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Pollution, Public Health and Economic Development

Pollution can feel like an old issue, an issue we understand and are solving.

But we don’t, and we aren’t.

Pollution causes more deaths than malaria, tuberculosis and HIV/AIDS combined.

We ignore it while we fight other fights. This is a mistake we aim to correct.
Pollution is...

• Something people create, and release into the environment, that causes us to get sick
  – Not CO2. Reason – this set of pollutants is underserved

• Overwhelmingly a Low and Middle-Income countries problem
  – Rich countries have (mostly) dealt with the big issues (sanitation, clean air/water, metals), and are now focusing on the next set of toxicants
Groundwater contaminated with hexavalent chromium from leather tanning in India
Banned and obsolete pesticides left in crumbing buildings
A toxic cocktail of air and soil pollution from e-waste recycling in Ghana
A community in Armenia where half of the children have lead poisoning
Arsenicosis from well water contaminated with arsenic in Nepal
40 tons of abandoned toxic chemicals poisoning the water of a Ukrainian city
Villagers in northern Nigeria cleaning up lead pollution that killed more than 400 children in one year
Introduction

• What is the Global Alliance on Health and Pollution, who is involved and what does it do?
• What role does the non-profit organization Pure Earth play in the Alliance?
• What is the Global Commission on Pollution, Health and Development?
Lessons Learned

Pure Earth (formerly Blacksmith Institute) has been working to prevent and clean up toxic pollution for 16 years. After completing more than 80 pollution-related projects in 60 countries, this is what we’ve learned:

Lesson 1: Pollution is the #1 cause of death in low-income countries.

• WHO and others estimate that nearly 9M people die annually from pollution-related illness.

• Pollution kills more people than:
  • malaria, TB and HIV-AIDS combined
  • smoking and war combined
  • malnutrition, road deaths and all weather-related natural disasters combined
Lesson 2: No one understands the full magnitude and impact of this problem, not even us, and we are a global leader in this field.

What we do know is that we are undercounting the impacts.

- Pure Earth has identified and assessed 3,300 sites globally where toxic pollution in water and soil threaten public health. These site assessments are entered into a global database.

- Pure Earth’s global database of toxic hotspots is unique in the world, but it only captures a tiny fraction of the actual scale and impact of the problem. There are likely tens of thousands more sites that are unknown and uncounted.

- The Global Burden of Disease study (the most comprehensive analysis of global health risk factors) does not even have enough data yet to include soil and water pollution in its analysis, despite the magnitude of these issues.
Lesson 3: The lack of information and understanding causes us to misallocate our development resources

- Considering only the health impacts, we simply under-spend on pollution relative to other public health issues

- BUT, in addition to the health toll, pollution harms economic development (direct medical expenses, cost to healthcare systems, reduced productivity, etc.)

- PLUS, mitigating pollution has a great ROI. Preventing pollution is far cheaper than cleaning it up later

- Despite all of this, pollution receives a tiny fraction of overseas development assistance annually—less than US $200 million
The Commission on Pollution will change this dynamic by analyzing and explaining the full impacts of pollution and cost-effective solutions.

- Focus on low- and middle-income countries
- Analysis of full health impacts
- Analysis of full economic impacts
- Cost-benefit analysis of solutions
- Roadmap for countries
Types of pollution change as countries develop

• Least developed countries:
  – Indoor air pollution causes respiratory disease
  – Contaminated drinking water causes dysentery

• Industrializing countries:
  – Toxic chemicals, ambient air pollution and other modern pollutants cause cancers, developmental disorders, neurological impairment, and many other illnesses
The Team:
• Global Alliance on Health and Pollution
• UNEP
• World Bank
• Pure Earth

Chairman:
Dr. Philip Landrigan - Dean for Global Health, Professor of Preventive Medicine and Pediatrics in the Icahn School of Medicine at Mount Sinai
Global Commission on Pollution, Health and Development

Commissioners:

• Kenneth Arrow, Nobel Laureate in Economics; Professor of Economics at Stanford University
• Siti Nurbaya Bakar, Minister of Environment and Forestry for the Government of Indonesia; Secretary General of the Regional Representatives Council for the Government of Indonesia (2004-2013); Secretary General of the Ministry of Home Affairs for the Government of Indonesia (2001-2005)
• Michael Greenstone, Director of the Energy Policy Institute at Chicago (EPIC); Milton Friedman Professor in Economics at the University of Chicago
• David Hunter, Dean, Harvard T. H. Chan School of Public Health
• Bindu Lohani, Vice President for Knowledge Management and Sustainable Development for the Asian Development Bank (ADB); Vice President for Finance and Administration for the Asian Development Bank (2007-2011)
• Karen Mathiasen, Senior Advisor, Office of the U.S. Executive Director, World Bank Group; Director, Multilateral Development Banks, U.S. Dept. of Treasury
• Ramon Paje, 19th Secretary of the Philippine Department of Environment and Natural Resources (DENR); former DENR Undersecretary for Field Operations; former DENR Executive Director of the Minerals Development Council
Global Commission on Pollution, Health and Development

• **Jairam Ramesh**, Member of the Indian Parliament; Minister of Rural Development for the Government of India (2011-2014); Minister of State at the Ministry of Environment and Forests for the Government of India (2009-2011)
• **Carlos Salinas**, former President, Mexico
• **Aitkul Samakova**, Member of Parliament, Kazakhstan; Minister of Environment, Kazakhstan (2002-2006)
• **Leona Samson**, Professor of Biology and Biological Engineering, Massachusetts Institute of Technology (MIT); Director of the MIT Center for Environmental Health Sciences (2001-2012)
• **Achim Steiner**, Executive Director of the United Nations Environment Programme (UNEP); Director General of the International Union for Conservation of Nature (IUCN) (2001-2006)
• **Kirk Smith**, Professor of Global Environmental Health, Director of the Global Health and Environment Program at the School of Public Health, University of California, Berkeley
• **William Suk**, Director of both the Center for Risk and Integrated Sciences, and the Superfund Research Program, as well as the chief of the Hazardous Substances Research Branch in the National Institute of Environmental Health Sciences
Less than 0.5% of international development assistant goes to prevent and clean up pollution, because policy-makers don’t understand the scope and scale of the problem.

The goal of the Commission is to change this.

We need to communicate this problem effectively and present cost-effective solutions that are available now.

We hope you will join us.
Thank you.