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# INTERNATIONAL POPs ELIMINATION NETWORK

## Background Statement and POPs Elimination Platform

### SUMMARY

The International POPs Elimination Network (IPEN) is a working group of non-profit public interest organizations focused on achieving a global treaty to phase out and eliminate persistent organic pollutants (POPs). The POPs Elimination Platform provides IPEN's rationale for action, and a description of the conceptual framework and initiatives that are needed to achieve an effective and legally binding POPs treaty.

The "Background Statement" (Part I) describes POPs, highlights the existing and growing body of scientific evidence which points to serious injury caused by POPs to the global environment — including humans, wildlife, and entire ecosystems around the world — and summarizes some of the key findings and decisions that underscore the need for a global POPs treaty. The "POPs Elimination Platform" (Part II) is a call to action addressed to the world's governments, urging their decision makers to embrace and implement nine core principles as they negotiate the global POPs treaty. Among other features, the proposed treaty needs to:

- eliminate the POPs and their sources in a rapid, orderly and just manner, with an initial focus on the twelve priority POPs, which include such well-known chemicals as DDT, PCBs and dioxins;
- reject the idea that a substance, once listed as a POP, can continue to be generated and released into the environ-

ment — since POPs by their very nature are unmanageable substances;

- phase out and ban all production, use, and trade of POPs that are products and by-products of human industry, and identify, collect and destroy obsolete and existing POPs stockpiles;
- develop programs that address the lack of capacity among some countries to eliminate POPs and their sources, and to find and use safe, affordable alternative substances and processes;
- ensure that health and safety are not compromised in the elimination of a POP, particularly in the areas of infectious disease control and food production; and
- list new POPs, once the treaty becomes operational, through a workable and transparent set of criteria and procedures based on environmental health protection.

*For further information concerning this Statement/Platform or the IPEN Network, including the participating organizations that have endorsed this document, contact Karen Perry, Physicians for Social Responsibility/IPEN Secretariat (tel: +1.202.898.0150 (x249); fax: +1.202.898.0172; email: <kperry@psr.org>, or see the IPEN website at <http://www.psr.org/ipen.htm>.*

### I. BACKGROUND STATEMENT ON PERSISTENT ORGANIC POLLUTANTS (POPs):

#### A. What are POPs?

1. Persistent organic pollutants (POPs) are carbon-based chemical compounds and mixtures that include industrial chemicals like PCBs, pesticides like DDT and unwanted wastes like dioxins. POPs are primarily products and by-products of human industry that are of relatively recent origin.

2. POPs released to the environment can travel through air and water to regions far distant from their original sources. POPs can concentrate in living organisms, including humans, to levels with the potential to injure human health and/or the environment even in regions far from where they are used or released. As a general rule, POPs have a number of common properties:

- a) POPs are persistent in the environment — they resist

degradation through physical, chemical, or biological processes;

b) POPs generally are semi-volatile — they evaporate relatively slowly. Persistent substances with this property tend to enter the air, travel long distances on air currents, and then return to earth. The colder the climate, the less POPs tend to evaporate, resulting in their accumulation in regions such as the Arctic, thousands of kilometers away from their original sources;

c) POPs generally have low water solubility (they do not dissolve readily in water) and high lipid (fat) solubility (they do dissolve easily in fats and oils). Persistent substances with these properties bioaccumulate in fatty tissues of living organisms. In the environment, concen-

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trations of these substances can increase by factors of many thousands or millions as they move up the food chain; and

d) POPs have the potential to injure humans and other organisms even at the very low concentrations at which they are now found in the environment, wildlife and humans. Some POPs in extraordinarily small amounts can disrupt normal biological functions, including the activity of natural hormones and other chemical messengers, triggering a cascade of potentially harmful effects.

## **B. Injury from POPs**

3. Some populations of humans and some wildlife species in polar and temperate regions are known to suffer significant injury from certain POPs. There are fewer studies that document health injury in tropical regions caused by POPs in the environment. It stands to reason, however, that if POPs can injure human health and ecosystems thousands of kilometers from their sources, POPs can cause similar and even greater injury in and near source areas. Absence of well-documented evidence does not mean absence of harm.

4. For several participants in this International POPs Elimination Network, interest and concern regarding POPs dates from the late 1960s, when scientists and researchers began compiling evidence of injury to fish, birds and mammals in or around the Great Lakes of North America. In some of these cases, the predominant POPs sources were relatively nearby; in others, they were thousands of kilometers distant. Documented injuries were especially prevalent in high predator species and included: (a) reproductive failure and population decline; (b) abnormally functioning thyroids and other hormone system dysfunctions; (c) feminization of males and masculinization of females; (d) compromised immune systems; (e) behavioral abnormalities; (f) tumors and cancers; and (g) gross birth defects.

5. Alarmed by these findings, scientists investigated similar injury to humans, who, after all, can also be considered high predators. In the years that followed, good evidence was gathered associating human exposure to specific POPs or classes of POPs with: (a) cancers and tumors at multiple sites; (b) neurobehavioral impairment including learning disorders, reduced performance on standard tests and changes in temperament; (c) immune system changes; (d) reproductive deficits and sex-linked disorders; (e) a shortened period of lactation in nursing mothers; and (f) diseases such as endometriosis (a painful, chronic gynecological disorder in which uterine tissues grow outside the uterus), increased incidence of diabetes, and others. Of particular concern is evidence suggesting that women, infants, and children are especially vulnerable to certain effects of POPs.

6. In people as in wildlife, injury caused by exposure to POPs is often expressed, not in the exposed adult population, but in the offspring generation. Maternal body burdens of POPs are

transferred through the placenta to the developing fetus and through breast milk to the nursing infant, and can cause injury at vulnerable stages of development that may not be expressed until the infant reaches puberty or adulthood.

7. In the early decades of this century, POPs were virtually non-existent in the environment. Production and generation of POPs expanded dramatically following World War II. Today, ordinary food supplies, especially fish, meat and dairy products, as well as ecosystems in most regions of the world, tend to be contaminated by POPs. Everywhere in the world, some wildlife carry body burdens of POPs at levels near or above those known to cause harm to ecosystems. Already many people also have levels of POPs in their bodies that could result in adverse health impacts.

8. People are generally exposed to POPs through their food supply, although workers and residents of communities near POPs sources can also be exposed through inhalation and dermal contact. POPs exposures are often highly pronounced in peoples whose diets include large amounts of wild food and especially big fish, marine mammals and other aquatic resources. Some of the best-documented, highly exposed populations are aboriginal peoples living in polar regions far distant from most POPs sources, such as the Inuit who live in the circumpolar region. But ordinary domesticated meat and milk products can also be significantly contaminated by POPs in tropical and temperate areas. The same POPs that travel long distances on air currents, can also travel shorter distances, contaminating pastures where livestock graze.

## **C. Taking action on POPs**

9. Because a human generation time is quite long — on the order of 20 to 30 years — evidence of human injury from POPs has been slow to emerge. Now, with the body of evidence documenting human injury from POPs building rapidly, a growing movement of concerned individuals, organizations, and governments are demanding action to eliminate POPs and their sources.

10. Responsible people in many governments are now devising plans and strategies to address the POPs problem in their own countries. In many countries, a number of POPs have already been banned or severely restricted, resulting in reductions of certain POPs in the environment on a local or regional level. Because of the trans-boundary nature of POPs, however, addressing POPs effectively will require international cooperation on a global scale.

11. Fortunately, intergovernmental institutions such as the United Nations Environment Programme (UNEP), the World Health Organization (WHO), the Intergovernmental Forum on Chemical Safety (IFCS) and others have been given a mandate by the world's governments to develop a global POPs action plan. The decision to start global intergovernmental negotiations, on a legally binding POPs instrument was taken by the

Governing Council of UNEP in February, 1997, and endorsed by the World Health Assembly in May 1997. In late June, 1998, an Intergovernmental Negotiating Committee (INC) met in Montreal, Canada, and began to negotiate a global, legally binding convention to address this important problem.

12. Negotiators are asked to mandate action on a short list of twelve POPs, sometimes called the "dirty dozen." They are: dioxins, furans, polychlorinated biphenyls (PCBs), DDT, chlordane, heptachlor, hexachlorobenzene (HCB), toxaphene, aldrin, dieldrin, endrin, and mirex. In addition, intergovernmental negotiators are also asked to develop criteria and a procedure for identifying additional POPs as candidates for future binding global action:

13. The UNEP decision to convene a POPs INC includes the following statements (among others) in a broad framework document that has already been agreed by governments:

- a) "For the listed POP pesticides, measures should be taken to rapidly phase out remaining production and subsequent remaining use as alternatives are made available for the small number of remaining recognized uses."
- b) "For the listed POP industrial chemicals there is need to phase out, over time, PCBs and HCB on a global scale and, in the transition to complete elimination of use, there is need for managing remaining use, storage and disposal."

## II. POPS ELIMINATION PLATFORM

The undersigned organizations are in agreement that:

15. The appropriate goal for a POPs convention is the establishment of a systematic and sustained Programme of Action in which all countries participate to eliminate POPs and their significant sources. This is the only course of action that can, over time, eliminate the injury that POPs cause.

16. The goal of a global POPs convention must not be defined as the "better management of risks associated with POPs." POPs do not only represent a "risk," but also a current source of significant injury to the biosphere — to humans, to wildlife and to entire ecosystems around the world. Nor is the better management of POPs and POPs releases an appropriate goal for a global POPs convention, as POPs by their very nature are unmanageable substances. We recognize, however, that the elimination of all significant POPs sources, and the remediation of POPs environmental reservoirs will, in many cases, be difficult and take time. We also recognize that POPs will remain in the environment and in the food chain for an extended period, even after global POPs elimination measures have been effectively implemented. For this reason, POPs management regimes will often be required and appropriate, on an interim basis, as the longer term phase-out regimes are put in place and take effect. POPs management, however, should be viewed as a supplement to POPs elimination and not as an alternative.

c) "For POPs that are generated as unwanted by-products [e.g., dioxins and furans], currently available measures that can achieve a realistic and meaningful level of release reduction and/or source elimination should be pursued expeditiously, and this should be done by actions that are feasible and practical and additional measures should be explored and implemented."

d) "Realistic action should be taken to destroy obsolete stocks of the listed POPs and remediate environmental reservoirs."

e) "[S]ocio-economic factors should be addressed in developing and implementing international action [on POPs] including the following: possible impacts on food production; ...possible impacts on human health (e.g., for vector control agents); ...need for capacity-building in countries and regions; ...financing concerns and opportunities; and possible trade impacts...."

14. Governments, meeting at the 1997 UNEP Governing Council, called for negotiations on POPs to finish by the year 2000. Then, following completion of negotiations, there will be time delay before the POPs convention is ratified and enters into force. For this reason, governments, intergovernmental organizations and others have been asked to begin action on POPs now, even before legally binding mandates go into effect.

17. The world's governments, through the UNEP-authorized Intergovernmental Negotiating Committee (INC), must establish a legally binding global Programme of Action designed to eliminate POPs and their anthropogenic (of human origin) sources based on the following principles:

- a) The POPs Programme of Action must entail a problem solving, solutions-oriented regime, which recognizes that many countries lack the capacity to eliminate POPs and their anthropogenic sources without significant external assistance. Assistance will often be required to help countries identify and make available cost-effective alternatives to POPs and their sources, emphasizing non-toxic and non-chemical alternatives wherever possible. A meaningful POPs elimination agreement must include significant commitments for shared responsibility including external assistance as well as technical and other aid in capacity enhancement. This regime should include mobilization of funds and expertise from relevant United Nations and other public agencies and multi-agency initiatives, the private sector, NGOs, and civil society groups to actively encourage the establishment of safe, environmentally sustainable, cost-effective and efficient means to achieve desired outcomes;

b) No country or region must be asked or required to take action under a POPs agreement that is substantively harmful to the health or to the well-being of its people or environment. Special efforts must be made to ensure that health and safety are not compromised while a POP is being phased out and eliminated (particularly in the area of infectious disease control, necessary food production and other significant social or health-related matters). These should include the transfer of scientific, technological, and financial resources to help ensure a safe transition away from POPs. Moreover, a proposed alternative to a POP — even if that alternative is not a POP — should not be considered appropriate if it poses an unacceptable local or regional health or environmental threat because of toxicity or other properties;

c) Once a substance is listed as a POP, it is inappropriate to accept its continued generation and release into the environment. We reject the claim that emissions and releases of POPs can be effectively managed and controlled. When a substance is listed as a POP, the plan of action set out by the agreement should set out a time-table to stop all its uses and all its emissions. The elimination of a POP should not be gauged by its measured presence in the environment. A POP has no acceptable emission limit, no acceptable daily intake, and no acceptable level in the environment;

d) For POPs identified as UNEP action targets — the twelve already identified as well as others that may be added at a later date — the legally binding instrument should mandate a rapid, but orderly and responsible global Programme of Action that will: (i) for those POPs intentionally produced, phase out and then ban all intentional production and intentional use and also end all import, export, transfer and sales; (ii) for those POPs that are generated as unwanted contaminants, by-products and combustion products, identify and phase-out significant anthropogenic sources. In identifying sources, consideration should be given to industrial processes, waste disposal technologies, and anthropogenic products and materials routinely associated with the generation of POPs during their ordinary life-cycle; and (iii) for obsolete POPs stocks and environmental POPs reservoirs, identify, collect and destroy the POPs by means that do not, themselves, cause hazards, generate POPs or otherwise threaten or injure health and/or the environment;

e) A workable and transparent procedure should be established for identifying new POPs beyond the original twelve as elimination targets under the global Programme of Action; criteria for identifying additional POPs should be based on environmental and health protection considerations only;

f) POPs elimination should proceed through a transition regime that is rapid, orderly and just. Unnecessary delay should not be tolerated. Phase-out transitions should

proceed through a planned and orderly regime that is designed to keep economic and social costs to a minimum and to avoid disruptions and dislocations. In some cases, there will be need for transition assistance and/or other aid to specific groups of workers or communities who currently depend for their livelihood on production or use of POPs, on technologies that generate POPs or on materials that routinely generate POPs during their ordinary life cycle. When there are economic benefits as well as economic costs associated with a POPs phase-out regime, these should be equitably distributed among affected groups. In particular, the costs of clean-up and phase-out of POPs should be shared by groups responsible for their production with special attention to the private sector. Monitoring and oversight of elimination activities and financing should be conducted by independent bodies accountable to the public;

g) In addressing the special considerations addressed in points a) and b), above, and in order to assist governments, the private sector, NGOs, scientists and other interested parties in all countries in expediting effective POPs-related action, it is essential that a special "clearing-house" mechanism focused on POPs be established in tandem with the global, legally binding instrument, providing interested parties with direct access to relevant sources of information, practical experience and scientific and technical expertise and to facilitate effective scientific, technical and financial cooperation as well as capacity-building;

h) As part of the global effort to identify and eliminate POPs, aggressive programs of toxicity testing should be undertaken directed to the many chemicals whose toxic effects remain unknown, evaluating these chemicals both individually and in combination, and addressing the broad range of relevant health outcomes, including carcinogenicity and mutagenicity, endocrine activity, and developmental, immune, neurological, and reproductive toxicity. Where there remains uncertainty about the effects of a POP, action should be taken consistent with the precautionary principle, which relies on the weight of evidence approach, with special consideration given to the risks to fetuses, children, and other vulnerable populations; and

i) Complementing the need for transparent processes, including meaningful public participation, throughout the negotiation of a global, legally binding POPs instrument, the resulting regime (as well as related national, international and private sector activities) must likewise be as transparent as possible, including measures to ensure effective public/NGO participation in decision-making and the identification and development of safe and sustainable alternatives, and timely access to relevant governmental and private sector data on sources, levels, uses and whereabouts of POPs, as well as data held by those sectors regarding hazards and alternatives.