

Time to clear the air

Experts Push For Strong Steps Against Air Pollution For A Healthier Tomorrow

Youth Power is an annual social leadership programme organised by The Global Times, where different teams from Amity schools engage in varied social causes in several stages. One of them is 'Panel Discussion', where experts from different walks of life discuss various aspects of the chosen social cause. Here's presenting **Part VI** of this exclusive series, based on the panel discussions organised by YP teams for the year 2025-26, and a host of opinions and insights shared by experts on 'Air Pollution', the cause chosen by the YP team of AIS Jagdishpur.



Panellists share long-term effects of air pollution on humans

Plant more trees for ecological balance

Panellist: Dr RK Anand

Prof (forestry), Acharya Narendra Dev University of Agriculture & Technology

"Trees act as natural carbon sinks. Through photosynthesis, they absorb carbon dioxide from the atmosphere and help maintain ecological balance. In the past, the carbon released and absorbed remained in equilibrium, but today this balance has been disrupted. This process of capturing carbon is known as carbon sequestration, and it can be done through two methods - natural and artificial. Artificial carbon sequestration involves machines that capture carbon dioxide and store it deep inside the earth. The natural method is plantation, where carbon is stored in the form of biomass. Planting more trees leads to cleaner air and helps gradually restore ecological



balance. Governments and international bodies have introduced innovative systems where individuals contributing to oxygen production and carbon absorption receive incentives. One such initiative is carbon trading. In 2024, Uttar Pradesh started a pilot project under which farmers receive carbon credits based on how much carbon dioxide their plantations absorb. For eg, if one hectare of plantation absorbs five tonnes of carbon annually, the farmer earns five carbon credits, which can be sold to industries to offset their emissions. This system benefits farmers economically while supporting environmental conservation. States rich in forests like Himachal Pradesh and several African nations are participating in carbon credit mechanisms."

Minimise exposure through preventive habits

Panellist: Dr RK Mishra

Surgeon, Tejas Lifeline Hospital

"When we inhale polluted air, the first system affected is the respiratory system. The pollutants first enter our airways - the trachea, bronchioles, and alveoli. Once these pollutants reach the alveoli, they enter the bloodstream and travel to vital organs such as the brain, heart, and other body systems. With all our body systems affected, the work capacity decreases, mental alertness reduces, cognitive functions decline. Air pollution also increases the risk of heart attacks and can alter neurotransmitters in the brain, leading to memory loss. If pollutants reach reproductive organs through blood circulation, they may even affect future generations."



Long-term exposure also increases the probability of cancer. To prevent these effects, we must adopt protective measures. One important step is wearing an N-95 mask, which filters about 95% of airborne pollutants and protects our airways. If we have already inhaled polluted air, steam inhalation helps clear pollutants from the respiratory tract. Improving immunity is equally important. A diet rich in antioxidants such as Vitamin C and Vitamin E and Omega-3 fatty acids strengthens the immune system and reduces the harmful impact of pollutants. Drinking plenty of fluids also helps keep airways clean. While achieving zero pollution may not be possible, we can certainly minimise exposure through preventive habits, cleaner energy adoption, and awareness."



PART VI

EXPERT SPEAK

PM2.5 particles are most dangerous

Panellist: Taj Mohammed Ansari

Safety officer, Bharat Heavy Electricals Ltd

"Across the world, countries follow different air quality parameters. In India, the acceptable AQI level is set at 40, but in cities like Delhi it often reaches 300-400. The World Health Organization recommends an even stricter limit of 5, which shows how serious the issue is. Air pollution mainly results from burning fossil fuels in solid, liquid, or gaseous forms. Vehicles, industries, coal burning, and even household fuel release carbon dioxide, carbon monoxide, and particulate matter (PM)."

These particles enter the human body through inhalation, ingestion, or medical injection. The most dangerous particles are PM2.5 because they are so small that they bypass nasal defenses, reach the alveoli, and enter the bloodstream. From there, they travel to the heart and brain, causing respiratory, cardiovascular, and neurological issues. In comparison, larger particles like PM10 usually get trapped in the upper respiratory system and are expelled through mucus. Even

LPG cooking or frying generate particulate matter, which is why ventilation is extremely important. If pollution cannot be stopped at the source, individuals must protect themselves using measures such as N-95 masks. Long-term solutions include shifting to electric vehicles, promoting public transport and cycling, reducing fuel burning, and increasing plantation. Government norms must also be properly implemented. Air pollution contributes to global warming, rising temperatures, and future migration crises. Therefore, we must collectively act to safeguard both human health and the planet."

