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China's water pollution by persistent organic pollutants

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ABSTRACT

Available data were reviewed to assess the status of contamination by persistent organic pollutants (POPs), including organochlorine pesticides (OCPs), polychlorinated biphenyls (PCBs), polybrominated diphenyl ethers (PBDEs), polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (PCDD/Fs), perfluorooctane sulfonate (PFOS) and perfluorooctanoate (PFOA), in drinking water sources and coastal waters of China. The levels of POPs in China's waters were generally at the high end of the global range. A comparison of China's regulatory limits indicated that PCBs in rivers and coastal water may pose potential human health risk. Occurrence of DDTs in some rivers of China may also pose health risk to humans using the regulatory limits of DDTs recommended by the European Union. Future monitoring of POPs in China's waters should be directed towards analytes of concern (e.g., PCBs and PCDD/Fs) and to fill data gaps for analytes (e.g., PBDEs, PCDD/Fs, and chlordane) and in watersheds/regions (e.g., West China) where data are scarce.

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