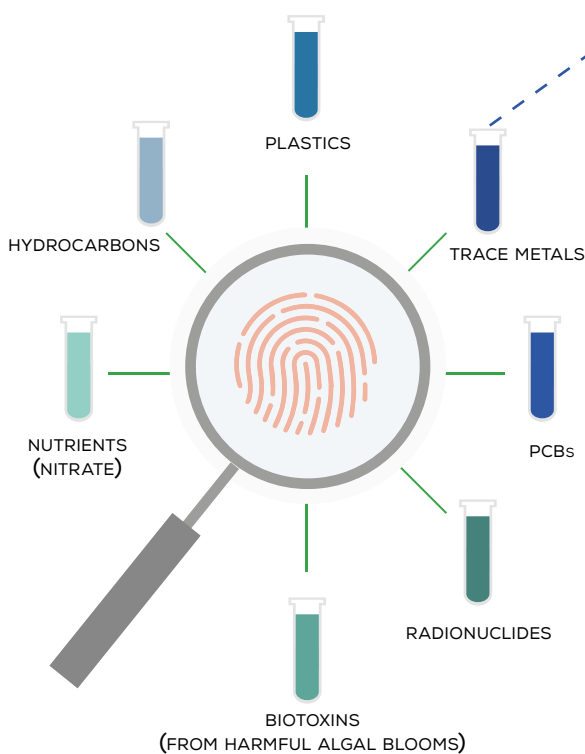


COASTAL POLLUTION AND SEAFOOD SAFETY



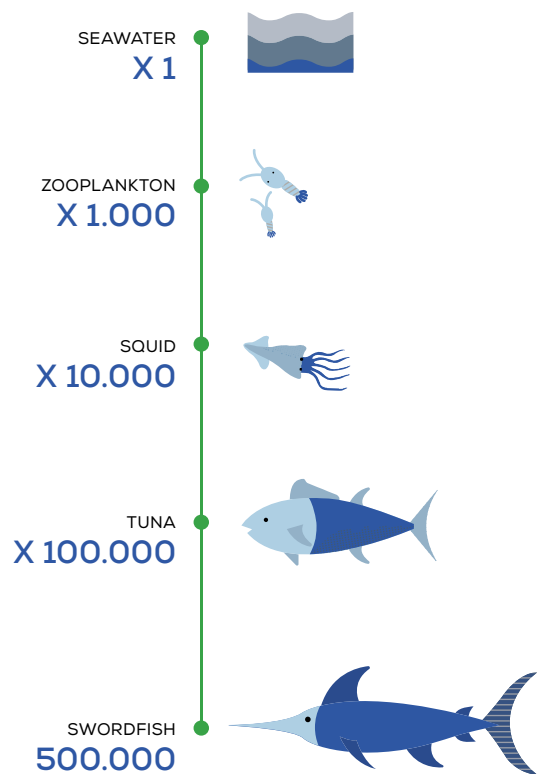
40% of the Earth's population depends on seafood for nutrition. Sustained pollution can damage coastal and marine ecosystems as well as jeopardise seafood safety and the livelihood of entire communities. By applying cutting-edge nuclear and isotopic techniques, the IAEA helps Member States accurately measure and monitor pollution and mitigate its effects on local populations.

CHEMICAL FINGERPRINTING



MERCURY BIOACCUMULATION

LEVELS BASED ON THE CONCENTRATION IN SEAWATER



Pollutants such as trace elements (e.g. mercury), hydrocarbons, persistent organic pollutants (e.g. PCBs), nutrients (e.g. nitrate), plastics, and radionuclides in coastal waters, may accumulate in marine organisms up the food chain, degrading an ecosystem's resilience and threatening human health through the consumption of contaminated seafood. The IAEA Environment Laboratories assist Member States to use various analytical techniques to determine the source of contaminants and to monitor their transfer up the food chain. In recent years, there has also been an increase in the occurrence of harmful algal blooms (HABs), which can produce biotoxins that cause foodborne illnesses. These incidents impact fisheries, aquaculture, tourism, and the use of drinking and recreational waters. The laboratories conduct research and provide training to Member States, contributing to more robust seafood monitoring programmes.