



AFRICAN
marine waste
NETWORK
A programme of Sustainable Seas Trust

State of Knowledge Report: Economic Consequences of Unmanaged Plastics & Economic Opportunities in the Western Indian Ocean Region

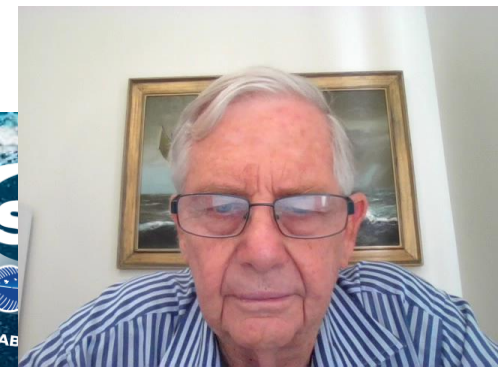
A (Tony) Ribbink

CEO Sustainable Seas Trust

23rd March 2021



Towards Zero Plastics to the Seas of Africa

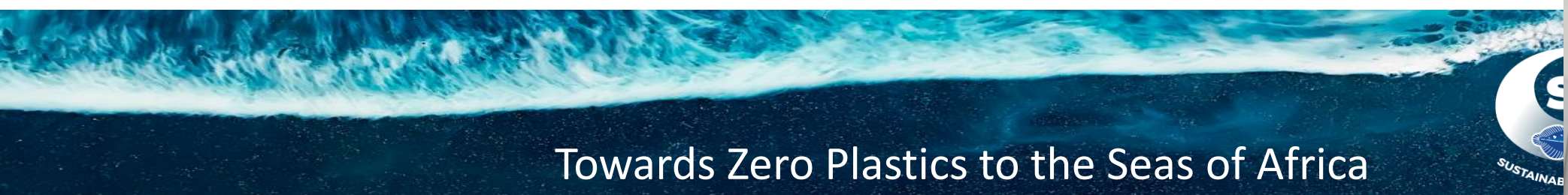


Theoretically, if economic enterprises compete for plastic waste, then they will remove all plastics from the environment and stop plastics entering the seas.

Cash for trash

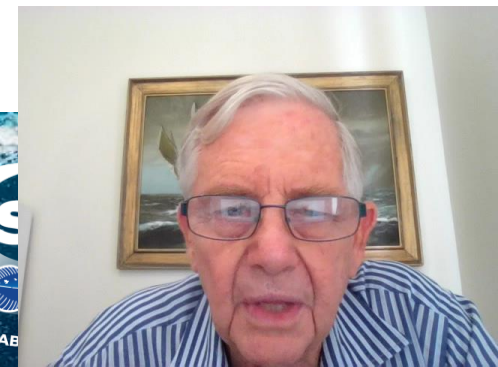


Photo: Dispatch Live



State of Knowledge of Economics and Plastic Value Chains

Data and empirical evidence?
Understanding ?
Knowledge ?
Value chains?
Plastic polymers?
Recycling?
Pyrolysis?





Costs to human and environmental health

Air, water, food is contaminated

Climate, agriculture, fisheries, vessels, tourism, real estate value negatively impacted

Insect vectors and disease

Ecological goods and services
Perhaps US\$ 30 billion pa in WIO

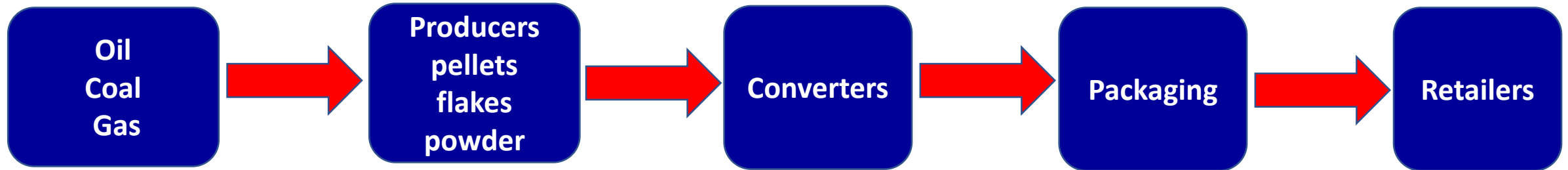
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The cost of plastic pollution

Plastic pollution takes place at every step of the value chain

Spillage and loss every step of the way, including red arrows showing transport



GHG emissions every step of the way, including red arrows showing transport

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The cost of inaction

When tasks are really challenging and there are competing priorities and the way forward is unclear, it is easier to ignore them. But there are human, environmental, economic costs that grow and grow if action is not taken. Inaction is not an option.



Plastics 911

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Economic opportunities in recycling value chain, plus employment opportunities at every step



Collecti

1. **Collection**
2. **Sorting**
3. **Compression**
4. **Transport**

Recyclin

5. **Sorting and size reduction**
6. **Washing and drying**
7. **Extrusion / Pelletising**
8. **Cooling / Drying**
9. **Bagging**

Plastics 911



**Informal collectors
play a vital role
and inject funds
into communities**



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Alternatives to recycling for “*non-recyclables*”

Develop the technology for “alternative recycling”

Plastics / Cement blends



Compression Moulding



Plastics 911

Pyrolysis



Some gaps and recommendations

- a. There are too few waste enterprises, so every effort must be made to increase them, including enabling environments
- b. Data are sparse so it is recommended that the tables provided should be used as a foundation for building databases
- c. Lack of empirical information calls for more intensive research
- d. State of knowledge of plastic polymers, manufacturing, the industry and enterprises needs to be boosted by training courses
- e. Plastic products need to be designed for recycling



f. Economic considerations must become core aspects of national and regional action plans

g. Opportunities for enterprises should be expanded to include non-recyclable plastics.

h. The Roles of informal collectors should be expanded and supported in future

i. Those involved in plastic industry should become part of a structured network to share ideas.

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**Thank you to WIOMSA, the Nairobi Convention and to
all who listened**

**A (Tony) Ribbink
CEO Sustainable Seas Trust
23rd March 2021**



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