



Mains Marathon
Compilation

December, 2022

Mains Marathon Compilation for the Month of December, 2022

1. Institutional independence is a larger and more complex issue than appointments alone. Discuss in light of the recent controversy over the appointment of Election Commissioners.
2. Soil degradation can have irreparable consequences on human and ecosystem health. Comment.
3. How far, do you think, the DESH bill is going to improve the investment environment in India or enhance export competitiveness?
4. What are the reasons behind the very slow progress of the energy transition in comparison to the technology transition?
5. What are the issues and challenge in a comprehensive border management system? Suggest some measures for effective border management in India.
6. Explain how ocean currents help in establishing global heat balance. Also, explain the relationship between ocean currents and the habitability of the coastal areas.
7. Highlight the economic and strategic significance of India's relations with Central Asia.
8. What is the rationale behind the recently introduced Energy Conservation (Amendment) Bill?
9. What is end-to-end encryption? What are the applications of it and also highlight the issues associated with it.
10. What are the financial roadblocks to India's dream to achieve net-zero by 2070?
11. What are the issues with the population-based approach in comparison to individual-oriented interventions to public health problems?
12. Grants and loans to the power distribution sector haven't worked. Why the central government should stop funding the power distribution sector?
13. Wild Life (Protection) Amendment Bill, 2021 requires some changes to make it more suitable for wildlife conservation. Comment.
14. Discuss the factors behind the shift of manufacturing activity and employment from bigger cities to smaller towns.
15. Differentiate between fission and fusion energy. What are the challenges in sourcing energy from fusion reactions?
16. The Census of India not only helps understand the perils of British rule but also flags the roadblocks lying ahead. Discuss.
17. Highlight the reasons behind increasing cases of suicides among students preparing for competitive examinations. What measures can be taken to stop this menace?
18. Do you think that the RTI Act is fulfilling its intended purpose?
19. Critically analyze the present system of court vacations. In this regard, also highlight a few best practices in other countries.
20. It is the need of the hour for the government to devise appropriate regulations to protect the openness of the internet. Comment.

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21. Describe the term economic migration. Discuss its impacts on Left-Wing Extremism in India.
22. How Artificial Intelligence can help in handling the pendency in courts in India?
23. What are carbon markets, proposed under Energy Conservation (Amendment) Bill, 2022? Also, highlight the challenges in effective functioning of carbon markets.
24. The latest hooch tragedy in Bihar is just another consequence of banning liquor. Evaluate the statement.
25. At the heart of the Belagavi dispute is monolingualism that seeks to refute the existence of multilingual cultures and communities. Critically Analyze the statement.
26. Highlight the significance of recently concluded Global Biodiversity Framework (GBF).
27. Briefly describe the uncontrolled re-entries of satellites and highlight the threats associated with it. Also, bring out the mechanisms available to control it.
28. Do you think that Indo-Japanese nuclear submarine project will strengthen India and Japan against China? Give reasons in support of your argument.
29. Government initiatives have been insufficient to handle the challenges faced by the disabled. Discuss and suggest some policy measures to tackle those challenges.
30. Highlight the significance of Reducing Emissions from Deforestation and Forest Degradation (REDD) initiatives for handling carbon emissions.
31. The concept of a centralized electricity market sounds sensible in theory but is likely to be unworkable in practice. Discuss in the light of the One Nation, One Grid initiative.
32. After a decade of eschewing free trade deals, India has embarked on an FTA-signing spree that is quickly transforming the country into one of the most FTA-engaged countries in the world. Elaborate and discuss the factors promoting FTAs in India.
33. Discuss the factors contributing to the increasing number of doctors in India. Also, highlight the implications of this development.
34. Comment on the need and methods to equip IAS officers to become much more effective in dealing with the manufacturing sector as well as other areas of development.
35. The India-Australia Economic Cooperation and Trade Agreement is the most strategic pact between the two countries that will bolster bilateral ties. Discuss.
36. Suggest some measures to control the increasing ransomware attacks in India.

Q.1) Institutional independence is a larger and more complex issue than appointments alone. Discuss in light of the recent controversy over the appointment of Election Commissioners.

Indian Express

Introduction: Contextual introduction.

Body: Explain issues with Institutional independence with respect to the recent controversy over the appointment of Election Commissioners.

Conclusion: Write a way forward.

Article 324 envisaged that the Commission be led by a single CEC (Chief Election Commissioner). The President can appoint more Election Commissioners (ECs). But this is subject to any law made in that behalf by Parliament. Recently, the Supreme Court mooted the idea of including the Chief Justice of India in the appointment committee of CEC to ensure “**neutrality**”.

Institutional independence is more complex than appointments

The present system of the government appointing CEC and ECs does **not ensure the independence** of the election commission.

- The successive governments have “completely destroyed” the independence of ECI by ensuring no CEC gets the full six-year term since 1996.
- These institutions do **not have an independent source of political power** and rely instead on the backing from political intermediaries for their mandate.
- Other institutions such as the judiciary and election commission may be required to adjudicate between competing claims in line with the existing normative consensus.
- Institutions like the RBI may be **empowered for fixed functions** like the monetary policy and so on.
- The institution and its **role is an outcome of political consensus** wherein political intermediaries have agreed to delineate some function of governance and give it to this institution.
- The institution draws legitimacy from the specific mandate but **operates in the dynamic space in the changing balance of power** between competing political factions.
- Even when institutional design insulates the appointment process from the executive — such as in the judiciary — **political power can manifest in multiple ways**. At the individual level, dissent can be neutralised through inducement, marginalisation, intimidation, blackmail, harassment, propaganda, transfers, etc, through allied (state) institutions.
- **Bypassing Standing Committees** for legislative scrutiny is another example of undermining an institution itself.

Re-establishing consensus and institutional independence is a political battle which requires mobilising public opinion and organisation. To defend the functional independence of Election commissioners, the guardian of elections itself urgently needs structural safeguards.

Q.2) Soil degradation can have irreparable consequences on human and ecosystem health. Comment.

The Hindu

Introduction: Contextual introduction.

Body: Explain how soil degradation can have irreparable consequences on human and ecosystem health.

Conclusion: Write a way forward.

While soil degradation is occurring in 145 million hectares in India, it is estimated that 96.40 million hectares (about **30 percent of the total geographical area**) is affected by land degradation. According to the **Food and Agriculture Organisation's 'State of Land, Soil and Water'** report, globally, the biophysical status of 5,670 million hectares of land is declining, of which 1,660 million hectares (29 percent) is attributed to human-induced land degradation.

Irreparable consequences on human and ecosystem health:

- Healthy soils are essential for our survival. They **support healthy plant growth** to enhance both our nutrition and water percolation **to maintain groundwater levels**.
- Soils help to **regulate the planet's climate** by storing carbon and are the **second largest carbon sink** after the oceans. They help maintain a landscape that is more resilient to the impacts of droughts and floods.
- A key element of **sustainable food production** is healthy soil because nearly 95 per cent of global food production depends on soil. Soil degradation can have disastrous effects around the world such as **an increase in pollution, desertification and a decline in global food production**
- A healthy soil is a living, dynamic ecosystem, packed with microscopic and larger organisms that perform many vital functions including **nutrient cycling; controlling plant disease**, insect and weed pests; improving soil structure with positive effects for soil water and nutrient holding capacity.
- Soil erosion not only affects fertility but also **increases the risk of floods and landslides**.
- It is a global challenge that affects everyone through food insecurity, higher food prices, climate change, **environmental hazards, and the loss of biodiversity and ecosystem services**.

As consumers and citizens, we can contribute by **planting trees** to protect topsoil, developing and maintaining **home/kitchen gardens**, and consuming foods that are mainly locally sourced and seasonal.

Q.3) How far, do you think, the DESH bill is going to improve the investment environment in India or enhance export competitiveness?

Business Standard

Introduction: Contextual introduction.

Body: Explain how DESH bill is going to improve the investment environment in India or enhance export competitiveness. Also write some issues associated with it.

Conclusion: Write a way forward.

Through the **Development of Enterprise and Service Hubs (DESH)** Bill, the Government proposes to rebrand India's 268 Special Economic Zones (SEZs) as 'development hubs'. The Bill aims to make the SEZ Act compliant with World Trade Organization (WTO) norms and boost manufacturing and job creation.

Beneficial:

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- The developers of the zones, (to be called Development Hubs) will **get infrastructure status**, which will allow them to get **easier credit** at competitive rates.
- The Bill removes the restriction that exports should be more than imports over 5 years. Now units can import any amount. They can also do invoicing in rupee to **facilitate domestic transactions**.
- Units in the development hubs will be allowed to **sell goods in the domestic market** with customs duty to be paid only on the imported raw materials and not on the entire finished goods.
- The Bill has introduced a set of **growth criteria** that could include investment and employment ramp-ups as qualifiers for benefits.
- The Bill also proposes **a framework to include the existing industrial parks** in the DESH framework—including those of other government departments like textile parks, food parks, pharma and power.
- With the hegemonic war between the US and China flaring up, it is expected that the foreign investors would move out of China. India's proposed hubs will thus be competing with those in other countries.

Issues:

- The SEZ units in the notified areas will be permitted to sell in the domestic tariff area (DTA). This would create business units each of which would have a **“DESH” area and “Videsh” area with differential tax treatments**.
- India's existing tax laws are complex and contentious. The intra-unit variances were likely to create an **explosion of tax disputes** that will defeat the purpose of the new Bill.
- DESH units producing the same goods as DTA units can enjoy tax breaks. This will create an inherent **disadvantage for DTA units**.
- **Land acquisition by the private sector** has proven a near-intractable problem to date. The DESH Bill does not address this issue.

The proposed DESH legislation is a step in the right direction that will also play a vital role in making India a US\$ 5 trillion economy. The Government must learn the lessons from not-so-successful SEZs and ensure that the proposed hubs make India the center of global manufacturing value chains.

Q.4) What are the reasons behind the very slow progress of the energy transition in comparison to the technology transition?

Business Standard

Introduction: Contextual introduction.

Body: Explain some reasons behind the very slow progress of the energy transition in comparison to the technology transition.

Conclusion: Write a way forward.

Energy transition refers to the global energy sector's shift from fossil-based systems of energy production and consumption — including oil, natural gas and coal — to renewable energy sources like wind and solar, as well as lithium-ion batteries.

There are following reasons behind the very slow progress of the energy transition in comparison to the technology transition:

- Energy transitions are not similar to technological transitions. Within 20 years, 50% of the developing world had internet access but despite all the cost reduction and policy support, wind and solar combined accounted for less than 5% of primary energy consumption.
- The world **relies on fossil fuels** for 90% of its primary energy consumption in 1990. Today, it was around 83%. According to the **International Energy Agency**, fossil fuel

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reliance will remain at over 60%, even in 2050, unless the world drastically accelerates behavioural change.

- The media and investors focus on solar and wind investment. But they are **not focussing** on the challenge of **how to electrify large parts of the economy** and mass electrification.
- The world at present is focussing more on the strengthening of the grid but not on energy transmission investments.
- Over the last 20 years, **electricity as a percentage of energy use has risen** only 2-3% in most major economies. No major economy has an electricity share of more than 20% in total energy use. Looking at the combined data for the US/Europe and China, electricity today accounts for only about 2% of the transport energy consumed.
- The US has the lowest gasoline prices of any major economy and does not seem to have the **political will** to put in place the tax structure needed to shift preference to EVs. Even in 2040, EVs will constitute only 40% of the vehicles on the road.

The world needs new investments to change the process and add specialised equipment for the energy transition in energy-intensive manufacturing of products such as cement, steel, plastics, chemicals and fertilisers.

Q.5) What are the issues and challenge in a comprehensive border management system? Suggest some measures for effective border management in India.

Introduction: Contextual introduction.

Body: Explain some issues and challenge in a comprehensive border management system. Also write some measures for effective border management in India.

Conclusion: Write a way forward.

India has 14,818 km of land borders and a coastline of 7,516.6 km. All states, except Madhya Pradesh, Chhattisgarh, Jharkhand, Delhi and Haryana, have an international border or a coastline. India has **three types of land border**: international borderline (IBL), line of control (LoC) and line of actual control (LoAC).

Issues in a comprehensive border management system:

- The problems related to border security include **unsettled maritime boundaries**, lack of fully demarcated land borders, and borders based on **artificial boundaries** rather than natural ones.
- Border-guarding forces are often **short on resources and ill-equipped** for modern border management and mastery.
- **Intelligence** gathering and coordination are **imperfect**.
- **Multiple security agencies**: While the **army** is deployed along the LoC and AGPL, the **Border Security Force (BSF)** looks after the international border with Pakistan and Bangladesh.

Challenges:

- **Terrains** are diverse and difficult. **Connectivity** with the hinterland and across to other countries is poor.
- Porosity of the border has facilitated various illegal activities such as **smuggling, drugs and arms trafficking, and infiltration**.
- Heroin and **fake Indian currency** are the two predominant items smuggled along India-Pak border.
- The China border sees fairly **regular armed intrusions** e.g. Doklam crisis.

Measures:

- The government should derive implementable ideas from systems of border management of other large countries.

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- **Smart border management** by enabling effective communication and coordination among all security agencies to arrive at a common entity picture, neutralising threats linked to terrorism and organised crime, checking illegal migration etc.
- At the local level, creating **sustainable employment opportunities** in border states by promoting agriculture and horticulture and creating border tourism opportunities.
- **Tighter entry-exit controls** are needed to contain illegal migration and trafficking.
- The **encouragement of private investment** will not only save the government resources but also allow the best practices, innovation and knowledge to be inherited for designing of border infrastructure.
- **Community policing** can increase the vigilance of citizens across different layers in the society.

To achieve stable and secure borders in India, robust technologies for border control and surveillance are required in order to combat real and alleged dangers to the country.

Q.6) Explain how ocean currents help in establishing global heat balance. Also, explain the relationship between ocean currents and the habitability of the coastal areas.

Introduction: Contextual introduction.

Body: Explain how ocean currents help in establishing global heat balance. Also explain the relationship between ocean currents and the habitability of the coastal areas.

Conclusion: Write a way forward.

The ocean covers 71 percent of the planet and holds 97 percent of its water, making the ocean a key factor in the storage and transfer of heat energy across the globe. Ocean currents represent a regular volume of water in a definite path and direction. They are like **river flow in oceans**.

How ocean currents help in establishing global heat balance?

- The oceans directly **absorb more than two-thirds of the Sun's heat**, an overall 25% of the planet's global heat budget is transferred through the actions of ocean currents.
- Ocean currents act much like a **conveyor belt**, transporting warm water and precipitation from the equator toward the poles and cold water from the poles back to the tropics.
- **Surface currents** carry warm water toward the poles and deep currents bring most of the cold water back toward the equator.
- Without currents in the ocean, regional temperatures would be more extreme- super hot at the equator and frigid toward the poles. E.g., the **North Atlantic Drift** keeps the coasts of the North Sea (western coast of Europe) warm which is unusual for such high latitude.
- **Warm currents** flow along the **east coast** of continents resulting in **warm and rainy climates** while cold currents flow along the west coast of continents.
- They pile up warm waters in tropics and this warm water is the major force behind **tropical cyclones**.

Relationship between ocean currents and the habitability of the coastal areas:

- The cold ocean current creates a cooler, more **stable environment for coral reefs and marine life** and birds that often live much closer to the poles.
- Warm currents lead to evaporation, which turns into the **rain for the coastal areas**. For instance, North Atlantic Drift brings rainfall to Western parts of Europe throughout the year.
- In Antarctica, strong **upwelling currents pump nitrogen and phosphates** up from the deep sea to **blooms of algae** and other plants. The planktons are eaten by krill. The krill in turn feed penguins, seabirds, etc.

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- Warm ocean currents are responsible for keeping the **ports ice-free**. Norway is a prime beneficiary of the North Atlantic Drift.
- Currents are also important as they help when docking and undocking boats, speeding up shipping lanes, and keeping the ships safe, primarily in narrow waterways.

Ocean currents are emerging as a **possible source of alternative energy** for the coastal countries. As dense water carries an enormous amount of energy that can be captured and converted into usable form through use of water turbines.

Q.7) Highlight the economic and strategic significance of India's relations with Central Asia.

Indian Express

Introduction: Contextual introduction.

Body: Explain some economic and strategic significance of India's relations with Central Asia.

Conclusion: Write a way forward.

Recently for the first time, India hosted a meeting of top security officials of Central Asia with a focus on the evolving security situation in Afghanistan. It coincided with the 30th anniversary of the establishment of diplomatic relations between India and Central Asian countries. Central Asian Republics (**Kazakhstan, Kyrgyzstan, Turkmenistan, Tajikistan, and Uzbekistan**) form a part of India's extended neighbourhood.

Economic and strategic significance:

- Central Asia is **extremely rich in mineral and natural resources**. Kazakhstan has one of the biggest reserves of uranium, besides stores of coal, lead, zinc, gold, and iron ore. The availability of **commercially viable quantities of natural resources** like oil, gas, uranium, lead, etc. make it important for **India's energy security** (Turkmenistan is part of the proposed **TAPI gas pipeline**).
- The geographical location of central Asia makes it important for India's aspiration to **connect to greater Eurasian region** via land route including the **International North South Transport Corridor (INSTC)**.
- The **illicit drug trade, religious fundamentalism and terrorism** emanating from the region create greater security challenge for India.
- Central Asia has a **growing consumer market** for goods and services that India can provide.
- Central Asia's **proximity** to middle east, Afghanistan, Pakistan and China makes it important for India **geo-strategic interests**. E.g. security cooperation after the **Taliban takeover in Afghanistan**; to **counter China's influence** in the region;
- The Central Asian countries provide **trade and investment opportunities** in multiple sectors like IT, Pharmaceuticals, Tourism etc.

Given the historical, cultural and economic connect India is well placed to maximize its role in the development of the region. India shall **maximize the use of multilateral platforms like SCO** to further its interests in the region.

Q.8) What is the rationale behind the recently introduced Energy Conservation (Amendment) Bill?

The Hindu

Introduction: Contextual introduction.

Body: Explain the rationale behind the recently introduced Energy Conservation (Amendment) Bill.

Conclusion: Write a way forward.

Recently **Ministry of New and Renewable Energy** introduced the Energy Conservation (Amendment) Bill, with an objective to **support energy transition**. The Bill amends the **Energy Conservation Act, 2001**. It provides for the regulation of energy consumption by equipment, appliances, buildings, and industries.

Rationale behind the Energy Conservation (Amendment) Bill:

- To address the **transition to clean energy** as the non-fossil fuel capacity was 42% of the total energy generation.
- To facilitate the **achievement of COP-26 goals** to ensure faster decarbonisation of the Indian economy.
- To specify a **carbon credit trading scheme** for expand India's carbon market and promote the use of clean technology.
- To **specify energy consumption standards** for designated consumers (industries, transport sector, commercial buildings etc.) to meet a minimum share of energy consumption from non-fossil sources.
- To **specify norms for energy efficiency and conservation**, use of renewable energy, and other requirements for green buildings.
- To consolidate on the current Act's success. According to BEE, measures for efficient energy use saved approx. 28 million tonnes of oil equivalent energy in 2019-20.
- To **replace natural gas and stop carbon emission**, green hydrogen gas will be used. It will provide energy-efficiency in the construction sector.
- To **enhance the scope of Energy Conservation Building Code** to include sustainability aspects.

The establishment of a domestic carbon market is a progressive step. However, the actual benefit will depend upon the effectiveness of the market. For this, the Government must ensure that proper regulations are established.

Q.9) What is end-to-end encryption? What are the applications of it and also highlight the issues associated with it.

The Hindu

Introduction: Explain end-to-end encryption.

Body: Write applications of end-to-end encryption and also highlight the issues associated with it.

Conclusion: Write a way forward.

End-to-end encryption (E2EE) is a communication process that **encrypts data being shared between two devices**. It prevents third parties like cloud service providers, internet service providers (ISPs) and cybercriminals from accessing data while it is being transferred.

The process of end-to-end encryption uses an algorithm that transforms standard text into an unreadable format. This format can only be unscrambled and **read by those with the decryption keys**, which are only stored on endpoints and not with any third parties including companies providing the service.

Applications of end-to-end encryption:

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- End-to-end encryption is used to **secure communications**. Some of the popular instant-messaging apps that use it are Signal, WhatsApp, iMessage, and Google messages.
- It is also used to **secure passwords, protect stored data and safeguard data** on cloud storage.
- It is often used to **help companies comply with data privacy** and security regulations and laws. For example, an **electronic point-of-sale (POS)** system provider would include E2EE in its offering to protect sensitive information, such as customer credit card data.
- End-to-end encryption has long been used when **transferring business documents, financial details, legal proceedings, and personal conversations**.
- It can also be used to **control users' authorisation** when accessing stored data.

Issues:

- **Metadata:** it does not conceal information about the message, such as the date and time it was sent or the participants in the exchange. This metadata could give malicious actors with an interest in the encrypted information clues as to where they may be able to intercept the information once it has been unencrypted.
- **Compromised endpoints:** If either endpoint has been compromised, an attacker may be able to see a message before it is encrypted or after it is decrypted. Attackers could also retrieve keys from compromised endpoints.
- **Complexity in defining the endpoints:** Some E2EE implementations allow the encrypted data to be decrypted and re-encrypted at certain points during transmission. This makes it important to clearly define and distinguish the endpoints of the communication circuit.
- **Too much privacy:** Government and law enforcement agencies express concern that end-to-end encryption can protect **people sharing illicit content** because service providers are unable to provide law enforcement with access to the content.

It needs to be ensured that integrity of data and privacy is maintained whilst using such technology, for example recommendations of Srikrishna Committee on Data Protection can be implemented.

Q.10) What are the financial roadblocks to India's dream to achieve net-zero by 2070? Business Standard

Introduction: Contextual introduction.

Body: Explain some financial roadblocks to India's dream to achieve net-zero by 2070.

Conclusion: Write a way forward.

In the recent **Glasgow climate summit (COP26)**, India announced new climate targets. One such ambitious target is achieving Net Zero by 2070. According to the '**Getting India to Net Zero**' report, India will require an economy-wide investment of **\$10.1 trillion** from now if it is to achieve its net-zero emissions target by 2070.

Financial roadblocks in achieving net-zero by 2070:

- India needs over **\$400 billion in capital annually** to accelerate emissions reduction, much of which is risky because it involves new technologies, and requires state support.
- India is **home to some of the world's most polluting cities** led by Delhi. Despite that, the outlay for the environment ministry is only Rs70 billion.
- India's **renewable energy companies** have raised only around \$6.8 billion in debt from offshore capital markets since January 2021. This is **less than 2%** of India's annual decarbonising costs.
- Last year, the **green bond issuance** in India was a mere \$750 million.
- Lack of **cost-competitive technology alternatives** in India.
- The government is **silent on financially supporting** any decarbonisation efforts, except an Rs.100 billion subsidy scheme for EVs.

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- In 2021 India's renewable sector attracted only \$12-\$15 billion in investment. Further, **funding costs are the largest expense** for renewable projects.
- Indian **banks are reluctant** to provide funds for decarbonisation. For instance, India's biggest bank, SBI, rarely funds commercial and industrial renewable projects.
- Traditional domestic and foreign sources and debt capital markets will not be able to fund the massive investments needed for decarbonising and they have **limited access to foreign capital** on concessional terms.

Renewable projects are an easier way for corporates to reach net zero. So, emission reduction projects should be funded by banks. India should facilitate **access to low-cost, long-term and diversified capital** to facilitate decarbonising the Indian industry.

Q.11) What are the issues with the population-based approach in comparison to individual-oriented interventions to public health problems?

The Hindu

Introduction: Contextual introduction.

Body: Explain the issues with the population-based approach in comparison to individual-oriented interventions to public health problems.

Conclusion: Write a way forward.

Data from the **National Sample Survey Organisation** shows that on an average, **only 3% of the total population in India** had an episode of hospitalisation in a year. Ideally, the Government needs to ensure health-care facilities to only 3%-5% of the population to cover all the hospitalisation needs of a population. This is population-based health-care planning.

Issues:

- This was evident in an evaluation of publicly-funded **insurance schemes**, which points to the **low proportion of population** that benefited from the scheme annually. The assurance of a service remains an unfulfilled promise when more than 90% of those who were given the promise do not need hospitalisation in the near future.
- For example, most of the deaths due to COVID-19 are a reflection of the failure to offer ventilator and ICU support services to the 1%-2% in desperate need of it.
- The morbidity profile of a population across age groups is an important criterion used to plan the curative care needs of a population. But **curative care provisioning** is never planned at an individual level as epidemiologically as every individual will not necessarily need curative care every time.
- The **dominance of biomedical knowledge** and philosophy in the field of public health with a misconception that what is done at an individual level, when done at a population level, becomes public health.
- **Health effects** are more visible and appear convincing at the individual level, wherein improvements at the population level will be clear only after population-level analysis; this needs a certain level of expertise.
- The public health experts, who take individual experiences at face value, will make the same mistake of **judging a population's characteristics based on individual experiences**.
- The **market's role and the effect of consumerism** in public health practice. The beneficiaries for a programme become the maximum when 100% of the population is targeted. On the contrary, from a population perspective, the actual beneficiaries are very less.
- Even after the entire COVID-19 crisis, not much is talked about in terms of the **grossly inadequate health-care infrastructure** to ensure the necessary primary, secondary and tertiary care services for COVID-19 patients, in turn leading to many casualties.

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All forms of individualistic approaches in public health need to be resisted to safeguard its original principles of practice, *viz.* population, prevention, and social justice.

Q.12) Grants and loans to the power distribution sector haven't worked. Why the central government should stop funding the power distribution sector?

Indian Express

Introduction: Contextual introduction.

Body: Explain why the central government should stop funding the power distribution sector.

Conclusion: Write a way forward.

According to **Niti Aayog's report 2021**, most power DISCOMs in the country incur losses every year. The total loss was estimated to be **₹90,000 crores** in the financial year 2021. So, they are also unable to build the infrastructure required to facilitate the transition from fossil fuel to renewable energy sources, such as solar or wind.

There are following reasons for why the central government should stop funding the power distribution sector:

- **Lack of consumer indexing:** In a distribution set-up, all end consumers get their supply from some identified distribution transformer (DT). Each DT is under the supervision of one person who is held accountable for losses. In the case of most public discoms, no one knows which consumer is attached to which DT (implying a lack of indexing). Incidentally, a large number of DTs are not metered.
- Recently, a budgetary outlay of about Rs 3 trillion was earmarked for aiding the distribution sector. However, the sector registered **only a small reduction in losses**. The AT&C loss has come down to 22.3 per cent in 2020-21 from 26.6 per cent in 2011-12.
- **Most discoms are state-owned**, and only about 10 percent of India's population is served by private distribution licensees. Higher private participation in distribution holds out the possibility of greater efficiency. **E.g. in Delhi**, AT&C losses have come down from about 55 percent in 2002 to about 9 percent in 2019.
- Discoms have locked themselves into **long-term, expensive power purchase agreements (PPAs)**. As long as the markets continue to provide low-cost power, discoms should not sign new expensive long-term thermal PPAs.
- So far, the govt. schemes have helped the cash-strapped discoms in reducing their debts and the total AT&C loss. However, it has not been able to address **challenges around cross-subsidy and power-procurement costs**.
- The massive **Saubhagya scheme** mostly succeeded in expediting electricity access across off-grid pockets. However, it could not address challenges around **tariff realisation** with these new groups of consumers which ultimately impacted the discoms' finances in some states.

A **public-private partnership (PPP) model** can be especially useful in loss-making areas, where commercial operation might not be feasible without support in the form of viability gap funding (VGF) by the government.

Q.13) Wild Life (Protection) Amendment Bill, 2021 requires some changes to make it more suitable for wildlife conservation. Comment.

The Hindu

Introduction: Contextual introduction.

Body: Explain some key provisions of the Bill. Also write some issues which require changes to make it more suitable for wildlife conservation.

Conclusion: Write a way forward.

Wild Life (Protection) Amendment Bill, 2021 seeks to amend the Wild Life (Protection) Act, 1972. It makes a significant amendment as it reduces the number of **schedules from six to four** and seeks to **increase the species** protected under the law and implement the CITES.

Key provisions of the Bill:

- **Rationalizing schedules:** The Bill reduces the total number of schedules from six to four.
- **Permitted certain activities:** The Bill seeks better management of protected areas and provides for certain permitted activities like grazing, movement of livestock, and bona fide use of drinking and household water by local communities.
- **Captive elephants:** The Bill permits the transfer or transport of a captive elephant for a religious or any other purpose by a person having a valid certificate of ownership.
- **Conservation reserves:** The Bill empowers both Central and State governments to declare areas adjacent to national parks and sanctuaries as a conservation reserves, for protecting flora and fauna.
- **Alien species:** The Bill **empowers the Central government** to regulate and stop the import, trade or possession of invasive plant or animal alien species.

However in Wild Life (Protection) Amendment Bill, 2021 following issues require changes to make it more suitable for wildlife conservation:

- The Bill **allows for commercial trade In Live Elephants**. The prohibition on commercial transfer only drove the **live elephant trade underground** as traders switched to dressing up commercial deals as gift deeds to bypass the 2003 amendment. According to the Parliamentary Standing Committee instead of the blanket exemption, **limit it only to temple elephants kept for religious purposes**.
- The bill severely **curtailed the ability to graze across pastoral spaces** in the conservation areas. The Van Gujjars are a semi-nomadic pastoral community (Uttarakhand, Uttar Pradesh and Himachal Pradesh) that may be impacted.
- The Bill seeks to do away with **Schedule V for vermin** species entirely. This **gives the Centre direct power** to declare any species to be 'vermin' and make way for them to be freely hunted. Thus, declaring any species as vermin becomes easier.

There is an imminent need to expand the definition of invasive alien species **to include invasive native species** also.

Q.14) Discuss the factors behind the shift of manufacturing activity and employment from bigger cities to smaller towns.

The Hindu

Introduction: Contextual introduction.

Body: Explain some factors behind the shift of manufacturing activity and employment from bigger cities to smaller towns.

Conclusion: Write a way forward.

The rural segment is a **significant contributor** to the manufacturing sector's output. While 42% of factories are in rural areas, 62% of fixed capital is in the rural side. In terms of output

and value addition, rural factories contributed to exactly half of the total sector. In terms of employment, it accounted for 44%.

There are following factors behind the shift of manufacturing activity and employment from bigger cities to smaller towns:

- **Factory floor space supply constraints:** When locations get more urbanised and congested, the greater these space constraints are. The continuing displacement of labour by machinery forces the continuous capital investments in new production technologies. Thus, **increased capital intensity of production** is one reason for this trend.
- **Production cost differentials:** Many firms experience substantially higher operating costs in cities than in rural areas, with inevitable consequences for the firm's profitability and competitiveness.
- **Possibility of capital restructuring:** There is a tendency for growing capital accumulation and centralisation by large multi-plant corporations. Big firms deliberately shift production from cities to take advantage of the availability of less skilled, less unionised and less costly rural labour.
- **Higher urban-rural cost ratios** caused this shift.
- Rural areas have generally been more attractive to manufacturing firms because wages, property, and land costs are all lower than in most metropolitan areas.

A more educated and skilled rural workforce will establish rural areas' comparative advantage of low wages, higher reliability and productivity and hasten the process of the movement out of agriculture to higher-earning livelihoods.

Q.15) Differentiate between fission and fusion energy. What are the challenges in sourcing energy from fusion reactions?

Times of India

Introduction: Contextual introduction.

Body: Explain some differences between fission and fusion energy. Also write some challenges in sourcing energy from fusion reactions.

Conclusion: Write a way forward.

Recently researchers at the Lawrence Livermore National Laboratory in California for the first time produced more energy in a fusion reaction than was used to ignite it, something called net energy gain.

Difference between fission and fusion energy:

- **Fusion is where two light atomic nuclei combine** and release energy, while **fission is the process of splitting** two heavy, unstable atomic nuclei into two lighter nuclei.
- Fusion releases **several times the energy generated by fission**, making it a far more powerful process.
- Nuclear **fission is more dangerous** than fusion as it produces harmful weapons-grade radioactive waste in the fuel rods that need to be stored safely away for thousands of years. Fusion does not create harmful radioactive by-products.
- Fission reactions do not **occur in nature** naturally. Fusion reactions occur in stars and the sun.

Challenges in sourcing energy from fusion reactions:

- **Extreme Heat and Pressure:** To make nuclear fusion work on Earth, we need temperatures exceeding 100 million degrees Celsius, intense pressure, and sufficient confinement to hold the plasma and maintain the fusion reaction long enough for a net power gain.
- **Precision:** The energy from the lasers must be applied precisely to counteract the outward force of the fusion fuel.

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- **Complexity:** It's harder to produce electricity in a power plant. For example, the lab's lasers can only fire a few times a day. To produce energy, they would need to fire rapidly and capsules would need to be inserted multiple times a minute, or even faster.
- **Efficiency:** Another challenge is to increase efficiency. The lasers require a lot of electrical energy, and researchers need to figure out a way to reproduce their results in a much more cost-effective way.

The success of this research can be viewed as a significant step forward in the decades-long effort to master a technology that is regarded as the most reliable source of energy in the future.

Q.16) The Census of India not only helps understand the perils of British rule but also flags the roadblocks lying ahead. Discuss.

The Hindu

Introduction: Contextual introduction.

Body: Explain how Census of India not only helps understand the perils of British rule but also flags the roadblocks lying ahead.

Conclusion: Write a way forward.

Census in India is the **largest single source** of a variety of statistical information on different characteristics of the people of India. It is a sacred democratic exercise. Census 2011 was the 15th National Census of the country since 1872 and the 7th after Independence.

Helps understand the perils of British rule:

- Data from the Census of India reveal that between 1880 and 1920 approximately 100 million Indians died due to British policy in India.
- The **mortality rate** in British India is seen to **rise steadily** after 1881, recording an increase of close to 20% by 1921. As it is unusual for the mortality rate of a country to rise continuously due to natural causes, this suggests that the living conditions worsened during this period.
- The mortality rate dipped in 1931, which was the last census conducted in British India, but the last famine took place in Bengal in 1943, in the last five years of the close to two centuries of British colonial rule.
- The Census shows that in the 1950s, life expectancy at birth of Indians increased by more than it did in the previous seventy years.
- The population numbers recorded after 1947 point to the extent to which the **lives of Indians improved** since the **end of colonial rule** in dimensions other than merely income.

Flags the roadblocks lying ahead:

- **Worsening gender inequality:** It is believed that in the absence of factors that lower the life chances of women, including foeticide, this ratio would tend to one. The Census of India shows that we have not attained that level in our recorded history, except in pockets within the country.
- This ratio has **steadily declined after 1947**. So, even though life expectancy increased soon after Independence, in the early years at least it increased faster for men than it did for women.
- Though India became free of foreign rule, some Indians grew more free than others.

As India chants Vasudhaiva Kutumbakam at the G-20, implying that the nations of the world are a family, it behooves us to ensure that all the persons in our own family enjoy the same freedoms.

Q.17) Highlight the reasons behind increasing cases of suicides among students preparing for competitive examinations. What measures can be taken to stop this menace?

Indian Express

Introduction: Contextual introduction.

Body: Explain some reasons behind increasing cases of suicides among students preparing for competitive examinations. Also write some measures to stop this menace.

Conclusion: Write a way forward.

The **National Crime Records Bureau's** Accidental Deaths and Suicide in India report shows that the number of students' deaths by suicide **rose by 4.5 percent** in 2021, with **Maharashtra bearing the highest toll** with 1,834 deaths, followed by Madhya Pradesh and Tamil Nadu. According to the report, student suicides have been **rising steadily for the last five years**.

Reasons behind increasing cases of suicides among students:

- **Unemployment:** Unemployment rate in India is very high. In Sikkim, about 27% of the state's suicides were related to unemployment and found to be most common among those between 21 and 30 years of age.
- **Examination Centric Education:** equating academic excellence with marks, pressure of studies and performance are critical factors in students' suicides in India.
- **Forced career choices:** Many students succumb to very high amount of pressure, especially from their family and teachers in terms of their career choices and studies.
- **Lack of support from Educational Institutions:** not equipped with tackling mental health issues of children and adolescents and lack centres and trained human resource for guidance and counselling.
- **Financial stress:** The steep cost of preparatory courses and tertiary education acts as a burden on the students and put tremendous pressure on them.

Measures:

- The **'Happiness Curriculum' launched by the Delhi government** focuses on holistic education by including meditation, value education, and mental exercises in conventional education curriculum. It should be adopted by other states also.
- It is important to **revamp the exam-centric education system** in India. The curriculum should be designed in ways that stress the importance of **mental exercises and meditation**.
- **Training teachers as gatekeepers** and innovative methods of examination should be adopted to mitigate risk factors of suicides.
- Students need to be appreciated and it is important to change how Indian society perceives education. It should be a celebration of efforts and not marks.
- **Effective counselling centres** should be set up in all schools/colleges/coaching centers to address student's anxieties, depression and other mental health issues

The need of the hour is to learn from past failures to address the growing crisis and take urgent steps that involve all stakeholders — students, parents, teachers, institutes and policy makers.

Q.18) Do you think that the RTI Act is fulfilling its intended purpose?

The Hindu

Introduction: Contextual introduction.

Body: Explain how RTI Act is fulfilling its intended purpose. Also write associated issues.

Conclusion: Write a way forward.

The RTI Act, 2005 **empowers people to participate in the policymaking** process, by providing access to information relating to the functioning of all public authorities. Cross section of citizens including activists, lawyers, bureaucrats, researchers and journalists are using RTI to **unearth corruption of all kinds** from the Panchayat level right up to Parliament.

Fulfilling its intended purpose:

- **Enabled citizen rights:** a majority of the RTI applications are filed by people who are asking about their basic rights and entitlements. So it has fulfilled its purpose to that extent.
- **Anti-corruption tool:** To hold high offices to account, people have used the RTI law to know what is happening with taxpayers' money. This has enabled them to expose big-ticket scams such as the **Adarsh, Commonwealth Games and Vyapam scams**.
- **Empowered people's voice:** According to estimates, nearly 60 lakh applications are being filed every year. It is used by citizens as well as the media. They've also been able to **expose human rights violations**, and then force accountability in those cases as well.
- **Strengthened democracy:** Every citizen has right to claim information from public authorities under the act. This strengthened democracy through active participation of public.
- **Features leading to transparency:** All the Government departments along with a number of bodies which receive substantial funding from the Government have been brought under the RTI.

Issues:

- The beauty of this Act is its simplicity. But, in some states **complex format or rules** create hindrances for people.
- There are **huge vacancies** in information commissions which mean that appeals and complaints keep pending.
- **Untrained staff** and a non-cooperative set of public information officers (PIOs).
- Many commissioners have been seen openly expressing their **political inclinations**. It creates a sense of bias among the petitioners.
- **Not all institutions are** being covered under the Act. E.g. **judiciary** is not under the act.
- The Implementation of RTI requires the PIOs to provide information to the applicant through photocopies, soft copies etc. These facilities are not available at Block and Panchayat level.
- **Awareness about RTI is yet very low**. Awareness level is low especially among the disadvantaged communities such as women rural population, OBC/SC/ST population.

A strong political system is a must for the RTI regime to flourish. A **code of conduct** must be evolved for the central and state information commissioners to keep them away from any political influence.

Q.19) Critically analyze the present system of court vacations. In this regard, also highlight a few best practices in other countries.

Indian Express

Introduction: Contextual introduction.

Body: Write some arguments in favour of and against court vacations. Also write some measures and best practices in other countries.

Conclusion: Write a way forward.

The 1958 statute tells that vacation means such periods during a year fixed by SC rules with the prior approval of the President. The current rule followed by SC for vacation is **Supreme Court Rules, 2013** and Chief Justice of India (CJI) issues notifications for the vacation every year. Currently, the Supreme Court has 193 working days per year, while the High Courts have 210 days.

Need of vacancies:

- Except on rare occasions like family tragedies or health issues, judges **do not take leave of absence** like other working professionals when the court is in session.
- Judges are **overburdened** on a daily basis and work extremely long hours. In the absence of sufficient breaks, judges will suffer a burnout.
- Many judges **use the long breaks to write judgments** that are pending and also catch up on research, which is essential for judges to maintain the quality of justice.
- They also have to perform **administrative tasks** like supervision of lower judiciary and appointment of judges.

Concerns:

- The concept of vacation is originated from **colonial rules**. Judges at that time came from England, a place colder compared to India and the summer of India was unbearable to them.
- There are **no governmental organizations** in the country except courts and schools that have vacation.
- There is a **backlog of over 3.1 crore cases** in Indian courts.
- There is **insufficient judicial power** (India has only 13 judges per million population, compared to the UK's 100) in India.
- The **subordinate criminal courts do not have any vacation**. But the subordinate civil courts, High Courts and the Supreme Court have vacations.

What can be done?

- **Arrears Committee** and 230th Report of **Law Commission** recommended for a **shorter duration** in the vacation.
- The **Justice Malimath Committee** recommended that the period of vacation should be reduced by 21 days and the Supreme Court should work for 206 days, and High Courts for 231 days every year.

Best practices in other countries: There are **many countries** in the world that **do not have vacations** in the courts. For example, **France and the US**. Judges don't have vacation, but they can take holidays without affecting the function of the court.

The need of the hour is an efficient judiciary that is not only committed to meet the interests of the citizens, but also communicates this commitment by modifying their practices to suit the needs of the country.

Q.20) It is the need of the hour for the government to devise appropriate regulations to protect the openness of the internet. Comment.

Indian Express

Introduction: Contextual introduction.

Body: Explain why there is need for the government to devise appropriate regulations to protect the openness of the internet.

Conclusion: Write a way forward.

Internet openness means **enabling people to observe, participate, and innovate**, on both the core internet infrastructure and major online services. According to the **Internet and Mobile Association of India (IAMAI)**'s report- "**Internet in India**", at present, there are a total of 692 million active internet users in India and there will be 900 million internet users in India by 2025.

Need to protect the openness of the internet:

- Digital technologies are **evolving at a very fast rate**. The code of conduct and regulations can not catch up with the new gateway providers that are emerging.
- Sometimes internet gateways enable and **restrict access to other** gateways or networks, so the openness of the internet is threatened.
- The **Internet's economic importance** has grown exponentially, driven by a higher number of users and the growing adoption of digital tools like **E-commerce, cloud computing, online advertising, digital payments** etc.
- Various practices of the distribution platforms like **Google and Apple** have come into question lately. These ranges from restrictions on payment gateways, **advertising choices, app policies** and various other aspects which are **discriminatory in both principle and practice**. E.g. Google Play Store and Apple's App Store are said to be charging up to **30% commission** on payments processed.
- As Google and Apple have garnered **unilateral control** over the publishing of smartphone applications on their OS. Various **smartphone application-dependent businesses and developers** continue to remain **vulnerable** to such internal business policy changes on these platforms.

The Indian government has taken steps to maintain its sovereignty through the path-breaking and disruptive digital public goods like Aadhaar, UPI, DigiLocker, and CoWIN. The need of the hour for the government to devise **appropriate regulations** to ensure a level playing field and not let the innovating gateways turn into gatekeepers.

Q.21) Describe the term economic migration. Discuss its impacts on Left-Wing Extremism in India.

Times of India

Introduction: Explain economic migration.

Body: Write some impacts of economic migration on Left-Wing Extremism in India.

Conclusion: Write a way forward.

Economic migration is the movement of people from one country to another to benefit from greater **economic opportunities** in the receiving country. It is often assumed that such migration is primarily **from less economically developed countries** in the global south to **the more economically developed countries** in the global north for example, from Mexico to the USA, from North Africa to Europe etc. However, there is also economic migration **between countries** in the global south - particularly neighbouring countries - as well as within the global north, for example, from countries in South Asia to the Middle East, from Burma to Thailand and from the UK to Spain.

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Economic migrants include those who come with the required visas and documentation as well as those whose status is undocumented. Some economic migrants are affluent, highly-educated professionals who seek new opportunities in the labour market following changes in world economy, such as those working in the IT sector or banking.

Impacts on Left-Wing Extremism:

- LWE-related **incidents and fatalities** across India are **declining**. From 833 incidents resulting in 240 deaths in 2018, it was down to 509 incidents and 147 deaths in 2021. T
- India's economic progress that has **provided potential recruits an alternative narrative**.
- The 2017 economic survey said migrants make up between 17% and 29% of the workforce. In absolute terms, that runs to 100 million people or more migrating for short durations to work.
- Language is not a barrier to economic migration, there's a **significant share of youth** in circular migration and also an **increasing proportion of women**.
- Economic opportunities thrown up in western and southern states, and NCR, are the barely noticed dimension to depriving LWE of foot soldiers. States such as Jharkhand, Odisha, Bihar, Bengal and Chhattisgarh have all seen economic out-migration.

India has turned the corner on combatting LWE. But if the gains of the battle have to be consolidated, economic growth has to be front and centre of any future strategy. Economic development is the foundation on which India can be secured from both internal and external threats.

Q.22) How Artificial Intelligence can help in handling the pendency in courts in India?

Times of India

Introduction: Contextual introduction.

Body: Explain how Artificial Intelligence can help in handling the pendency in courts in India.

Conclusion: Write a way forward.

Artificial Intelligence has a multiplier effect on increasing the efficiency of any system or industry. If used effectively, it can bring about incremental changes and transform the ecosystem of several sectors. Nearly 5 crores cases are pending and most of the pending cases are small and repetitive cases which primarily impact the poor and can be fast-tracked. Artificial Intelligence can help in handling the pendency in courts in India in following manner:

- Software systems are now available that can help **reduce the role of the judge** to just choosing among options for the ruling and sign.
- The entire court complex can be **digitised** – taking away the process of filing, scheduling, prioritising and even making the judgment.
- To prevent misuse, the AI analysis is **transparent** and clear about the parameters and assumptions, and the logic of its algorithms is traceable.
- Machine learning **improves accuracy and reduces time** in the future and adapts to new types of cases.
- It has the possibility of helping judges **conduct trials faster and more effectively** thereby reducing the pendency of cases.
- It will assist legal professionals in devoting more time in developing **better legal reasoning, legal discussion and interpretation of laws**.
- Furthermore, **intelligent tools, like legal bots**, can be designed to help potential litigants with better informed decision making concerning their legal rights, and easily and cost-effectively access basic legal services.
- One such complex tool named **SUPACE (Supreme Court Portal for Assistance in Court Efficiency)** was recently launched by the Supreme Court of India.

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The protection of personal data in the AI environment may be a serious challenge wherein there may be trade-off between privacy and prosperity. The General Data Protection Regulation in European Union, the sectoral and state laws in **US and cybersecurity law** in China may be taken as the basis for policy formulation.

Q.23) What are carbon markets, proposed under Energy Conservation (Amendment) Bill, 2022? Also, highlight the challenges in effective functioning of carbon markets.

The Hindu

Introduction: Contextual introduction.

Body: Explain carbon markets, proposed under Energy Conservation (Amendment) Bill, 2022. Also write some challenges in effective functioning of carbon markets.

Conclusion: Write a way forward.

Recently **Ministry of New and Renewable Energy** introduced the Energy Conservation (Amendment) Bill, 2022 with an objective to **support energy transition**. The Bill amends the **Energy Conservation Act, 2001**. It provides for the regulation of energy consumption by equipment, appliances, buildings, and industries.

Carbon markets:

- Carbon markets are a tool for **putting a price on carbon emissions**.
- It establishes **trading systems** where carbon credits or allowances can be bought and sold.
- A carbon credit is a kind of tradable permit that, as per UN standards, equals one tonne of carbon dioxide removed, reduced, or sequestered from the atmosphere.
- The Bill **empowers the Centre to specify a carbon credits trading scheme**.
- Under the Bill, the central government or an authorised agency will be able to issue carbon credit certificates. These carbon credit certificates will be tradeable in nature.

Challenges in effective functioning of carbon markets:

- **Greenwashing:** Some companies simply buy credits without making any effort to reduce emissions themselves. It is **cheaper for them to buy carbon credit than to invest in emission reducing technologies**.
- Environmental activists argue that **only high-quality carbon offsets are effective in reducing emissions**. However, many credits available in markets are of poor quality.
- Buying carbon credits can **deviate the rich nations from the path of reducing emissions**. They can simply continue to emit and buy cheap carbon credits from developing countries.
- There has been **huge surplus of carbon credits in the voluntary markets**. According to an estimate, credits for about a billion tons of CO₂ have been put up for sale on the voluntary market. But there have been more sellers than buyers.
- It is difficult to establish the amount of carbon reduced by **offset projects** (like afforestation or wind energy project). The **complexity is in establishing baseline emissions** (the emissions in the absence of the project).
- **Double counting** of greenhouse gas reductions.

The establishment of a domestic carbon market is a progressive step. However, the actual benefit will depend upon the effectiveness of the market. For this, the Government must ensure that proper regulations are established.

Q.24) The latest hooch tragedy in Bihar is just another consequence of banning liquor. Evaluate the statement.

Indian Express , ORF

Introduction: Contextual introduction.

Body: Write some consequences of banning liquor. Also write its positive impacts.

Conclusion: Write a way forward.

Recently over 30 people have died in a **hooch (poor quality alcohol)** tragedy in Bihar, where alcohol is prohibited. Bihar's prohibition, imposed in 2016 initially appeared to succeed and yield certain social gains. However, following several deaths from consuming illicit liquor, the policy is increasingly coming under attack.

Consequences of banning liquor:

- The fact is that from 2016 to 2021, there have been over **200 hooch-related deaths** in the state.
- It pushes **consumption underground**, places an **undue burden on the law** and order machinery, **and increases criminalisation**.
- The ban in Bihar has caused reported **losses of up to Rs 5,000 crore** to the government, while treating citizens as incapable of making responsible choices.
- The banned substance may see a greater variability in potency, may be **adulterated with unknown or dangerous substances**, and may not be produced and consumed under normal market constraint.
- **Illicit distillation and bootlegging**, which also resulted in many deaths. Similar experiences were seen in Tamil Nadu, Kerala, Meghalaya, Mizoram, Nagaland, and Manipur.
- The state's **judicial administration** has also been **burdened**- about 2,55,000 people have been booked under the legal provisions governing prohibition and nearly 40,000 bail applications are pending before the Patna High Court.

Benefits of banning liquor:

- **Health Benefits:** According to the WHO, the harmful use of alcohol is a causal factor in more than 200 disease and injury conditions and globally 3 million deaths occur every year due to harmful use of alcohol (5.3% of all deaths).
- **Constitutional Obligation: Article 47** directs that the State shall endeavour to bring about prohibition of the consumption of intoxicating drinks and of drugs which are injurious to health.
- **Curb Gender Violence:** A study conducted in Bihar has supported the argument e.g., there has been 28.9% reduction in crimes against women in Bihar between 2016-2019.
- **Reduction in Crime:** as intoxication impairs an individual's ability to distinguish between right or wrong.
- **Economic Stress:** especially for poor families as the male members tend to spend more on alcohol due to their excessive addiction. This in turn reduces the budget for spending on essential items and pushes the family into borrowings.

The goal of an effective and sustainable alcohol policy can only be achieved through coordinated action between multiple stakeholders, such as women's groups and vendors.

Q.25) At the heart of the Belagavi dispute is monolingualism that seeks to refute the existence of multilingual cultures and communities. Critically Analyze the statement.

Indian Express, The Hindu

Introduction: Contextual introduction.

Body: Explain why Belagavi dispute seeks to refute the existence of multilingual cultures and communities.. Also write significance of multilingual cultures and communities.

Conclusion: Write a way forward.

The Karnataka-Maharashtra Border Dispute has its origins in the reorganisation of states along linguistic lines via the **State Reorganisation Act, 1956**. Since its creation on May 1, 1960, Maharashtra has claimed that 865 villages, including Belagavi (then Belgaum) **should be merged into Maharashtra**. These regions have a significant Marathi-speaking population. On the other hand, **some villages in Maharashtra want to join Karnataka**.

Counter the existence of multilingual cultures and communities:

- **Linguistic Identities:** Several inter-state border disputes have their roots in the reorganisation of states in the 1950s, which was primarily based on language. As a result, there have been a border disputes between Karnataka and Maharashtra, Karnataka and Kerala, Karnataka and Andhra Pradesh, Maharashtra and Telangana and so on.
- The division of states linguistic basis removed the major discord and disharmony among people. For ex. separation of Andhra from Madras addresses the agitation and protest by Telugu speaking people.
- Creation of state which are homogeneous in nature **improved the functioning of the state** and government has been able to better connect with the masses in the language in which they understand. For ex. creation of Gujarat from Bombay.
- States can have their **own official languages** and official works could be carried on more efficiently to the lowest level.
- Fear of majority language imposition on minorities can be averted.

Significance of multilingualism:

- **Cultural Diversity:** Diversity in languages reflects and enhances cultural diversity. Unwritten languages rich in oral traditions, stories, songs, poetry, and ritual passed down through the generations constitute cultural diversity of a nation.
- **A glimpse of our past:** Languages provides a glimpse of our history. Once a language is lost it is a loss of history and culture associated with that language.
- **Environment:** The biological diversity and linguistic diversity go hand in hand. If one is threatened, then so is the other. Languages contain rich, detailed and technical knowledge about the flora, fauna, and habitat of that area.

Way forward:

- The Supreme Court should take a more proactive approach in settling the Inter-State Disputes.
- **Inter-State Council** should be enabled to play a more proactive role in Centre-State/Inter-state cooperation and dispute settlement.
- All Stakeholders (Union Government, State Governments, Political Parties) should be mindful of the **concerns of the local residents** and should settle disputes taking into account their interests.

Q.26) Highlight the significance of recently concluded Global Biodiversity Framework (GBF).

Indian Express

Introduction: Contextual introduction.

Body: Explain the significance of recently concluded Global Biodiversity Framework (GBF).

Conclusion: Write a way forward.

At the United Nations Biodiversity Conference or **COP15**, countries adopted a major biodiversity pact called **Kunming-Montreal Global Biodiversity Framework**. It promises to take urgent action to protect and restore the world's biodiversity- all the different forms of life, plants as well as animals, that inhabit this planet.

Significance of Global Biodiversity Framework:

- **30 x 30 target:** A commitment to protect at least 30 percent of the world's lands, oceans and coastal areas by 2030. A related commitment is to ensure that restoration activities would be started on at least 30 percent of degraded land or marine ecosystems by 2030.
- **Financing:** Ensure \$200 billion per year is channelled to conservation initiatives from public and private sources. Wealthier countries should contribute at least \$20 billion of this every year by 2025, and at least \$30 billion a year by 2030.
- **Responsibility to Big companies:** Companies should analyse and report how their operations affect and are affected by biodiversity issues. The parties agreed to large companies and financial institutions being subject to "requirements" to make disclosures regarding their operations, supply chains and portfolios.
- **Harmful subsidies:** Countries committed to identifying subsidies that deplete biodiversity by 2025, and then eliminate, phase out or reform them. They agreed to slash those incentives by at least \$500 billion a year by 2030, and increase incentives that are positive for conservation.
- **Reduce pesticide use:** Countries have agreed to a target of reducing the risk posed by pesticides and highly hazardous chemicals to almost half.
- **Not legally binding:** The agreement is not legally binding, but countries will be required to show their progress on meeting targets through national biodiversity plans.

Any effort at conserving and enhancing biodiversity can only succeed if we tackle the challenge of global warming. Global warming has to be urgently brought under control. The people should take a pledge to work towards conserving biodiversity and sensitising the youth on the issues of conservation.

Q.27) Briefly describe the uncontrolled re-entries of satellites and highlight the threats associated with it. Also, bring out the mechanisms available to control it.

The Hindu

Introduction: Explain the uncontrolled re-entries of satellites.

Body: Explain some threats associated with it. Also, write some mechanisms available to control it.

Conclusion: Write a way forward.

The uncontrolled re-entries of satellites are the **phenomenon of rocket parts falling back to earth** in unguided fashion once their missions are complete. Its path down is determined by its shape, angle of descent, air currents and other characteristics. It will also disintegrate as it falls. As the smaller pieces fan out, the potential radius of impact will increase on the ground. Some pieces burn up entirely while others don't. But because of the speed at which they're travelling, debris can be deadly. Most rocket parts have landed in oceans principally because earth's surface has more water than land. But many have dropped on land as well.

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Threats associated with the uncontrolled re-entries of satellites:

- **Risk to human life:** When an abandoned rocket body reenters the atmosphere, approximately 20-40% of the mass survives reentry and reaches the ground intact. This creates a risk of casualty to people on the ground, in ships and in aircraft. E.g. debris from two separate Long March launches landed in India [8].
- About 65% of low Earth orbit (LEO) launches in 2021 resulted in a rocket body being abandoned in orbit. These large space objects pose a **collision risk with satellites and other debris**, and some rocket bodies explode in orbit, creating significant debris.
- Any kind of re-entry will inevitably **damage some ecosystems**.
- If re-entering stages still hold fuel, atmospheric and terrestrial **chemical contamination** is another risk.

Mechanisms to control it:

- The **technologies** such as wing-like attachments, de-orbiting brakes, extra fuel on the re-entering body, and design changes can minimize debris formation.
- Bodies **aim for an ocean** in order to avoid human casualties.
- The future solutions should be extended to **re-entering satellites** as well. Advances in electronics and fabrication have made way for smaller satellites, which are easier to build and launch in large numbers. These satellites experience more atmospheric drag than if they had been bigger, but they are also likelier to burn up during re-entry.

There is no international binding agreement to ensure rocket stages always perform controlled re-entries nor on the technologies with which to do so. Liability Convention 1972 does not provide and solution to control re-entry, but impose penalties later on.

Other means include retro-rockets, ground-based lasers, or clean-up missions, all of which could bring down satellites at the end of their operational careers. But these alternatives have yet to be tested.

Q.28) Do you think that Indo-Japanese nuclear submarine project will strengthen India and Japan against China? Give reasons in support of your argument.

Indian Express

Introduction: Contextual introduction.

Body: Explain how Indo-Japanese nuclear submarine project will strengthen India and Japan against China. Also write some issues.

Conclusion: Write a way forward.

In recent years, the India Japan relationship has steadily expanded and deepened. Both India and Japan share a **global vision of peace, stability and prosperity**, based on sustainable development. They also share **democratic values** and commitment to human rights, pluralism, open society, and the rule of law underpin the global partnership between the two countries.

Strengthen India and Japan against China:

- If any Asian power has the **capacity to build** a naval propulsion reactor, it is Japan, India's partner in the QUAD against China.
- Today, the Chinese operate an overseas base in Djibouti, almost 6,000 miles from their home base. The **Indian Navy's excellent design organisation** can provide the drawings for the submarine, while Mitsubishi or Hitachi manufactures the propulsion reactor.
- An Indo-Japanese nuclear submarine project would bring in **an element of oceanic retribution** to influence the strategic choices seen to be available in Beijing.
- Against the backdrop of China's military capability, it is **critical to enhance Japan's deterrent**— both independently and collectively—against China, in particular its use of force against disputed territories in the Indo-Pacific.

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Issues:

- Japan has a strained relationship with **Russia**. India remains heavily reliant on Moscow for the support of key capabilities in its armed forces. The response of India and Japan to Russia's invasion in Ukraine is also in stark contrast.
- Despite expansion in economic ties, the **trade between India and Japan is limited** and far below potential. Japan barely makes to India's top 15 trading partners. India-Japan bilateral trade is less than one-fifth of India-China trade.
- On **multiple global issues** (especially issues related to developing vs developed nations gap) India and Japan end up on opposite sides. E.g. trade related aspects at the WTO like India's tariff structure on imports.
- The **Asia Africa Growth corridor** has not achieved much so far. The joint infrastructure projects in Africa has remained limited in outcomes. Similarly, Japanese companies face considerable logistics challenges in their projects in India.

The governments of both countries should work together to remove bottlenecks hampering bilateral trade. Facilitating trade will help achieve its full potential. Trade can be the most potent pillar of India Japan relationship. As of now India-Japan trade is nearly 5% of Japan-China trade.

Q.29) Government initiatives have been insufficient to handle the challenges faced by the disabled. Discuss and suggest some policy measures to tackle those challenges.

Indian Express

Introduction: Contextual introduction.

Body: Explain how Government initiatives have been insufficient to handle the challenges faced by the disabled. Also write some policy measures to tackle those challenges.

Conclusion: Write a way forward.

As per **Census 2011**, in India, out of the 121 Cr population, about 2.68 Cr persons are 'disabled' which is **2.21% of the total population**. The Constitution of India ensures equality, freedom, justice and dignity of all individuals and implicitly mandates an inclusive society for all, including persons with disabilities.

Due to following reasons Government initiatives have been insufficient to handle the challenges faced by the disabled:

- There is a **lack of data** on prevalence and instances of disabled in the country. Further, there is also a **lack of universal definition** of who constitute the disabled.
- As there is no direct mortality associated with various types of disabilities, they remain at the **bottom of the government's priority list**. Thus the treatment and prevention of disability does not demand much attention.
- **Corruption and mismanagement** of funds allocated for schemes lead to poor implementation. Also, the budgetary allocation for the implementation of the welfare schemes has been less.
- **The Accessible India Campaign** (AIC) lacks a **strong enforcement mechanism** to ensure that ambitious milestones are set and pursued to their meaningful conclusion.
- **Section 45** of the **Rights of Persons with Disabilities Act, 2016** states that all existing public buildings shall be made accessible within five years of the date of promulgation of such rules. But the deadline has been breached.

Policy measures to tackle these challenges:

- Disabled adults need to be empowered with **employable skills**. The private sector needs to be encouraged to employ them.
- **More budgetary allocation** for welfare of the disabled. There should be a disability budgeting on line of gender budget.

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- Relevant provisions of the **Harmonised Guidelines and Standards for Universal Accessibility in India, 2021** must be integrated into **local bye-laws** and **state planning laws**.
- Central and state level procurement laws and policies must incorporate **accessibility criteria** in public procurement. Tender documents must set out applicable **accessibility standards**.
- The deficiencies in the **Sugamya Bharat app** should be rectified so as to enable a well-meaning intervention to realise its full potential.
- **Proper implementation of schemes** should be ensured. There should be proper monitoring mechanisms and accountability of public funds.

In a country like India mainstreaming of these people is challenging issue. For achieving this task it's necessary to change public attitudes, remove social stigma, provide barrier free environment, needs reformation in the area of policy and institutional level.

Q.30) Highlight the significance of Reducing Emissions from Deforestation and Forest Degradation (REDD) initiatives for handling carbon emissions.

Times of India

Introduction: Contextual introduction.

Body: Explain some significance of Reducing Emissions from Deforestation and Forest Degradation (REDD) initiatives for handling carbon emissions.

Conclusion: Write a way forward.

REDD (Reducing Emissions from Deforestation and Forest Degradation) is the global endeavour to create an incentive for developing countries to protect, better manage and save their forest resources, thus contributing to the global fight against climate change. Three UN agencies- UNEP, UNDP and FAO have collaborated in the establishment of UN-REDD programme.

Significance of REDD initiatives:

- **Simple:** Funding rewards good forest management in developing countries and makes poor forest management, such as indiscriminate unenforced logging, less profitable than the sustainable alternative.
- Tropical rainforests are, next to ocean reefs, the richest ecosystems on Earth. Worldwide, forests are a treasure house of resources- to some 70 million people, according to the Food and Agriculture Organization.
- **Managing forests sustainably** as they serve the people dependent on them, house of an extraordinary range of wild plants and animals, and meet the global imperative to sequester carbon.
- Forests can **produce carbon credits** on the basis of the CO₂ they capture and store. These can be sold on international carbon markets. REDD offsets will take a significant part of this trade and provide **resources to tropical countries**.
- A hectare of tropical forest absorbs 50 to 100 tons of CO₂ per annum.
- At a time of volatile global economics, it can be **cheap in comparison to other mitigation activities**, such as carbon capture or renewable energy.

REDD projects and programmes must lead directly to reductions in deforestation and degradation that would not have happened simply as a result of wider changes in the economy. A project baseline needs to be established to measure progress in reducing greenhouse gas emissions.

Q.31) The concept of a centralized electricity market sounds sensible in theory but is likely to be unworkable in practice. Discuss in the light of the One Nation, One Grid initiative.

Live Mint, Business Standard

Introduction: Contextual introduction.

Body: Explain some significance of One Nation, One Grid initiative. Also write some issues.

Conclusion: Write a way forward.

The One Nation, One Grid initiative is based on the **market-based economic dispatch (MBED)** mechanism. It is part of the National Electricity Policy of 2021 which proposes to double the penetration of short-term power markets by 2023-24. Under this mechanism the power ministry is planning to set up a central scheduling and pooling system.

Significance:

- This system will **allocate power at a favourable price** by prioritizing the least-cost and most efficient generators and removing more expensive ones.
- This system will **reduce consumers' power-purchase cost** initially by 5 percent and will help in the distribution of cheap power across the country.
- This system will also replace the existing decentralised and voluntary system which operates through a network of load dispatch centres.
- It will lead to a **"uniform clearing price"**. Sellers and buyers will be able to bid for the day ahead of the market leading to market clearing price. This in turn will help to generate savings for consumers.

Issues:

- Generators use their capacity under long-term power-purchase agreements (PPAs) up to 25 years with state distribution companies (discoms) at negotiated prices. Therefore, it is unclear how MBED will work in these long-term PPAs in its "lowest-cost" pricing.
- The inclination of states to **offer power to politically sensitive groups** below actual cost will impose **burden on discoms**. This has already made the financial conditions of discoms bad and their dues on states stand at Rs 1.3 trillion.
- As per a recent study by the RBI, a bailout of discoms in 18 large states is likely to impose a burden equivalent to around 2.3 per cent of the GSDP of these states.
- **Regulatory issues** in the eastern part of India have halted the progress of the project.
- **Small companies** were given the project they could not complete. The Petroleum and Natural Gas Regulatory Board (PNGRB) was also writing off the contracts and seek new bids.
- The matter regarding various statutory approvals for laying natural gas pipelines is under the purview of the state governments or other central ministries.

Power lies in the concurrent list of the Constitution and centralising pricing and supply decisions can take away the autonomy of states. The ministry should evolve a project monitoring mechanism in which all stakeholders may be brought, and the project can be monitored and implemented in a time-bound manner.

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Q.32) After a decade of eschewing free trade deals, India has embarked on an FTA-signing spree that is quickly transforming the country into one of the most FTA-engaged countries in the world. Elaborate and discuss the factors promoting FTAs in India.

We Forum, Business Standard

Introduction: Contextual introduction.

Body: Explain how India is one of the most FTA-engaged countries in the world. Also write the factors promoting FTAs in India.

Conclusion: Write a way forward.

FTA is an arrangement between two or more countries under which they agree to end tariffs and non-tariff barriers on a large value of imports from partner countries. The focus of an FTA is primarily on economic benefits and encouraging trade between the countries by making it more efficient and profitable. But FTAs may also have political or strategic benefits.

One of the most FTA-engaged countries in the world:

- At the turn of the century, the country negotiated several FTAs, which included deals with Singapore, Malaysia, Japan, Korea, and the ASEAN (Association of Southeast Asian nations). These FTAs were greatly encouraged by the **Look East Policy (LEP)** and undoubtedly expanded India's trade and investment links with Southeast and East Asia.
- On 18 February 2022, a **comprehensive economic partnership agreement (CEPA) with the UAE** was concluded within 90 days of commencement of negotiations and has been in force since 1 May 2022.
- In addition, an **Economic Cooperation and Trade Agreement (ECTA) with Australia** also concluded on 2 April 2022.
- The next highly-anticipated Free Trade Agreement in the works is **with the UK**. Free Trade Agreement discussions are also on the fast track with **Canada, the EU, as well as with the Gulf Cooperation Council** (GCC – Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the UAE) and Israel.

Factors promoting FTAs in India:

- India's **active participation in global value chains (GVCs)** is essential. Today, 70 percent of the global goods and services exports come from GVCs. GVCs require close trade cooperation, lower duties, and efficient customs administration, which can be ensured by an FTA.
- The **inclusion of new-age areas** like digital trade in FTAs will enhance cooperation and transform GVCs by lowering entry barriers, increasing transparency, and facilitating collaborative networks.
- India aims to achieve a **\$2 trillion trade target by 2030**, while it wants to achieve \$500 billion merchandise exports by 2022-23 and to achieve these goals would require preferential access to Indian exports in major markets through Free Trade Agreements.
- The conventional **markets are slowing down**. There has been a slowdown in the US and Europe. So, there is a **need to diversify** and go to as many economies as one can to expand market presence.

For the industry to grow and become globally competitive, integration into the global value chain is inevitable. Ultimately, all trade deals are a game of 'win some, lose some' and a balanced outcome is what all trade partners should be looking for.

Q.33) Discuss the factors contributing to the increasing number of doctors in India. Also, highlight the implications of this development.

Times of India

Introduction: Contextual introduction.

Body: Explain some factors contributing to the increasing number of doctors in India. Also, write some implications of this development.

Conclusion: Write a way forward.

To achieve a modest doctor-to-population ratio of 1:1,000, India will need 2.07 million more doctors by 2030, according to a study published in the Indian Journal of Public Health. India has increased its number of medical colleges and MBBS seats and it is closer to the target of one doctor per 1,000 population on aggregate.

The following factors are contributing to the increasing number of doctors in India:

- Between 1980 and 2010, **private colleges** mushroomed while government investment slowed down. In this period, 144 private medical colleges came up, compared to just 55 government ones.
- Since 2011, a **large number of new government colleges** have been opened, especially in the southern and western states and Uttar Pradesh.
- The **number of UG (undergraduate) seats has increased** from 51,348 before 2014 to 91,927 seats as on date.
- The government has **relaxed the norms** for setting up medical colleges in terms of the requirement for faculty, staff, bed strength and other infrastructure.
- The government has taken **several initiatives** to improve the doctor-population ratio such as a **centrally sponsored scheme** for the establishment of new medical colleges by upgrading district/referral hospitals.

Implications:

- The increase in the number of colleges comes at the price of **poor-quality teaching and training** and hence **poorly equipped doctors** as more MBBS seats do not mean greater accessibility.
- Moreover, MBBS graduates treating people **without proper training** is injustice to the citizens as they are expected to take charge in primary health centres to get initial training.
- While the number of doctors has risen from 0.5 in 2000 to 0.9 per thousand, close to the WHO yardstick, the **distribution is skewed**. E.g. north and northeast India facing shortage while south and west India have the highest concentration.
- The shortage of trained doctors has led to a **proliferation of unqualified quacks**. These quacks are usually trained in alternative remedies, such as homeopathy, but advertise themselves as qualified medical professionals to patients desperately seeking help.

Medical institutions should motivate the upcoming doctors to provide their education and services in rural parts of the country as well as remind them that the profession revolves around saving lives. Rural areas should have access to easy travel and help patients get to hospitals for betterment and cure. For this, more spending on healthcare is needed.

Q.34) Comment on the need and methods to equip IAS officers to become much more effective in dealing with the manufacturing sector as well as other areas of development.

Indian Express

Introduction: Contextual introduction.

Body: Explain need and methods to equip IAS officers to become much more effective in dealing with the manufacturing sector as well as other areas of development.

Conclusion: Write a way forward.

Recently, India became the **world's fifth largest economy by overtaking the United Kingdom**. Now, the United States, China, Japan, and Germany are the only nations with economies larger than India's.

Need to equip IAS officers in developmental areas:

- There has been **policy related issues** that are blocking rapid growth of the manufacturing sector.
- **To become an attractive destination** for manufacturing investment, India needs to solve the issues, which is making it a difficult country to manufacture and do business.
- The development of manufacturing is only possible if the concerned civil servants in the ministries have **good manufacturing domain knowledge**.
- IAS officers need to know how to add to or reduce the costs of manufacturing, create demand for enabling industry to achieve economies of scale, and generation of profits and internal resources for growth.

Methods to equip IAS officers:

- It requires **reforms in our system** of human resource development and bringing it in line with the best global practices.
- A **new wing** should be created in the Department of Personnel & Training, and its counterparts in the states. This wing should be responsible to select officers on the basis of aptitude from the IAS and other services, and train them. It should report directly to the Prime Minister to insulate it from pressures from various quarters.
- The **selection of officers** could be made after they have completed around 10 years of service. Thereafter, selected officers would need to be trained and given postings to gain more knowledge and experience.
- For knowledge and experience, a **temporary appointment to selected private companies** should be made. It would acquaint officers to market based competition and select companies in different manufacturing sectors could be able to trust the government officers.
- The **Japanese model** was to de-link salary scales from job responsibilities. It means the most suitable person for the job will be posted for higher responsibilities. However, her/his pay scale will not change due to this.

While the political leadership lays down the vision, the responsibilities for translating these into ground realities are that of IAS officers.

Q.35) The India-Australia Economic Cooperation and Trade Agreement is the most strategic pact between the two countries that will bolster bilateral ties. Discuss.

PIB, Outlook

Introduction: Contextual introduction.

Body: Explain how ECTA will bolster bilateral ties.

Conclusion: Write a way forward.

India and Australia signed an **Economic Cooperation and Trade Agreement (ECTA)**. Currently, Australia is the **17th largest trading partner of India** and India is Australia's 9th largest trading partner. The ECTA is expected to increase trade between the two sides to \$45-50 billion over five years, from the current estimate of \$27 billion.

How ECTA will bolster bilateral ties?

- There is a lot of potential for **exporting finished goods** to Australia, since Australia is largely a raw material and intermediate producing country.
- We will get **cheaper raw materials** which will not only make us more competitive globally but also enable us to serve Indian consumers better; enabling us to provide more **quality goods at more affordable prices**.
- The Agreement will also **eliminate Double taxation on IT services** which were making us less competitive and less profitable in IT sector.
- Indian goods on all tariff lines to get access to Australian market with **zero customs duty**. India will benefit from **preferential market access** provided by Australia on 100% of its tariff lines, including all the **labour-intensive sectors** of export interest to India, such as Gems and Jewellery, Textiles, leather, Automobiles etc.
- India will be offering **preferential access to Australia on over 70% of its tariff lines**, including primarily raw materials and intermediaries such as coal, mineral ores and wines.
- Both sides have also agreed to a separate Annex on Pharmaceutical products under this agreement, which will enable **fast-track approval for patented, generic and biosimilar medicines**.
- It is estimated that an **additional 10 lakh jobs would be created in India** under ECTA.
- **Indian Yoga teachers and chefs** are set to gain with the annual visa quota. Over 1 lakh Indian students would benefit from post-study work visa (for 18 months to 4 years) under the ECTA.
- ECTA will further boost India's partnership with Australia along with Japan in trilateral **Supply Chain Resilience Initiative (SCRI) and QUAD** Grouping along with U.S.A. and Japan.

ETCA will further cement the already deep, close and strategic relations between the two countries. It will significantly raise living standards, and improve the general welfare of the peoples of the two countries.

Q.36) Suggest some measures to control the increasing ransomware attacks in India.

ToI

Introduction: Contextual introduction.

Body: Write some measures to control the increasing ransomware attacks in India.

Conclusion: Write a way forward.

Ransomware is a type of **malicious software**, used by cyber criminals, to infect a computer system by blocking access to the stored data by encrypting the files. A ransom is then demanded from the owner in exchange for the decryption key. **CERT-In's India Ransomware**

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Report for the first half of 2022 said that there's been a **51% year-on-year increase in ransomware incidents**. A majority of attacks are on datacentres.

Measures to control the increasing ransomware attacks in India:

- **A national cyber security strategy:** This will be a guiding document to motivate and monitor the preparedness of cyber readiness of institutes and also enhance capacity on many fronts including forensics, accurate attribution and cooperation.
- **Increased budget for cyber security measures:** Significant budgets have to be allocated by various ministries to ensure cyber security measures.
- **Capacity enhancement:** The capacity enhancement for the National Critical Information Infrastructure Centre (NCIIPC) and CERT-In has to be undertaken to address the emerging sophisticated nature of threats and attacks. Further, **sectoral CERTs have to be set up** for many areas including health.
- **International cooperation:** This will help India to gain more knowledge and power. For this, India has to move beyond the Group of Governmental Experts (GGE) meetings and the US-led Counter Ransomware Initiative (CRI) of 37 countries and the European Union.
- **Purpose limitation in collecting data** by all regulated entities needs to be strictly enforced as sweeping in more data than required on flimsy pretexts increases risks manifold.
- Highly sensitive data such as biometrics are collected by different government organisations who may not all have high standards of cybersecurity. **Collection of biometrics needs to be limited.**
- Given data's non-rivalrous quality, offering a regulator too much leeway protects a regulated entity at the expense of potential victims. So **narrow down the discretion enjoyed by a regulator.**

Proper cyber risk management should be followed. This includes not only preventing breaches but also placing guidelines regarding the process to be followed once there is a cyberattack. This will help minimise financially and mitigate reputational damage when a breach occurs.