DAILY CURRENT AFFAIRS 03-02-2025

GS-1

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Rohingya Refugees

Syllabus: GS-1: Population Geography – Refugee Crisis& GS-2: International Relations.

Context:

- **Incident**: Massive police crackdown on illegal immigrants and suspected criminals in Jaipur.
- **Detentions**: Approximately 500 individuals detained, including:
  - 394 Rohingya refugees from Myanmar.
  - Several alleged Bangladeshi nationals.
- **Purpose**: To identify illegal foreign nationals and curb criminal activities.

Key Details

- **Legal Action**:
  - 17 cases registered under **Section 170 of Bharatiya Nagarik Suraksha Sanhita** (arrest to prevent cognisable offences).
  - Detentions occurred in **Jaipur South district's police station areas** on **January 28, 2025**.
- **Rohingya Refugees**:
  - Found in possession of **UNHCR (United Nations High Commissioner for Refugees)** identity cards.
  - Suspicions raised about the authenticity of these documents; investigation ongoing.

Rohingya Issue

Background

- **Rohingya**: Ethnic Muslim minority in Myanmar.
- **Stateless Population**: Considered the world's largest stateless group due to Myanmar's refusal to grant them citizenship.
- **Persecution**: Decades of violence, including genocidal campaigns by Myanmar's authorities, forcing them to flee.
- **Global Refuge**: Nearly **2.8 million Rohingyas** are dispersed across countries like Bangladesh, Malaysia, India, and Indonesia.
- **In India**: Approximately **22,500 Rohingyas** reside in India (as per UNHCR), facing challenges like:

- Lack of legal status.
- Arbitrary detention.
- Human rights violations.

India's Refugee Policy on Rohingyas

Legal Framework

- **No Domestic Refugee Law**: India lacks a specific refugee law.
- **International Conventions**: India is **not a signatory** to the **1951 Refugee Convention** or its **1967 Protocol**.
- **Governance**: Rohingyas are treated under:
  - **Foreigners Act, 1946**.
  - **Passport Act, 1967**.
  - Classified as **illegal migrants**.

Judicial Stance

- **Supreme Court Ruling**:
  - **Mohammad Salimullah v. Union of India (2021)**:
    - Rohingyas cannot be deported without due process.
    - Deferred to **national security concerns**.
- **High Courts**:
  - **Ktaer Abbas Habib Al Qutaifi v. Union of India**:
    - Interpreted **non-refoulement** as part of **Article 21 (Right to Life)**.
- **Exclusions**:
  - **Citizenship Amendment Act, 2019 (CAA)**:
    - Excludes persecuted Muslim minorities, including Rohingyas.

International Conventions on Refugees

Key Treaties

- **1951 Refugee Convention and 1967 Protocol**:
  - Principle of **non-refoulement**: Prevents returning refugees to places where they face persecution or torture.
- **Other Treaties**:
  - **International Covenant on Civil and Political Rights (ICCPR)**:

        - Protects individuals from torture or inhuman treatment upon return.
    - **Convention on the Rights of the Child (CRC)**:
        - Advocates for the welfare of refugee children.

Challenges and Issues in India's Refugee Policy

- **Legal Vacuum**:
    - Absence of a unified refugee law leads to arbitrary and inconsistent treatment.
- **Detention and Living Conditions**:
    - Detained Rohingyas face dehumanizing conditions, e.g., **Matia transit camp in Assam**.
- **National Security Concerns**:
    - Rohingyas perceived as potential security threats, influencing judicial and policy decisions.
- **Civil Society Constraints**:
    - Revocation of **FCRA licenses** hampers NGOs' efforts to provide legal and humanitarian aid.
- **Exclusionary Policies**:
    - Exclusion of Muslim refugees from CAA undermines India's **secular constitutional framework**.

Way Ahead

- **Legislative Framework**:
    - Formulate a comprehensive domestic refugee law aligned with international conventions.
- **Strengthen Judicial Oversight**:
    - Reinforce the judiciary's role in upholding **non-refoulement** under **Article 21**.
- **Improve Living Conditions**:
    - Ensure humane detention centres with adequate resources for food, healthcare, and education.
- **Community Involvement**:
    - Empower local communities and NGOs to support refugee rehabilitation.
- **International Collaboration**:

- Work with global bodies like **UNHCR** to develop sustainable solutions for the Rohingya crisis.

Conclusion

- India, as a democracy committed to human dignity, must align its policies with global humanitarian norms.
- Ensure the safety and well-being of Rohingya refugees while balancing national security concerns.
- A **fair and inclusive approach** is imperative to uphold India's constitutional and international obligations.

Tungsten mining

Syllabus: GS-3; Mineral Resources

Context

- By annulling the Nayakkarpatti tungsten block auction in Madurai, the Union Government has halted protests against a project that was red-flagged, tardily, by the State citing environmental and cultural concerns.

About

- Tungsten is a rare and valuable metal, primarily used in applications requiring high strength and heat resistance, such as in lightbulb filaments, aerospace components, and military applications.

Geological Occurrence of Tungsten

- **Tungsten Ores**: The primary ores of tungsten are **wolframite** ($FeWO_4$ and $MnWO_4$) and **scheelite** ($CaWO_4$). Wolframite is more common, while scheelite is typically more abundant and is used in various industrial applications.
- **Tungsten Deposits**: Major deposits of tungsten are found in countries like China, Russia, Canada, and Bolivia. Tungsten is typically associated with granite and other igneous rocks that have a history of high-temperature magmatic activity.

Mining of Tungsten

- **Open-Pit and Underground Mining**: Tungsten is typically extracted using both open-pit and underground mining methods, depending on the depth and location of the ore bodies.
- **Processing of Tungsten Ore**: After extraction, the ore is usually processed using gravity separation techniques, flotation, and sometimes chemical methods to concentrate the tungsten.

Key Mining Areas:

- **China**: The largest producer of tungsten, with deposits found in the provinces of Jiangxi, Henan, and Hunan.
- **Russia**: Also a significant producer, with large deposits in the Transbaikal region and the Altai Mountains.
- **Portugal**: Europe's largest tungsten producer.
- **Australia**: Has some major deposits in the state of Queensland.
- **Bolivia**: Known for its significant tungsten resources, especially in the Oruro region.

Environmental and Economic Considerations

- **Environmental Concerns**: Tungsten mining, like other mining operations, can have significant environmental impacts, including habitat destruction, water contamination, and air pollution from dust. Mitigating these impacts requires the implementation of stringent environmental regulations.
- **Economic Importance**: Tungsten is vital for many industries, including defense, aerospace, and electronics. Its high melting point and strength make it crucial in

high-performance applications. Hence, the security of tungsten supply is often considered critical for strategic industries.

Global Supply and Demand

- **Supply**: China is the dominant supplier of tungsten, controlling more than 80% of the global production. Other countries, like Russia and Portugal, contribute significantly to the global tungsten supply.
- **Demand**: The demand for tungsten is primarily driven by industrial applications. The aerospace, electronics, and defense sectors account for a large proportion of tungsten consumption, especially for the production of alloys and other critical materials.

India's Tungsten Resources

- **Tungsten Reserves**: India has some tungsten reserves, particularly in Rajasthan. However, India is not a significant producer of tungsten compared to China and Russia.
- **Mining and Production**: The mining of tungsten in India is limited and relatively undeveloped, with extraction primarily from minor sources.
- **Strategic Importance**: Given India's dependence on imports for many rare minerals and metals, the development of indigenous mining capabilities for tungsten could improve self-reliance and reduce dependency on foreign supplies.

Strategic Importance and Geopolitics

- **Strategic Metal**: Tungsten is considered a strategic metal due to its essential applications in military and defense technologies, particularly in armor-piercing ammunition, aerospace, and electronics.
  The control over tungsten resources often influences geopolitical relations, with countries like China leveraging their dominance in tungsten production.
- **Global Supply Chain Concerns**: Since the global supply of tungsten is concentrated in a few countries, disruptions in supply chains, geopolitical tensions, or trade restrictions could have significant economic consequences for industries relying on tungsten.

ISRO's 100th launch

Syllabus: GS-3: Satellite Science and Technology

Context:

- ISRO achieved its **100th rocket launch** with the successful launch of **GSLV-F15**, placing the **navigation satellite NVS-02** into orbit.
- The launch marks a significant milestone in India's space journey, reflecting decades of progress since its inception in 1969.
- ISRO Chairperson Dr. V. Narayanan paid tribute to pioneers like **Vikram Sarabhai, Satish Dhawan, and APJ Abdul Kalam**.

Historical Background

- ISRO traces its roots to the **Indian National Committee for Space Research (INCOSPAR)**, established in **1962** under the Department of Atomic Energy.
- ISRO was formally established in **1969**, the same year the US landed humans on the moon.
- The **Department of Space** was created in **1972**.
- Over the years, ISRO has become a reliable global launch partner and a leader in space research.

Significance of ISRO's Achievements

- **Rocket Development**:
    - ISRO has developed **six generations of launch vehicles**, with four currently operational.
        - **SLV-3**: First satellite launch vehicle (40 kg payload to low Earth orbit).
        - **ASLV**: Augmented version of SLV-3 (150 kg payload).
        - **PSLV**: Workhorse of ISRO, with **62 launches** (2,000 kg payload). Only **2 failures**.
        - **GSLV**: Uses indigenous cryogenic engines (8,500 kg payload). Used for **Chandrayaan-2 and 3**.
        - **LVM3 (GSLV MkIII)**: Heaviest vehicle, to be used for **Gaganyaan** (human spaceflight).
        - **SSLV**: Small Satellite Launch Vehicle for commercial use.
- **Satellite Launches**:
    - ISRO has launched **548 satellites** weighing **120 tonnes**, including **433 foreign satellites** (23 tonnes).

- Types of satellites launched:
  - Communication satellites.
  - Earth observation satellites.
  - Navigation satellites.
  - Experimental satellites.

- **Scientific Missions**:
  - **Chandrayaan-1, 2, and 3**: Lunar exploration missions.
  - **Mars Orbiter Mission (Mangalyaan)**: India's first interplanetary mission.
  - **AstroSat**: Space-based observatory.
  - **XpoSat**: X-ray observatory.
  - **Aditya-L1**: Solar mission.

Upcoming Developments

- **Next Generation Launch Vehicle (NGLV)**:
  - Capable of carrying **30,000 kg** to low Earth orbit.
  - **Reusable first stage** to reduce costs (usable 15-20 times).
  - Height: **91 metres** (compared to LVM3's 43 metres).
- **Third Launch Pad**:
  - Approved at a cost of **₹3,984.86 crores**.
  - To support NGLV and human spaceflight missions.
  - Will increase ISRO's capacity for heavy commercial launches.
- **Future Missions**:
  - **Sample return mission from the Moon**.
  - **Mission to Venus**.
  - **Indian Space Station**.
  - **Human mission to the Moon**.

NVS-02 Satellite

- Part of the **Indian Regional Navigation Satellite System (NavIC)**.
- Features:
  - **Indigenous atomic clock**.

- **Third frequency (L1)**, compatible with US GPS, enhancing global usability.
- Heavier and longer mission life compared to previous satellites.

NavIC (Navigation with Indian Constellation)

- A **regional positioning system** with **7 satellites**.
- Coverage:
  - Indian mainland and up to **1,500 km** around.
  - Provides **position accuracy of up to 20 metres**.
- Advantages over GPS:
  - Satellites are placed directly over India, ensuring better signal availability in difficult terrains like valleys and forests.
  - Likely to be **more accurate than GPS** in the region once fully operational.

Global Navigation Systems

- India is the **only country with a regional navigation system**.
- Other global systems:
  - **GPS** (USA).
  - **GLONASS** (Russia).
  - **Galileo** (Europe).
  - **Beidou** (China).
- Japan's **QZSS** augments GPS signals but is not a standalone system.

Key Takeaways for UPSC

- ISRO's **100th launch** underscores India's growing capabilities in space technology.
- Development of **indigenous cryogenic engines** and reusable launch vehicles highlights self-reliance.
- **NavIC** enhances India's strategic autonomy in navigation and positioning.
- Future missions like **Gaganyaan**, **Venus mission**, and **Indian Space Station** position India as a global space power.

Replace regular table salt with lower sodium salt substitute that contains potassium: WHO

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

Context:

The World Health Organization (WHO) released a set of guidelines on Sunday (January 26, 2025) recommending use of lower-sodium salt substitutes.

Why Focus on Salt?

- **Physiological Impact**:
  - Sodium (in salt) and water travel together in the body.
  - Excess salt causes water retention in blood vessels, increasing blood pressure.
  - Reducing salt intake decreases blood volume, lowering blood pressure and improving cardiovascular health.
- **Health Benefits**:
  - Reduces risks of hypertension, cardiovascular diseases (CVDs), strokes, and chronic kidney disease.
  - Lowers risks of conditions like gastric cancer linked to high sodium intake.

Global Health Context

- **Diet-Related Deaths**:
  - 8 million deaths annually are linked to poor diets.
  - 1.9 million deaths are directly attributable to high sodium intake.
- **Noncommunicable Diseases (NCDs)**:
  - Reducing salt intake is a proven strategy to combat NCDs like CVDs and chronic kidney disease.

Guidelines for Lower-Sodium Salt Substitutes

- **Composition**: Sodium chloride (NaCl) partially replaced with potassium chloride (KCl).
- **Scope**:
  - Recommended for household table salt.
  - Not applicable to packaged foods or foods consumed outside the home.

- **Target Audience**:
  - Policymakers, program managers, and health professionals.
  - Aimed at promoting sodium reduction at a population level.

Significance for India

- **Cultural Context**:
  - High propensity to add extra salt to food.
  - Need for behavior change at the population level.
- **Affordability and Accessibility**:
  - Lower-sodium salt substitutes should be made affordable and widely available.
- **Exclusions**:
  - Individuals with kidney disease or conditions requiring low potassium intake should avoid potassium-enhanced salt.
  - Regular salt should remain available for such individuals.

Challenges and Concerns

- **Undetected Kidney Disease**:
  - Risk of putting individuals with undiagnosed kidney disease on potassium-enhanced salt.
- **Implementation**:
  - Requires widespread awareness and accessibility to lower-sodium alternatives.
  - Balancing affordability and health benefits.

Key Takeaways

- **Public Health Impact**:
  - Lowering sodium intake can significantly reduce NCDs and improve cardiovascular health.
- **Behavioral Change**:
  - Population-level interventions, like promoting lower-sodium salt, are more effective than individual messaging.
- **Global Relevance**:
  - WHO guidelines provide a framework for countries, especially those with high salt consumption like India, to address diet-related health issues.

Tigers

Syllabus: GS-3; Environment & Ecology- Species

Context

- 12 tigers died in Maharashtra in less than month

Biological Classification:

- **Scientific Name**: Panthera tigris.
- **Family**: Felidae.
- **Genus**: Panthera.
- **Subspecies**: There are 9 subspecies of tigers, of which 3 are extinct:
  - Bengal Tiger (Panthera tigris tigris)
  - Indochinese Tiger (Panthera tigris corbetti)
  - Malayan Tiger (Panthera tigris jacksoni)
  - Siberian Tiger (Panthera tigris altaica)
  - South China Tiger (Panthera tigris amoyensis)
  - Sumatran Tiger (Panthera tigris sumatrae)
  - Caspian Tiger (extinct)
  - Javan Tiger (extinct)
  - Bali Tiger (extinct)

Habitat and Distribution:

- Tigers are found in diverse habitats ranging from tropical forests and grasslands to mangroves.
- Historically, tigers ranged across Asia, but their range has been significantly reduced due to habitat loss and poaching.
- **India** is home to about 70% of the world's tiger population, with significant populations found in regions like Madhya Pradesh, Karnataka, Uttarakhand, and Assam.

Conservation Status:

- Tigers are listed as **Endangered** by the **International Union for Conservation of Nature (IUCN)** Red List.
- The **Indian Tiger Census**, conducted every 4 years, is a key tool in estimating the population and health of tiger reserves in India.

Conservation Efforts:

- **Project Tiger** (launched in 1973) is the flagship conservation program aimed at safeguarding tigers and their habitats.
    - It includes measures such as creating protected areas, anti-poaching measures, and scientific monitoring.
    - It also involves community-based conservation efforts, ensuring local communities benefit from tiger conservation.
- **Wildlife Protection Act, 1972**: Provides legal protection to tigers and prohibits hunting.
- **Tiger Reserves**: India has over 50 tiger reserves spread across the country, including the Sundarbans, Jim Corbett National Park, and Bandipur Tiger Reserve.

Key Threats:

- **Poaching**: Tigers are targeted for their fur, bones, and other body parts used in traditional medicine, especially in some parts of Asia.
- **Habitat Loss**: Deforestation, human-wildlife conflict, and encroachment into tiger habitats are major concerns.
- **Prey Depletion**: Overhunting of prey species like deer and wild boar affects tiger populations.
- **Climate Change**: Rising temperatures and changing rainfall patterns can alter the habitats of tigers.

Biology and Behavior:

- **Diet**: Tigers are carnivores, mainly hunting ungulates like deer, wild boar, and buffalo. They are apex predators, playing a vital role in maintaining the ecosystem's balance.
- **Reproduction**: Tigers generally have a gestation period of 93–112 days, and females give birth to 2-4 cubs.
- **Behavior**: Tigers are solitary creatures, marking their territory and avoiding human contact in the wild.

Importance of Tigers:

- Tigers are keystone species, meaning their presence helps maintain the structure and functioning of the ecosystem.
- They regulate prey populations and maintain the balance of the food chain.
- Tigers contribute to the health of forest ecosystems by controlling the populations of herbivores, which in turn ensures vegetation regeneration.

Recent Developments:

- **World Tiger Day (July 29)** is celebrated to raise awareness and encourage action for tiger conservation.
- In 2020, India recorded an estimated tiger population of 2,967, an increase from previous years, demonstrating the success of conservation efforts.
- **Global Tiger Initiative (GTI)**: A worldwide partnership aimed at doubling tiger numbers by 2022, which has now been extended further with a goal of sustainable conservation.