

*Movement Solutions – Building New Coalitions*

**CIVIL SOCIETY ACTIONS FOR A  
TOXICS-FREE FUTURE**

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**ABSTRACT**

Participation of civil society in efforts to protect public health and the environment from chemical exposure is often undertaken in the context of major multilateral environmental agreements, especially in developing and transition countries. However, often there is confusion about what these agreements mean in practice and how civil society actually effectively contributes to their implementation. This paper will explore how public interest nongovernmental organizations (NGOs) and civil society organizations in developing and transition countries have shaped and used multilateral environmental agreements to advance chemical safety issues nationally and how, in turn, these multilateral agreements have shaped NGO agendas. The emphasis is on how public interest NGOs and civil society organizations have utilized key elements of chemicals agreements in their chemical safety activities on the ground. Obstacles faced by NGOs, tools and methods used, and case studies of successful activities are discussed.

**Keywords:** chemicals, environment, NGOs, treaties

A variety of developments have stimulated actions to address chemical safety issues, and NGOs have played an important role in addressing how these challenges have been tackled. Increasing awareness and public concern over

harms to human health and the environment from toxic chemicals helped trigger the formation of active public interest NGOs and civil society groups. Governmental responses to these issues resulted in key global chemicals agreements which play a major role in policy formation in developing and transition countries.<sup>1</sup> Currently, NGOs in developing and transition countries find themselves in the middle of a rapid shift to increasing production and use of chemicals.

Unfortunately, developing and transition country governments often do not have the infrastructure and capacity to manage chemicals effectively. In response, NGOs combine their own vision for a toxics-free future with the objectives of chemicals agreements to tackle chemical safety problems directly and push for a safer future. In addition, NGOs often contribute expertise, data, and knowledge to chemical safety policy discussions that would not otherwise be presented. As a result, NGOs can often become effective resources and contribute to national policy design. In this regard, NGOs stand in contrast to other participants in these processes who necessarily must represent the sectoral interests of individual governments, regions, and/or industry groups. This paper will provide background on global chemicals agreements and shifts in chemicals production and explore how NGOs have faced chemical safety challenges by putting various international policies into practice at the national level.

### **THE SHIFT IN CHEMICALS PRODUCTION AND USE TO DEVELOPING AND TRANSITION COUNTRIES**

The chemical industry plays a significant role in the global economy with sales in 2007 of more than three trillion U.S. dollars [1]. While most chemicals production occurs in developed countries, a steadily increasing share of world production has shifted to developing and transition countries [2]. In fact, by 2020 developing countries are expected to lead in high-volume chemicals production [3]. The United Nations Environment Programme (UNEP) notes rapidly rising import and use of chemicals in developing countries and estimates that by 2020, they could account for one-third of global consumption [4]. Almost all developing countries are increasing their use of pesticides and industrial chemicals, including substances contained in consumer and commercial products such as plastics, paints, adhesives, dyes, metals, and so forth. As a result, synthetic chemicals and other potentially toxic materials represent a large and growing fraction of developing countries' consumer, commercial, and industrial waste streams. This rapid growth of production and consumption of chemicals in developing countries occurs against a backdrop of insufficient infrastructure to

<sup>1</sup> In United Nations terminology, "transition countries" refers to developing countries and countries with economies in transition.

adequately protect public health and the environment. The increasing recognition that exposures to toxic chemicals have become a significant source of injury to human health and the environment triggered a series of important global agreements on chemicals.

### GLOBAL CHEMICALS AGREEMENTS

There have been several key global chemicals agreements that address health, environment, and development. In 1992, heads of state met in Rio de Janeiro, Brazil, for the United Nations Conference on Environment and Development, and committed to comprehensive chemical safety objectives in Chapter 19 of Agenda 21. In the next two decades, the three primary chemicals conventions were negotiated and adopted: the Basel, Rotterdam, and Stockholm Conventions [5–7]. All three treaties have wide applications, but each also has special considerations for the needs of developing countries and countries with economies in transition. The Basel Convention seeks to protect developing countries from becoming destinations for waste dumping. The Rotterdam Convention grants developing countries the right to consent to or reject the importation of certain hazardous chemicals. The Stockholm Convention seeks to protect human health and the environment by reducing and eliminating persistent organic pollutants (POPs), a special class of substances that are persistent, toxic, bioaccumulative, and travel long distances. In many regions, countries need to deal with POPs legacy problems from chemicals production or receipt of donated chemicals which later became obsolete stockpiles and contaminated sites, threatening communities and natural resources. Developing countries are eligible for a financial mechanism that seeks to provide resources for planning and implementing the treaty.

In 2002, heads of state at the World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa, called for development of a global strategic plan to ensure that by 2020, chemicals are used and produced in ways that minimize significant adverse effects on human health and the environment.

More recently, ministers and representatives of the private sector and civil society adopted the Strategic Approach to International Chemicals Management (SAICM) in Dubai in 2006 in a meeting convened by the United Nations Environment Programme. The first paragraph of the agreement clearly identifies chemical safety as a necessary component of the international development agenda: “The sound management of chemicals is essential if we are to achieve sustainable development, including the eradication of poverty and disease, the improvement of human health and the environment and the elevation and maintenance of the standard of living in countries at all levels of development” [8].

These key chemicals agreements established common priorities for action and enhanced opportunities for cooperation among governments and NGOs. They have also helped catalyze awareness of problems and raised expectations

about resolving them. However, the global chemicals agreements often play different roles in developed and developing countries. Developed countries have the resources and infrastructure to establish comprehensive regulatory policies on chemicals, and the drivers for doing so are often internal to the country. In contrast, global policies on chemicals are much more significant to establishing national policies and authorities in developing and transition countries that lack adequate infrastructure and resources. For example, the Stockholm Convention financial mechanism provided \$500,000 (U.S.) to developing countries to develop plans for national implementation of the treaty. Prior to this, there were very limited funds available to outline priority actions on POPs. In this way, global chemicals agreements have become important drivers for action on chemical safety in developing and transition countries on the part of both governments and civil society.

### **CIVIL SOCIETY CATALYZES A VISION FOR CHEMICAL SAFETY IN DEVELOPING AND TRANSITION COUNTRIES**

Chemical safety became an important issue in many developing and transition countries as a result of the negotiation and adoption of the three chemicals conventions, along with other chemical safety initiatives. Civil society and public interest NGOs working on chemical safety issues emerged in the 1970s with groups such as the Pesticide Action Network [9]. However, the number of groups dramatically increased in the 1990s and later as the issues became more prominent. Global NGO networks formed during this period include the Basel Action Network (BAN) [10], the Global Alliance for Incinerator Alternatives (GAIA) [11], Health Care Without Harm (HCWH) [12], and IPEN [13]. This paper will focus on the activities of the IPEN network.

#### **Establishing a Vision for the Elimination of Persistent Organic Pollutants (POPs)**

The negotiation of the Stockholm Convention triggered the formation of IPEN in 1998 before the first negotiating meeting in Montreal, Canada. Over 100 NGO representatives adopted a POPs Elimination Platform that listed important characteristics of an effective treaty [14]. The Platform included a key idea for regulatory policy on POPs: “The goal of a global POPs convention must not be defined as the ‘better management of risks associated with POPs’ . . . as POPs by their very nature are unmanageable substances.” This idea came to be expressed in the Convention’s goal of POPs elimination, which was finalized in 2001. The POPs Elimination Platform guided the participation of the international NGO network at all negotiating meetings and helped shape the Stockholm Convention’s final provisions.

From 2004 through 2006, IPEN executed a global project on Stockholm Convention implementation called the International POPs Elimination Project (IPEP). This was a medium-sized Global Environment Facility (GEF) Project entitled “Fostering Active and Effective Civil Society Participation in Preparations for Implementation of the Stockholm Convention.”<sup>2</sup> IPEP helped more than 350 NGOs in 65 developing and transition countries in their efforts to prepare for Convention implementation. Examples of the project are described below.

### **A Declaration for a Toxics-Free Future**

In 2006, more than 400 public interest NGOs and civil society organizations from 70 countries adopted the IPEN Declaration for a Toxics-Free Future [15]. This declaration declared the objective of achieving a “. . . Toxics-Free Future, in which all chemicals are produced and used in ways that eliminate significant adverse effects on human health and the environment, and where persistent organic pollutants (POPs) and chemicals of equivalent concern no longer pollute our local and global environments, and no longer contaminate our communities, our food, our bodies, or the bodies of our children and future generations.” This IPEN Declaration touches upon key elements of civil society’s vision for chemical regulatory policy including precaution; phase-out and prohibition; substitution; waste management; children’s health; public participation; right-to-know; no data, no market; polluter pays; ecological agriculture; and the life cycle approach. These policies, along with awareness of SAICM itself, became the centerpiece of a subsequent outreach campaign to more than 1,000 organizations in over 100 countries [16].

## **POLICY INTO PRACTICE**

Civil society actions on chemical safety cover all major areas of key chemicals agreements. These areas include development and implementation of national policies, waste minimization and elimination, obsolete stockpiles of chemicals, contaminated sites, compliance, public awareness-raising, chemicals in products, and right-to-know through pollutant release and transfer registries (PRTR).

### **Development and Implementation of the Stockholm Convention at the National Level**

Implementation of the Stockholm Convention on Persistent Organic Pollutants takes place through National Implementation Plans (NIPs). Article 7 of the

<sup>2</sup>The GEF is an independent financial organization that provides grants to developing countries and countries with economies in transition for projects related to biodiversity, climate change, international waters, land degradation, the ozone layer, and POPs.

Convention states that Parties shall, where appropriate, “. . . consult their national stakeholders, including women’s groups and groups involved in the health of children, in order to facilitate the development, implementation and updating of their implementation plans” [7].

Public interest NGOs have been especially keen to participate meaningfully in NIP development and implementation as a realization of the treaty and Rio Principle 10, which points out the importance of civil society participation in decision-making processes: “Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided” [17]. Unfortunately, not all governments recognize the importance of civil society participation in NIP preparations. In these cases, NGOs have tried to provide useful inputs into the process and/or serve as a watchdog mechanism on the effectiveness of treaty implementation. In some countries, NGOs have had very important roles in preparation of the NIPs. For example, in Chile the NGO RAP-Chile participated directly in the NIP Coordination Committee, in four technical working groups that generated government policies on key aspects of treaty implementation: polychlorinated biphenyls (PCBs), contaminated sites, obsolete pesticides, and public awareness-raising. RAP-Chile included in its work a national rural indigenous women’s organization, Asociación Nacional de Mujeres Rurales e Indígenas (ANAMURI) and public interest NGOs (Alianza por una Mejor Calidad de Vida, Observatorio de Conflictos Ambientales, and Corporación de Investigación en Agricultura Alternativa). Altogether, in a three-year period when many NIPs were being prepared, 88 NGOs affiliated to IPEN participated in NIP preparation in some way in 53 countries.

### **Zero Waste**

Waste issues represent important parts of the Stockholm Convention and the SAICM agreement, which specifically refers to “zero waste resource management, waste prevention, substitution and toxics use reduction, to reduce the volume and toxicity of discarded materials” [8, p. 102]. Governments can also play a visible, demonstrable role in chemical safety practices through implementation of procurement and recycling policies that affect waste generation and handling. NGOs working in this area try to establish a cradle-to-cradle circular approach which seeks to eliminate waste, not manage it.

An example of NGO actions in this area is the Zero Waste Kovalam project by Thanal in the Indian state of Kerala. Thanal and others began the project to avoid the construction of a municipal waste incinerator. The project was implemented with a two-pronged work plan: 1) assessment of the capability of biogas plants for biodegradable materials (resource recovery) and 2) training of women's groups on alternatives to materials such as plastics (materials substitution). This was followed by the creation of a "Zero Waste Center" in 2003 and sub-projects including "poison-free farming," water conservation, and community capacity-building. The project created more than 150 jobs, effectively cancelled a possible POPs-generating incinerator, implemented materials substitution to prevent POPs formation, and created sustainable waste management and livelihoods. In February 2006, the Pacific Asia Travel Association awarded Zero Waste Kovalam its Environmental Award.

### **Obsolete Stockpiles**

Identification, safe storage, and remediation of obsolete pesticide and PCB stockpiles are important issues that countries must deal with to fulfill Stockholm Convention objectives expressed in NIPs. NGO efforts in this area have pioneered identification and characterization activities so that expert clean-up can take place.

Obsolete pesticide stockpiles are a severe problem in Africa and in countries in the region of Eastern Europe, the Caucasus, and Central Asia due to the large quantities of toxic chemicals and the dilapidated conditions of storage which lead to environmental and human exposure. Authorities estimate that more than 50,000 tons of pesticides were buried in both Africa and countries of the former Soviet Union [18]. NGO efforts in this area include identification of unauthorized storage sites in Armenia, Azerbaijan, Kyrgyzstan, Moldova, Russia, Ukraine, and Uzbekistan that were not previously part of government inventories [19]. NGOs have also performed detailed sampling and analyses of sites to trigger safe storage and clean-up. For example, in Tanzania, the NGO AGENDA performed sampling studies of water and sediments in a community surrounding an obsolete DDT storage site to provide specific data for remediation activities [20]. This study helped attract international attention and resources to begin the clean-up process.

In the examples above, NGOs generated data about POPs contamination and highlighted Convention obligations to attract governmental, public, media, and international attention to the problem. This is a vital component to realizing the Convention, as obsolete stockpiles are often forgotten liabilities.

### **Contaminated Sites**

Contaminated sites and patterns of practice leading to pollution represent important areas of concern for public interest NGOs and key chemicals

agreements including Article 6 of the Stockholm Convention and items 47, 48 and 243 of the SAICM Global Plan of Action. Key NGO priorities include identification, characterization, and remediation of sites.

Some NGOs have carried out very detailed work on contaminated sites. For example, the Sustainable Development Policy Institute (SDPI), an NGO in Pakistan, became concerned about a dilapidated former DDT factory located in Northwest Frontier Province near the Kabul River, a drinking water source for more than 800,000 people. Together with researchers from Peshawar University, SDPI performed a monitoring study of soil, sediments, water, and bags of powder around the Nowshera factory; results showed widespread contamination in the factory area [21]. After discussing the matter with local authorities, hospitals, and educational institutions, SDPI successfully proposed that clean-up of the site be added to Pakistan's activities under Stockholm Convention implementation.

### **Compliance**

The wide geographical dispersion of NGOs, and their closeness to communities, can often permit them to perform detailed investigations of compliance with government laws regulating chemicals. For example, in Indonesia, NGO Gita Pertiwi determined the circulation of 37 pesticides (including POPs pesticides) that are prohibited by the Indonesian government. The surveys involved field visits and discussions with farmers, as well as interviews with the pesticide committee in the farming department. Research was conducted on three islands: Java, Sumatra, and Kalimantan. The team found pesticides that were only for designated use being freely sold; unclear labeling; pesticides with expired circulation permits; use of unlicensed pesticides; a lack of worker training regarding health impacts or dangers; a lack of protective equipment for sprayers; and random dumping of used pesticide containers. The results of the research were produced as a national report about the current circulation of information regarding the prohibited pesticides [22].

### **Raising of Public Awareness**

Chemical safety and POPs issues are typically not public or policy priorities. However, the Stockholm Convention recognizes the important role of civil society in public information, awareness, and education. Article 10 of the Convention states that each Party shall, within its capabilities, promote and facilitate, "Public participation in addressing persistent organic pollutants and their health and environmental effects and in developing adequate responses, including opportunities for providing input at the national level regarding implementation of this Convention" [7]. NGOs can provide relevant, easy-to-understand materials for a variety of public stakeholders including the media, farmers, women, students, health care practitioners, incinerator operators, municipal workers, community-based organizations, agricultural workers, academics, government

officials, and others. For work on the Stockholm Convention this means explaining what POPs are, what objectives and provisions are included in the Stockholm Convention, and possible solutions to POPs in the country. An important part of NGO awareness-raising activities has been to produce materials in both UN and local languages. For example, in Paraguay, materials were produced in Guaraní, an indigenous language, as well as Spanish. In India, reports and activities were conducted in Bengali, Hindi, Telugu, Malayalam, and Punjabi. This has helped dissemination and increased stakeholder participation. In one global IPEN project, NGOs in 52 countries produced 150 public-awareness-raising activities on the Stockholm Convention [23].

### **Chemicals in Products: Lead in Paint**

There is increasing concern about chemicals in consumer products that can result in exposure during use and then later when the products become wastes. A classic example is lead in paint, which many believed was a problem of the past. In 2008, the Indian NGO Toxics Link tested paints in India and found high levels of lead in enamel paints. In a follow-up, Toxics Link partnered with IPEN to conduct a study in ten countries that examined lead in paints from Belarus, Brazil, Mexico, Nigeria, Philippines, Senegal, South Africa, Sri Lanka, Tanzania, and Thailand [24]. To everyone's surprise, the study found that nearly 70 percent of the enamel paint samples had lead concentrations exceeding the U.S. standard of 90 ppm, and half of them had concentrations greater than 1,500 ppm. Toxics Link and IPEN acted on these findings by successfully proposing action on the matter at Forum VI of the Intergovernmental Forum on Chemical Safety, a forum focused on assessment and management of chemicals that grew out of the Rio Earth Summit. The body approved the Dakar Resolution for Elimination of Lead in Paints in 2008, which proposed that a global partnership be established to eliminate lead in paint [25]. Several months later, Toxics Link and IPEN successfully proposed that lead in paint be one of four emerging policy issues taken up at the Second International Conference on Chemicals Management (ICCM2) in the SAICM process. The global community agreed with the NGO proposal and decided to establish a global alliance to eliminate lead in paint, jointly led by the United Nations Environment Programme and the World Health Organization and with the active participation of NGOs, governments, and the private sector [26, 27].

### **Right-to-Know through Pollutant Release and Transfer Registers**

Pollutant release and transfer registers (PRTR) have become an essential information tool for driving toxics use reduction by making emissions information from industrial facilities public. The SAICM Global Plan of Action lists eight concrete actions on PRTR development and use relevant to implementation

[8, pp. 69–70, 83–84], and the Kiev PRTR protocol of the Aarhus Convention explicitly mentions consultation with “. . . national stakeholders, including women’s groups and groups involved in the health of children, in order to facilitate the development, implementation and updating of their implementation plans” [28]. One example of an NGO that has completed activities in this area is Arnika in the Czech Republic. Arnika participated extensively in the design and implementation of PRTR in the country beginning in the 1990s, long before the country became an EU Member State. To help instigate the process, Arnika worked to generate more than 10,000 signatures on a petition that called for PRTR and included local authorities and scientists as signatories. The chemical industry opposed the process initially but finally conceded that the PRTR could cover 50 substances. Currently, the PRTR has 93 substances, including POPs, metals (including mercury), solvents, ozone-depleting substances, chemicals harmful to aquatic organisms, greenhouse gases, gases that cause acid rain, some pesticides (including atrazine, for example) and some inorganic substances (including asbestos). Formaldehyde and styrene are both part of the Czech PRTR, though this is not required by the European Union. Arnika has also published a “worst polluters” list each year using PRTR data [29]. The PRTR and subsequent publicity are credited with helping to make significant improvements in reducing emissions.

## CONCLUSIONS

NGOs and NGO networks have played positive and critical roles in the processes where chemical safety policies are debated and established. NGOs often contribute expertise, data, and knowledge to the discussion that would not otherwise be presented. In addition, NGOs can often win trust and credibility as independent voices whose well-considered proposals and interventions are motivated by idealism and principle, and by genuine concern for the broad public interest. Furthermore, NGOs can be allies of a local or national authority that may wish to attract more attention to a particular chemical safety threat that is not considered a priority for action by decision makers. As a result, NGOs can often become effective resources and contribute to national policy design. In this regard, NGOs stand in contrast to other participants in these processes who necessarily must represent the sectoral interests of individual governments, regions, and/or industry groups.

Principal global agreements and many governments and intergovernmental institutions now at least formally acknowledge that public interest NGOs and other civil society organizations have an important participatory role to play in developing and implementing chemical safety policies and programs—in both national and in international policy-setting processes. In a number of cases where NGOs have been actively engaged, the outcomes of the policy process have

been much more successful, far-reaching, and visionary than would probably otherwise have been possible.

Despite the wide range of activities, meaningful NGO participation remains as much an exception as it is the rule. In some cases, international and national policy-setting processes welcome participation by industry lobbyists but block opportunities for meaningful participation on the part of independent public interest representatives. In other cases, however, the limiting factor is the incapacity of the NGO community, including lack of information about specific chemical issues, lack of experience in developing appropriate responses, and financial constraints.

Highly motivated NGOs are already working in support of chemical safety objectives in all parts of the world. In many cases, they work with little or no support. Since some governments reject support of NGO activities on chemicals, global cooperation is important for those who struggle at the local level. With only modest inputs of additional support, this movement has the potential to achieve substantial global reforms in policy and practice over the next decade. Success in this field, in turn, can provide good case examples demonstrating how to empower civil society toward achieving positive reform at the global level and also within specific countries.

NGOs are already contributing to achieving the 2020 SAICM goal in many ways, including campaigns directed at ending polluting practices, exposing the presence of toxic chemicals in consumer products, promoting ecological agriculture, monitoring humans and the environment for toxic substances, promoting waste minimization and elimination, and campaigning for regulations and programs to protect against chemical exposure in the work place. The goal of achieving a future where chemical exposure is no longer a source of harm to human health and the environment unites these varied efforts in a coherent whole which is shared by NGOs around the world.

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