoring
Plastic leakage in SA

Figure 1. IUCN South Africa regional plastics leakage map.
Purpose of the study

"Investigate social and economic impact of plastic pollution in the uMngeni River Catchment"
Methodology

**Interviews**
- Assessment of stakeholder perceptions

**Modelling**
- Supply and demand of ecosystem services
- Future scenarios and their predicted changes to ecosystem services

**Literature review**
- Known monetary costs of plastic waste
Main results

» Plastic waste has a direct impact on socio-economic wellbeing as well as on ecosystem services in Durban and its surrounding areas.

» Plastic pollution affects peoples’ dignity and perceptions about self-worth.

» Conversely, when areas are re-stored people start taking pride in the area and themselves and this has potential to build social capital and a sense of community, which in turn has potential to enhance investment in environmental restoration and management.

» Monetary costs of plastic waste in the environment may include;
  • Damage to municipal infrastructure,
  • Loss of income from tourism,
  • Clean-up costs
  • Property value decline
Future recommendations

» Installation of a basic, efficient and maintained solid waste services (waste collection, recycle bins etc)

» Expand Transformative Riverine Management Programme (TRMP) (community co-operatives clearing solid waste)

» Installation of passive solid waste traps

» Create a value chain for plastic waste
Thank you!

Swedish Agency for Marine and Water Management