

15. Declaration: Our Shared Responsibility to End Plastic Pollution, Protect Human Health, and Advance Social Justice for All

Conference Participants

Boston College convened an international Conference on October 4–5, 2024: “Joining Science and Theology to End Plastic Pollution, Protect Health, and Advance Social Justice.” Scientists, ethicists, lawyers, economists, engineers, policy makers, and religious leaders participated. This conference took place one month before the fifth and final round of negotiations for the United Nations Global Plastics Treaty. The main conclusions of the conference: Continuing unchecked increases in plastic production are unethical and immoral. Continuing increases in plastic production are responsible for damages that threaten all life on earth. Those who advocate for unchecked growth in plastics must re-examine their behavior, embrace the reality that the earth is a shared inheritance—a gift from the Creator—and work toward a more equitable and sustainable future.

Conference participants and all who have signed this Declaration urge the UN treaty negotiators to recognize that current patterns of plastic production cannot continue. We urge the negotiators to craft a treaty that prioritizes human health, safeguards the environment, and advances human rights.

The Conference adopted the following findings and recommendations:

Findings

1. *Plastics cause disease, disability, and premature death at every stage of their life cycle—in production, use, and disposal.* People who use plastics are exposed to the more than 16,000 synthetic chemicals that

are in plastics and leak out. Many of these chemicals are highly toxic. They include carcinogens, neurotoxicants, and endocrine disruptors. They are responsible for widespread human exposure and for disease in people of all ages. Workers who make plastics suffer increased rates of cancer as well as pulmonary, metabolic and neurologic diseases. Microplastic particles are linked to increased risks for heart disease, stroke, and death. The diseases caused by plastics result in annual costs of \$675 billion in the USA and \$1.2 trillion globally. These great costs are larger than the GDPs of many countries.

2. *Plastics endanger human reproduction.* Toxic chemicals in plastics, notably endocrine-disrupting phthalates, are associated with male reproductive birth defects. They are linked to global declines in sperm counts and to decreased human fertility. These damages threaten humanity's future.
3. *Plastics damage infants and children.* Children are at very high risk of toxic injury from plastic chemicals. Even low-level exposure can cause permanent injury. Exposures in pregnancy are especially dangerous and are linked to prematurity, stillbirth, low birth weight, birth defects, neurodevelopmental disorders and childhood leukemia.
4. *Plastic production worsens climate change.* Nearly ninety-nine percent of plastics are made from fossil fuels—crude oil, fracked gas and coal. Plastic production generates nearly two billion tons (two Gigatons) of carbon dioxide and other greenhouse gases each year—more than the annual emissions of Brazil.
5. *Plastics threaten human rights.* Plastics' harms are unjustly distributed. Groups at increased risk include: people of color, Indigenous populations, fossil fuel extraction workers, chemical and plastic production workers, informal waste and recovery workers,

and persons living in communities near plastic production facilities. The disproportionate exposures of these vulnerable populations are immoral. They are environmental injustices. They are violations of human rights.

6. *Plastic recycling does not work.* Only seven to eight percent of plastic is recycled. Despite much effort, plastic recycling lags far behind paper, glass, and aluminum recycling and is not improving. The problem is not careless behavior by individuals. The problem lies with plastics themselves. Plastics are complex, they contain multiple toxic chemicals, and they resist recycling. Contrary to the claims of the plastic industry, and despite much effort and investment, “advanced recycling,” “chemical recycling” and “plastic pyrolysis” are failed technologies.
7. *Plastic pollution is a global threat.* Because plastic is persistent in the environment and little is recycled, nearly six billion tons of plastic waste now pollute the planet. Much is in the ocean, where it washes up on beaches, endangers whales, kills seabirds, and breaks down into microplastic particles. Microplastic particles enter the food chain and are consumed by people.
8. *Relentless increases in production are the main driver of plastic’s worsening harms.* Annual plastic output has grown more than 200-fold—from two million tons in 1950 to over 400 million tons today. Half of all plastic ever made has been produced since 2000. Production is on track to double by 2040 and triple by 2060. Single-use plastic accounts for thirty-five to forty percent of current output. Its manufacture is increasing rapidly, and contributes disproportionately to plastic waste.

Recommendations

1. *Production limits.* Mandatory, legally-binding limits on production of new plastic, especially single-use plastics, with targets and timetables must be the core of the Global Plastics Treaty.
2. *Recycling is not the solution.* We cannot recycle our way out of the plastics crisis.
3. *Toxic chemicals.* The Treaty must address the thousands of chemicals in plastics. These chemicals are integral components of all plastics and cannot be excluded from the Treaty. They are responsible for much of the disease and death caused by plastics. They are poorly regulated, and many have never been tested for safety or toxicity. The Treaty must set strict standards for all chemicals in plastics, requiring testing and full disclosure of information on their nature and toxicity, and banning harmful chemicals such as PFAS from food packaging and from goods designed for children.
4. *Extended Producer Responsibility.* The Treaty must mandate Extended Producer Responsibility (take-back) of all plastic products, prohibit most single-use plastics, prohibit chemical recycling in any form, and enhance the infrastructure needed to boost plastic reuse.
5. *Science.* Treaty implementation must be guided by an International Science Advisory Panel independent of the plastics industry.
6. *Funding.* Treaty implementation must be adequately funded. International funding will be required in many low- and middle-income countries.

7. *Monitoring.* Continued monitoring of plastic production, plastic pollution, plastic chemical exposures, and plastics' harms to human health will be essential. Only through transparent monitoring and independent research can progress be assessed, unintended consequences avoided, and course corrections made.

Conclusion

Plastic is not an isolated problem. Like climate change, air pollution, and escalating inequality, the plastics crisis is a social and ethical challenge. It is another example of humanity's reckless strip-mining of the earth's resources and mortgaging of our common future for short-term economic gain.

To effectively confront the plastics crisis and the other great challenges of our age, we need to develop legal and technical solutions such as the UN Global Plastics Treaty. But additionally, we must at a deeper level reexamine our relationships with each other and with the earth. We must recognize that we are all connected with one other and with the planet. All of us, and especially those who lead governments, international organizations, and major corporations, have a shared responsibility to be good stewards of God's creation. We need to embrace a new approach that transforms our way of living in the world, our lifestyles, our relationship with the earth's resources, and generally how we look at humanity and all life. Such an approach is essential if we wish to leave a habitable planet for our children, our children's children, and the generations yet to come.