



# A GLOBAL NETWORK FOR A TOXICS-FREE FUTURE

THREE YEAR REPORT, 2011-2013



June 2014



a toxics-free future



*IPEN's partner organization in India, Toxics Link, found that more than 80 percent of tested enamel (oil-based) decorative paints in ten developing countries had dangerously high lead contents and would not be permitted for sale in industrialized countries.*



Photo courtesy of Charles Stirling

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# EXECUTIVE SUMMARY

The chemical industry is growing rapidly worldwide, especially in developing and transition countries. Today, chemical companies are among the richest corporations in the world, with annual global sales of USD \$4.1 trillion in 2010, up from USD \$17 billion in 1970.

Almost all developing and transition countries are increasing their use of pesticides and industrial chemicals. As a result, toxic pollution is increasing and represents a rapidly growing percentage of the waste stream. Though a patchwork of national laws, voluntary programs, and international agreements address chemical use throughout the world, these systems are, by and large, insufficient given the industry's international reach and complex product mix.

Because many hazardous substances travel via air currents throughout the world and are now found in every person's body in the world, establishing strong global and national regulatory systems are critical for citizens across the globe – wherever they live.

## IPEN ACCOMPLISHMENTS

Established in 1998, IPEN is currently comprised of 700 participating organizations in 116 countries, primarily developing and transition countries. IPEN brings together leading environmental and public health groups around the world to engage in efforts to reduce and eliminate hazardous chemicals both internationally and within their own countries.

As an international leader on chemical safety, IPEN has won the respect of governments, nongovernmental organizations (NGOs), scientists, and health professionals around the world. Over the last three years, IPEN's work has resulted in numerous positive developments at both the international and national levels.

### ***More dangerous chemicals banned, controlled or listed for review***

- Global bans on the highly hazardous pesticide endosulfan, several flame retardants widely used in household and building products, a toxic pesticide used for lice treatment, and a widely-used water-proofing chemical adopted as international law.
- A strengthened, new global mercury treaty – the first legally-binding environmental agreement in nearly a decade.
- A new, international, scientific methodology for measuring dioxin releases that will make it possible for developing countries to accurately measure dioxin sources for the first time.
- Several new dangerous chemicals considered for international control, including highly hazardous pesticides, endocrine disruptors, lead in paint, nanomaterials, and chemicals and wastes associated with electronic products.
- Progress in the elimination of lead in paint worldwide.

### ***New resources for sound chemicals management in developing and transition countries***

- Increased local funding for on-the-ground chemical safety activities in developing and transitional countries, including over USD \$4 million mobilized directly for more than 100 projects in more than 50 countries over the past three years.

### ***Increased public awareness of chemical issues***

- More consumer products tested by IPEN in more countries than by any other entity in the world.
- Testing for lead in paint in 30 countries.
- Major national news coverage in 50 developing and transition countries on issues related to chemicals and toxic metals.

### ***Elevated profile for safe chemicals management among governments, and social and environmental movements***

- Hundreds of developing and transition country NGOs and governments engaged in chemicals issues for the first time.
- Multi-lingual information guides that educate, orient and prepare NGOs to be key actors in elevating the chemical safety agenda.
- New international alliances for chemical safety between NGOs and the health, trade union, women's, indigenous, grassroots and other public interest groups.

## THEORY OF CHANGE

IPEN's NGO network identifies important national issues where international policy can help protect people and the environment from toxic chemical exposure. It organizes activities that elevate and prioritize those issues within international policy arenas, and it mobilizes expert and financial resources to turn international policies into meaningful change on-the-ground.

Throughout, IPEN serves as an international voice for chemical safety, a place where a broad range of partners (activists, community members, scientists, health officials and others) unite to support safe chemical practices, and a source of new scientific data and information about toxic chemicals.

**Globalizing Local Priorities:** *Linking local constituencies to the global process*



**Localizing Global Policies:** *Leveraging global policies and resources for on-the-ground change*

## IPEN'S AREAS OF WORK

IPEN works in four primary areas:

**Reducing and Eliminating the World's Most Hazardous Chemicals.** IPEN played a critical role in shaping the first treaty to ban the world's most dangerous chemicals – the Stockholm Convention – and remains influential in the implementation of this treaty as well as the Rotterdam and Basel Conventions and the recently adopted Minamata Convention on Mercury. IPEN identifies and advocates for adding new chemicals for elimination; brings new science about harmful chemicals to treaty discussions; and builds the capacity of NGOs and governments to advocate for treaty provisions relevant to their national situations.

**Promoting Stronger International Chemicals Standards.** The lack of sufficient regulatory infrastructure and the rapid growth in chemicals production and consumption puts most developing and transition countries at a severe disadvantage when it comes to managing the proliferation of chemicals across and within their borders.

IPEN raises the profile of sound chemicals management as an economic development strategy around the world; wins increased funding for chemical safety projects at the country level; exposes dangerous chemicals in products; and raises the profile of toxics issues previously not on the agenda for

global attention, such as nanotechnology, endocrine disrupting chemicals, lead in paint, and toxic chemicals in the life cycle of electronic products.

**Halting the Spread of Toxic Metals.** Even small doses of toxic metals reduce mental and central nervous function, and can result in physical, muscular and neurological degenerative processes that mimic Alzheimer's disease, Parkinson's disease, muscular dystrophy and multiple sclerosis. IPEN's Mercury-Free Campaign played a key role in strengthening the new mercury treaty, adopted in 2013. IPEN's Global Lead Paint Elimination Campaign is working to eliminate the widespread production and use of lead paint in developing and transition countries.

**Building a Global Toxics-Free Movement.** IPEN serves as a global information source for a wide variety of audiences: NGOs, grassroots organizers, scientists, health officials, international officials, and governments, among others. Its international trainings and capacity-building work, publications, and media outreach have made it a "go to" source for emerging information on toxic chemicals and wastes.

For details about IPEN's activities, visit [www.ipen.org](http://www.ipen.org).



### Eliminating the World's Most Hazardous Chemicals

IPEN brings new, independent scientific information to international processes. It educates, orients and prepares NGOs and developing country officials to engage in treaty processes on an equal basis with developed nations and the chemical industry.

### IPEN Regions

IPEN operates in all six United Nations languages and is coordinated by eight Regional Hubs.

- Latin America
- Anglophone Africa
- Francophone Africa
- Middle East
- Central Europe
- Eastern Europe, Caucasus and Central Asia
- South Asia
- Southeast Asia



### Promoting International Safe Chemical Standards

IPEN helps country leaders participate directly in the development of international policies that can be replicated at the national level and helps create public awareness of the need for those policies.

### Halting the Spread of Toxic Metals

IPEN's Mercury-Free Campaign and Global Lead Paint Elimination Campaigns address the alarming human and environmental damage caused by dangerous toxic metals in the environment.

### Building a Global Toxics-Free Movement

IPEN is an international leader on toxic chemicals and a "go-to" source of information for NGOs, media, government officials, the public and public health officials around the world.

# 2011-2013 REPORT



*Every person in the world carries some body burden of POPs.*

# ELIMINATING THE WORLD'S MOST HAZARDOUS CHEMICALS

## Making International Treaties Work

Persistent organic pollutants (POPs) are a class of highly hazardous chemicals widely present in the environment in all regions of the world. These toxic chemicals are used in the manufacture of products and/or released into the environment from industrial processes. Every person carries some body burden of POPs, mainly in his or her fatty tissues, and all babies are born with these and other chemicals in their bodies.

The Stockholm Convention was adopted in 2001 with the consensus objective of protecting human health and the environment from POPs. The treaty acknowledges that precaution underlies the concerns of all ratifying governments and is embedded within the Convention. The Stockholm Convention initially banned 12 substances and instituted a scientific process for identifying other POPs for elimination. This evaluation process resulted in the addition of 11 new chemicals for global phase-out. More substances are under review.

IPEN brings new, independent scientific information to international and national processes long dominated by chemical industry lobbyists. IPEN also educates, orients, and prepares NGOs and developing country representatives to engage in treaty processes on an equal basis with developed nations and the USD \$4 trillion global chemical industry.

- **Global prohibition of endosulfan.** IPEN specifically targeted endosulfan for global elimination and achieved this goal in partnership with IPEN Participating Organizations and other leading organizations around the world.
- **Flame retardants banned.** IPEN targeted four flame retardants for elimination, which are now scheduled for global elimination.
- **Narrowed and prevented loopholes for continued release of POPs.** IPEN also worked with allies to successfully narrow specific loopholes in treaty provisions that would allow recycling of materials containing flame retardants and the export of wastes to developing and transition countries.
- **Made non-chemical alternatives a priority.** Many substitutes proposed by companies making POPs are also toxic. IPEN, along with other leading international organizations such as Pesticide Action Network, targeted and won priority for non-chemical, ecosystem-based approaches to pest control instead of using the toxic chemical endosulfan.



# PROMOTING INTERNATIONAL SAFE CHEMICAL STANDARDS

Insufficient regulatory infrastructure and rapid growth in chemicals production and consumption puts most developing and transition countries at a severe disadvantage when it comes to managing the proliferation of chemicals across and within their borders. The shift of chemicals production to these countries exacerbates an already severe problem.

Sustainable development depends on strong chemical standards and public awareness of chemical pollution and its harms. IPEN helps country leaders directly participate in the development of international policies that can be replicated at the national level and helps to create public awareness of the need for those policies.

- **New chemicals elevated for international attention.** IPEN has played a key role in the successful push to add dangerous chemicals and products to the international chemical safety agenda. These include highly hazardous pesticides, toxic chemicals in electronic products and wastes, endocrine disruptors, lead in paint, and nano-materials.

- **Increased consumer awareness through product testing.** IPEN has conducted more tests for toxic metals and chemicals in food and consumer products in more countries than any other NGO in the world. Tests in every region of the world, including Africa, the Americas, Asia, Europe, and Central and Eastern European countries, have captured major media attention and helped consumers understand the threats posed by toxic chemicals and the need for rigorous regulation and enforcement.
- **More governments and NGOs engaged in chemicals issues.** Prior to IPEN's establishment, few governments or NGOs in the developing world understood or were organized to address chemical safety issues. Over the last three years, IPEN has engaged over 1,000 NGOs through its eight regional hubs and international partners in work related to chemical safety.



*Chemicals production is shifting to developing and transition countries*

## The Strategic Approach to International Chemicals Management (SAICM)

SAICM is a global policy framework to promote chemical safety. It is the first global chemicals agreement to recognize that sound chemicals management is essential for sustainable development and poverty eradication. SAICM is a multi-stakeholder process that brings together government delegates, the chemical industry, and public interest organizations to address the safe management of chemicals and wastes worldwide. SAICM takes into account existing chemical and waste conventions and emerging chemicals issues as well as sustainable development issues.

IPEN is the leading global public interest non-governmental participant in the SAICM process. IPEN was influential in establishing SAICM's broad chemicals agenda and a strong role for NGOs in deliberations, which has set a precedent for NGO participation in UN agreements.

One of IPEN's key contributions has been to raise the profile for sound chemicals management within governments as a necessary component of national development strategies and to assist developing nations in the implementation of safe chemical practices that can help lead to sustainable development.

IPEN's International SAICM Implementation Project (ISIP) executed 100 activities in 50 developing and transition countries, including projects on electronic waste, toxic metals, pollution monitoring, waste management and banning highly hazardous pesticides (see Ethiopia Case Study). IPEN's Citizens Report, released in 2012, detailed more than 300 NGO projects in 64 countries that implemented specific SAICM policies. All of the project activities were implemented on-the-ground by IPEN Participating Organizations.

# HALTING THE SPREAD OF TOXIC METALS

A number of toxic metals pose serious dangers to human health and the environment and are highly toxic in small quantities. International policies are critical for managing these substances because they are often sourced in one region of the world, refined in a second, integrated into products in a third and disposed of still somewhere else.

The true cost of the continued use of toxic metals in developing countries is enormous. For example, a recent study conservatively estimated a total cumulative cost of childhood lead exposure to be USD\$977 billion per year for all low and middle income countries.

IPEN currently focuses on two highly toxic metals that are in widespread use in developing countries.

**Mercury.** Mercury is a well-known neurotoxin that damages the kidneys, heart, and other body systems. Concentrations of mercury in the global environment have increased approximately three-fold as a result of human activities.

**Lead.** Decorative paints containing hazardous levels of lead are still widely sold in most developing countries, long after bans in industrialized countries. Evidence of reduced intelligence caused by childhood exposure to lead has led the World Health Organization to list “lead caused mental retardation” as a recognized disease.



*Mercury contamination impacts many communities that depend on fish as a primary food source*

## GLOBAL LEAD PAINT ELIMINATION CAMPAIGN

Lead in paint has been banned in developed countries for more than 40 years. Yet an analysis of lead in paint in 2008 conducted by IPEN's partner organization in India, Toxics Link, found that more than 80 percent of tested enamel (oil-based) decorative paints in ten developing countries had dangerously high lead contents and would not be permitted for sale in industrialized countries.

Since those initial tests, IPEN has targeted lead in paint in developing countries for elimination. Today it is the world's leading authority on lead in paint in developing countries, and has analyzed more than 2,500 paint samples in 30 countries. IPEN data on lead in paint and advocacy has had a significant impact over the last three years:

**Elimination of lead by leading paint companies.** Recent paint analysis conducted by IPEN NGOs in Asia demonstrate that, with a few exceptions, paint companies with the largest market share in Asia have shifted to products with less than 90 ppm lead content, the standard in the U.S. and other industrialized countries. The issue of lead in paint is also currently on the agenda of the international paint industry trade association. In addition, paint industry trade associations representing small and medium size paint companies are now in serious dialogue with local NGOs about lead paint elimination in several Asian countries.

**Lead as a priority international issue.** IPEN won recognition for lead in paint as an emerging policy issue internationally and sparked the creation of a global partnership, the Global Alliance to Eliminate Lead Paint (GAELP), led by the World Health Organization (WHO) and the United Nations Environmental Programme (UNEP), through which governments, industry, NGOs and IPEN work together on a level playing field to promote the phase-out of lead in paints worldwide.

**New funding for NGO lead paint elimination efforts.** In 2011, IPEN secured a €1.4 million grant from the European Union to support NGO-initiated lead paint elimination activities in seven Asian countries. In 2013 IPEN secured USD\$1 million from the Global Environment Facility for a lead paint elimination project in four African countries. International delegates have also passed a resolution calling on governments and stakeholders to provide technical and financial assistance to efforts leading to lead paint elimination in all countries.

**New data and increased public awareness.** National data is a necessary precondition for country-based initiatives to eliminate lead paint. To date, IPEN and its affiliated NGOs have conducted more tests on more paints in more countries than any other NGO, government, or academic entity in the world. In 2013 alone, IPEN partnered with UNEP to release a new nine-country report on lead in paint and released lead in paint reports in seven Asian countries.

**New National Policy.** In 2013 the Philippines government adopted a new order that will ban lead in paint over 90 ppm as well as prohibit lead in the production of food and beverage packaging and certain consumer products. Similar national efforts are currently underway in the other six Asian countries participating in IPEN's Asian Lead Paint Elimination Project.

## MERCURY-FREE CAMPAIGN

IPEN launched its Mercury-Free Campaign in 2010 to address the alarming human and environmental health threats posed by mercury around the world. The goal of the campaign is to build a robust base of civil society organizations and NGOs working to curb mercury pollution.

A new mercury treaty adopted in October 2013 reflects a global consensus that mercury poses a serious threat to human health and the environment. Many provisions will have a positive effect, as the treaty applies pressure to eliminate mercury use from the global economy and reduce and eliminate mercury releases from a wide variety of sources.



IPEN's aggressive and consistent advocacy to strengthen the treaty throughout the three-year negotiating process helped put a spotlight on the human health impacts due to mercury exposure.

### Strengthened treaty provisions

- **Inclusion of releases to water and land.** Though the treaty initially only covered air emissions, IPEN advocacy helped to broaden the treaty to include mercury

## MINAMATA DISEASE

Tens of thousands of people in Japan were poisoned when the Chisso Corporation's chemical factory dumped methylmercury in wastewater into the Minamata Bay from 1932 to 1968. It was the largest incidence of mercury poisoning in the world and its impact was so great that today acute mercury poisoning is often called "Minamata Disease."

Minamata disease is a crippling disease in which victims lose control of their muscles, hearing, vision and speech. Insanity, paralysis, coma and death occur in the worst cases, and it can affect fetuses in the womb.



*Shinobu Sakamoto has been leading the struggle for Minamata victims for more than 40 years.*

released to soils, waters and wastes, where it frequently volatilizes and enters the air.

- **Focus on small-scale gold mining.** Artisanal small-scale gold mining (ASGM) is the largest intentional use of mercury. IPEN pushed for and won a requirement that national action plans include strategies for managing mercury trade and preventing the diversion of mercury into artisanal and small-scale gold mining activities.
- **Prioritized funding for countries that need resources the most.** IPEN advocacy helped ensure a requirement that funding actions under the treaty take full account of the specific needs and special circumstances of the Least Developed Countries and Small Island Developing States.
- **NGO role in education and public awareness activities.** IPEN advocacy also helped ensure a requirement that education and public awareness on the effects of mercury should be conducted in collaboration with non-governmental organizations.
- **Protecting populations at risk.** This is the first global chemicals treaty with a specific article on health. The article, which IPEN advocated for, encourages govern-

ments to develop strategies and programs to identify and protect populations at risk from mercury exposure.

### ***Heightened mercury pollution profile worldwide.***

- IPEN's comprehensive media outreach campaign included the release of new research on global mercury hot spots around the world and news events throughout the treaty process. The resulting media coverage helped to elevate mercury's profile in the public, provided a public interest perspective in mainstream media stories about treaty results, and educated people around the world about the threat of mercury pollution.
- **Increased engagement by developing countries.** IPEN provided a wealth of information, expert advice, and technical expertise before, during and following negotiating sessions to NGOs and government delegates from the developing world, which greatly aided their engagement in the process.

# BUILDING A GLOBAL TOXICS-FREE MOVEMENT

Over the last fifteen years, IPEN has become an international leader on toxic chemicals and a “go-to” source of information for NGOs, media, government officials, and public health officials around the world. IPEN’s contributions over the last three years to building an international toxics-free movement include:

## **Engaging New Partners**

One of IPEN’s unique strengths is its ability to connect NGOs from the developing world with other constituencies that have an interest in chemical safety issues, including scientists, public health officials and other NGOs with a stake in international policy.

- **Global common statement for a toxics-free future.** IPEN brought together major global civil society groups to support a Global Common Statement for a Toxics-Free Future at Rio+20 in 2012. Signatories to the statement included 9 major international NGOs and Indigenous Peoples organizations working in the health, environment, labor, women’s, human rights, and other

public interest sectors. More than 1,000 public interest NGOs and CSOs signed on to the Global Common Statement for a Toxics-Free Future.

- **Biodiversity Research Institute (BRI).** IPEN is partnering with BRI to generate data and monitor mercury levels in the global biota, and present this new information to the public and decision-makers. BRI is a global leader in monitoring mercury in biota.
- **The Endocrine Society.** IPEN is collaborating with The Endocrine Society to raise awareness about endocrine disrupting chemicals and urge swift action on this dangerous class of chemicals. The Endocrine Society is the world’s oldest, largest, and most active organization devoted to research on hormones and the clinical practice of endocrinology.
- **American Public Health Association (APHA).** IPEN actively worked with public health professionals and public interest organizations to contribute to and pass an APHA resolution on improving occupational and environmental health in the global electronics industry.



*IPEN builds partnerships between NGOs, scientists, government officials and the public.*

### ***International Meeting Preparation and Follow-Up***

IPEN's support prior to, during, and after international meetings on chemicals issues has prepared hundreds of NGOs and government delegates from developing and transition countries to meaningfully participate in these processes and achieve policies beneficial to their countries. These include decision-making meetings of the Stockholm Convention, Strategic Approach to International Chemicals Management, Mercury Treaty, Global Alliance to Eliminate Lead in Paint, and others. Over the past three years, IPEN has coordinated the participation of over 250 NGO representatives to nearly 40 international chemical policy meetings.

### ***Media Coverage of Toxics Issues***

IPEN has played a significant role in elevating media attention for issues related to treaties and toxic chemicals in developing and transition countries. That coverage has not only heightened awareness about the issues, but also increased the ability of the NGOs working with IPEN in those countries to work with government and other institutions on chemicals issues.

- **Mercury in Humans and Fish.** A comprehensive media campaign conducted in connection with the final Mercury Treaty negotiations in January 2013 resulted in hundreds of stories worldwide, including every major international news service; major stories in Europe, China, India, Mexico and 30 other countries; and leading health and science publications.
- **Chemicals in Products.** Major news stories on chemicals in products have appeared in Armenia, Belarus, China, Kazakhstan, Kyrgyzstan, Philippines, Russia, Ukraine and numerous other countries. These stories have shifted the political and regulatory landscape and catapulted local NGOs into new positions of authority and leadership.



*IPEN press conferences stimulate widespread media coverage of the dangers of mercury poisoning.*

*IPEN brings organizations from around the world to learn from each other and identify common areas of concern.*



### ***Capacity building: Skillshare and Technical Trainings***

IPEN utilizes the knowledge, expertise and experience within its Network to build capacity from within. IPEN helps provide technical and organizational support and identify priority issue areas for engagement. Over the past three years, IPEN has organized and convened two international NGO training sessions; one in Petropolis, Brazil and the other in Minamata, Japan. More than 150 NGO participants from over 50 countries received training at these meetings on international policies, and shared expertise, experience and skills related to their on-the-ground work. Additionally, these meetings built relationships among IPEN Participating Organizations required for future collaborations.

### ***Capacity building: On-the-ground activities to realize chemical safety***

Over the past three years IPEN has increased local funding for on-the-ground chemical safety activities in developing and transitional countries, including over USD \$4 million mobilized directly for over 100 projects in more than 50 countries. Major international IPEN projects since 2011 focused on advancing SAICM implementation, monitoring lead paint on the market and generating data and information about mercury hot spots.

## Publications

IPEN publications are translated, distributed and used around the world. In the last three years, IPEN has produced the following materials:

**A Survey of PBDEs in Recycled Carpet Padding.** IPEN revealed that flame retardant levels in this recycled product used in homes and offices qualify it as hazardous waste. The first-of-its-kind study was published in a journal and featured in the New York Times.

**Guide to the New Mercury Treaty.** This document offers an assessment of the recently negotiated Minamata Convention on Mercury and helps NGOs and governments understand how they might implement some of the treaty's provisions.

**Global Lead Paint Elimination by 2020.** This document provides a background on the hazards of lead paint, reports on recent lead paint testing, and helped make the case for the adoption of a SAICM resolution supporting the elimination of lead paint manufacturing, import, sale and use worldwide.

**Global Mercury Hotspots.** This report helped draw international media attention to the problem of mercury contamination in 10 hotspots around the world. In addition, 10 National Reports complemented the Global Report.

**Social and Environmental Implications of Nanotechnology Development in Africa and Latin America.** These booklets provide an overview of nanotechnology in each region to help stakeholders better understand the social implications of nanotechnology development and develop a precautionary approach for safe development.

**Citizens Report.** A detailed account of more than 100 IPEN-funded projects conducted in more than 50 countries in support of SAICM objectives.

**A Public Interest Guide to Flame Retardants.** In follow-up to the Chicago Tribune series on flame retardants, IPEN produced "A Public Interest Guide to Flame Retardants," which outlines the history of the substances' use, including the industry's dishonest tactics. This Guide was used by NGOs in California to swiftly educate and orient decision-makers as they considered changes to a key law that required use of the substances. California subsequently revised the law, opening the door to products without the addition of toxic chemicals.

**An NGO Introduction to Mercury Pollution.** This comprehensive guidebook provides information about the toxic effects of mercury; history of mercury use; and the global mercury treaty. The booklet has been translated into all UN languages and widely disseminated globally and it served to prepare NGO and government delegates engaged in the treaty negotiation process.

**Guide for Conducting an E-Waste Inventory in Africa.** Based on the Ethiopian experience, this guide helps developing countries learn how to conduct electronic waste inventories and lobby for the formulation of policies that manage the life cycle of electronic products.

**Lead in Enamel Decorative Paints: National Paint Testing Results: A Nine Country Study.** This is a report on lead in paint from United Nations Environment Programme (UNEP) and IPEN in nine geographically diverse countries where paint testing had never been conducted previously.

**Eliminate Lead Paint: Protect Children's Health.** This guide presents the sources, uses, exposures and health effects of lead and suggests a framework for its elimination.

**Asia Lead Paint Elimination Project Reports.** Reports from seven Asian countries on lead in paint.

**Toxic Metals in Children's Products in Armenia, Belarus, Kazakhstan, Kyrgyzstan, Russia and Ukraine.** This 2012 study looked at 569 different children's products, mainly toys on the market, and revealed that approximately 30 percent of the toys sampled contained at least one toxic metal, such as lead, mercury, and/or arsenic.



**Global Mercury Hotspots**  
New Evidence Reveals Mercury Contamination Regularly Exceeds Health Advisory Levels in Humans and Fish Worldwide

A Publication by the Biodiversity Research Institute and IPEN  
January 9, 2013

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**CITIZENS' REPORT**  
IMPLEMENTATION OF THE STRATEGIC APPROACH TO INTERNATIONAL CHEMICALS MANAGEMENT (SAICM) BY IPEN PARTICIPATING ORGANIZATIONS 2009-2012

September 2012  
Prepared by IPEN

IPEN  
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**ELIMINATE LEAD PAINT:  
PROTECT CHILDREN'S HEALTH**

IPEN Global Lead Paint Elimination Campaign  
October 2013

IPEN  
a toxics-free future

**SOCIAL AND ENVIRONMENTAL IMPLICATIONS OF NANOTECHNOLOGY DEVELOPMENT IN AFRICA**

Nabeela Mubeen  
Guillermo Palacios  
David Azevedo  
with the collaboration of Nabeela Mubeen and David Azevedo  
Pretoria, South Africa  
December, 2013  
Technical, Environmental

CSIR ReLANS  
IPEN  
a toxics-free future

**A PUBLIC INTEREST GUIDE TO TOXIC FLAME RETARDANT CHEMICALS**

Joseph DiGangi, PhD  
Senior Science & Technical Advisor

IPEN  
April 2013

IPEN  
a toxics-free future

**AN NGO INTRODUCTION TO MERCURY POLLUTION AND THE MINAMATA CONVENTION ON MERCURY**

Lee Bell  
Rony Kelly-Jones, PhD  
Joe DiGangi  
Jack Weisberg  
Rony Kelly-Jones, PhD  
May 2014

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*IPEN publications prepare organizations around the world for engagement in their own countries and at the international level.*



*Small-scale gold mining began in the 1980s, as families, forced from their farms by drought and famine, literally began trying to scrape a living from the ground. Almost at once, the people arrived, hundreds of them. They have come many miles and traveled for days, by foot, bicycle, bus, scooter and lorry, drawn to this rocky, arid stretch of land near the Ghana border by the rumor of gold.*



Photo courtesy of Larry C. Price/Pulitzer Center

# EXAMPLES OF IPEN'S IMPACT

## ELIMINATING ENDOSULFAN

Endosulfan is an insecticide that has been used on a wide range of crops including soy, cotton, coffee, rice and tea. Endosulfan is acutely toxic and linked to birth defects, mental retardation, and deaths in farm workers and villagers in developing countries in Africa, Asia, and Latin America. The world's largest producer of endosulfan has been India.

IPEN members from the Indian NGO Thanal have been campaigning to eliminate endosulfan for more than 20 years, ever since they documented farmers and their families suffering severe illnesses from endosulfan spraying in cashew plantations in southern India. Seeing so many children born with deformities, symptoms of cerebral palsy, and other diseases soon after birth motivated them to launch local campaigns across India to ban endosulfan. In 2001, Thanal finally won a ban on endosulfan in the state of Kerala, but endosulfan continued to be widely used throughout the country and the government vigorously opposed all attempts to ban the chemical outright.

To eliminate the use of endosulfan in India, Thanal knew that the issue had to be globalized. Sharing the story of the cashew plantations at IPEN international meetings and through online email forums, Thanal colleagues quickly heard similar stories of endosulfan poisonings from organizations in Africa, Asia, and Latin America also working to ban endosulfan.

By 2007, efforts for an international ban were underway. As a participant in the Convention's official scientific evaluation, IPEN presented evidence on the POPs properties of endosulfan, which led to the official recognition of endosulfan as a persistent organic pollutant warranting global action under the Stockholm Convention.

IPEN used this opportunity to launch a two-year campaign and, along with the international Pesticide Action Network, Arctic Indigenous Peoples and grassroots groups across all continents, elevated national campaigns on this issue into the global arena.

During the final decision-making Convention meeting in 2011, a team of 35 groups coordinated by IPEN presented information on endosulfan science, health impacts, and national bans to the delegates. By the end of the week, India was the only country objecting to the listing of endosulfan. Pressure during the meeting and from media attention at home finally forced India to withdraw its objection in the final hours of the negotiation. Endosulfan was added to the Convention and set for global elimination, realizing the objective of Thanal and IPEN groups around the world.



*Jayan Chelaton, Thanal, documented birth defects among farmers and their families exposed to endosulfan sprayed at cashew plantations in India.*

## CLOSING THE LOOPHOLES ON TOXIC RECYCLING

Though governments agreed to ban the flame retardants PentaBDE and OctaBDE in 2009, an important loophole allowed products containing these substances to be recycled until 2030.

To convince delegates to the Stockholm Convention to close this loophole, IPEN combined advocacy, new scientific information, media coverage of the issue, and support to the countries mostly likely to be affected by ongoing recycling.

Engagement by IPEN and other NGOs resulted first in a decision in 2010 by the Stockholm Convention expert committee to recommend the elimination of flame retardants from the recycling stream “as swiftly as possible.”

IPEN also worked with 146 scientists worldwide to develop the San Antonio Statement – the world’s first scientific consensus statement highlighting brominated and chlorinated flame retardants as a class of concern. Published in the prestigious journal *Environmental Health Perspectives* and accompanied by a supportive editorial, the statement helped elevate the issue just prior to the Stockholm Convention meeting that would make the final decision whether or not products containing flame retardants could be recycled.

Finally, a new scientific report from IPEN that showed that flame retardants continued to be widely used in recycled foam carpet padding sold in the USA and other developed countries was covered in the *New York Times*.

By the time of the meeting, the African Region (53 countries), Brazil, India and a number of other governments were in support of a ban on recycling products containing treaty-listed flame retardants. The financial interests of the developed countries, the most likely exporters of such materials, in supporting the loophole also had been exposed. Though the fight went into the wee hours, ultimately a compromise was forced to encourage countries to implement the expert committee’s recommendation and not export wastes containing flame retardants.

In a subsequent, similar battle over another flame retardant, HBCD, advocacy by IPEN and its allies helped secure a requirement that new building insulation containing HBCD be labelled. This is the first time the Convention has required labelling of a material containing a POP.



*IPEN helped close a loophole that would have allowed recycling of dangerous flame retardants.*

## ENFORCING CHINESE LAW ON COSMETICS CONTAINING MERCURY

China is the world's largest manufacturer and exporter of goods, and its chemical industry is predicted to grow 66 percent by 2020. In recent years, toxic children's toys imported to North America and Europe from China have attracted global attention, but the presence of toxic metals in products consumed by Chinese shoppers was largely unknown.

In 2011, IPEN and its partner organization, Greenpeace East Asia, reached over 650 million people through 300 media stories within China in the first publicly available large-scale investigation of toxic metals in children's products in China. The toys campaign also resulted in the largest number of hits to Greenpeace East Asia's website in its history.

Following the toxic toys project, IPEN began investigating the presence of mercury in skin lightening products. IPEN, along with Chinese NGO affiliates Green Beagle and Global Village of Beijing and several smaller NGOs, tested skin creams in local markets in ten Chinese provinces. The goal was to elevate awareness, particularly among women, about toxic chemical and environmental health issues.

The results showed that 23 percent of the 112 skin lightening creams that were tested violated Chinese law. As with

the toy tests, there was exceptional media coverage throughout the country by both official government-sponsored media and unofficial news outlets. A joint letter to China's largest online retailer, Taobao, from the NGOs requested that the seven mercury-containing skin lightening creams sold by the company be removed from sale.

In some situations Provincial Food and Drug Administration offices (FDA), alerted to the violations, welcomed the local NGOs' participation in conducting follow-up work to identify and remove the products. Much to everyone's surprise, Taobao removed the toxic skin creams from their online store as requested. To IPEN's knowledge, this is the first time China's largest online retailer has stopped the sales of any toxic products based on NGO activity.

In 2012 IPEN, along with Green Beagle and Global Village of Beijing, secured a two-year, €300,000 grant from the European Union's European Aid Agency to build NGO capacity and advance policies related to chemical pollution and impacted communities in China.



*Taobao, China's largest online retailer, removed skin whitening products containing mercury, in response to a campaign waged by Chinese NGOs*

## SPEARHEADING A NATIONAL ELECTRONIC WASTE POLICY IN ETHIOPIA

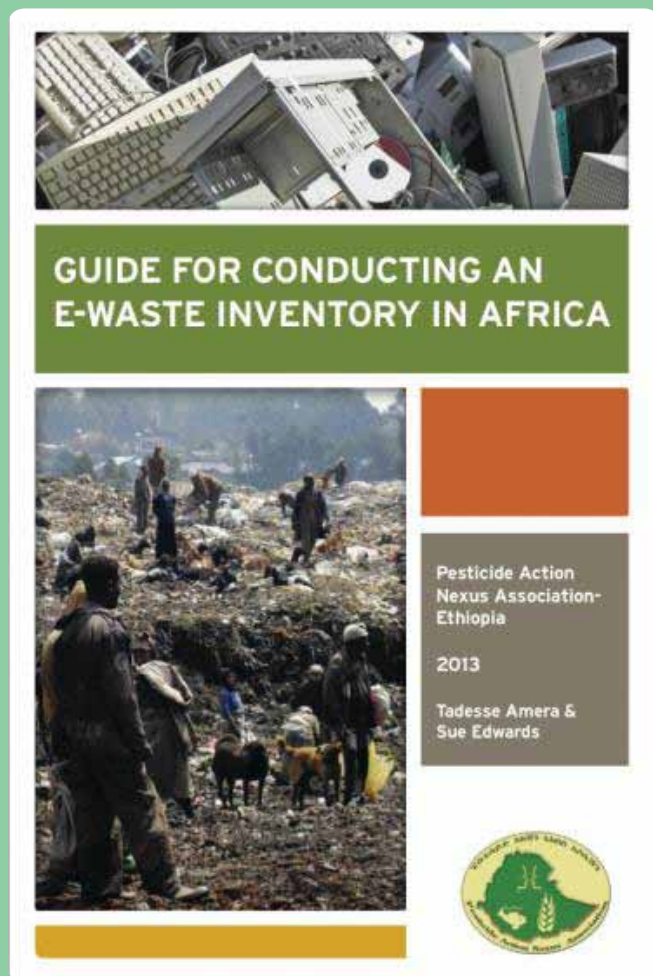
Ethiopia is a good example of how even small amounts of support targeted to local NGOs can leverage large results. In Ethiopia, a small IPEN grant to a local participating NGO to assess the country's electronic waste inventory has now resulted in the NGO working with the government to develop the country's first national electronics production and waste policy.

This development is particularly important because Asian countries have begun investing in Ethiopia for mobile phone production. Furthermore, electronic waste is among the world's fastest-growing and most socially and environmentally problematic waste streams. In recent years, the human and environmental health impacts from improper recycling and disposal have become painfully clear as electronic waste from developed countries has piled up in Africa and Asia, sometimes under the guise of "re-usable" or "recyclable" goods.

The Ethiopian government had no idea of the scale of its own waste problem until IPEN provided Pesticide Action Nexus-Association (PAN Ethiopia) with a USD \$3,000 grant for an electronic waste management awareness project. As a part of the grant, PAN Ethiopia carried out a month-long consultation and assessment of the country's electronic waste situation. PAN Ethiopia also conducted a national stakeholders' workshop that included representatives from the national government, municipalities and NGOs, and visits to a computer refurbishment center.

These activities and the subsequent comprehensive report were an eye opener for government, NGOs, academia, research, and private stakeholders, and led to additional funding for PAN Ethiopia to create a detailed inventory of computers, mobile phones, refrigerators, and televisions in four major cities.

Government officials were so impressed with the quality of the work and the importance of the issue that PAN Ethiopia was invited to play a leading role in a major USD \$2.2 million project to develop the country's first national management plan for electronics and electronic waste, including the entire life-cycle of electronics production and extended producer responsibility.



*Ethiopia is now developing a national plan for handling electronic waste*

## MORE PRODUCTS TESTED BY IPEN IN MORE COUNTRIES THAN BY ANY OTHER ORGANIZATION

Consumers have a right to know what they are purchasing, and consumer awareness of chemicals in products is a strong driver for creating markets for safer products and chemical regulation. Since 2004, IPEN has partnered with internationally accredited labs to analyze toxic chemicals in products, the environment, humans, and food. In 2010, IPEN procured a portable X-Ray Fluorescence (XRF) analyzer, a tool for rapidly identifying and measuring elements. With this device, IPEN and its Participating Organizations began testing products widely available on the public market for toxic substances. IPEN has also helped groups acquire their own XRF devices and provided guidance for additional testing. Some of the product testing that has been made possible by IPEN includes:

- **China:** First publicly-available, large-scale investigation of toxic metals in children's products.
- **Russia:** First study of bisphenol A in food containers in Russia including baby food, canned beef and tomatoes; baby pacifiers were also studied.
- **Philippines:** First large-scale study of toxic metals in children's products.
- **Eastern Europe, Caucasus and Central Asian Countries (EECCA):** First large-scale testing of toxic metals in children's toys in Armenia, Belarus, Kazakhstan, Kyrgyzstan, Russia and Ukraine.
- **China, Philippines, and Thailand:** Testing for mercury in skin-whitening products.
- **Brazil, China, India, Kenya, Kyrgyzstan, Mexico, Russia, and Senegal:** Collaboration with German government to conduct market analysis of mercury-containing products to inform the mercury treaty negotiations.



*IPEN helps the public understand their exposure to toxic chemicals in consumer products.*



## HELPING DEVELOPING COUNTRIES TACKLE TOXIC ELECTRONIC WASTE

The rapid growth of the electronics sector has accelerated the problems of managing both domestically generated and transboundary waste. IPEN Participating Organizations have undertaken a number of activities to help governments identify and access issues related to electronic waste.

- **Bangladesh, Bulgaria, and Kenya:** Public awareness-raising on hazardous chemicals in electronics.
- **Belarus:** Assessment of electronic and battery waste.
- **Cameroon:** Quantification of batteries as electronic waste.
- **Chile:** Investigation into the amounts and quality of electronic waste generated and public awareness-raising among consumer organizations and the wider public.
- **Ethiopia:** Assessing the national electronic waste situation and convening national authorities to catalyze a national task-force.
- **India:** Awareness-raising among informal electronic waste recyclers and others about a new electronic waste management rule.
- **Jordan:** Assessment and awareness-raising on current national laws and general end-of-life destination for electrical and electronic waste.
- **Kazakhstan:** Analysis of the electronic waste disposal system.
- **Nepal:** Assessment of import and inventory of electronic waste in five areas with a focus on computers, televisions, and mobile phones.
- **Nigeria:** Impact assessment of electronic waste on waste handlers and livelihoods.



*Many developing countries are just beginning to assess the impact of electronic waste in their countries.*

## CREATING GLOBAL HEADLINES AND PRESSURE FOR MERCURY REDUCTIONS

International media attention began to focus on mercury pollution issues as the fifth and final negotiating session for the Minamata Convention on Mercury began in January 2013.

To set expectations and frame the issues, IPEN released a new report two weeks before the opening session; *Global Mercury Hotspots: New Evidence Reveals Mercury Contamination Regularly Exceeds Health Advisory Levels in Humans and Fish Worldwide*. The report, published in partnership with Biodiversity Research Institute (BRI), included results of an 19-month study of mercury in fish and human hair from locations across the globe near known sources of mercury releases.

The report found that 84% of the fish sampled near mercury pollution sources exceeded U.S. EPA consumption guidelines. Even more shocking, more than 82% of human hair samples contained mercury concentrations greater than health advisory levels.

The report was released in the U.S. as well as in 10 “hot spot” countries where tests had been conducted. In addition, a Boston Globe article, and an opinion piece by Robert Kennedy, Jr. in the Guardian UK, sparked major news coverage throughout the world, including by many important national and international outlets, such as BNA-Bloomberg, Inter-Press Service, CNN, and CBS Evening News.

During the final treaty negotiations, IPEN-led press conferences drew reporters from all major national and international news outlets seeking an independent view of the effectiveness of the proceedings.

A final IPEN press conference offered an analysis of the new treaty’s strengths and weaknesses and resulted in stories around the world, including in stories by Associated Press, Reuters, BNA/Bloomberg News, Agence France Presse, Le-Monde, RIA Novosti (Russian international news agency), EFE (Spanish international news agency), and Inter-Press News Agency.



*IPEN interventions and media campaigns helped strengthen the Mercury Treaty*

## MOVEMENT BUILDING: GLOBAL SOLIDARITY WITH MINAMATA VICTIMS

The Minamata mercury poisoning tragedy happened more than 50 years ago, yet the victims must still fight for recognition and help. Last year, 65,000 people applied for compensation from the Japanese government. To this day, victims remain tied up in legal struggles; no health study of victims has ever been conducted; and 1.5 million tons of untreated mercury waste is buried on reclaimed land on Minamata Bay.

From the onset of the negotiations for the Minamata Convention on Mercury, IPEN worked with Minamata victims' organizations to make the Minamata disaster a moral issue and a measure against which the treaty's effectiveness could be judged – could it ensure that a Minamata-like mercury tragedy would never happen again?

- IPEN's global "Honoring Minamata" campaign statement, which recounted the Minamata tragedy, the struggle of victims today and the need for a strong treaty, garnered signatures from more than 70 NGOs from 42 countries.
- Throughout the negotiation, delegates wore blue and orange ribbons distributed by IPEN, in honor of the Minamata victims.
- IPEN Participating Organizations presented photos of their members in front of Japanese embassies and national landmarks all over the world with signs highlighting the Minamata victims groups' demands.
- At the opening of the second negotiating meeting held in Japan, all NGOs surrendered their speaking time in plenary to Shinobu Sakamoto, a Minamata victim who has been campaigning for justice in Minamata for over 50 years, and who shocked the delegates with evidence of the extent of her disability. An IPEN-organized press conference at the second session, at which victims of Minamata spoke about their experiences, left many, including the media, in tears.
- In one of the negotiations' most moving moments, Takeshi Yasuma, an IPEN member from Japan who spoke on behalf of Minamata victims because they could not attend the meeting in Switzerland and speak on their own behalf, said that the proposed treaty name dishonored victims and dramatically called for a moment of silence in their memory. One could have heard a pin drop in the auditorium filled with 900 delegates as Takeshi Yasuma spoke and IPEN members stood behind him.
- IPEN garnered widespread media coverage in Japan for Minamata victims for the first time in many years by convening 42 NGO representatives from 26 countries in Minamata to engage directly with Minamata victims at a two-day symposium. This event, as well as IPEN organized media events during the final negotiating session, drew widespread coverage of the Minamata victims' plight by Japanese media, especially in light of the recent Fukushima nuclear disaster.

*Members of IPEN participating organizations take a tour of Minamata and support Minamata victims.*



## COAL-FIRED POWER PLANT IN THAILAND

One of the locations highlighted in IPEN’s report on Global Mercury Hot Spots is an industrial park in Thailand called Tha Tum. Most residents in Tha Tum are farmers and, because fish are abundant, every household commonly eats fish from the Shalongwaeng Canal, which runs near a pulp and paper mill and an open storage area for coal for the five power plants that are located on the site. Villagers have observed the dumping of coal ash from the coal power plants into eucalyptus plantations surrounding Shalongwaeng Canal.

Over the past decade, local residents at Tha Tum and across eastern Thailand have filed various complaints about air and water pollution disrupting their livelihoods – including coal dust from open-air storage piles, constant odor from the pulp mills, and massive amounts of dead fish in public canals almost every year. Unfortunately, these complaints were mainly ignored by both government and industry.

Things began changing in 2013, after the IPEN partner Ecological Alert and Recovery – Thailand (EARTH) held a press conference to release results from a new mercury analysis, conducted by IPEN, Biodiversity Research Institute and EARTH. The report showed alarmingly high levels of mercury in local fish and in the hair of local residents.

“At first government agencies rejected our report’s findings. Manufacturers tried to discredit us by claiming that they too had tested, but had found mercury levels within environmental standards,” said Penchom Saetang of EARTH. “But then, much to our surprise, the Ministry of Industry and the Ministry of Natural Resources and Environment said they would come out and conduct their own tests.”

Those tests ended up confirming the IPEN results of mercury accumulation in the food chain. The Department of Special Investigation, under the Ministry of Justice, launched its own investigation into Tha Tum’s industrial park, which consists of over 100 factories. Today a tri-party committee set up by the Ministry of Industry meets monthly and monitors mercury contamination at the site. EARTH is regularly invited to contribute to these meetings, and supports local communities in ongoing efforts to set up more effective and transparent environmental quality monitoring.



*Hair and fish samples taken by IPEN show high levels of mercury in fishing communities.*

“Communities had submitted complaints to many government agencies for many years about industrial pollution. This is the first time that government has taken action,” Saetang said.

## IPEN ASIA LEAD PAINT ELIMINATION PROJECT

IPEN launched its three-year Asia Lead Paint Elimination Project in 2012 with a €1.4 million grant from the European Union's International Aid Agency. The goal of the project is to eliminate lead in paint and raise widespread awareness among business entrepreneurs and consumers about the adverse human health impacts of lead-based decorative paints, particularly on the health of children under six years old, in seven Asian countries (Bangladesh, India, Indonesia, Nepal, Philippines, Sri Lanka, and Thailand). In the largest paint testing project undertaken to date, organizations participating in the project have collected and tested more than 1500 paint samples.

The project has achieved several milestones since its inception:

- A new round of testing shows that while the majority of paints being sold still contain high levels of lead, paint companies with the largest share have begun to shift away from lead-containing products.
- Government agencies in all seven countries are currently working on establishing a regulatory standard for lead in paint.
- Work is underway with the Philippines Paint Manufacturers and the Quality Control Council in India to develop national paint certification programs.
- NGOs in each country are engaged in conversations with small and medium-sized paint manufacturers to solve the special challenges they face in reducing the lead in their products.
- The Bangladesh Paint Manufacturer Association has said it is willing to formulate standard regulatory measures on the use of lead in decorative paints and make its compliance mandatory in Bangladesh.
- A mandatory regulatory standard went into effect in Sri Lanka in January, 2013.
- In 2013 the Philippines government adopted a new order that will ban lead in paint over 90 ppm as well as prohibit lead in the production of food and beverage packaging and certain consumer products.



*Paint with high levels of lead is sold widely in developing countries.*

## SRI LANKA BANS LEAD IN PAINT

In 2009, IPEN partner Centre for Environmental Justice (CEJ) released the first publicly available data on the lead content of decorative paints for sale on the Sri Lankan market. The report was prepared in cooperation with IPEN and the Indian NGO Toxics Link.

All of the decorative paints tested from one of the brands (ICI Dulux) had low lead content, but three other brands tested had very high lead content.

These results set off a fierce debate between the paint companies themselves and also in the Sri Lankan press and society. CEJ then successfully petitioned the Sri Lankan Supreme Court to order the Consumer Affairs Authority to formulate a suitable lead paint control regulation.

As a result, in September 2011, the Sri Lankan national Consumer Affairs Authority published a lead paint control directive, specifying a maximum total lead content of 600 ppm for enamel paints and 90 ppm for floor paints. The directive entered force on January 1, 2013.

As a part of the IPEN Asian Lead Paint Elimination Project, CEJ conducted a second round of paint testing in the spring of 2013. This study found that the percentage of samples with concentrations above the legal limit had decreased. Companies that had participated in awareness-raising activities conducted by CEJ after the 2009 study had reduced their lead levels.



*Sri Lanka is one of only a handful of developing countries that bans dangerous levels of lead in paint*

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**IPEN thanks the many individuals, NGOs, private foundations, international aid agencies, UN agencies, donor governments and international organizations that we collaborate with across the planet to create a toxics-free future.**



**a toxics-free future**

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