

# Toxic waste costs poor their lives

Waste from industrial dumps and other toxic sites affects the health of an estimated 125-million people in 49 low- and middle-income countries.

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Pollution billows from the chimneys of a power station in Moscow. . (Alexander Natruskin, Reuters)

This unrecognised health burden is on the scale of malaria or tuberculosis, a new report has found.

This year's report on the world's worst pollution problems was published on Tuesday by the Blacksmith Institute in partnership with Green Cross Switzerland. It documents, for the first time, the public health effect of industrial pollutants – lead, mercury, chromium, radionuclides and pesticides – in the air, water and soil of developing countries.

"This is an extremely conservative estimate," said Bret Ericson of the Blacksmith Institute, a small international non-governmental organisation based in New York City. "We've investigated

2600 toxic sites in the last four years, [but] we know there are far more."

The United States has an estimated 100 000 to 300 000 toxic sites, mainly factories or industrial areas, but toxic sites in the low- and middle-income countries assessed in the report are often in residential areas. "We see a lot of disease when we go into these communities," said Ericson. "But we were surprised that the health burden was so high – as much as malaria."

Ericson cited gold mining in the Nigerian state of Zamfara as an example. In 2010, doctors from Médecins Sans Frontières carrying out vaccinations in villages in Zamfara were shocked to see so few children. The villagers were small-scale gold miners who crushed gold-bearing rocks inside village compounds. The raw ore contained extremely high levels of lead, which had killed hundreds of children and left thousands more with lead poisoning.

The health effect of exposure to toxins at the 2600 sites identified in the report was estimated using the disability-adjusted life years metric, which the World Health Organisation and other bodies use to measure the overall disease burden. The metric is expressed as the number of years lost because of ill health, disability or early death. The estimate for the effect of pollution from toxic sites is 17-million disability-adjusted life years; according to the health organisation, malaria's annual toll is 14-million disability-adjusted life years.

The human toll of pollution in terms of lost productivity, healthcare cost, lowered life expectancy and social effect is high. Ericson said countries needed to wise up to this and realise there were inexpensive ways to avoid toxic pollution.

Stephan Robinson of Green Cross Switzerland identifies globalisation, and especially mining and resource extraction, as the reason for many toxic sites. The high price of gold has led to increases in both small- and large-scale mining, whereas lead production rose by 10% last year to meet the needs of battery and electronics manufacturers.

"Much of this industrial activity is to serve our needs in the developed world," said Robinson, who added that toxic sites had received little attention internationally despite their significant effect on the health of millions of people.

According to Green Cross, four million to 10-million tonnes of obsolete but still dangerous pesticides have been abandoned in tens of thousands of locations and must be destroyed. The cost of doing so will range between \$3000 and \$8000 a tonne. Robinson said, however, that attributing responsibility was difficult and it was unclear who would foot the bill.

The survey did not include ongoing industrial and large petrochemical sites. – © Guardian News & Media 2012

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