Migration Essential to Globalisation; Diversity as a Source of Pride: Amartya Sen

Context

- Speaker: Amartya Sen, Nobel Laureate in Economics.

- Focus: Migration as the backbone of globalisation, India's pluralism as a civilisational strength, and threats from exclusionary practices.

- Relevance: *GS 1 – Globalisation, Migration*.

Migration and Globalisation

Migration as a Catalyst of Progress:

- Human advancement throughout history was fuelled by movement of people, allowing knowledge transfer, trade linkages, and cultural fusion.

- Example: Brahmagupta's mathematical discoveries → translated into Arabic → later shaped global intellectual traditions.

Types of Migration:

- *Voluntary* – driven by education, employment, commerce.

- *Forced* – caused by wars, persecution, or climate pressures.

Globalisation Connection:

- Migration is not just a side effect of globalisation but its foundation.

- Without migration, Sen argued, cultural, scientific, and economic advancement would stagnate.

Diversity as India's Core Strength

- India is home to innumerable languages, traditions, and faith systems.

- Diversity, far from being a weakness, is the essence of Indian civilisation.

- Interaction and coexistence among communities foster innovation, tolerance, and resilience.

- In today's climate of polarisation, protecting diversity is critical to both democracy and development.

Human Rights and Equality

- Policies must rest on *human rights for all*.

- Exclusionary measures based on religion, caste, language, or gender erode democracy.

- Normalisation of communal narratives weakens India's constitutional ethos.

Broader Implications

For India:

- Migrant labour underpins construction, industries, and services.

- Diversity enriches democracy but needs safeguarding from identity-based politics.

For Governance:

- Electoral reforms must balance accuracy with inclusion.

- Over-bureaucratisation risks disenfranchising migrants and the poor.

For Society:

- India needs an inclusive nationalism respecting plural identities.

- Avoiding stigmatisation of minorities ensures unity and innovation.

Strategic Dimensions

- *Economic:* Migrants provide affordable labour and contribute remittances.

- *Political:* Errors in voter rolls may cause alienation and unrest.

- *Geopolitical:* A plural India enhances credibility in global partnerships.

- *Social:* Migration and diversity foster progress but test state inclusiveness.

Conclusion:
Amartya Sen highlighted that migration and plurality are drivers of advancement. Safeguarding diversity, ensuring electoral fairness, and embedding policies in human rights are vital to preserve India's democratic character in an interconnected world.

Supreme Court Revises Order on Stray Dogs

Case Background

- *Earlier Order (11 Aug 2025):* Directed civic bodies in Delhi and nearby districts to capture and confine stray dogs in shelters within 6–8 weeks.

- Aim: Protect citizens from aggressive/rabid dogs.

- Problem: This order effectively implied mass confinement, impractical to enforce, scientifically flawed, and legally inconsistent.

- *Relevance: GS 2 – Judiciary, Governance.*

Modified Order (22 Aug 2025)

- SC admitted prior order was "excessively harsh."

- New Directive:

    o Dogs must be sterilised, dewormed, vaccinated.

    o After treatment, they should be released back into their original habitat.

- Reason: Rule 11(19) of *Animal Birth Control Rules, 2023* allows release of treated strays, framed under *Prevention of Cruelty to Animals Act, 1960*.

Legal and Policy Framework

- *PCA Act, 1960:* Parent law for animal welfare.

- *ABC Rules, 2023:* Mandates catch-neuter-vaccinate-release (CNVR).

- Judicial Precedent: SC in *Animal Welfare Board v. Nagaraja (2014)* extended Article 21 protections to animals.

Issues at Stake

- **Public Safety vs Animal Rights:** Dog-bite incidents vs confinement violating animal welfare law.

- **Implementation Barriers:** Limited sterilisation, weak infrastructure, inadequate funds.

- **Legal Ambiguity:** Need to harmonise citizen safety and animal rights.

Importance of Modified Order

- Provides a humane and legally consistent approach.

- Strengthens CNVR model as the only sustainable solution.

- Shows judicial adaptability and acknowledgement of error.

- Reinforces municipal duty to improve sterilisation-vaccination infrastructure.

Challenges Ahead

- Scaling sterilisation/vaccination programs with resources and NGO support.

- Urban mismanagement like poor waste disposal aggravates stray menace.

- Uniform adherence to ABC Rules by states.

- Raising community awareness to promote humane coexistence.

Conclusion:

The SC's modification corrects its earlier overreach. Humane management of strays through sterilisation, vaccination, and waste control remains the constitutional and scientific approach.

The Great Nicobar Project – Forest Rights Issue

Project Overview

- Cost: ₹72,000 crore.

- Infrastructure: Transshipment port, airport, power plant, township.

- Forest Land Diversion: ~13,075 hectares, the largest ever in A&N Islands.

- *Relevance: GS 3 – Environment & Ecology.*

Legal Provisions Involved

- *FRA, 2006:* Grants forest rights to Scheduled Tribes and Other Traditional Dwellers; mandates Gram Sabha consent.

- *PAT Act, 1956:* Empowers Administrator to divert land without Gram Sabha approval.

- **Conflict:** A&N administration claimed both FRA compliance and FRA non-applicability due to PAT56.

Tribal Council's Objection

- FRA procedure not initiated; thus, rights not "settled."

- Allegation of false certificate (Aug 18, 2022) declaring rights as resolved.

- Gram Sabha consultation disputed – Council denies, govt claims approval (Aug 12, 2022).

- Complaint lodged with Union Tribal Affairs Minister.

Tribal Concerns

- Loss of fragile forests and biodiversity.

- Threat to culture, livelihoods, and land.

- Particularly impacts *PVTGs* of Nicobar Islands.

- Fear of displacement due to legal bypass.

Larger Issues

- Governance ambiguity: FRA vs PAT56 jurisdiction.

- Rights vs development dilemma.

- Transparency concerns in clearance process.

- Weak accountability mechanisms.

Strategic Importance of Project

- *Economic:* Rival hubs like Singapore and Colombo.

- *Geostrategic:* Boosts India's Indo-Pacific presence near Malacca Strait.

- *Energy & Connectivity:* Infrastructure for civilian and military expansion.

- *Environmental Costs:* Heavy ecological damage in a biodiversity hotspot prone to tsunamis and earthquakes.

Conclusion:
The project symbolises the development–rights conflict. Bypassing due process raises legitimacy issues. India must align strategic goals with ecological preservation and genuine tribal consent.

Why Not All Viruses Trigger a Pandemic

Transmission and Pandemic Dynamics

- *Zoonotic Spillover:* Virus jumps species.

- Most spillovers fail to maintain sustained transmission.

- Only rare cases adapt well to new hosts, sparking pandemics.

- *Relevance: GS 2 – Health; GS 3 – S&T.*

Study Insights

- Published in *PLOS Biology* by David Kennedy (Penn State).

- Determinants of persistence:

    1. Infection prevalence among hosts.

    2. Viral shedding capacity.

    3. Host susceptibility levels.

Experiment:

- Worms infected with Orsas virus.

- Observed over repeated generations until virus died out.

- Data: infection rates, shedding levels, transmission cycles.

Key Findings

- Most spillovers fail due to low infection rates, limited shedding, or weak host susceptibility.

- Pandemics occur only when all three conditions align strongly.

Implications

- Helps predict high-risk viruses.

- Guides public health surveillance and resource prioritisation.

- Strengthens *One Health* pandemic preparedness strategy.

Conclusion:

Pandemics are rare because most viruses cannot sustain transmission. Identifying high-risk spillovers allows timely interventions and resource allocation, fortifying global health security.

ISRO's 2040 Roadmap – 100+ Satellites, Private Sector, and Heavy-Lift Rocket

Future Plans

- Over 100 satellites to be launched by ~2040.

- Missions: Earth observation, communication, navigation, interplanetary, human spaceflight.

- Current rate: 6–7 launches/year → planned scale-up to 7–8 consistently.

- *Relevance: GS 3 – Space; GS 2 – Governance.*

Key Developments

1. **Satellite Missions:**

    o More than 100 launches planned.

- o Includes Chandrayaan, Mars, Venus missions, and Gaganyaan.
- o Expanding into human and deep-space exploration.

2. **Private Sector Role:**

- o ~350 Indian space firms working on technologies.
- o Private players key to achieving India@100 space goals.

3. **Heavy Rocket (NGLV):**

- o Successor to LMV3 (GSLV Mk-III).
- o Height: Comparable to a 40-storey building.
- o Readiness: ~2035.
- o Payload: 80 tonnes to LEO, 27 tonnes to Moon.
- o Target: Human lunar missions by 2040.

Strategic Importance

- Transition from "steady" to "high-frequency" launches.
- Strengthens India's global position against NASA, ESA, CNSA, SpaceX.
- Heavy rockets vital for lunar bases, deep space, and collaborations.
- Enhances self-reliance, reducing dependence on foreign agencies.

Challenges

- Scaling annual launches over 15 years.
- High costs, need for international partnerships.
- Risks in human spaceflight, particularly lunar missions.
- Smooth public-private coordination essential.

Implications

- *Economic:* Expanding commercial satellite services.
- *Strategic:* Bolsters India's space diplomacy and security.
- *Scientific:* Opens opportunities in planetary studies and human biology in space.
- *Geopolitical:* Gives India greater influence in global space governance.

Conclusion:
ISRO's roadmap for 100+ satellites, private sector integration, and next-gen rockets signifies India's evolution into a space superpower. By 2040, India targets human lunar presence, deeper exploration, and a competitive space economy.

25th August 2025: Daily MCQs

1. Question

How many biodiversity hotspots are there in India as recognized internationally?

- o (a) 2
- o **(b) 4**
- o (c) 6
- o (d) 8

Answer: (b)
Explanation:
• India hosts four internationally recognized biodiversity hotspots:
1. The Himalayas
2. Indo-Burma
3. Sundaland (Nicobar Islands)
4. Western Ghats
• These hotspots are designated based on species richness and threat levels as per Conservation International.

2. Question

Which of the following is NOT part of the Western Ghats biodiversity hotspot?

(a) Silent Valley National Park

(b) Nilgiri Hills

(c) Gir Forest

(d) Agasthyamalai Hills

Answer: (c)
Explanation:
• Gir Forest is located in Gujarat and is part of the Indo-Gangetic Plains, famous for Asiatic lions, but not within the Western Ghats.
• The Western Ghats stretch across Kerala, Tamil Nadu, Karnataka, Maharashtra, and Goa, hosting Silent Valley, Nilgiris, and Agasthyamalai among others.

3. Question

The Indo-Burma biodiversity hotspot primarily covers which Indian states?

- o **(a) Arunachal Pradesh, Assam, Manipur, Mizoram, Nagaland, Tripura**
- o (b) Kerala, Tamil Nadu, Karnataka
- o (c) Andaman and Nicobar Islands
- o (d) Jammu & Kashmir, Himachal Pradesh

Answer: (a)
Explanation:
• Indo-Burma hotspot covers the Northeastern states of India, including Arunachal Pradesh, Assam, Manipur, Mizoram, Nagaland, and Tripura.

• It is one of the richest biodiversity areas with many endemic species but highly threatened due to deforestation and habitat loss.

4. Question

Which hotspot includes the Nicobar Islands?

- o (a) Himalayas
- o **(b) Sundaland**
- o (c) Indo-Burma
- o (d) Western Ghats

Answer: (b)
Explanation:
• The Sundaland biodiversity hotspot includes the Nicobar Islands and extends to parts of Southeast Asia.
• This hotspot has unique island ecosystems with many endemic species due to geographic isolation.

5. Question

Which of the following statements about the Himalayas biodiversity hotspot is/are correct?
1. It spans from Jammu & Kashmir to Arunachal Pradesh.
2. It has a wide altitudinal range leading to diverse ecosystems.
3. It is one of the least threatened biodiversity hotspots globally.
Select the correct option:

- o **(a) 1 and 2 only**
- o (b) 2 and 3 only
- o (c) 1 and 3 only
- o (d) All three

Answer: (a)
Explanation:
• The Himalayas hotspot extends across the northern states from Jammu & Kashmir to Arunachal Pradesh.
• It features a wide altitudinal gradient, from subtropical forests to alpine meadows, enabling high species diversity.
• However, it faces significant threats from climate change, habitat fragmentation, and overexploitation, so statement 3 is incorrect.