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The COP29 summit in Baku adopted a roadmap for carbon markets but failed to secure a robust climate finance goal, agreeing only to mobilise $1.3 trillion annually by 2035.

- India and other nations criticised the inadequate funding and procedural lapses.
- The outcomes highlight geopolitical challenges in addressing climate change.

Climate deal a mere illusion, says India

Amid opposition and protests, a deal was agreed upon to 'aim to mobilise' $1.3 trillion a year by 2035, with developed countries agreeing to 'lead efforts' to pool in $300 billion a year as a base figure; India rejects proposal, says it does not address the magnitude of the challenge the world faces

Jacob Koshy
NEW DELHI

After running into overtime, the Conference of the Parties (COP29) at Baku in Azerbaijan, hosting 198 countries for nearly a fortnight, finally adopted a "road map", or a weaker form of an agreement to say in traditional climate-talks parlance.

While setting the stage for kick-starting UN-approved carbon markets, the conference failed to deliver on the main goal: a New Collective Quantified Goal on climate finance (NCQG). Amid opposition and protests, a deal was agreed upon early on Sunday to "aim to mobilise" $1.3 trillion a year by 2035, with developed countries agreeing to "lead efforts" to pool in $300 billion a year as a base figure.

The NCQG refers to money that will be given to developing countries by developed countries to help the former meet their goals to transition away from the continued use of fossil fuels and to curb greenhouse gas emissions. Developing countries were insisting on mobilising $1.3 trillion annually. To this end, developed countries have mobilised and transferred $115 billion in 2021-22 – though not all countries agree – but as per the Paris Agreement, a new target higher than $100 billion had to be agreed upon by 2025.

"This new finance goal is an insurance policy for humanity amid worsening climate impacts hitting every country," said Simon Stiell, Executive Secretary of UN Climate Change. "But like any insurance policy, it only works if premiums are paid in full and on time... It will keep the clean energy boom growing, helping all countries to share its huge benefits: more jobs, stronger growth, cheaper and cleaner energy for all."

'Optical illusion'

However, this conclusion did little to placate several countries who were expecting much more money. A member of the Indian delegation publicly voiced her objections at the closing plenary of the summit. This was acknowledged by the President of the COP, Mukhtar Babayev, only after he had ceremoniously slammed the gavel declaring the end of discussions on the finance aspects. The objection will, however, make it to the written COP records.

Winding up: COP29 President Mukhtar Babayev applauds during the closing plenary session in Baku on Sunday. AP

"I regret to say that this document is nothing more than an optical illusion. This, in our opinion, will not address the enormity of the challenge we all face. Therefore, we oppose the adoption of this document," Indian delegation representative Chandni Raina told the closing plenary. India said its request to speak before the adoption of the climate finance package was ignored.

"We had informed the Presidency and the Secretariat that we wanted to make a statement before any decision on the adoption. However, and this is for everyone to see, this has been stage-managed, and we are extremely disappointed with this incident," Ms. Raina said.

"We have seen what you have done. However, we would want to say that gavelling and trying to ignore parties from speaking does not behove of the UNFCCC (United Nations Framework Convention on Climate Change) system, and we would want you to hear us and also hear our objections to this adoption. We absolutely object to this," she said.

Ms. Raina said that only trust and collaboration can drive meaningful action against climate change, which is one of humanity's greatest existential challenges.

"It's a fact that both (trust and collaboration) have not worked today and we are deeply hurt by the actions of the presidency and the (UNFCCC) Secretariat," she said.

India said the new climate finance package was "too little and too distant" and it did not accept it in its present form.

Nigeria backed India's stance and termed the finance deal a "joke," Press Trust of India reported. COP29 also reached an agreement on carbon markets – which several previous COPs had not been able to achieve. These agreements will help countries deliver their climate plans more quickly and cheaply, and make faster progress in halving global emissions this decade, as required by science, a UN Presidency statement noted.

'Redouble efforts'

"No country got everything they wanted, and we leave Baku with a mountain of work to do," Mr. Stiell said. "The many other issues we need to progress may not be headlines but they are lifelines for billions of people. So this is no time for victory laps, we need to set our sights and redouble our efforts on the road to Belem." The finance agreement at COP29 comes as stronger national climate plans (Nationally Determined Contributions or NDCs) become due from all countries next year. These new climate plans must cover all greenhouse gases and all sectors, to keep the warming limit of 1.5 degrees Celsius within reach. COP29 saw two G20 countries, the UK and Brazil, signal clearly that they plan to ramp up climate action in their NDCs 3.0 because they are entirely in the interest of their economies and peoples.

"The goal of $300 billion adopted yesterday by COP29 in the face of categorical objections of countries including India, Nigeria, Bolivia, Cuba and walk-outs...bodes ill for the future of the NCQG and the collective efforts to address climate change. The multilateral process has not emerged in good light in this event," said R. Rashmi, former Environment Secretary and Distinguished Fellow, The Energy Resources Institute. "The declared goal is clearly a prisoner of the geopolitics of the present times and is paltry compared to the financing needs of mitigation and adaptation faced by the developing world."

(With PTI inputs)

Adoption of a Weaker Road Map

- COP29, held in Baku, Azerbaijan, concluded with a "road map" focusing on initiating UN-approved carbon markets.
- The conference failed to meet its primary goal of finalising a New Collective Quantified Goal (NCQG) on climate finance.

Climate Finance Agreement

- A deal was reached to mobilise $1.3 trillion annually by 2035, with developed nations committing to lead by pooling $300 billion annually as a base.
- The NCQG involves financing from developed to developing countries to support the transition away from fossil fuels.
- In 2021-22, developed nations reportedly mobilised $115 billion, far short of the demands of developing nations.

India's Strong Opposition

- India opposed the financial package, calling it an "optical illusion" and insufficient to address global challenges.
- The Indian delegation criticised the process, alleging stage-managed discussions and lack of transparency by COP29 leadership.
- Nigeria supported India's stance, terming the agreement a "joke."

Carbon Market Agreements

- COP29 achieved consensus on carbon markets, potentially accelerating countries' climate goals.
- These agreements aim to reduce global emissions by half within this decade, as per scientific recommendations.

Challenges and Criticism

- The $300 billion target is deemed inadequate given the mitigation and adaptation needs of the developing world.
- Critics cite the agreement as reflective of geopolitical challenges, undermining collective climate action.

Future Goals

- Stronger Nationally Determined Contributions (NDCs) are required by 2025, covering all greenhouse gases and sectors.
- The outcomes demand renewed efforts to ensure climate goals remain on track.

UPSC Mains PYQ : 2021

Ques : Describe the major outcomes of the 26th session of the Conference of the ParSes (COP) to the United NaSons Framework Convention on Climate Change (UNFCCC). What are the commitments made by India in this conference? (250 words/15m)

The U.S. has indicted Adani Group's leadership for an alleged $250 million bribery scheme to secure solar power contracts in India.

- The charges include violations of U.S. anti-bribery laws, securities fraud, and wire fraud.
- This development has financial, reputational, and geopolitical implications, with significant disruptions to Adani's business operations.

Why has Gautam Adani been indicted?

Under which laws have federal prosecutors in New York brought charges against Adani Group Chairman Gautam S. Adani, his nephew Sagar Adani, and six others? Why did Adani Green executives allegedly bribe Indian government officials of various States?

EXPLAINER

Aaratrika Bhaumik

The story so far:

On November 21, federal prosecutors in New York indicted Adani Group Chairman Gautam S. Adani, his nephew Sagar Adani, and six others on multiple counts of fraud. The charges stem from an alleged multibillion-dollar scheme to bribe Indian officials in exchange for favourable terms on solar power contracts, which were projected to generate over $2 billion in profits. "This indictment alleges schemes to pay over $250 million in bribes to Indian government officials, to lie to investors and banks to raise billions of dollars, and to obstruct justice," a press release issued by the U.S. Attorney's Office, Eastern District of New York, said quoting Deputy Assistant Attorney General Lisa Miller.

Who are the defendants?

The defendants named in the case, alongside Gautam Adani and his nephew Sagar Adani (executive director of Adani Green Energy), include – Vneet Jaain, former CEO of Adani Green Energy; Ranjit Gupta, who served as CEO of Azure Power Global from 2019 to 2022; Rupesh Agarwal, who headed Azure Power Global from 2022 to 2023; Cyril Cabanes, former managing director of Caisse de dépôt et placement du Québec (CDPQ) which is a majority stockholder of Azure Power; Saurabh Agarwal, former managing director of CDPQ India; and Deepak Malhotra, former executive of CDPQ.

What is the heart of the indictment?

A novel tender floated by the state-owned Solar Energy Corporation of India (SECI) in 2019 forms the heart of the indictment that has accused the Adani Group Chairman and his associates of paying over $250 million in bribes to Indian government officials. The manufacturing-linked solar tender was eventually awarded to Adani Green Energy and Azure Power with the former claiming in a press statement at the time that it had won "the world's largest solar award". According to the indictment, the $6 billion investment was projected to yield over $2 billion in post-tax profits over 20 years. However, the project encountered an unexpected setback – SECI was unable to sign power supply agreements (PSAs) with State electricity distribution companies (DISCOMs) due to "high energy prices". At this point, Adani Green executives allegedly bribed government officials in several States, including Odisha, Andhra Pradesh, Tamil Nadu, Chhattisgarh, and Jammu and Kashmir, to pressure their power distribution companies into agreeing to purchase solar power at above-market rates. The U.S. case is based on the premise that this is where the corruption took place, and that Adani Green failed to disclose this information to its investors in the U.S., constituting fraud under federal securities law.

The U.S. prosecutors have further alleged that Gautam Adani personally met with an unnamed "high-ranking government official of Andhra Pradesh" in August 2021 to expedite the execution of a PSA between SECI and the State's DISCOMs, during which approximately ₹1,750 crore (85% of the alleged bribe) was purportedly offered to the official.

What are the charges?

The indictment accuses Adani and his associates of conspiring to bribe Indian officials to secure energy contracts in a purported violation of the Foreign Corrupt Practices Act (FCPA). Although enacted in 1977, the law has been more stringently enforced in recent decades resulting in substantial fines for major companies, including Germany's Siemens, Brazil's state-owned Petrobras, and a subsidiary of Halliburton, the oil services giant.

President-elect Donald J. Trump reportedly wanted to strike down the legislation in his first term since he considered it "unfair" to American companies. Another prominent critic of the law, Jay Clayton, whom Trump appointed as U.S. Attorney for the Southern District of New York, contended in a 2011 paper that U.S. anti-bribery policies disproportionately burdened American companies in international transactions, thereby undermining U.S. competitiveness.

The prosecutors have alleged that the defendants meticulously tracked their bribes and offers to Indian officials using messaging apps, phones, and PowerPoint presentations, often employing "code names" in their communications. It was further claimed that two of the defendants even engaged in discussions to delete "incriminating electronic materials, including emails, electronic messages and a PowerPoint analysis."

The defendants also stand accused of engaging in securities and wire fraud to fund the operations of Adani Green Energy and its subsidiaries. They allegedly concealed FCPA violations to secure over $3 billion in bank loans from international financial institutions and U.S.-based asset management firms. "Gautam and Sagar Adani were engaged in the bribery scheme during a September 2021 note offering by Adani Green that raised $750 million, including approximately $175 million from U.S. investors. The Adani Green offering materials included statements about its anti-corruption and anti-bribery efforts that were materially false or misleading," the indictment said. Additionally, Adani and his associates have been accused of withholding information from U.S. investors as well as Indian stock exchanges regarding ongoing federal investigations into their business practices in 2023 and 2024.

Former employees of CDPQ – Cyril Cabanes, Saurabh Agarwal, and Deepak Malhotra – have been accused of obstructing an investigation into the bribery scheme by deleting emails and agreeing to provide false information to the U.S. government. In response to the indictment, CDPQ issued a statement saying, "CDPQ is aware of charges filed in the U.S. against certain former employees. Those employees were all terminated in 2023 and CDPQ is co-operating with U.S. authorities. In light of the pending cases, we have no further comment at this time."

What about the civil lawsuit?

The U.S. Security and Exchange Commission (SEC) has filed a parallel civil lawsuit against Adani and his associates "for conduct arising out of a massive bribery scheme". The complaint alleges that they engaged in a scheme that involved "paying or promising to pay the equivalent of hundreds of millions of dollars in bribes to Indian government officials to secure their commitment to purchase energy at above-market rates". This was reportedly done while simultaneously raising $175 million from U.S. investors, based on "materially false and misleading" statements. If proven, the charges could invite hefty financial penalties and a ban on the defendants from holding directorial or executive positions in companies that fall under U.S. exchange regulations.

What happens next?

The U.S. prosecutors have sought the forfeiture of properties or proceeds derived directly or indirectly as a result of the offences. The case will now proceed to the "arraignment" stage where the concerned judge will formally communicate the charges to the defendants and decide whether to grant bail or not. The defendants will then be required to enter a plea – either guilty or not guilty. If they plead not guilty, the case will move forward to a jury trial. However, there is also a possibility of a deal being struck between the Indian tycoon and U.S. authorities following which the billionaire could seek a dismissal of the indictment.

As soon as news of the indictment broke, Adani Green Energy Ltd, the company at the heart of the allegations, cancelled a $600 million bond sale, the proceeds of which were intended to refinance a foreign-currency loan. Several Adani Group shares, including those of the flagship firm Adani Enterprises, also suffered massive losses and hit their lower circuits in early trade. An Adani Group spokesperson, however, dismissed the allegations as baseless, asserting that the conglomerate remains fully compliant with all applicable laws. In a notable fallout, Kenyan President William Ruto has announced the cancellation of a procurement process expected to hand over control of the country's main airport to the Adani Group. A 30-year, $736-million public-private partnership deal the Kenyan energy ministry had signed with a unit of the Adani Group last month to construct power transmission lines has also been cancelled.

In rage: Congress members stage a protest against Gautam Adani over his role in an alleged multibillion-dollar bribery case, in Patna on November 24. ANI

THE GIST

- A novel tender floated by the state-owned Solar Energy Corporation of India (SECI) in 2019 forms the heart of the indictment that has accused the Adani Group Chairman and his associates of paying over $250 million in bribes to Indian government officials
- The indictment accuses Adani and his associates of conspiring to bribe Indian officials to secure energy contracts in a purported violation of the Foreign Corrupt Practices Act (FCPA).
- As soon as news of the indictment broke, Adani Green Energy Ltd, the company at the heart of the allegations, cancelled a $600 million bond sale, the proceeds of which were intended to refinance a foreign-currency loan.

Indictment and Allegations

- Federal prosecutors in New York indicted Adani Group Chairman Gautam Adani, his nephew Sagar Adani, and six others on November 21 for multiple counts of fraud.
- Allegations include a multibillion-dollar bribery scheme to secure favourable solar power contracts, involving over $250 million in bribes to Indian officials.

Details of the Case

- The case centres around a 2019 solar tender by Solar Energy Corporation of India (SECI), awarded to Adani Green Energy and Azure Power.
- Bribes were allegedly paid to state officials in Odisha, Andhra Pradesh, Tamil Nadu, Chhattisgarh, and Jammu and Kashmir to ensure agreements at above-market rates.
- Gautam Adani is accused of personally offering a ₹1,750 crore bribe to a high-ranking official in Andhra Pradesh.

Charges and Legal Context

- The charges include violations of the Foreign Corrupt Practices Act (FCPA), securities fraud, and wire fraud.
- The defendants allegedly concealed these violations to secure over $3 billion in loans and $175 million from U.S. investors.
- Messaging apps, code names, and PowerPoint presentations were reportedly used to track bribes, with attempts to delete incriminating evidence.

Foreign Corrupt Practices Act (FCPA)

- **Enactment:** Passed in 1977 by the United States to address corruption in international business dealings.
- **Purpose:** Prohibits U.S. companies and individuals from bribing foreign officials to gain business advantages.
- **Jurisdiction:** Applies to U.S. companies, citizens, residents, and foreign entities listed on U.S. stock exchanges.

Key Provisions:

- **Anti-Bribery:** Prohibits payments or offers to influence foreign officials.
- **Accounting Standards:** Mandates accurate financial records and internal controls.
- **Penalties:** Includes hefty fines, imprisonment, and disqualification from government contracts.
- **Global Impact:** Influences corporate compliance practices and deters cross-border corruption.

Civil Lawsuit and Consequences

- The U.S. SEC filed a parallel civil lawsuit for misleading investors and bribing officials.
- Potential penalties include financial fines and bans from executive roles in U.S.-regulated companies.

Impact on Adani Group

- The indictment led to the cancellation of a $600 million bond sale and sharp declines in Adani Group share values.
- Kenyan authorities cancelled major deals with the Adani Group, including a $736-million energy project.

Next Steps

- The case will move to an arraignment stage, followed by a jury trial or potential settlement with U.S. authorities.

UPSC Mains Practice Question

Ques : Examine the implications of international anti-corruption laws like the U.S. Foreign Corrupt Practices Act (FCPA) on Indian businesses operating globally. Discuss the role of ethical governance in mitigating such risks. (150 Words /10 marks)

Page 12 : GS 3 : Environment

The 2024 Baku climate conference highlighted calls for accountability over exported fossil fuel emissions, which contribute significantly to global pollution, especially in developing nations.

- A loophole in the Paris Agreement allows major exporters like the U.S. and Norway to sidestep responsibility for these emissions.

Focus on Fossil Fuel Exports at the Baku Climate Conference

- The 2024 United Nations climate conference in Baku addressed calls to hold nations accountable for pollution caused by their exported fossil fuels.
- Activists and delegates from climate-vulnerable countries emphasized the need to include this issue in future climate agendas.

Loophole in the Paris Agreement

- The 2015 Paris Agreement mandates countries to set emission reduction targets and report progress for domestic greenhouse gases.
- However, it excludes emissions from fossil fuels exported overseas, allowing exporting nations to evade accountability for such emissions.

What Are 'Exported Emissions'?

- Exported emissions refer to greenhouse gas emissions generated from fossil fuels—such as coal, oil, and natural gas—that are extracted or produced in one country but exported for consumption in another.
- While the producing country benefits economically, the emissions occur abroad, often in developing nations, and are excluded from the producer's climate accountability.
- This creates a loophole in global climate frameworks, complicating efforts to address climate change equitably and effectively.

Exporting Nations and Their Impact

- Countries like the U.S., Norway, and Australia claim progress in achieving international climate goals while significantly increasing fossil fuel exports.
- U.S. fossil fuel exports caused over 2 billion tonnes of CO_2-equivalent emissions in 2022, roughly a third of its domestic emissions.

U.S. Leadership in Fossil Fuel Production

- A drilling boom has established the U.S. as the world's top oil and gas producer.
- U.S. coal exports have grown for four consecutive years, driven by strong demand.

Export Emissions Exceed Domestic Emissions for Some Countries

- Exported emissions surpassed domestic emissions for Norway, Australia, and Canada in 2022.

Titan Cement's Alexandria Portland Cement Company factory in the Mediterranean city of Alexandria, Egypt. REUTERS

Countries vulnerable to climate tense over 'exported emissions'

Reuters

Fossil fuel exports have been a hot topic at the United Nations climate conference in Baku this year, with activists and delegates from some climate-vulnerable countries arguing nations should be held accountable for the pollution they send overseas – often to poor developing nations – in the form of oil, gas and coal. Some are seeking to get the question of how to do this onto the agenda at future climate summits.

A landmark agreement reached in Paris in 2015 to fight climate change requires countries to set targets and report on progress in reducing national levels of planet-warming greenhouse gas emissions. But it does not impose such requirements for emissions generated from fossil fuels they drill, mine, and ship elsewhere.

That has allowed countries like the United States, Norway, Australia, and others to say they are making progress toward international climate goals while also producing and exporting fossil fuels at breakneck pace, said Bill Hare, co-founder of Climate Action Tracker, an independent scientific project that tracks government climate action.

U.S. fossil fuel exports – including coal, oil, gas, and refined fuels – led to over 2 billion tonnes of carbon dioxide equivalent emissions in other countries in 2022, according to Climate Action Tracker. That is equivalent to about a third of U.S. domestic emissions, the data showed.

A years-long drilling boom has made

The Paris Agreement of 2015 requires that nations set targets to cut levels of greenhouse gas emissions. But there are no such strictures on emissions from fuels drilled, mined, and exported

the U.S. the world's top oil and gas producer, while robust demand has lifted its coal exports for four years running.

Incoming president Donald Trump, a climate change sceptic, has said he wants to further boost the nation's fossil fuel production.

For other producers, greenhouse gas emissions from fossil fuel exports sometimes outweigh domestic emissions, Climate Action Tracker said.

That was true for Norway, Australia and Canada in 2022, the most recent year for which data is available for all countries analysed. Norway's Ministry of Climate and Environment said it is up to other nations to manage their own carbon footprints. "Each country is responsible for reducing its own emissions," the ministry said in a statement.

Officials at the environment and climate ministries of Canada and Australia did not comment.

Addressing the summit in Azerbaijan, host President Ilham Aliyev accused some Western politicians of double standards for lecturing his government about its oil and gas use, saying, "They better look at themselves."

Most U.S. gas exports now go to European countries seeking to reduce dependence on Russia, while China has become one of the top buyers of U.S. crude and coal. America's biggest growth market for coal, however, is North Africa.

U.S. coal mines exported around 52.5 million short tonnes globally in the first half of 2024, up nearly 7% from the same period a year ago, the data showed. Much of the increase was driven by cement and brickmakers in Egypt and Morocco, which together took in more than 5 million short tonnes over the period.

- Norway's climate ministry argued that each nation should manage its own carbon footprint.

Global Fossil Fuel Trade Dynamics

- U.S. gas exports primarily go to Europe, while China is a major buyer of U.S. crude and coal.
- North Africa, particularly Egypt and Morocco, has become America's largest growth market for coal.
- In the first half of 2024, U.S. coal exports reached 52.5 million short tonnes, with Egypt and Morocco importing over 5 million short tonnes for cement and brick production.

UPSC Mains Practice Question

Ques : The exclusion of exported fossil fuel emissions from global climate agreements undermines efforts to combat climate change. Discuss the challenges this poses for accountability and global equity, and suggest measures to address the issue. (150 Words /10 marks)

In News (PIB) : GS 3 : Economics : Infrastructure : Energy, Ports, Roads, Airports, Railways

PM Modi inaugurated the 100 TPD cattle dung-based Compressed Bio-Gas (CBG) plant in Gwalior.

- **About the CBG Plant**
  - The plant is located in Laltipara, Gwalior, within the largest cowshed in the region, Adarsh Gaushala, which houses over 10,000 cattle.
  - It spans over 5 acres.
  - It is India's first self-sufficient gaushala with a modern CBG plant, where cow dung and organic waste (such as vegetable and fruit waste from mandis and households) are processed into valuable biogas.
  - The project, developed at a cost of ₹31 crores, is a collaboration between Gwalior Municipal Corporation and the Indian Oil Corporation.
- **Working features:**
  - **Bio CNG:** The plant produces 2 tons of compressed Bio CNG daily from 100 tons of cattle dung, providing a cleaner, eco-friendly alternative to traditional fossil fuels.
  - **Organic Manure:** The plant also generates 10-15 tons of dry bio-manure daily, which is a valuable by-product for organic farming.
  - **Windrow composting:** The plant incorporates windrow composting, located adjacent to the main facility, which enhances organic waste processing.

What is Compressed Biogas (CBG)?

About	• CBG is a renewable natural gas produced from the biochemical conversion of organic waste into methane. • It is chemically similar to CNG (compressed natural gas) and can be used as an alternative to fossil fuels in transportation, cooking, and power generation.

Process of Making CBG	Collection of Organic Waste: Organic waste such as agricultural residue, animal dung, food waste, and municipal solid waste is collected from farms, industries, and households. Anaerobic Digestion: Waste is placed in an airtight chamber, where microorganisms break it down without oxygen, producing biogas (methane, carbon dioxide, trace gases). Purification: The raw biogas undergoes purification through methods like pressure swing adsorption, water scrubbing, or membrane separation to remove impurities like CO_2, H_2S, and water, leaving pure methane. Compression: The purified methane is compressed to 200-250 bar pressure to form CBG, reducing volume for storage and transportation. Storage and Distribution: It is stored in high-pressure cylinders or tanks and transported to fuel stations or industries for various applications.
Significance of CBG	Reduces fossil fuel dependence. Mitigates landfill methane emissions. CBG can replace CNG, reducing pollution. Utilizes local organic waste. Creates jobs, promotes organic farming, and provides eco-friendly fertilizers.

UPSC Prelims PYQ : 2015

Ques : With reference to bio-toilets used by the Indian Railways, consider the following statements:

1. The decomposition of human waste in the bio-toilets is initiated by a fungal inoculum.

2. Ammonia and water vapour are the only end products in this decomposition which are released into the atmosphere.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Ans : d)

In News : Need for a Global Plastic Treaty - Securing a Sustainable Future

Representatives from over 170 countries have gathered in Busan, South Korea, for the fifth and final round of negotiations on a legally binding global treaty to end plastic pollution, including marine pollution.

- This initiative follows the 2022 UN Environmental Assembly's agreement to finalize the treaty by the end of 2024.

Background:

- **Resolution to end plastic pollution:**
  - The United Nations Environment Assembly (UNEA) passed a resolution to "end plastic pollution" in 2022.
- Setting up of an Intergovernmental Negotiating Committee (INC)
  - INC was set up and tasked to develop a legally binding instrument - a global treaty - to govern plastic production and use across all nations.
- **Global Plastics Treaty:**
  - In 2022, 175 nations agreed to develop a legally binding agreement on plastic pollution by 2024 to reduce GHG emissions from plastic production, use and disposal.

Need for a global plastic treaty

- **The Growing Dependence on Plastic**
  - Plastic's global production doubled from 234 million tonnes in 2000 to 460 million tonnes in 2019. By 2040, production is projected to reach 700 million tonnes.
- **Plastic Waste and Environmental Crisis**
  - Plastic decomposition takes 20–500 years, with less than 10% recycled to date.
  - Annual plastic waste generation is approximately 400 million tonnes and could increase by 62% by 2050.
  - A significant amount of waste leaks into rivers and oceans, breaking down into harmful microplastics and nanoplastics.

- **Impact on Environment and Health**
  - Chemicals in plastics can cause endocrine disruption, cancer, diabetes, reproductive disorders, and neurodevelopmental impairments.
  - Marine, freshwater, and terrestrial species are severely affected.
- **Plastic's Role in Climate Change**
  - Plastic production and waste management contribute significantly to greenhouse gas (GHG) emissions.
  - In 2020, plastics accounted for 3.6% of global emissions, primarily from fossil fuel-based production. Emissions could increase by 20% by 2050 if trends persist.
- **India's Contribution to Plastic Pollution**
  - India is the largest contributor to global plastic pollution, accounting for 20% of emissions (9.3 million tonnes annually), surpassing Nigeria (3.5 mt), Indonesia (3.4 mt), and China (2.8 mt).

What is on the negotiating table?

- **Focus of Negotiations**
  - The talks aim to establish global rules to tackle plastic pollution across its lifecycle, from production to disposal.
  - Proposed measures include banning specific plastics, setting binding recycling targets, and regulating chemical additives in plastics.
- **'Just Transition' Considerations**
  - Discussions include ensuring a fair transition for workers, communities, and livelihoods affected by reduced plastic production and the elimination of certain products.
- **Diverging Positions Among Nations**
  - Countries remain divided on key issues, particularly on production caps for plastics:
    - **Opposition to Production Caps:** Oil and gas-rich nations like Saudi Arabia, Iran, Russia, and India oppose strict production limits, favoring downstream measures like improved waste management.
    - **Support for Ambitious Targets:** Rwanda, Peru, and the EU advocate aggressive pollution reduction, with Rwanda proposing a 40% cut by 2040 using 2025 as the baseline.

India's Stance on the Global Plastic Treaty

- **Opposition to Production Caps**
  - India opposes restrictions on polymer production, arguing that such measures exceed the UNEA 2022 resolution's mandate.
  - Focus on Financial and Technical Assistance
  - India advocates for financial aid, technology transfer, and technical support to be part of the treaty's core provisions.
- **Regulation of Harmful Chemicals**
  - Decisions on harmful chemicals in plastic production should be based on scientific studies and regulated domestically.
- **Approach to Plastic Phase-Out**

- While India banned 19 categories of single-use plastics in 2022, it emphasizes that any phase-out in the treaty should be pragmatic and driven by national circumstances.
- In 2022, India brought into effect the Plastic Waste Management Amendment Rules (2021) that banned 19 categories of single-use plastics.

Safe Waste Management Mechanism

- India calls for mechanisms to assess infrastructure needs, financial requirements, and predictable funding for scientific and safe waste management.

UPSC Mains PYQ : 2018

Ques : What are the impediments in disposing the huge quantities of discarded solid wastes which are continuously being generated? How do we remove safely the toxic wastes that have been accumulating in our habitable environment?

Page : 06 Editorial Analysis

India's urban infrastructure financing, needs and reality

Madhav Pai

Chief Executive Officer, WRI India

India's urban population will increase from 400 million in the last decade to 800 million over the next three decades. While this offers an opportunity to transform India's urban landscape, there are significant financial challenges that must be overcome to get there. A recent World Bank report estimates that India will require about ₹70 lakh crore by 2036 to meet its urban infrastructure needs. Current government investment (2018 figures) in urban infrastructure stands at around ₹1.3 lakh crore annually. This is just a little over one-fourth of the required ₹4.6 lakh crore per year. Broadly, about 50% is estimated for basic urban services, with the other half for urban transport.

Issues at the local level

Municipal finances, a crucial component of urban infrastructure funding, have remained stagnant for decades. Since 2002, municipal finance has stayed at just 1% of GDP. Municipal bodies contribute 45% of urban investments, while the remainder is managed by parastatal agencies. Despite an increase in central and State transfers from 37% to 44%, the financial health of municipalities remains precarious. Tax revenue grew by only 8% between 2010 and 2018, grants by 14%, and non-tax revenue by 10.5%. However, the share of municipalities' own revenue sources has declined from 51% to 43%, reflecting a diminishing capacity for self-sufficiency.

Collection inefficiencies also exist in urban local bodies (ULB). For instance, data from 2017-18 reveals that ULBs in Bengaluru and Jaipur collect only 5%-20% of their potential tax revenue. Nationwide, property tax collection stands at a paltry ₹25,000 crore, which is only 0.15% of GDP. Further, cost recovery for services ranges from 20% to 50%, highlighting the significant gap between the costs of urban services and the revenues generated from them.

Indian cities also struggle with low absorptive capacity, further complicating the urban infrastructure landscape. According to the Fifteenth Finance Commission report, about 23% of total municipal revenue remains unspent, indicating a surplus in the municipal system that is not being effectively utilised. Even major cities such as Hyderabad and Chennai only managed to spend 50% of their capital expenditure budgets in 2018-19. The utilisation of central scheme funds also leaves much to be desired, with the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) achieving 80% utilisation and the Smart Cities Mission reaching 70%.

Public-private partnerships (PPPs), another crucial avenue for urban infrastructure financing, have seen a marked decline over the past decade. PPP investments in urban infrastructure peaked at ₹8,353 crore in 2012 but plummeted to just ₹467 crore by 2018. The viability of PPP projects is often dependent on the availability of payments or viability funding for ensuring bankability; but due to the lack of project-specific revenues, these projects further diminish commercial attractiveness.

> With the urban population set to rise exponentially, urban India's future depends on the ability to address the key financial and structural challenges

The next step is reform

Given the myriad of financial challenges outlined, it is imperative to adopt a dual-pronged approach with specific long-term and medium-term measures. In the long term, carrying out structural reform would be critical. These reforms should include strengthening State finance commissions to enhancing autonomy and capacity for better financial management at the municipal level. Additionally, empowering municipal governments with greater financial and administrative autonomy will be critical in enabling them to manage and allocate resources more effectively for urban development. This can then attract the much-needed private capital, through mechanisms such as debt borrowing, and municipal bonds.

In the medium term, the following measures can significantly transform the development of sustainable urban infrastructure.

First, develop a robust pipeline of projects. The High-Powered Expert Committee and 12th Plan Working Group have developed a financing framework to meet the ₹70 lakh crore urban infrastructure investment requirement over the next 20 years. About 15% of this total investment could potentially come through PPPs, translating to roughly 250-300 PPP projects annually. To achieve this, a pipeline of 600-800 projects must be in place.

Second, decouple project preparation from financial assistance. The last two decades have shown that investments in urban infrastructure have not advanced to the extent required, often due to hurried project preparation. As new national programmes are conceived, it is essential to decouple project preparation from financial assistance. Ensuring that these projects are designed for financial, social, and environmental sustainability is vital, especially given India's vulnerability to climate change.

Third, leverage Digital Public Infrastructure (DPI) for improved operations. Urban service delivery, particularly in public transport, remains hampered by outdated practices. Embracing DPI can revolutionise the management and the operation of public services, positioning India as a global leader in this domain.

Fourth, capture land value in transport projects. With half of the ₹70 lakh crore investment by 2036 earmarked for urban transport, particularly metro rail projects, there is a unique opportunity to harness land value. Metro and rail projects should be integrated with urban development, ensuring that they bring jobs closer to transit hubs and contribute to the overall efficiency and design of cities.

The need for collaboration

To conclude, India's urban future hinges on the ability to address these financial and structural challenges head-on. The stakes are high, and this is the window for action. By pursuing both immediate and long-term strategies, India can build urban infrastructure that meets the demands of its growing cities, thus ensuring sustainable and inclusive development for the decades to come. The path forward will require collaboration across government levels, private sector participation, and a relentless focus on innovation and governance efficiency.

The views expressed are personal

GS Paper 03 : Indian Economy – Infrastructure

PYQ : UPSC CSE (M) GS-3 2021: Investment in infrastructure is essential for a more rapid and inclusive economic growth. Discuss in the light of India's experience. (250 words/15m)

UPSC Mains Practice Question: Discuss the financial challenges faced by India in developing sustainable urban infrastructure and suggest measures to address the gaps in municipal finance and project execution. (250 Words /15 marks)

Context :

- India's urban population is set to double over the next three decades, requiring ₹70 lakh crore for infrastructure development by 2036.
- However, stagnant municipal finances, inefficient tax collection, underutilisation of funds, and declining PPP investments pose significant challenges.
- Addressing these demands structural reforms, better financial autonomy for municipalities, and innovative project management.

Introduction

- India's urban population will increase from 400 million in the last decade to 800 million over the next three decades. While this offers an opportunity to transform India's urban landscape, there are significant financial challenges that must be overcome to get there.
- A recent World Bank report estimates that India will require about ₹70 lakh crore by 2036 to meet its urban infrastructure needs. Current government investment (2018 figures) in urban infrastructure stands at around ₹1.3 lakh crore annually.
- This is just a little over one-fourth of the required ₹4.6 lakh crore per year.
- Broadly, about 50% is estimated for basic urban services, with the other half for urban transport.

Issues at the local level

- **Stagnant growth:** Municipal finances, a crucial component of urban infrastructure funding, have remained stagnant for decades.
  - Since 2002, municipal finance has stayed at just 1% of GDP.
- **Contribution to urban investments:** Municipal bodies contribute 45% of urban investments, while the remainder is managed by parastatal agencies.
- **Increased transfers but precarious financial health:** Despite an increase in central and State transfers from 37% to 44%, the financial health of municipalities remains precarious.
- **Slow growth in revenues:** Tax revenue grew by only 8% between 2010 and 2018. Grants grew by 14%, and non-tax revenue by 10.5%.
  - The share of municipalities' own revenue sources has declined from 51% to 43%, reflecting a diminishing capacity for self-sufficiency.

Collection inefficiencies

- **Low revenue collection:** Data from 2017-18 reveals that ULBs in Bengaluru and Jaipur collect only 5%-20% of their potential tax revenue.
- **Low property tax collection:** Nationwide, property tax collection stands at a paltry ₹25,000 crore, which is only 0.15% of GDP.
- **Service cost recovery gap**: Cost recovery for services ranges from 20% to 50%, highlighting the significant gap between the costs of urban services and the revenues generated from them.

Utilisation challenges

- Indian cities also struggle with low absorptive capacity, further complicating the urban infrastructure landscape
  - **Unspent revenues:** According to the Fifteenth Finance Commission report, about 23% of total municipal revenue remains unspent, indicating a surplus in the municipal system that is not being effectively utilised.
  - **Limited capital expenditure:** Even major cities such as Hyderabad and Chennai only managed to spend 50% of their capital expenditure budgets in 2018-19.
  - **Utilisation of central schemes:** The Atal Mission for Rejuvenation and Urban Transformation (AMRUT) achieved 80% utilisation. The Smart Cities Mission reached 70%.

Public-private partnerships (PPPs)

- Public-private partnerships (PPPs), another crucial avenue for urban infrastructure financing, have seen a marked decline over the past decade.
- Decline in ppp investments: PPP investments in urban infrastructure peaked at ₹8,353 crore in 2012 but plummeted to just ₹467 crore by 2018.
- Challenges in viability: The viability of PPP projects is often dependent on the availability of payments or viability funding for ensuring bankability. Due to the lack of project-specific revenues, these projects further diminish commercial attractiveness.

The next step is reform

- Given the myriad of financial challenges outlined, it is imperative to adopt a dual-pronged approach with specific long-term and medium-term measures.

Long-term measures

- **Structural reforms:** Strengthening State finance commissions to enhance autonomy and capacity for better financial management at the municipal level.
  - Empowering municipal governments with greater financial and administrative autonomy to manage and allocate resources more effectively for urban development.
  - Attracting private capital through mechanisms like debt borrowing and municipal bonds.

Medium-term measures

- **Develop a robust pipeline of projects:** The High-Powered Expert Committee and 12th Plan Working Group have developed a financing framework to meet the ₹70 lakh crore urban infrastructure investment requirement over the next 20 years.
  - About 15% of this total investment could potentially come through PPPs, translating to roughly 250-300 PPP projects annually.
  - To achieve this, a pipeline of 600-800 projects must be in place.
- **Decouple project preparation from financial assistance:** The last two decades have shown that investments in urban infrastructure have not advanced to the extent required, often due to hurried project preparation.

- As new national programmes are conceived, it is essential to decouple project preparation from financial assistance.
- Ensuring that these projects are designed for financial, social, and environmental sustainability is vital, especially given India's vulnerability to climate change.

- **Leverage Digital Public Infrastructure (DPI) for improved operations**: Urban service delivery, particularly in public transport, remains hampered by outdated practices.
  - Embracing DPI can revolutionise the management and the operation of public services, positioning India as a global leader in this domain.
- **Capture land value in transport projects:** With half of the ₹70 lakh crore investment by 2036 earmarked for urban transport, particularly metro rail projects, there is a unique opportunity to harness land value.
  - Metro and rail projects should be integrated with urban development, ensuring that they bring jobs closer to transit hubs and contribute to the overall efficiency and design of cities.