DAILY CURRENT AFFAIRS 14-10-2024

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Mysuru Dasara

Syllabus: GS-1; Art & Culture

Context

- Mysuru Dasara: Thousands gather as Vijayadashami procession marks end of 10-day festival

About

Historical Background

- Mysuru Dasara, also known as Nadahabba (state festival), is a 10-day royal festival celebrated in the city of Mysuru, Karnataka.
- The celebration dates back over 400 years and was initiated by the **Vijayanagara Empire** and later continued by the **Wadiyar dynasty** of Mysuru.
- The festival commemorates the victory of Goddess **Chamundeshwari (Durga)** over the demon **Mahishasura**, symbolizing the triumph of good over evil.

Key Highlights

- **Chamundeshwari Temple:** The idol of Goddess Chamundeshwari, the deity of the Mysuru royal family, is worshipped. The temple is located on Chamundi Hill.

Major Events During Dasara

1. **Jumbo Savari:**
    - The grand procession on Vijayadashami day is the festival's main attraction. An elaborately decorated elephant carries the idol of Chamundeshwari through the streets of Mysuru.
    - The procession starts from **Amba Vilas Palace** (Mysore Palace) and ends at **Bannimantap Grounds**.
2. **Torchlight Parade (Panju):**
    - Held at Bannimantap after the Jumbo Savari, this parade includes a spectacular display of fireworks, stunts, and military performances.
3. **Dasara Exhibition:**
    - A massive exhibition organized every year during the festival, showcasing the culture, economy, and history of Karnataka. It includes stalls from various government departments and private enterprises.
4. **Cultural Programs:**
    - Classical music and dance performances are held at the **Mysore Palace**, promoting Karnataka's rich heritage and art forms.
5. **Sports and Wrestling Competitions:**
    - Traditional **wrestling (Kusti)** matches are held, known as Dasara Kusti Spardhe, involving participants from various parts of India.
6. **Dasara Flower Show:**
    - Held at the **Kuppanna Park**, featuring various floral displays, horticultural wonders, and exhibits.

Other Significance

- **Navaratri Celebrations:** The first nine days (Navaratri) are filled with rituals, traditional music, dance performances, and fairs. Each day is dedicated to different manifestations of the goddess.

Economic Impact

- Dasara brings a huge influx of tourists to Mysuru, boosting the local economy and promoting tourism. The event showcases Mysuru's traditional silk, handicrafts, and cuisine.

International and National Importance

- Mysuru Dasara is a globally renowned cultural festival, attracting tourists from all over the world. It is promoted by the Karnataka Tourism Department as one of India's major cultural festivals.

Role of the State

- The Karnataka government officially organizes the festival, with a grand budget allocation for the celebrations, enhancing its grandeur each year.

Laos

Syllabus: GS-1; Geography- Mapping, GS-2; International Relations

Context

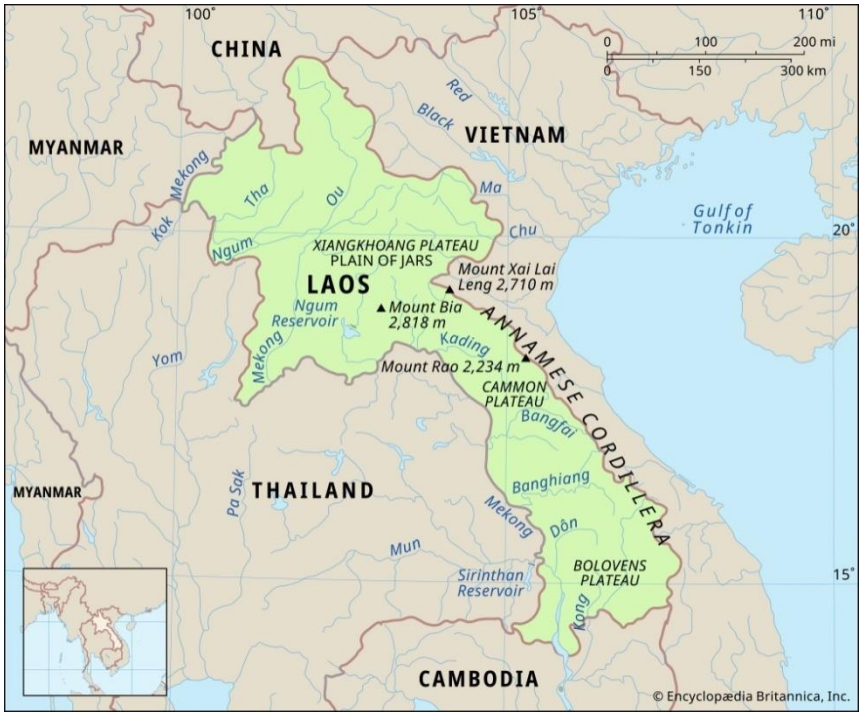
- Prime Minister Narendra Modi met his Laos counterpart Sonexay Siphandone in Vientiane and congratulated him on successfully hosting the 21st ASEAN-India and 19th East Asia Summits.

More to know

Geography:

- **Location:** Landlocked country in Southeast Asia, bordered by China to the north, Vietnam to the east, Cambodia to the southeast, Thailand to the west, and Myanmar to the northwest.

- **Capital:** Vientiane
- **Major Rivers:** Mekong River runs along its western border with Thailand, and is crucial for transportation and agriculture.
- **Climate:** Tropical monsoon climate with distinct wet (May to October) and dry seasons (November to April).
- **Topography**: Predominantly mountainous, especially in the north, with fertile lowlands in the south near the Mekong.



History

- **Ancient Kingdoms:** Laos has a history rooted in the Lan Xang Kingdom, established in the 14th century.
- **Colonial Era:** Laos was part of French Indochina (1893-1954) along with Vietnam and Cambodia. It gained full independence from France in 1953.
- **Post-Independence**: After independence, Laos experienced political instability due to the involvement of the country in the Vietnam War, where it was a major target of U.S. bombing campaigns.
- **Communist Rule:** In 1975, the Lao People's Democratic Republic (LPDR) was established under the communist Pathet Lao, marking the start of communist rule which continues today.

Politics

- **Political System:** One-party socialist republic governed by the Lao People's Revolutionary Party (LPRP).

- **Current President:** Thongloun Sisoulith (since 2021)
- **Prime Minister**: Sonexay Siphandone (since 2022)
- **Foreign Relations:** Laos maintains strong ties with Vietnam, China, and is part of ASEAN.
  The country is also involved in various initiatives of regional cooperation like the Greater Mekong Subregion (GMS).

Economy

- **GDP and Growth:** Laos has one of the fastest-growing economies in Southeast Asia, though it remains one of the region's least developed countries.
- **Agriculture**: A large portion of the population relies on agriculture, primarily rice cultivation. The country also grows coffee, sugar, and rubber.
- **Hydropower**: Laos is rich in water resources, and hydropower is a major export, with electricity being sold to neighboring countries like Thailand and Vietnam.
- **Tourism:** Tourism is a growing sector, with UNESCO World Heritage Sites like Luang Prabang.
- **Challenges:** Economic challenges include poverty, reliance on foreign aid, and limited infrastructure. Corruption and a lack of transparency remain concerns.

Demographics and Society

- **Population**: Approximately 7.5 million (2024 estimate).
- **Ethnic Groups:** Ethnically diverse with over 49 ethnic groups. The largest group is the Lao people (about 55% of the population).
- **Religion:** Theravada Buddhism is the dominant religion, practiced by about two-thirds of the population.
- **Languages**: Lao is the official language; French is also spoken, reflecting the colonial past. English is increasingly being taught.
- **Human Development:** Laos has made significant progress in reducing poverty, but it remains one of the least developed countries in the region.

Environment and Conservation

- **Natural Resources**: Laos is rich in minerals, including copper, gold, and tin, as well as forests and water resources.
- **Deforestation:** The country faces significant environmental challenges like deforestation, loss of biodiversity, and the impacts of large-scale hydropower projects on ecosystems.
- **Protected Areas:** Laos has established several national parks and protected areas to conserve its rich biodiversity, including Nam Et-Phou Louey National Park.

National Commission for Backward Classes (NCBC)

Syllabus: GS-2; Constitutional Bodies

Context

- NCBC recommends inclusion of 7 communities in Central OBC list for Maharashtra

About

- The National Commission for Backward Classes (NCBC) is a constitutional body in India responsible for examining and recommending the inclusion or exclusion of backward classes in the lists of **Other Backward Classes (OBC)** for the purposes of education and employment opportunities.

Establishment:

- Initially, the NCBC was a **statutory body** formed in 1993 under the **National Commission for Backward Classes Act, 1993.**
- It became a **constitutional body** after the **102nd Constitutional Amendment Act, 2018, which inserted Article 338B into the Indian Constitution.**

Purpose:

- The primary function of NCBC is to investigate and monitor the issues related to backward classes and provide advice to the government on policies to protect and promote their welfare.
- It makes recommendations regarding the inclusion or exclusion of communities in the OBC list.

Powers and Functions:

- The NCBC has powers similar to a civil court in matters of summoning individuals, demanding documents, and receiving evidence.
- It advises the government on the socio-economic development of backward classes and ensures protection against discrimination.

Composition:

- NCBC consists of a **Chairperson, Vice-Chairperson, and three other members appointed by the President of India.**
- The members should have expertise and experience in matters related to backward classes.

Constitutional Provisions:

- **Article 338B:** Specifies the structure, duties, and powers of NCBC.

- **102nd Constitutional Amendment Act, 2018:** Made the NCBC a constitutional body and also gave the President the power to notify the lists of backward classes.

Significance:

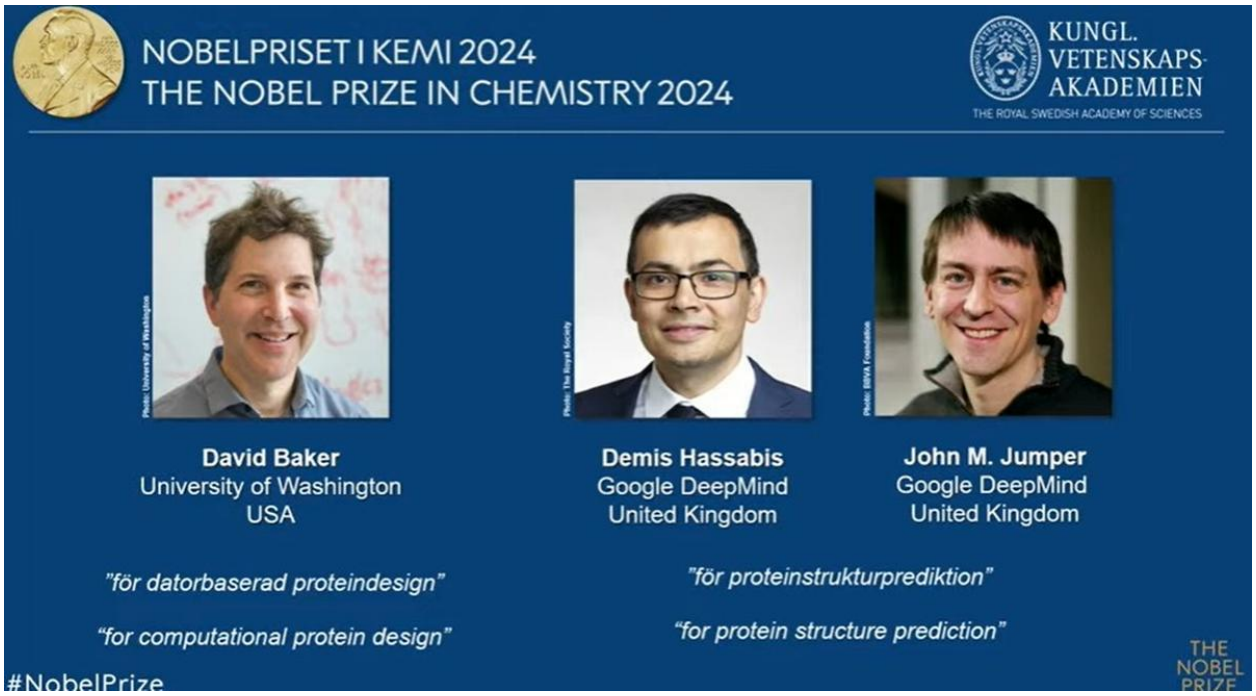
- It plays a crucial role in ensuring the welfare and representation of socially and educationally backward classes in India.
- The recommendations of NCBC have a direct impact on government policies concerning reservations in jobs and education.

Nobel Prize in chemistry

Syllabus: GS-3; Science & Technology

Context

2024 Nobel Prize in Chemistry: The **Nobel Prize in Chemistry 2024 has been awarded to** David Baker, Demis Hassabis and John M Jumper.



More to know

- **Awardees**:

- **David Baker** (University of Washington, Seattle) – Computational Protein Design
- **Demis Hassabis** (Google DeepMind) – Protein Structure Prediction
- **John M Jumper** (Google DeepMind) – Protein Structure Prediction

Importance of Work on Proteins

- Proteins are crucial to biological processes, often referred to as the "exuberant chemistry of life."
- Examples:
  - Haemoglobin transports oxygen.
  - Insulin aids glucose absorption.
- Protein production is vital for human health.

History of Protein Structure Prediction

- **CASP (Critical Assessment of Protein Structure Prediction)**:
  - Began in 1994 to advance protein structure prediction.
  - Ended in 2020 with Jumper and Hassabis's breakthrough.
- Baker participated in 1998, using his own software, **Rosetta**.

Jumper and Hassabis's Contributions

- Proteins are made from 20 amino acids forming long chains.
- These chains fold into unique three-dimensional structures, which define their functions.
- **Christian Anfinsen** (1960s) discovered that protein shape is determined by its amino acid sequence.
- **AlphaFold**: AI model by DeepMind (Hassabis) entered CASP in 2018, achieving 60% accuracy initially.
  - Major breakthrough occurred after Jumper joined Google DeepMind.

David Baker's Work on Protein Design

- Developed **Rosetta** software for protein structure prediction.
  - CASP debut in 1998 with significant success.
- **Reverse Approach**: Enter desired protein structure into Rosetta to obtain amino acid sequences, allowing creation of new proteins.
- This led to the ability to design novel proteins in laboratories.

Significance of Their Work

- **Visualization of Protein Structures**:
  - Improved understanding of biological functions, disease development, antibiotic resistance, and microbial plastic decomposition.

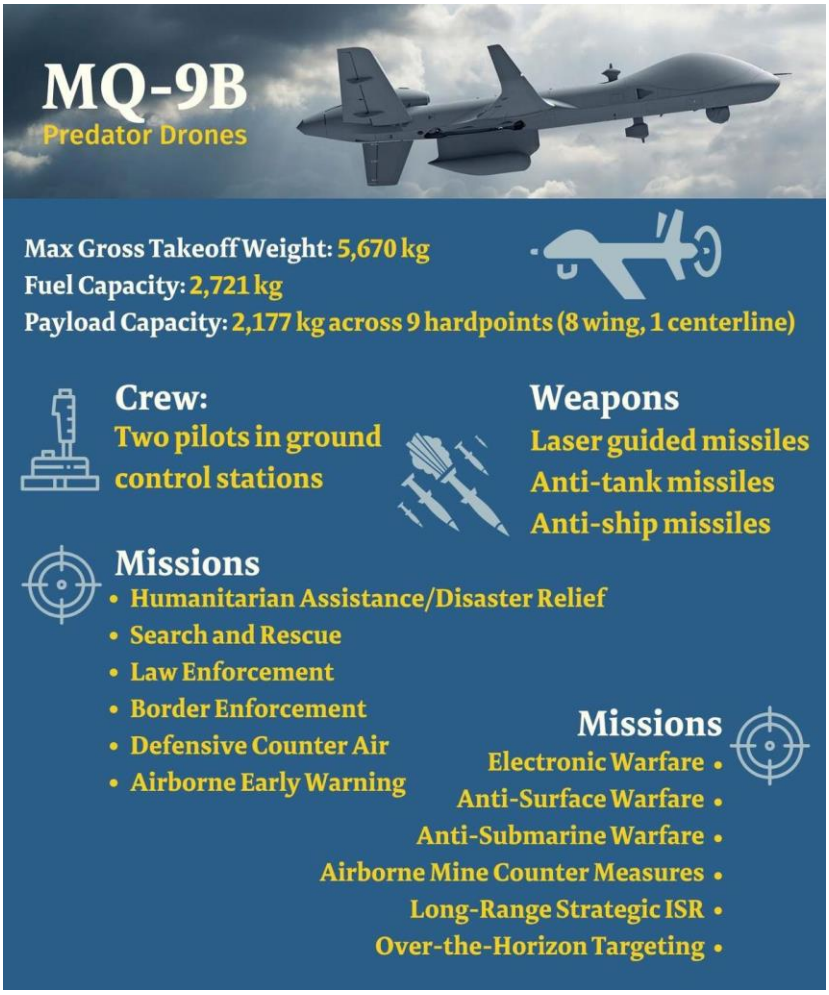
- **Creation of New Proteins**:
  - Applications in nanomaterials, pharmaceuticals, vaccines, sensors, and eco-friendly chemical industries.

MQ-9B drones

Syllabus: GS-3; Science and Technology

Context

- The Cabinet Committee on Security approved two high-profile deals for the purchase of 31 MQ-9B High Altitude Long Endurance (HALE) Unmanned Aerial Vehicles (UAV) from General Atomics of the U.S. as well indigenous construction of two Nuclear Attack Submarines (SSN).



About

- The **MQ-9B** is an advanced variant of the **MQ-9 Reaper** drone developed by **General Atomics Aeronautical Systems**.
- It is a **Medium Altitude Long Endurance (MALE)** remotely piloted aircraft (RPA).
- The drone is designed for multiple roles, including **surveillance**, **intelligence gathering**, **reconnaissance**, and **precision strikes**.

2. Specifications:

- **Wingspan**: Approximately 24 meters.
- **Endurance**: Capable of **40+ hours** of flight time, allowing extended missions.
- **Operational Range**: Over **6,000 nautical miles**.
- **Altitude**: Can operate up to **40,000 feet**.
- **Speed**: Maximum speed of **240 knots (444 km/h)**.

3. Payload and Capabilities:

- The MQ-9B can carry a wide range of payloads for different mission requirements:
  - **Electro-Optical/Infrared (EO/IR) sensors**.
  - **Synthetic Aperture Radar (SAR)**.
  - **Ground Moving Target Indicator (GMTI)**.
  - **Electronic Warfare (EW) systems**.
- It can be armed with **Hellfire missiles**, **GBU-12 Paveway II** laser-guided bombs, and **GBU-38 Joint Direct Attack Munitions (JDAMs)** for precision strikes.

4. Key Features:

- **Certifiable for Non-Military Use**: Unlike previous versions, MQ-9B is built to meet civilian airspace requirements, enabling broader applications.
- **Advanced Surveillance**: Equipped with cutting-edge sensors for high-quality imagery and real-time data transmission.
- **Automated Take-off and Landing**: Improved automation reduces operator workload.
- **Resilient to Weather Conditions**: Certified for **all-weather operations**.
- **Satellite Communication (SATCOM)**: Enables control and data transmission over vast distances.

5. Operational Use:

- Widely used by military forces for **counter-terrorism**, **border surveillance**, **maritime patrol**, and **humanitarian missions**.
- India has shown interest in acquiring MQ-9B drones for **intelligence, surveillance, and reconnaissance (ISR)** roles, especially in monitoring maritime and land borders.

6. India's Acquisition of MQ-9B:

- India is in talks to purchase **MQ-9B SeaGuardian** drones, which are specialized for **maritime operations**.
- These drones will enhance India's maritime surveillance capabilities, particularly in the **Indian Ocean Region (IOR)**.
- The deal aligns with India's focus on strengthening its **strategic deterrence** and **maritime security**.

7. Relevance to India's Defence:

- **Force Multiplier**: MQ-9B will act as a force multiplier for India's defence forces, particularly in monitoring **border regions** with adversaries and strategic areas like the **Indian Ocean**.
- **Make in India Initiative**: Collaborations on technology transfer for indigenous development of drone systems are possible.

8. Comparison with Other Drones:

- The MQ-9B is superior in terms of endurance, range, and payload capacity when compared to other military drones like the **Heron** used by India.
- Offers better **situational awareness** and **precision strike capabilities**.