

# Poor Bear Burden of Industrialisation

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The Blacksmith Institute, in its second annual report, found that the top ten worst polluting sites in the world are in developing countries. The institute ranks places according to the scale and toxicity of the pollution and on the numbers of people at risk, particularly focusing on the health impact of children. And surprisingly, Argentina figured in the organisation's new 'Dirty Thirty' list for the first time.

"These are places that when you travel to you have an inherent sense of desolation and disgust at what man has wrought," explained Richard Fuller, president of Blacksmith Institute. The places that made the list are ones in which chronic pollution 'damages children's development and growth, causes chronic illnesses, and kills thousands of people indiscriminately'. The World Bank estimates that there are upward of a billion people whose lives are shortened because of contamination of industry and mining. One can assume that the large majority of that billion are living in poor, developing countries since the top ten sites are located in China, Russia, Azerbaijan, India, Perú, Ukraine, and Zambia.

Environmental discrimination exists when a certain sector of the population, especially vulnerable sectors, assumes a disproportionate burden of the effects of human-induced environmental degradation. All of society reaps the benefits of industrialisation but only a certain economic class bears the burden of its toxic wrath.

One site on the list is Tianying in the province Anhui in China. It is one of the largest lead production bases in China, with an output accounting for half of the country's total production. According to the report, potentially 140,000 people, particularly children, suffer from lead poisoning and its related effects: lead encephalopathy, lower IQs, short attention spans, learning disabilities, hyperactivity, impaired physical growth, hearing and visual problems, stomach aches, irritation of the colon, kidney malfunction, anaemia and brain damage. Pregnant women have also reported numerous cases of premature births and smaller, underdeveloped infants.

Vulnerable groups such as poor or excluded sectors, minorities, ethnic enclaves, indigenous communities, immigrants, and other marginalised sectors, are more likely to be affected by environmental contamination, since they are usually the least likely, least driven, or least able to mobilise against such abuse.

An industrial city founded in 1935 as a slave labour camp, the Siberian city of Norilsk also made the list. Mining and smelting operations began in the

1930s and this city now contains the world's largest heavy metals smelting complex, where nearly 500 tonnes each of copper and nickel oxides and two million tonnes of sulphur dioxide are released annually into the air. The snow is black, the air tastes of sulphur and

nothing, not even a blade of grass, can grow within 50km of the town.

Norilsk Nickel, the firm responsible for the pollution, is one of Russia's leading producers of non-ferrous and platinum-group metals. It controls one-third of the world's nickel deposits and accounts for a substantial portion of the country's total production of nickel, cobalt, platinum, and palladium. It also ranks first among Russian industrial enterprises in terms of air pollution.

When poor, marginalised, sickly people who are choking on the air they breathe and dying from the water they drink are pitted against powerful huge companies how are they to compete and demand cleanup? According to the report: "Often insidious and unseen, and usually in places with deficient and exhausted health systems, pollution is an unacknowledged burden on the poor and marginalised in the developing world. It is a major factor impairing economic growth, and a significant strain on the lives of already impoverished people."

Director of global operations, David Hanrahan said, "There is a very unfortunate synergy that in many places these activities that are creating all the pollution are also generating local employment."

One site on the list where this is true is Dzerzhinsk, Russia, which until the end of the Cold War was among Russia's principal production sites of chemical weapons. A quarter of the city's 300,000 residents are still employed in factories that produce toxic chemicals. In 2003, the death rate was reported to exceed the birth rate by 260% and the average life expectancy close to that of medieval times: 42 years for men and 47 for women.

Hanrahan also said: "There are very poor people living next to extremely polluting plants simply because they need to be there to be first in line to get the jobs and all of that will hopefully eventually improve with economic growth."

In addition to this year's list of the top ten, the Blacksmith Institute also compiled a list called the Dirty Thirty, which included The 64km Matanza-Riachuelo River that flows from western Buenos Aires into the Río de la Plata Estuary. Along the river basin are more than 3,500 polluting tanneries, oil, chemical, and metal plants, illicit sewage pipes and 42 open garbage dumps along the river itself. Uncoordinated government action and a lack of environmental controls have allowed industries to dump their effluents into the river indiscriminately. One area is known as the 'flammable slum' because it lies above a toxic dump.

Reportedly, half of the children have lead poisoning, along with respiratory and dermatological problems. One study by the Japanese International Cooperation Agency found that 50% of the children aged seven to 11 have traces of lead in their blood and 10% have chlorine in their urine. Overall health statistics for the residents are poor.

Vulnerable groups suffer disproportionately from environmental degradation. This is in essence a clear form of discrimination that needs to be addressed by local, national and international actors.


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