#### **PRESS RELEASE**

# Junk science of the ministry is dangerous, says CSE

- CSE rebuts health minister's statement, reiterates that colas are not safe.
- The government has no proof that the drinks are safe. It has results for only two bottles. Even these results have not been made public.
- Moreover, the health minister has not contradicted our report. What he is saying is of a piece with what the government has been doing for the past three years: putting a public health issue on hold.
- What CSE wants is immediate notification of BIS's standards for carbonated beverages, already finalised

New Delhi August 23, 2006: The science used by the health ministry experts to give cola companies a clean chit is complete junk, says the Centre for Science and Environment (CSE), in a detailed, point-by-point response to the government's report. The health minister told Parliament that a grand total of '2' bottles were tested by the government, which he has used to give the cola companies a certificate of safety. The report of this test is not public. Another 28 bottles have been allegedly tested in Gujarat, for which no details are available. "This is dangerous, as it amounts to misleading us about the health impacts of these drinks. These very drinks, we had found, exceeded pesticide residue limits up to 50 times," says CSE.

The minister had to necessarily discredit the CSE report to clear the cola companies. What CSE would like to know is: One, what was the sampling procedure involved in collecting the 2 bottles for testing? Two, what was the methodology used by the laboratory for testing and how did it differ from CSE's? Three, did the laboratory confirm the results using a GC-MS, as CSE did? Without public disclosures, it is clear that the health ministry's report is not credible. Predictably, the cola companies have seized this occasion to claim their products are safe.

The government has tested two bottles, and they have not revealed their methodology. CSE, on the other hand, tested 57 bottles, collected from 12 states, representing 30 per cent of the bottling plants. The bottles were tested using a methodology which, three years ago, was examined and endorsed by the Joint Parliamentary Committee. Moreover, the presence of pesticide residues was additionally confirmed with GC-MS: all its spectra confirm pesticide residues. "The intention of the health ministry to debunk CSE's study and so clear the cola companies is obvious and disgraceful," says CSE.

In other words, the government has no proof that the drinks are safe. Indeed, health minister Anbumani Ramadoss told Parliament: "I have stated in my answer that we are not contradicting the CSE report." He added: "It is not that the report is right or wrong. Currently it is inconclusive and we need more details." This is obviously evasion and obfuscation, as our detailed rebuttal below will also show.

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CSE's point-by-point rebuttal makes it clear that the report of the experts is vague, misleading and even factually incorrect. The report has been written with just one purpose – insinuating and picking holes in the CSE report to discredit it. More shocking, the internal committee of the health ministry quotes verbatim from reports of Coca-Colasponsored laboratory for its "critique". "The CSE laboratory uses scientifically and statistically valid testing methodologies and we are prepared to face, yet again, any new investigation the government chooses to set up. Even in 2003, the attack was against us and our laboratory. We were vindicated then. We will be vindicated again," says CSE.

### Point-by-point rebuttal

**1 What government said**: Heptachlor is banned since 1996, so its presence is unlikely.

**CSE's rebuttal**: Heptachlor was banned precisely because it is a highly persistent pesticide. Once used, it is likely to be found in the environment for more than 20 years. Therefore, not only will heptachlor be found today; it will, in all probability, continue to be found for the next 10 years. The very scientists in the ministry's expert group, who are today questioning heptachlor findings, have themselves found this pesticide in different kinds of samples – water, vegetables, milk -- from all over the country. A list of these reports is available on CSE's website.

GC-MS chromatograms in CSE's detailed report indisputably confirm confirms heptachlor presence in samples tested by us. Thus, here too, the ministry's committee is wrong.

2 What government said: The prevalence of delta HCH is in contradiction to its biological nature.

CSE's rebuttal: Government's own labs, and various research organisations all over the country, have also found this "contradiction". Residues of delta HCH have been found in numerous samples of milk, drinking water, pond water, vegetables, soil samples and even in rainwater all over the country. Delta HCH has been found in samples from Bhatinda, Thiruvananthapuram, Hissar, Sirsa and Rohtak, Delhi, Shahjahanpur, Hardwar and other parts of India. If CSE's findings are "contradictory" then so are those of such eminent government organizations as the Indian Council of Medical Research, the Indian Council of Agricultural Research and the Chandigarh-based Post Graduate Institute of Medical Education and Research.

**3 What government said**: The CSE report does not provide details required for the confirmatory interpretation of quantum results

CSE's rebuttal: The report put on our website and scrutinised by the ministry's expert committee is a scientifically standardised report, following universally accepted norms.

Our complete investigation of cola samples is compiled as a 452-page report,

comprising GC-ECD/NPD chromatograms and GC-MS spectra. The full report is available for public scrutiny.

4 What government said: Malathion residue is technically unlikely and the GC-MS also confirms absence of malathion

CSE's rebuttal: The same issue was raised and analysed in detail by the Joint Parliamentary Committee (JPC) in 2003-04: CSE's malathion findings withstood scientific scrutiny and were endorsed by the JPC.

This time round CSE has double checked malathion findings and confirmed it through a state-of-the-art GC-MS equipment. The GC-MS report unequivocally detects and confirms malathion. This is the most credible, and scientifically advanced, evidence to show the presence of malathion and, therefore, the ministry's expert committee is completely wrong.

**5 What government said**: Chlorpyrifos is present but the retention time does not match **CSE's rebuttal**: We thank the experts for detecting this dangerous pesticide in colas. However, so far as 'retention time' is concerned, it is general scientific understanding that the retention time of a pure compound such as chlorpyrifos in GC-MS and that of the same compound in a food commodity will always vary slightly, because the food commodity also contains chemicals other than that compound.

For instance, our tests show colas contain 3-6 pesticides, plus other additives.

This is why the retention time of chlorpyrifos in GC-MS of cola samples has varied slightly. In any case, in GC-MS analysis, retention time is not so important. What is of greater import is the identification of the compound by the GC-MS. In this case, chlorpyrifos was detected at first hit in the GC-MS, confirming its presence.

6 What government said: The literature review of the CSE report is not balanced CSE's rebuttal: The literature review talks about issues other than pertaining to the test report. In our review, we have talked about constituents of soft drinks such as caffeine, acids and other additives. All these constituents are harmful. Thus, the ministry's criticism itself is unbalanced.

CSE challenge: notify BIS standards immediately
If the health ministry is to be believed, then there are no pesticides in the final product of the two companies. It also means that the final product of these companies can be tested. After all, it has been tested now and given a clean chit. The companies have, over 20 BIS meetings held over the last two-and-a-half years, opposed the standards, saying that there is no validated test methodology and that their products are too complex to be tested. The companies have also opposed the notification of the final product standards, which have been finalised by the Bureau of Indian Standards.

But if they are so clean and they meet the standard, then why are the companies still not asking government to notify the final product standards immediately?

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