



## Devices to Control Air Pollution

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### Why in News

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The air purifiers installed on the roads and on top of the buses have failed to combat **air pollution** in Delhi NCR.

The air purifying devices include WAYU (Wind Augmentation Purifying Unit) and High-Efficiency Particulate Arrestance (HEPA) filters.

### WAYU (Wind Augmentation Purifying Unit)

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- It is developed to **address air pollution at traffic intersections and dense traffic zones.**
- It has been indigenously developed by the **Council of Scientific and Industrial Research - National Environmental Engineering Research Institute (CSIR-NEERI).**
- The device has the capacity to purify the air in an area of the **500-meter square**. It is **energy efficient** and has a **low maintenance cost**.
- The device works on two principles :
  - **Wind generation for dilution of air pollutants:** It comprises a fan that sucks in air and removes dust and particulate matter.
  - **Active Pollutant removal:** The carbon monoxide and hydrocarbons are oxidized into less harmful carbon dioxide using activated carbon coated with titanium dioxide.

### High-Efficiency Particulate Arrestance (HEPA) filters

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- These filters are able to trap **99.97 % of particles that are 0.3 microns.**
- It traps air contaminants in a complex web of fibers.

**Source: TH**