

President's Budget Session Speech**Why in News?**

- The Budget Session of Parliament, which is the last before the upcoming Lok Sabha elections, began with an address by President Droupadi Murmu to a joint sitting of both houses of Parliament.
- President Murmu began her address in Parliament recounting the government's achievements for the year 2023-24, from the passage of the Women's Reservation Bill, to India's 100+ tally at Asian Games.

Sessions of Parliament

- According to Article 85(1) of the Indian Constitution, the President shall from time to time summon each House of Parliament to meet at such time and place as he thinks fit.
 - However, six months shall not intervene between its last sitting in one session and the date appointed for its first sitting in the next session.
- In reality, the power to convene a session of Parliament rests with the government and the decision is taken by the Cabinet Committee on Parliamentary Affairs.
- As India does not have a fixed parliamentary calendar, Parliament meets for three sessions (by convention) in a year.
- The longest, the Budget Session, starts towards the end of January, and concludes by the end of April or first week of May.
 - The session (which starts with the presentation of the Union Budget) has a recess so that Parliamentary Committees can discuss the budgetary proposals.

What is the Union Budget/ 'Annual Financial Statement'?

- Article 112 of the Constitution requires the government to present to Parliament a statement of estimated receipts and expenditure in respect of every financial year, from April 1 to March 31.
 - This statement is called the annual financial statement.
- It is divided into three parts - Consolidated Fund, Contingency Fund and Public Account.
 - For each of these funds, the government has to present a statement of receipts and expenditure.

President Address

- Article 87 of the Constitution provides two instances when the President specially addresses both Houses of Parliament.
 - The President of India addresses both the Rajya Sabha and the Lok Sabha at the beginning of the first Session after each general election when the reconstituted lower house meets for the first time.
 - The President also addresses both the houses at the beginning of the first session of each year (Budget session).
- The President's speech essentially highlights the government's policy priorities and plans for the upcoming year and provides a broad framework of the government's agenda and direction.

Highlights of the President's Budget Session Speech

- Stating that it was her first address in the newly built Parliament building, President said the building was constructed during the beginning of the 'Amrit Kaal' and it has the essence of 'Ek Bharat Shrestha Bharat'.
- For her government the vision of developed India is not limited to economic prosperity alone, and equal importance is being given to social, cultural, and strategic strengths.
- The grand edifice of a developed India will stand on four strong pillars - youth power, women power, farmers and the poor and a big portion of tax has been utilised to empower them.
- Congratulating the PM for the Women's Reservation Bill, she hailed the members for the passage of the Nari Shakti Vandan Adhiniyam (women's reservation bill).
- Listing the achievements of the government in the past year/s, the president said -
 - India became the first nation to reach the south pole of the Moon.
 - The successful G20 Summit hosted by India strengthened the role of India in the world.
 - The country won more than 100 medals in the Asian Games.
 - People were hopeful of construction of Ram Temple (Ayodhya) for centuries and that dream has been fulfilled now.
 - People also wanted the abrogation of Article 370 from Jammu and Kashmir. Now, Article 370 is also history.
 - This Parliament has made a strict law against triple talaq.
 - Defence production crossed the Rs 1 lakh crore mark.

Economic Achievements Highlighted by the President

- Amid serious global crises, India emerged as the fastest-growing major economy, consistently maintaining a growth rate of over 7.5% for two consecutive quarters.
- The Indian economy used to be among the "fragile five" but was now moving in the right direction and at the right pace due to several reforms undertaken by the government.
- Earlier, the country's rate of inflation was in double digits which is now within 4% and in the last 10 years India has become one of the top five economies from 'Fragile 5'.

- India's exports have increased from about \$450 billion to more than \$775 billion. India has become the second-largest exporter of mobile phones in the world.
- FDI flows have doubled and today India has a Forex reserve in excess of \$600 billion.
- The sales of Khadi and Village Industries products have increased by more than four times and the number of people filing Income Tax Return has increased from about 3.25 crore to about 8.25 crore.
- The Centre is also working with full commitment to empower MSMEs, small entrepreneurs and creating a suitable environment for them.

SCIENCE & TECHNOLOGY

Why Hybrid Vehicle Could be a Cleaner Solution for India than EVs

Why in the News?

- According to a report by HSBC Global Research, hybrid vehicles are a practical medium-term solution for India's decarbonization drive. The report says that hybrids are important not only from a cost of ownership perspective, but also for India's decarbonization drive.

What is a Hybrid Vehicle?

- Hybrid cars are powered by two engines: one petrol, one electric.
- Both work with each other to spin the wheels. This leads to lesser petrol being burned and therefore better fuel efficiency.
- When compared to conventional vehicles, hybrids offer better power and fuel efficiency as they combine the benefits of high fuel efficiency and low emissions.
- When hybrid vehicles are cruising or while braking, the result is excess power which is used to charge the batteries. This, in turn, aids higher fuel efficiency or range.

Difference Between Hybrid & Electric Vehicles

Specifications	Hybrid Cars	Electric Cars
1. Power/Fuel Source	Electricity and Fossil Fuel (Petrol and Diesel)	Electricity Through Battery Pack (DC)
2. Engine	Internal Combustion Engine (ICE) and Electric Motor(s)	Electric Motor(s)
3. Fuel Efficiency	Combination of ICE and Battery Range	Depends on Battery Range
4. Emission Levels	Higher Compared to Electric Cars	Lower Compared to ICE and Hybrid Cars
5. Cost	Similar to Conventional ICE Cars	High
6. Charging	Not Needed	Needed

Why Hybrid Vehicle is a Practical Solution for Decarbonisation Drive?

- According to a report by HSBC Global Research, India needs to embrace hybrid vehicles over the next 5-10 years on the way to full electrification.
- Such vehicles are the more practical medium-term solution for the country's decarbonisation efforts and, more importantly, less polluting, according to the note.
- The note says that currently, overall carbon emissions are lower in hybrids compared to both electrics and those that run on petrol and diesel for similarly proportioned vehicles.
- In fact, it could take as long as a decade for EV and hybrid vehicle emissions to come to the same level, it says.
- Currently, India's electric mobility plan is largely focussed on battery electric vehicles or BEVs replacing internal combustion engine (ICE) vehicles.
- Carbon Emission Comparison:
 - The note said that total (well-to-wheel, or WTW) carbon emissions from an EV is currently 158 g/km, compared to 133 g/km for hybrids — which means that a hybrid is at least 16% less polluting than the corresponding EV.
 - These numbers are 176 g/km and 201 g/km for corresponding petrol and diesel vehicles respectively.
 - EV and hybrid emissions could converge after 7-10 years, according to estimates made by the HSBC analysis.
 - According to the note, total emissions from hybrid cars and EVs will converge if non-fossil power generation in India moves up to 44%.
 - By 2030, even if India's share of non-fossil fuels is 40%, hybrids will still release 8% less emissions than EVs, which, however, will be half of the 16% of today, the note said.

What are the Challenges w.r.t. Overall Global Push for EVs?

- Cumulative EV industry sales, comprising the two- and three-wheeler, passenger vehicle and commercial vehicle sub-segments, for 2023 are ~13.8 lakh units, which constitutes 50% year-on-year growth (January-November 2022: ~9 lakh units).

- However, there are a few challenges on the way to rapid adoption of battery electrics at scale.
- Upfront Subsidy:
 - The experience in markets from Norway to the US and China shows that the electric push works only if it is backed by state subsidies.
 - An elaborate system of incentives is central to Norway's EV policy, which has fostered the world's most advanced EV market.
 - So, the government waives the high taxes it imposes on sales of non-electrics; it lets electric cars run in bus lanes; toll roads are free for electric vehicles; and parking lots offer a free charge.
 - The problem with this kind of overt subsidisation of EVs, especially in developing countries like India, is that much of the subsidy ends up in the hands of the middle or upper middle classes, who are typically the buyers of battery electric four-wheelers.
- Charging Stations:
 - An analysis by the World Bank has found that investing in charging infrastructure is between four and seven times more effective in ensuring EV adoption compared with providing upfront purchase subsidies.
 - Both Norway and China, while offering purchase subsidies, have seen faster adoption of EVs also as a result of sustained efforts at expanding the public charging infrastructure.
 - China, the leader in the number of publicly available chargers, accounts for 85% of global fast chargers and 55% slow chargers.
 - The situation in India is very different from these countries.
 - While the number of EVs had crossed 1 million by mid-2022 and will likely grow to 45-50 million by 2030, only about 2,000 public charging stations are currently operational across the country.
- Electricity Source:
 - In several countries that have pushed EVs, much of the electricity is generated from renewables — Norway, for example, has 99% hydroelectric power.
 - In India, the grid is still fed largely by coal-fired thermal plants.
 - Therefore, unless the generation mix changes significantly, India would be using fossil fuel generation to power EVs.
 - Theoretically, this would mean reduced tailpipe emissions in the cities, but continuing pollution from the running of the thermal plant.
- Value Chain:
 - As India struggles to make inroads into the global lithium value chain, there is discussion on the need to diversify the country's dependency on Li-ion batteries in the EV mix.
 - The demand for Li-ion batteries from India is projected to grow at a CAGR of more than 30% by volume up to 2030, which translates to more than 50,000 tonnes of lithium requirement for the country to manufacture EV batteries alone.
 - However, more than 90% of the global Li production is concentrated in Chile, Argentina, and Bolivia, alongside Australia and China, and other key inputs such as cobalt and nickel are mined in the Congo and Indonesia.
 - India would, therefore, be almost entirely dependent on imports from a small pool of countries to cater to its demand.
 - While other options to Li-ion are being explored, viability remains a key factor.

PRELIM FACTS

1. Anti-Profiteering provisions under the GST

- The Delhi High Court recently upheld the constitutional validity of anti-profiteering provisions in the Goods and Services Tax (GST).

What is the meaning of anti-profiteering under GST?

- Any reduction in the GST rate or benefit of input tax credit should be passed on to the end consumer and not retained by the business. This is the basis of the anti-profiteering provisions under GST.
- Under anti-profiteering provisions, it's illegal for a business to not pass on the benefits of the GST rate benefits to the end consumer, and thereby indulging in illegal profiteering.
- Who regulates anti-profiteering under the GST?
 - The Anti-Profiteering Rules, 2017 (defined under Section 171 of the Central Goods and Services Tax Act 2017), prevents entities from making excessive profits due to the lowering of GST.
 - The Government has created the National Anti-Profiteering Authority (NAA) to find and take action against taxable registered persons indulging in illegal profiteering.
 - NAA has the power to determine the methodology and procedure for determining whether a taxable person is engaging in illegal profiteering.

2. Ratle Hydro Electric Project

- The government recently announced diversion of Chenab river water through diversion tunnels to expedite the 850-MW Ratle Hydro Electric Project in Jammu & Kashmir.

About Ratle Hydro Electric Project:

- It is an 850 MW run-of-river hydroelectric power project being built on the Chenab River in the Kishtwar District of Jammu and Kashmir.
- The project is being developed by Ratle Hydroelectric Power Corporation (RHPCL), which was formed as a joint venture (JV) between Jammu & Kashmir State Power Development Corporation (JKSPDC) and India's state-owned National Hydroelectric Power Corporation (NHPC).
- The project comprises a 133-meter-tall and 194.8-meter-long concrete gravity dam, a diversion dam, and an underground powerhouse on the right bank of the river.

Key Facts about Chenab River:

- It is a major river of India and Pakistan.
- Origin: It is formed by the confluence of two streams, Chandra and Bhaga, at Tandi in the upper Himalayas in the Lahaul and Spiti Districts of Himachal Pradesh.
- In its upper reaches, it is also known as the Chandrabhaga.
- It is a tributary of the Indus River.
- Course:
 - It flows west through Jammu and Kashmir union territory, between the steep cliffs of the Siwalik Range (south) and the Lesser Himalayas (north).
 - Turning southwest, it continues into Pakistan, descending from the uplands into the broad alluvial lowlands of Punjab province.
 - After receiving the Jhelum River near Trimmu, the Chenab empties into the Sutlej River, a tributary of the Indus River.
- Its total length is about 605 miles (974 km), and it feeds several irrigation canals.
- Tributaries: The tributaries of the Chenab River include Miyar Nalla, Sohal, Thiro, Bhut Nalla, Marusudar, and Lidrari.

3. Shumang Leela

- The artists of Shumang Leela bear the brunt of the enduring ethnic violence in Manipur which is also jeopardizing the vibrant cultural fabric of the state.

About Shumang Leela:

- It is a traditional form of theatre in Manipur.
- In this the roles of female artists are all played by male actors and male characters are played by female artists in case of female theatre groups.
- It was started as a comic genre for royalty and has evolved into a powerful medium for mass education, entertainment, and relaxation.
- In this, the roles of women are all played by men, called Nupi Shabis.
- The female roles are taken up by transgender actors.
- The tradition is believed to be descended from Lai Haraoba, a ritual of the Meitei community of Manipur.
- Purpose: The plays provide a vehicle for educating the public about social, political, and economic issues.
- Types - Shumang Leela is of two types
 - Nupa Shumang Leela – It is Performed only by men
 - Nupi Shumang Leela – It is Performed only by women

What is Lai Haraoba?

- Lai Haraoba is a religious festival celebrated by the Meitei people who are largely settled in and around Manipur.
- It is held at neighborhood shrines dedicated to the local umanglai deities.
- It is observed in the months between February and May-June.

4. Corruption Perception Index (CPI) 2023

- India's rank in the Corruption Perception Index (CPI) 2023 has slipped to 93 out of 180 countries, with a score of 39.

About Corruption Perception Index (CPI):

- It is an annual index released by Transparency International, a global civil society organization.
- Since its inception in 1995, the Corruption Perceptions Index has become the leading global indicator of public sector corruption.
- The CPI ranks 180 countries and territories by their perceived levels of public sector corruption on a scale of zero (highly corrupt) to 100 (very clean).
 - It uses data from 13 external sources, including the World Bank, World Economic Forum, private risk and consulting companies, think tanks and others.
 - The scores reflect the views of experts and business people, not the public.

Highlights of Corruption Perception Index 2023:

- CPI-2023 results show that most countries have made little to no progress in tackling public sector corruption.
- CPI global average score remains unchanged at 43 for the twelfth year in a row.
- Denmark topped the index for the sixth consecutive year.

- Somalia was ranked last, other countries occupying the bottom spots included: Venezuela, Syria, South Sudan and Yemen.
- India has tied with Maldives, Kazakhstan, and Lesotho to rank at 93 out of 180 countries. In 2022, India was ranked at 85.
- Pakistan scored 29 with a rank of 133 and China, scored 42 occupying rank 76.

5. Sloth Bear

- Karnataka has witnessed instances of human-sloth bear confrontations, raising concerns for both communities and wildlife enthusiasts.

About Sloth bear:

- Scientific Name: *Melursus ursinus*
- Sloth bears are one of the eight bear species found across the world.
- They are myrmecophagous, meaning, they find bugs and termites to be their most sought after meal.
- Habitat: They live in a variety of dry and moist forests and in some tall grasslands, where boulders, scattered shrubs and trees provide shelter.
- Distribution: They mainly inhabit the region of India, Nepal, Sri Lanka and presumably Bhutan.
- Appearance: They have long, shaggy dark brown or black fur and curved claws, which are the longest out of any of the bear species.
- Conservation Status:
 - IUCN: Vulnerable
 - Wildlife Protection Act, 1972: Schedule-1
 - CITES: Appendix-1
- Key to mitigate human-sloth bear confrontations: Enhancing habitat connectivity, minimising human-wildlife interaction zones, and implementing responsible waste management practices.
- Sloth Bear Sanctuaries in India: Daroji Sloth Bear Sanctuary (Karnataka), Jessore Sloth Bear Sanctuary (Gujarat).

ANSWER WRITING

Q. Discuss the key features of scheduled areas under fifth schedule. What are the issues pertaining to the Scheduled Areas?

Answer: Scheduled Areas represent regions covering 11.3% of India's land area, inhabited by various Schedule Tribe communities comprising 8.6% of the country's population. They are designated in 10 states under the Fifth schedule: Andhra Pradesh, Telangana, Odisha, etc.

Key Features of scheduled areas under fifth schedule:

- Article 244(1): The provisions of the Fifth Schedule shall apply to the administration and control of the Scheduled Areas and Scheduled Tribes in any State other than the States of Assam, Meghalaya, Tripura, and Mizoram.
- Declaration of Scheduled Areas: The President of India is empowered to declare an area as Scheduled Area. He can direct that the whole or any specified part of a Scheduled Area shall cease to be a Scheduled Area. The President can increase or decrease the area of any Scheduled Area in a State after consultation with the Governor of that State and also alter its boundary lines but only by way of rectification of boundaries.
- Executive power of State and Centre: The executive power of a State extends to the Scheduled Areas therein. The Governor of each State having Scheduled Areas shall make a report to the President regarding the administration of the Scheduled Areas in that State. The executive power of the centre extends to giving directions to the State regarding the administration of such Areas.
- Tribes Advisory Council (TAC): A Tribes Advisory Council has to be established in each State, having Scheduled Areas to deal with the welfare and advancement of Scheduled tribes in states.
- Law applicable to Scheduled Areas: The Governor is empowered to direct that any particular act of Parliament or of the State legislature does not apply to a Scheduled Area or any part or shall apply with specified modifications and exceptions.
- PESA-Panchayat (Extension to Scheduled Areas) Act, 1996: The Fifth Schedule Areas are exempt from the Panchayat-related requirements of Part IX of the constitution. The Panchayat (Extension to Scheduled Areas) Act, 1996, was passed by Parliament to extend the provisions of Part IX to the fifth Scheduled area with certain modifications.

Issues pertaining to scheduled areas

- Tribes Advisory Councils do not have much powers as Autonomous District Councils (provided under the Sixth Schedule).
- There is no clarity on the composition of TAC, especially the remaining one-fourth of the membership.
- Discretionary power of the Governor under the provisions of the Fifth Schedule: There is no clarity on whether the Governor can make any referral on his own discretion or only on the advice of the Council of Ministers.
- Encroachment of tribal lands: It does not provide adequate protection against the encroachment of tribal lands by non-tribals.

- 59% of India's STs remain outside the purview of Article 244-They are denied rights under the laws applicable to Scheduled Areas, including the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013 and the Biological Diversity Act 2002.

Way Forward

- Recommendation of Xaxa committee and Bhuria committee needs to be incorporated.
- Moreover, all habitations or groups of habitations outside Scheduled Areas in all States and Union Territories where STs are the largest social group need to be notified as Scheduled Areas irrespective of their contiguity.
- The geographical limits of the revenue village, panchayat, taluka, and district will need to be redrawn so that these are fully Scheduled Areas.

MCQs

- In the Context of India's Fiscal policy, Vote on Account refers to:
 - Upfront allocation of grant from 'Consolidated Fund of India' to government to address immediate expenditure needs.**
 - Grant of funds from the Contingency Fund of India.
 - Allocation of funds for new scheme.
 - Authorise significant additions or changed allocations which were not foreseen at the time of the original budget.
- Consider the following statements with reference to the Payment Banks:
 - They can't advance loans or issue credit cards.
 - These banks are instituted on the recommendation of the Nachiket Mor committee.
 Which of the statements given above is/are correct?
 - 1 only
 - 2 only
 - Both 1 and 2**
 - Neither 1 nor 2
- Consider the following pairs of Wetlands and States:
 - Karavetti Bird sanctuary: Tamil Nadu
 - Aghanashini Estuary : Karnataka
 - Ankasamudra Bird Conservation Reserve: Kerala
 How many of the above pairs are correctly matched?
 - Only one
 - Only two**
 - All three
 - None
- Open Market Sale Scheme (OMSS) - Domestic is related with which of the following sectors/products?
 - Banking
 - Food grains**
 - Coal
 - Petroleum
- Regarding 'Maratha Military Landscapes', consider the following statements:
 - It is a network of 12 forts and fortifications that represent the extraordinary military system and strategy of the Maratha rulers in the 17th-19th centuries.
 - They were included in the Tentative List of World Heritage sites in 2021.
 Which of the statements given above is/are correct?
 - 1 only
 - 2 only
 - Both 1 and 2**
 - Neither 1 nor 2
- Consider the following statements with reference to Chrome Plating:
 - It is hard and wear-resistant.
 - It involves electroplating a thin layer of chromium onto a metal object.
 Which of the statements given above are incorrect?
 - 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
- With reference to the Snow Leopard Population Assessment in India (SPAII) Program, consider the following statements:
 - The SPAII Program involves rigorous camera trapping, genetic sampling, and habitat assessments across various snow leopard habitats in India.
 - The Forest Research Institute (FRI) served as the National Coordinator for the SPAII, with support from snow leopard range states and conservation partners.
 Which of the statements given above is/are correct?
 - 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
- Originating in the Mediterranean Sea, these eastward-moving jet streams carry moisture in their upper layers. As they reach the Indian sub-continent, they encounter the Himalayas, and the moisture transpires into precipitation over north-western regions of India during winter months. Which one of the following is best described by the above given passage?
 - Western Disturbances**
 - Tropical easterly Jet streams
 - Trade Winds
 - Chinook
- Regarding the Convention on Nuclear Safety (CNS), consider the following statements:
 - It is the only non-binding nuclear treaty.
 - It aims to ensure the safety of nuclear power plants.
 - It is an incentive-based treaty that requires states to establish and maintain a regulatory framework for nuclear safety.
 How many of the statements given above are correct?
 - Only one
 - Only two**
 - All three
 - None
- Consider the following statements with reference to Corruption Perception Index:
 - It is an annual index released by Transparency International.
 - In CPI-2023, India has tied with Maldives, Kazakhstan, and Lesotho to rank at 93 out of 180 countries.
 Which of the statements given above is/are correct?
 - 1 only
 - 2 only
 - Both 1 and 2**
 - Neither 1 nor 2