

MERCURY AND BIODIVERSITY

Mercury is a highly hazardous substance that impacts human health and the environment. It is found in many ecosystems, from its original sources and industrial areas, to tropical forests, oceans, and the Arctic, leading to detrimental effects on global biodiversity.

Mercury is primarily released into the air, land, and water through human activities, with artisanal and small scale gold mining (ASGM), along with stationary combustion of coal, together accounting for **60% of emissions**.

ASGM activities are the single biggest source of mercury releases to soil and often take place in biodiverse and sensitive ecosystems around the world, directly or indirectly affecting up to **100 million people** worldwide.

Once in the environment, **mercury** can be transformed by bacteria into the highly toxic form of methylmercury. Seeping into soil and freshwater, mercury may reduce the diversity of micro-organisms and plants, with the food growing in these areas also full of toxins.

This particularly impacts **Indigenous Peoples** and local communities who rely on this land for agriculture and consume marine species with mercury. They are particularly at risk due to their economic, spiritual and cultural connections to the land, as well as their dependence on local food and water resources.

In aquatic and terrestrial ecosystems, mercury **bioaccumulates and biomagnifies** throughout the food chain, meaning that organisms, especially the bigger ones, contain higher concentrations than do the surroundings, ultimately harming species and human consumers with large quantities of mercury being ingested.

Birds and migratory species carry mercury as far as the Arctic, where native species are highly sensitive to mercury. Due to mercury's emissions and releases, it can now be found in the most remote areas, including at the bottom of the Mariana Trench – the deepest oceanic trench on the planet.