

## **International Workshop on Environmental Contamination by Hazardous Substances**

### **Opening Remarks**

Dr. OHTSUKA Ryutaro  
President, National Institute for Environmental Studies

Good morning everyone. The title of today's workshop is "Environmental Contamination by Hazardous Substances". I would first like to thank the Organizing Committee members for selecting this very important topic for our workshop.

Today we have eight speakers; two from CRAES, two from NIER, two from the Hokkaido Institute of Environmental Sciences, and two from our institute. I would particularly like to thank the two speakers from the Hokkaido Institute of Environmental Sciences for joining us today, Mr. Fukuyama and Mr. Noguchi. They will talk about new findings in Hokkaido and its surroundings.

Before the presentations begin I would like to talk briefly on the topic of this workshop, the study of environmental chemicals. Needless to say, the serious effects of environmental chemicals on human health and ecosystems have emerged as a significant issue for environmental research. In my view, one of the very serious problems in Japan has been Minamata disease, which was first discovered in the late 1950s. I myself remember hearing about the disease in the early 1960s, during my high school student days. I think there are many important matters to consider concerning the outbreak of Minamata disease, but I would like to highlight three matters in particular that I think are very important.

The first one is the bioconcentration of methylmercury through the food chain, up from the plankton and small fish to larger fish. It was very shocking for me at that time to learn that diseases could be transferred through this kind of natural system. The second one is the bioaccumulation of methylmercury in the brain or central nervous system, and the fact that methylmercury easily penetrates the brain blood barrier. That was also very surprising. The third is a very sad matter, the occurrence of fetal Minamata disease.

I think that this outbreak was one of the starting points for a comprehensive or systematic approach within environmental sciences to the dangers of chemical hazards. Still, there are of course many other important and serious matters related to environmental chemicals and the presentations today will touch on several such matters, including endocrine disrupters and POPs, and Dr. Kim will talk more about methylmercury. Also important to note is that a key word of this field is monitoring. Monitoring is vital part of the research activities in order to achieve solutions to these kinds of topics.

From today's eight speakers we will hear about specific recent findings from China, Korea, and Japan. Everyone, your active contribution to this workshop is very welcome.

Thank you very much for your attention.