

Destroying Our Children's Brains with Lead in Air

by Dr. Naila Z. Khan

PURE air or 'nirmol bataash' should not contain any lead. And the amount of lead should be 'zero' in our blood. Studies in remote Amazonian Civilisations bear this evidence. Yet the more man becomes 'civilised' the more contamination of the environment seems to be taking place. The curse of the petrol-run motor engine has been all-pervasive, especially in the ways that lead from petrol effects the brain development of children. For several decades western countries have reported both acute and chronic neurological problems in children due to lead poisoning. These problems have now been practically eliminated due to the formulation and effectiveness of laws, such as the Clean Air Act in the USA. To put it simply, most western countries have banned leaded petrol. But a completely different and frightening scenario is unfolding for developing countries, as the race towards 'urbanisation', 'industrialisation' and 'replication of the western development paradigms' continues blindly and without thought about the consequences.

Dhaka city: highest air lead content in the world

Dhaka city has the highest recorded environmental lead levels in the world. Air lead level is 463ng/m³ especially during low-rainfall season, i.e. November to January. In comparison Mexico City, considered by many to be the most polluted city in the world, has an average 'air' lead level of 383ng/m³. Levels measured in other cities are: 360ng/m³ in Bombay, 333ng/m³ in Sydney, 230 ng/m³ in Santiago and 70ng/m³ in Los Angeles (M. Khalequzzaman, et al. 1997).

Is it a wonder then, reader, that we put masks on or cover our noses with handkerchiefs against the haze of petrol fumes whenever we are caught in a Dhaka city traffic? But a small baby cannot even resort to this small gesture. Also the pregnant mother with high lead levels transfers the lead inadvertently to the child growing inside the womb.

WHO-advocated 'safe' lead levels in blood

The WHO cut-off point for 'safe' blood lead level is 25microgram/dl, above which a person might display evidences of lead poisoning. The situation

We have been reading reports of extensive arsenic poisoning from drinking tube-well water in many districts of Bangladesh. It is being deemed as an environmental disaster. We now talk about lead poisoning and the long-term implications it has on the brains of many generations to come. Are we going to confront each of these issues as it hits the headlines?

Lead poisoning presenting as developmental delay in Dhaka Shishu Hospital (DSH)

The Child Development Centre or Shishu Bikash Kendro (SBK) of DSH is mandated to see children with a range of acute and chronic neurological problems, developmental delay and disabilities. 80% come from very low-income poor families, half of them living in urban slums and the other half in rural areas. 'Non-specific delay' is a common diagnosis for the children for whom no underlying specific cause can be found. Almost 20% of children are given this diagnosis; most of whom have a combination of risk-factors to account for the delay, i.e. generalized malnutrition, specific micronutrient or vitamin deficiencies for iron, zinc, iodine, calcium, Vitamins A, D, C, etc. Till recently lead poisoning did not feature in our list of probable causes. We have stumbled upon it almost accidentally.

How do we suspect lead toxicity?

Lead deposits in the ends of long bones and gives rise to a typical opacity in these areas called 'lead lines'.

We have been reading reports

These are 'overt' symptoms that a clinician, once alerted, may identify. However, most effects of lead are more 'covert'. Poor IQ levels, extremely difficult behavioural problems and learning difficulties, which may produce school failure and high levels of school 'drop-out' rates, are common findings amongst the majority of lead poisoned children.

The identification and treatment of these children may be beyond the scope of any health institution, or for that matter, that of any public health agency. One simply has to then 'sacrifice the generation'. Do we have the right to do so? These children have been poisoned by short-sighted policies of the state, and have the right to demand proper diagnosis and treatment. Secondly, the treatment of lead toxicity is both extremely expensive and extremely hazardous. That brings us back to the only way we have to resolve the problem, i.e. prevention. So the only remedy is to eliminate lead from the environment of the child. It is actually the most achievable goal for us, requiring very specific intervention.

A holistic solution is required

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Piece-meal solutions for fighting malnutrition has not worked. One capsule of high potency Vit A capsule cannot be the alternative to a balanced meal for the child. We need to put all our minds and national resources together to find comprehensive solutions. The following are some suggested solutions:

1. Ban leaded petrol from all vehicles

2. Advocate balanced diet or 'shushum khaddo'

for our children, instead of speaking

piece-meal about this vitamin

or that mineral. It is from the

ingestion of 'shushum khaddo'

that rich people's children are

'cushioned' from the effects of

most deficiencies or

poisonings, whilst poor people's

children bear the brunt. The

same applies for the effects of

lead poisoning, i.e. it is more

prevalent in inner city poorer

children who have very little

access to balanced food in their

districts?

3. Conduct multi-centre epidemiological studies

for ascertaining the extent of

the problems. A caveat for service

providing professionals is not to

become a 'lead' person, or a

'zinc' person, or an 'iodine' person,

but hold a holistic view

about the social and environmental

risk-factors in our country when seeing children, or even adults. Otherwise a lot of spare resources of the family might be spent on unnecessary investigations and treatment.

4. Establish multi-disciplinary Child Development and Neurology Services in all national hospitals of the country

similar to the Child Development

Centre in DSH, involving

doctors, psychologists, thera-

pists, social workers etc. It is an

achievable task. Similar services

have now been set up in

Chittagong Shishu Hospital.

"Women Know How to Manage Better"

Smita Ghate was assistant collector in Madhya Pradesh's Sagar district from January 1997 to January 1998. She was transferred for taking a proactive stand on the participation of women in rural development programmes. She was also actively involved in the Rajiv Gandhi Mission for Watershed Development. In an interview to **Kazimuddin Ahmed**, Ghate narrates her experience while working in the villages of Madhya Pradesh

time. But the next time these men came, they were beaten up by the women. However, after the success of the programme, people have stopped pointing fingers.

What steps did you take to make the women self-sufficient and financially secure?

We made the women participate in all watershed programmes and enrolled them in the watershed committees. Our first goal was to make them financially independent. We did this by helping them earn money and then saving it. We sponsored nursery development programmes in their own homes. They would tend to the plants which would be sold later to the committee itself. We persuaded them to save money and then forced the banks to collect the money from them. Now, at least, they have some savings and they can use it for their own or their family's welfare.

Which agencies have facilitated, encouraged or helped you in your effort?

Firstly, the Rajiv Gandhi Watershed Development Mission itself is very flexible. This flexibility allowed us to work without the old government procedures. This was a government project with a difference. As implementation officers at the local level, we were given the right to take decisions. Then the army and the National Cadet Corps also helped us a lot. The fact that my own boss gave us the space to exper-

iment with new schemes was a major help. And later, of course, the villagers showed enthusiasm and that doubled the pace of work.

What has been the outcome of these women getting involved in development projects?

The results have been overwhelming. The women acquired a tremendous amount of confidence. They even became better in the technical aspects of the watershed development programmes than most of those involved. And the regeneration of women, both economically and socially, I feel, has been a major success. It has also narrowed the gap between the various castes. Another important aspect is that the bureaucracy has been sensitised. The chief minister later commented, 'Yeh mahila Jagriti ki ek abdhu misal hai' (it is an extraordinary example of the awakening of women).

But how sustainable is this financial independence? Are there any conflicts?

The women might not get the same amount of money throughout the year, but it is the change in their attitude that matters. It is not just an issue of involving women in watershed development programmes, it is social change we are talking about. I think the self-esteem of these women has received a boost and they will certainly retain this. They would not want the next generation to suffer like they have. There can be conflicts like factionalism later, but with a strong political will things can be managed.

Do you think that you being a woman helped in generating enthusiasm among the women in the villages?

Yes, that definitely helped. Because I could relate to them and they could also talk to me very freely. When the women, even the older ones, saw that another woman could come out of her home and work in an alien land, they also came forward with their views. They felt happy that they were being given a choice. The enthusiasm was there. What was needed was the initiative to bring it out. Then it was 'Jab sonch liya ki karenge, to karenge'.

CSE/Down To Earth Features

fare. This also reduced their dependence on the local money lender.

Then we stressed on sanitation facilities. We encouraged the people to have a sanitation system. Initially, the people were not very enthusiastic about it. But they soon understood and started giving importance to it.

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Two other members of the group, a Canadian couple, were transferred to their country last month. But the Chilean and Argentinean prisoners cannot be transferred as bilateral accords on that procedure are still pending parliamentary approval.

The courts consider the eight fasters common criminals, despite the political motives underlying the kidnapping. Sentenced to 26 and 28-year terms, and with nine already com-

pleted, the kidnappers should be eligible for day release under which they would only return to the prison to sleep at night or probation.

But the courts have denied them that right, arguing that it does not apply to foreigners without work permits.

At the Southern Cone Common Market (Mercosur) summit held two weeks ago in Rio de Janeiro, Chilean Foreign Minister Jose Miguel Insulza charged that the denial of that right entailed discrimination against foreigners. During the gathering, Insulza met with local authorities to come up with alternatives to the release of the Chilean prisoners.

No one convicted in Brazil of a kidnapping which did not lead to death has ever been treated with such inflexibility, argue both Insulza and the prisoners' lawyers, the Brazilian, Costa Freire, was also denied legal benefits due to his links

with the others.

The courts are now deciding whether to reduce the sentences to between 15 and 18 years, which would make the refusal of probation even less justifiable. But the legal proceedings are long and involved, and will be delayed by the legal recess that lasts until February.

President Cardoso drew fire from the Sao Paulo courts when he blamed them two weeks ago for delaying the decisions that would allow the kidnappers to be released on probation.

The current hunger strike is Paz's third. He first fasted while a political prisoner in Argentina. Last April the eight kidnappers called off a 16-day hunger strike upon receiving promises for a legal solution to their demands for day release. But authorities' failure to comply with that pledge triggered the new hunger strike and the decision to continue fasting until death or release through deportation and pardon.

IPS/APB

in solidarity with the Salvadorean left.

In December 1989, on the eve

of presidential elections in Brazil, Humberto Paz recognises the kidnapping as an error.

The operation hurt the

chances of leftist presidential

candidate Luiz Inacio da Silva.

A former metal-worker defeated by Fernando Collor de Mello — who was impeached in 1992 on corruption charges.

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The Philosophy of Approach

by A M M Aabab

Sen's five minimum points of approach for the possible alleviation of physical and economic poverty is a simplification for ready-made and quick mundane applications. The classical theories were sort of floating straws as pointers to deeper and richer meaning of life, to be lived and contemplated upon.

PROF Amartya Sen, appearing in the recent BTV talk programme, gave some indirect indication how he approached an issue. He was asked during the interview to provide one liners to the economic problems of Bangladesh and available optional prescriptions to possible solutions.

The latter are quite elusive in the under-developed countries trying to come up when shown the stick or flag of Human Rights — the right to live decently even at the minimum level of sustenance, when left out of the reckoning, or brought in as for bestowing marginal favours.

The beat of the drum is different by the power mongers: unsolicited service to the poor and the down-trodden in the elusive form of creating or providing options to available entitlements. First, where to sit, then comes the question of providing a stool.

Sen, having dabbled with hypotheses and theories all his life would not respond to short-cut solutions, and repeatedly pointed out that life was more complicated than compartmentalised solutions. Mathematical notations looked elegant on paper, but not in black and white; that is, when applied with dirty hands on virgin soil. The integrated output of development is more than the sum of the different units; just like a married couple is more than two, or a symbol where duality becomes united, as in the yang-yin principle.

The integrated processes in nature are beyond the thinking

AIDS has been with us for almost 20 years, and has moved out from the shadows firmly into the mainstream of global health, and economic, concerns. As Gemini News Service reports, the latest statistics show signs of stabilisation in some parts of the world — but in the most afflicted areas financial and social barriers mean the picture is still bleak. Mangai Balasegaram writes from London.

IT has been almost two decades since doctors in a Los Angeles hospital picked up