Historic Stockholm treaty and NAFTA experience show way toward healthier world

Canada, Mexico and the United States will be among more than 100 nations to sign a historic environmental treaty today in Stockholm that will phase out use of a dozen of the most dangerous toxic chemicals on the planet.

This historic agreement will deliver a healthier world for people and wildlife, from the arctic regions of Alaska and the Canadian north, to the tropical climes of Mexico—and around the world.

The Stockholm POPs (persistent organic pollutants) treaty sets out measures that will control the production, trade, use and disposal of eight pesticides, two industrial chemicals and two unwanted industrial byproducts. Governments agree to apply best available technologies and practices to replace existing POPs in use. Most of the "dirty dozen" are subject to an immediate ban on use.

The importance of the treaty is obvious when we examine the nature of the chemicals being targeted. Each chemical is:

- Toxic. POPs can cause death, disease and birth defects in people and animals. Effects can include allergies and hypersensitivity, reproductive disorders, damage to the nervous system, and cancer.
- Persistent. These chemicals can remain intact in the environment and retain their toxicity for decades before breaking down into other substances.
- Mobile. Once loose in the environment, POPs travel to distant regions through a process known as the "grasshopper effect." When one of these chemicals is released into the environment, it can move from one place to another through repeated cycles of evaporation, transportation via the prevailing air currents, and re-deposition. This is how DDT released in areas outside the Arctic can find their way to the body fat of aboriginal peoples living in polar regions. This is also why POPs are found in every region of the world.
- Bio-accumulative. POPs concentrate in the fat of living organisms. As one organism feeds on smaller contaminated organisms and is in turn consumed, the contamination load is magnified. People, who are at the top of the food chain, are vulnerable to the toxic effects of accumulated POPs.

This array of nasty characteristics, and the hopes inspired by the successful negotiation of today's treaty, has already inspired positive actions by public interest groups, industry, governments and international organizations.

I am particularly proud of the early action taken by Canada, Mexico and the United States—working together through the North American Commission for Environmental Cooperation (NACEC)—to eliminate DDT, one of the most notorious of the 12 Stockholm POPs.

DDT is a potent nerve poison used to kill the mosquitoes, black flies and other insects that carry malaria, typhus and yellow fever. Farmers used DDT to kill crop-damaging insects. The heyday of DDT use was the 1950s and 1960s. Then Rachel Carson published *Silent Spring* in 1962, and revealed that DDT was responsible for the deaths of thousands of songbirds. Responding to the alarm, scientists investigated and soon linked DDT to reproductive abnormalities, eggshells so thin the embryos rarely survived, and the decline of bird populations.

In 1995, the NAFTA partners, using their environmental agency, NACEC, took steps to rid North America of DDT. It had already been banned from use in Canada and the United States but was still employed in Mexico to fight malaria. The resulting action plan called for alternative anti-malaria actions in Mexico, an 80-percent reduction in use by 2000, and a total ban by 2002.

Community participation in non-chemical mosquito control measures, use of predatory bacteria and insects, and improved malaria diagnosis and treatment were the prescribed alternative to DDT. The approach was so successful, that the Mexican government moved up the total ban to 2000 and the one Mexican DDT manufacturer ceased production in 1997.

This DDT action plan has not only put North America well on its way to being a DDT-free zone, it has given us a leg-up in complying with the Stockholm POPs treaty. It also gives us a proven program model to share with other countries seeking to improve their environments. For example, through a project funded by NACEC and the United Nations, the expertise Mexico has gained replacing DDT is being shared with Central American countries.

Mexico's successful early completion of its DDT phase-out also bodes well for Stockholm signatories among the developing countries in Africa that will be seeking alternatives to DDT in their fight against malaria.

The Stockholm POPs treaty being signed today signals that we have found a promising approach for taking collective, planet-wide action to find alternatives to using dangerous chemicals and stopping their production and use. It signals that we are moving forward to protect our future in a way that is both practical and decisive.

Janine Ferretti is the Executive Director of the North American Commission for Environmental Cooperation, established by Canada, Mexico and the United States to address environmental issues of common concern among the three NAFTA partners.