

**Environmental Contamination and Ecological Risk of Novel POPs
in the Asian Developing Region**

Shinsuke Tanabe

(Ehime University, Center for Marine Environmental Studies, Professor)

【Outline of survey】

The new candidates of persistent organic pollutants (Novel POPs) such as brominated flame retardants, perfluorinated chemicals etc. are of growing consideration academically and socially on their increasing environmental contamination and temporal trends. While the environmental monitoring and risk assessment of Novel POPs have been widely conducted in developed nations, less information is available on the status of contamination in developing countries. Several environmental problems originating from irregular dumping of electrical and municipal wastes have been recently documented in the Asian developing countries with high economic growth, and hence the environmental contamination and toxic effects by Novel POPs are of concern in this region. The present study aims at elucidating the status of environmental contamination, pollution sources like open municipal and electrical waste dumping sites, bioaccumulation in human and wildlife, toxic effects and risk assessment, and historical and future trends of contamination by Novel POPs in the Asian developing region.

【Expected results】

The achievements of this study are highly expected to provide scientific evidences for promoting environmental management in developing countries and for reducing global pollution and ecological risk with respect to Novel POPs. The scientific evidences obtained in this project will also contribute for smooth implementation of POPs treaty and the reasonable political discussion on Novel POPs, which is necessary for conceiving an agreement in choosing additional POPs, and their monitoring and control measures.

【References by the principal investigator】

- Tanabe, S. (2007): Contamination by persistent toxic substances in the Asia-Pacific region. Persistent Organic Pollutants in Asia: Sources, Distributions, Transport and Fate, Li, A., Tanabe, S., Jiang, G., Giesy, J. P. and Lam, P. K. S. (Eds), Elsevier, pp.773-817.
- Tanabe, S. and Subramanian, A. (2006): Bioindicators of POPs -Monitoring in Developing Countries-, Kyoto University Press & Trans Pacific Press, 190p.

【Term of project】 FY2008—2012

【Budget allocation】

125,100,000 yen (direct cost)

【Homepage address】

<http://www.ehime-u.ac.jp/~cmes/tanabe/index.html>