

DAILY CURRENT AFFAIRS (DCA)

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EXTERNAL AFFAIRS MINISTERS VISIT TO MALDIVES

Context

- External Affairs Minister of India S. Jaishankar has commenced a three-day official visit to the Maldives.

Key highlights of the meeting

- Both the nations signed MoUs on capacity building and inaugurated **six High Impact Community Development Projects (HICDPs)**.
- India's Line of Credit (LoC)**-assisted project of water and sewerage network in 28 islands of Maldives was jointly inaugurated during the meeting of both the nations.
- MoUs on capacity building of additional 1,000 Maldivian civil servants in India and on the introduction of **UPI in Maldives** were exchanged.

Significance of Maldives for India

- Trade Route:** Situated along crucial maritime trade routes between the Gulf of Aden and the Strait of Malacca, the Maldives acts as a "toll gate" for nearly half of India's external trade and 80% of its energy imports.
- Strategic Location:** The Maldives is strategically located in the Indian Ocean, and its stability and security are of interest to India.
- Counterbalancing China:** Maldives presents an opportunity for India to counterbalance China's growing influence in the Indian Ocean, fostering regional balance of power.
- Economic partnership:** India is one of the biggest investors and tourism markets for the Maldives, with significant trade and infrastructure projects underway.
- Defense and Security Cooperation:** Since 1988, defense and security has been a major area of cooperation between India and Maldives.
 - A comprehensive **Action Plan for Defence was also signed in 2016** to consolidate defense partnership.
 - Estimates suggest that almost **70 percent of Maldives' defense training** is done by India — either on the islands or in India's elite military academies.

Significance of India for Maldives

- Essential Commodities:** India supplies Maldives with its everyday essentials: rice, spices, fruits,

vegetables, poultry, medicines and life-saving drugs.

- Education:** Every year, Maldivian students come to Indian higher educational institutions.
- Economic dependence:** Of the Rs 50 crore total trade between India and Maldives in 2022, Rs 49 crore was India's exports to Maldives. India emerged as Maldives' second largest trade partner in 2022.
- Disaster Relief Assistance:** When a tsunami struck the islands in 2004, India was the first to send in help.
 - In 2014 Male had a drinking water crisis** as the major desalination plant broke down, India overnight airlifted drinking water to the islands.
 - During the Covid-19 pandemic,** India sent essential medicines, masks, gloves, PPE kits and vaccines for the island country.



Challenges in Relations

- Domestic turmoil in the Maldives:** Recent political upheavals and changes in government have created uncertainty and complicated long-term cooperation projects.
- Chinese Influence:** China's growing economic presence in the Maldives, evidenced by investments in infrastructure projects and debt-trap diplomacy, is perceived as a challenge to India's strategic interests in the region.
- Military ambitions:** Chinese naval expansion and potential military ambitions in the Indian Ocean with the active support from Maldives has raised concerns for India.

- **Trade imbalance:** The significant trade imbalance between India and the Maldives could lead to resentment and calls for diversifying trade partnerships.

Conclusion

- The visit highlights the importance of the Maldives, India's maritime neighbor, as a key partner in the '**Neighbourhood First**' policy and **India's Vision SAGAR (Security and Growth for All in the Region)**.
- Maldives remains an important partner of India in maintaining peace, stability and prosperity in the Indian Ocean region.

Source: AIR

DANGERS OF IRRATIONAL USE OF ANTIBIOTICS

In Context

- Antibiotics have revolutionised medicine by curing infections and saving lives.

About

- The human body hosts about 38 trillion **microbial** cells, outnumbering our own cells.
 - ♦ The gut microbiome is crucial for digestion, immune support, nutrient production, and pathogen protection.
- The irrational and excessive use of antibiotics poses significant risks, particularly to the human microbiome.
- Overuse and misuse in humans, animals, and agriculture lead to antimicrobial resistance (AMR) and disrupt the microbiome.

Reasons of Irrational Antibiotic Use

- **Self-Medication:** Many individuals self-medicate with antibiotics without proper medical guidance, often using them for viral infections like the common cold, where they are ineffective.
- **Overprescription:** Healthcare providers sometimes prescribe antibiotics unnecessarily, either due to diagnostic uncertainty or patient pressure.
- **Agricultural Use:** The use of antibiotics in livestock to promote growth and prevent disease contributes to the development of antibiotic-resistant bacteria, which can transfer to humans.

Consequences

- **Dysbiosis:** Antibiotics, especially broad-spectrum ones, do not discriminate between harmful pathogens and beneficial bacteria.
 - ♦ This can lead to dysbiosis, a condition characterized by an imbalance in the microbial community.
 - Dysbiosis can persist for months or even years after a single course of antibiotics.
- **Immune System Impairment:** A healthy microbiome is vital for a robust immune system.
 - ♦ Disruption of the microbiome can weaken immune defenses, making the body more susceptible to infections and autoimmune diseases.
- **Metabolic Disorders:** The gut microbiome plays a crucial role in regulating metabolism.
 - ♦ Dysbiosis can interfere with metabolic processes, potentially leading to conditions such as obesity, diabetes, and metabolic syndrome.
- **Mental Health Effects:** The gut-brain axis links the gut microbiome with the brain.
 - ♦ Dysbiosis can alter neurotransmitter levels and brain chemistry, affecting mood, cognition, and mental health conditions like anxiety and depression.
- **Increased Risk of Chronic Diseases:** Long-term disruption of the microbiome has been associated with an increased risk of chronic diseases, including inflammatory bowel disease (IBD) and irritable bowel syndrome (IBS).

Suggestions

- **Antimicrobial Stewardship:** Implementing antimicrobial stewardship programs to promote the rational use of antibiotics in healthcare settings is crucial.
 - ♦ This includes guidelines for appropriate prescribing and the use of diagnostic tests to confirm bacterial infections.
- **Public Awareness:** Educating the public about the dangers of antibiotic misuse and the importance of following medical advice can help reduce self-medication and overuse.
- **Regulation in Agriculture:** Enforcing stricter regulations on the use of antibiotics in agriculture can help mitigate the spread of antibiotic-resistant bacteria.

Conclusion and Way Ahead

- The irrational use of antibiotics poses a significant threat to the microbiome and overall health. By promoting responsible antibiotic use and raising awareness about the potential dangers, we can protect the delicate balance of our microbiome and ensure the continued effectiveness of these life-saving drugs.

Source: TH

COAL SECTOR IN INDIA AND CONCERNS

Context

- India's **coal import rose by 5.7 percent** to 75.26 million tonnes (MT) in the first quarter of the current fiscal compared to in the same period of the previous fiscal.
 - ♦ There was an increase in coal import volumes due to the continued **softness in seaborne prices** and **expectation of a demand uptick during the summer season.**

Coal Sector in India

- **Coal Reserves:** India has significant coal reserves, and it is one of the world's largest coal producers.
 - ♦ The major coal fields in India are located in the eastern states of Jharkhand, Odisha, and West Bengal, as well as in central states like Chhattisgarh and Madhya Pradesh.
- **Coal Production:** India is the **second largest** coal producing country globally.
 - ♦ The Coal India Limited (CIL) is the state-owned coal mining company and the largest government-owned-coal-producer in the world.
- **Coal Consumption:** The surge in coal production during May 2024, reaching 83.91 million tonnes, represents a notable 10.15% increase from the previous year.
 - ♦ This surge highlights the sector's capacity to meet escalating demands from energy and manufacturing industries.
- **Import and Export:** Despite being a significant coal producer, India has also been importing coal to meet the growing demand.
 - ♦ This is due to issues such as transportation challenges and the need for specific types of coal for certain industries.

Challenges

- **Environmental Impact:** The coal sector faces significant environmental challenges, including air pollution, greenhouse gas emissions, and the impact of coal mining on local ecosystems and communities.
- **Infrastructure:** The sector struggles with inadequate infrastructure for coal transportation, including railways and ports, **leading to inefficiencies and supply chain issues.**
- **Regulatory and Policy Issues:** The sector is subject to complex regulations and policies that affect its operation and growth.
 - ♦ There are ongoing efforts to reform and modernize the sector, including auctioning of coal blocks to private companies and efforts to improve transparency.

Transition to Renewable Energy Sources

- India is the world's third largest producer of renewable energy, with **40%** of its installed electricity capacity coming from non-fossil fuel sources. Coal still provide **55%** of India's power supply.
 - **Aim:** India has announced its aim to meet **50% of its electricity demands from renewable energy sources by 2030.**

Challenges:

- **Dependency on Natural Factors:** Energy sources like solar and wind are variable as they rely on natural factors like sunlight, wind and water availability.
 - ♦ To ensure a steady supply, India has to heavily invest in battery storage.
- **Concerns in Hydropower Projects:** Numerous hydropower projects are under construction or in the planning stages in the Himalayan region.
 - ♦ But they have come under fire as the projects have caused ecological damage and raised concerns about the potential conflicts over water resources in the area.
- **Nuclear Energy:** The country's plans to generate energy with the help of nuclear power plants have not really taken off.
 - ♦ During 2022-23, the plants produced about 2.8% of the total electricity generated in India.
- **Infrastructure Development:** The transition to renewable energy requires significant infrastructure development.

- ♦ The speed and scale of this infrastructure development can be a challenge for a country as large and diverse as India.
- **Grid Integration:** Integrating renewable energy into the existing power grid is a complex task.
 - ♦ The grid must be flexible and capable of handling fluctuations in supply.

Steps Taken by Government for Transition to Renewable Energy Sources

- **National Solar Mission (NSM):** It was launched in 2010, it has set ambitious targets for solar capacity installation, including grid-connected and off-grid solar power projects.
- **Green Energy Corridors:** The Green Energy Corridor project focuses on enhancing the transmission infrastructure to facilitate the integration of renewable energy into the national grid.
- **Renewable Purchase Obligation (RPO):** This requires power distribution companies and large electricity consumers to procure a certain percentage of their power from renewable sources, encouraging the demand for renewable energy.
- **Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM):** It includes the installation of solar pumps, solarization of existing grid-connected agricultural pumps, and the establishment of solar power plants on barren or fallow land.
- **International Solar Alliance (ISA):** India played a key role in establishing the International Solar Alliance, a coalition of solar-resource-rich countries to address their energy needs through the promotion of solar energy.

Source: TOI

BANKING LAWS (AMENDMENT) BILL, 2024

Context

- Recently, the **Banking Laws (Amendment) Bill, 2024** was introduced in Lok Sabha seeking to increase the option for nominees per bank account to four, from existing one, among others.

Rationale of Introducing Bill

- The introduction of **Banking Laws (Amendment) Bill, 2024** follows the announcement during the **2023-24 Budget speech**, emphasising the **need**

for reforms in the banking sector to strengthen governance and **safeguard investor interests**.

- The proposed amendments align with the government's larger vision of facilitating banking sector reforms, including the privatisation of public sector banks.
- The Banking Laws (Amendment) Bill, 2024, **seeks to amend several laws**, including the *Reserve Bank of India Act, 1934*, the *Banking Regulation Act, 1949*, the *State Bank of India Act, 1955*, and the *Banking Companies (Acquisition and Transfer of Undertakings) Acts of 1970 and 1980*.
- Its **primary goal** is to enhance governance, strengthen investor protection, and improve overall banking practices.

Proposed Amendments

- **Nominees per Bank Account:** Currently, each bank account can have only one nominee. However, the proposed amendment aims to increase this limit to four nominees per account.
 - ♦ It offers greater flexibility and choice to account holders.
- **Redefining 'Substantial Interest':** The bill seeks to redefine the concept of 'substantial interest' for bank directorships. The existing threshold of Rs 5 lakh will be raised significantly to Rs 2 crore.
 - ♦ It reflects a long-overdue adjustment to a limit that has been in place for nearly six decades.
- **Flexibility in Statutory Auditor Pay (Autonomy for Banks):** The bill intends to give banks greater flexibility in determining the pay for statutory auditors.
 - ♦ It recognises the importance of robust auditing practices in maintaining financial stability and transparency within the banking sector.
- **Tenure of directors of co-operative banks:** The **Banking Regulation Act, 1949** prohibits the director of a bank (except its chairman or whole-time director) to hold office for more than eight years consecutively.
 - ♦ The Bill of 2024 seeks to increase this period to 10 years for co-operative banks.
- **Reporting Dates:** The bill proposes a shift in reporting dates for regulatory compliance. Instead of the current schedule (second and fourth Fridays of each month), the new reporting dates would be the 15th and last day of every month.
- **Broader Reforms:** These changes are part of a broader effort to improve bank governance and investor protection.

- ◆ The amendments also impact the Banking Companies (Acquisition and Transfer of Undertakings) Acts of 1970 and 1980.

Conclusion

- The Banking Laws (Amendment) Bill, 2024 represents a significant step toward modernising India's banking framework.
- By increasing nominee options, redefining substantial interest, and granting more autonomy to banks, the bill aims to create a more robust and investor-friendly banking ecosystem.

Source: TH

CLEAN PLANT PROGRAMME

Context

- The Union Cabinet has approved the **Clean Plant Programme (CPP)**.
 - ◆ It aims to **enhance the quality and productivity of fruit crops** across the country.

About Clean Plant Programme (CPP)

- CPP is designed to **address critical issues** in horticulture by providing access to high-quality, virus-free planting material.
- The programme is poised to deliver numerous benefits across various stakeholders, from farmers to consumers, and **bolster India's position in the global fruit market**.
- **Clean Plant Centers (CPCs)**: Nine advanced CPCs will be established across India, **each focusing on specific fruit types**.
 - ◆ These centers will be equipped with modern diagnostic and therapeutic facilities, including tissue culture labs.
- **Regulatory Measures**: A robust certification system will be implemented under the **Seeds Act of 1966**, ensuring accountability and traceability in the production and sale of planting material.
- **Enhanced Infrastructure**: **Large-scale nurseries** will receive support for developing infrastructure to facilitate the efficient multiplication of clean planting material.
- **Integration with Mission for Integrated Development of Horticulture**: The CPP complements the ongoing Mission for Integrated Development of Horticulture (MIDH).

- ◆ It is a Centrally Sponsored Scheme initiated in 2014-15 aimed at the holistic growth of the horticulture sector.
- ◆ MIDH covers a wide range of crops including fruits, vegetables, root and tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, bamboo, and cocoa.
- **Implementation**: The programme will be implemented by the **National Horticulture Board** in collaboration with the **Indian Council of Agricultural Research (ICAR)**.

Key Benefits

- **Increased Crop Yields**: By providing virus-free, superior planting material, the CPP aims to boost crop yields.
- **Enhanced Income Opportunities**: Higher quality produce will lead to better market prices and income for farmers.
- **Propagation**: Streamlined certification processes and infrastructure support will help nurseries in efficiently producing clean planting material.
- **Sustainability**: Improved facilities will foster growth and sustainability in the nursery sector.
- **Superior Produce**: The initiative ensures that consumers receive fruits that are not only virus-free but also enhanced in taste, appearance, and nutritional value.
- **Global Market Strengthening**: With higher-quality, disease-free fruits, India will enhance its position as a leading global exporter, thereby expanding market opportunities and increasing its share in the international fruit trade.

Horticulture Sector in India

- Horticulture is the science and art of **cultivating fruits, vegetables, flowers, and ornamental plants**.
- The Indian horticulture sector contributes about **33% to the agriculture Gross Value Added (GVA)** making a very significant contribution to the Indian economy.
- India is currently producing about **320.48 million tons of horticulture produce** which has surpassed the food grain production, that too from much less area.
 - ◆ Productivity of horticulture crops is much higher compared to productivity of food grains.
- At present, India is the **second largest producer** of vegetables and fruits in the world.

- ♦ India ranks first in the production of a number of crops like **Banana, Lime & Lemon, Papaya, Okra**.
- India's advantage lies in being a **low-cost producer of fruits and vegetables** because of a **combination of factors such as** favourable agro-climatic conditions, availability of labour, and low input costs.
 - ♦ As a result, fruits and vegetables account for almost **90% of the total horticulture production in the country**.

Challenges Faced by the Sector

- **Lack of Infrastructure:** Insufficient infrastructure for post-harvest handling, storage, and transportation leads to significant losses of perishable horticultural produce.
- **Water Management:** Horticulture is water-intensive, and water scarcity or inefficient water management practices affect crop yields and quality.
- **Pest and Disease Management:** Pests and diseases cause significant damage to horticultural crops, and the misuse of pesticides lead to environmental pollution and health hazards.
- **Market Linkages:** Limited market linkages and price fluctuations affect farmers' income and discourage investment in horticultural production.
- **Climate Change:** Erratic weather patterns, including unpredictable rainfall and temperature fluctuations, pose challenges to horticultural production and require adaptation strategies.
- **Quality Standards and Certification:** Meeting quality standards and obtaining certification for export markets is challenging for small-scale horticultural producers.

Horticulture schemes and initiatives

- **National Horticulture Mission (NHM):** Launched in 2005, the NHM is a centrally sponsored scheme aimed at promoting holistic growth of the horticulture sector.
 - ♦ It focuses on enhancing horticulture production, improving nutritional security, and providing income support to farmers.
- **Enhanced Support for Horticulture Under PMFBY:** Under the PMFBY guidelines, the premium contribution for farmers is capped at 2% for Kharif crops, 1.5% for Rabi crops, and 5% for commercial and horticultural crops.

- **Horticulture Cluster Development Programme (HCDP):** The HCDP is designed to leverage geographical specialization and promote integrated and market-led development of horticulture clusters.
 - ♦ The program targets an increase in exports of the focus crops and seeks to improve the competitiveness of Indian horticulture products in the global market.
- **Post-harvest Infrastructure Development Scheme:** This scheme addresses the critical issue of post-harvest losses in the horticulture sector.
 - ♦ It provides support for establishing modern post-harvest facilities such as pack houses, ripening chambers, cold storage units, and processing facilities.
- **Horticulture Mission for North East and Himalayan States (HMNEH):** It takes into account the unique agro-climatic conditions of these areas and promotes crops that are particularly suited to these regions, aiming to improve farmers' livelihoods and promote sustainable horticulture practices.

Conclusion

- Clean Plant Programme (CPP) stands as a **transformative initiative** poised to significantly elevate India's horticulture sector.
- By improving the quality and sustainability of fruit production and enhancing the country's export capabilities, the CPP is set to reinforce India's position as a global leader in the fruit trade.
- Furthermore, its inclusive approach, which ensures equitable access to resources and actively involves women farmers, highlights the programme's dedication to fostering **broad-based growth and development within the sector**.

Source: IE

NEWS IN SHORT

GOTIPUA DANCE

Context

- Gotipua child artistes, who experience the world as their stage, face an uncertain future when they hit puberty.

Gotipua dance

- It is a traditional dance form in the state of **Odisha**, and the precursor of Odissi classical dance.
- The dance is **executed by a group of boys** who perform acrobatic figures inspired by the life of Radha and Krishna.
 - ♦ They **dress as women** to praise Lord Jagannath and Lord Krishna.
- **Costume:** The traditional dress is a “**Kanchula**”, a bright coloured blouse with shiny embellishment.
 - ♦ Also an apron-like and embroidered silk cloth is tied around the waist like a frill worn around the legs: it is called “**Nibibandha**”.

History of the Dance

- In ancient times, the temples of Orissa had female dancers called “**Devadasi or Mahari**” who were devoted to Lord Jagannath.
- During the time of **Bhoi king Rama Chandra Dev in the 16th century**, with the decline of the Mahari dancers, the class of the boy dancers came into existence in Orissa, to carry out the tradition.
- “**Abhinaya Chandrika**”, an ancient text on Odissi Dance written by **Maheshwar Mahapatra** during the 15th century, gives a detailed study of the dance movements.

Source: TH

A23 ‘SPINNING’

Context

- **A23**, the world’s largest iceberg, is stuck in a vortex over a seamount.

About

- The iceberg is spinning near the **South Orkney Islands**, about 375 miles northeast of the Antarctic Peninsula.
- **A23** was **one of three icebergs** that broke off, or calved, from the **Filchner Ice Shelf in 1986**.
 - ♦ At the time of the calving, A23 was home to a Soviet Union research center and researchers eventually had to abandon the base.

Antarctica

- Antarctica, the **world’s southernmost and fifth largest continent**. Its landmass is almost wholly covered by a vast ice sheet.

- The continental contains about **90 percent** of the world’s ice and **80 percent** of its fresh water.
- **Ice shelves, or ice sheets** floating on the sea, cover many parts of the Ross and Weddell seas.
 - ♦ These shelves—the Ross Ice Shelf and the Filchner-Ronne Ice Shelf—together with other shelves around the continental margins, fringe about **45 percent of Antarctica**.
- **An ice shelf** is a huge sheet of ice, connected to land but extending out into the ocean.
 - ♦ Ice shelves develop **mainly from glaciers** flowing slowly downhill toward the ocean.
 - ♦ “Upstream,” the ice shelf rests on land, but “downstream,” the ice shelf extends out onto and into the ocean, mostly below sea level.

Source: IE

MOUNT KILIMANJARO

In News

- An expedition team from the Ministry of Defence, led by ‘Divyang’ Uday Kumar, made history by hoisting the largest Indian flag atop **Mount Kilimanjaro**.

About Mount Kilimanjaro

- It is a dormant volcano situated in Tanzania, East Africa.
- It holds the title of the highest peak (5,895 meters) in Africa.
- The mountain is also the **world’s tallest freestanding mountain**, meaning it is not part of a mountain range.
- Kilimanjaro is composed of three distinct volcanic cones: **Shira, Kibo, and Mawenzi**. Kibo is the highest and houses the summit, Uhuru Peak.
- It is a part of UNESCO’s World Heritage Site ‘**Kilimanjaro National Park**’.

Source: IE

NANKAI TROUGH

Context

- Recently, Japan issued its first-ever ‘megaquake advisory’ of strong shaking and large tsunamis on the Nankai Trough, a subduction zone.

About the Nankai Trough



- It is an **underwater subduction zone**, is characterised by subduction of multiple geological units of the **Philippine Sea Plate** (the Kyushu-Palau Ridge, the Shikoku Basin, the Kinan Seamount Chain, and the Izu-Bonin Arc) **beneath the Eurasian Plate** in the southwest of Japan.
 - ♦ It accumulates tectonic stress which can cause a megaquake — an earthquake with a magnitude larger than 8.
- It sits between **Suruga Bay, in central Japan**, and the Hyuganada Sea in Kyushu to the south.
- Nankai Trough has a **history of producing such megaquakes** roughly every 100 to 150 years. They **often come in pairs**.
 - ♦ The **second quake**, following the first, tends to rupture within the subsequent two years. The last 'twin' earthquakes occurred back in 1944 and 1946.
- Japan is a country used to earthquakes. It sits on the Ring of Fire and, as a result, experiences about 1,500 earthquakes a year.

Source: IE

SHORTAGE OF POTATO IN ODISHA

Context

- **Odisha** has been facing an **acute shortage of potatoes**, resulting in a **steep increase in the price**.

About

- **Odisha** is heavily dependent on **neighbouring West Bengal** for its potato requirement but since mid-July the West Bengal government has

banned the supply of potatoes to other states to stabilise the price in the state.

- ♦ Bengal has seen a **20 percent dip in potato production** this year, compared to the previous year, due to unseasonal rain in December-January.
- **India is the second largest producer** of Potato in the world while China is the largest potato producing country globally.
- **Uttar Pradesh** is the largest producer of the Potato in India followed by West Bengal and Bihar.

Source: IE

NITROGEN-USE EFFICIENCY OF RICE VARIETIES

Context

- Biotechnologists at the Guru Gobind Singh Indraprastha University (GGU) have discovered a wide variation among rice varieties in their Nitrogen-Use Efficiency.

About

- **Nitrogen use efficiency** refers to the yield of a crop relative to the nitrogen (natural and artificial) available to it.
- Poor fertilizer nitrogen-use efficiency wastes N (nitrogen)-fertilizers worth **₹1 trillion** a year in India and over **\$170 billion per year** globally.
 - ♦ Cereals consume two-thirds of all urea in India, led by rice.
- **N-fertilizers** are the main source of **nitrous oxide and ammonia pollution** of air and nitrate/ammonium pollution of water, affecting the **health, biodiversity, and climate change**.
- **Significance:** The research can lead to the development of newer varieties that use less nitrogen and are high-yielding, cutting costs on imported fertilizers and reducing nitrogen-linked pollution.

Source: TH

BIOFORTIFIED CROPS

Context

- Recently, the Prime Minister of India released 109 high yielding, climate resilient and biofortified varieties of crops at India Agricultural Research Institute, New Delhi.

About the Biofortified Crops

- It is the process and an agricultural approach of enhancing the nutrient content of crops **through conventional breeding or genetic modification**.
- It aimed at developing and disseminating crops that are **naturally rich in essential micronutrients**, containing higher levels of vitamins, minerals, and other nutrients.
- These crops are important for **Malnutrition Mitigation, Targeting Vulnerable Populations, and Climate Resilience** etc

India's Biofortification Efforts

- India has been actively involved in biofortification initiatives. Under the **Indian Council of Agricultural Research (ICAR)**, several biofortified crop varieties have been developed since 2014.
- Recently, the 109 varieties of 61 crops released by the Prime Minister included **34 field crops and 27 horticultural crops**.
 - ♦ Among the **field crops**, seeds of various cereals including millets, forage crops, oilseeds, pulses, sugarcane, cotton, fibre and other potential crops were released.
 - ♦ Among the **horticultural crops**, different varieties of fruits, vegetable crops, plantation crops, tuber crops, spices, flowers and medicinal crops were released.

Do You Know?

- **Field Crops:** These include biofortified varieties of rice, wheat, maize, pearl millet, small millets, lentils, chickpeas, and more.
 - ♦ These crops are essential staples for many Indians.
- **Horticultural Crops:** India has also focused on biofortified horticultural crops like sweet potatoes, amaranthus, yams, and potatoes.
 - ♦ These provide a diverse range of nutrients and flavours.

Source: PIB

WORLD LION DAY

In News

- Prime Minister Shri Narendra Modi, on the occasion of World Lion Day, complemented all those involved in Lion conservation & protection work.

World Lion Day:

- Initiated by Big Cat Rescue which is the world's largest accredited sanctuary dedicated to big cats.

Scientific Name:	Panthera leo persica
Weight:	Male: 150-250 kg Female: 120-180 kg
Length (head and body):	Male: 1.7-2.5 m Female: 1.4-1.75 m
Birth Interval:	18-26 Months
Typical Diet:	Carnivorous
Lifespan:	16-18 Years

- It is celebrated on August 10th and it aims to honour and raise awareness about lions and their conservation.

About Lion

- Asiatic lions are slightly smaller than African lions.
- **Asiatic lions are found only in the Gir Forest**, with population growth from 523 in 2015 to 674 in 2020.
- **IUCN Red List Status : Endangered**

Importance of Lions

- **Ecological:** Apex predators that maintain ecological balance.
 - ♦ Control herbivore populations, promote forest and grassland health, and prevent disease spread within prey populations.
- **Cultural Significance :** The lion is a symbol of strength on India's national emblem and currency.



Threats

- Lions face threats from habitat loss, human-wildlife conflict, and poaching.

Conservation Efforts

- **Project Lion:** Launched on August 15, 2020.
 - ♦ Aims for the long-term conservation of Asiatic lions.
 - ♦ Includes habitat improvement, monitoring with technology, and addressing human-wildlife conflicts.
- **Gujarat Forest Department** conducts population censuses and monitors lion health.
 - ♦ Implements measures for fire management, flood preparedness, and continuous monitoring.
- **International Big Cats Alliance (IBCA):** Launched in April 2023.
 - ♦ Promotes global cooperation among 97 range countries for big cat conservation.
 - ♦ Facilitates knowledge sharing and resource allocation.
- GIS-Based Real-Time Monitoring provides real-time analysis and management.

Source: PIB

VIKRAM SARABHAI

In News

- The birth anniversary of Dr Vikram Sarabhai is celebrated every year on August 12.

Background:

- Vikram Sarabhai was born on August 12, 1919 at Ahmedabad in an affluent family of progressive industrialists.
- Returned to India in 1947 after studying at Cambridge.
- Founded the Physical Research Laboratory (PRL) in Ahmedabad on November 11, 1947, at the age of 28.
- **Contributions :** Known as the Father of the Indian Space Program.
 - ♦ Initiated the **Indian Space Programme in 1960** with a vision of leveraging space technology for national development.
 - ♦ Indian Space Research Organisation (ISRO)

was formally established on August 15, 1969.

- ♦ Initiated the project for the fabrication and launch of an Indian satellite.
 - The first Indian satellite, Aryabhata, was launched in 1975 from a Russian Cosmodrome.
- ♦ **Worked with Dr. Homi Jehangir Bhabha**, the father of India's nuclear science program, set up the first rocket launching station in India.
- **Awards and Honours:** Shanti Swarup Bhatnagar Award (1962).
 - ♦ Padma Bhushan (1966).
 - ♦ Padma Vibhushan (posthumous, 1972).
 - ♦ The Vikram Sarabhai Space Centre (VSSC) in Thiruvananthapuram is named in his memory.
 - ♦ The Dr. Sarabhai Crater on the Moon was named in his honour in 1974.
- **Distinguished Positions :** Chairman of the Atomic Energy Commission (1966).
 - ♦ President of the Physics section at the Indian Science Congress (1962).
 - ♦ President of the General Conference of the I.A.E.A. in Verina (1970).
 - ♦ Vice-President of the Fourth U.N. Conference on 'Peaceful Uses of Atomic Energy' (1971).
- **Death:** Passed away on December 30, 1971, in Kovalam, Thiruvananthapuram, Kerala.
- **Legacy:** ISRO continues to adopt Dr. Sarabhai's vision, focusing on space programmes aimed at societal benefits.

Source: PIB

EXERCISE UDARA SHAKTI

Context

- The Indian Air Force (IAF) contingent returned to India after successfully participating in the **Exercise Udara Shakti 2024**.

About

- The joint air exercise was conducted in collaboration with the Royal Malaysian Air Force (RMAF) at Kuantan, Malaysia.
- The primary focus of the exercise was to bolster operational efficiency and enhance the technical expertise of both air forces.

Source: PIB