An Impending Environmental Disaster

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At first sight Nazmul Hasan Shojib seems like a fairly healthy child. But on close scrutiny it becomes quite clear that the 12-year-old Shojib is quite small in stature for his age. Shojib who studies in the 5th grade of the Emersion School and College in Tongi, is slow to answer very simple questions and has a blank look on his face. His mother, Nazma Begum is worried about the state of his health. She says that he regularly complains about feeling weak and tired and sometimes gets headaches and feels nauseous. Shojib says that he doesn't feel like studying because it makes his head feel heavy. Shojib's father Kadir Hossain Babu who makes blinds in a factory in Motijheel and earns a modest income lives with his family in a small tin-roofed house close to the school in this heavily industry-dependent area.



These children from Emersion School in Tongi might look very healthy but their blood lead levels are dangerously high.

Shojib is one of about a hundred children in Tongi who were tested with high levels of lead in their blood. Young children like him are most susceptible to the toxic effects of lead. Long-term exposure to even low levels of lead can cause irreversible learning difficulties, mental retardation, and delayed neurological and physical development. Lead also damages the blood, kidneys, heart and the reproductive system. The first symptoms of lead toxicity are very general and non-specific. These include nausea, sluggishness, vomiting, painful gastrointestinal irritation, diarrhoea, loss of appetite, colic, weakness and dehydration. These symptoms are common to many disorders. In children blood lead level (BLL) ≥ 10µg/dL have been associated with developmental delays, deficits in behavioural functioning, decreased stature and diminished hearing acuity. High BLLs (i.e., ≥ 70µg/dL) can cause serious health effects, including seizures, coma and death.

Dr Amal K. Mitra, a Professor at the Department of Community Health Sciences from the University of Southern Mississippi recently came to Dhaka on a Fulbright scholarship to study the blood lead levels in children of the country. Firstly he took samples from a school in Uttara. Fifty-six children were tested and only three were found to have a lead level of more than 10µg/dL. "I concluded that it was not a major problem for Dhaka city," says Mitra, "so I decided to take my survey to the village."

Mitra contacted an NGO in Chirir Bondon in Dinajpur. There he tested 201 children and found blood lead levels high in more than 40 of them. The third place of study was Tongi where the results proved to be frightening. He took samples from 100 children there and found that 99 of them had a high level of lead in their blood.