



Solve pollution. Save lives. Protect the planet.

GHANA

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 Ghana.

SITUATION IN GHANA

- 1 Studies indicate that the ASGM sector in Ghana is a major contributor to mercury pollution. **81 tonnes** of mercury are being released into the atmosphere annually (University of Ghana).
- 2 While it is our goal to collect local data from surveillance for mercury poisoning, previous studies by former Technical Director Dr. Stephan Bose-O'Reilly indicate that globally, between **25%** and **33%** of ASGM miners experience mercury intoxication, with children and the general population in mining regions also experiencing tremor, ataxia and other neurological symptoms.
- 3 **23** toxic sites with mercury pollution have been identified countrywide, affecting **9 million** people. The estimated total number of contaminated sites in Ghana is **7–9** times the number of documented sites (Annals of Global Health 2016).
- 4 Over **1 million** people are employed in the small-scale gold mining sector and supporting approximately **4.5 million** more according to the Mineral Commission (2013).
- 5 A recent report published by Hilson et. al. (2018) showed that out of the estimated number of **200,000** ASGM operators in Ghana, **50–75%** are women.

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

PROGRESS TO DATE

- 1 Engaged with miners, mining associations, and government officials in mining areas around the country to assess current practices in ASGM and tailings management.
- 2 Currently leading a project funded by UK Pact [DPE1], in collaboration with Ghana Environmental Protection Agency to:
 - Determine the extent of mercury contamination at three abandoned artisanal small-scale gold mining sites and prioritize the sites most affected by employing the “Mercury Contamination Index” to guide future remediation efforts.

PARTNER ENGAGEMENT

NYU-Accra
University of Mines and Technology
in Takwa, Ghana
Mineral Commission of Ghana
Ghana Small Scale Miners Association
Ghana Environmental Protection Agency
Ghana Ministry of Health

THE WAY FORWARD: PROGRAM ACTIVITIES 2024–2026

1 Support Miner Transition Toward Mercury-free Techniques

- Regulatory strengthening to advance mercury-free techniques in Ghana.
- Develop self-sustaining local markets for alternative technology used in mercury-free mining.
- Raise awareness of mercury-free techniques among small-scale mining and mining associations.

2 Management of Toxic Mercury Sites

- Using a prioritization list from our project with UK Pact, remediate the highest priority contaminated site using copper plate technology, biochar, reforestation, and/or other methods.
- Develop self-sustaining markets for copper plate technology to expand efforts to remove mercury from tailings.

3 Other

- Develop, pilot, and scale mercury epidemiological surveillance using new and existing technologies and techniques. Include government and healthcare partners to integrate data from treatment of mercury poisoning into health systems.

