DAILY CURRENT AFFAIRS 29-08-2025

GS-2

1. **SMILE Scheme**

2. **Great Nicobar Project**

GS-3

3. **Wastewater Surveillance**

4. **Lunar Module Launch Vehicle (LMLV)**

5. **UN declares famine in Gaza**

SMILE Scheme

Syllabus: GS-2: Schemes and Policies

Context:

➢ The Central Government launched a **15-day Entrepreneurship Development Programme** under SMILE to empower **transgender persons** through economic self-reliance.

Overview

➢ **Type:** Central Sector Scheme

➢ **Nodal Ministry:** Ministry of Social Justice & Empowerment

➢ **Aim:** Rehabilitation, education, skill development, livelihood, and social integration of **transgender persons** and **persons engaged in begging**.

Sub-Schemes

➢ Central Sector Scheme for Comprehensive Rehabilitation for Welfare of Transgender Persons

➢ Central Sector Scheme for Comprehensive Rehabilitation of Persons Engaged in the Act of Begging

Key Features

Education and Scholarship

➢ Scholarships for **transgender students from Class IX to post-graduation**.

➢ Ensures continuity of education and reduces dropout rates.

Skill Development and Livelihood

➢ Skill training under **PM-DAKSH scheme**.

➢ Entrepreneurship support, self-employment opportunities.

Health Support

➢ **Composite Medical Health package** in convergence with **PM-JAY (Ayushman Bharat)**.

➢ Includes **Gender-Reaffirmation surgeries** through empanelled hospitals.

Housing and Shelter

➢ Establishment of **Garima Greh (Shelter Homes)** providing:

o Food, clothing, and recreational facilities

o Skill development opportunities

o   Medical support

Protection and Legal Support

➢ **Transgender Protection Cell** in each state to monitor cases of offences against transgender persons.

➢ Ensures **timely registration, investigation, and prosecution** of offences.

Digital Support

➢ **National Portal and Helpline** for grievances, information, and assistance for transgender persons and beggars.

Significance

➢ **Social Empowerment:** Promotes dignity and inclusion of marginalized groups.

➢ **Economic Empowerment:** Enhances self-reliance through skill development and livelihood opportunities.

➢ **Health Security:** Provides access to medical facilities and gender-reaffirmation surgeries.

➢ **Legal Safeguards:** Protection cells strengthen rights and safety of the transgender community.

Challenges in Implementation

➢ Social stigma and discrimination persist.

➢ Lack of awareness among beneficiaries about available provisions.

➢ Coordination issues between centre, states, and NGOs.

➢ Funding and monitoring constraints.

Way Forward

➢ Strengthen awareness campaigns for inclusivity.

➢ Increase number of **Garima Greh** shelters across states.

➢ Ensure effective functioning of **Protection Cells**.

➢ Collaborate with private sector for job opportunities.

➢ Regular monitoring and social audits for better accountability.

Great Nicobar Project

Syllabus: GS-2: Development Projects vs Tribal Rights.

Context:

The Tribal Council of Great Nicobar has complained that the forest rights of Nicobarese tribals under FRA, 2006 have not been settled for the ₹72,000-crore Great Nicobar Project.

What it is

- A **mega infrastructure project** proposed on **Great Nicobar Island**, Andaman & Nicobar Islands.
- **Implementing agencies**: NITI Aayog & A&N Administration, with strategic support of the Union Government.

Timeline

- **Conceptualised**: 2015.
- **Clearances**: Environmental and forest clearances granted in 2022.

Aims and Objectives

- Enhance **India's maritime security** in the Bay of Bengal & Indo-Pacific.
- Boost **trade, connectivity, and regional development**.
- Generate **employment opportunities** for locals.
- Strengthen India's presence in **global shipping and logistics chains**.

Key Features

- **Transshipment Port** at Galathea Bay to handle international cargo.
- **International Airport** (dual civil–military use).
- **Gas-based Power Plant** for energy security.
- **Integrated Township** with housing & social infrastructure.
- Requires diversion of **13,000+ hectares of forest land**.

Forest Rights Act (FRA), 2006

Purpose

- Recognises **individual and community rights** of Scheduled Tribes and Other Traditional Forest Dwellers (OTFDs).

Rights Granted

- Habitation, cultivation, grazing, fishing, minor forest produce.

➢ **Community resource rights**& right to manage forests.

Procedural Safeguards

➢ **Gram Sabha consent mandatory** for diversion of forest land.

➢ Forest rights must be **settled before approval** of any project.

➢ Empowers tribals in **forest governance and conservation**.

Protection of Aboriginal Tribes Regulation (PAT), 1956

Objectives

➢ Special legislation for **Andaman & Nicobar tribal protection**.

➢ Provides exclusive **land and forest rights** to indigenous tribes like Nicobarese, Shompens, and Onges.

Key Provisions

➢ **Prohibits outsiders** from acquiring land in tribal areas.

➢ Grants **Administrator overriding powers** to divert land for projects in notified areas.

Conflict with FRA, 2006

➢ **FRA, 2006**: Gram Sabha consent is mandatory before forest diversion.

➢ **PAT, 1956**: Administrator can divert forest land **without Gram Sabha consent**.

➢ Creates **legal and governance tension** in projects like Great Nicobar.

Current Issue

➢ **Tribal Council of Great Nicobar** has complained that **Nicobarese forest rights under FRA, 2006 have not been settled** for the ₹72,000-crore Great Nicobar Project.

➢ Raises concerns about:

   o Violation of FRA safeguards.

   o Displacement and loss of livelihood of tribals.

   o Ecological impact of large-scale forest diversion.

Wastewater Surveillance

Syllabus: GS-3: General Science – Health Science.

Context:

The Indian Council of Medical Research (ICMR) will initiate wastewater surveillance for 10 viruses across 50 cities over the next six months.

What it is

➢ **Wastewater Surveillance / Wastewater-Based Epidemiology (WBE):** Technique to track pathogens excreted by humans into sewage.

➢ Provides **community-level health insights** even before clinical symptoms appear.

Objectives

➢ Establish **early warning system** for viral outbreaks.

➢ Monitor **emerging & re-emerging pathogens** in a cost-effective, **non-invasive** way.

➢ Assist policymakers in **timely interventions, vaccination drives & containment strategies**.

Viruses under Watch

➢ **Currently:**

  o COVID-19 virus

  o Polio virus

➢ **Planned Expansion:**

  o Avian Influenza Virus (AIV)

  o Pathogens linked to: fever, diarrhoea, acute encephalitis syndrome, respiratory illnesses

➢ **Total Target:** 10 viruses

Coverage

➢ **Present:** 5 cities

➢ **Planned (6 months):** 50 cities

➢ **National scaling up:** Will enhance epidemic preparedness & pandemic prevention capacity.

Process of Wastewater Surveillance

➢ **Shedding of Pathogens** → Virus particles excreted via urine, stool, washing.

➢ **Sewage Collection** → Samples taken before sewage treatment.

➢ **Laboratory Testing** → Detection of viral RNA/DNA fragments.

➢ **Data Analysis** → Identifies infection trends in **5–7 days**.

➢ **Public Health Action** → Early warnings, vaccination, targeted resource allocation.

Significance

➢ **Early detection:** Tracks asymptomatic and pre-symptomatic cases.

➢ **Scalable & cost-effective** vs. mass individual testing.

➢ Strengthens **One Health approach** (human–animal–environment linkages).

➢ Useful for **pandemic preparedness** (post-COVID lessons).

Lunar Module Launch Vehicle (LMLV)

Syllabus: GS-3: Science and Technology – Satellites and launch vehicles.

Context:

Recentrly, Indian Space Research Organisation (ISRO) Chairman said that the space agency was in the process of building its heaviest rocket ever, and had named it Lunar Module Launch Vehicle (LMLV).

Lunar Module Launch Vehicle (LMLV)

What it is

➢ ISRO's **next-generation heavy-lift launch vehicle**.

➢ Expected to be **India's most powerful rocket** by 2035.

➢ Designed for **lunar and interplanetary missions**.

Objectives

➢ Enable **crewed lunar missions by 2040**.

➢ Carry **larger payloads** to the Moon.

➢ Support **deep space exploration** (Mars, beyond).

➢ Enhance **self-reliance in human spaceflight technology**.

Specifications

➢ **Payload to Moon**: ~27 tonnes.

➢ **Payload to LEO (200–2,000 km)**: ~80 tonnes.

➢ **Timeline**: Ready by 2035.

➢ **Propulsion**: Advanced **cryogenic & semi-cryogenic engines**.

Evolution of ISRO's Launch Vehicles

Sounding Rockets (1963)

➢ First **Nike Apache** launched from **Thumba, Kerala**.

➢ For **atmospheric experiments**, not orbital.

Satellite Launch Vehicle (SLV-3, 1980)

➢ India's **first indigenous rocket**.

➢ Led by **A.P.J. Abdul Kalam**.

➢ Placed **Rohini satellite** in orbit.

Augmented Satellite Launch Vehicle (ASLV, 1987–94)

➢ Modified SLV with **strap-on boosters**.

➢ Payload capacity: ~150 kg.

➢ Limited success.

Polar Satellite Launch Vehicle (PSLV, 1994–present)

➢ Known as **ISRO's workhorse**.

➢ Payload: ~1,000–1,750 kg to LEO.

➢ Key missions: **Chandrayaan-1 (2008), Mangalyaan (2013)**.

Geosynchronous Satellite Launch Vehicle (GSLV, 2001–present)

➢ Developed after **US denial of cryogenic tech (1990s)**.

➢ Payload to GTO: ~2,000–2,500 kg.

Launch Vehicle Mark-3 (LVM-3 / GSLV Mk-III, 2017–present)

➢ India's **heaviest operational rocket** today.

➢ Payload: ~4,000 kg to GTO.

➢ Key missions: **Chandrayaan-2 (2019), Chandrayaan-3 (2023)**.

Lunar Module Launch Vehicle (LMLV, 2035 – planned)

➢ **Future flagship rocket** for human spaceflight.

➢ Capacity: ~80 tonnes to LEO, ~27 tonnes to Moon.

➢ Paves way for **crewed lunar mission by 2040**.

UN declares famine in Gaza

Syllabus: GS-3: Manmade disaster – Famine.

Context:

➢ The United Nations declared an official famine in Gaza on August 22, 2025, marking the first such occurrence in West Asia.

Famine Declaration

What it is

➢ A **formal global classification** used by the UN & partners to denote *catastrophic food insecurity*.

➢ Based on the **Integrated Food Security Phase Classification (IPC)** framework.

➢ Managed jointly by **FAO, WFP, UNICEF, OCHA** & humanitarian organisations.

Contributing Factors

➢ **Systematic Obstruction**

   o UN aid chief attributed famine to **Israeli blockade**, preventing food & humanitarian relief.

   o **Restricted entry of aid convoys**, denial of humanitarian corridors.

➢ **Local Food System Collapse**

   o **98% cropland** damaged or inaccessible.

   o **Livestock decimated**; animal husbandry disrupted.

   o **Fishing banned**, eliminating a key protein source.

➢ **Health System Deterioration**

   o Minimal access to **safe drinking water & sanitation**.

   o Collapse of primary healthcare services → rising disease & mortality.

Geographical Impact

➢ **Confirmed famine zone**: Gaza Governorate.

➢ **At risk of expansion**: Deir el-Balah & Khan Yunis.

➢ Could affect **two-thirds of Gaza's territory** if blockade continues.

Statistics & Projections

➢ **Current situation**: ~500,000 people in famine conditions.

➢ **Projected**: ~641,000 by September 2025 (≈ 1/3rd of Gaza's population).

- ➢ **IPC report finding**:
  - o Escalating conflict.
  - o Systematic obstruction of humanitarian supply → *primary drivers*.

Criteria for Declaration (all 3 must be met)

- ➢ **Food shortage** – ≥20% of households face extreme food gaps.
- ➢ **Acute malnutrition** – ≥30% of children affected.
- ➢ **Mortality rate** – >2 deaths per 10,000 people/day.

Procedure for Declaration

- ➢ **Data collection** – food security, nutrition, mortality surveys by humanitarian agencies.
- ➢ **Technical review** – IPC Global Support Unit assessment.
- ➢ **Validation** – by UN agencies (FAO, WFP, UNICEF, OCHA).
- ➢ **Public declaration** – jointly by UN & IPC, to alert global community.

Significance of Declaration

- ➢ **Humanitarian response**: triggers urgent global attention.
- ➢ **Funding aid**: unlocks international assistance & donor pledges.
- ➢ **Humanitarian law**: strengthens calls for ceasefire & humanitarian corridors.
- ➢ **Accountability**: puts pressure on states/armed groups under international humanitarian law.

Countries/Places with Famine Declarations

- ➢ **Somalia** – 2011, 2022 (drought & conflict).
- ➢ **South Sudan** – 2017 (civil war & displacement).
- ➢ **Yemen** – 2018–ongoing (conflict-driven blockade).
- ➢ **Ethiopia (Tigray)** – 2021 (war-induced famine).
- ➢ **Sudan** – 2024 (civil war, 2023–).
- ➢ **Gaza** – 2025 (UN declared famine; ~5 lakh affected; aid obstruction cited).