

# RISK COMMUNICATION AND COMMUNITY ENGAGEMENT

Nelson Odume

Unilever Centre for Environmental Water Quality  
Institute for Water Research  
Rhodes University

Email: [n.odume@ru.ac.za](mailto:n.odume@ru.ac.za)

# PLASTIC AND RISK TO HUMAN AND ENVIRONMENTAL HEALTH

Plastics in the environment

Physical stressor

Chemical stressor

The Vector effect



# WHY IS RISK COMMUNICATION IMPORTANT IN THE CONTEXT OF PLASTIC POLLUTION?



Adapted from Hoppner et al 2012

# ESSENTIALS OF RISK COMMUNICATION

Transparency and credibility

Two-way dialogic engagement

Acknowledge uncertainty

Trust with communities

Narrative enactment – avoid sensationalism

Collaborative decision making – consumers, industries and policy makers



*Environmental  
Science*

AIMS Environmental Science, 6(5): 326–340.

DOI: 10.3934/environsci.2019.5.326

Received: 07 May 2019

Accepted: 06 August 2019

Published: 14 August 2019

<http://www.aimspress.com/journal/environmental>

## Review

### Improving microplastic research

Judith S. Weis\*

Department of Biological Sciences, Rutgers University, Newark, New Jersey, 07102-1814, USA

\* **Correspondence:** Email: [jweis@newark.rutgers.edu](mailto:jweis@newark.rutgers.edu).

**Abstract:** There has been a virtual explosion of research on microplastics. Every week new articles are published in scientific journals. However, not all of them are original or important. Dozens of papers come out monthly that report the number of microplastic particles found in some water body,



Contents lists available at ScienceDirect

Marine Pollution Bulletin

journal homepage: [www.elsevier.com/locate/marpolbul](http://www.elsevier.com/locate/marpolbul)



## Microplastics as vectors of contaminants

Gabriella Caruso

National Research Council (CNR), Institute of Polar Sciences (ISP), Splanata San Raineri 86, 98122 Messina, Italy



### ARTICLE INFO

**Keywords:**  
Microplastics  
Contaminants

### ABSTRACT

Pollution by microplastics and antibiotics is an emerging environmental, human and animal health threat. In spite of several studies documenting the widespread occurrence of plastic debris in aquatic ecosystems, research





# RISK COMMUNICATION FOR COMMUNITY CAPACITY BUILDING AND EMPOWERMENT

Knowledge  
capacities

- Create knowledge about the presence of plastics in the env.
- potential risk,
- legal and policy position, how to act and take action
- Generate knowledge about values, norms and beliefs

Attitudinal/m  
otivational  
capacities

- Awareness raising about plastic as hazard and potential risk

Organisation  
al capacities

- Plastic sector communication skills and establishing trustful relationship with wider society



# RISK COMMUNICATION FOR COMMUNITY EMPOWERMENT – RE-THINKING PLASTICS AS TRASH

Community Economic Empowerment – e.g. plastic buildings



Source: BBC

# RISK COMMUNICATION FOR COMMUNITY EMPOWERMENT – RE-THINKING PLASTICS AS TRASH

Community Economic Empowerment  
– e.g. plastic supported road  
construction, incentives, plastic  
waste taxes?

BUSINESSTECH

Government wants to use waste plastic in South Africa's roads



# RISK COMMUNICATION FOR COMMUNITY EMPOWERMENT – RE-THINKING PLASTICS AS TRASH

Social empowerment– social networks, prestige etc



## Who is reducing single-use plastic in Makana?

UPDATED 29 June 2020

This is a listing of businesses in Grahamstown and the greater Makana municipal area making an effort to reduce single-use plastic. If you know of others who should be acknowledged, please let us know.

This is a listing of businesses in Grahamstown and the greater Makana municipal area making an effort to reduce single-use plastic. If you know of others who should be acknowledged, please let us know.

*We'll keep adding as businesses embrace the change.*



# RISK COMMUNICATION FOR COMMUNITY EMPOWERMENT – RE-THINKING PLASTICS AS TRASH

- Mobilising for environmental protections
- Plastic removal from Grahamstown Rivers



# CONCLUSIONS

- Risk communication is an important aspect of plastic management in the environment
- Communication needs to be two-way dialogue engagement
- Credibility and transparency key
- Plastic waste-based economy – for social-economic development

# ACKNOWLEDGEMENTS



The research presented was funded by the Water Research commission of South Africa

Thank you for listening