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SCIENTIFIC EVIDENCE-BASED POLICY MAKING FOR ADDRESSING MICROPLASTIC POLLUTION IN ASIA-PACIFIC REGION

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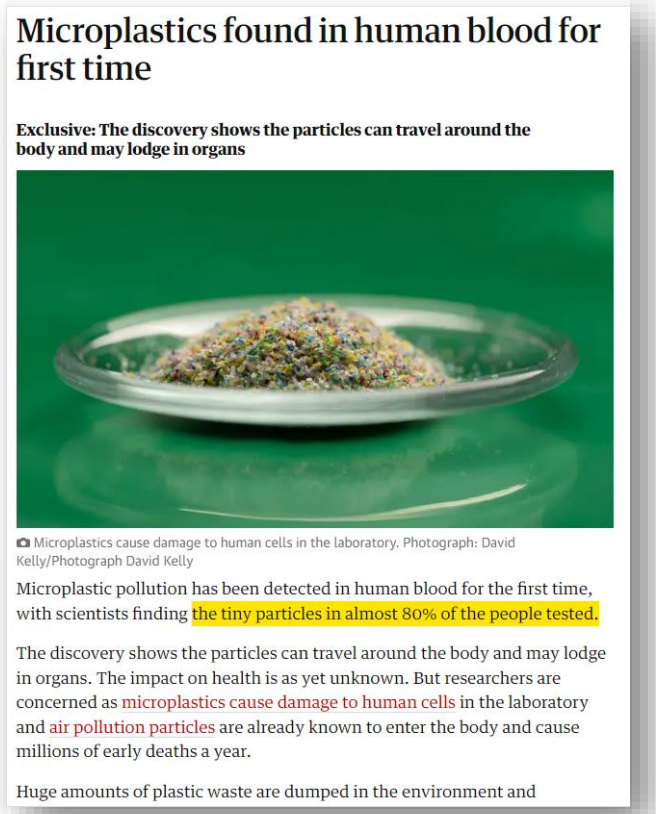
CHALLENGES OF SCIENTIFIC EVIDENCE-BASED POLICY-MAKING TO ADDRESS MICROPLASTICS POLLUTION

1. Lack of laws, regulations and guidelines on macro/microplastics pollution control
2. Lack of reliable data and scientific-based evidences (especially on its potential impacts on ecosystems and human health) to facilitate policy/decision making process in addressing (nano)/micro/macro-plastic pollution in the region
3. Lack of supporting laboratory equipment for microplastic analysis (especially those microplastics less than 300µm)
4. Weak technical capacity on microplastic-related research
5. No standard protocol for microplastic sampling, analysis and assessment

"12 microplastic fragments (mostly 10 um in size), with spherical or irregular shapes were found in 4 placentas (5 in fetal side, 4 in the maternal side and 3 in the chorioamniotic membranes)"

(Source: Ragusa et al., 2021).



Microplastics found in human blood for first time

Exclusive: The discovery shows the particles can travel around the body and may lodge in organs

Microplastics cause damage to human cells in the laboratory. Photograph: David Kelly/Photograph David Kelly

Microplastic pollution has been detected in human blood for the first time, with scientists finding the tiny particles in almost 80% of the people tested.

The discovery shows the particles can travel around the body and may lodge in organs. The impact on health is as yet unknown. But researchers are concerned as microplastics cause damage to human cells in the laboratory and air pollution particles are already known to enter the body and cause millions of early deaths a year.

Huge amounts of plastic waste are dumped in the environment and

(Source: The Guardian, 2022)

RECOMMENDATIONS ON THE FOLLOW-UP ACTIONS

1. Support the partner countries in developing Guidelines on survey, investigation and assessment on current status of micro/macro-plastic waste pollution
2. Working towards harmonization of protocols for sampling, analysis and monitoring of micro/macro-plastics in the different compartments: water, sediment, biota, etc. Such protocols should be based on scientific knowledge and state-of-practice in microplastic research in each country.
3. Supporting inter-laboratory comparisons (using a harmonized set of metrics to measure and report on plastic inputs) to assist validation/harmonisation efforts, and to enhance transparency.
4. Development of toxicological methods for risk assessment, and identifying potential human health impacts of nano/microplastic ingestions, particularly with microplastics with size less than 300µm
5. Improving technical capacity building for research institutions, laboratories as well as relevant governmental agencies to address knowledge-gaps and training needs
6. Promoting IEC activities to raise awareness on microplastics and its potential impacts

ご清聴ありがとうございました。

Thank you very much for your attention.

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