



**TATHASTU**  
Institute of Civil Services

# **DAILY CURRENT AFFAIRS**



**4<sup>th</sup> November, 2023**

53/1, Upper Ground Floor, Bada Bazar Road, Old Rajinder Nagar, New Delhi -110060

[www.tathastuics.com](http://www.tathastuics.com)

9560300770, 9560300554

[enquiry@tathastuics.com](mailto:enquiry@tathastuics.com)



## IMPACT OF AIR POLLUTION ON ECONOMIC GROWTH

SOURCE: [INDIAN EXPRESS](#)

### WHY IN NEWS?

- There is increasing awareness about the adverse effects of air pollution on public health and the environment. This has led to a growing emphasis on understanding the economic implications of air pollution.

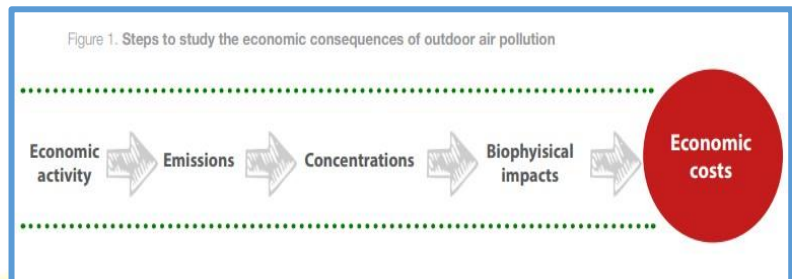
### IMPACT OF AIR POLLUTION ON ECONOMIC GROWTH

#### ➤ Overview:

- ✓ This news report discusses the **substantial impact of air pollution on economic growth** and challenges the **conventional wisdom that dismisses it as an unavoidable by-product** of economic progress.

#### ➤ Policy Research Highlights Economic Risk:

- ✓ India's Department of Economic Policy Research (DEPR) warns that **climate change-related factors**, including extreme heat and humidity, could lead to the **loss of up to 4.5% of India's GDP by 2030** due to lost labor hours.



#### ➤ Research Reveals Four Key Areas of Impact:

##### ✓ **Productivity Costs Beyond Absenteeism:**

- Workers may **overwork to compensate for lost time**, leading to **burnouts, attrition, and difficulty in attracting talent**.
- Sectors relying on **mental output are particularly vulnerable**.

##### ✓ **Decline in Consumption Economy:**

- Poor air quality leads people to stay indoors, **impacting consumer-facing businesses**.
- Improved pollution levels could have **resulted in significant revenue gains**.

##### ✓ **Reduced Lifespan for Business Assets:**

- Pollutants like **sulfur dioxide** affect electronic circuits and reduce asset productivity.
- Agriculture faces **yield losses**.

##### ✓ **Economic Toll from Premature Deaths:**

- Air pollution is **responsible for a substantial portion of deaths in India**, translating to millions of lost workdays and increased health expenses.

#### ➤ Variations Across States and Sectors:

- ✓ The study reveals **large inter-state variations** in economic losses, **ranging from 0.67% to 2.15% of state GDP**.
- ✓ Sectors heavily exposed to heat, such as **agriculture and construction**, are more vulnerable, but even indoor jobs are affected.

#### ➤ Impact on High GDP States:

- ✓ The study emphasizes that air pollution hampers economic activity in states **like Uttar Pradesh, Bihar, Rajasthan, Madhya Pradesh, and Chhattisgarh**, which collectively contribute significantly to India's GDP.

#### ➤ Consequences for High-Productivity Sectors:

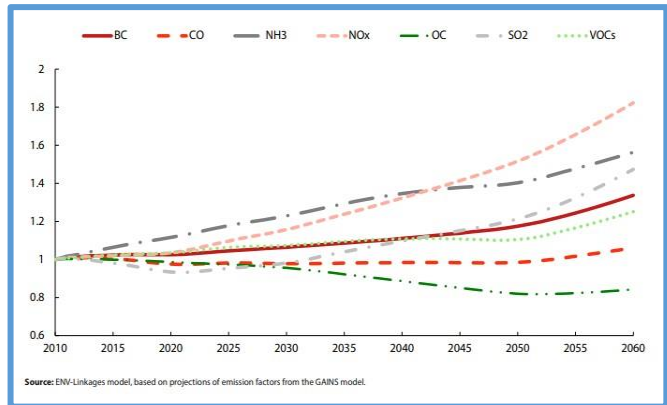
- ✓ High-productivity sectors like **investment banking and software development** are affected by reduced **worker productivity due to air pollution**.



**EMISSIONS OF AIR POLLUTANTS:**

According to the **OECD report**, Projected emissions of outdoor air pollutants are expected to increase in the coming years due to economic growth, particularly in rapidly developing countries like India and China.

- Nitrogen oxides (NOx) and ammonia (NH3) emissions surge due to increased demand for agriculture and energy.
- Black carbon (BC), carbon monoxide (CO), and volatile organic compounds (VOCs) emissions rise.
- Sulphur dioxide (SO2) emissions decline **initially but rebound after 2030**.
- Black carbon (BC) and organic carbon (OC) emissions contribute to PM2.5.
- Ozone formation results from chemical reactions involving gases like NOx and VOCs.



**CONCENTRATION OF AIR POLLUTANTS AND HEALTH IMPACT:**

- Concentrations of PM2.5 and ozone are projected to increase in most regions.
- High population-weighted PM2.5 concentrations are rapidly rising in South and East Asia, notably in China and India.
- PM2.5 concentrations are high in North America, Europe, and Africa but rising more slowly.
- Ozone concentrations exceed guidelines in various regions.
- Many areas, particularly cities, consistently have air pollution above recommended levels.
- Extremely hazardous levels for human health are reached on several days each year.

**GOVERNMENT INITIATIVES TO COMBAT AIR POLLUTION:**

Initiative	Description
<i>Commission for Air Quality Management in NCR</i>	✓ Coordinates state efforts to control air pollution and defines air quality parameters for the region.
<i>Bharat Stage (BS) VI norms</i>	✓ Government-imposed emission control standards to mitigate air pollution.
<i>Dashboard for Monitoring Air Quality</i>	✓ A National Air Quality Monitoring Programme (NAMP) dashboard, covering 344 cities/towns in 29 states and 6 UTs.
<i>National Clean Air Programme</i>	✓ Launched in 2019, it's a comprehensive pan-India scheme to combat air pollution in 102 cities.
<i>National Air Quality Index (AQI)</i>	✓ Focuses on health effects of breathing polluted air within a few hours or days.
<i>National Ambient Air Quality Standards</i>	✓ Set by the Central Pollution Control Board under the Air (Prevention and Control of Pollution) Act, 1981, to maintain ambient air quality.
<i>Breathe</i>	✓ A 15-point action plan by NITI Aayog to combat air pollution.



*Pradhan Mantri Ujjwala Yojana (PMUY)*

✓ Provides clean-cooking fuel to impoverished households to improve living standards.

#### WAY FORWARD AND POLICIES TO REDUCE AIR POLLUTION

- **Welfare Gains from Pollution Reduction:**
  - ✓ Policies aimed at reducing air pollution offer substantial welfare benefits by preventing premature deaths and illnesses.
  - ✓ Air pollution varies by country in terms of pollutants and sources.
  - ✓ Policymaking should consider these variations.
- **Effective Pollution Reduction Policies:**
  - ✓ Policies to reduce air pollution include adopting end-of-pipe and cleaner technologies, air quality standards, emission standards, fuel quality standards, and emission taxes.
- **Spatial Dimension of Air Pollution:**
  - ✓ Air pollution is spatial, with varying pollutant concentrations based on population density.
  - ✓ Local policies should target high-population areas.
- **Global and Local Impact of Air Pollution:**
  - ✓ Air pollution, while often local, can have global implications.
  - ✓ Pollutants can be transported by winds, affecting regions other than where they were emitted.
  - ✓ International trade links countries and consumption patterns can impact emission levels globally.
- **Global Transformation of the Energy System:**
  - ✓ Addressing air pollution requires a global shift toward cleaner technologies, especially in the energy sector.
- **Interactions with Other Policy Areas:**
  - ✓ Policies promoting energy efficiency contribute to reduced emissions.
  - ✓ Coordinated policies are needed to balance various environmental objectives and avoid trade-offs between them.



## **UPSC PYQs**

### ***Prelims***

Q. In the cities of our country, which among the following atmospheric gases are normally considered in calculating the value of Air Quality Index? (2016)

1. Carbon dioxide
2. Carbon monoxide
3. Nitrogen dioxide
4. Sulfur dioxide
5. Methane

Select the correct answer using the code given below:

- (a) 1, 2 and 3 only
- (b) 2, 3 and 4 only
- (c) 1, 4 and 5 only
- (d) 1, 2, 3, 4 and 5

Ans: (b)

### ***Mains***

Q. Describe the key points of the revised Global Air Quality Guidelines (AQGs) recently released by the World Health Organisation (WHO). How are these different from its last update in 2005? What changes in India's National Clean Air Programme are required to achieve revised standards? (2021)





## SERVICE SECTORS PMI GROWS AT SLOWEST PACE IN 7 MONTHS

SOURCE: [INDIAN EXPRESS](#)

### WHY IN NEWS?

In October, India's services sector experienced a slowdown, marked by a decline in growth and an increase in price pressures, as indicated by the S&P Global India Services PMI. The PMI dropped to **58.4**, down from **61** in September, marking the slowest expansion since March.

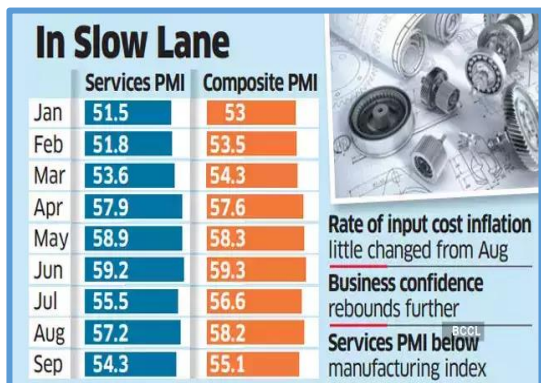
### Purchasing Managers Index:

- The **Purchasing Managers Index (PMI)** is a survey-based measure that assesses changes in key business variables compared to the previous month.
- Its purpose is to **inform company decision-makers, analysts, and investors** about current and future business conditions.
- PMI is **separately calculated for manufacturing and services sectors**, and a composite index is created.
- **It's a scale from 0 to 100**: above 50 indicates expansion, below 50 signifies contraction, and 50 means no change.
- A **higher previous month's PMI** compared to the current month's suggests economic contraction.
- Typically released at the beginning of each month, making it a **leading indicator of economic activity**.
- IHS Markit **compiles PMI for over 40 global economies** and is a leader in providing information, analytics, and solutions for various industries and markets.
- IHS Markit is part of **S&P Global**.



### RECENT PURCHASING MANAGERS INDEX FINDINGS:

- In May 2023, India's services sector growth slightly eased but remained the **second-strongest in nearly 13 years**.
- The S&P Global India Services PMI Business Activity Index dropped from **62 in April to 61.2 in May**.
- The overall S&P Global India Composite PMI **Output Index** held steady at April's almost 13-year high of 61.6.
- India's manufacturing sector also **surged to a 31-month high in May**.
- The manufacturing PMI rose from **57.2 in April to 58.7 in May**, the highest since **October 2020**.



### FACTOR RESPONSIBLE FOR RECENT CHANGES:

- **New Business and Job Creation:**





- ✓ New business expanded at the **slowest pace since May**, with certain service types experiencing subdued demand.
- ✓ New job **creation occurred in October but at the slowest rate in three months**.
- **International Orders and Sentiment:**
  - ✓ The **silver lining was a strong upturn in international orders**, reaching the **second-fastest pace since September 2014**, with new orders from Asia, Europe, and the U.S.
  - ✓ **Faster increases in input costs and output charges** were observed in October, with **inflation rates surpassing their long-run averages**.
- **Factors Responsible for Cost Increases:**
  - ✓ Firms attributed **higher input costs to food, fuel, and staff expenses**, compelling them to **raise prices at the strongest pace** in nearly six and a half years.
- **Future Activity Index and Confidence:**
  - ✓ The **Future Activity Index declined by more than five points in October**, indicating **some loss of confidence in the outlook for services output** due to rising inflation expectations.
- **Competition and Subdued Demand:**
  - ✓ Fierce competition and subdued demand for certain **types of services negatively affected business prospects for the next year**.
  - ✓ The future **activity sub-index dropped from its nine-year high** in September to 63.5, reflecting reduced confidence.
  - ✓ **Employment growth also decreased** to its lowest level in three months.

#### **WAY FORWARD FOR INDIA'S SERVICES SECTOR:**

- **Addressing Inflation:**
  - ✓ Managing and **controlling inflationary pressures on food, fuel, and staff costs** is essential.
  - ✓ **Companies should explore strategies to mitigate** the impact of rising expenses on their operations.
- **Diversification of Services:**
  - ✓ To **combat competition and subdued demand**, businesses can consider **diversifying their service offerings to tap into new markets** or cater to emerging needs.
- **Strengthening Business Confidence:**
  - ✓ **Restoring business confidence** is crucial.
  - ✓ This can be **achieved by creating a conducive environment for investment** and addressing factors that contribute to dampened confidence.
- **Promoting Exports:**
  - ✓ **Leveraging export opportunities** is a positive aspect of growth.
  - ✓ Businesses should **explore ways to expand their international presence**.
- **Skills Development:**
  - ✓ **Focus on skills development to enhance the competitiveness** of the services sector.
  - ✓ A skilled **workforce can adapt to changing market dynamics** and meet the demands of diverse customers.
- **Government Policies:**
  - ✓ Government policies that **promote the services sector and facilitate ease of doing business** can provide a conducive environment for growth.



## PRELIMS POINTERS:

Topic	Information
<p><b>ZIKA VIRUS</b></p>   <p>e-cigarettes</p> 	<p><b>WHY IN NEWS?</b></p> <ul style="list-style-type: none"> <li>➤ Following the detection of the Zika virus in a mosquito sample from Chikkaballapur district, Karnataka has heightened its vigilance and alertness.</li> <li>➤ The Zika virus, a <b>mosquito-borne flavivirus</b>, was initially discovered in monkeys in Uganda in 1947.</li> <li>➤ <b>SYMPTOMS:</b> Common Zika symptoms include mild fever, rash, conjunctivitis, muscle/joint pain, malaise, or headaches.</li> <li>➤ During pregnancy, Zika can cause microcephaly and other birth defects, forming congenital Zika syndrome.</li> <li>➤ <b>TRANSMISSION:</b> ZVD results from a virus primarily spread <b>by Aedes mosquitoes</b>, notably <i>Aedes aegypti</i>, which also transmit dengue, chikungunya, and yellow fever. <b>Zika can also transmit from mother to foetus</b>, via sexual contact, blood transfusions, and organ transplants.</li> <li>➤ <b>TREATMENT:</b> No <b>vaccine or medicine exists</b></li> </ul> <hr/> <p><b>WHY IN NEWS?</b></p> <ul style="list-style-type: none"> <li>➤ <b>Despite advertising restrictions, 85% of young people across Australia, China, India, and the UK</b> reported exposure to e-cigarette advertising.</li> <li>➤ The <b>World Health Organization (WHO)</b> recommends <b>banning all e-cigarette advertising, promotion, and sponsorship</b>.</li> <li>➤ <b>E-cigarettes</b>, commonly known as "<b>e-cigs</b>," "<b>vapes</b>," or "<b>electronic nicotine delivery systems (ENDS)</b>," are regarded as <b>cigarette alternatives</b>.</li> <li>➤ They comprise a <b>heating component, a battery, and a reservoir for a nicotine-infused liquid</b>, generating an inhalable aerosol when heated.</li> <li>➤ The aerosol contains <b>nicotine, Volatile Organic Compounds, fine particles, heavy metals, and more</b>.</li> <li>➤ <b>India has one of the strictest regulatory environments</b>, with a <b>ban on nicotine and non-nicotine e-cigarettes</b> and no advertising allowed.</li> <li>➤ In India, <b>e-cigarettes</b> are presently <b>prohibited</b> by the <b>Prohibition of Electronic Cigarettes Act of 2019</b>.</li> </ul>
<p><b>HUNGA TONGA ERUPTION</b></p> 	<p><b>WHY IN NEWS?</b></p> <ul style="list-style-type: none"> <li>➤ The violent eruption of the <b>Hunga Tonga-Hunga Ha'apai volcano in January 2022</b> <b>The latest consequence being the depletion of the ozone hole</b> has been linked to this year's substantial ozone depletion.</li> <li>➤ <b>GEOGRAPHICAL LOCATION:</b> Situated in the <b>western South Pacific Ocean</b>, to the west of the <b>primary populated islands</b> within the <b>Kingdom of Tonga</b>.</li> <li>➤ <b>TOFUJA ARC:</b> It is <b>one of 12 confirmed submarine volcanoes</b> located along the <b>Tofua Arc</b>, which is a <b>section of the larger Tonga-Kermadec volcanic arc</b>.</li> <li>➤ <b>ARC FORMATION:</b> The Tonga-Kermadec arc was created <b>due to the subduction of the Pacific Plate beneath the Indo-Australian Plate</b>.</li> <li>➤ <b>ISLAND COMPONENTS:</b> Comprising two small, <b>unpopulated islands</b> named <b>Hunga-Ha'apai and Hunga-Tonga</b>.</li> </ul>