

Chemical Substance Monitoring to support the Stockholm and the Minamata Conventions

Yasuyuki SHIBATA

Environmental Safety Center, Tokyo University of Science, Tokyo, Japan
Regional Organization Group in Asia-Pacific & Global Coordination Group, Stockholm Convention

shibata_yasuyuki@admin.tus.ac.jp

Abstract – Variety of chemicals have been developed and are supporting our modern society. However, some of them were recognized to have adverse effects to human health and/or the environment, and were banned or regulated after usage for a while. Particularly, toxic chemicals, including heavy metals, of highly persistent and extensively bioaccumulated through food web are of high concern. The two international treaties, the Stockholm Convention (SC) and the Minamata Convention (MC), were adopted in 2001 and 2013 in order to protect human health and the environment from adverse effects of POPs (persistent organic pollutants; such as PCB, DDT and dioxins) and mercury, respectively. Both of the conventions ask Parties to conduct various efforts to eliminate or reduce production/use/emission of POPs/mercury. The two Conventions also have a similar mechanism to evaluate the effectiveness of these activities by environmental and human monitoring data (Article 16 and 22 of SC and MC, respectively). Currently the compilation of the third regional report of the monitoring data to support effectiveness evaluation of SC is being conducted, while the guidance for the monitoring is being developed for MC. Outline of these conventions, their target chemicals and their monitoring design will be briefly introduced, and some of the monitoring data, such as mussel watch along the coastline of Japan and high-frequency air monitoring at the remote background site in Okinawa Island, Japan, will be shown.

Keywords: The Stockholm Convention; The Minamata Convention; Environmental monitoring; Effectiveness evaluation