The Hindu Important News Articles & Editorial For UPSC CSE

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Edition: International | Table of Contents

India's consumer price inflation has moderated slightly, dropping from a 14-month high of 6.2% in October to 5.5% in November 2024. This decline is largely attributed to a reduction in food price inflation, although food inflation remains elevated. The news also highlights the growing economic pressures, particularly on rural consumers, and the ongoing discussions about monetary policy adjustments by the Reserve Bank of India (RBI).

Retail inflation moderates to 5.5% in November after new high in October

Vikas Dhoot
NEW DELHI

India's retail inflation cooled slightly to 5.5% in November from a 14-month high of 6.2% in October, but remained significantly elevated for rural consumers at 5.95%, while dropping to 4.8% for their urban counterparts.
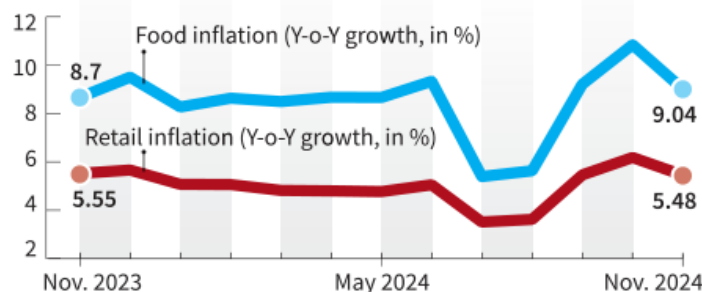
Food inflation, which has been a bugbear for hopes of an interest rate cut, also eased a tad from October's 15-month peak of 10.9% to 9.04% in November. Rural consumers experienced a slightly higher uptick of 9.1% while urban consumers saw an 8.74% gain in prices.

Vegetable prices ease
This marks the third straight month of food inflation staying above the

9% mark, and overall consumer price rise of over 5%.

Vegetables inflation eased from a 57-month high of 42.2% in October to 29.33%. However, oils and fats inflation shot up 13.3%, the highest pace in two and a half years, and significantly over the 9.5% rise in the previous month and

A mild respite

For the third straight month, food prices surged by over 9%, and consumer inflation stayed closer to 5.5%

Food inflation (Y-o-Y growth, in %)

Retail inflation (Y-o-Y growth, in %)

8.7 ... 9.04

5.55 ... 5.48

Nov. 2023   May 2024   Nov. 2024

SOURCE: MOSPI

the mere 2.5% inflation in September.

"The decline in inflation in November 2024 is mainly due to decline in inflation in 'food & beverages' group," the National Statistics Office (NSO) said, pointing to a significant drop in price rise observed in vegetables, pulses, sugar, fruits, eggs, milk, spic-

es, transport, communication, and personal care and effects. But these moderations were only marginal in some cases.

Fruits inflation eased only marginally from 8.4% in October to 7.7% in November. Pulses inflation dropped to 5.4%, the lowest in at least two years, and cereals inflation stood at 6.9%.

Six of the 22 States (including the erstwhile State of Jammu and Kashmir), for which the NSO calculates monthly inflation rates, observed a price rise of over 6% – the upper limit of the Central bank's inflation target – in November. These included Chhatisgarh (8.4%), Bihar (7.55%), Odisha (6.8%), Uttar Pradesh (6.6%), Kerala (6.3%), and Madhya Pradesh (6.05%).

Moderation in Inflation Due to Food Price Cooling
➡ **Food Price Trends:** The overall food inflation showed some respite, with significant cooling in the prices of vegetables (down from 42.2% to 30%) and food grains rising at the slowest pace in 28 months.

➡ **Pulses and Oil Prices:** Pulses saw a cooling down to just over 5% after a prolonged period of high inflation, but edible oil prices continued to rise sharply by 13.3%, driven by global price increases and domestic policy changes.

➡ **Rural Inflation Impact:** Despite some relief in certain food items, rural consumers faced nearly 6% inflation, with higher food prices affecting their purchasing power more severely than urban consumers.

Inflation's Spillover Effects on Manufacturing and Services

➡ **Cost Pressures on Businesses:** Manufacturing and services sectors reported heightened cost pressures, compelling firms to raise prices at the highest pace in 12 years.

➡ **Government's Response to Inflation:** While the government maintains that food price volatility should not dictate monetary policy, it faces increasing concerns about the broader impact of inflation on the economy.

➡ **Impact on RBI's Inflation Forecast:** The RBI raised its inflation forecast for the October-December period from 4.8% to 5.7%, expecting inflation to remain above its target of 4% until mid-2025.

Debate on Interest Rate Cuts and Fiscal Measures

➡ **Interest Rate Cut Expectations:** There are increasing expectations of an interest rate cut in February's RBI Monetary Policy Committee (MPC) meeting, though the latest data suggests that inflation might cool further and growth could pick up slightly, reducing the urgency for such a move.

➡ **Fiscal Prudence and Growth Support:** The government may hope that its Budget for 2025-26, which will be presented before the February MPC meeting, will demonstrate fiscal discipline and propose measures to alleviate living costs, bolstering the case for rate cuts.

➡ **Monetary Policy Deliberations:** Despite pressures for a rate cut, the RBI's cautious stance indicates that any decision will be balanced with concerns about economic growth and inflation trends, which are expected to moderate in the coming months.

UPSC Mains ractice Question

Ques : Assess the current state of inflation in India and its impact on different sectors of the economy. How should the Reserve Bank of India approach monetary policy adjustments in light of these trends? **(150 words/10m)**

The Lok Sabha passed the Disaster Management (Amendment) Bill, 2024, marking a significant update to the Disaster Management Act, 2005.

➡ The Bill aims to enhance disaster preparedness and management across India by introducing institutional reforms and clarifying roles at various administrative levels.

Lok Sabha passes Bill to amend the Disaster Management Act of 2005

The Hindu Bureau
NEW DELHI

The Lok Sabha on Thursday passed a Bill to strengthen the working of national and State disaster management authorities, with the Centre stressing that the legislation will help State governments deal with disasters better.

The House cleared the Disaster Management (Amendment) Bill, 2024 by a voice vote. Several amendments moved by the Opposition members were negated.

Pointing out that State governments had flagged several difficulties in implementing the Disaster Management Act of 2005, Union Minister Nityanand Rai said the new Bill would not only overcome them but also strengthen the disaster management system. The Bill seeks to bring clarity and convergence among stakeholders working in the field of disaster management.

"When a disaster hits, it hits the country as a whole; this Bill will prepare the country to handle disasters better," he said.

The new Bill seeks to bring clarity and convergence among stakeholders in the field of disaster management. THULASI KAKKAT

Many Opposition members, however, said that the Disaster Management (Amendment) Bill, 2024 only talks about creation of a plethora of organisations. Saugata Roy of the Trinamool Congress alleged that the Modi government was not able to manage the pandemic properly and a large number of people died.

He said, "This Bill creates a plethora of organisations and has added a number of English terms".

Captain Viriato Fernandes of the Congress said that while the members were talking about following a holistic approach to deal with disasters, the Bill seemed to have gone against that approach.

Another Congress member, G.K. Padavi, pointed out that climate change had not been included in the Bill and the word "compensation" had been replaced with "relief". "It (promotes) over centralisation," Mr. Padavi said.

Taking a dig at the Opposition, BJP member Arun Govil said disruptions in Parliament on a daily basis was a manmade disaster as it hurt Parliament's dignity.

Salient Provisions of the Disaster Management (Amendment) Bill 2024:

➡ **Defines disaster management:**
   o Disaster management is inclusive of disaster risk reduction - the practice of reducing disaster risk through systematic effort.
   o This is to analyse and manage the causal facts of disaster through -

- Reduced exposure to hazard;
  - Reduced vulnerability of people, property, infrastructure, economic activity, environmental and natural resource; and
  - Improved preparedness, resilience and capacity to manage and respond to adverse events.
  - Disaster database at national and State level: The database will include -
    - Disaster assessment,
    - Fund allocation detail,
    - Expenditure,
    - Preparedness and mitigation plan,
    - Risk registers according to type and severity of risk, etc.

➡ **Constitution of UDMA:** The Bill provides for the Urban Disaster Management Authority (UDMA) for State capitals and large cities having municipal corporations, except the UTs of Delhi and Chandigarh.

➡ **State Disaster Response Force (SDRF):** It provides for the constitution of the SDRF by the State government.

➡ **Empowers the National Disaster Management Authority (NDMA):** To take stock of the entire range of disaster risks in the country periodically, including emerging disaster risks.

➡ **Empowers the NDMA and the State Disaster Management Authorities (SDMAs):** To prepare the disaster plan at national level and State level respectively instead of the plans made by the National and the State Executive Committees earlier.

➡ **Provides statutory status to certain organisations:** The Bill also provides statutory status to certain pre-Act organisations like the National Crisis Management Committee and the High-Level Committee.

➡ **Empower the Central and State governments**: To direct any person to take any action or refrain from taking any action for reducing the impact of a disaster and to impose a penalty not exceeding ₹10,000.

Rational/Significance of the Disaster Management (Amendment) Bill 2024:

➡ **Recommendations of the 15th Finance Commission:** There was a need to amend the Disaster Management Act 2005 to mainstream disaster management in the development plans.

➡ **Brings more clarity and convergence:** In the roles of authorities and committees working in the field of disaster management. This is relevant in the context of the recent Wayanad tragedy.

➡ **A transformative step:** Toward enhancing the nation's capacity for disaster risk reduction and environmental sustainability.

➡ **A comprehensive, centralised disaster database:**
  - At both national and state levels will significantly build resilient communities by improving their ability to prepare for, respond to, and recover from disasters.
  - It will facilitate more efficient resource allocation, better coordination among stakeholders, and timely, informed decision-making during crises.

Opposition's Criticism of the Disaster Management (Amendment) Bill 2024:

➡ **Concerns over federalism:** The Bill undermines states' rights and shifts disaster management from a state to a central subject. The Bill violates cooperative federalism principles enshrined in the Constitution.

➡ **Relief as a justiciable right:** The absence of disaster relief as a legally enforceable right is cited by Tamil Nadu's struggle to secure aid after Cyclone Michaung.

➡ **Bureaucratic overlap:** The extensive powers granted to the Centre through the NDMA, and constitution of multiple authorities may result in potential bureaucratic conflicts.

➡ **Government's Clarification:** The Bill was being introduced under Entry 23 in the Concurrent List ("social security and social insurance, emplaned unemployment") and the Bill followed a report by a task force in 2013.

Conclusion:

➡ "Disaster is not for any party, person, or area - it impacts the nation as a whole."

➡ The Disaster Management (Amendment) Bill, 2024, presents a much-needed overhaul of India's disaster management framework.

➡ As natural disasters continue to intensify, the success of this legislation will depend on its implementation and cooperative collaboration between the Centre and states.

UPSC Mains Practice Question

Ques : Analyze the key provisions of the Disaster Management (Amendment) Bill, 2024, and discuss how they enhance India's preparedness and response to disasters. (250 Words /15 marks)

The outbreak reported in the first week of December 2024 in the Democratic Republic of Congo, which has already claimed more than 400 lives and is yet to be classified, has sparked concerns that it might be an example of Disease X.

What is Disease X and why the world should prepare for it

COVID-19 is regarded as the first instance of a real Disease X. When SARS-CoV-2 emerged as an unknown pathogen causing a global pandemic, it exemplified the scenario that Disease X was meant to represent — an unpredictable, novel threat requiring rapid global response and adaptation

C. Aravinda

The story so far

The recent outbreak reported in the first week of December 2024 in the Democratic Republic of Congo, which has claimed over 400 lives and remains unclassified, has raised concerns that it could be an instance of Disease X. This unsettling event has reignited discussions about Disease X. Disease X is not an actual but a hypothetical disease. The World Health Organization (WHO) coined the term in 2018 to describe an unknown pathogen that could potentially unleash a devastating epidemic or pandemic. It was conceptualised by the WHO to prepare for future outbreaks that are difficult to predict or identify. While investigations continue to determine the cause in Congo, the outbreak underscores the importance of Disease X.

WHO's priority list of pathogens?

COVID-19 is widely regarded as the first instance of a real Disease X after the WHO introduced the concept in 2018. When SARS-CoV-2 emerged as an unknown pathogen causing a global pandemic, it exemplified the scenario that Disease X was meant to represent — an unpredictable, novel threat requiring rapid global response and adaptation. The concept of Disease X traces its origins in the aftermath of the West African Ebola epidemic of 2014-2016, which resulted in over 11,000 deaths and revealed significant gaps in global epidemic preparedness. After the outbreak, the WHO brought together scientists and public health experts to address how future outbreaks of similar scale could be prevented.

The WHO's priority list of pathogens is a strategic tool published in 2018 that is designed to focus global attention and resources on the most serious infectious disease threats. This list identifies diseases that have epidemic or pandemic potential for which there are insufficient or no medical countermeasures such as vaccines or treatments. The need for such a list arises from the urgency to guide research and development, allocate funding, and enhance preparedness. It helps policymakers, researchers, and health organisations prioritise efforts toward controlling the diseases. The current list (not exhaustive) includes Ebola virus disease, Marburg virus disease, Lassa fever, Nipah virus, Rift Valley fever, Crimean-Congo haemorrhagic fever, Zika virus, and Disease X. Each of these pathogens has been flagged due to factors like high mortality rates, potential for rapid spread, and the lack of adequate preventive or therapeutic options.

What is Disease X?

Disease X is not a specific illness but a placeholder for an unpredictable and as-yet-undiscovered pathogen capable of sparking a global health crisis. The WHO included it in the Blueprint for Priority Diseases in 2018 to focus on the risks of emerging diseases that science has yet to encounter. The term sits at the intersection of two categories (among four) popularised by Donald Rumsfeld's matrix: "known unknowns" (threats we are aware of but cannot fully understand) and "unknown unknowns" (threats we are not aware of and understand). Disease X embodies both, as it acknowledges the likelihood of a future pandemic without specifying when, where, or how it might arise.

The potential culprits behind Disease X are varied. It originates from Pathogen X, which could be a virus, a bacterium, a parasite, fungi, helminths, or even a prion – a misfolded protein capable of causing severe neurological diseases. Historical data supports this uncertainty. Since 1940 (from where authentic records are available), researchers have identified more than 300 emerging infectious diseases, about 70% of which have zoonotic origins, meaning they are transmitted from animals to humans. This process, known as zoonotic spillover, is often linked to human encroachment on wildlife habitats, deforestation, and the intensification of agriculture. Meanwhile, the growing risks of antimicrobial resistance, bioterrorism, and accidental lab leaks add further layers of unpredictability.

Patterns in emerging diseases

While the exact nature of Disease X remains unknown, epidemiological patterns provide critical insights into how new diseases emerge and spread. The emergence of viruses such as HIV, SARS, MERS, and Ebola was closely linked to ecological disruptions caused by human activity. Deforestation, urbanisation, and climate change have pushed humans and wildlife into closer contact, increasing the

Swab samples being taken for a COVID-19 test. File THE HINDU

The interconnectedness of our world makes it easier for localised outbreaks to escalate into pandemics. While epidemiology cannot predict the exact moment or source of Disease X, it can help identify high-risk regions and behaviours

likelihood of pathogen transmission. Epidemiologists estimate that over 1.7 million undiscovered viruses exist in wildlife, with hundreds of thousands potentially capable of infecting humans. The frequency of novel outbreaks has also increased significantly since the mid-20th century, reflecting a combination of environmental, demographic, and global factors.

Regions with high biodiversity and inadequate healthcare systems, like the Congo Basin, are particularly vulnerable. The interconnectedness of our world, with frequent international travel and trade, makes it easier for localised outbreaks to escalate into pandemics, as seen with COVID-19. While epidemiology cannot predict the exact moment or source of Disease X, it can help identify high-risk regions and behaviours that increase the likelihood of its emergence.

Challenges of predicting Disease X

Forecasting the next Disease X is daunting, as its emergence depends on numerous unpredictable factors. Zoonotic diseases are the most likely source, given their history of driving major epidemics. However, other scenarios, such as pathogens mutating to evade treatment, laboratory mishaps, or deliberate biological attacks, cannot be ruled out. Climate change is also reshaping disease transmission dynamics, expanding the range of vector-borne illnesses like malaria and dengue fever while pushing pathogens to adapt to new hosts and environments.

The sheer number of potential pathogens adds to the complexity. Scientists estimate that only a fraction of viruses capable of infecting humans have been identified, leaving a vast pool of unknown threats. Genomic sequencing and artificial intelligence are beginning to play an important role in narrowing this vast field of possibilities, but even with these tools, predicting the exact origin, timing, and behaviour of Disease X remains out of reach. What is certain, however, is that the conditions that gave rise to pandemics like COVID-19 and SARS continue to exist, making the emergence of Disease X a question of when, not if.

At the heart of preparation is the need for robust surveillance systems to detect new outbreaks early. Advances in genomic sequencing, artificial intelligence, and real-time data sharing are essential tools for developing diagnostics, therapeutics, and vaccines. Strengthening healthcare infrastructure, particularly in low- and middle-income countries, is also crucial. Organisations like the Coalition for Epidemic Preparedness Innovations (CEPI) are now investing in "prototype pathogen" platforms that can be adapted to target unknown diseases within 100 days of their identification.

Need for global collaboration

Fighting Disease X will require an unprecedented level of international cooperation. The WHO's ongoing efforts, such as its list of priority pathogens and the proposed Pandemic Treaty, aim to foster a unified global response to health emergencies. These initiatives recognise that pandemics do not respect borders and that fragmented efforts will be insufficient to counter a threat as elusive as Disease X. Governments must work together to share data, pool resources, and ensure equitable access to diagnostics, treatments, and vaccines.

The outbreak in the DRC serves as a sobering reminder of the risks the world faces. Disease X is no longer a distant hypothetical but an urgent call to action. By strengthening public health systems, investing in research and innovation, and fostering global solidarity, the world can prepare for the unpredictable and safeguard future generations from the devastating consequences of the next pandemic. Frameworks like the Nagoya Protocol, which ensure equitable sharing of benefits from genetic resources, could be expanded to include biological materials like pathogens. It would promote global collaboration, ensuring fair access to research and medical countermeasures during outbreaks. A novel disease anywhere is a threat to everyone.

(Dr. C. Aravinda is an academic and public health physician. The views expressed are personal. aravindaaiimsjr10@hotmail.com)

What is Disease X?
➡ **Definition:** Disease X is a hypothetical term coined by the World Health Organization (WHO) in 2018 to represent an unknown pathogen that could potentially cause a global epidemic or pandemic.

➡ **Conceptual Origin**: The term was created in the aftermath of the Ebola epidemic (2014-2016) to emphasise the need for preparedness against unpredictable infectious diseases.

➡ **Nature of Disease X:** It serves as a placeholder for both "known unknowns" (threats we are aware of but do not fully understand) and "unknown unknowns" (threats we are not yet aware of). This acknowledges the likelihood of future pandemics without specifying their characteristics.

➡ **Potential Pathogens:** Disease X could originate from a variety of sources, including viruses, bacteria, parasites, fungi, helminths, or prions. Historical data indicates that about 70% of emerging infectious diseases have zoonotic origins, meaning they are transmitted from animals to humans.

➡ **Emerging Disease Patterns**: The emergence of new diseases is often linked to ecological disruptions caused by human activities such as deforestation and urbanisation, which increase contact between humans and wildlife.

Why is it Important to Prepare for Disease X?

➡ **Global Health Security:** Preparing for Disease X is essential for protecting public health globally. The emergence of new pathogens can lead to widespread illness and mortality, as demonstrated by COVID-19.

➡ **Unpredictable Nature of Outbreaks:** The unpredictable emergence of infectious diseases necessitates robust surveillance and rapid response systems. Being prepared helps mitigate the impact of unforeseen threats.

➡ Increasing Frequency of Outbreaks: **The frequency of novel outbreaks has significantly increased** since the mid-20th century due to environmental changes, urbanization, and human encroachment on wildlife habitats.

➡ **Economic Impact:** Pandemics can have devastating economic consequences, disrupting trade, travel, and healthcare systems. Preparedness can help minimize these impacts.

➡ **What should be done to prevent this? (Way forward)**

➡ **Advances in Science and Technology:** Investments in research, genomic sequencing, artificial intelligence, and public health infrastructure enhance our ability to detect and respond to emerging diseases quickly.

➡ **International Cooperation:** Global collaboration is crucial for effective outbreak response. Initiatives like the WHO's priority pathogen list and proposed Pandemic Treaty aim to foster a unified approach to health emergencies.

➡ Equitable Access to Resources: Ensuring equitable access to diagnostics, treatments, and vaccines across all countries is vital for effective pandemic response, particularly in low- and middle-income nations.

UPSC Mains PYQ : 2020

Ques : COVID-19 pandemic has caused unprecedented devastation worldwide. However, technological advancements are being availed readily to win over the crisis. Give an account of how technology was sought to aid the management of the pandemic. **(250 Words /15 marks)**

Page 10 : GS 3 : Enviroment

In 2015, Beijing had an annual average Air Quality Index (AQI) of 144, comparable to Delhi's current average of 155 in 2024. However, Beijing has since achieved a one-third reduction in its pollution levels, with the most notable decline occurring between 2013 and 2017.

Beijing's war against air pollution

Beijing in 2015 had pollution levels similar to those in Delhi today. However, through coordinated effort over several years, Beijing reduced its pollution by one-third between 2013 and 2017; by learning from Beijing's approach, Delhi can implement effective strategies to tackle its air pollution problem

EXPLAINER

Rohit Azad
Shouvik Chakraborty

Beijing, with a yearly average air quality index (AQI) of 144, was as polluted in 2015 as Delhi is today (Delhi's average is 155 for 2024). But in the interim, Beijing has managed to cut its pollution level by one-third with the most significant fall spanning between 2013 and 2017 (Chart 1). To be sure, Beijing's pollution control programme dates back to 1998 which laid the foundation for this aggressive last phase of the programme, which was termed a "war against air pollution".

Why discuss Beijing in the context of Delhi?
Beijing is the capital of an emerging economy, as is Delhi. So, if Beijing could manage what it did at its stage of development, Delhi could and needs to, as well.

There are many similarities between Beijing in 2013 and Delhi today. Chart 2 compares the sources of pollution for the two cities.

For Delhi, we have used the winter months' data because that is the most updated emission inventory available. Moreover, much like Beijing, the regional contribution to pollutants by neighbouring areas/States of the national capital region (NCR) is also high, especially during the winter months. While local emissions need to be controlled, without a concerted collective effort by the entire NCR region, just as Beijing achieved, it would be difficult to win this battle against air pollution.

What did Beijing do?
With rapid economic growth in Beijing, the ambient concentration of pollutants increased rapidly by the late 1990s. By 2017, Beijing's energy consumption had grown by 74% compared to 1998. Unfortunately, a rapid increase in urbanisation and energy consumption meant higher emissions of pollutants. Things were particularly made worse because the heating in Beijing's residential properties was heavily coal-dependent.

Beijing's 20-year anti-pollution programme can be divided into three phases – 1998-2008; 2009-12; 2013-17. One common theme that ran through the entire effort was not shock-and-awe but a careful and slowly built-up plan with people's participation, which was run autonomously by the local government of Beijing.

Sources of pollution in Beijing were broadly identified as energy structures and coal combustion (contributing 22% to PM2.5), transportation structures (31%), and construction and industrial structures (33%).

For the first source, three steps were taken – ultra-low emission renovation and clean energy alternatives in power plants, renovation of coal-fired boilers, and elimination of civil bulk coal consumption used for residential heating.

For transportation infrastructure, the government first retrofitted cars and public service vehicles with diesel particulate filters (DPF) and gradually tightened emission standards. Then it went for scrapping, through subsidies instead of decree, of 'yellow-labeled' vehicles (heavy pollutant-emitting vehicles). Subway and bus infrastructure was overhauled and expanded at a rapid rate, along with optimising the urban layout.

As for the industrial and construction activities, tightening environmental requirements, intensifying end-of-pipe (EOP) treatment, eliminating obsolete industrial capacity, creating a green construction management model, efficient washing facilities, and implementing video monitoring with penal action against violators of construction sites were some of the steps taken.

The last leg of the plan (2013-17) especially focused on the need for regional cooperation, with five adjoining provinces around Beijing coming together to chalk out a collective plan for reducing ambient pollution in the region. This cooperation had a remarkable effect in reducing the level of pollution.

What did Beijing achieve? And how?
As a result of this meticulously planned strategy at multiple levels, sulphur dioxide, nitrogen oxide, volatile organic compounds (VOCs), and PM2.5, the four major pollutants targeted under the policy, fell by 83%, 43%, 42% and 59% respectively between 2013-17 (Chart 3). Since most activities produce multiple pollutants, albeit to differing degrees, targeting a source meant reducing all the associated pollutants.

Chart 4 shows how by targeting each source, multiple pollutants were controlled.

The single most important factor in Beijing achieving its goal, apart from planning to the last detail, was the financial investment that the government committed to.

Chart 5 shows a whopping six-time jump in investment within just four years. All the steps enumerated above required heavy investment and the government did not shy away from making and fulfilling those commitments.
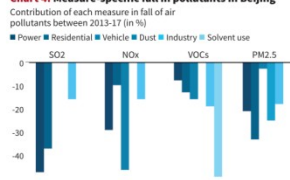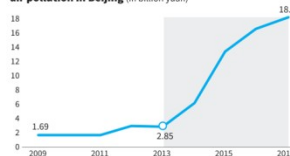
What can Delhi learn from the Beijing experience?
There are ideas galore on controlling pollution, and Beijing is a perfect example to learn from. We list some here, there are more.

Firstly, since private transport is the biggest contributor to local pollution, an efficient and comfortable bus-metro integrated transport system needs to be in place. Delhi's DTC bus fleet is not only old but also grossly inadequate for a population of this city's size. The metro is an excellent means of transport but is quite expensive, with almost zero last-mile connectivity provided by the State. Old vehicles need to be scrapped at the earliest through a well-thought-out subsidy-for-scrap programme, instead of banning them. Exclusive cycling and walking lanes should be built throughout the city. Other ideas, such as cross-subsidisation through affordable public transport and expensive private transport (cars and motorcycles) using congestion or high parking charges, as well as separate fuel costs for the two modes of transport, could be experimented with. An urban layout is needed where places of work and residence are brought closer, alleviating the need for long-distance travel.

Secondly, Delhi's electricity is still supplied primarily through coal fired plants. The energy system needs a serious overhaul both from the sides of supply and demand. Subsiding solar roof tops and connecting it to the grid with electricity bill discounts could be one such step in this regard.

Thirdly, much like the Beijing plan, Delhi needs to coordinate with neighbouring regions, instead of being at loggerheads, to control other sources which originate in these regions. Such a step may work in their collective interests.

Last but not least, the people of Delhi need to fight for the right to clean air and hold the government accountable instead of normalising poor AQIs as being better than severe ones. Prolonged exposure to pollutants, even in the poor AQI zone (for a larger part of the year), may be as dangerous as a short period of severe AQI in October and November every year. This change in attitude itself may go a long way in building pressure on the governments.

Unfortunately, it is not the lack of ideas but political will which is stopping Delhi from acting. It is the same reel playing out every year. Air in the very harmful zone for weeks with schools closing down, the young and the elderly gasping for breath through the day is the new normal in the winter months in Delhi. And what does the government do? The Centre blames the State and vice versa while they have both been in office for a decade. Neither of them is serious or even vaguely interested in solving the problem. Schools, offices, and individuals look for solutions in the form of air purifiers, but private protection for a public bad is by definition exclusivist, with especially the disadvantaged, who contribute the least to the problem, getting a raw deal. Delhi deserves a better response. It is high time that the government, both at the Centre and the State, listened and acted.

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Turning the tide on pollution

Beijing's battle against air pollution provides a useful framework for Delhi. With improved transportation, stricter regulations, and regional collaboration, Delhi can follow a similar path to cleaner air

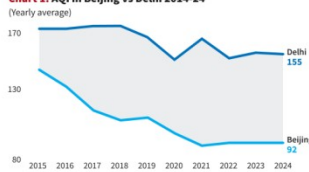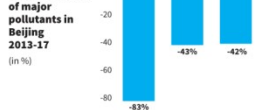**Chart 1: AQI in Beijing vs Delhi 2014-24**
(Yearly average)

Delhi 155 · Beijing 92

Chart 2: PM2.5 source apportionment for Beijing and Delhi
(Beijing in 2013 and Delhi in 2023)

	Beijing	Delhi (winter months)
Motor vehicles	31%	59%
Coal/fossil fuel usage	22%	20%
Industry	18%	0%
Construction/dust	15%	4%
Misc	14%	17%

Chart 3: Fall in emissions of major pollutants in Beijing 2013-17
(in %)

SO2 -83% · SOx -43% · VOCs -42% · PM2.5 -59%

Pedestrians walk along the Kartavya Path engulfed in thick smog, near India Gate, in New Delhi, on November 18. AFP

**Chart 4: Measure-specific fall in pollutants in Beijing**
Contribution of each measure in fall of air pollutants between 2013-17 (in %)
■ Power ■ Residential ■ Vehicle ■ Dust ■ Industry ■ Solvent use

SO2 · NOx · VOCs · PM2.5

Chart 5: Financial investment to control air pollution in Beijing (in billion yuan)

1.69 (2009) · 2.85 (2013) · 18.1 (2017)

Source: Data on Beijing has been taken from 'UN Environment 2019 - A Review of 20 Years' Air Pollution Control in Beijing,' United Nations Environment Programme, Nairobi, Kenya, and, for Delhi, from a report titled 'Real-Time Source Apportionment and Forecasting for Advance Air Pollution Management in Delhi' submitted to the Delhi pollution control committee

THE GIST

▼ Beijing's approach to air pollution involved a long-term, coordinated effort with a focus on regional cooperation and comprehensive policies across multiple sectors.

▼ Key measures included improving transportation infrastructure, retrofitting vehicles, scrapping old vehicles, and enhancing industrial regulations.

▼ Delhi can adopt similar strategies, focusing on integrated transport systems, regional collaboration, and stricter emission controls to combat its pollution crisis.

Why discuss Beijing in the context of Delhi?

➡ The comparison between Beijing and Delhi is significant due to their shared status as capitals of emerging economies facing severe air pollution challenges.

➡ **Similar Pollution Levels:** In 2015, Beijing had an average AQI of 144, comparable to Delhi's current average of 155 for 2024. This similarity highlights the potential for improvement in Delhi, as Beijing has successfully reduced its pollution levels significantly since then.

➡ **Common Sources of Pollution**: Both cities experience high pollution from similar sources, including vehicular emissions, coal combustion, and industrial activities. The regional contributions to air quality issues are also significant in both cases, particularly during winter months.

➡ **Need for Collective Action:** Just as Beijing required a coordinated effort across its region to combat pollution, Delhi must engage neighboring areas in a collective strategy to effectively address its air quality crisis.

What did Beijing do and how did it achieve it?

➡ **Phased and Strategic Planning:** Implemented a 20-year anti-pollution programme in three phases (1998-2017) with local government autonomy and public participation to ensure gradual and sustainable progress.
   o **1998-2008:** Initial groundwork.
   o **2009-2012:** Strengthening regulations.
   o **2013-2017:** Aggressive measures termed the "war against air pollution.

➡ **Energy Sector Transition:** Shifted from coal to cleaner energy by renovating power plants, eliminating coal boilers, and replacing residential coal heating, reducing major emissions.

➡ Transportation Reforms: Upgraded public transport infrastructure, introduced emission controls in vehicles, and phased out polluting vehicles with subsidies, reducing transportation-based pollutants.

➡ Regional Collaboration and Investment: Partnered with five neighboring provinces for coordinated pollution control and increased financial investment sixfold to implement targeted measures effectively.

➡ Financial Investment: A sixfold increase in investment over four years supported these initiatives, allowing for significant infrastructure improvements and regulatory enforcement.

➡ As a result of these efforts, major pollutants like sulfur dioxide and PM2.5 saw significant reductions (e.g., PM2.5 decreased by 59% between 2013-2017).

What can Delhi learn from the Beijing experience?

➡ **Integrated Public Transport System:** Establishing an efficient bus-metro system to reduce reliance on private vehicles is essential. Upgrading the bus fleet and enhancing last-mile connectivity can significantly improve public transport accessibility.

➡ **Energy Transition:** Similar to Beijing's shift away from coal, Delhi should diversify its energy sources by promoting renewable energy options like solar power while reducing dependence on coal-fired plants.

➡ **Regional Coordination:** Pollution control efforts should extend beyond city limits to include neighboring regions, fostering collaboration similar to Beijing's regional initiatives.

➡ **Public Advocacy for Clean Air:** Encouraging citizen engagement in demanding accountability from the government can build political will for implementing necessary changes.

➡ **Political Will and Consistency:** Addressing air pollution requires sustained political commitment and a long-term action plan rather than ad hoc measures that fail to tackle root causes.

Way forward:

➡ **Strengthen Policy Implementation and Regional Collaboration:** Formulate and enforce a comprehensive, long-term pollution control policy with coordinated efforts involving Delhi and its neighboring states to address regional pollution sources effectively.

➡ **Promote Sustainable Infrastructure and Public Engagement:** Invest in renewable energy, green public transport, and urban planning while fostering public participation and advocacy for clean air to ensure accountability and sustained progress.

UPSC Mains PYQ : 2015

Ques : Mumbai, Delhi and Kolkata are the three Mega cities of the country but the air pollution is much more serious probelm in Delhi as compared to the other two. Why is this so?

In News : Willow Chip

Recently, Google has announced a significant advancement in quantum computing as it unveiled its next-generation chip called 'Willow'.

About Willow Chip:

➡ It is a new state-of-the-art quantum computing chip developed by Google.

➡ The components of the chip include single and two-qubit gates, qubit reset, and readout that have been engineered and integrated to ensure that there is no lag between any two components as that may adversely impact system performance.

➡ It was able to solve a complex mathematical problem in just five minutes — a task that would take classical computers longer than the history of the universe.

➡ It performed a standard benchmark computation in under five minutes that would take one of today's fastest supercomputers 10 septillion (that is, 1025) years.

➡ It operates using superconducting transmon qubits—tiny electrical circuits exhibiting quantum behaviour at extremely low temperatures. These circuits are engineered to function like artificial atoms in a quantum state.

What is a quantum chip?

➡ A quantum chip is a special type of computer chip designed to use the principles of quantum mechanics, the science of very tiny particles like atoms.

➡ -While regular chips use 'bits' (0 or 1) to process information, quantum chips use 'qubits', which can be 0 or 1 or both at the same time.

➡ This unique ability allows quantum chips to handle complex calculations much faster than traditional computers.

Page : 08 Editorial Analysis

The missing spotlight on urban local government polls

Urban local governments (ULGs) function as units of decentralised local self-governance, and are responsible for delivering civic services at the first mile, ensuring quality of life for citizens. The 74th Constitutional Amendment Act (CAA) was introduced in 1992 to codify this role of ULGs. Over 30 years later, the objectives of this landmark amendment are yet to be realised. The ongoing discourse on simultaneous elections, popularly known as One Nation One Election (ONOE), is a unique opportunity to spotlight a basic requirement of local democracy, i.e., elections to ULGs – a consideration that has generally been absent in deliberations on the ONOE.

'State subjects' as reasoning
The 79th report of the Parliament Standing Committee on Law and Justice on the 'Feasibility of Simultaneous Elections,' submitted in 2015, while advocating simultaneous elections to the Lok Sabha and State Assemblies, was silent on elections to ULGs. A discussion paper (2017) by the NITI Aayog, on 'Analysis of Simultaneous Elections', kept ULGs out of its purview, arguing that the third-tier institutions are State subjects and that the sheer number of such institutions across the country makes it "impractical, and possibly impossible, to synchronise elections". Similar reasoning is put forward in the 2018 draft report of the Law Commission of India on simultaneous elections. But in a refreshing departure, the High Level Committee (HLC) constituted by the Government of India to provide a road map for implementation of simultaneous elections, deliberated on local body elections and recommended synchronising them within 100 days of simultaneous elections to the Lok Sabha and State Assemblies.

India has over 4,800 ULGs that oversee nearly 40% of the population, a figure which is estimated to cross 50% by 2050. Cities are the backbone of the country's economy, contributing over 60% to India's GDP. Well-governed cities

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The ongoing discourse on simultaneous elections, or ONOE, is the right opportunity for change

accelerate economic growth, and promote social and cultural well being. Thus, ensuring regular elections to install democratically-elected governments in our cities every five years ought to be a matter of mainstream political discourse and policy formulation. The HLC report, which was accepted by the Union government in September 2024, touched upon the procedure of elections to local governments and is a good start in this direction. However, deeper analysis is necessary to understand and address the current state of affairs of elections to ULGs.

Uncertainty and delays in elections
It may come as a surprise to many that despite the constitutional mandate of holding elections to municipalities every five years, elections are routinely delayed across thousands of ULGs – sometimes by several years. According to the Compendium of Performance Audits on the Implementation of the 74th Constitutional Amendment Act, 1992 (published by the Comptroller and Auditor General, or CAG of India in November 2024), elections were delayed in over 60% of ULGs across India. Such ULGs are directly governed by State governments, violating the principle of decentralisation as envisaged in the Constitution. This also adversely impacts accountability as citizens lack representation and have limited avenues for airing their grievances and development needs. Elections that are held on time are the *sine qua non* for democracy – not just for Parliament and the State legislatures but also for every municipality in the country.

Holding elections to ULGs is not enough. After the results are announced, the elected councils have to be operationalised with State governments calling for their first meeting to enable elections to the offices of mayors/chairpersons and standing committees. A study undertaken by Janaagraha found that there was a delay by 11 months on average in the formation of councils after the declaration of election results of the municipal corporations in

Karnataka. In effect, ULGs continue to function under the administrative control of State governments. This defeats the electoral mandate given by the people, making elected city councillors powerless to attend to the development needs of their electorate.

Disempowered State Election Commissions
Another important issue is the disempowerment of the State Election Commissions (SECs), which are constitutional bodies responsible for supervising and conducting ULG elections. The CAG report notes that only four out of the 15 States assessed have empowered their SECs to carry out ward delimitation. The report further notes that elections to ULGs were delayed due to a delay in ward delimitation by State governments or because of court cases regarding reservations. Given the high political ramifications of ward delimitation and reservation exercises, it is necessary that these functions are carried out by independent authorities such as the SECs.

A holistic analysis of the challenges in conducting elections to ULGs promptly is important in the ongoing national discourse on the synchronisation of elections. There is an urgent need to build on the beginning made by the HLC to effect the reforms necessary in ULG elections.

The Government of India has proposed setting up an implementation group to prepare a plan of action that would execute the HLC's recommendations. The government has also expressed its intent to have consultations across the country on this topic. It is hoped and expected that the agenda for reforms to ensure regular and scheduled elections to ULGs will feature in these dialogues and that the Union and State governments will come together to make local democracy in our cities operational and vibrant.

The views expressed are personal

GS Paper 02 : Indian Polity

PYQ : (UPSC CSE (M) GS-2 2020) The strength and sustenance of local institutions in India has shifted from their formative phase of 'Functions, Functionaries and Funds'to the contemporary stage of 'Functionality'. Highlightthe critical challenges faced by local institutions in terms of their functionality in recent times. (250 Words /15 marks)

UPSC Mains Practice Question: Urban local government polls are a cornerstone of grassroots democracy in India. Discuss their role in strengthening urban governance and the challenges they face. (250 words, 15 marks)

Context :

➡ The ongoing debate on simultaneous elections, commonly referred to as One Nation One Election (ONOE), presents a valuable opportunity to highlight a fundamental aspect of local democracy: the need for elections to Urban Local Governments (ULGs).

What is the Significance of Urban Local Government elections?

➡ **Decentralized Governance:** ULGs are crucial for decentralized self-governance, which is fundamental to democratic functioning at the grassroots level.

➡ **Service Delivery:** ULGs are responsible for delivering essential civic services such as water, sanitation, public health, and urban planning, which directly affect citizens' quality of life.

➡ **Local Democracy:** Regular elections to ULGs ensure democratic legitimacy, enabling citizens to participate in the governance process at the local level and hold local representatives accountable.

➡ **Economic and Social Impact:** ULGs play a vital role in urban development, economic growth, and social well-being. As cities are responsible for a significant portion of the country's GDP, well-governed local bodies contribute to national prosperity.

Why is Voter Turnout in Urban Local Elections Typically Lower?

➡ **Lack of Awareness:** Voter awareness regarding local elections is often lower than that for state or national elections, leading to reduced participation.

➡ **Perceived Impact:** Many voters feel that the impact of urban local elections is less significant compared to state or national elections, resulting in voter apathy.

➡ **Political Disengagement:** In many cases, urban residents may feel disconnected from local governance, especially when local issues are not perceived as urgent or when political campaigns do not adequately address them.

➡ **Timing and Scheduling Issues:** Elections to ULGs may be held at different times or not synchronized with other elections, causing confusion and disengagement.

➡ **Voter Fatigue:** Frequent elections at different levels may contribute to voter fatigue, lowering participation rates in local elections.

What reforms are necessary to enhance the effectiveness of urban local governments?

➡ **Empower State Election Commissions (SECs):** Strengthening SECs by granting them autonomy and resources for conducting timely and fair elections is essential. Currently, many SECs lack the authority to carry out ward delimitation effectively, which delays elections.

➡️ **Regular Elections:** Ensuring that ULGs hold regular elections every five years is crucial. The recent acceptance of recommendations by the High-Level Committee (HLC) for synchronizing local body elections with state and national polls is a positive step in this direction.

➡️ **Decentralization of Powers:** The 74th Constitutional Amendment aimed at decentralizing powers to ULGs; however, actual implementation has been inconsistent.

➡️ **Public Participation:** Encouraging greater public involvement in decision-making processes will enhance transparency and accountability within ULGs. This can be achieved through community engagement initiatives and participatory budgeting processes.

Way forward:

➡️ **Strengthen Institutional Capacity and Autonomy:** Empower State Election Commissions (SECs) with the necessary authority and resources to ensure timely and independent elections.

➡️ **Promote Public Engagement and Accountability:** Encourage active public participation through initiatives like community engagement, participatory budgeting, and transparency in governance. This will improve the responsiveness of ULGs to citizen needs and foster stronger local democracy.