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GS 2 : Polity, Governance, International Relations

1. Reservation in promotions to persons with disabilities

In News The Supreme Court has asked the Centre to issue instructions “at the earliest and not later than four months” for giving reservation in promotions to persons with disabilities (PwDs).

- In a January 14, 2020 judgment of the apex court confirming that PwDs have a right to reservation in promotions. The judgement is famously known as Siddaraju v/s State of Karnataka.
- It said instructions should be issued in accordance with Section 34 of the Rights of Persons with Disabilities Act, 2016.
 - It provides that “every appropriate government shall appoint in every government establishment not less than 4% of the total number of vacancies in the cadre strength in each group of posts meant to be filled with persons with benchmark disabilities.

Siddaraju v/s State of Karnataka case

- In the case of Siddaraju v/s State of Karnataka, the Supreme Court affirmed the Reservation of Persons with Disability (PWDs) under the Rights of Persons with Disabilities Act, 2016. In the given case, the decision given under Indra Sawhney’s Case was reconsidered.
- The Court was of the view that the basis for providing reservation for PWD is a physical disability and not any of the criteria forbidden under article 16(1).
- Further, the reservation of persons with disability has nothing to do with 50% ceiling. Therefore, the rule of no reservation promotions as laid down in Indra Sawhney has clearly and normatively no application to persons with disability.

Other landmark judgements with regard to Reservation in promotion

- In the **Indira Sawhney case (1992)**, SC held that the reservation policy cannot be extended to promotions.
- However, the **77th Constitutional Amendment** inserted clause 4A in article 16 and restored provision of reservations in promotions.
- In **Nagaraj judgement (2006)**, Court laid down three controlling conditions that the state must meet prior to granting SC/ST a reservation in promotion:
 - state must show that backwardness of the class

- class is inadequately represented in position or service
- reservations are in the interest of Administrative efficiency
- In **Jarnail Singh case (2018)**, it struck down the demonstration of backwardness provision from Nagaraj judgement.

2. Caste census

In News :

The Union government last week told the Supreme Court that the **caste-based** data enumerated in **the Socio-Economic Caste Census (SECC) of 2011** was “unusable”, but in 2016, **the Registrar-General and Census Commissioner of India** had informed the Standing Committee on Rural Development that 98.87% of the data on individual caste and religion was “error free”.

Why the data is “unusable” according to the government?

- The government had said that the total number of castes surveyed in 1931 was 4,147, while the SECC figures show that there are more than 46 lakh different castes. Assuming that some castes may bifurcate into sub-castes, the total number can not be exponentially high to this extent.
- The entire exercise was corrupted because the enumerators had used different spellings for the same castes. In many cases the respondents, the government said, had refused to divulge their castes.

How have caste details been collected so far?

1. While **SC/ST details are collected as part of the census**, details of other castes are not collected by the enumerators. The main method is by **self-declaration** to the enumerator.
2. So far, **backward classes commissions** in various States have been conducting their own counts to ascertain the population of backward castes.

SECC 2011

The **Socio-Economic Caste Census of 2011** was a major exercise to obtain data about the socio-economic status of various communities.

- It had two components: a survey of the rural and urban households and ranking of these households based on pre-set parameters, and a caste census.
- However, only the details of the economic conditions of the people in rural and urban households were released. **The caste data has not been released till now.**

Difference between Census & SECC:

- The Census provides a portrait of the Indian population, while the SECC is a tool to identify beneficiaries of state support.
- Since **the Census falls under the Census Act of 1948**, all data are considered confidential, whereas all the personal information given in the SECC is open for use by Government departments to grant and/or restrict benefits to households.

Pros of caste census:

The precise number of the population of each caste would help tailor the reservation policy to ensure equitable representation of all of them.

Concerns associated:

- There is a possibility that it will lead to heartburn among some sections and spawn demands for larger or separate quotas.
- It has been alleged that the mere act of labelling persons as belonging to a caste tends to perpetuate the system.

GS 3 : Economy, Science and Technology, Environment

3. What are Electronic Gold Receipts?

The board of the Securities and Exchange Board of India (SEBI) has approved the framework for a gold exchange as well as for vault managers. This approval paves

the way for gold exchanges to be set up for trading in 'Electronic Gold Receipt' (EGR).

EGR

- SEBI's concept paper proposes issuing an electronic gold receipt in exchange of physical gold (similar to equity shares), deposited with a vault manager (like a depository participant) and this receipt can then be traded.
- The government wants India's outsized influence in the physical market for gold to be visible in the financial market for gold as well.

Why need EGRs?

- EGI is a way of getting people to not hoard gold, by creating an exchange that provides transparent pricing and liquidity (to cash or back to gold).
- India is a net importer of gold. We are price takers and not price setters. The whole idea is to move from being price takers to be price setters.
- Price discovery at the exchanges will thus lead to transparency in gold pricing.
- The gold exchanges would provide transparent price discovery, investment liquidity and assurance in the quality of gold.

What is the SEBI regulation?

- SEBI has also proposed a regulatory framework for setting up a gold exchange.
- Existing stock exchanges will be allowed to provide the platform for trading of EGRs.
- The denomination for trading of EGR and conversion of EGR into gold will be decided by the stock exchange with the approval of SEBI.
- The clearing corporation will settle the trades executed on the stock exchanges by way of transferring EGRs and funds to the buyer and seller, respectively.

How will EGR work?

- EGR holders, at their discretion, can withdraw the underlying gold from the vaults after surrendering the EGRs.
- SEBI-accredited vault managers will be responsible for the storage and safekeeping of gold deposits, creation of EGRs, withdrawal of gold, grievance redressal and periodic reconciliation of physical gold with the records of depository.
- The vault manager will have a networth of at least ₹50 crore.

4. Defence Ministry issues order for OFB dissolution

The Defence Ministry has issued an order for the dissolution of the Ordnance Factory Board (OFB) with effect from October 1.

Ordnance Factory Board (OFB)

- OFB consisting of the Indian Ordnance Factories is a government agency under the control of the department of defence production (DDP).
- It is engaged in research, development, production, testing, marketing and logistics of a product range in the areas of air, land and sea systems.
- OFB comprises 41 ordnance factories, nine training institutes, three regional marketing centres and four regional controllers of safety, which are spread all across the country.

Why are OFBs significant?

- OFB is the world's largest government-operated production organization and the oldest organization in India.
- It has a total workforce of about 80,000.
- It is often called the "Fourth Arm of Defence" and the "Force Behind the Armed Forces" of India.
- OFB is the 35th largest defence equipment manufacturer in the world, 2nd largest in Asia, and the largest in India.

Why corporatization?

- It is a major decision in terms of national security and also make the country self-sufficient in defence manufacturing as repeatedly emphasized by PM.
- This move would allow these companies autonomy and help improve accountability and efficiency.
- This restructuring is aimed at transforming the ordnance factories into productive and profitable assets, deepening specialization in the product range, enhancing competitiveness, improving quality and achieving cost efficiency.

What about employees?

- All employees of the OFB (Group A, B and C) belonging to the production units would be transferred to the corporate entities on deemed deputation.
- The pension liabilities of the retirees and existing employees would continue to be borne by the government.

Significance of the move

- With OFB dissolution, its assets, employees and management would be transferred to seven newly constituted defence public sector undertakings (DPSUs).
- This would mean the end of the OFB, the establishment of which was accepted by the British in 1775.

5. Meningitis

The World Health Organization (WHO) has launched the first-ever global strategy to defeat meningitis, a debilitating disease that kills hundreds of thousands of people each year.

What is Meningitis?

- Meningitis is an inflammation of the meninges, the membranes that cover the brain and spinal cord.
- People of any age can get meningitis.

What Causes Meningitis?

- Most cases are caused by bacteria or viruses, but some can be due to certain medicines or illnesses.
- Meningitis is usually caused by a viral infection but can also be bacterial or fungal.
- Both kinds of meningitis spread like most other common infections do – someone who's infected touches, kisses, or coughs or sneezes on someone who isn't infected.
- Bacterial meningitis is rare, but is usually serious and can be life-threatening if not treated right away.
- Viral meningitis (also called aseptic meningitis) is more common than bacterial meningitis and usually less serious.
- Many of the viruses that cause meningitis are common, such as those that cause colds, diarrhea, cold sores, and the flu.

What Are the Signs & Symptoms of Meningitis?

- Meningitis symptoms vary, depending on the person's age and the cause of the infection.
- The first symptoms can come on quickly or start several days after someone has had a cold, diarrhea, vomiting, or other signs of an infection.

Common symptoms include:

- fever
- lack of energy
- irritability
- headache
- sensitivity to light
- stiff neck
- skin rash

Treatment

- Several vaccines protect against meningitis, including meningococcal, Haemophilus influenzae type b and pneumococcal vaccines.
- If dealt with quickly, meningitis can be treated successfully.

6. Zojila Tunnel

Union Minister for Road Transport and Highways has inspected the work on Zojila and Z Morh tunnels.

Zojila Tunnel

- The Zojila is set to be Asia's longest bi-directional tunnel.
- It will connect Srinagar, Dras, Kargil and Leh via a tunnel through the famous Zojila Pass.
- Located at more than 11,500 feet above sea level, the all-weather Zojila tunnel will be 14.15 km long and ensure road connectivity even during winters.
- It will make the travel on the 434-km Srinagar-Kargil-Leh Section of NH-1 free from avalanches, enhance safety and reduce the travel time from more than 3 hours to just 15 minutes.
- The speed limit inside the tunnel is likely to be the same as in the Atal tunnel – 80 kmph.

Z-Morh tunnel

- The Z-Morh tunnel – being developed at Sonmarg – will provide it all-weather connectivity with Srinagar allowing it to remain open to tourists all year round.
- It is likely to be ready by December 2023 and is being developed at a cost of ₹2,378 crore.

Significance of these tunnels

- The project holds strategic significance as Zojila Pass is situated at an altitude of 11,578 feet on the Srinagar-Kargil-Leh National Highway and remains closed during winters due to heavy snowfall.
- At present, it is one of the most dangerous stretches in the world to drive a vehicle and this project is also geo-strategically sensitive.

7. Tourism and Inclusive Growth

In News: The Statue of Unity and the cluster of projects around it are directly benefiting local communities in a 100 square-kilometre radius, and are providing inclusive sustainable growth in the region.

Potential for Tourism

- India has 41 UNESCO World Heritage inscriptions, many iconic destinations, 10 eco-friendly blue flag beaches, immense natural beauty, many wildlife sanctuaries, and intangible cultural heritage through festivals and performing arts.
- There is an opportunity to **build tourism clusters** around these so that local communities can benefit from them.
- Some of these areas are inhabited by marginalised communities such as tribals and forest-dwellers. **Tourism is a tool to deliver prosperity** to these people as that it brings jobs and development opportunities.
- In the wake of Covid-19, the United Nations World Tourism Organisation (UNWTO) has designated this year's World Tourism Day on September 27 to focus on inclusive growth.
- The reason for the tourism sector's ability to create inclusive growth is also because of the **relatively low investment** that is required to create sustainable jobs and generate employment

Way Ahead

- Government has to **empower local communities** by skilling them and integrating them into the tourism supply-chain so that they can run their own homestays, operate logistics, act as guides and tour operators.
- While international tourism could take longer to open up, as international air travel is still constrained, government has a tremendous opportunity to **promote domestic tourism** as a large percentage of the population will be fully vaccinated by year end.

THE INDIAN EXPRESS

GS 2 : Polity, Governance, International Relations

1. Anti-defection law, for independent legislators

In News:

Independent MLA from Gujarat's Vadgam constituency, Jignesh Mevani, has pledged support to the Congress party, saying though **he has not formally joined the Congress**, he has joined the party's ideology. Hence, provisions of **the Tenth Schedule** do not apply in this case.

Relevance: the Tenth Schedule of the Indian Constitution:

Popularly known as **the anti-defection law**.

- It specifies the circumstances under which changing of political parties by legislators invites action under the law.
- It was added to the Constitution by **the 52nd Amendment Act**.
- It includes **situations in which an independent MLA, too, joins a party after the election**.

The law covers three scenarios with respect to shifting of political parties by an MP or an MLA. These include:

1. When a member elected on the ticket of a political party "voluntarily gives up" membership of such a party or votes in the House against the wishes of the party.
2. When a legislator who has won his or her seat as an independent candidate joins a political party after the election.

In the above two cases, **the legislator loses the seat in the legislature on changing (or joining) a party**.

1. Relates to nominated MPs. In their case, the law gives them six months to join a political party, after being nominated. If they join a party after such time, they stand to lose their seat in the House.

Matters related to disqualification:

- Under the anti-defection law, **the power to decide the disqualification of an MP or MLA rests with the presiding officer of the legislature.**
- **The law does not specify a time frame** in which such a decision has to be made.
- Last year, the Supreme Court observed that **anti-defection cases should be decided by Speakers in three months' time.**

However, **Legislators may change their party without the risk of disqualification in certain circumstances. Exceptions:**

1. The law allows a party to merge with or into another party provided that at least two-thirds of its legislators are in favour of the merger.
2. On being elected as the presiding officer of the House, if a member, voluntarily gives up the membership of his party or rejoins it after he ceases to hold that office, he won't be disqualified.

2. Four geopolitical developments and a window of opportunity for India

A number of important developments has taken place over the past several weeks. They may appear disconnected but in fact add up to a significant shift in regional and global geopolitics.

Four major recent developments

1. **Withdrawal of US and NATO forces from Afghanistan:** The complete takeover of the country by the Taliban
2. **Significant domestic political changes in China:** The ideological and regulatory assault against its dynamic private high-tech companies and now its real estate companies
3. **Announcement of the Australia-UK and US (AUKUS):** It represents a major departure in US strategy by its commitment to enable Australia to join a handful of countries with nuclear submarines
4. **Convening of the Quad physical summit in Washington:** A major step towards its formalisation as an influential grouping in the Indo-Pacific going beyond security

Risks and opportunity for India

These four developments, taken together, present India with both risks but also with opportunities. In affirmation, one can conclude that the opportunities outweigh the risks.

[A] Risks in Afghanistan

- The Afghan situation is a setback for India in the short run.
- The political capital and economic presence it had built up in the country over the past two decades has been substantially eroded.
- The Taliban government is dominated by more hard-line and pro-Pakistani elements.
- They will help deliver on the Pakistani agenda of preventing a revival of Indian diplomatic presence and developmental activity in Afghanistan.

Future of Taliban

- In the longer run, it seems unlikely that the Taliban will give up its obscurantist and extremist agenda.
- This may lead to domestic inter-ethnic and sectarian conflict.
- The unwillingness of the Taliban to cut its links with various jihadi groups, including those targeting Afghanistan's neighbours, may revive regional and international fears over cross-border terrorism.

How should India defer the Taliban?

- India's response should be to bide its time, strengthen its defences against an uptick in cross-border terrorism.
- India can keep its faith with the ordinary people of Afghanistan, provide shelter to those who have sought refuge.
- It can join in any international effort to deliver humanitarian assistance to the people of Afghanistan.

[B] Domestic political change in China

- This is taking an ideological and populist direction.
- The country's vibrant private sector is being reined in while the State-Owned Enterprises (SOE) are back in a central role.
- After the tech sector, it is the large real estate sector that is facing regulatory assault.

Concerns for investors

- This is leading to deepening concern among foreign investors, including those who have long been champions of long-term engagement with China.

Opportunities for India

- It is not coincidental that while in NYC, our PM had meetings with the CEOs of Blackstone and Qualcomm, both of which are heavily invested in China but are reconsidering their exposure there.
- If India plays its cards well, this time round there could be significant capital and technology flows from the US, Japan and Europe diverted towards India because it offers scale comparable to China.
- Since India has benign partnerships with the US, Japan and Europe, there are no political constraints on such flows.

[C] AUKUS and QUAD

- The AUKUS and progress made by the Quad serve to raise the level of deterrence against China.
- It is useful since it has now become the core of the US's Indo-Pacific strategy. China will be more focused on its activities.
- The Quad now represents, from the Chinese perspective, a second order threat.

Underlying opportunities

- This offensive against China suits us since we are not ready to embrace a full-fledged military alliance which will constrain our room for manoeuvre.

Why should India gauge these opportunities?

- China has given up the expectation that it could unify Taiwan through peaceful and political means, including through closer economic integration.
- It has lost its credibility after the recent crackdown on civil liberties in Hong Kong.
- China may advance its forcible takeover of Taiwan before the AUKUS gets consolidated.
- The nuclear submarines for Australia may not be built and deployed for several years.
- We may, therefore, be entering a period of enhanced uncertainty and danger in the Indo-Pacific.

India's area for introspection

- The constraints are policy unpredictability, regulatory rigidities and bureaucratic red tape in India.
- Some of these issues are being addressed, such as dropping of retrospective taxation.
- But there is still a long way to go.

Way forward

All these developments has heightened risk perception among international business and industry who have hitherto seen China as a huge commercial opportunity.

- For India, some bold initiatives are required to take advantage of the window of opportunity that has opened.
- It is a narrow window with a very short shelf life.
- If grasped with both hands, then it could deliver double-digit growth for India for the next two or three decades.
- This will shrink the asymmetry of power with China and expand India's diplomatic options.

Conclusion

- India should not be caught off guard. Failure of deterrence in the Indo-Pacific will have consequences beyond the region and change the geopolitical context for India.
- For now, let us focus on what we can do to advance India's economic prospects, for which the times are unexpectedly more propitious.

3. Digital Health ID

The PM has recently launched the flagship Ayushman Bharat Digital Mission (ABDM) which involves the creation not just a unique digital health ID for every citizen.

Unique health ID

- If a person wants to be part of the ABDM, she must create a health ID, which is a **randomly generated 14-digit number**.

- The ID will be broadly used for **three purposes**: unique identification, authentication, and threading of the beneficiary's health records, only with their informed consent, across multiple systems and stakeholders.

Why is this initiative significant?

- The initiative has the potential to “increase the ease of living” along with “simplifying the procedures in hospitals”.
- At present, the use of digital health ID in hospitals is currently limited to only one hospital or to a single group, and mostly concentrated in large private chains.
- The new initiative will bring the entire ecosystem on a single platform.
- The system also makes it easier to find doctors and specialists nearest to you.
- Currently, many patients rely on recommendations from family and friends for medical consultation, but now the new platform will tell the patient who to reach out to, and who is the nearest.
- Also, labs and drug stores will be easily identified for better tests using the new platform.

How can one get it?

- One can get a health ID by self-registration on the portal or by downloading the ABMD Health Records app on one's mobile.
- Additionally, one can also request the creation of a health ID at a participating health facility.
- Health facilities may include government or private hospitals, community health centres, and wellness centres of the government across India.
- The beneficiary will also have to set up a Personal Health Records (PHR) address for consent management, and for future sharing of health records.

What is a PHR address?

- It is a simple self-declared username, which the beneficiary is required to sign into a Health Information Exchange and Consent Manager (HIE-CM).
- Each health ID will require linkage to a consent manager to enable sharing of health records data.
- An HIE-CM is an application that enables sharing and linking of personal health records for a user.
- At present, one can use the health ID to sign up on the HIE-CM; the National Health Authority (NHA), however, says multiple consent managers are likely to be available for patients to choose from in the near future.

What does one need to register for a health ID?

- Currently, ABDM supports health ID creation via **mobile or Aadhaar**.
- The official website states that ABDM will soon roll out features that will support health ID creation with a PAN card or a driving licence.
- For health ID creation through mobile or Aadhaar, the beneficiary will be asked to share details on name, year of birth, gender, address, mobile number/ Aadhaar.

Are personal health records secure?

- The NHA says ABDM does not store any of the beneficiary health records.
- The records are stored with healthcare information providers as per their “retention policies”.
- They are “shared” over the ABDM network “with encryption mechanisms” only after the beneficiary express consent.
- On deletion, the unique health ID will be permanently deleted, along with all demographic details.
- The beneficiary will not be able to retrieve any information tagged to that health ID in the future, and will never be able to access ABDM applications or any health records over the ABDM network with the deleted ID.
- On deactivation, the beneficiary will lose access to all ABDM applications only for the period of deactivation.
- Until she reactivates her health ID, she will not be able to share the ID at any health facility or share health records over the ABDM network.

What facilities are available to beneficiaries?

- Users can access personal digital health records right from admission through treatment and discharge.
- One can access and link his/her personal health records with your health ID to create a longitudinal health history.

What other features will be rolled out?

- Upcoming new features will enable access to verified doctors across the country.
- The beneficiary can create a health ID for her child, and digital health records right from birth.
- Third, she can add a nominee to access her health ID and view or help manage the personal health records.
- Also, there will be much inclusive access, with the health ID available to people who don't have phones, using assisted methods.

How do private players get associated with a government digital ID?

- The NHA has launched the NDHM Sandbox: a digital architecture that allows helps private players to be part of the National Digital Health Ecosystem as health information providers or health information users.
- The private player sends a request to NHA to test its system with the Sandbox environment.
- The NHA then gives the private player a key to access the Sandbox environment and the health ID application programming interface (API).
- The private player then has to create a Sandbox health ID, integrate its software with the API; and register the software to test link records and process health data consent requests.
- Once the system is tested, the system will ask for a demo to the NHA to move forward. After a successful demo, the NHA certifies and empanels the private hospital.

4. Anti-defection Law for Independent Legislators

An independent MLA from Gujarat is said to have has joined a national political party “in spirit” as he could not formally do so, having been elected as an independent.

Anti-defection Law

- The Anti-Defection Law under the Tenth Schedule of the Constitution punishes MPs/ MLAs for defecting from their party by taking away their membership of the legislature.
- It gives the Speaker of the legislature the power to decide the outcome of defection proceedings.
- It was added to the Constitution through the **Fifty-Second (Amendment) Act, 1985** when Rajiv Gandhi was PM.
- The law applies to both Parliament and state assemblies.

Why in news?

- The anti-defection law specifies the circumstances under which changing of political parties by legislators invites action under the law.
- It includes situations in which an independent MLA, too, joins a party after the election.

Why are independents important?

- Independents give voters better opportunities to express their preferences.
- This can improve political representation, as independents are free from the dictates of a party line, and have the flexibility to represent local preferences in a way that party-affiliated candidates often do not.

Cases consider under the anti-defection law

The law covers three scenarios with respect to shifting of political parties by an MP or an MLA.

(1) Voluntary give-up

- The first is when a member elected on the ticket of a political party “voluntarily gives up” membership of such a party or votes in the House against the wishes of the party.
- Such persons lose his seat.

(2) Independent members

- When a legislator who has won his or her seat as an independent candidate joins a political party after the election.
- In both these instances, the legislator loses the seat in the legislature on changing (or joining) a party.

(3) Nominated MPs

- In their case, the law gives them six months to join a political party, after being nominated.
- If they join a party after such time, they stand to lose their seat in the House.

Covering independent members

- In 1969, a committee chaired by Home Minister Y B Chavan examined the issue of defection.
- It observed that after the 1967 general elections, defections changed the political scene in India: 176 of 376 independent legislators later joined a political party.
- However, the committee did not recommend any action against independent legislators.
- A member disagreed with the committee on the issue of independents and wanted them disqualified if they joined a political party.

- In the absence of a recommendation on this issue by the Chavan committee, the initial attempts at creating the anti-defection law (1969, 1973) did not cover independent legislators joining political parties.
- The next legislative attempt, in 1978, allowed independent and nominated legislators to join a political party once.
- But when the Constitution was amended in 1985, independent legislators were prevented from joining a political party and nominated legislators were given six months' time.

Powers to disqualification

- Under the anti-defection law, the power to decide the disqualification of an MP or MLA rests with the presiding officer of the legislature.
- The law does not specify a time frame in which such a decision has to be made.
- As a result, Speakers of legislatures have sometimes acted very quickly or have delayed the decision for years – and have been accused of political bias in both situations.

GS 3 : Economy, Science and Technology, Environment

5. The burden of climate change on children born today:

Context:

A study was recently published by Researchers on the impact of **climate change** on children born today.

- The study is based on data from **the Inter-sectoral Impact Model Intercomparison Project (ISIMIP)**.

How was the study carried out?

The ISIMIP data were used alongside country-scale, life-expectancy data, population data and temperature trajectories from **the Intergovernmental Panel on Climate Change (IPCC)**.

Key findings:

- Children born today will be hit much harder by extreme climate events than today's adults.
- During his or her lifetime, a child born in 2021 is likely to experience on average twice as many wildfires, two to three times more droughts, almost three times more river floods and crop failures and about seven times more heat waves compared to a person who is, say, 60 years old today.

What needs to be done?

Under a scenario of current “insufficient” climate policies, dangerous extreme heatwave events, which affect about 15% of the global land area today, could treble to 46% by the end of this century.

However, if:

- Countries are able to follow through with their climate policies as decided under **the Paris Climate Agreement**, this effect could be limited to 22%, which is just seven percentage points more than the global land area that is affected today.
- We increase climate protection from current emission reduction pledges and get in line with a 1.5-degree target, we will reduce young people's potential exposure to extreme events on average by 24% globally.

What is the Inter-sectoral Impact Model Intercomparison Project (ISIMIP)?

This is a community-driven climate-impacts modelling initiative that assesses the differential impacts of climate change.

- Initiated by the Potsdam Institute for Climate Impact Research (PIK) and the International Institute for Applied Systems Analysis (IIASA) and has since grown to involve over 100 modelling groups from around the world.

How is it carried out?

ISIMIP is organised into simulation rounds, which are guided by a focus topic. For each round, a simulation protocol defines a set of common simulation scenarios based on the focus topic. Participating modelling groups are provided with a

common set of climate input data, and other data (in some cases unique to one sector) necessary to ensure cross-sectorally consistent impacts simulations.

6. Punjab's desertification in 25 years

In News:

The Punjab Vidhan Sabha committee, constituted to study water table depletion, has recently said that **the state will turn into a desert in the next 25 years** if the present trend of drawing water from underground aquifers continues.

- This is a prediction that has been made before – over two decades ago, a study on water table depletion in Punjab (**The State of the World Report, 1998**) had projected almost the same time frame of 25 years, saying aquifers in Punjab could be depleted by 2025.

How alarming is the water situation in Punjab really?

1. Out of 138 blocks in Punjab, 109 have already gone into the 'dark' or over-exploited zone, which means groundwater extraction is more than 100 per cent here.
2. Two fall under the 'dark/critical' zone (groundwater extraction is 90 to 100 per cent), while five are under semi-critical (groundwater extraction 70 to 90 per cent) zone.
3. This means that around 80 per cent blocks of the state have already dried up and four per cent are on the verge of it.
4. Water availability at 3 to 10 meters, which needs a centrifugal pump to extract water, is the most desirable, but currently, water is available at 20 to 30 meters, or more than 30 meters down, in around 84 per cent of Punjab.

Reasons for this scarcity:

1. More water is being drawn than it is being replenished. The rate of water extraction in Punjab is 1.66 times against the rate of replenishment.

2. Because of the adoption of a faulty cropping pattern. Paddy crop hampers water recharging because of the puddling method used to prepare fields for transplanting.

What needs to be done?

Farmers must be incentivised to choose cropping patterns that require less water, and go for drip irrigation or other water management mechanisms to save our only available deeper aquifers.

Prelims Practice Questions

1. Consider the following:

1. Removal by the Election Commission of India (ECI)
2. Obtaining registration by fraud
3. Declared illegal by the Central Government

Which of the conditions mentioned above is/are appropriate to de-register a political party?

- A 1 and 2 only
- B 2 only
- C 2 and 3 only
- D 1, 2 and 3

Answer: C

Explanation

Power of Deregistration:

- The **Election Commission of India (ECI)** is not empowered to de-register political parties on the grounds of violating the Constitution or breaching the undertaking given to it at the time of registration.
 - ECI has the power to register parties under the Representation of the People Act, (RPA) 1951, but it **does not have the power to deregister parties** that are inactive.
- A party **can only be de-registered if its registration was obtained by fraud**; if it is **declared illegal by the Central Government**; or if a party amends its internal Constitution and notifies the ECI that it can no longer abide by the Indian Constitution.
- **Hence, option C is correct.**

2. Which of the following are the reasons/factors for exposure to benzene pollution?

1. Automobile exhaust
2. Tobacco smoke
3. Wood burning
4. Using varnished wooden furniture
5. Using products made of polyurethane

Select the correct answer using the given code below

- a. 1, 2 and 3 only
- b. 2 and 4 only
- c. 1, 3 and 4 only
- d. 1, 2, 3, 4 and 5

Answer: d

Explanation:

Benzene is an organic chemical compound (C_6H_6). Benzene is formed from both natural processes and human activities. Natural sources of benzene include volcanoes and forest fires.

Following are the reasons/factors for exposure to benzene pollution:

- Automobile exhaust
- Tobacco smoke
- Wood burning
- Using varnished wooden furniture
- Using products made of polyurethane

3. With reference to Paddy Transplantation, Consider the following statements:

1. Under this seedlings are transplanted and have to be “puddled” or tilled in standing water.
2. It is done because water acts as a natural pesticide.
3. It is both labour- and water-intensive.

Which of the above statements is/are correct?

- A 1 only
B 2 only
C 1 and 2 only
D 1, 2 and 3 only

Answer : D

Explanation

Paddy Transplantation:

- The field where the seedlings are transplanted has to be “**puddled**” or **tilled in standing water. Hence, statement 1 is correct.**
 - For the first three weeks or so after transplanting, the plants are irrigated almost daily to maintain a water depth of 4-5 cm.
 - Farmers continue giving water every two-three days even for the next four-five weeks when the crop is in **tillering (stem development) stage.**
- The advantage of the Paddy Transplantation technique is that **water is a natural herbicide** that takes care of weeds in the paddy crop’s early-growth period. **Hence, statement 2 is correct.**
- Paddy transplantation is **both labour- and water-intensive.** Due to this farmers are switching to **Direct Seeding of Rice (DSR)**, which has several advantages over paddy transplantation. **Hence, statement 3 is correct.**

4 The Taiwan Strait connects –

- a. Strait of Malacca with Gulf of Thailand
- b. South China Sea with East China Sea
- c. Andaman Sea with Gulf of Thailand
- d. Indian Ocean with Pacific Ocean

Answer: b

Explanation:

The Taiwan Strait connects the South China Sea with the East China Sea.

5. Recently the term 'Akash Prime' was seen in the news. What does it refer to?

- A collaboration between Amazon Prime and the Education Ministry to run online classes
- A new version of the Akash surface-to-air missile developed by the DRDO
- A weather monitoring system deployed by India Meteorological Department
- An earth-observation satellite launched by ISRO for military applications

Answer: b

Explanation:

- 'Akash Prime' is a new version of the Akash surface-to-air missile developed by the DRDO.

6. 'Van Dhan Yojana' deals with:

- Financial inclusion
- Tax relief for street vendors
- The six-month moratorium on term loans announced by the Reserve Bank of India during Covid-19 lockdown
- Economic development of tribals

Answer: d

Explanation:

- The Ministry of Tribal Affairs and Tribal Cooperative Marketing Development Federation of India (TRIFED) launched the Van Dhan scheme in 2018 intending to improve the tribal income through the value addition of tribal products.
- The scheme aims at the economic development of tribals involved in the collection of Minor Food Produces (MFPs) by helping them in optimum utilization of natural resources and providing them with a sustainable livelihood.

- Under this scheme, the Van Dhan Vikas Kendras constituted, provide skill up-gradation and capacity building training and setting up of primary processing and value addition facilities.

Mains Practice Questions

1. 'Indian diaspora has a decisive role to play in the politics and economy of America and European Countries'. Comment with examples.

Approach

- Start your answer by briefly discussing the significance of the Indian diaspora.
- Discuss in what ways the Indian diaspora affects the politics and economy of America and European Countries
- Conclude suitably.

2. How does the draft Environment Impact Assessment (EIA) Notification, 2020 differ from the existing EIA Notification, 2006.

Approach

- Start your answer by mentioning the context of the draft Environment Impact Assessment (EIA) Notification, 2020
- Highlight major differences between the draft and current notification.
- Conclude suitably.