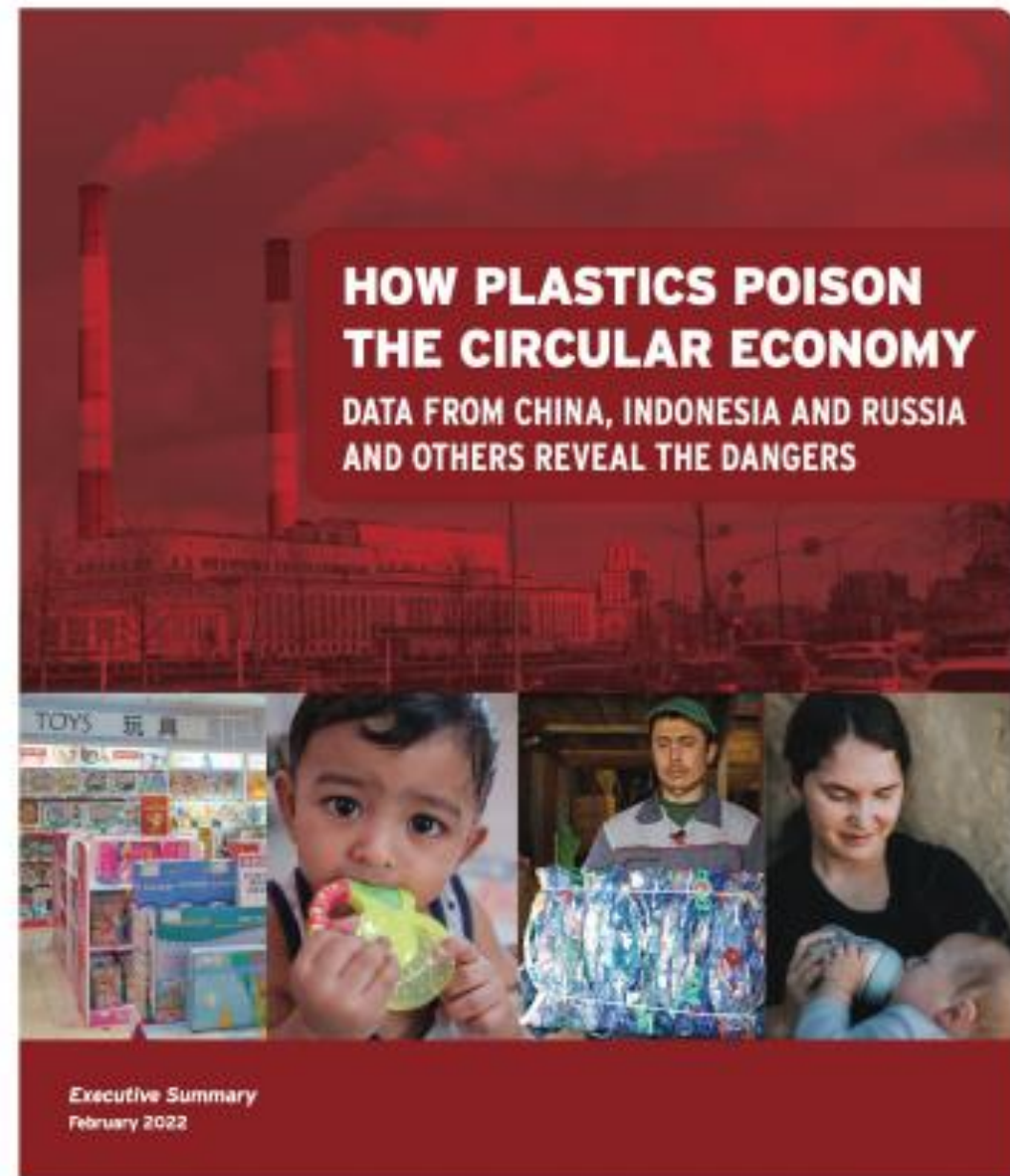


# Plastic Pollution and health in global policy

May 5<sup>th</sup> 2022

Vito A. Buonsante  
Technical and policy advisor





Global network  
with over 600  
organizations in  
over 120  
countries

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# Global Controls on Plastics and chemicals

- **Stockholm Convention**
  - Phase out of some chemicals in plastics
- **Basel Convention:**
  - Control on problematic plastics and POPs content in plastics
- **SAICM:**
  - Potentially all chemicals used in plastics but limited impact
- **Plastics Treaty...**

# A global agreement on plastics by 2024



## United Nations Environment Assembly of the United Nations Environment Programme

Distr.: General  
7 March 2022

Original: English

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United Nations Environment Assembly of the  
United Nations Environment Programme  
Fifth session

Nairobi (hybrid), 22 and 23 February 2021  
and 28 February–2 March 2022

### Resolution adopted by the United Nations Environment Assembly on 2 March 2022

#### **5/14. End plastic pollution: towards an international legally binding instrument**

*The United Nations Environment Assembly,*

*Noting with concern* that the high and rapidly increasing levels of plastic pollution represent a serious environmental problem at a global scale, negatively impacting the environmental, social and economic dimensions of sustainable development,

*Recognizing* that plastic pollution includes microplastics,

*Noting with concern* the specific impact of plastic pollution on the marine environment,

# What does the resolution say

- **The agreement should be legally binding**
  - Including voluntary and binding provisions
- **The objectives of the instrument will be defined during the negotiations**
- **Sustainable production and consumption**
  - To be achieved through design and circular economy approaches
- **To provide scientific and socioeconomic assessments**
  - urgent need to strengthen the science-policy interface at all levels

# Some of the battlegrounds

**A global plastic treaty must cap production**  
Bergman et al.

“the reference to chemicals was “taken out of the mandate after objections from delegations, including from the US”.” (ChemicalWatch)

“There were efforts to weaken the language on health that failed,”  
Washington Post

Plastic product vs Plastic materials

Financial mechanism (who will pay for the treaty?)



for a toxics-free future

# What are plastics?



‘plastic’ means a material consisting of a polymer [...] to which additives or other substances may have been added, and which can function as a main structural component of final products, with the exception of natural polymers that have not been chemically modified (EU, Single use plastics directive)

“Plastic material” is a synthetic organic polymer (i.e., a thermoset polymer, a thermoplastic polymer, or a combination of a natural polymer and a thermoset or thermoplastic polymer) that is solid in its final form and that was shaped by flow. The material can be either a homogeneous polymer or a polymer combined with fillers, plasticizers, pigments, stabilizers, or other additives. (US Federal Law)

Plastic manufactured items are any items made of plastic formed into a specific physical shape or design during manufacture, and have, for their intended use, a function or functions dependent in whole or in part on their shape or design. They can include final products, as well as components of products.



## PFAS IN CLOTHING

STUDY IN INDONESIA, CHINA, AND RUSSIA SHOWS BARRIERS FOR NON-TOXIC CIRCULAR ECONOMY

February 2022



- Outdoor wear (gloves, hijab, trousers, T-shirt)
- Synthetic materials (polyester, taslan) and cotton
- PFAS ,Forever Chemicals (incl. PFAS degrading into globally banned PFOA)



## BROMINATED FLAME RETARDANTS IN PLASTIC PRODUCTS FROM CHINA, INDONESIA, AND RUSSIA

February 2022



- Toys, hair accessories, office supplies kitchen utensils
- Recycled e-waste plastic; ABS
- Brominated flame retardants (incl. globally banned POP-BFRs)



## A CALL TO ACTION: FREE CHILDREN FROM BPA'S TOXIC LEGACY

BPA IN PLASTIC PRODUCTS FROM BANGLADESH, BHUTAN, CHINA, INDONESIA, MALAYSIA, RUSSIA, SRI LANKA & TANZANIA THAT ARE IN CONTACT WITH FOOD OR WITH CHILDREN'S MOUTHS

February 2022



- Baby feeding bottles, sippy cups, water bottles...
- PC, PE, PP...
- Bisphenol-A (EDC restricted in many countries)

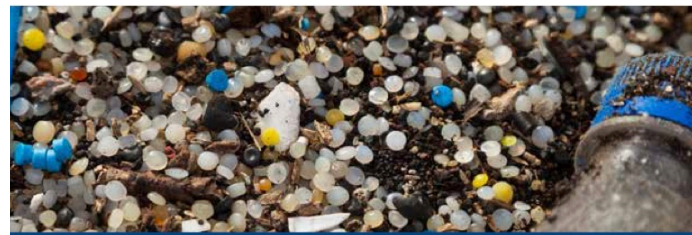
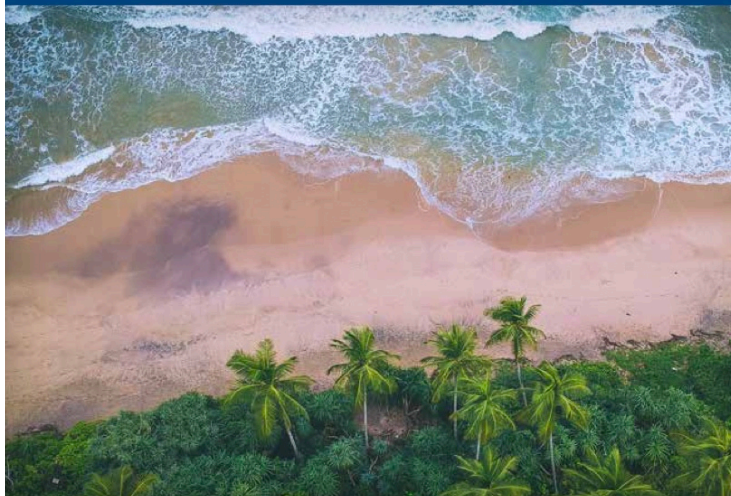




# X-PRESS PEARL: A 'NEW KIND OF OIL SPILL'

A TOXIC MIX OF PLASTICS AND INVISIBLE CHEMICALS

February 2022

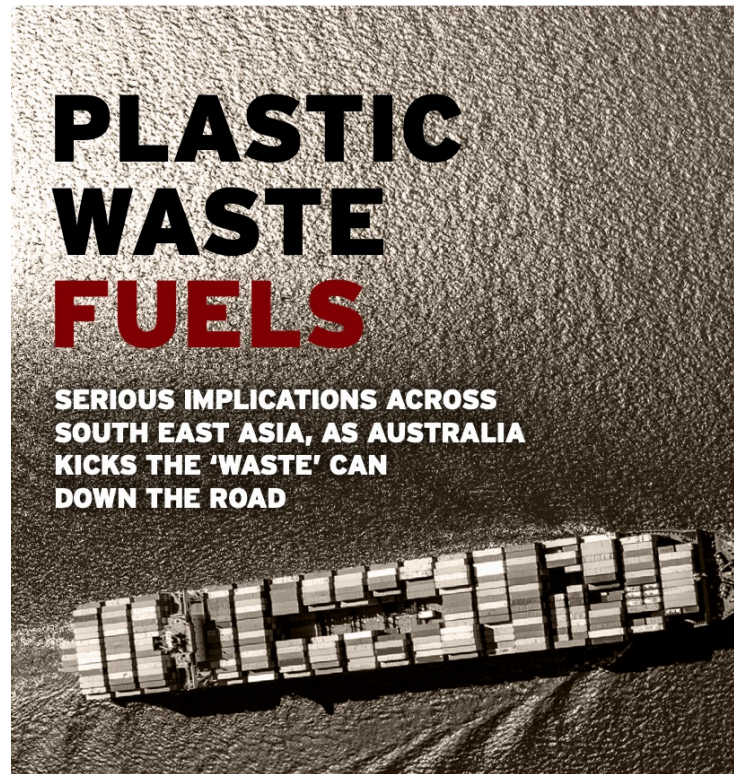


# PLASTIC PELLETS FOUND ON BEACHES OVER THE WORLD CONTAIN TOXIC CHEMICALS

2021

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Mona Alldoust, Msc.  
Prof. Hideshige Takada



# PLASTIC WASTE FUELS

SERIOUS IMPLICATIONS ACROSS  
SOUTH EAST ASIA, AS AUSTRALIA  
KICKS THE 'WASTE' CAN  
DOWN THE ROAD

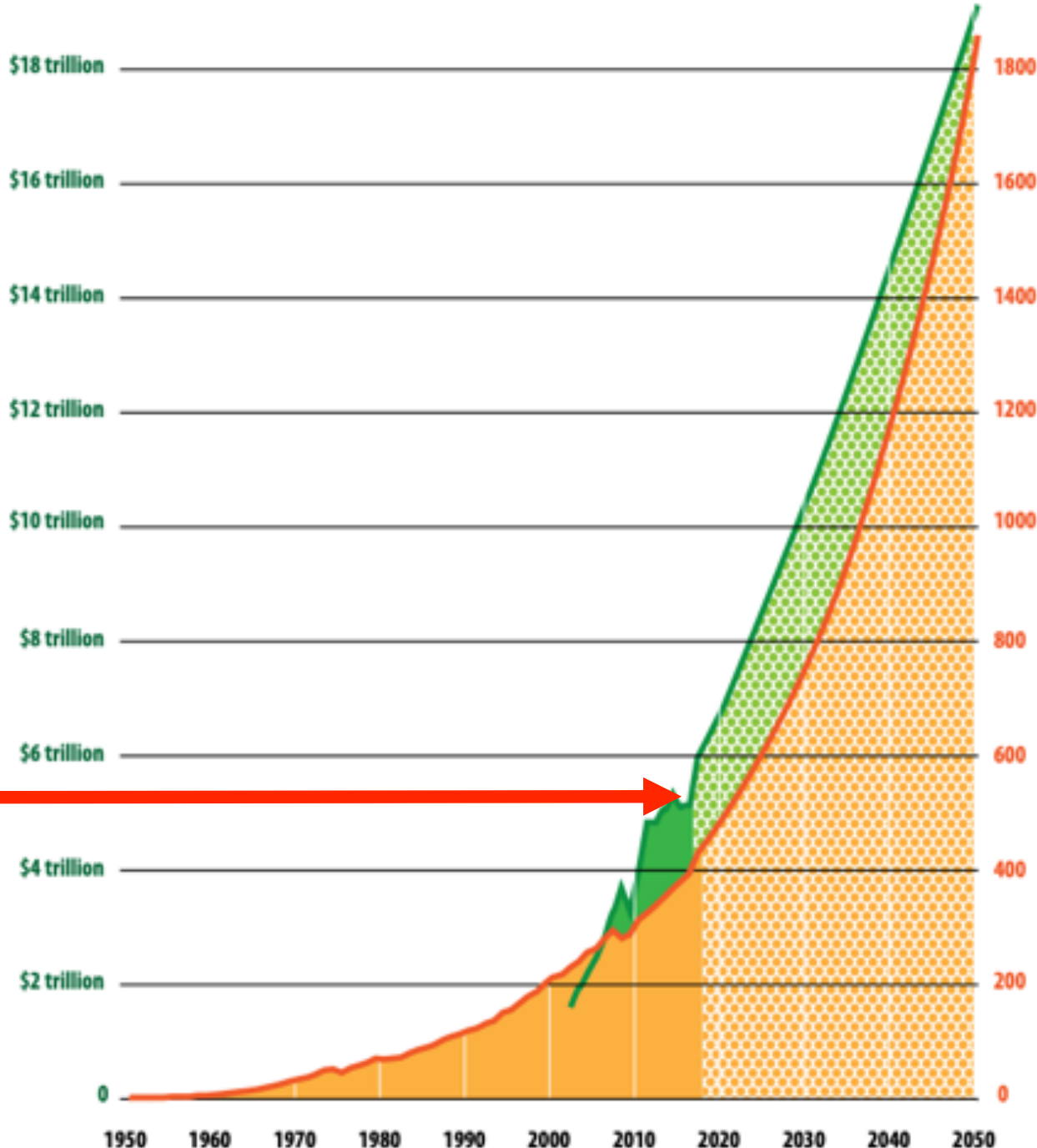


Executive Summary  
March 2022



# Global Trends:

**Global  
Chemical  
Industry  
Sales  
(USD)**



You Are Here



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## HOW THE RESOLUTION "END PLASTIC POLLUTION: TOWARDS AN INTERNATIONAL LEGALLY BINDING INSTRUMENT" RELATES TO CHEMICALS AND HEALTH

In March 2022, the United Nations Environment Assembly (UNEA) approved a broad mandate to start talks on an international treaty to address the growing threats from plastic pollution. The scope of the Plastics Treaty is intended to include all impacts from plastics throughout their lifecycle, including effects from the toxic chemicals in plastics on human health and the environment. The future treaty will be a key legally binding agreement moving the world towards a toxic free future.

In IPEN's analysis, based on the mandate, the final agreement must address the health impacts of plastics and their chemicals in four ways:

**Lifecycle approach:** the use, release of and harms from toxic chemicals from plastics must be addressed at a minimum through the production, design, consumption, and waste management phases.

**Design and circular economy:** Chemicals in plastics make them unsustainable and unfit materials for a circular economy. As the mandate underlines the importance of promoting sustainable design, the treaty must ensure that hazardous chemicals are eliminated from plastic production and that plastics with hazardous chemicals are not recycled.

**Health and Multilateral Environmental Agreements:** The resolution notes the importance of preventing threats to human health and the environment from toxic plastics and calls for coordination with the Basel, Rotterdam and Stockholm Conventions and the Strategic Approach to International Chemicals Management (SAICM). The treaty must address the health and environmental impacts due to exposure to hazardous chemicals and toxic emissions throughout the plastics lifecycle.

**Microplastics:** As the resolution recognizes microplastics as included in plastic pollution, the chemical health and environmental hazards from microplastics must also be addressed, including their potential to be vectors for chemical contamination.

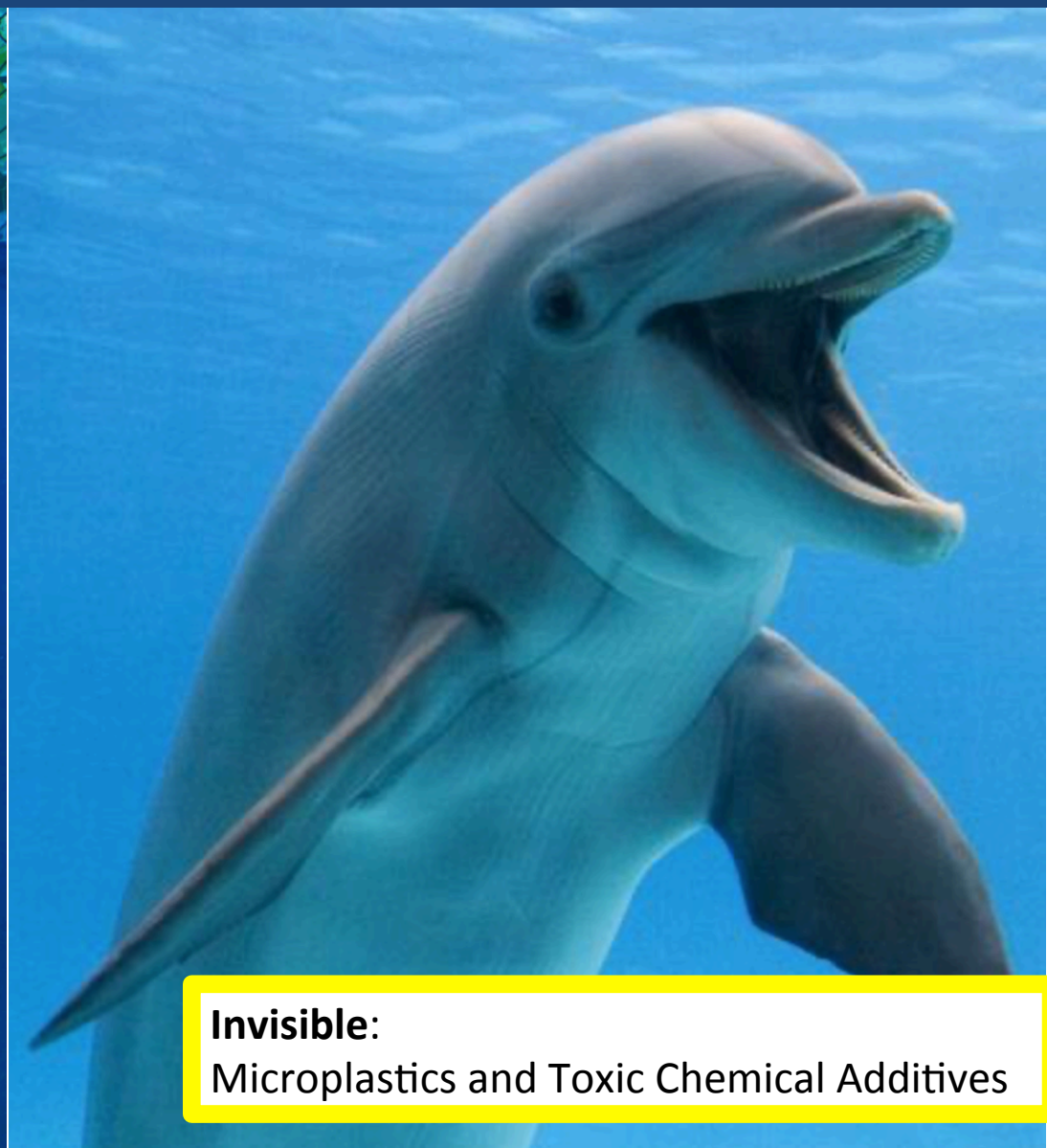


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# 1. The Treaty will address all plastic pollution, including microplastics (and chemicals)



**Visible:**  
Plastic Waste/Litter

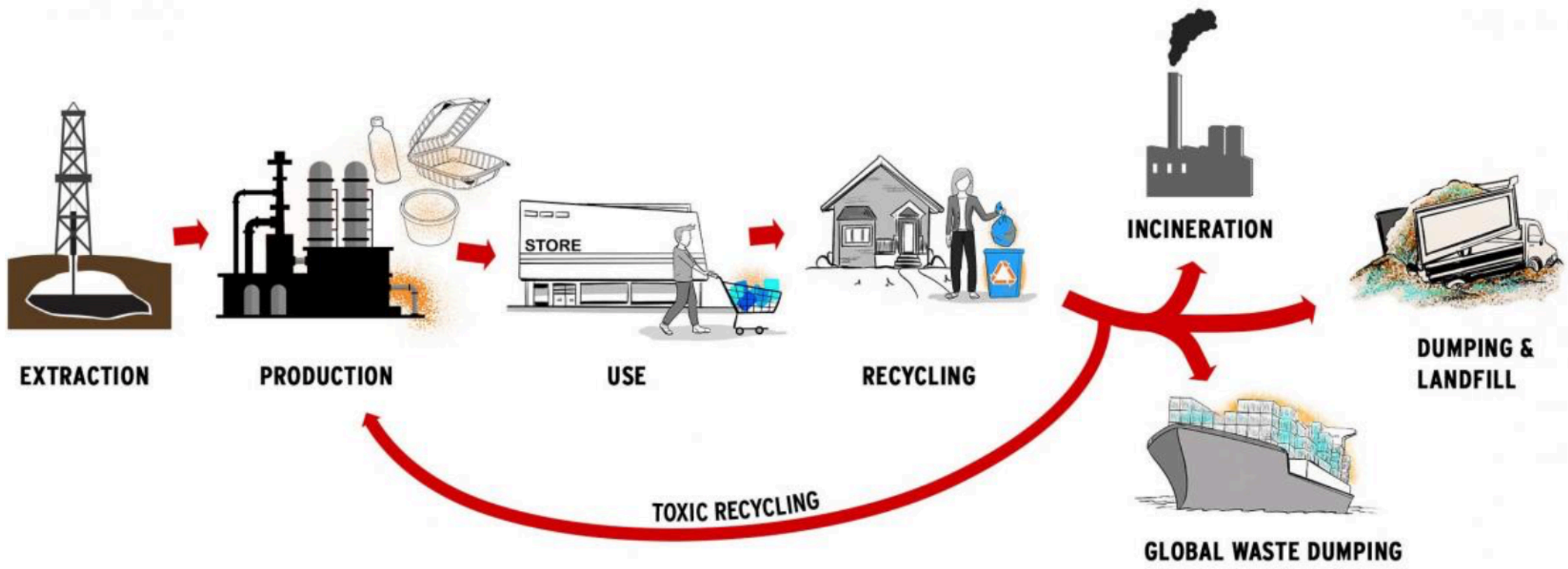


**Invisible:**  
Microplastics and Toxic Chemical Additives



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# 2. A lifecycle approach



# 3. Plastic Design and Circular Economy



## Plastic's toxic additives and the circular economy

September 2020



News | Environment

## Toxins in plastic blamed for health, environment hazards

*Report warns exposure to toxic chemicals in everyday consumer goods could result in cancers, damage to immune system.*



People and the planet are exposed to toxic chemicals in plastic at all stages including recycling [Ricardo Franco/EPA]

30 Sep 2020



Evidence suggests several chemical additives in plastic products and packaging are poisoning consumers, harming the environment and undermining recycling initiatives, according to a new study, which calls for the development of safer alternatives.



for a toxics-free future

# 4. Health risks and wellbeing



## PLASTICS, EDCs & HEALTH

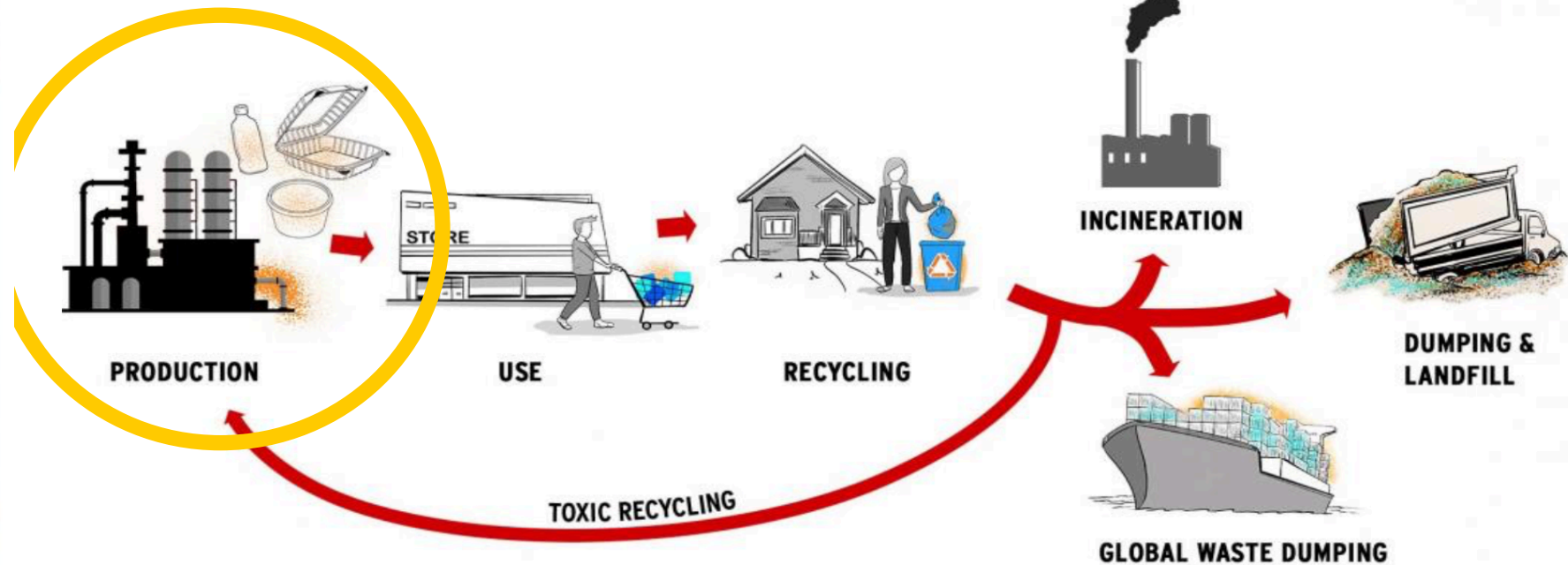
A GUIDE FOR PUBLIC INTEREST ORGANIZATIONS AND POLICY-MAKERS ON ENDOCRINE DISRUPTING CHEMICALS & PLASTICS



Jodi Flaws, PhD  
Pauline Samarasopoulou, PhD  
Heather R. Pettison, PhD  
Andrea Corsi, PhD  
Lari Reetzman, PhD  
Laura N. Vandenberg, PhD

ENDOCRINE SOCIETY  
Promoting Science in Health

IPEN  
for a toxics-free future



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# Solutions



- Reduce the plastics produced;
- Identify essential uses;
- Restrict the most problematic plastics (PVC, fluorinated polymers, polystyrene);
- Transparency on plastics ingredients;
- Stop toxic recycling
- Phase out the most problematic chemicals



Thank you 😊

