13th Jan, 2024

1. <u>India's Data Protection Rules Need Some Fine-Tuning</u> GS 2 (Governance)

• Why in News:

On January 3, 2025, India reached a significant milestone in its data protection journey with the Ministry of Electronics and Information Technology (MeitY) releasing the Draft Digital Personal Data Protection (DPDP) Rules.

India's data protection rules need some fine-tuning

 This development follows the passage of the DPDP Act, 2023, marking a crucial step towards operationalising a robust framework for safeguarding personal data.

 The draft rules symbolise a pragmatic departure from India's earlier, more rigid data protection efforts, emphasising a balanced approach that avoids overreach while promoting flexibility.

India's Journey Toward the DPDP Rules

- The Fall of the Personal Data Protection Bill (PDPB)
 - The PDPB's downfall can be traced to its failure to balance privacy with economic and operational feasibility.
 - It sought to impose rigorous obligations on businesses, mirroring the European Union's General Data Protection Regulation (GDPR) approach.
 - Although the GDPR was widely regarded as a benchmark for privacy laws, its rigid rules inadvertently created barriers to innovation and imposed significant compliance costs, particularly on small and medium enterprises (SMEs).
 - India's PDPB similarly drew concerns for being too interventionist and industry-hostile.
 - It mandated exhaustive consent requirements and strict data localisation, creating fears that the compliance burdens would deter foreign investment, stifle startups, and limit technological innovation.
- The Shift to a Principles-Based Framework
 - The shift from the PDPB to the DPDP Act and its draft rules represents a fundamental change in philosophy.
 - Learning from the challenges of the PDPB and the limitations of global models like the GDPR, India adopted a less prescriptive, more principles-driven framework.
 - The **DPDP rules focus on empowering users without micromanaging businesses,** emphasising simplicity, flexibility, and proportionality.
 - This pragmatic approach reflects an understanding of India's unique socio-economic and technological landscape.
 - Unlike the EU, where a mature digital economy can absorb the costs of stringent regulations, India's ecosystem is characterised by diverse entities, ranging from multinational corporations to fledgling startups.

Avoiding the Brussels Effect

- India's decision to move away from the Brussels Effect, a global trend of replicating the EU's interventionist regulatory ethos, is a notable aspect of this journey.
- The EU's GDPR, once hailed as a gold standard, has faced growing criticism for its unintended consequences.
- These include favouring well-resourced corporations capable of absorbing high compliance costs, marginalizing SMEs, and failing to significantly enhance public trust in digital platforms.

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- India has instead chosen a path that prioritises outcomes over processes.
- By focusing on what needs to be achieved rather than dictating how to achieve it, the DPDP rules aim to minimise unnecessary complexity and compliance fatigue.

Challenges and Ambiguities

- The Complexity of Cross-Border Data Flows
 - One of the most contentious provisions in the draft rules is the restriction on cross-border data flows, particularly the mandate for Significant Data Fiduciaries (SDFs) to localise certain data within India.
 - The DPDP Act allows the government to notify specific countries where personal data can be transferred, but the rules extend beyond this provision, introducing added complexities for SDFs.
 - Such localisation mandates can have far-reaching implications. For global businesses operating
 in India, maintaining separate infrastructure for data storage can significantly increase
 operational costs.

Gaps in Safeguards Against Misuse

- The draft rules lack clarity on mechanisms to verify the legitimacy of user requests for information on data processing activities.
- Without adequate safeguards, businesses may face a barrage of excessive or frivolous requests, diverting resources away from their core operations.
- For example, malicious actors could exploit the lack of verification processes to overwhelm a company's compliance infrastructure or gain access to sensitive information.
- Furthermore, the rules do not specify whether businesses can charge a reasonable fee for processing such requests, especially if they are excessive or unfounded

Ambiguity Around Government Access to Data

- A particularly concerning gap in the draft rules pertains to the government's potential access to sensitive business data.
- While the rules grant the government the authority to demand information, they do not provide clear safeguards to protect this data from misuse or exposure.
- For instance, businesses may have to share proprietary information, trade secrets, or confidential data with the government, raising questions about how this information will be protected from competitors or malicious actors.
- The absence of specific provisions addressing these scenarios creates uncertainty and creates apprehension among businesses, particularly those operating in industries where intellectual property and trade secrets are critical assets.

Necessary Measures to Address these Challenges

Strengthening Procedural Clarity

- A critical aspect of the way forward is to address the procedural gaps in the current draft rules.
- Clear guidelines must be established to manage potential conflicts between user rights and business operations.
- For instance, in scenarios where users request data correction or erasure, businesses need clarity on the extent of their obligations, especially if such requests conflict with operational or legal requirements.

Addressing Cross-Border Data Flow Concerns

- The draft rules' provisions for restricting cross-border data flows require careful reconsideration.
- While data localisation can address legitimate concerns around law enforcement access, it risks deterring foreign investment and stifling innovation if applied indiscriminately.
- A more nuanced, sector-specific approach could provide a solution.
- For example, the Reserve Bank of India's 2018 mandate for payment data localisation struck a balance between regulatory oversight and business needs.
- A similar strategy tailored to industries handling sensitive data, such as finance, healthcare, and national security, could address law enforcement concerns without burdening all businesses equally.

o Rethinking the Consent Model

- The reliance on the notice-and-consent model, while traditional, is increasingly inadequate in the face of modern technologies like IoT, AI, and 5G.
- These advancements enable vast, often invisible data collection in public and digital spaces where obtaining informed consent is impractical.
- To address this, India must explore alternative mechanisms that go beyond consent-based frameworks.

Anticipating Emerging Technologies

- India's data protection framework must also account for the rapid evolution of technology.
- Innovations such as generative AI, augmented reality, and autonomous systems are redefining how data is collected, processed, and used.
- The convergence of these technologies with 5G and IoT is creating a hyper-connected environment, increasing the complexity of privacy challenges.
- Future-proofing the DPDP rules will require integrating flexible, principles-based approaches that can adapt to technological changes.

Conclusion

- The Draft DPDP Rules mark a pivotal moment in India's journey toward a modern data protection
- However, their potential will only be realised if the government addresses the challenges, clarifies
 ambiguities, and prepares for the complexities of the digital future.
- By focusing on innovation, ensuring procedural integrity, and building public trust, India can establish a
 framework that protects privacy while enabling economic growth and technological leadership.

2. Should Voter IDs Be Linked with Aadhaar? GS 2 (Governance)

Why in News:

The debate over linking Election Photo Identity Card (EPIC) with Aadhaar has been reignited amidst allegations of electoral roll manipulation.

each other of tampering with voter lists, especially ahead of the Delhi Assembly elections

 This issue draws attention to the potential benefits and challenges of such a linkage.

Historical Context

- o Initial Steps (2015):
 - The National Electoral Rolls Purification and Authentication Program (NERPAP) was launched by the Election Commission (EC) to address duplicate entries in electoral rolls.

Should voter IDs be linked with Aadhaar?



The program aimed to authenticate voter data by linking EPIC with Aadhaar. Within three months, over 300 million voters were linked.

Supreme Court Intervention (2015):

 The program was halted after the Supreme Court ruled that Aadhaar's mandatory use should be limited to welfare schemes and PAN linking.

Revival (Post-2018):

• Following the **Puttaswamy judgment**, which upheld the constitutional validity of Aadhaar, the Representation of the People Act, 1950, was amended in 2021 to enable the voluntary linking of voter IDs with Aadhaar.

• Current Process:

Submission Requirements:

- New voters can provide Aadhaar during registration using Form 6, while existing voters can use Form 6B for authentication
- If a voter does not have Aadhaar, alternative documents like a PAN card, driving license, or passport can be submitted.

Voluntary Nature:

- The EC clarified in 2023 that linking Aadhaar is not mandatory and ensured no voter will be excluded for failing to provide it.
- However, forms have not been updated to reflect this clarification, causing confusion.

Advantages of Linking Aadhaar with Voter IDs:

Elimination of Duplicates:

Linking Aadhaar can help remove duplicate or fraudulent entries, ensuring cleaner electoral rolls.
 Currently, over 650 million Aadhaar numbers have been linked.

Improved Electoral Integrity:

 Accurate voter data can strengthen the electoral process by reducing instances of impersonation and ensuring fair elections.

Administrative Efficiency:

 A streamlined voter database can reduce administrative overhead during elections, making the process more efficient.

Challenges and Concerns:

Errors in Aadhaar Database:

Even minor inaccuracies in Aadhaar data can lead to wrongful deletion or rejection of legitimate voter entries

Proof of Citizenship:

 Aadhaar is a proof of residence, not citizenship. Linking Aadhaar will not address the issue of non-citizens being on electoral rolls, requiring separate measures by the EC.

Privacy Risks:

 Electoral rolls are widely circulated among political parties, and linking Aadhaar may risk misuse of personal data, even if Aadhaar numbers are only linked in the backend

Public Misconceptions:

 Many voters fear that linking Aadhaar with voter IDs might compromise the secrecy of their votes, leading to reduced confidence in the system.

• The Way Forward:

Transparent Communication:

 Public awareness campaigns are necessary to educate voters about the benefits of Aadhaar linkage and address misconceptions regarding data security and voter secrecy.

Updating Forms:

■ The EC must urgently update forms to explicitly state that providing Aadhaar is voluntary, as clarified in the 2023 Supreme Court submission.

Data Security Measures:

 Strong safeguards must be implemented to prevent misuse of Aadhaar-linked electoral data, ensuring voter confidence.

Separate Citizenship Verification:

• To ensure only citizens are on electoral rolls, the EC should develop independent methods of verifying citizenship, apart from Aadhaar linkage.

Conclusion

- The right to vote is a fundamental component of free and fair elections, integral to India's democratic framework.
- While linking voter IDs with Aadhaar can enhance the integrity of the electoral process, it must be implemented with caution to address privacy concerns, data errors, and misconceptions.
- A balanced approach, combining transparency, data security, and improved administrative measures, will be key to gaining public trust and strengthening the democratic process.

3. <u>Centre-State Clashes on Vice Chancellor Appointments</u> GS 2 (Governance)

• Why in News: The University Grants Commission (UGC) has proposed new regulations for appointing Vice Chancellors (VCs) in universities, sparking disputes What dwaft rules on VC appointments say why states are unset.

between states and the Centre.

New Regulations for Appointing VCs in Universities:

 Name: The draft UGC (Minimum Qualifications for Appointment and Promotion of Teachers and Academic

AND CONTROL CONTROL CONTROL OF SEASON AND CONTROL CONTROL OF SEASON AND CONTROL CONTRO

What draft rules on VC appointments say, why states are upset

Staff in Universities and Colleges and Measures for the Maintenance of Standards in Higher Education) Regulations, 2025.

Objective: It aims to standardize appointment processes but has drawn criticism for allegedly undermining state rights and federalism.

How VCs are Appointed?

Central universities:

- Central universities are established under parliamentary Acts and administered by the Centre, with the President of India acting as Visitor.
- VC appointment committees include two nominees from the university's Executive Council and one from the Visitor.

State universities:

- State-specific laws often determine the composition of search committees.
- Typically, the Chancellor (usually the Governor) selects the VC based on committee recommendations.
- For instance, Kerala's law includes nominees from the university Senate, UGC Chairman, and Chancellor.
- o **Private universities:** Private institutions follow similar procedures, with UGC playing a limited role through its nominee in the search committee.

Key Provisions of the Draft Regulations 2025:

Committee composition changes:

- The new rules specify that the search-cum-selection committee will have three members, including one each nominated by the Chancellor/Visitor, the UGC Chairman, and the university's apex body (e.g., Senate or Syndicate).
- This grants a majority to Centre-aligned nominees in the committee.
- Eligibility expansion: Besides professors, individuals from senior roles in industries, public policy, administration, or public sector undertakings may now qualify as VCs.
- Chancellor's role: The Chancellor or Visitor will directly constitute the search committee, a departure from the 2018 guidelines.

• State vs Centre Disputes over VC Appointments:

Kerala:

- Conflict started in 2021 when Governor Arif Mohammad Khan contested VC reappointments.
- The state passed a Bill to replace the Governor as Chancellor, which awaits Presidential assent.

West Bengal:

- The Supreme Court is involved in resolving disputes over interim VC appointments made unilaterally by the Governor.
- The state Assembly's move to replace the Governor with the Chief Minister as Chancellor is stalled due to lack of gubernatorial assent.
- Karnataka: Proposed legislative reforms aim to remove the Governor as Chancellor. Bills are awaiting approval.
- Maharashtra: Attempts to limit the Governor's role in VC appointments were reversed under the new government in 2022.

Tamil Nadu: The DMK-led government's efforts to appoint VCs without Governor approval remain

Federalism Concerns over VCs Appointments:

- State governments have raised alarms over the draft regulations, citing:
 - Erosion of State autonomy: States argue that these rules centralize power in the hands of Governors, undermining federal principles.
 - Democratic concerns: Critics see it as a move to weaken democratically elected state governments.

State leaders' reactions:

- Kerala CM Pinarayi Vijayan: Described the draft as "anti-federal" and an overreach into state
- Tamil Nadu CM M K Stalin: Called it a "direct assault on federalism."
- UGC's stance: UGC Chairman M Jagadesh Kumar defended the regulations as necessary for aligning with the National Education Policy 2020 and ensuring transparent, high-quality leadership in higher education.

Conclusion:

- The proposed UGC regulations have intensified ongoing Centre-state tensions, particularly over Governors' roles in university administration. While the Centre justifies these reforms as quality-driven, state governments view them as a threat to federalism and their autonomy in education governance.
- The resolution of these disputes will significantly shape higher education and federal-state dynamics in India

4. Pink fire retardant is being used to curb California wildfires GS 3 (Environment)

Why in News:

- Wildfires in Southern California have prompted authorities to deploy planes and helicopters to combat the blaze. Nine planes are spraying pink fire retardant, a long-used product, and 20 helicopters are dropping water.
- While the fire retardant has been in use for decades, recent research questions its effectiveness and potential environmental impact.

What is the pink fire retardant?

What is Fire Retardant?

- Fire retardant is a chemical mixture designed to extinguish or slow the spread of fires.
- It is commonly used to combat wildfires, with Phos-Chek being the most widely used brand in the US.

Composition of Phos-Chek

- Phos-Chek is primarily a mixture of water, fertilizer (ammonium phosphate), and rust-based red color.
- The formulation may also include thickening agents to control viscosity and prevent the material from drifting.
- The key active ingredient is ammonium phosphate, which helps slow the spread of fires by cooling and coating fuels, depleting oxygen, and altering how fuels burn.
- Unlike water, it does not evaporate easily and remains effective for a longer duration.

How It Works

- Phos-Chek reacts with cellulose in plant matter, consuming heat from the fire and producing non-flammable carbon material.
- This process slows or stops the fire's spread, especially in areas with homes or structures.

Strategic Application

WHATIS PINK FIRE RETARDANT. BEING USED AGAINST CALIFORNIA WILDFIRES?

ALIND CHAUHAN

AS MULTIPLE wildfires blaze in Southern California, authorities are using planes to drop a large amount of bright pink fire re-tardant. While its use is not new in the United States, growing research has raised questions about its effectiveness and potential environme

What is the fire retardant?

What is the fire retardant? Fire retardant is a mix of chemicals used to extinguish or slow the spread of fires. To tackle wildfires in the US, author ities commonly use a brand known as Phos-Chek which mostly contains an am-monium phosphate-based slurry. Salts like ammonium polyphosphate do not evap-

monium phosphate-based slumy. Salts like ammonium pohyphosphate do not evaporate easily like water, and stay for longer. Stanton Florea, a spokesman for the National Interagency Fire Center in Boile, dlabo, told If Ne New York Times that the retardant is sprayed ahead of the fire to cat vegetation and prevent oxygen from allowing it to burn. Colour is tousally added to the fire to.

sallowing it to hum.

Colour is sually added to the fire re-tardant to ensure that firefighters can see tagainst the landscape. This helps them create fire lines, potentially saving its and property Phos-Check is pink because the colour's "by far the most visible. And, it's pretty" Mellass Xim vice president of research and development at Peri-meters of the property of the property property proper

What are the concerns? Environmental experts have argued that spraying fire retardants using planes is ineffective, expensive and a growing source of pollution for rivers and streams. A 2024 study by researchers at the University of Southern California found hat Phos-Chek's ladeen with troic met-als", and estimates retardant use has reinds of thes



and kidney and liver diseases in humans. However, their adverse environmental impact is potentially bigger in scale, es-pecially when retardants enter water-ways and kill aquatic life. The effectiveness of Phos-Chek also remains unclear because it is one of the numerous firefighting tactics deployed

ness of aerial retardants also depen factors like slope, fuel type, terrain weather: Imothy Ingalsbee, a fo land firefighter and executive the nonprofit Firefighters United Ethics and Ecology, to the IATII retardant is affective.

ing, wildfires are expected to be more frequent and intense. This wil increase the use of aerial fire retard bette snow that more unleashed between 2009 and 2021 in the US. The USC study estimated that as a result, more than 400 tonnes of heavy metals were released into the environment, The

- Fire retardant is typically dropped at the edges of fires to create barriers, preventing the flames from spreading.
- Unlike water, the fertilizer-based active ingredient remains effective even after water evaporates, leaving a protective layer for days or weeks.
- Large air tankers can release up to 9,400 gallons of Phos-Chek in a single drop.

Importance of the Pink Colour

- A pink dye is added to the fire retardant for visibility against the landscape, enabling firefighters to create fire lines effectively.
- According to experts, pink is the most visible and aesthetically pleasing option.

Concerns Over Fire Retardant Use

Environmental Impact

- Spraying fire retardant via planes is criticized for being ineffective, costly, and a significant source of pollution to rivers and streams.
- A 2024 USC study revealed that Phos-Chek contains toxic metals like chromium and cadmium, which can harm aquatic life and potentially cause cancer, kidney, and liver diseases in humans.

Kumbh origin, history, appeal



Questionable Effectiveness

- Assigning credit to aerial retardants is challenging as they are one of many firefighting methods.
- Their effectiveness depends on environmental factors like slope, fuel type, terrain, and weather, as noted by Forest Service scientists.

Limited Scope of Use

Experts state that aerial retardants work under a narrow range of conditions, which are increasingly rare due to climate change.

Growing Usage Amid Intensifying Wildfires

- Rising global temperatures are expected to make wildfires more frequent and intense, escalating the use of aerial fire retardants
- Between 2009 and 2021, over 440 million gallons of retardant were deployed in the US, releasing more than 400 tons of heavy metals into the environment.

Ongoing Debate

Environmental experts, the federal government, and manufacturers are at odds over the environmental and health risks posed by fire retardants, sparking an ongoing debate.

5. Kumbh Mela Explained **GS 1 (Art and Culture)**

Why in News:

- The Maha Kumbh 2025, a grand religious event held every 12 years, will take place in Prayagraj, starting on January 13, with the first holy bath (snan).
- Expected to attract over 45 crore devotees over one-and-a-half months, it is one of the largest gatherings on earth. While its exact origins are debated—some tracing it to the Vedas and Puranas and others to the past two centuries—it remains a significant spiritual and cultural festival.

The Kumbh Mela

- Origin 0
 - The Sanskrit word "kumbh" means pitcher or pot.
 - According to mythology, during the ocean churning by Devas (gods) and Asuras (demons), Dhanvantri emerged with a pitcher of amrita (elixir of immortality).

- To prevent Asuras from getting it, Jayant, Indra's son, fled with the pot, protected by the Sun, Shani, Brihaspati (Jupiter), and the Moon.
- As Jayant ran for 12 divine days (equal to 12 human years), amrita spilled at four locations: Haridwar, Prayagraj, Ujjain, and Nashik-Trimbakeshwar.

Frequency

- Maha Kumbh (Poorna Kumbh): Held every 12 years.
- Ardh-Kumbh: Held in Prayagraj and Haridwar every 6 years.

Significance of the Rivers

- The festivals occur on the banks of sacred rivers:
 - Haridwar: Ganga
 - Prayagraj: Confluence of Ganga, Yamuna, and mythical Saraswati
 - **Ujjain**: Kshipra (believed to emerge from Vishnu's heart in his Varah avatar)
 - Nashik-Trimbakeshwar: Godavari (known as the Ganga of the south)
- Bathing in these rivers during Kumbh, under specific celestial alignments, is believed to cleanse sins and provide spiritual merit (punya).

Gathering of Sadhus and Spiritual Learning

• Kumbh Melas attract Sadhus and holy men, especially from the akhadas, providing opportunities for devotees to meet and learn from them.

Astrological Basis of Kumbh Mela

- The site of a Kumbh Mela is determined by astrological calculations based on the positions of Jupiter, the Sun, and the Moon.
- Jupiter's 12-year revolution around the Sun also explains the 12-year gap between Kumbh Melas.
- Astrological alignments unique to each site guide the timing and location of the Kumbh Mela.

Historical References to Kumbh Mela

Ancient References to Kumbh Mela

- The Skanda Purana is often cited as proof of Kumbh Mela's antiquity, but no extant version explicitly describes the festival as we know it.
- The Samudra Manthan story, though mentioned in various scriptures, lacks references to the spilling of amrita at four places
- Some claim the Rig Veda includes shlokas highlighting the benefits of participating in the Kumbh Mela.

Xuanzang's Account

- The Chinese pilgrim Xuanzang described a seventh-century fair in Prayag, but it is unclear whether it was the Kumbh Mela.
- Kama Maclean suggests that an ancient bathing festival, Magh Mela, held at Prayag was rebranded as the "timeless" Kumbh after 1857 to avoid British interference.

Adi Shankaracharya's Role

• The 8th-century philosopher Adi Shankaracharya is believed to have formalized the four periodic fairs, creating opportunities for Hindu ascetics and scholars to gather and guide the public.

o Evolution of Kumbh Mela

- According to some experts, the Kumbh Mela likely began at Haridwar, as Brihaspati (Jupiter) in Kumbh rashi corresponds to this site.
- The tradition possibly took shape after the 12th century CE during the Bhakti movement, as fairs on sacred riverbanks are an ancient Hindu tradition.
- They link the Kumbh's origins to Ganga worship and the influence of travelling sadhus, who spread the idea of holding Kumbh Melas at four sacred rivers.

Historical Records

- Mughal-era records and those kept by sanyasi akhadas indicate the Kumbh Mela was formalized over time, evolving into a major socio-religious event.
- These gatherings provided opportunities for ascetics to earn followers and for pilgrims to engage in spiritual practices.

• How Kumbh Mela became a platform for nationalism during Independence movement?

Allahabad's Rise as a Political and Cultural Hub

- Following the 1857 revolt, Allahabad became the capital of the North-Western Provinces, gaining prominence as a political and administrative center.
- With institutions like the High Court (1867) and Allahabad University (1887), the city attracted influential families, students, and nationalists.
- By the late 19th century, Allahabad had transformed into a significant site for political and religious activities, including the Kumbh Mela

Religious Festivals as a Platform for Nationalism

- From the late 19th century, the Kumbh Mela evolved into a platform for disseminating nationalist ideas.
- The British policy of non-interference in religion allowed Indian leaders to leverage religious gatherings for political purposes.
- By the 1900s, nationalist leaders like Bal Gangadhar Tilak and Gopal Krishna Gokhale used the Kumbh to promote Swadeshi and other nationalist causes.

o The Role of Congress and Religious Leaders

- By the 1930s, the Congress Party actively used Kumbh Melas for political mobilization.
- Sadhus and ascetics played a key role in spreading nationalist messages, blending religious authority with Congress policies.
- Events like the 1936 Ardh Kumbh saw displays such as the idol of Bharat Mata and political processions that aligned spiritual and nationalist sentiments.

Conclusion

- The Kumbh Mela evolved from a regional religious gathering to a significant national event with political undertones, especially during the Indian freedom struggle.
- Its transformation was influenced by nationalist leaders, local priests, and ascetics, who used it
 as a stage for resistance against colonial rule and the assertion of India's political sovereignty.