

11,000 KIDS, 36 SCHOOLS, TRACKED FOR 3 YRS BY CANCER CENTRE

Landmark study lies buried: How Delhi's poisonous air is damaging its children for life

Embassy schools only place where alarm bells heard

French, American and German schools regulate outdoors play, plan air purifiers

DEATH BY BREATH AN EXPRESS INVESTIGATION - PART III

PRITHA CHATTERJEE & ANURUDDHA GHOSAL
NEW DELHI, APRIL 1

there are 44 lakh schoolchildren in the capital — are growing up into adults with irreversible lung damage.

And yet no one woke up. An investigation by *The Indian Express* has found that the study gathered dust for two years since it was submitted to the Central Pollution Control Board (CPCB), which ironically had commissioned it. The study was handed over in 2010, the very year RSPM (the killer dust in the air, respirable suspended particulate matter) was zooming to record levels.

Even the schools that were surveyed or parents of the children studied weren't told about the findings because no one passed on the results. Or the recommendations which included radical steps such as moving schools off arterial roads.

For the scientists who did that study, nothing could have been more frustrating.

Starting 2002, they visited school after school in Delhi, often taking the Rajdhani Express all the way back to their institute in Kolkata with

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DELHI VS THE REST
How Delhi's schoolchildren compared on various health indices with counterparts chosen from 17 schools in the rural areas of Uttarakhnad and West Bengal.



*Attention deficit hyperactivity disorder (ADHD)
SOURCE: CPCR AND WHO SURVEILLANCE, 2012

Absolutely nothing was followed up: CPCR scientist PAGE 6

SHUBHAJIT ROY
NEW DELHI, APRIL 1

Since 2014, student athletes at the American Embassy School wear masks while training outdoors. Twice every school day, staff measure air quality and then decide if children can go outdoors.

Lyceee Franeais de Delhi, a school supported by France's embassy, plans to install 60 air purifiers.

The German school, backed by that country's embassy, doesn't let children play outside if RSPM levels top the 300 µg/m³ mark (the average figure for Delhi is 316 this year, over 16 times the permissible limit).

CONTROLLING exposure to vehicular pollution and allotting slots for outdoor activities based on weather conditions were two of the key recom-

mendations of the landmark study of children in 36 Delhi schools by scientists from the Chittaranjan National Cancer Institute (CNCI).

While that report hasn't reached the schools surveyed, another set of schools is waking up to the alarming air pollution crisis in the city — those run by Embassies for children of diplomats and expats on what's technically, foreign soil.

Take the American Embassy School (AES), for instance, which is located inside the embassy premises.

In December 2013, our Board of Governors reviewed the situation regarding physical activity on campus on poor air-quality days," an AES official told *The Indian Express*.

Subsequently, the school administration adopted a

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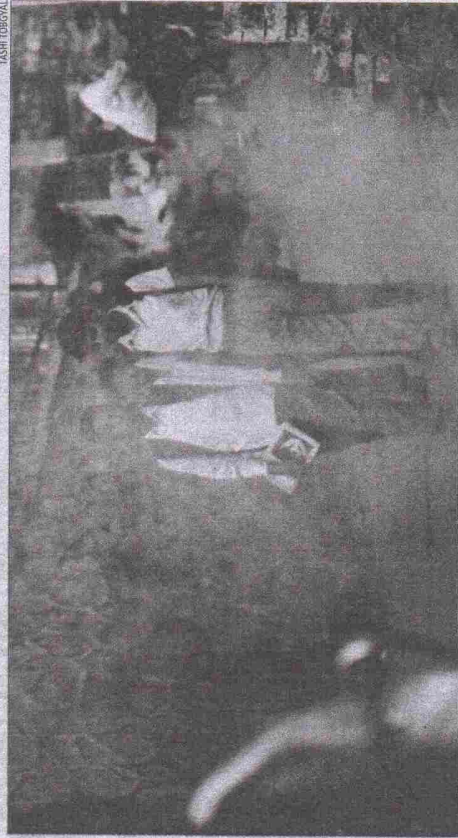


Children in Noida, Sector 32A, return from school last week. The study recommended schools be moved off arterial roads. (ANURUDDHA GHOSAL)

DELHI GOVT ASKS CENTRE TO CALL A MEETING, EXPRESS Newslines

DEATH BY BREATH AN EXPRESS INVESTIGATION - PART THREE

Landmark study lies buried: How Delhi's poisonous air is damaging its children for life



TASHI TORBOVAL

blood samples for testing. Their startling findings:

- In lung tests conducted on 5,718 students, 43.5% suffered from "poor or restrictive lungs"
- About 15% of the children surveyed complained of frequent eye irritation, 27.4% of frequent headache, 11.2% of nausea, 7.2% of palpitation and 12.9% of fatigue.
- Delhi's numbers were far higher than that among the 'control group' of 4,536 students selected from 17 schools spread across the "much less polluted" rural areas of Uttarakhnad and West Bengal (see page 6).

Kept in the dark about these facts, the schools surveyed in Delhi now want the government to "formulate an appropriate policy" to save their students. Even representatives from schools that were not part of that survey say they are now "extremely concerned" about how air pollution is affecting the health of their students.

'NOBODY FROM GOVT CONTACTED US'

Dr Manas Ranjan Ray, the principal co-investigator of the study, said that the survey of schoolchildren was one of the two studies they had conducted in that period across different groups in Delhi — the other was on 6,000 adults that found 33.2% prevalence of symptoms indicating respiratory ailments.

While there have been a number of studies on the impact of air pollution on adults in Delhi — as this newspaper reported on Tuesday — the one on schoolchildren was the first of this magnitude that focused solely on this segment.

"We gave specific recommendations on when children should go out and play in what periods schools should conduct outdoor activities, what medical checks students should be subjected to and

took the decision to get the study vetted by ICMR under the Ministry of Health before publishing it. It was due to this that the publication was delayed. But we always anticipated this; that pollutants have such an impact on health was always expected."

SCHOOLS SURVEYED HAVE NO CLUE

The CPCB may have known it all along but officials from Ground Zero — the 36 schools that participated in this survey — said they still have no clue about what the scientists found 10 years ago.

S K Dahiya, principal, Lakshmi Public School, which had the highest number of children (971) participating in the survey, said he was not with the school at that time. "But I am sure that the school has not been made aware of any such findings," he added.

Ajit Kumar, a member of the school's Parent-Teacher Association, said, "This has never been raised in school meetings. I don't think school authorities or parents

Students face the exhaust fumes of a scooter outside a govt school in Feroze Shah Kotla in Delhi, Wednesday

According to Kamalpreet Kaur, principal, Gurd Harkishan Public School, Karol Bagh, from where 335 students participated in the survey: "I joined the school in 2013, since then there has been no intimation from any authority but I will be following up on this. Air pollution is a big problem for students and teachers, we have so many asthmatic students who take leaves in winter months. I think it is time the government formulate an appropriate policy on this."

A YEAR LATER, ANOTHER WARNING

It's not just the CNCI study that has red-flagged this danger: in 2013, a year after their report was published, the World Allergy Organisation Journal reported high respiratory disorder symptoms among students living in Chandni Chowk (66% in North Delhi, Mayapuri (59%) in West Delhi and Sarojini Nagar (46%) in South Delhi.

MEANWHILE, WHAT'S THE GOVT DOING?

On January 7, the Supreme Court-nominated Environment Pollution Control Authority (EPCA), along with Centre for Science and Environment, suggested various measures to control air pollution in Delhi, including the closure of schools on red alert days when pollution levels cross a specified limit.

'WE ARE ALSO VERY CONCERNED'

Some of Delhi's leading schools that were not part of the CNCI study say their students are suffering too:

"We are very concerned about air pollution in Delhi. But there's only so much that the students can do. Pollution in Delhi is mainly caused by vehicles and generators that use diesel. That is not something that students have control over, but we educate them to tell their parents to take precautions."

— D R SAMI, Principal, DPS, RK Puram

"Like everybody else, we are also very concerned with air pollution in Delhi. We have seen that there is an increase in the incidence of children reporting cases of asthma and respiratory problems. We are educating our children and making them aware of air pollution in Delhi."

— ABHIA SAHGAL, Principal, Sanskrit School

"The school is extremely concerned. We conduct talks and experiments to make students aware about air pollution. We insist that our students they come to school via a car pool to avoid polluting the air further. Of late, we have noticed reactions in a few children to allergic components in the air. So a lot of breathing exercises are also done with the children."

— AMIETA MOHAN, Principal, Amity International School, Puhla Vihar

"Our school is located

Embassy schools only place where alarm bells heard

"pro-activity" stance, with the non-outdoors side activity/bar tweaked to facilitate physical education and extracurricular activities.

"The no-outside aerobic activity mark has been lowered from 350 µg/m³ to 300 µg/m³ RSPM 2.5 (the virtually invisible, lethal dust). Or else, the boys and girls cannot play half the time," an official said.

Besides, air quality readings are taken at 7 am and 12 noon, every school day, using the 24-hour average posted on the American Embassy website.

"Masks with special filtering capacity are available for sale on the school's campus. Their use is encouraged but not mandated or required," the official said.

Since December 2013, the school's director has been monitoring hourly pollution updates, armed with the current air quality level.

"The current air quality level mean calling all sports activities from mid-November to mid-February and confining the students to the school building all day where the air quality is not that much better. The PTA finds this totally unacceptable," the school official said.

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with the following guidelines: physical education or sports will "take place as normal" up to RSPM 2.5 readings of 300 µg/m³; no strenuous exercise will be carried out on readings between 300-450 µg/m³; higher readings mean students will be confined to classrooms.

At the French school, the administration wants to minimise "indoor pollution" too, officials said.