

NATIONAL SOCIAL ISSUES- WOMEN, POPULATION, URBANISATION, EMPOWERMENT ETC**Highway hurdle: the Chennai-Salem corridor**

The Madras High Court verdict quashing land acquisition proceedings for the proposed Chennai-Salem greenfield expressway is an indictment of the arbitrary decision-making process behind the project.

Impact of Court's Verdict

- The court has referred to how “peaceful protests were stifled, unwritten gag orders were promulgated, [and] police force was used to handle the peaceful protesters who were making a request to spare them and their lands”.
- It was only after the court intervened that “these high-handed actions subsided”.
- It invalidated the notification for intent to acquire land for the project on the ground that the National Highways Authority of India cannot acquire land without complying with the requirement of preparing an environment impact assessment report
- Need For Environment Impact Assessment and clearance – The decision is important for affirming the principle that environmental clearance ought to be obtained before any project is allowed to advance to a stage where measures become irreversible.
- It underscores that sufficient data on the possible harm to the environment is needed before resources are committed to a project.
- In this case, not only would land titles be transferred to the state; heavy compensation amounts would also have been paid by the time the environmental impact is known.

Haste in implementing infra projects

- The project was pushed by the Centre and the State even though it was set to pass through wetlands, fertile farmlands, reserve forests and waterbodies.
- Farmers who stood to lose their land and environmentalists had questioned the claim that by reducing the transit time, there would be saving of fuel, thereby cutting the carbon footprint.
- What has been exposed in the verdict is that the eight-lane corridor was never really cleared as a project under the Centre's BharatmalaPariyojana.
- No deliberation on the project – It did not figure in the list of road projects approved under Bharatmala-I. The NHAI did not explain in its counter-affidavit how the Chennai-Madurai highway, an approved project, was dropped and the Chennai-Salem project included in its place.
- The court examined the record and found that there was nothing to show that it was approved by either the Cabinet Committee on Economic Affairs or the Public-Private Partnership Appraisal Committee; the Chennai-Tiruchi-Madurai corridor had much higher vehicular traffic to justify its inclusion in Bharatmala.
- The court's conclusion that labelling its replacement by the Salem project as a ‘policy decision’ was not a sufficient explanation is unexceptionable.

Conclusion: Having failed to convince the court that the procedures it followed were above board, the least that the Centre can now do is to make a comprehensive study of its impact on the environment and on farming and rural livelihoods before moving ahead.

INTERNATIONAL AFFAIRS- BILATERAL, GROUPINGS, ORGANISATIONS**India to be treated as NATO ally**

American lawmakers have reintroduced a key legislation in their House of Representatives which seeks to advance the US-India strategic relationship.

HR 2123 Bill

- It seeks to send a powerful signal that defence sales to India should be prioritized according to US-India Strategic Partnership Forum, which had worked on this important legislation.
- The proposed legislation follows the National Defense Authorization Act (NDAA) of 2017 including special language that designated India as a “Major Defence Partner” of the US.
- Although powerful in its own right, the NDAA FY 2017 has no legal bearing on the State Department's body of legislation, nor does it compel the State Department to view defence with India more favorably.

- To fulfil the spirit and intent of the NDAA 2017, the US-India Enhanced Cooperation Act would amend the Arms Export Control Act to put India on par with NATO allies and Israel, South Korea, New Zealand, Australia and Japan.
- The two taken together illustrates the major changes that have taken place in the India-US relationship over the past two decades.

Impact of the legislation

- If enacted, the legislation would ensure that the US State Department treats India as a “NATO ally” for the purposes of the Arms Export Control Act.
- India is the world’s largest democracy, a pillar of stability in the region, and has shown strong commitments to export control policies.
- This adjustment to US law will further allow the US-India partnership to flourish in line with our security commitment to the Indo-Pacific region.

China’s BRI

Malaysia will resume work on the multi-billion dollar East Coast Rail Link (ECRL) after months of negotiations with the China Communications Construction Company (CCCC) and the Chinese government brought the cost down by a third. China is building a deep-sea port on Malaysia’s east coast and the railway is a key link in its Belt and Road Initiative.

What is BRI?

- BRI consisting of the land-based belt, ‘Silk Road Economic Belt’, and ‘Maritime Silk Road’, aims to connect the East Asian economic region with the European economic circle and runs across the continents of Asia, Europe and Africa.
- BRI is China’s ambitious project announced in 2013. It covers about 65% of the world population, 60% of the world GDP and over 70 countries in six economic corridors.
- China is spending almost \$1 trillion to revive and renew the overland and maritime trade links between China, Europe, West Asia, and East Africa through construction of modern ports linked to high-speed road and rail corridors.

India’s concerns with BRI:

- India argues that the BRI and China-Pakistan Economic Corridor project violates its sovereignty because it passes through the part of the Pakistan-occupied Kashmir that belongs to India.
- Debt trap: BRI projects are pushing recipient countries into indebtedness, do not transfer skills or technology and are environmentally unsustainable.
- China is planning to extend the CPEC to Afghanistan. Meanwhile, Maldives, Nepal, Myanmar and Sri Lanka are eagerly pursuing potential BRI projects.
- Through OBOR, China is countering the strategies of India in North East region and is promoting its greater presence in North East India, part of which China claims as its own territory. This may have a security impact on India.
- Tense bilateral relations with China, deep mistrusts and India’s growing concerns over Chinese hegemonic intentions in South Asia and Indo-Pacific region make it practically unlikely that India will ever consider joining this project.
- Military deployment: The fact that the Chinese have begun to deploy 30,000 security personnel to protect the projects along the CPEC route makes it an active player in the politics of the Indian sub-continent. Clearly, this is a case of double standards.

ENVIRONMENT- CONSERVATION, BIO-DIVERSITY AND ISSUES

India stares at pile of solar e-waste

By 2050, India will likely stare at a pile of a new category of electronic waste, namely solar e-waste, says a study.

Currently, India’s e-waste rules have no laws mandating solar cell manufacturers to recycle or dispose waste from this sector.

Solar waste in India

- India is among the leading markets for solar cells in the world, buoyed by the government’s commitment to install 100 GW of solar power by 2022.
- So far, India has installed solar cells for about 28 GW and this is largely from imported solar PV cells.

- India's PV (photovoltaic) waste volume is estimated to grow to 200,000 tonnes by 2030 and around 1.8 million tonnes by 2050 said the study by Bridge To India (BTI), an energy consultancy firm.

What are these modules consisting of?

- Solar cell modules are made by processing sand to make silicon, casting silicon ingots, using wafers to create cells and then assembling them to make modules.
- India's domestic manufacturers are largely involved in assembling cells and modules.
- These modules are 80% glass and aluminium, and non-hazardous. Other materials used, including polymers, metals, metallic compounds and alloys, and are classified as potentially hazardous.

What worries India?

- While the solar sector continues to grow robustly, there is no clarity on solar waste management in India.
- India is poorly positioned to handle PV waste as it doesn't yet have policy guidelines on the same.
- A lack of a policy framework is coupled with the fact that even basic recycling facilities for laminated glass and e-waste are unavailable.
- Despite the e-waste regulation being in place for over seven years, only less than 4% of estimated e-waste is recycled in the organised sector as per the latest estimates from the Central Pollution Control Board.

SCIENCE AND TECHNOLOGY- EVERYDAY SCIENCE, SPACE, NUCLEAR, DEFENCE ETC

Phase 4 of Geosynchronous Satellite Launch Vehicle (GSLV)

The Union Cabinet has approved ongoing GSLV continuation programme Phase-4 consisting of five GSLV flights during the period 2021-2024. The will enable the launch of 2 tonne class of satellites for Geo-imaging, Navigation, Data Relay Communication and Space Sciences. It will meet the demand for the launch of satellites at a frequency up to two launches per year, with maximal participation by the Indian industry.

About GSLV

- GSLV Continuation Programme was initially sanctioned in 2003, and two phases have been completed and the third phase is in progress and expected to be completed by Q4 of 2020-21.
- GSLV has enabled independent access to space for 2 tonne class of satellites to Geosynchronous Transfer Orbit (GTO).
- One of the significant outcomes of the GSLV Continuation Programme is the mastering of the highly complex cryogenic propulsion technology, which is an essential technological capability to launch communication satellites to GTO.
- This has also paved the way for the development of a high thrust Cryogenic engine & stage for the next generation launch vehicle i.e. GSLV Mk-III.
- With the recent successful launch of GSLV-F11 on 19th December 2018, GSLV has successfully orbited 10 national satellites.
- GSLV with the indigenous Cryogenic Upper Stage has established itself as a reliable launch vehicle for communication, navigation and meteorological satellites and also to undertake future interplanetary missions.

Major impact

- The operationalization of GSLV has made the country self-reliant in the launching capability of 2 tonne class of satellites for communication & meteorological satellites.
- It will sustain & strengthen the capability and self-reliance in the launching of similar satellites for national requirements including next generation navigation satellites, data relay communication satellites and interplanetary missions.
- It will meet the launch requirement of satellites for providing critical Satellite Navigation Services, Data Relay Communication for supporting the Indian Human spaceflight programme and the next interplanetary mission to Mars.
- This will also ensure the continuity of production in Indian industry.

QUOTE OF THE DAY

Focus on Progress, not Perfection.