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A Declaration of Concern and Call to Action

Regarding Plastics, Packaging, and Human Health



*NOTE: Unless otherwise indicated via separate citation, all statements made herein are based on the findings of [Impact of Food Contact Chemicals on Human Health: A Consensus Statement](#).

Impacts of Food Contact Chemicals on Human Health: A Consensus Statement published by a group of world-renowned human and environmental health scientists raises serious concern and adds to growing evidence about exposure to harmful chemicals through their use in food packaging.

With the birth of the throw-away culture, single-use food packaging has largely replaced reusable and refillable packaging formats across the globe. In 2014, packaging waste generated in Europe was estimated at 82.5 million metric tons per year¹ and 69.6 million metric tons of packaging waste was collected in municipal solid waste in the U.S.² Plastics are rapidly replacing other forms of packaging as plastic production has increased from 2 million tons in 1950 to over 380 million tons in 2015 world-wide, with 42% percent of non-fiber plastic resin currently used to make packaging.³

While dramatic environmental threats posed by plastics in the ocean and the resource and climate impacts of packaging are well-documented, the newly published Consensus Statement signals that the human health threats posed by food packaging warrant immediate action from lawmakers and food packaging manufacturers.

The findings from the Consensus Statement, plus the additional micro-plastics related studies cited below, lead the signatories below to conclude that significant action is needed to end the use of many chemicals of concern in food packaging and focus on replacing single-use food packaging with safe, reusable, and refillable packaging.

1 When consuming food and beverages that are packaged, people are exposed to a wide array of chemicals that originate in the packaging and migrate into food and beverages

Over 12,000 chemicals are intentionally used in the manufacture of food packaging and between 30,000 to 100,000 Non-Intentionally Added Substances (NIAS) may find their way into food packaging.* An enormous body of research - around 1200 peer-reviewed scientific studies - demonstrates clearly that these food packaging chemicals migrate from packaging into food and beverages, and indicates that a large majority of the human population is exposed to some or many of these chemicals.

2 Many of the chemicals associated with packaging are either hazardous to human health or their risks to health have not been evaluated

Several chemicals hazardous to human health (i.e. carcinogenic, mutagenic, toxic for reproduction, persistent and bioaccumulative, and/or endocrine disrupting) are authorized for use in food packaging including, but not limited to, several ortho-phthalates, bisphenols, per- and polyfluoroalkyl substances, and perchlorate. Many chemicals used in food packaging have never been tested for human health effects. Some of the factors that contribute to a lack of evaluation of health risks include:

- Food contact chemicals are not commonly evaluated for endocrine disruption potential although some migrating chemicals are known endocrine disruptors.
- In the U.S., regulations allow manufacturers to simply declare that chemicals are safe (under the Generally Recognized as Safe designation) without informing federal regulators of their identity, uses, and safety.
- Only 31.3% of the authorized food contact chemicals in the U.S. have been tested for toxicity to humans with animal feeding studies.⁴

*Throughout this document, the term "food packaging" is used to include not only the packaging of the final food product, but also packaging and equipment that contacts food during manufacturing, processing, and transport.

3 Food packaging is one of the most significant sources of dietary exposure to human-made chemicals - even greater than pesticides

Human exposure tests reveal that there are many harmful chemicals in the human body and that food packaging is a significant source of exposure. At least 3,221 chemicals have been measured in human blood. Food packaging chemicals are present in food at far higher levels than pesticide residues (100 times higher). Food packaging has been estimated to be the most relevant human exposure source for plasticizers.

4 Human exposure to, and threats from chemicals in food packaging are likely underestimated due to:

Regulatory reliance in the U.S. on industry estimates of exposure that are not based on testing. In determining whether chemicals are safe for contact with food, the regulatory system in the U.S. relies on chemical manufacturers to estimate human exposure. Chemical manufacturers often underestimate exposure levels as dietary intake is often based on manufacturer assumptions and not evaluated using empirical data gathered from scientific research.

Failure to recognize the threats posed by low dose exposures. Testing is usually not required for chemicals where exposure is believed to be below certain levels. In Europe, unauthorized chemicals may be used in plastic food packaging if their migration level is below 10 parts per billion (ppb) and if they are not genotoxic, mutagenic, toxic to reproduction, or in nano-form. In the U.S., 0.5 ppb is the “threshold of regulation.” However, low-dose exposures are increasingly recognized as having potentially very significant health impacts, such as endocrine disruption.

Failure to address the threats posed by exposure to mixtures of chemicals. Eating packaged foods means being continually exposed to mixtures of chemicals migrating from food packaging. The human health impacts of exposure to these mixtures have not been examined, despite significant concern expressed by scientists. When chemicals are tested for human health effects, they are generally tested individually, neglecting the real-world conditions of multiple and simultaneous exposures.

Lack of transparency and traceability of chemicals in products leads to additional concerns, including the use of recycled content in products. NOTE:

The Consensus Statement raises concerns about the implications of food contact chemicals use for the Circular Economy - here, we expand on these concerns. Not only are consumers unaware of the chemicals used in food packaging, lack of transparency across the supply chain means that product manufacturers themselves often do not know what chemicals are in their packaging.⁵ This is problematic for recyclers, who are unaware of the chemicals they are recycling into new products.⁶ For example, mineral oils (used in non-food grade printing inks, but also in plastics, adhesives, rubber articles, jute and sisal fibers, wax paper and board) have been found in recycled paperboard for food contact use⁷ and some recycled black plastics used for food packaging have been found to contain brominated flame retardants, where the recycled content is assumed to come from illicitly recycled electronic waste.⁸ Recycling can compound the quantity of chemicals to which consumers are exposed since the recycled content can be pre-contaminated with chemicals and more can be added in the manufacturing process.

5 Microplastics are an additional growing source of concern for human health

These issues were not addressed in the Scientific Consensus Statement, but these issues are raised in scientific research therefore we add them to our list of concerns.

Plastic is one of the most pervasive materials on the planet. Nearly two-thirds of all plastic ever produced has been released into the environment and remains there.⁹ Plastics degrade into micro and nano plastics that are present in the air we breathe,¹⁰ the water we drink,¹¹ and the food we consume.¹² Plastic food packaging, such as plastic water bottles, is a source of micro-plastics exposure.¹³ Microplastics can degrade into nanoplastics that are so small that it is assumed that they can migrate across cell walls, moving across the blood-brain barrier to enter the brain¹⁴ and across the placenta to reach the developing fetus.¹⁵

A Call for Action to Protect Public Health from Exposure to Hazardous Food Packaging Chemicals and Plastic

In view of the findings described above, the signatories to this Declaration of Concern call on lawmakers to:

- 1. ensure full disclosure and traceability of chemicals used in packaging throughout the supply chain;**
- 2. restrict the use of hazardous chemicals in food packaging and prevent regrettable substitutions, and**
- 3. adopt policies that support the transition towards safe, reusable, and refillable packaging.**

Signatories *as of February 27th 2020*

350.org Pilipinas

ACTION FOR NURTURING CHILDREN & ENVIRONMENT, INC.

AEEFG, Tunisia

Alaska Community Action on Toxics

Algalita Marine Research and Education

Alianza de Derecho Ambiental y Agua

ANP | WWF Portugal

Aotearoa Plastic Pollution Alliance (APPA)

Asian Center for Environmental Health

Association AMLP

Association for Sustainable Development in Bangladesh (Asd_Balgladesh)

Beijing Farmers' Market

Beyond Plastics

Biofuelwatch

BIOS Argentina ONG

Buklod Tao, Inc.

Bundesverband Meeresmüll /German Marine Litter Association e.V.

CAFEi

Cancer Research Unit IMIM UAB Barcelona

Center for International Environmental Law (CIEL)

Centre for Zero Waste & Development	ECOTON
Centre national de la recherche scientifique (CNRS)	Ecowaste Coalition
Centre national de la recherche scientifique (CNRS) / Muséum national d'Histoire naturelle	Ekologi brez meja
CHEM Trust	Environment and Social Development Organization (ESDO)
Children's Paradise Montessori School	Environment Friends Society
Citizen Consumer and Civic Action Group	Environmental & Public Health Consulting
Clean Production Action	Environmental Association Za Zemiata
Clean Water Action/Clean Water Fund	Environmental Defence Canada
Coalicion antiincineracion de la Artentina - Santa FFe	Environmental Rights Action/Friends of the Earth Nigeria
Common Seas	European Environmental Bureau (EEB)
Communities for Alternative Food EcoSystems Initiative	Fidra
Community Hygiene Concern	Food & Water Europe
Conscious Cup Campaign	Foodthink
Consumers Association of Penang	Forsythia Foundation
DION	France Nature Environnement (FNE)
DLR Prerna	FreshWater Accountability Project
Dr. Yolanda Whyte Pediatrics	Friends of the Earth Croatia / Zero Waste Croatia Network
Eco-Canton	Friends of the Environment in Negros Oriental
ECOCITY	Front Commun pour la Protection de l'Environnement et des Espaces Protégés (FCPEEP)
Ecological Alert and Recovery Thailand (EARTH)	Gallifrey Foundation
Ecological Recycling Society	German Ocean Foundation
Ecology Center, Michigan	Gigantic Idea Studio

Global Alliance for Incinerator Alternatives (GAIA)	Korea Zero Waste Movement Network
Global Alliance for Incinerator Alternatives (GAIA), Africa	Let's Do It Foundation
Green Africa Youth Organization	Liang Shuming Rural Reconstruction Centre
Green Innovation and Development Centre (GreenID)	Linked.Green
Green Pine Clinic Vietnam	Massey University Political Ecology Research Centre
Green Science Policy Institute	Mind the Store Campaign
Greeners Action	Mother Earth Foundation
GroundWork	Nexus3 Foundation
H.umanitarian O rganization For P.eace E.ngagements	Nini Global Food Education
Health and Environment Alliance (HEAL)	Nipe Fagio
Health and Environment Justice Support (HEJSupport)	No Burn Piipinas
Health Care Without Harm, Asia (HCWH)	Occidental Arts and Ecology Center
Health Care Without Harm, Europe (HCWH)	Oceana
Health Care Without Harm, Southeast Asia (HCWH)	OceanCare
Healthy Babies Bright Futures	Office of Sustainability - Loyola University Chicago
Inland Ocean Coalition	ONG Mare Nostrum
Institute for a Sustainable Future	Oregon Environmental Council
Integrated Social and Agriculture Development Organization (ISADO)	Pan African Vision for the Environment
Justiça Ambiental (JAI, Friends of the Earth Mozambique)	Pesticide Action Network
Korea Federation for Environmental Movement (KFEM)	Plastic Change
	Plastic Pollution Coalition
	Plastic Soup Foundation

Plastic Soup Surfer (Plastic Free Sea Foundation)	South Durban Community Environmental Alliance , Durban, South Africa
Plasticus Maritimus	Surfers Against Sewage
Plastic Free Ibiza & Formentera	Surfrider Foundation
Polish Zero Waste Association	Taiwan Watch Institute
Portuguese Marine Litter Association (APLM)	Taller de Comunicacion Ambiental (Rosario)
Portuguese Society for the Study of Birds - Birdlife Portugal (SPEA)	Taller Ecologista
Pragya Seeds Nepal - Pranay Shrestha	The Green Earth
Red de acción por los Derechos Ambientales	The Indonesia Plastic Bag Diet Movement
Red de biodigestores para LATino america y el caribe	The Last Plastic Straw
Réseau Environnement Santé	The National Toxics Network Australia
Retorna	The Research and Training Centre for Community Development (RTCCD)
Safer States	The Rubbish Trip
Sahabat Alam Malaysia (Friends of the Earth Malaysia)	The Story of Stuff Project
Save Our Shores	Toxics-Free Corps
Sciaena	Trash Hero World
SEA OBSERVATORY OF THE AZORES	University of Gothenburg
Shanghai RENDU Ocean NPO Development Center	UNT Health Science Center
Society for Earth (TNZ)	UPSTREAM
Society of Wilderness, Taiwan	Vietnam Public Health Association
Sound Resource Management Group, Inc.	Vietnam Zero Waste Alliance
	VOICE of Irish Concern for the Environment
	VšĮ Žiedinė ekonomika

War on Waste Break Free From Plastic
Negros Oriental

WasteLess

WECF

Wellington Association Against the
Incinerator ("WAAI")

Wild at Heart Legal Defense Association,
Taiwan

Women & Child Development Organization
(APARAJITA)

Yayasan Pengembangan Biosains dan
Bioteknologi (YPBB)

ZERO - Association for the Sustainability of
the Earth System

Zero Waste Europe

Zero Waste Himalaya

Zero Waste Maldives

Zero Waste Washington

Zerowaste Systems

If your organisation would like to sign the declaration of concern,
please visit: <https://forms.gle/wwpVU1ponGf2pPfe9>

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Global Alliance for Incinerator Alternatives (GAIA) is a worldwide alliance of more than 800 grassroots groups, non-governmental organizations, and individuals in over 90 countries whose ultimate vision is a just, toxic-free world without incineration. GAIA aims to catalyze a global shift towards environmental justice by strengthening grassroots social movements that advance solutions to waste and pollution. GAIA's vision is a just, zero waste world built on respect for ecological limits and community rights, where people are free from the burden of toxic pollution, and resources are sustainably conserved, not burned or dumped.

Zero Waste Europe is the European network of communities, local leaders, businesses, experts, and change agents working towards the same vision: phasing out waste from our society. We empower communities to redesign their relationship with resources, to adopt smarter lifestyles and sustainable consumption patterns, and to think circular.

UPSTREAM is a U.S based organization that sparks innovative solutions to plastic pollution by addressing the root cause of the problem- the throw away culture. By transitioning to reusable food packaging, we can provide solutions not only to the plastic pollution problem, but also to climate change, and to better protections for human health. UPSTREAM is building a reuse movement by developing and advancing state and local policies for reusable foodware, elevating new reuse business models, and sharing the innovative work being done to replace single-use packaging with reusable alternatives.

