

From Rio to Johannesburg

Toxic Chemicals and World Health *by Anne Platt McGinn, Worldwatch Institute*

WORLD SUMMIT POLICY BRIEFS



The 2001 Stockholm Convention on Persistent Organic Pollutants (POPs) is one of the major achievements growing out of the Earth Summit in Rio in 1992. Signatories agreed to phase out and limit production of 12 POPs, long-lived toxic chemicals that cause biological havoc as they bioaccumulate—collect and concentrate—in the food chain. The treaty outlines key principles for a less toxic world, including the prevention of new toxic, persistent, and bioaccumulative chemicals; reduction of existing ones; and substitution with less dangerous materials. The challenge at Johannesburg and beyond is to further apply the principles of prevention, reduction, and substitution to all toxic chemicals.

At present, the Stockholm Treaty covers only 12 chemicals: nine pesticides, polychlorinated biphenyls (PCBs), and the industrial byproducts dioxins and furans. The problem is that there is very little basic health or environmental information for the majority of 80,000 chemical compounds on the market today. Information about the effects of mixtures of these compounds is even scarcer. And manufacturers are introducing an estimated 1,000 new chemicals each year.

With the Stockholm Convention, authorities and communities have begun to adopt a proactive approach that seeks to avoid using toxic chemicals in the first

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place. This is a key step to keeping toxic chemicals out of our environment, our food, and our bodies.

Stepping off the toxics treadmill requires a combination of strong, binding laws and commitments; greater public participation; industrial innovation; and increased consumer demand for toxic-free products and processes. To maintain the recent momentum in toxics use reduction, governments, companies, and NGOs

- Human breast milk is among the most contaminated foods on Earth. Chlorinated pesticides, PCBs, lead, mercury, and other bioaccumulative toxins have been found in breast milk, which is transferred by the mother to nursing infants. Most experts agree that breast milk is still best for babies.

- Millions of people who eat fish worldwide—especially women of childbearing age and children—are at risk from mercury poisoning, which can lead to brain defects, neurological disorders, and loss of cognitive skills. Mercury is emitted from fossil fuel burning, waste disposal, mining, and other industrial practices.

- Despite a 64-percent drop in annual global atmospheric emissions of lead since 1983, several million adults and children suffer the adverse health effects of lead poisoning, including impaired mental and physical development. In the U.S. alone, childhood lead poisoning is estimated to cost some \$43 billion per year.

- Electronic and computer wastes are growing faster than any other type of hazardous waste. The computer industry is the most chemically intense in the world, using 500-1,000 different chemicals, many of them highly toxic, including arsenic, cadmium, lead, and mercury.

- Highly toxic pesticides are routinely used to control disease carrying-pests in agriculture, homes, businesses, and public health campaigns. Improper storage and misuse of such chemicals can create problems ranging from water and soil degradation to human illnesses.



must work together to implement treaties, quickly phase out leaded gasoline, address toxic waste, and promote product labeling.

Our Toxic Legacy

We are living with the legacy of several decades' worth of toxic chemical use. Moreover, recent scientific discoveries have heightened concern about the cumulative effects of exposure to toxic chemicals. Scientists have shown that irreversible health effects occur at levels below current "safe" levels. Pesticides and dioxins can impair the body's immune and reproductive systems, while heavy metals such as lead and mercury impede cognitive and physical development. Toxic chemicals travel the globe and threaten the health of humans and wildlife in some of the world's most remote regions:

Priorities for Johannesburg and Beyond

Ratify and implement global toxics and waste treaties.

- Prohibiting some of the world's most toxic chemicals will remove them from the environment and lay the groundwork to phase out similar compounds. The Stockholm Convention on Persistent Organic Pollutants eliminates or severely restricts the production and use of 12 POPs, ensures environmentally sound management of POPs waste, and prevents new POPs from being introduced. The treaty needs to be ratified by 50 countries to enter into force. Eleven parties had ratified the treaty as of 5 June 2002.

- Nations need to ratify the Rotterdam Convention on the Prior Informed Consent Procedure (PIC) for Certain Hazardous Chemicals and Pesticides in International Trade. The Convention establishes a roster of chemicals that have been banned or restricted by countries. Governments will be able to use this information in making decisions about accepting or refusing shipments of chemicals on the list. The convention needs to be ratified by 50 parties to enter into force. As of 31 May 2002, 22 parties had ratified the convention.

- Banning hazardous waste trade is critical to forcing countries to deal with the waste they generate rather than shipping it elsewhere. The 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was designed to reduce hazardous waste trafficking, to promote disposal close to the site of origin, and to prohibit trade with countries that lack the capacity to manage wastes in an environmentally sound manner. The 1995 Basel Ban Amendment bans the export of hazardous waste from rich to poorer countries. The Convention is already in force, with 151 parties. The Amendment needs 62 parties to enter into force. As of 31 May 2002, 30 parties had ratified the Amendment.

Require companies to report and monitor their use and release of toxic chemicals, and mandate public access to this data.

Information about environmental releases from

industrial facilities pinpoints the most affected communities and the most polluting industries, thereby identifying targets for action. Agenda 21 called for nations to adopt national Pollution Release and Transfer Registries (PRTR) to track chemicals. Faced with fierce opposition from manufacturers, fewer than 20 nations have set up PRTRs.

However, in Western and Eastern Europe, 28 countries have agreed to a more far-reaching agreement that provides for greater government accountability,

transparency, and responsiveness in providing information about toxics. This regional agreement, the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice, came into effect in October 2001. This convention grants explicit rights to the public to participate in governmental decision-making and guarantees legal procedures to compel access to information.

Phase out leaded gasoline and begin to reduce lead from other sources by 2005.

- Lead poisoning is one of the world's worst environmental health problems.



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- Some 20 percent of the gasoline sold today is leaded, the largest source of environmental contamination and human exposure to lead.

which will soon include computers. Several Japanese manufacturers are now designing computers and electronics with safer materials and fewer chemicals so they pose less risk throughout their lifecycle.

In May 2001, the European Parliament approved a proposal requiring producers to take-back electronic waste and to phase-out some of the most toxic chemicals used in electronics manufacturing in the next few years.

- The Summit of the Americas Partnership for Pollution Prevention helped accelerate and secure a hemispheric-wide phase out of leaded gasoline. This model can help inform a global campaign.
- In addition to phasing out lead, countries should also identify other major sources of environmental lead contamination and reduce them.

Implement take-back legislation for electronic products and develop national recovery plans for toxic metals.

Diverting toxic materials from the waste stream reduces the toxicity of incinerated and land filled wastes and promotes recovery of these toxic elements. The huge increase in electronic wastes is a particularly pressing problem.

- Countries should develop plans to address the collection, storage and recycling or recovery of toxic wastes like used lead acid batteries, waste oils, and metal-containing industrial, municipal, and hospital wastes.
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- Japan approved an electric appliance recycling law,

Fund research on and increase use of economic incentives for alternative materials and environmentally sound methods of waste disposal.

- The Philippines and the Slovak Republic are testing the use of alternative non-incineration technologies to destroy stockpiles of POPs in their countries in ways that do not create and emit toxic byproducts in the process. These pilot programs will set a model for other countries to follow.
- Many countries have reduced their consumption of leaded gasoline by taxing it at a higher rate than unleaded gas. Similar taxes have been effective in reducing the use of highly toxic pesticides.

Promote labeling of toxic materials in consumer products.

Product labeling systems can extend the public's right-to-know about toxic materials used in consumer products, empowering consumers to refuse to buy products containing particular toxics. Labeling systems are already in use for a number of products, including PVC-free toys, mercury-free thermometers, organically grown cotton T-shirts, and chlorine-free bleached paper.

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