GOVERNMENT POLICIES AND INTERVENTIONS FOR DEVELOPMENT IN VARIOUS SECTORS AND ISSUES ARISING OUT OF THEIR DESIGN AND IMPLEMENTATION GSPAPER II

Ladakh's Reservation Policy and Demand for Statehood – Explained

Context:

On June 3, 2025, the President of India notified four key regulations for the Union Territory (UT) of Ladakh, significantly altering local governance, recruitment, and cultural policies. These include:

1. The Ladakh Official Languages Regulation, 2025
2. The Ladakh Civil Services Decentralisation and Recruitment (Amendment) Regulation, 2025
3. The Ladakh Autonomous Hill Development Councils (Amendment) Regulation, 2025
4. The Union Territory of Ladakh Reservation (Amendment) Regulation, 2025

Key Highlights:

- **85% reservation** in government jobs for *resident Ladakhis*.
- An additional **10% quota for Economically Weaker Sections (EWS)** and **5% for long-term non-local residents** (15-year continuous stay since October 31, 2019), bringing total reservation to **95%**, one of the highest in the country.
- **Tehsildars** are authorised to issue domicile certificates.
- **Official languages** now include English, Hindi, Urdu, Bhoti, and Purgi.
- **One-third reservation for women** in Leh Hill Council seats on a rotational basis.

Background and Rationale:

After the abrogation of Article 370 in August 2019, Ladakh was carved out as a separate UT without a legislature. Initial jubilation gave way to concerns over **land, employment, and identity**. Civil society feared that the absence of constitutional protections (like Article 35A) would expose the region to outside exploitation.

In response, movements like the **Leh Apex Body (LAB)** and **Kargil Democratic Alliance (KDA)** emerged, demanding:

1. Inclusion under the **Sixth Schedule** (for tribal autonomy)
2. **Statehood** for Ladakh
3. **Separate Lok Sabha seats** for Leh and Kargil
4. Filling of **vacant government posts**

Government Response:

- A **High-Powered Committee (HPC)** was set up in 2023 under MoS Nityanand Rai but was reconstituted after protests.
- Talks with stakeholders resumed following activist Sonam Wangchuk's 2024 fast.
- The domicile and job reservation policy was finalised in the May 2025 HPC meeting.

Way Forward:

While the job reservation issue has been settled, demands for **statehood, Sixth Schedule inclusion**, and **land protection** remain. Civil society groups have indicated they will continue dialogue with the Centre, with Union Home Minister assuring that other issues remain open for discussion.

Conclusion:

Ladakh's new reservation policy is a significant step towards addressing local concerns, but the broader political and constitutional aspirations of the people, particularly regarding identity and autonomy, continue to shape the region's political discourse.

GS PAPER III AGRICULTURE, MAJOR CROPPING PATTERN

Synchronising Irrigation with Cropping Patterns: A Climate-Smart Approach

Introduction:

India's traditional irrigation policy has long assumed that the availability of irrigation alone can drive cropping shifts toward high-value or water-intensive crops. However, data from 2011-12 to 2022-23 suggests that farmers make integrated decisions based on rainfall, input access, prices, and real-time water availability, underscoring the need to synchronise irrigation planning with cropping choices.

Irrigation and Cropping Linkages:

- **Irrigation Access:** Enables transition from rainfed subsistence crops (millets) to high-value crops (fruits, sugarcane, cotton), encourages multiple cropping, and supports HYVs.
- **Gross Irrigated Area (GIA):** Increased from 91.8 to 122.3 million ha (2011-2023); share of irrigated sown area rose from 46.9% to 55.8%.
- **Crop Yields:** Improved from 841 to 1,009 kg/acre with 1.67% annual growth.
- **Timing Matters:** Delayed irrigation infrastructure fails to impact cropping decisions aligned with sowing windows.

Need for Synchronisation:
- **Efficient Water Use:** Reduces water losses, prevents over-irrigation, and aligns with crop growth stages.
- **Climate Adaptation:** Buffers rainfall variability and extreme weather events.
- **Cost-Effective Infrastructure:** Enhances returns on investments in canals, groundwater, and micro-irrigation.
- **Environmental Protection:** Minimises waterlogging, salinity, and groundwater depletion.

Flaws in Traditional Planning:
- **Top-Down Approach:** Ignores agro-climatic diversity and real-time crop needs.
- **Poor Convergence:** Irrigation alone doesn't ensure yield gains without seeds, credit, extension services.
- **Delayed Execution:** Projects miss peak sowing seasons (e.g., Gosikhurd).
- **Groundwater Overuse:** Free electricity and paddy MSP in Punjab-Haryana cause depletion.
- **Soil Salinity & Waterlogging:** Projected to affect 13 million ha by 2025.
- **Data Deficiency:** Limited use of soil moisture, weather data, or cropping maps.

Reforms Needed:
- **Agro-Ecological Planning:** Region-specific irrigation plans; promote millets/pulses in arid zones.
- **Technology Integration:** Real-time irrigation scheduling via soil sensors, satellite data (e.g., Andhra Pradesh RTGS).
- **Micro-Irrigation Scale-Up:** Expand *Per Drop More Crop* with cluster-based support and custom hiring.
- **Subsidy Rationalisation:** Link DBTs to water efficiency; reform MSP to promote low-water crops.
- **Traditional Harvesting Integration:** Use MGNREGA and *Jal Shakti Abhiyan* to revive tanks, johads.
- **Drainage Solutions:** Launch a National Drainage Mission; promote salt-tolerant crops.
- **Farmer Awareness:** Use KVKs and NGOs to spread water-saving, climate-smart practices.

Conclusion:
India must shift from infrastructure-heavy irrigation to integrated, climate-resilient, and farmer-centric systems. Synchronising irrigation with cropping ensures sustainable agriculture, optimised water use, and improved rural livelihood.

PRELIM FACTS

1. India as a Global Biotechnology Hub
India showcased its **rising prominence** in the **global biotechnology sector** at the **International Centre for Genetic Engineering and Biotechnology (ICGEB) meeting** in New Delhi.
- India inaugurated first of its kind **public-funded DST-ICGEB Bio-foundry**, a platform for scaling up **bio-based innovations, supporting startups**, and researchers.
- **ICGEB**, established in **1983**, is a premier intergovernmental organization with **69 member countries**, with centres in **New Delhi, Trieste, and Cape Town.**
  - Under the **BioE3 Policy (Biotechnology for Economy, Environment & Employment)**, India aims to build a **resilient bio-manufacturing ecosystem.**
  - **India's bioeconomy grew from USD 10 billion (2014) to USD 165.7 billion (2024)**, targeting **USD 300 billion by 2030**.
- India ranks **12th globally, 3rd in Asia-Pacific** in biotechnology, and is the **largest global vaccine producer**, with **over 10,000 biotech startups** in 2024 (up from 50 in 2014).
- **Notable Achievements Include:**
  - **ZyCoV-D- World's first DNA-based Covid vaccine** developed under **Mission Covid Suraksha**.
  - **Nafithromycin,** country's first indigenous Macrolide antibiotic.
  - **Quadrivalent Human Papilloma Virus (qHPV) vaccine**, **CERVAVAC**, has been developed to help **prevent cervical cancer.**
  - **Pneumococcal Conjugate Vaccine (PCV)**, **Pneumosil,** has been developed to protect against **pneumococcal diseases**, such as **pneumonia, meningitis, and sepsis**, especially in **children.**

2. India Elected to IIAS Presidency
India has been elected **President** of the **International Institute of Administrative Sciences (IIAS)** for the term **2025–2028**.
- It marked the **first time** in the organization's **history** that elections were held through a **ballot**, with **India securing the top position** by winning **61.7% votes.**
- **About IIAS: IIAS**, established in **1930** and headquartered in **Brussels**, is an **international non-profit organization** with **scientific objectives**.
  - IIAS is a **global federation** of **31 Member Countries, 20 National Sections, and 15 Academic Research Centres**, collaboratively developing **public governance solutions** to contemporary **policy challenges**.

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- o **Notable member countries** are **India, Japan, China,** Germany, Italy, Korea, Saudi Arabia, South Africa, Switzerland, Mexico, etc.
- o **IIAS works closely** with the **United Nations**, contributing to the UN Committee of Experts on Public Administration (UN CEPA) and the UN Public Administration Network (UNPAN), though **not formally affiliated to the UN**.
- **India** has been a **Member State of IIAS since 1998**, represented by the **Department of Administrative Reforms and Public Grievances (DARPG).**

3. SEBI's Operational Framework for ESG Debt Securities

SEBI has notified a detailed operational framework for issuing Environmental, Social, and Governance (ESG) debt securities, including social, sustainability, and sustainability-linked bonds.

About ESG Debt Securities:

- **What are ESG Debt Securities?**
  - o ESG debt securities are financial instruments used to raise funds exclusively for projects with environmental, social, or governance benefits. These include:
    - **Social Bonds** (for social impact projects)
    - **Sustainability Bonds** (for combined environmental and social goals)
    - **Sustainability-Linked Bonds** (with targets linked to ESG performance)
  - o **Key Features of ESG Debt Securities:**
    - Funds must be utilized for eligible sustainable or social projects.
    - Bonds must be labelled accurately based on primary project objective.
    - Must comply with recognized international ESG standards.
    - Require third-party verification or certification.
    - Applicable to both public issues and private placements.

About SEBI's Operational Framework for ESG Debt Securities:

- **Classification Criteria:** Issuers must classify bonds as green, social, or sustainability based on the **primary objective** of the underlying projects, ensuring clear demarcation of impact.
- **Disclosure Requirements:**
  - o **Initial disclosures** in the offer document must include project eligibility, selection process, and indicative fund distribution between financing and refinancing.
  - o **Continuous disclosures** to be made annually, detailing impact metrics and fund utilization.
- **Independent Review Mechanism:** Issuers must appoint independent third-party reviewers or certifiers to validate ESG alignment, increasing investor trust and transparency.
- **Monitoring and Impact Tracking:** Issuers are responsible for continuous impact assessment to ensure that the funded operations effectively reduce environmental or social harm.
- **Applicability and Implementation:** The framework applies to all issuances of ESG debt securities from June 5, 2025, and aligns with global ESG benchmarks to attract responsible capital.

4. Greater Flamingo Sanctuary in Dhanushkodi

The Tamil Nadu officially notified a Greater Flamingo Sanctuary in Dhanushkodi to safeguard critical wetland habitats along the Central Asian Flyway.

- The sanctuary covers over 500 hectares and forms part of the Gulf of Mannar Biosphere Reserve.

About Greater Flamingo Sanctuary in Dhanushkodi:

- **What it is?**
  - o A newly notified wildlife sanctuary aimed at protecting migratory wetland birds, especially **greater flamingos**, in their natural stopover habitat.
- **Location:**
  - o Situated in **Ramanathapuram district**, Tamil Nadu.
  - o Spans **7 hectares** of revenue and forest land within **Rameshwaram taluk.**
- **Key Ecological Features:**
  - o Located within the **Gulf of Mannar Biosphere Reserve**, one of India's richest marine ecosystems.
  - o Home to **128 bird species** including flamingos, herons, sandpipers, and egrets.
  - o Hosts **mangroves (Avicennia and Rhizophora)**, mudflats, marshes, and sand dunes.
  - o Recorded over **10,700 wetland birds** in the 2023–24 bird survey.
  - o Supports **sea turtle nesting** and other marine biodiversity.
- **Significance:**
  - o Serves as a vital node on the **Central Asian Flyway** for migratory birds.

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- o Enhances **ecotourism, biodiversity conservation**, and **local livelihood generation.**
- o Provides natural protection against **coastal erosion** and climate impacts.

About the Greater Flamingo:
- **Scientific Name:** *Phoenicopterus roseus*
- **Physical Features:**
  - o **Height:** 90 to 150 cm and tall, pink wading birds with **long necks and legs.**
  - o Distinctive **downturned bills** used for filter feeding in shallow water.
  - o Coloration comes from **carotenoids** in their diet.
- **Biological Traits:**
  - o Builds **cone-shaped mud nests** in lagoons.
  - o Lays 1–2 eggs and both parents participate in incubation.
  - o Chicks are downy white and are **fed by regurgitation.**
- **Social Behaviour:**
  - o Highly **gregarious**, forming **large colonies** during breeding.
  - o Fly in coordinated **V-shaped flocks.**
  - o Known to stand on one leg—possibly to **conserve body heat or energy.**

ANSWER WRITING

Q. Examine the role of Dr. B.R. Ambedkar's legacy in promoting a more just and humane future. How can his ideas be effectively integrated into current policy-making processes?

Dr. B.R. Ambedkar's legacy is rooted in the vision of an egalitarian India built on the principles of justice, liberty, equality, and fraternity. As the chief architect of the Constitution, his ideas continue to inspire social reforms, guide inclusive policymaking, and promote a just and humane future for all citizens.

Role of Dr. B.R. Ambedkar's legacy in promoting a more just and humane future

- **Constitutional Morality and Rule of Law :** Ambedkar emphasized the need for **constitutional morality** to uphold justice. His legacy instilled a deep respect for **fundamental rights** and the **rule of law**, especially for marginalized communities.
  Eg: The **Right to Equality (Article 14–18)** ensures **non-discrimination** in public employment and access to resources.
- **Abolition of Untouchability and Caste Discrimination:** Ambedkar's fight against **untouchability** led to its abolition under **Article 17** of the Constitution, transforming India's legal framework towards **social justice**.
  Eg: The **Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989** protects Dalits from caste-based violence.
- **Empowerment through Education:** Ambedkar saw education as a **tool of liberation**. His legacy promotes equal educational opportunities for marginalized groups.
  Eg: The Post-Matric Scholarship for SC students supports millions in higher education.
- **Labor Rights and Economic Justice:** Ambedkar championed **labor welfare**, introducing laws to ensure **fair wages**, regulated working hours, and **social security**.
  Eg: The **Directive Principles of State Policy (Articles 39, 41, 42, 43)** emphasize just conditions of work, equal pay, and right to work and public assistance.
- **Gender Equality and Women's Rights :** Ambedkar was a pioneer for **women's empowerment**, advocating reforms in **marriage, inheritance, and divorce laws**.
  Eg: The **Hindu Succession Act, 2005**, granting equal inheritance rights to daughters, was inspired by his push for the **Hindu Code Bill**.
- **Representation and Political Inclusion :** Ambedkar ensured **political representation** for marginalized communities through **reserved seats** in legislative bodies.
  Eg: Article 330 and Article 332 of the Constitution provide for **reservation of seats for SCs and STs** in the **Lok Sabha and State Legislative Assemblies**.
- **Social Reform through Law :** Ambedkar believed in using law as an instrument of social transformation to achieve dignity and equality.
  Eg: The **Protection of Civil Rights Act, 1955** upholds **legal safeguards** against discrimination in public spaces.

Integrating Dr. B.R. Ambedkar's ideas into current policy-making processes

- **Revamping Affirmative Action Programs:** Ambedkar's vision of dynamic **social justice** encourages updating **reservation policies** based on modern **socio-economic indicators**.
  Eg: Data from the **Socio-Economic Caste Census** can help identify **deprived communities** for targeted benefits.

- **Inclusive Digital Education Reforms:** His emphasis on **educational equity** can guide policies that ensure **digital inclusion** for marginalized students.
  Eg: The **PM eVIDYA initiative** offers online education and TV channels to bridge the digital divide for SC/ST learners.
- **Strengthening Grassroots Democracy:** Ambedkar's support for **decentralized governance** promotes inclusive decision-making and **local empowerment**.
  Eg: The **PESA Act** strengthens **village councils** in tribal areas, enabling communities to manage their own affairs.
- **Labor Welfare in the Gig Economy:** Modern policies must expand **social protections** to include gig and platform workers, in line with Ambedkar's labor rights framework.
  Eg: The **Social Security Code, 2020** brings **gig workers** under formal social security schemes.
- **Urban Housing and Dignified Living:** Ambedkar's vision of dignity in living conditions can shape inclusive urban housing and infrastructure development.
  Eg: The **Pradhan Mantri Awas Yojana–Urban** provides **affordable housing** to urban poor including SC/ST families.
- **Data-Driven Social Justice Monitoring:** He believed in **evidence-based governance** by using data in identifying inequality and measuring progress.
  Eg: The **SDG India Index** tracks state-wise progress on **justice, equality**, and **poverty indicators**.
- **Judicial and Legal Reforms for Speedy Justice:** Ambedkar stressed the need for accessible and timely justice. Policy must focus on digitization and reducing case backlogs.
  Eg: The **E-Courts Project** aims to ensure faster and transparent access to legal services for all citizens.

Dr. B.R. Ambedkar's vision of justice, equality, and dignity provides a powerful blueprint for modern India. Integrating his ideas into contemporary policymaking ensures a humane and inclusive society where every citizen, regardless of caste or class, enjoys equal opportunity, legal protection, and social resct.

MCQ

1. With reference to India's biotechnology sector, consider the following statements:
   1. The DST-ICGEB Bio-foundry is India's first public-funded facility to scale up bio-based innovations.
   2. India is the world's second-largest producer of biotech startups after the United States.
   3. The BioE3 policy aims to promote biotechnology for economic growth, environmental protection, and employment generation.
   Which of the statements given above is/are correct?
   A. 1 and 3 only
   B. 2 and 3 only
   C. 1 and 2 only
   D. 1, 2 and 3

2. Which of the following pairs are correctly matched?

   Vaccine/Drug Purpose

ZyCoV-D	World's first DNA-based COVID-19 vaccine
CERVAVAC	Vaccine for cervical cancer
Pneumosil	Vaccine against polio

   Select the correct answer using the code below:
   A. 1 and 2 only
   B. 2 and 3 only
   C. 1 and 3 only
   D. 1, 2 and 3

3. Consider the following statements regarding the International Institute of Administrative Sciences (IIAS):
   1. It is headquartered in Geneva and affiliated with the United Nations.
   2. India was elected to its presidency for 2025–2028 through the first-ever ballot-based election.
   3. The Department of Administrative Reforms and Public Grievances (DARPG) represents India in IIAS.
   Which of the statements given above is/are correct?
   A. 1 and 2 only
   B. 2 and 3 only
   C. 1 and 3 only
   D. 1, 2 and 3

4. Which of the following is/are key features of SEBI's framework for ESG debt securities?
   1. ESG bonds must comply with globally accepted ESG standards.
   2. Independent third-party review or certification is mandatory.
   3. The framework is applicable from January 1, 2025.
   Select the correct answer using the code below:
   A. 1 and 2 only
   B. 2 and 3 only
   C. 1 and 3 only
   D. 1, 2 and 3

5. Which of the following statements is/are correct about the Greater Flamingo Sanctuary in Dhanushkodi?
    1. It is located within the Gulf of Mannar Biosphere Reserve.
    2. It lies along the East Atlantic Flyway for migratory birds.
    3. It supports mangrove species such as Avicennia and Rhizophora.
    Select the correct answer using the code below:
    A. 1 and 2 only
    B. 1 and 3 only
    C. 2 and 3 only
    D. 1, 2 and 3

6. Consider the following statements about the Greater Flamingo (Phoenicopterus roseus):
    1. Its pink coloration is due to carotenoids in its diet.
    2. It builds cone-shaped mud nests and lays multiple eggs.
    3. It is a solitary bird and avoids large colonies during breeding.
    Which of the statements given above is/are correct?
    A. 1 only
    B. 1 and 2 only
    C. 2 and 3 only
    D. 1, 2 and 3

7. With reference to the recent government job reservation policy in Ladakh, consider the following statements:
    1. A total of 95% of government jobs in Ladakh are now reserved for various categories of residents.
    2. To qualify for domicile status in Ladakh, a person must have resided continuously in the UT since August 5, 2019.
    3. Tehsildars are empowered to issue domicile certificates in Ladakh.
    Which of the statements given above is/are correct?
    A. 1 and 2 only
    B. 1 and 3 only
    C. 2 and 3 only
    D. 1, 2 and 3

8. Which of the following are included in the recently notified official languages of the Union Territory of Ladakh?
    1. Hindi
    2. Bhoti
    3. Dogri
    4. Purgi
    5. English
    Select the correct answer using the code given below:
    A. 1, 2, 4 and 5 only
    B. 1, 2, 3 and 5 only
    C. 2, 3, 4 and 5 only
    D. 1, 2, 3, 4 and 5

9. With reference to irrigation and cropping patterns in India, consider the following statements:
    1. Gross Irrigated Area (GIA) includes multiple counting of the same land if it is irrigated more than once in a year.
    2. Availability of irrigation infrastructure alone is sufficient to ensure a shift towards high-value crops.
    3. Synchronisation of irrigation with crop cycles can help improve water-use efficiency and crop productivity.
    Which of the statements given above is/are correct?
    A. 1 and 2 only
    B. 1 and 3 only
    C. 2 and 3 only
    D. 1, 2 and 3

10. Which of the following initiatives/programmes are correctly matched with their objectives?
    1. Per Drop More Crop (PDMC) – Promoting micro-irrigation systems
    2. RTGS (Andhra Pradesh) – Real-time irrigation and crop monitoring
    3. Paani Bachao, Paise Kamao – Incentivising farmers to use less groundwater
    4. National Drainage Mission – Addressing waterlogging and salinity in irrigated areas
    Select the correct answer using the code below:
    A. 1, 2 and 3 only
    B. 2, 3 and 4 only
    C. 1, 3 and 4 only
    D. 1, 2, 3 and 4