

Initiative to establish an International Panel on Chemical Pollution, IPCP

The production of chemicals is an important source of economic welfare and chemical products provide a multitude of benefits for modern societies. However, many chemicals also enter the environment and chemical pollution will remain a major environmental issue in the 21st century in many regions of the world. To reduce levels of pollution and ensure safe production, use and disposal of chemicals, large scientific, technical and political efforts will be required. To address this need, we propose to establish an *International Panel on Chemical Pollution*, IPCP. The main task of this panel will be to provide scientific support for decision makers dealing with pollution problems and the assessment and management of chemicals, both at the national and international level and based on the state-of-the-science.

In the past decades, considerable progress has been made in the assessment and management of chemicals. Effective scientific methods have been developed, insight into the environmental fate and effects of chemicals has been gained, levels of pollution have been reduced in many parts of the world, and international conventions on pollution control have been established.

At the same time, the production volume of chemicals in commerce has grown considerably and for many regions of the world, this growth is expected to continue. There are tens of thousands of chemicals on the market for which risks to humans and the environment have not yet been evaluated. Chemicals are released to the environment and to food, drinking water and indoor air from many applications. Examples are flame retardants, surfactants, pharmaceuticals, plastic softeners, pesticides, industrial chemicals, heavy metals, and unintentional by-products. Even chemicals that have already been banned under the Stockholm Convention continue to enter the environment. Many of the chemicals released remain for a considerable time in the environment, cycle between different environmental media, and are transported over long distances, which makes chemicals management an international task.

The available scientific knowledge shows that there are many remaining uncertainties and gaps of knowledge. In many cases, these uncertainties and knowledge gaps still prevent our understanding of the sources, fate and effects of anthropogenic chemicals in the environment. This is not just a scientific challenge but also an obstacle for the effective communication of scientific results to the public and to decision makers in government and industry and for the application of scientific knowledge in decision making processes.

These limitations of our current knowledge are the reason why we believe that the assessment and mitigation of chemical pollution will substantially benefit from a careful evaluation and interpretation of available scientific results, from a more targeted communication of scientific results to decision makers and the public, from a closer coordination of scientific efforts, and from long-term support of research into the environmental fate and effects of chemicals.

To achieve these objectives, we suggest that an *International Panel on Chemical Pollution*, IPCP, be established. The IPCP will be an international network of scientists from all regions of the world who share, compare and evaluate results of their research, identify areas in which a consensus has been reached, and specify major uncertainties and research needs. The IPCP will be open to scientists from all over the world; it will aim to develop a scientifically sound and balanced view of major issues of chemical pollution and evaluate different options for chemicals management. Based on its scientific expertise, the IPCP will support political processes at the national and international level, in particular in the context of the Stockholm Convention on Persistent Organic Pollutants.