

TUESDAY, 5 JUNE 2018, 14:10

iSQAPER: Exploring plastic pollution in soil

KEY MESSAGES

- More than 80% of plastics found in marine environments has been produced, consumed and disposed of on land.
- Microplastic contamination on land is estimated to be between 4 to 32 times higher than in the oceans.
- In addition to inadequate end-of-life treatment of plastic waste, plastics reaches our soils through increasing use for agricultural purposes.
- Yearly inputs of microplastics in European and North American farmlands are estimated to be 63,000-430,000 and 44,000-300,000 tonnes respectively.
- A greater consideration of the issue of plastic pollution in soil and its implications is needed in policies and legislation.

While the proliferation of plastics in aquatic environments has been widely explored, the issue of plastic and microplastic pollution on land and in soils has only recently been gaining attention.

Plastic and microplastic pollution may be more dramatically seen in the oceans; however, plastics are

SEARCH

the sources and implications as well as policies to address the associated challenges.

The briefing shows that in addition to inadequate end-of-life treatment of plastic waste, the presence of macro and microplastic particles in the soil is the result of the increasing use of plastics for agricultural purposes. Together these can have the potential to profoundly impact on terrestrial ecosystems and on the productive capacity of agricultural soils.

The briefing explores concerns relating to contamination by harmful substances, biodegradability potential and ingestion along with existing policies and legislation which can directly or indirectly reduce the leakage of plastics into soils and the wider environment.

The briefing calls for greater knowledge and consideration of the issue of land-based plastic pollution.

There is a need both for further investigation of the potential consequences for human health and the environment and the examination of possible solutions. This includes greater consideration of the issue and its implications in the policies and measures with the potential to address the use of agricultural plastics, soil contamination and fertiliser quality.

For more information on IEEP’s work on plastics contact [Emma Watkins](#) and [Susanna Gionfra](#), and on soils [Catherine Bowyer](#), [Ben Allen](#) and [Faustine Bas-Defossez](#).

DOWNLOADS

[Plastic pollution in soil_FINAL.pdf](#)

AUTHORS

[Susanna Gionfra](#)

DOWNLOADS

[Plastic pollution in soil_FINAL.pdf](#)

RELATED

[Future of the CAP](#)

SEARCH