In 1993 a report was produced by the Indian Council of Medical Research on Milk. This was made into a book and its release function was shown on Doordarshan.

The report was the result of seven years of research. The researchers included personnel from all respected institutions across India- Punjab Agricultural University, Industrial Toxicology Research Centre, Lucknow, Central Food Laboratory, Calcutta, National Institute of Nutrition, Hyderabad, Central Food Laboratory, Pune and the Central Food Technological Research Institute, Mysore, WHO and FAO.

The team selected two districts at random in each state and from each district 30 samples were collected from village markets and shops. Four cities/towns were selected in the state and 15 samples were collected from each city's fair price shops, markets and retailers. The larger states were divided into two. The rural samples showed milk at its source, without processing through the commercial channels, and the urban samples showed milk as it reached the consumer.

What did the team find after taking these thousand of samples from across India? DDT residues above the tolerance level of 0.05 mg were commonly found. In some states the DDT was as high as 2.2 mg 74% of the samples tested in Maharashtra had DDT levels above the tolerance limit. 70% had it in Gujarat; Andhra Pradesh had 57%, Himachal 56% and Punjab 51%. The other states had around 10%

Even more serious was the presence of a poisonous pesticide called HCH which is commonly known as BHC. There are different kinds of HCH - alpha, beta, delta, gamma. A tolerance level of 0.01 mg for gamma HCH has been fixed under the Prevention of Food Adulteration Act. Provisional tolerances for alpha, beta and delta HCH are 0.05, 0.02 and 0.02 mg by the central Committee of Food Standards which means that these are so deadly that no one is still quite sure what levels destroy the human body. The analysis of 2205 samples of milk showed 87% of the milk has residues of alpha HCH, 85% had beta HCH and 85% had gamma HCH. 21% of the samples had levels of alpha HCH that far exceeded even the provisional tolerance levels set down by the government (which are high to begin with), 42% had beta HCH and 28% had gamma HCH that far exceeded tolerance levels. The maximum levels were found in Andhra Pradesh, Bihar and Uttar Pradesh. The researchers found that high income urban groups in Andhra Pradesh, for example, were consuming twice as much as the "acceptable daily intake" (ADI) because of the high consumption of milk.

The researchers took 186 samples of 20 commercial brands of infant formula -- that hugely advertised substitute for mother's milk -- 70% of the samples had levels off DDT that went upto the toxic levels of 4.3 mg (tolerance levels are 0.05). HCH levels in 94% of the samples went up to 5.7 mg!! Not only that, these are the metals that the researchers found in 198 samples of the commercial brands of infant formula.

Arsenic	50% of the samples
Cadmium	80% of the samples
Lead	96% of the samples
Copper	99% of the samples
Zinc	100% of the samples

The research showed that infants were taking in eight times higher than their ADIs of arsenic, cadmium and lead. You don't have to be told what damage these metals cause to the brain and body organs. They are Kidney damage, cardiovascular disease, growth inhibition, irreversible changes in brain and nerve cells and cancer. The main target organs of arsenic contamination are the pulmonary and nervous systems and the skin. Cadmium is associated with kidney damage. High lead levels in the blood have been associated with learning defects in children.

What were the recommendations of the team?

1.

There is an urgent need to take corrective measures so that milk of acceptable quality is available (meaning that the present milk is not of acceptable quality).

2.

The intake of contaminated feed by animals and spraying of cattle sheds with insecticides is known to be the major source of contamination of milk. The usages of DDT and HCH on forage and fodder crops including rice straw needs to be eliminated. The spraying of cattle sheds with these insecticides should be avoided. DDT is already banned in agricultural use but strict compliance needs to be enforced.

3.

HCH needs to be replaced with safer insecticides. (The current annual consumption of HCH in India is a staggering 36,000 tonnes)

4. The raw material and packaging of infant formula should be carefully examined. Also statutory limits for metal contaminants should be laid down in the Prevention of Food Adulteration Act to ensure that only good quality infant formula is sold in India.

This report was released in August 1993 at a press conference. Did the papers cover it? No. I doubt if most of them even understood the seriousness of its content. In all other countries food occupies the front page if it is found to be contaminated. Benzene was found in mineral water in France and the papers went mad for weeks. Turkeys were poisoned in a super market; the papers were so vehement that turkey sales dropped hugely. Salmonella bacteria continue to make the front page whenever someone dies (30,000 die in India from this chicken and egg disease). The mad cow disease which transfers itself to humans is a front pager. Newsweek had its lead article when it was found that a company producing pesticides for apple spraying was actually poisoning apple eaters. The company folded up. Pesticide stories are immediate front page alerts.

This report is on milk. The one product that no Indian family does without. Most people won't feed their children fruit but the daily glasses of milk and dahi are a must for rich and poor. This should have made the headlines. It didn't even make it to the sportspage.

What did the Operation Flood -- the Amul butter lot, the Mother dairy lot -- the spreaders of milk across India have to say? They disputed the findings because they said that more samples should have been taken! Their logic is that if more samples are taken, the overall percentage of pesticide showing in the milk will come down. Merely playing with figures. 2000 + samples are more than enough and the research team has been extremely careful in its analysis and diagnosis. I am sure that they know what they put in their milk -- and their reaction is typically defensive.

Government responses to this? Nil. Till today, not a single recommendation has been followed in the slightest. HCH continues to be used - and subsidised by the government. No standards have been put on infant formula. Nothing has been done to make milk or infant formula less poisonous for our children.

Either stop the government from selling DDT and HCH or stop drinking milk.

Maneka Gandhi