



# 2012 ANNUAL REPORT



## LETTER FROM THE CHAIRMAN OF THE BOARD

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Dear Fellow Blacksmith Supporters,

2012 was a very important year for Blacksmith Institute. Our scale and span of work increased significantly, and an enhanced base has been laid for the continued growth of our work. As you will see in greater detail in the report that follows, the year saw the development of significant new initiatives, a continued flow of completed projects, and encouraging growth in the amount and sources our funding.

On the program front, 2012 saw the founding of the Global Alliance on Health and Pollution, a Blacksmith led initiative that will help to integrate the efforts of more than a dozen members of the international community in the area of toxic pollution remediation and prevention. Our World's Worst Pollution Problems publication was released, helping to document the sources of toxic pollution and providing insight into the scope of the problem - a problem that is on a par with AIDS and malaria, but is rarely recognized in the same way. The Institute's Toxic Site Identification Project also continued to expand its vast database of global toxic site information - the work now covers more than 3,100 individual locations in more than 47 countries.

While this broader work goes on, Blacksmith's specific project work continues in many countries. You will read about larger projects in Kyrgyzstan, Russia, Vietnam, Senegal, China and India in the pages that follow. These projects provide insight on the array of types of pollution our work covers, including radiation, lead, and the development of protocols and methodologies for assessing pollution.

Finally, like most other organizations, our work is only possible with proper funding. On the funding front, Blacksmith had a number of successes to celebrate. Funding received in 2012, including multi year grants, topped \$8 million for the first time. The year also saw the receipt of our first major grant from the European Community, with continued funding from the World Bank and other leading institutions and individuals.

With this list of accomplishments, we are looking forward to further growth in the year to come. As always, we thank you for your support - without it, none of our work would be possible.

Sincerely,

H. Conrad Meyer III  
*Chairman*



THIS PAGE:  
Lead remediation in  
Zamfara, Nigeria.

RIGHT: Waste from  
a Small-Scale Gold  
Extraction Facility.



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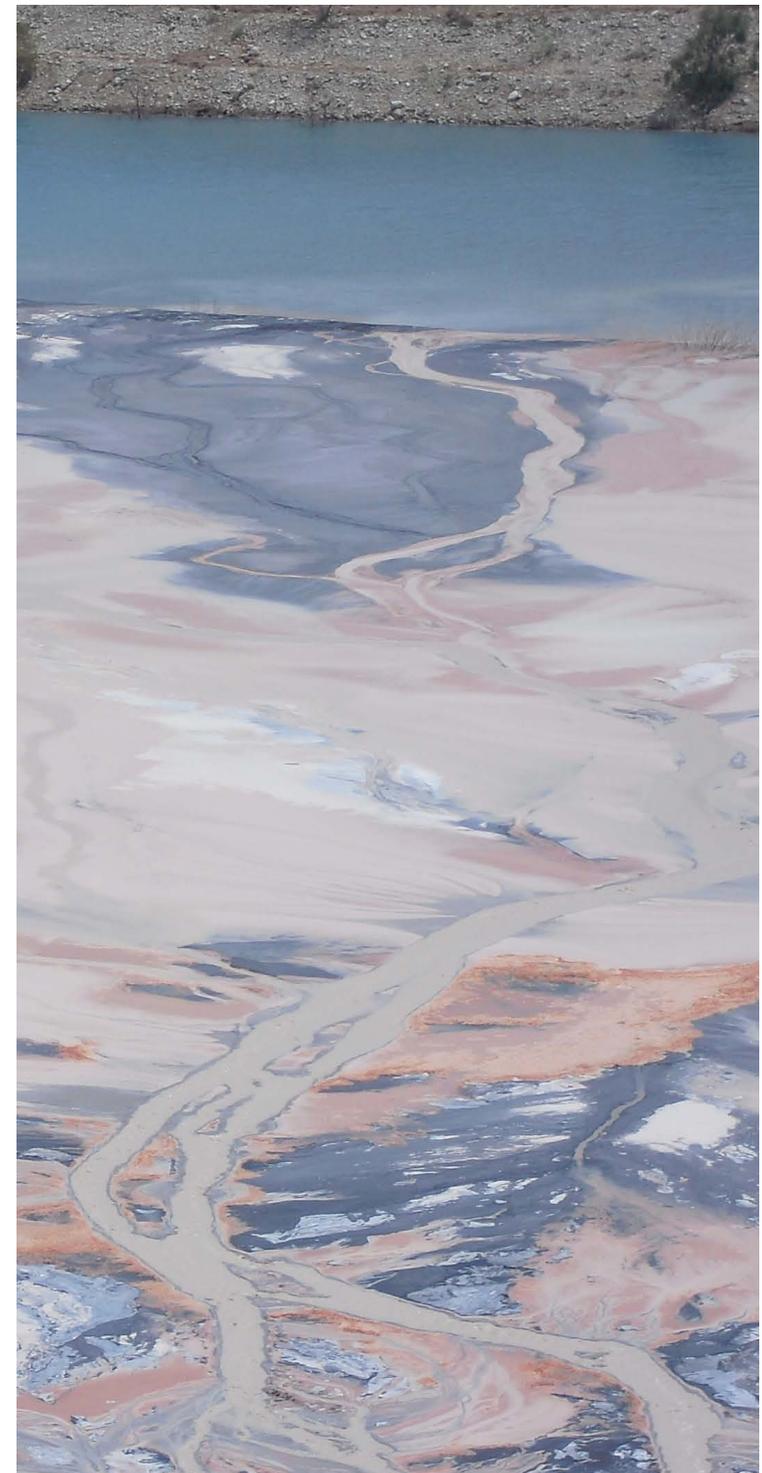
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# GLOBAL ALLIANCE ON HEALTH AND POLLUTION (GAHP)

In an unprecedented event, more than one dozen representatives from the international community convened in early July in Bellagio, Italy, to develop an action plan to tackle toxic pollution in low- and middle-income countries. The newly formed Global Alliance on Health and Pollution (GAHP), coordinated by Blacksmith Institute and supported by the World Bank, European Commission and UNIDO, among other agencies, is the first alliance of its kind to respond to the threat of toxic pollution on a worldwide scale. Held from July 2 to 6, 2012 in Italy at the Rockefeller Foundation's Bellagio Center, where some of the world's most innovative ideas have

been developed, the GAHP meeting produced an agreement for collaborative action over the next three years targeting some of most polluted places on earth. The implementation plan aims to raise the alarm and push toxic pollution to the forefront of global issues. It also seeks to build capacity, country by country, to identify, analyze and prioritize the cleanup of toxic hotspots. The meeting at the Bellagio Center brought together representatives and observers from 19 different agencies, governments and organizations. GAHP members include the Asian Development Bank (ADB), the Blacksmith Institute, Indonesian environmental NGO KPBB, the Ministries of



Participants of the 2012 conference in Bellagio, Italy.

## GLOBAL ALLIANCE ON HEALTH AND POLLUTION (GAHP)

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**“By banding together, we are creating the world’s largest platform for launching efforts and innovations to fight toxic pollution.”**

— Richard Fuller  
*President, The Blacksmith Institute*

Environment from the Governments of Indonesia, Mexico, the Philippines, and Senegal, the UN Environment Program (UNEP), the UN Industrial Development Organization (UNIDO), and the World Bank.

Through its international network, the GAHP will assist developing countries to access resources to address toxic pollution and to develop and share pollution remediation strategies and technical expertise with each other. “By banding together, we are creating the world’s largest platform for launching efforts and innovations to fight toxic pollution,” says Richard Fuller, president of the Blacksmith Institute. “There is a growing demand for pollution cleanup. The GAHP is here to coordinate and incubate ideas, and to assist any country that asks for help.” The GAHP is designed to help coordinate solutions, to assist countries to address the problem strategically at a national level, and in

particular, to facilitate South-South knowledge exchange. GAHP will work with countries such as Senegal, the Philippines, Indonesia and others to raise awareness about the problem and promote it in country development strategies, define in-country strategic action plans to address the issue, and build capacity to identify toxic hotspots, conduct technical analysis, and implement remediation projects. GAHP will also help countries build stakeholder support and political will, and provide guidance on technical issues, standards and methodologies.

Currently, GAHP has 16 members, with Blacksmith, the World Bank, Asian Development Bank, UNIDO, European Commission, Department of Environment and Natural Resources Philippines, and GIZ comprising the Executive Committee. In 2013, GAHP will launch a series of pilot remediation projects to illustrate affordable, effective toxic clean up programs.

# THE WORLD'S WORST POLLUTION PROBLEMS 2012: The Top Ten Sources by Global Burden of Disease

In 2012, Blacksmith Institute, along with Green Cross Switzerland released the World's Worst Pollution Problems report. The report calculated, for the first time, the global health impact of pollution across 49 countries, giving the broadest picture of pollution's toll to date. *The World's Worst Pollution Problems* reveals that the health impact of pollution is the same or higher than some of the most dangerous diseases worldwide, threatening millions of lives. It is similar in scope to better-known problems such as malaria and tuberculosis. The report also identifies the top ten toxic industries responsible and offers workable solutions.

"The report underscores the need to fully recognize the health impacts caused by toxic pollution at this critical juncture. Life-threatening pollution is likely to increase as the global economy exerts an ever-increasing pressure on industry to meet growing demands. The damage will be greatest in many low and middle-income countries, where industrial pollution prevention regulations and measures have not kept pace," says Richard Fuller, President, Blacksmith Institute.

"Even though it puts nearly 125 million people at risk, pollution remains one of the most under-recognized global problems. Appropriately, large amounts of time and resources are devoted to addressing the burden of diseases like tuberculosis and malaria. The striking fact is that international

and local government action on these diseases greatly outpaces the attention given to toxic sites, which, as demonstrated in this report, contribute greatly to the global burden of disease," says Dr. Stephan Robinson, Unit Manager (Waste, legacy), Green Cross Switzerland.

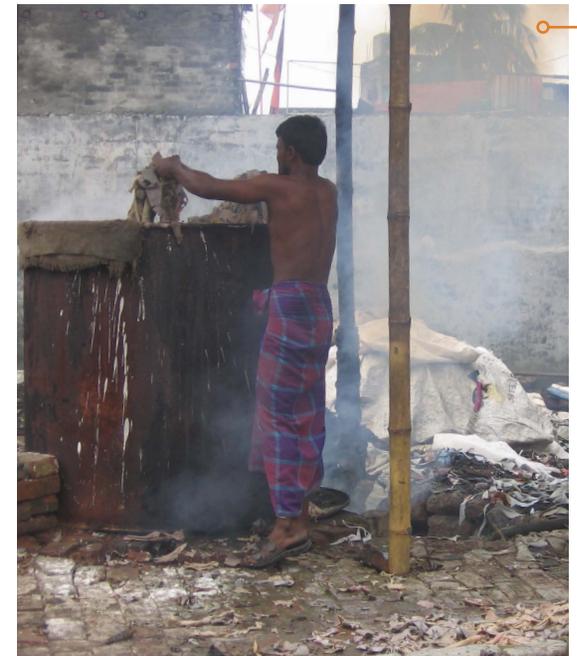
*The 2012 World's Worst Pollution Problems Report* is the latest in a series of pollution reports released annually since 2006 that document the state of the world's worst polluted places and pollution problems. The reports have been instrumental in increasing public understanding of the health impacts posed by toxic pollution, and in some cases, have compelled cleanup work at pollution hotspots.

This year's report identifies those pollutants commonly found in industrial processes, whose health impacts are quantifiable, and traces their industry uses and health risks. It goes on to list the top ten polluting sources/industries and offer solutions, highlighting opportunities to implement life-saving cleanup and pollution prevention efforts.

Most importantly, the new report attempts to quantify the true extent of pollution's threat by measuring the global health impacts of contaminated sites across 49 low and middle-income countries. This is the first time such a calculation has been made to measure pollution's toll on lives over such a wide area. The previous

**"Even though it puts nearly 125 million people at risk, pollution remains one of the most under-recognized global problems."**

— Dr. Stephan Robinson  
Unit Manager (Waste, legacy),  
Green Cross Switzerland



# THE WORLD'S WORST POLLUTION PROBLEMS 2012: The Top Ten Sources by Global Burden of Disease



ABOVE: E-Waste recycling in West Africa.

LEFT: Typical local tannery facility.

BELOW: Contaminated tap water near an industrial dump.



report began the effort by calculating the disease burden of individual contaminated sites.

## CALCULATING POLLUTION'S TOLL IN 17 MILLION DALYS

The impact of pollution is measured in Disability Adjusted Life Years, or DALYs, which capture the total number of life years lost from early death as well as any reduction in quality of life resulting from disease.

DALYs allow for comparisons to be drawn between different types of public health risks, taking into account both the severity and duration of a given disease. Chronic headaches for example are given a lower value in the DALY metric than more severe health outcomes such as blindness or cancer.

The report found that the public health impact of industrial pollutants, measured in DALYs, is the same or higher than some of the most dangerous diseases worldwide. The report finds that exposure to contaminants at hazardous waste sites across the 49 countries analyzed results in more than 17 million DALYs. By comparison malaria results in some 14 million DALYs in the countries reviewed while tuberculosis results in some 25 million DALYs. These numbers are by no means conclusive but can be taken as indicative of the potential scale of the problem.

The 2012 report was generated out of analysis of on the ground data collected by Blacksmith Institute's Toxic Sites Identification Program over the past three years during site assessments at thousands of toxic hotspots in low- and middle-income countries. The impact estimates are based on the body of research that the field studies provided. This, in combination with toxicological information provided by the World Health Organization and the U.S. Environmental Protection Agency and other public health leaders, enabled the Blacksmith Institute to quantify the most severe and widespread pollution problems.

## TOP TEN TOXIC INDUSTRIES LISTED BY DALY (DISABILITY ADJUSTED LIFE YEAR)

- Lead-Acid Battery Recycling – 4,800,000
- Lead Smelting – 2,600,000
- Mining and Ore Processing – 2,521,600
- Tannery Operations – 1,930,000
- Industrial/Municipal Dump Sites – 1,234,000
- Industrial Estates – 1,060,000
- Artisanal Gold Mining – 1,021,000
- Product Manufacturing – 786,000
- Chemical Manufacturing – 765,000
- Dye Industry – 430,000

For more information and to read the report, please visit [www.worstpolluted.org](http://www.worstpolluted.org).

## TOXIC SITES IDENTIFICATION PROGRAM (TSIP)

Toxins in the environment affect millions of people in low and middle-income countries. Without cleanup, they pose long-term environmental and health problems, and can significantly impede economic and social development, as well as achievement of the Millennium Development Goals (MDGs), particularly those related to poverty, environmental sustainability and maternal health. Unhealthy physical environments, especially polluted areas, are often characterized by impoverishment and economic exploitation. As a result, pollution overwhelmingly affects poor and marginalized populations living in high densities near or in industrial areas, abandoned factories, waste dumps and urban slums, which commonly have unsanitary living conditions and little or no access to clean water. People affected by pollution are much more likely to get sick from other diseases, be chronically ill, and have reduced neurological development, physical and mental disabilities and a shortened lifespan. Environmental degradation, including that caused by toxic pollution, aggravates poverty and makes growth unsustainable. Emerging evidence indicates that economic deprivation increases the magnitude of pollution-related morbidity and mortality. Environmental damage reduces quality of life and has significant costs for public health.

Blacksmith's Toxic Site Identification Program (TSIP) endeavors to identify and screen contaminated sites in low- and middle-income countries with potential human health impact. The TSIP is not intended to be a comprehensive inventory of such sites, but rather an effort to begin to understand the scope of the problem. Currently, there are more than 3,100 sites in the Global Inventory Database, with an estimated affected population of more than 60 million people. However, the Global Inventory is less than fifty percent complete. UNIDO and Blacksmith Institute expect that when finished, the database will show more than 200 million people globally who are potentially at risk. Currently, a team of 150 trained investigators in about 47 countries is working to collect health and pollution data in collaboration with local and national authorities. The project will build on this extensive team to expand work in Africa, Eastern Europe (former Soviet Union), Latin America and the Caribbean.

Testing lead in the soil using an XRF.



## TOXIC SITES IDENTIFICATION PROGRAM (TSIP)

**UNIDO and Blacksmith Institute expect that when finished, the database will show more than 200 million people globally who are potentially at risk.**

In order to carry out all of these site assessments, Blacksmith has a network of individuals within each of the 40 countries to visit and document hazardous sites. All consultants are trained over two-day workshop, often with government representatives participating, as well. As part of the training, a field visit is made by the group to demonstrate the methodology for assessing the human health impact of toxic sites. On top of the strong base of field staff already employed by Blacksmith, throughout 2012, 141 staff and 88 government representatives were trained in 14 National Training Workshops in the following

countries: Armenia, Argentina, Azerbaijan, Chile, Ghana, Kenya, Kyrgyzstan, Mexico, Nigeria, Peru, Russia, Tajikistan, Tanzania and Uruguay.

In addition to site assessments, Blacksmith has been promoting public awareness of the scale and scope of pollution in low- and medium-income countries as well as the potential human health impacts. Efforts have been made to develop broader support in the academic and scientific communities for pollution remediation in these countries. Two publications, "Approaches to Systematic Assessment of Environmental Exposures Posed at Hazardous Waste Sites in the Developing World: the Toxic Sites Identification Program" and "The Burden of Disease from Pediatric Lead Exposure at Hazardous Waste Sites in Seven Asian Countries" were published in peer-reviewed journals, which strengthened Blacksmith's case for intervention. In 2013, Blacksmith will begin the next phase of this program; collaborating with governments to create toxic action plans. These multi-year plans will formalize national programs to identify, screen, and remediate toxic hotspots.



Children playing near a local lead smelter.

## PROJECT HIGHLIGHTS FROM 2012

### MAILUU SUU, KYRGYZSTAN

During its 30 years of operation, the mining and chemical Combine at Zheleznogorsk discharged its cooling water contaminated with radioactive wastes directly into the Yenisei River. Now, 300 kilometers along the river can be officially declared an environmental disaster zone based on the amount of contamination over that time. The village of Bolshoi Balchug lies immediately downstream from the plant, and at least 64,000 are potentially affected by radionuclides like plutonium-239, cesium-136, and strontium-90.

The main goal of the project was to improve radiation situation in the riverbank zone in the Bolshoi Balchug community. Specialists of the Citizens' Center on Nuclear Non-Proliferation have examined the Bolshoi Balchug bank. All "hot" particles found together with surrounding soil were to be excavated from the riverbank and buried in a proper radioactive waste landfill. The project included an independent radiological survey of the riverbank in Bolshoi Balchug community and mapping of radioactive hotspots in order to better understand the health impacts on the community. Then, Blacksmith worked to inform the population and authorities of Krasnoyarsk region about radiation pollution through mass media. As with many problems in developing countries, the surrounding communities were unaware of

the radioactive materials as well as their health impacts. Blacksmith helped provide the tools to reduce exposure and protect their children.

Blacksmith also installed Viking filters throughout the school, including in kindergartens, to reduce radioactive waste in the schools' drinking water. These triple-filtration systems, as well as replacement cartridges, were all installed in the schools. Due to urgent requests by local activists, the program of educational events was dramatically expanded. Education programs included training 40 schoolteachers, 204 medical students, and 20 university students. Additionally, schoolchildren competed in a radiation safety competition to show the existing risks and risk-mitigation strategies available. Throughout 2013, Blacksmith will continue to monitor the situation.



LEFT: Children in Mailuu Suu giving presentations on the hazards of radioactive waste.

ABOVE: Examining local school children.



**From 2007 to 2009, the number of children with high blood lead levels decreased two and a half times.**



### RUDNAYA, RUSSIA

In Russia the problem of lead poisoning remains very serious in the areas with long history of mining and smelting. The Rudnaya River Valley is one of such areas. This densely populated area is home to several abandoned mines and smelters. According to test results from 2005 in Dalnegorsk, 21% of children had blood lead levels over the recommended level of 10 ug/dl. In the more contaminated area of Rudnaya Pristan, about 50% of children had elevated blood lead levels. Blacksmith Institute began lead chelation therapy and other health interventions beginning in 2007. From 2007 to 2009, the number of children with high blood lead levels decreased two and a half times.

In order to ensure the continued health of children in Rudnaya, Blacksmith continued to provide health interventions to reduce lead exposure and risk as well as to treat children with high blood lead levels. One particularly innovative intervention involved introducing a biological food additive that removes heavy metals from the body. The additive, essentially algae enriched with calcium, was delivered to children in the region and distributed to those at risk for health complications. This distribution was accompanied by a workshop at the local children's hospital to help them prevent lead poisoning and providing expertise on how to treat lead poisoned children. Workshops also took place at the schools with both teachers and students learning more about the risks of lead. Throughout 2012, the number of at-risk children greatly decreased. The average blood lead levels in the children tested was reduced to 11 ug/dl, very close to the recommended levels; compared to an average of 15.1 only a couple of years before.



TOP LEFT: Smelter in Rudnaya.

LEFT: Children playing soccer near a large smelter.

## PROJECT HIGHLIGHTS FROM 2012

### VIETNAM

In 2012, Blacksmith Institute was engaged by the United Nations Food and Agriculture Organization (FAO) and the Global Environment Facility (GEF) to develop a Rapid Environmental Assessment for use by the Vietnam Environment Administration. Vietnam has over 1500 sites contaminated by POPs pesticides, most of which exist within populated communities. Inspired by Blacksmith's TSIP project, FAO sought out an effective way to quickly understand and prioritize these hazardous sites. The first part of the project created a comprehensive template for prioritizing sites based on human health risks. This template reviewed the existing templates in use, compared it to international rapid assessments, and created a new assessment appropriate to Vietnam. The second part of the project integrated Graphical Information Systems (GIS) data into the revised assessment. The computer-based assessment, which can also be used in physical form, automatically extracts data to allow for easy site comparisons.

The final assessment protocol was praised by both FAO and the GEF. It comprehensively evaluates environmental contamination risks, migration routes, and pathways as well as being simple to use. The pathways section is extremely important; it enables sites to be prioritized based on human health impacts and to protect

vulnerable populations. Throughout the creation of the assessment, Blacksmith conducted three separate field trials. Each field trial consisted of several sites that were screened using the new protocol. Blacksmith also interviewed the project staff in order to make the assessment as inclusive and culturally appropriate as possible. The assessment is now in use across Vietnam, helping to create a strong environmental program.

BELOW: Conducting a field trial.



**As a result of the dump, levels of lead dropping from greater than 20,000- 40,000 ppm to less than 500 ppm.**



ABOVE: Workers clean up a family compound.

RIGHT: Trucks begin filling the newly-constructed landfill with leaded waste.

### DAKAR, SENEGAL

Since 2008, Blacksmith Institute has been responding to the lead health crisis in Thiaroye sur Mar, in Dakar, Senegal. This is one of the most tragic lead sites in the world. The severity of blood lead levels reported at this site was unprecedented in recent history. Blacksmith implemented a comprehensive program to provide health intervention, institutional controls, soil remediation, and site restoration. From 2007, 2009, Blacksmith concentrated on site assessment and remediation work within the community, where at least 18 people had died due to severe lead poisoning. Health intervention, blood lead level monitoring, and education campaign information can all be found in previous reports.



Throughout 2012, Blacksmith focused on creating a safe waste dump for the excavated lead from the remediated area. The excavation, lining, construction, filling and closure of the first lined landfill in Senegal for industrial waste was completed in January, 2013, at the Mbeubeuss Landfill. A team of Senegalese government officials, technical advisors from Blacksmith Institute, and private Senegalese contractors completed the project. Through collaboration, the team demonstrated that with technical supervision, concentrated lead waste with severe health hazards can be permanently disposed of in a lined landfill built to sound technical standards, which eliminates human health exposure pathways, at a reasonable unit cost, using locally sourced excavation, transport and materials. A total volume of approximately 1400 cubic meters of highly lead-impacted soil and demolition debris were transported to a lined cell constructed atop and within a "mountain" of older mixed municipal waste. As a result of the dump, levels of lead dropping from greater than 20,000- 40,000 ppm to less than 500 ppm within one meter laterally away from the visible stockpile. This represents a huge success not only for Blacksmith, but also for the Government of Senegal.

## PROJECT HIGHLIGHTS FROM 2012

### CHINA

Environmental remediation of contaminated sites is a vital and growing interest area for government authorities in China, but the public's awareness of ongoing and future activities is weak. In 2012, Blacksmith Institute, funded by the European Commission, began a project to help provide the Government of China a tool for public engagement. This protocol will be adapted to the Chinese circumstances and tested via two pilot remediation projects that will begin in 2013. In this way, local Chinese environment agencies will gain first hand experience implementing the protocol and its methodology. They will experience how engaging the public in an open, transparent manner can benefit them not only in terms of improvements in community relations and building trust, but also in the success and sustainability of remediation projects they implement. In the process, public participation in environmental decision-making will be enhanced, and local communities will benefit from reduced exposures to toxic pollution.

Blacksmith, along with partners Institute of Geographic Sciences and Natural Resources Research and China Academy of Sciences as well as the Chinese Research Center for Public Policy, designed a work plan for project implementation. The plan, including the selection of remediation sites, emphasizes public participation in remediation projects in an unprecedented way. Throughout 2013, Blacksmith will begin the pilot projects, using the protocol as a method for garnering public support and participation.



Investigators survey a site.

## PROJECT HIGHLIGHTS FROM 2012



ABOVE: Investigator interviewing a school teacher.

BELOW: A child plays in electronic waste.



### INDIA

The old adage, “to manage something you must first measure it” applies equally to business and to pollution remediation. Blacksmith Institute was one of the first to inventory toxic sites in India and in 2012, we formally presented the culmination of three years’ work to the Ministry of Environment & Forests (MoEF).

The handover occurred at a seminar on May 30th in Delhi, attended by senior officials from the MoEF as well as the Central Pollution Control Board and eight state pollution control boards. Dr. T. Chatterjee, Secretary of MoEF, outlined the challenges facing the Indian government. Foremost is that there have not been enough epidemiological studies in India that establish the link between toxins and public health. Shri J. S. Kamyotra, Member Secretary of the Central Pollution Control Board, further noted the lack of a standard methodology in identifying toxic sites, and agreement on standard values of pollution so that one can determine the extent of remediation required for a particular site.

The Blacksmith database is thus an invaluable tool to understand more clearly the scope of toxic pollution in India and to help focus attention on sites with the worst health effects.

The India effort is part of Blacksmith’s overall Toxic Sites Identification Program that inventories polluted sites worldwide and attempting to illuminate the scale of pollution-related health problems. TSIP is a first-of-its-kind comprehensive, searchable, online database of polluted sites that can be used by the international community and governments to prioritize sites for remediation.

The India database contains information on over 400 contaminated sites, many of which present pollutants above international standards and detail the pathways leading to human exposure. This information was compiled with support from the Asian Development Bank, the European Commission, the United Nations Industrial Development Organization and Green Cross Switzerland, among others.

The MoEF Secretary commended the Blacksmith database to the central and state pollution officials, and asked them to use and expand it to prioritize remediation work in their states. Now that the problem has been measured to a large extent, Blacksmith will continue to assist the Indian government in managing the remediation that must take place.

# FINANCIAL HIGHLIGHTS

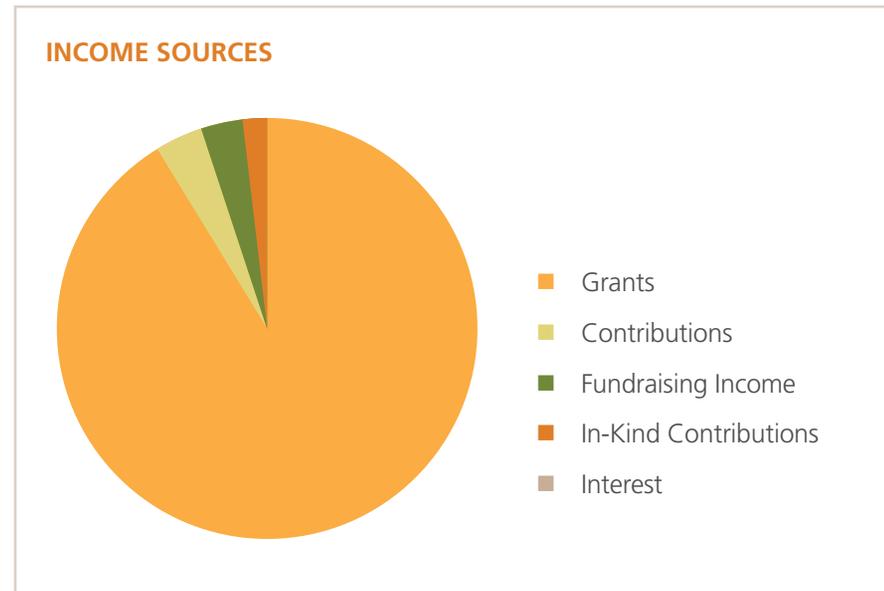
## INCOME

Grants	8,222,971
Contributions	235,231
Fundraising Income	155,175
In-Kind Contributions	112,383
Interest	6,671
<b>Total</b>	<b>\$8,732,431</b>

In-kind contributions and fundraising activities helped Blacksmith implement new projects and program work as well as supplementing and expanding the scope of grant-funded projects. Continuing to build a loyal base of supporters, Blacksmith's income from fundraising efforts nearly doubled from 2011.

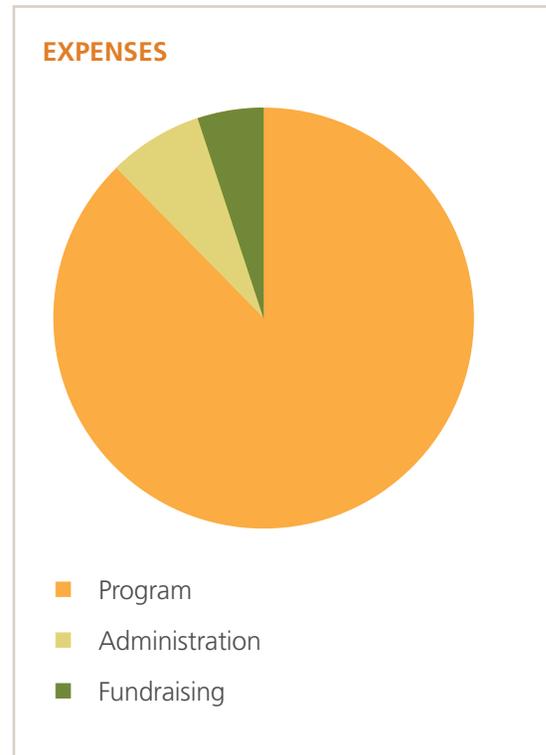
2012 was an exciting year of growth for Blacksmith, with the addition of several new large grants. A new European Commission/ UNIDO grant, nearly six million dollars, will help fund continued TSIP work as well as funding several pilot projects taking place in Latin America, Indonesia, and Eastern Europe. Green Cross Switzerland also provided extra funding for these programs. Additionally, the European Commission funded the new program work in China.

The World Bank continued to show their support for Blacksmith's work, funding the Bellagio Conference in July and helping to launch new GAHP initiatives.



## EXPENSES

Program	2,748,392
Administration	312,721
Fundraising	232,402
<b>Total</b>	<b>\$3,293,515</b>



In 2012, Blacksmith engaged in some very exciting projects, including new fieldwork in China, as well as completing several multi-year projects such as the lead remediation programs in Russia and Senegal. Over 80% of Blacksmith's expenses went directly to program work, with administrative overhead costs accounting for only 9% of total costs.

A big component of the program work was the expansion of Blacksmith Toxic Sites Identification Program, with work in 40 different countries. This also involved training 141 staff and 88 government representatives in 14 separate National Training Workshops. These workshops took place in countries new to the TSIP program. These countries include, Armenia, Azerbaijan, Tajikistan, Russia, and Kyrgyzstan in Eastern Europe, Argentina, Chile, Peru, Mexico, and Uruguay in Latin America, and Ghana, Kenya, Nigeria, and Tanzania in Africa.

Work in Indonesia also grew significantly, as new artisanal gold mining and lead programs expanded throughout the country. India also continued a lead remediation of a children's soccer field in Chennai.

## 2012 FUNDERS

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Our support comes from a wide range of sources. We would like to express special thanks to those listed below.

### GOVERNMENT AND MULTILATERAL ORGANIZATIONS

European Commission  
EU Delegation of China  
EU Delegation of Ukraine  
Green Cross Switzerland  
Sweedish International Development Agency  
UNIDO  
World Bank

### FOUNDATIONS

AYCO Charitable Foundation  
The Brooke-McCarragher Foundation  
CAMBIA Health Foundation  
Chicago Community Foundation  
Conservation, Food and Health Foundation  
The Derbes Family Foundation, Inc.  
Dollar Per Month Charitable Foundation  
Fidelity Charitable Trust  
Esther Koven Foundation, Inc.  
Passport Capital Foundation  
Queen Anne's Gate Foundation  
Robert and Wendy Reasenber Fund  
Rockefeller Brothers Fund  
Schwab Charitable Fund

The Sullivan Family Fund  
Trust for Mutual Understanding  
Viking Global Foundation  
Roy J. Zuckerberg Family Foundation

### CORPORATIONS

Ace Atlas  
Action Carting  
Allan Briteway Electrical Contractors  
Allran Electric  
Ambassador Construction Company, Inc  
American Pipe & Tank Lining  
Archangel Energy Group  
Archetype Consultants  
Ashlar Mechanical Corp.  
Belkin Burden Wenig &  
Goldman LLP  
Bond Painting  
Building Maintenance Services  
Century Elevator  
Classic Demolition Company  
Classic Recycling  
Commodore Construction Corp  
Consolidated Carpet  
Coyle Insurance Agency  
Digiscribe  
Doyle Trading Consultants  
E-J Electric Installation  
Five Star Carting  
FM Kelly Construction Group

Frenkel & Company  
GDO Contracting  
Goldman Sachs  
Great Forest  
Greenberg Traurig, LLP  
Hess Corporation  
IESI Corporation  
Iron Hound Management  
James Volpe Electric  
JDP Mechanical  
John Gallin & Son  
Joseph Neto & Associates  
KBM Brand Plumbing & Heating  
KM Associates of NY  
KONE INC.  
Metropolitan Walters, LLC  
Morgan Keegan & Company, Inc  
NLR Inc.  
Northern Bay Contractors, Inc.  
Pace Plumbing Corp  
Palone Brothers Air Conditioning  
Platinum Maintenance  
The Regence Employee Giving Campaign  
Royal Waste Services Inc.  
Roux Associates Inc.  
Siemens Industry  
Stillman Banc Corp.  
Structure Tone Inc.  
Titan Contracting Group  
Transel Elevator Inc.  
United Elevator Consultants

## 2012 FUNDERS

United Structural Works Inc.  
Vornado Office Management  
W. Lopa Studios  
W&W Glass LLC

### INDIVIDUALS

Vaughn Ableman  
Sumayya Ahmad  
Karen Begelfer  
Ludovic Alain Bernaudat  
David R. Bernstein  
Jennifer Bildersee  
Serenity Blauvelt  
Loretta Bober  
Peter & Diana Boodell  
Michael & Jessie Bourke  
Lind Brooks  
Timothy Brutus  
Ben, Shelly and Ella Buring  
Rita C Butler  
Jack Caravanos  
Peter Carbonetto  
Alison Carlson  
Eugene Choi  
Geoffrey Chorbajian  
Laurie Clark  
Laurie Cohen  
Paulo Cunha  
Darryl Dahlheimer  
Mary Deangelis

Camille DeClementi  
Daniel Dees  
Aimee Derbees  
Stephen Doyle  
Martin Dreisbach  
Jeff Elmer  
Barbara Fischer  
Mary Tyler Knowles & Laurence B Flood  
Maximilian Fuller  
Richard Fuller  
Michael Gallias  
Jodi Ganz  
Gary Goldenberg  
Gail Gorlitz  
Katherine Gould-Martin  
Sarita Gupta  
Hisham Halil  
Felicia & John Hendrix  
Mohd Hisham  
Ran Huh  
Don Hull  
Juha Ikonen  
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Darla Jines  
Ronald S. Johnson  
Meade R. Jorgensen  
Neeraj Joshi  
Raymond C. Keeling  
Ian and Tracy King  
Arthur Klansky  
Steve and Melissa Laico

Philip John Landrigan  
David Levinson  
Jake Lindsay  
Rebecca Wortman Luna  
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Robert Magnuson  
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Jessica McCummings  
William & Margaret Mcleod  
David & Katherine Mechner  
Conrad Meyer  
Amy Milakovic  
Julia Minkin  
Katherine Moon  
Koji Narisawa  
Joshi Neeraj  
Jill Nicholls  
Andrew Offit  
Celia Mercedes Olivera  
William Oppen  
Stephen O'Rourke  
Gary Ostroff  
Elony Perdomo  
John Donovan Pinkel  
Christopher Poje  
David Randman  
Ronald Reede  
Ira Riklis  
Ken Rivlin

## 2012 FUNDERS

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### INDIVIDUALS (CONTINUED)

Paul Roux  
Rishi Sachardt  
Leona D. Samson  
Amelia Scharrer  
Molly Schlagel  
Adam P. Schleifer  
Craig Seaver  
Anthony Selitto  
James Sterling  
Andy Swing  
Claudia Trevor-Wight  
Mark Troll  
Angela Trommer  
Greg Valure  
Ronald & Sally Wackowski  
Robert Wagner  
David Walentik  
Silda Wall  
Newell Washburn  
Marie Noelle Wholley  
David Wichs  
Anna Woods  
Martin Wortendyke  
William Wright  
Samantha Dwyer and Scott Zinober

## ABOUT BLACKSMITH INSTITUTE

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Blacksmith Institute ([www.blacksmithinstitute.org](http://www.blacksmithinstitute.org)) is an international not-for-profit organization dedicated to solving life-threatening pollution issues in the developing world. A global leader in this field, Blacksmith addresses a critical need to identify and clean up the world's worst polluted places. Blacksmith focuses on places where human health, especially that of women and children, is most at risk. Based in New York, Blacksmith works cooperatively in partnerships that include governments, the international community, NGOs and local agencies to design and implement innovative, low-cost solutions to save lives. Since 1999, Blacksmith has completed over 50 projects; Blacksmith is currently engaged in over 40 projects in 19 countries. Since 2006, Blacksmith Institute's yearly reports have been instrumental in increasing public understanding of the health impacts posed by the world's worst polluted places, and in some cases, have compelled cleanup work at these sites. Previous reports have identified the top ten world's worst polluted places or pollution problems. Blacksmith reports have been issued jointly with Green Cross Switzerland since 2007. Read the reports at [www.worstpolluted.org](http://www.worstpolluted.org).



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