



Solve pollution. Save lives. Protect the planet.

COLOMBIA

INVESTMENT OPPORTUNITY TO REDUCE MERCURY POISONING



For 25 years and across 50 countries, Pure Earth has been pioneering evidence-based solutions to the pollution crisis. Pure Earth currently focuses on two of the most dangerous neurotoxins—lead and mercury—with a goal of reducing the poisoning and brain damage of children in target countries.

2024–2026

PURE EARTH'S GLOBAL MERCURY PROGRAM STRATEGY focuses on decreasing mercury emissions to the environment from the main source of pollution—artisanal and small-scale gold mining (ASGM)—and reducing human exposures with an emphasis on the most severely affected populations, namely miners and surrounding communities.

Exposure to mercury—even small amounts—may cause serious health problems, and is a threat to the development of the child in utero and early in life. Mercury may have toxic effects on the nervous, digestive and immune systems, and on lungs, kidneys, skin and eyes.

Discover how you can make a sustainable impact over the next 3 years in Colombia.

SITUATION IN COLOMBIA

- 1 Colombia releases between **50 to 100 tons** of mercury into the environment each year, with a significant portion stemming from ASGM activities, according to estimates made by the Colombian government.
- 2 **108** toxic sites with mercury pollution have been identified countrywide, affecting **1.38 million** people.
- 3 According to Dr. Stephan Bose-O'Reilly, globally between **25% and 33%** of ASGM miners experience mercury intoxication, with children and the general population in mining regions experiencing tremors, ataxia and other neurological symptoms.¹

¹ https://oem.bmj.com/content/oemed/75/Suppl_2/A242.2.full.pdf

PROGRESS TO DATE

- 1 **Management of Mercury-Contaminated ASGM Tailings**
 - In 2023, Pure Earth was recognized by Conservation X Labs for our innovative use of copper plates to remove mercury from contaminated tailings. Partnering with Duke University, we trained **227** miners on this method, enhancing local capacity to safely handle mercury.
 - In June 2023, Pure Earth Colombia, with support from the U.S. Department of State, delivered Latin America's first temporary mercury storage unit to CDMB, a regional environmental authority. This storage unit helps safely collect and dispose of mercury from artisanal gold mining, improving environmental health in the region.
- 2 **Assessment of Mercury Contaminated Toxic Sites**
 - In 2020, in Remedios, Antioquia, Pure Earth assessed mercury contamination in gold mining areas, created a mercury contamination index to rank health risks, and set environmental baselines to guide remediation and future policies.
 - With USAID funding, Pure Earth evaluated around **80** contaminated sites in Colombia, mainly focusing on mercury pollution from small-scale gold mining. The project also trained new investigators and improved the toxic site database to support government action on environmental health risks.
- 3 **National Roadmap Addressing Mercury Contamination and Illegal Mining**
 - Pure Earth is in the process of developing plans to address the social and environmental impacts of illegal mining and mercury contamination in Colombia. We will also help the government prepare a National Report on illegal mining and mercury-contaminated sites.

THE WAY FORWARD: PROGRAM ACTIVITIES 2024–2026

1 Support Miner Transition Toward Mercury-free Techniques

- Develop self-sustaining local markets for at least one alternative technology used in mercury-free mining.

2 Management of Toxic Mercury Sites

- Support local partners in expanding reforestation efforts and cleaning contaminated tailings.
- Continue to promote adoption of copper plate technology for cleaning contaminated tailings.

3 Other

- Develop, pilot, and scale mercury poisoning surveillance using new and existing technologies and techniques. Include government and healthcare partners to integrate data from treatment of mercury poisoning as well as from sampling.



PARTNER ENGAGEMENT

Conservation X Labs

USAID

U.S. Department of State

Colombia Ministry of Health and Social Protection

Alliance for Responsible Mining

UNEP

Global Environment Facility

Duke University



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