

EU Adds PFAS to Water Pollution Monitoring List



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The European Union Parliament has recently approved updated water pollution standards, bringing Per- and Polyfluoroalkyl Substances (PFAS) under stricter monitoring. This move reflects growing global concern over these persistent chemicals, often termed “forever chemicals”, due to their long-lasting presence in the environment and potential risks to human health.

What are PFAS?

Per- and Polyfluoroalkyl Substances are a group of man-made, toxic chemicals comprising over 4,700 compounds. They are characterised by strong carbon-fluorine bonds, making them highly resistant to degradation. Due to this persistence, PFAS accumulate in the environment and living organisms over time. Their stability and widespread use have made them a significant environmental pollutant globally.

Composition and Key Subgroups

PFAS consist of fluorinated carbon chains of varying lengths. Important subgroups include Perfluorooctane Sulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA), both of which are recognised as persistent organic pollutants. These substances are listed under the Stockholm Convention, highlighting their hazardous nature and the need for global regulation. Their resistance to natural breakdown processes makes them particularly difficult to manage.

Sources of Exposure

PFAS are widely used in everyday consumer products and industrial applications. They are found in non-stick cookware, food packaging, stain-resistant fabrics, and various industrial processes such as aerospace, automotive, and electronics manufacturing. Over time, these chemicals leach into soil, water, and air. Humans are primarily exposed through contaminated food and drinking water, inhalation, and the use of PFAS-containing products.

Important Facts for Exams

- PFAS are known as “forever chemicals” due to their persistence.
- PFOS and PFOA are key PFAS listed under the Stockholm Convention.
- They have strong carbon-fluorine bonds, making them non-degradable.
- Common sources include non-stick cookware and food packaging.

Health Impacts and Regulatory Measures

Exposure to PFAS has been linked to several health issues, including reduced fertility, developmental effects in children, hormonal disruption, elevated cholesterol levels, and increased risk of certain cancers. Recognising these risks, international frameworks such as the Stockholm Convention have classified some PFAS as persistent organic pollutants. The EU’s recent decision to include PFAS in water monitoring standards marks a significant step towards stricter environmental governance and public health protection.