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WFP: Topic #2 - Microplastics

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How comfortable are you with the fact that scientists now estimate we potentially ingest the equivalent of one credit card's worth of plastic every week? Due to the inculcation of microplastics into food, daily-use products, and animals, microplastics have become ubiquitous in land, air, and sea. According to research from Stanford University, approximately 10 to 40 million metric tons of these microplastics are released into the environment every year; statistics that are predicted to double by 2040.¹ This alarming reality poses a serious threat to public safety and fundamental human health.

Microplastics are small plastic fragments measuring up to 5 millimeters in diameter. Nanoplastics are even smaller, ranging from approximately 1 to 1,000 nanometers. These particles either form when larger plastic waste breaks down over time, or are intentionally added to manufactured products.²

Plastic does not fully decompose; it only fragments into smaller pieces. This breakdown can also occur through the release of microfibers, tiny strands shed from synthetic clothing during washing, and microbeads, which were once commonly used in cosmetics and cleaning products (though now banned in many countries). Microbeads are especially concerning because they are small enough to pass through standard water filtration systems, allowing them to enter ecosystems and food chains.

Once the microplastics enter the ecosystem, they have the potential to affect the food system as well. Studies have approximated that the majority of seafood contains traces of microplastics. If you thought you were safe because you don't like seafood, think again! Microplastics have also been discovered in honey, tea, sugar, fruits, and vegetables. Within the human body itself, they have been found in blood, limbs, and even across the brain tissue. They are seemingly inescapable due to their inability to biodegrade. Scientists believe that the effects of microplastics could be linked to harmful effects on the body, such as cancer, heart attacks,

¹ [What's the deal with microplastics | Stanford Report](#)

² [Microplastics and our health: What the science says](#)

reproductive problems, or premature births, although these effects are still under investigation. Animal studies have shown that microplastics can cross the blood-brain barrier and may impair neurological function. Despite these ever-alarming risks, scientists lack the standardized tools to properly detect and measure microplastics. As a result, many of the associated health risks remain largely speculative, based more on preliminary research than definitive evidence.³

In response to this dire crisis, the UN has been consistently working to address the increasing presence of microplastics in the environment. Through the creation of a global plastics treaty, 175 countries banded together to recognize the risks posed by microplastic pollution. In addition to this agreement, the United Nations Environment Programme (UNEP) has promoted a more circular model for plastic reuse, aiming to prevent the generation of microplastics at the source. Another effort has come from the UN Environment Management Group (EMG), which established a specialized working group focused on preventing plastic leakage and advancing microplastic research. Furthermore, the United Nations Development Programme (UNDP) has launched a range of initiatives to promote plastic alternatives and reduce overall plastic pollution.⁴

However, what is currently being done is not enough. Each year, approximately 11 million tons of plastic waste are still being leaked into the world's water systems, contributing to the spread of microplastics. And while these particles may be unavoidable, that does not diminish the fact that we have the responsibility to reduce their impact.

Some questions to consider:

- ❖ What measures can WFP implement to monitor and mitigate plastic contamination in food aid and supply chains internationally?
- ❖ Should microplastic mitigation be integrated into WFP's climate resilience and sustainability frameworks?

³ [Microplastics everywhere: Are we facing a new health crisis? | World Economic Forum](#)

⁴ [Microplastics: A Real Global Threat for Environment and Food Safety: A State of the Art Review - PMC](#)

- ❖ How can countries balance economic interests (such as plastic production and packaging industries) with public health and environmental safety?
- ❖ What policy interventions or infrastructure investments could help reduce microplastic exposure in food systems?
- ❖ Are low-income countries disproportionately affected by microplastic pollution due to weaker infrastructure or regulatory systems?

Keep in mind that these questions are meant to guide your preparation, not limit it. A few important reminders:

1. You are representing your country's position, not your personal views (though I'd be glad to hear your own perspectives outside of session!).
2. Use reliable, credible sources to support your research.
3. All papers will be submitted through Turnitin, and plagiarism and AI usage are strictly prohibited. If such is detected, awards will be revoked.

If you have any questions, comments, or concerns as we approach the conference, please don't hesitate to reach out. I would be so happy to help in any way, or even if you just want to introduce yourself, I would also love to hear from you! You may reach me at afried21@mail.yu.edu.

I am very much looking forward to hearing all of your creative ideas and meeting all of you in person at the conference! Let's make it the best one yet.

Warmest regards,

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