

ECONOMICS GS PAPER III**Urban Civic Bodies**

A recent RBI report highlights challenges in municipal corporations' revenue generation, heavy dependence on government transfers, and insufficient capacity to meet urban development demands.

Data Facts on Urban Civics (Source: RBI Report on Municipal Finances)

- **Property Tax Revenue:**
 - Contributes 0.12% of GDP (2023-24).
 - Accounts for 16% of municipal revenue receipts and 60% of own tax revenue.
- **Revenue Receipts:**
 - Municipal receipts: 0.6% of GDP in 2023-24, compared to 9.2% (Central) and 14.6% (State governments).
 - Top 10 MCs generate 58% of municipal revenue receipts.
- **Grants and Transfers:**
 - Central government grants increased by 24.9% (2022-23).
 - State transfers grew by 20.4%.
- **Municipal Bonds:**
 - Total outstanding bonds: Rs.4,204 crore (March 2024), only 0.09% of total corporate bonds.
- **Digitalisation:**
 - GIS-based property tax mapping can improve compliance and reduce revenue leakages.

Issues Plaguing Urban Bodies:

- **Low Revenue Generation:**
 - Property tax collection remains abysmally low.
 - Dependence on government transfers undermines financial autonomy.
- **Operational Inefficiencies:**
 - Poor enforcement of tax laws.
 - Leakages in revenue collection systems.
- **Underutilized Financing Options:**
 - Limited use of municipal bonds and PPPs.
- **Infrastructure and Service Delivery Gaps:**
 - Insufficient funds to maintain roads, drainage, and sanitation systems.
- **Dependence on Upper Tiers:**
 - Over-reliance on state and central transfers stifles long-term planning.

Way Ahead:

- **Strengthen Own Revenue Sources:**
 - Reform property tax structures to reflect real valuation.
 - Introduce GIS-based property tax mapping.
- **Enhance Non-Tax Revenues:**
 - Regularly revise user charges for services like water and waste management.
 - Adopt digital platforms for efficient fee collection.
- **Leverage Innovative Financing:**
 - Expand municipal bond market participation.
 - Promote PPPs in urban transport, waste management, and renewable energy.
- **Optimize Expenditures:**
 - Digitize operations to streamline costs.
 - Automate processes to free resources for capital investments.
- **Ensure Timely Transfers:**
 - Develop rule-based frameworks for predictable state and central transfers.
- **Capacity Building:**
 - Provide technical training for local bodies to improve planning and enforcement.

Conclusion:

Strengthening revenue sources, leveraging technology, and fostering collaborative frameworks can enhance their capacity to deliver essential services. This transformation is essential for sustainable urban growth and improved quality of life.

ENVIRONMENT GS III**Minister raises concern over environmental impact of mining in Odisha**

Odisha Forest & Environment Minister Ganesh Ram Singkhuntia expressed a big concern over excessive mining activities causing environmental pollution in mineral-bearing places of the state.

- Gracing a programme on climate change organised by the Indian Chamber of Commerce (ICC) in Bhubaneswar, the Minister highlighted environmental impact of mining particularly in Joda and Barbil areas in Keonjhar district.
- He said that there are 141 mines and 60-70 industries in these two regions. The excessive mining is causing severe pollution in these places.
- "The dust is everywhere due to non-sprinkling of water during mining operation. The mining activities are on rise. It is impacting common people. We have to admit our mistakes. The state has sufficient funds, but nothing is streamlined. The policies are being made inside AC rooms, however, nothing is executed. We have lots of officers and engineers, but the output is zero. We should protect our water, forest and land. We need to find out the solution," Singkhuntia stressed.
- He expressed his disappointment over inadequate utilisation of District Mineral Foundation (DMF) fund in mineral-rich districts.
- Reprimanding miners and government officials for 'excessive' mining operation, which is causing pollution, the Minister set one-month deadline for implementation of government policies for mining.
- He said that action will be taken against the miners and officials for violation of mining rules.

GS PAPER 3-ENVIRONMENT-POLLUTION

Impact of Air Pollution and NCAP's Effectiveness

The article discusses the severe impact of air pollution on health in India, highlighting increased deaths and chronic diseases due to poor air quality. It criticizes the inadequate response of the National Clean Air Programme and calls for stronger, health-focused actions and policies.

What is the impact of air pollution on health in India?

1. **Lung Damage:** Doctors observed that human lungs, naturally pink at birth, turn black with pollution. Teenagers' lungs now resemble those of lifelong smokers, showing the deep impact of polluted air.
2. **Premature Deaths:** Nearly 2 million lives were lost in 2021 due to pollution-related diseases. Air pollution is India's leading environmental cause of premature deaths.
3. **Chronic Respiratory Issues:** Exposure to air pollution causes lifelong respiratory problems, including asthma and impaired lung development in children. This diminishes health and quality of life over a lifetime.
4. **Non-Communicable Diseases:** Poor air quality is linked to hypertension, diabetes, and strokes. Early exposure to pollutants predisposes people to chronic illnesses.
5. **Inequality in Impact:** Low-income communities living near pollution sources face the worst effects. They lack resources to shield themselves from pollution, deepening the health crisis.
6. **Economic Costs:** Pollution increases hospitalizations and healthcare expenses, adding financial burdens on families. It also reduces productivity by causing missed work and school days.

Is the National Clean Air Programme (NCAP) effective?

1. **Goal and Targets:** The NCAP, launched in 2019, initially aimed to reduce particulate matter pollution by 20-30% by 2024. This target was revised to a 40% reduction by 2026.
2. **Lack of Effective Implementation:** Experts criticize NCAP for its weak implementation. It is seen as a policy of intent with limited on-ground impact.
3. **Monitoring vs. Emission Reduction:** Some experts point out that NCAP focuses on monitoring pollutants but lacks strong efforts to reduce emissions.
4. **Challenges with Uniform Policy:** Experts suggest that a one-size-fits-all approach does not work. Regional strategies targeting specific sources like stubble burning or industrial emissions are needed.
5. **Structural Challenges:** Economist highlights that NCAP is ineffective without reducing reliance on fossil fuels.
6. **Public Health Link:** Experts urge integrating public health into pollution control, making it a central focus of the NCAP.

What Should be Done?

1. **Stronger NCAP Implementation:** Move beyond monitoring to strict enforcement, focusing on health outcomes. Tailor strategies regionally, targeting specific sources like stubble burning and industrial emissions.
2. **Health-Centric Policies:** Link air pollution to public health crises. Recognize pollution as a cause of death certificates.
3. **Community Involvement:** Encourage local actions like limiting waste-burning and idling vehicles near schools, as campaigns like "My Solution to Pollution" suggest.
4. **Unified Regulatory Body:** Establish a central agency to regulate air quality effectively.

GS PAPER 3- SPACE POLLUTION AND SCIENCE AND TECHNOLOGY-AWARENESS IN THE FIELDS OF SPACE

The article discusses how the increasing number of satellites leads to pollution in the upper atmosphere when they burn up. This pollution harms the ozone layer, impacts atmospheric chemistry, and can trigger environmental changes that threaten life on Earth.

What Is the Status of Satellite Pollution?

1. Over 10,000 satellites currently orbit Earth. This number may rise to 100,000 by the 2030s and could reach half a million later on.
2. When satellites end their life cycle, they burn up and release pollutants into the atmosphere.
3. Research by NOAA shows that 10% of particles in the stratosphere contain metals like aluminum from satellite debris.
4. The emissions from satellites increased from 3.3 billion grams in 2020 to 5.6 billion grams in 2022.

Why Is Satellite Pollution a Concern?

1. **Impact on the ozone layer:** Pollutants like aluminum oxide deplete the ozone layer, which protects Earth from harmful UV rays. This is alarming, especially after the Montreal Protocol successfully reduced ozone-depleting chemicals like CFCs.
2. **Atmospheric impacts:** Pollutants like soot from rockets warm the atmosphere by absorbing solar energy. Metals from spacecraft, such as copper, can trigger chemical reactions and promote cloud formation, further altering atmospheric balance.
3. Even small changes in atmospheric chemistry can disrupt Earth's environment, which evolved over billions of years. Scientists fear these disruptions could harm life on Earth, making satellite pollution a pressing global issue.

GS PAPER3- CONSERVATION, ENVIRONMENTAL POLLUTION AND DEGRADATION, ENVIRONMENTAL IMPACT ASSESSMENT

Global negotiations for a treaty to end plastic pollution

The article discusses the upcoming global negotiations in Busan to create a treaty to end plastic pollution. It covers the growing plastic crisis, its environmental and health impacts, the negotiations' goals, and India's position, which focuses on production limits, financial support, and national solutions.

Why is a global plastic treaty needed?

1. **Rising Plastic Production:** Global plastic production doubled from 234 mt in 2000 to 460 mt in 2019 and may reach 700 mt by 2040 (OECD report).
2. **Ineffective Recycling:** Less than 10% of plastic has been recycled, while it takes 20–500 years to decompose (The Lancet, 2023).
3. **Environmental Impact:** 400 mt of annual plastic waste pollutes rivers and oceans, breaking into harmful microplastics.
4. **Health Risks:** Plastic chemicals cause cancer, diabetes, and reproductive disorders (UNEP studies).
5. **Climate Change:** Plastic contributed 3.6% of global GHG emissions in 2020, with emissions rising 20% by 2050 (Lawrence Berkeley National Laboratory).
6. **India's Role:** India accounts for 20% of global plastic emissions (9.3 mt annually), far more than Nigeria (3.5 mt), Indonesia (3.4 mt) and China (2.8 mt).

What are the key issues in the treaty negotiations?

1. **Production Caps:** Oil and gas-rich countries like Saudi Arabia, Russia, and India oppose limits on plastic production, citing it as beyond the treaty's scope. Countries like Rwanda and the EU propose ambitious targets, such as a 40% reduction by 2040.
2. **Finance and Technology:** Countries differ in funding methods. UNEP urges mobilizing private and public finance. India demands financial aid, technology transfer, and infrastructure assessment for waste management.
3. **Just Transition:** Talks address the impact on workers and communities dependent on plastic production, highlighting the need for fair solutions.

What is India's stance on the treaty?

1. India opposes restrictions on polymer production, stating it is beyond the UNEA's 2022 resolution mandate.
2. It calls for decisions on harmful chemicals to be based on scientific studies and prefers domestic regulation.
3. India seeks financial and technical assistance, including technology transfer, for implementing treaty provisions.
4. It highlights the need to assess financial resources and infrastructure for waste management.
5. India banned 19 single-use plastic items in 2022 but advocates for nationally driven regulations.

PRELIM FACTS

1.Nayi Chetna 3.0

Recently, the third edition of the national campaign against gender-based violence, *Nayi Chetna 3.0 – Pahal Badlaav Ki* was launched.

About the Campaign Overview

1. Organized by: The Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM) under the Ministry of Rural Development

2. Duration: It is a month-long campaign which will run from 25th November to 23rd December 2024 across all Indian States and Union Territories.

3. Led by: DAY-NRLM's extensive Self-Help Group (SHG) network

4. Aim: The campaign aims to amplify awareness and encourage grassroots-level action to combat gender-based violence.

5. The initiative embodies the spirit of *Jan Andolan* or people's movement. This year's campaign operates under the slogan, "*Ek Saath, Ek Awaaz, Hinsa Ke Khilaaf*" (United Voice Against Violence).

6. Nayi Chetna 3.0 adopts a whole-of-government approach. It will involve collaboration among nine key Ministries and Departments including Ministry of Women and Child Development, Ministry of Health and Family Welfare, Department of School Education and Literacy, etc

7. Key Objectives: Its objectives include:

- i) Raising awareness about all forms of gender-based violence.
- ii) Mobilizing communities to speak out and demand accountability.
- iii) Facilitating access to support systems for timely intervention and assistance.
- iv) Empowering local institutions to take decisive action against violence.

8. Goals for Nayi Chetna 3.0: The third edition aims to build on past successes by mobilizing communities and institutions to:

- i) Generate widespread awareness about gender-based violence.
- ii) Foster collective action at the grassroots level.
- iii) Drive convergence among government ministries and community stakeholders.
- iv) Create a sustainable and informed movement for gender equality and women's empowerment.

Achievements from Previous Campaigns

Since its inception, the Nayi Chetna campaign has made remarkable progress in mobilizing communities:

First Edition: Reached 3.5 crore people nationwide with active support from multiple line ministries.

Second Edition: Engaged 5.5 crore participants across 31 States and Union Territories, conducting over 9 lakh awareness activities on gender-based violence.

2. Haj Suvidha App 2.0

The Conference of Chairpersons of State and UT Haj Committees took place on 23rd November 2024.

Launch of Haj Suvidha App 2.0

1. Shri Kiren Rijiju launched the Haj Suvidha App 2.0 during the event.
2. It is for better convenience and safety of Indian pilgrims.
2. New features include the selection process for pilgrims, air travel details with boarding passes, a navigation system featuring Mina maps, and access to medical history and health advisories.

Focus Areas for Haj 2025

1. Infrastructure Upgrades: It was announced that modern buildings equipped with lifts will be secured in Aziziya and other areas near the Haram.

2. Improved Transportation: Latest model buses will be introduced for travel between Makkah, Madinah, and the Mashaer region.

3. Enhanced Medical Support: A robust medical support system will be established to assist pilgrims.

4. Personalized Assistance: The ratio of Khadim-ul-Hujjaj has been improved from one Khadim for every 200 pilgrims to one for every 150 pilgrims, allowing for quicker resolution of issues and better assistance. State Haj Inspectors will also play a key role in providing prompt support.

3. MeitY Announces e-Toycathon

The Ministry of Electronics and Information Technology (MeitY) hosted the convocation ceremony on November 23, 2024, in Delhi. The event marked the graduation of the first batch of 15 engineers trained under the Electronic Toys Project.

About the Electronic Toy Hackathon (e-Toycathon)

1. **Aim:** to foster innovation and creativity in electronic toy development.
2. The initiative seeks to further strengthen the Indian toy industry by leveraging electronics and IT solutions.
3. Plans were discussed to formalize the program on a larger scale, enabling more students to benefit.
4. MeitY proposed setting up a **Center of Excellence (CoE)** for electronic toys with support from STPI, MSH, and other institutions. The CoE is expected to encourage entrepreneurship and startup culture in the toy industry.

About the Electronic Toys Project

1. Aim: The project aims to develop electronic and IT-based control and automation solutions for the toy industry.

2. Focus: It focuses on building a robust ecosystem for the Indian toy industry by creating indigenous prototypes and skilled professionals.

3. The initiative gives priority to young engineers from underrepresented communities, including SC/ST and the North-Eastern Region (NER).

About the Training Program

1. The program lasted one year, split into two six-month phases. The first phase involved hands-on training at C-DAC Noida's toy labs, and the second phase focused on industry-based training to create toy prototypes.

2. Participants received a monthly stipend of Rs.25,000 during the program.

3. Engineers were selected from across India, emphasizing inclusivity and diversity.

4. National Gopal Ratna Awards, 2024

The Department of Animal Husbandry and Dairying (DAHD) declared the winners of the National Gopal Ratna Awards (NGRA) this is one of the highest National Awards in the field of livestock and dairy sector for the year 2024.

About National Gopal Ratna Award 2024:

- **Department:** Presented by the Department of Animal Husbandry and Dairying (DAHD), Ministry of Fisheries, Animal Husbandry, and Dairying.
- **Origin:** Initiated to promote and recognize excellence in the livestock and dairy sector.
- **Aim:** To encourage farmers, technicians, and cooperatives working in dairy and indigenous cattle rearing to achieve excellence and boost development in the sector.
- The Award is conferred in **three categories**, namely,
 - Best **Dairy Farmer** Rearing Indigenous Cattle/buffalo Breeds,
 - Best Artificial Insemination Technician (AIT) and
 - Best Dairy Cooperative/ Milk Producer Company/ Dairy Farmer Producer Organization.
- Special awards introduced for North Eastern Region (NER) States in all categories.
- **Cash rewards:**
- Rs.5 lakh (1st rank), Rs.3 lakh (2nd rank), Rs.2 lakh (3rd rank).
- Rs.2 lakh for NER Special Award.
- Includes a certificate and memento (for first two categories).

5. Kanhaiyalal Maneklal Munshi

The article was published regarding K M Munshi contribution in freedom movement.

Kanhaiyalal Maneklal Munshi (Ghanshyam Vyas)

- **Birth:** Born on 30th December 1887, in Gujarat.
- **Freedom Fighter:**
 - Active in **Indian Home Rule Movement** as Secretary in 1915.
 - Participated in **Civil Disobedience Movement (1930, 1932)** and **Individual Satyagraha (1940)**; jailed twice.
- **Political Roles:**
 - Elected to **Bombay Legislative Assembly (1927, 1937)**; resigned during Bardoli Satyagraha.
 - Served as **Home Minister of Bombay Presidency**, managing communal riots.
- **Educational Contributions:**
 - Founded **Bharatiya Vidya Bhavan** in 1938, a renowned educational trust.
- **Literary Achievements:**
 - Authored over **50 books in Gujarati and English**, including *Krishnavatara* and *Saga of Indian Sculpture*.
- **Philosophical Influences:**
 - Influenced by **Shri Aurobindo**, aligning with revolutionary ideas initially.
- **Death:** Passed away on 8th February 1971.



ANSWER WRITING

Q. "Efficient urban governance is as crucial as financial investment for infrastructure development." Discuss the structural reforms needed to empower municipal governments in India.

Efficient urban governance plays a pivotal role in ensuring the effective utilization of financial investments for infrastructure development. Despite contributing nearly 70% of India's GDP, urban areas face governance challenges

due to limited powers, fragmented responsibilities, and financial constraints of municipal governments. Addressing these challenges requires targeted structural reforms to strengthen urban local bodies (ULBs).

Efficient urban governance is as crucial as financial investment for infrastructure development

- **Optimal Resource Utilization:** Governance ensures that **financial investments** translate into impactful projects without delays or inefficiencies.
For example: Bengaluru's **water supply projects** have suffered delays due to weak coordination between municipal and state authorities.
- **Citizen-Centric Planning:** Empowered municipalities can design infrastructure based on local needs.
For example: Indore's **municipal-led waste management program** has become a model of citizen-centric governance.
- **Sustainable Urban Growth:** Robust governance balances infrastructure expansion with **environmental sustainability**.
For example: Chennai's **urban flooding issues** highlight the need for governance focusing on ecological considerations.
- **Effective policy implementation:** Urban governance ensures infrastructure projects align with long-term sustainability goals and are executed efficiently.
For example: The **Bangalore Smart City Project** focused on improving urban mobility and waste management, with coordinated governance efforts ensuring optimal resource use.
- **Citizen participation:** Involving citizens in decision-making processes makes infrastructure projects more relevant and impactful.
For example: The **Mumbai Metro project** actively engaged the public through consultations, addressing concerns about land acquisition and project alignment, which facilitated smoother implementation.
- **Coordination between agencies:** Urban governance coordinates various levels of government and agencies to ensure timely and effective project implementation.
For example: In the **Chandigarh Smart City Project**, effective coordination between local authorities, state governments, and central agencies ensured the smooth rollout of infrastructure improvements like roads and public spaces.

Structural Reforms Needed

- **Decentralization of Powers:** Empowering **Urban Local Bodies** with greater autonomy in decision-making and project execution.
For instance: Amendments to the **74th Constitutional Amendment Act** to make municipal functions obligatory rather than discretionary.
- **Fiscal Empowerment:** Providing **ULBs** with greater control over local revenue generation through **property taxes**, user fees, and municipal bonds.
For example: Ahmedabad successfully issued **municipal bonds** to raise funds for urban infrastructure projects, enabling the city to improve public services and facilities.
- **Capacity Building:** Strengthening **technical and managerial expertise** within **ULBs** to enhance their efficiency.
For instance: Training programs under **AMRUT (Atal Mission for Rejuvenation and Urban Transformation)** aim to enhance the skills of urban local bodies, equipping them with the knowledge and tools needed to implement and manage infrastructure projects effectively.
- **Integrated Urban Planning:** Addressing the fragmentation of responsibilities between state, central, and municipal authorities.
For instance: Creating **Metropolitan Planning Committees** as mandated by the Constitution for coordinated development.
- **Technology-Driven Governance:** Promote **smart solutions** like e-governance to enhance transparency and citizen participation.
For example: Pune Municipal Corporation's adoption of a **GIS-based property tax system** improved revenue collection.

Empowering municipal governments through structural reforms is essential to complement financial investments in urban infrastructure. A focus on decentralization, fiscal autonomy, and capacity building can transform ULBs into engines of sustainable and inclusive urban development, ensuring India's cities are future-ready.

MCQ

- | | |
|---|---|
| 1. Consider the following statements about the Ranthambore Tiger Reserve: | 1. It is located at the confluence of the Satpura and Vindhya ranges. |
|---|---|

2. Bengal tigers are the only large carnivores found in the reserve.
3. Marsh crocodiles are among the aquatic species inhabiting the water bodies of the reserve.
How many of the above statements is/are correct?
a) **Only one** b) Only two
c) All three d) None
2. Which of the following statements about the centrifugal process for uranium enrichment is correct?
a) It enriches uranium by using high temperatures to separate isotopes.
b) The process increases the concentration of the isotope U-238.
c) Highly enriched uranium (HEU) produced through this process is exclusively used for nuclear reactors.
d) **The process involves spinning uranium gas at high speeds to increase U-235 concentration.**
3. What is the primary cause of High-Altitude Sickness?
a) Increased atmospheric pressure at higher altitudes
b) Excessive hydration at high altitudes
c) **Reduced oxygen levels in the air at high elevations**
d) Rapid cooling of body temperature due to high winds
4. Which of the following organizations is not involved in publishing the Climate Change Performance Index (CCPI)?
a) Germanwatch
b) NewClimate Institute
c) **United Nations Environment Programme (UNEP)**
d) Climate Action Network
5. Consider the following statements about Ashtamudi Lake:
1. It is the largest lake in Kerala.
2. It connects to the Arabian Sea through the Neendakara estuary.
3. It is designated a Ramsar Wetland of International Importance.
Which of the above statements is/are correct?
a) 1 and 2 only **b) 2 and 3 only**
c) 1 and 3 only d) 1, 2, and 3
6. Consider the following statements regarding the STARS Program (Strengthening Teaching-Learning and Results for States):
1. It is funded by the World Bank and managed by the Ministry of Education.
2. The Program is a part of the Samagra Shiksha scheme.
3. The program emphasizes skill-based education in schools.
Which of the above statements is/are correct?
a) 1 and 2 only b) 1 and 3 only
c) 2 and 3 only **d) 1, 2, and 3**
7. With reference to the Commission for Air Quality Management (CAQM), consider the following statements:
1. It can issue directions and entertain complaints for the purpose of protecting and improving the quality of air in the NCR and adjoining areas.
2. It has the power to issue binding orders.
3. The Chairperson of the CAQM serves a term of five years or until reaching the age of 65, whichever comes first.
How many of the statements given above are correct?
a) Only one **b) Only two**
c) All three d) None
8. Consider the following statements about the framework of the Paris Agreement:
1. It operates under the principle of legally binding enforcement for non-compliance.
2. It adopts the principle of “common but differentiated responsibilities.”
3. Developed countries are required to provide financial and technological support to developing nations.
Which of the above statements is/are correct?
a) 1 only **b) 2 and 3 only**
c) 1 and 3 only d) 1, 2, and 3
9. Consider the following statements about nayi chetna 3.0
1. It is a month-long campaign which will run from 25th November to 23rd December 2024 across all Indian States and Union Territories
2. The campaign aims to amplify awareness and encourage grassroots-level action to combat gender-based violence.
Which of the above statements are in correct ?
a) Only 1 b) Only 2
c) Both 1 and 2 **d) None of the above**
10. In which of the following events of Indian national movement K M Munshi was not involved?
a) Royal Indian Navy revolt 1946
b) Indian Home Rule Movement
c) Individual Satyagraha
d) Civil disobedience movement