

INTERNATIONAL RELATIONS**India- United States Trade Policy Forum (TPF)****Why in new?**

- The 14th Ministerial-level meeting of the India- United States Trade Policy Forum (TPF) was held recently.

About

- The Ministers agreed to establish a Joint Facilitative Mechanism (JFM) to mitigate non-tariff barriers which would eliminate duplicative testing requirements and reduce compliance costs for trade in high-quality goods.
- USA is India's top export market for shrimps. In this context, both the Ministers welcomed the finalization of the Turtle Excluder Device (TED) design developed with the technical support of the National Oceanic and Atmospheric Administration (NOAA).
 - TED is an effective device in minimizing the impact of fishing on sea-turtle population and would foster enhanced seafood trade between the two countries.
- India also emphasized the need to increase the number of inspections by the U.S. Food and Drug Administration (U.S. FDA) in India to reach the pre-pandemic level. USA is India's top export market for pharma products.
- The Indian side reiterated India's interest in restoration of its beneficiary status under the U.S. Generalized System of Preferences program.

India- United States Trade Policy Forum (TPF)

- It is an arrangement between the two Governments to discuss trade and investment issues, established in 2005.
- The TPF is co-chaired by the Minister of Commerce & Industry, Government of India and United States Trade Representative.
- The issues and concerns are discussed under five Focus Groups.
- The dialogue addresses a wide range of issues that will lead to initiatives in key sectors and create momentum for expanding bilateral trade.
- A Private Sector Advisory Group (PSAG) was formed in 2007 as an adjunct to TPF to provide the TPF with views and advice from non-government trade and investment experts.

India – USA Trade and Economic Relations

- In FY23, the bilateral trade between India and the US stood at a record US\$ 128.78 billion as against US\$ 119.48 billion in FY22.
- In FY23, India had a trade surplus of US\$ 28.30 billion with the US.
- During 2022-23, the US was the third largest source of FDI into India.
- India-USA trade is likely to touch US\$ 300 billion in 2026-27 from its current trade.

Dialogue Mechanisms

- India-U.S. Trade Policy Forum (TPF).
- India-U.S. Commercial Dialogue: Focuses on cooperation in standards, ease of doing business, travel & tourism, and other important issues of commercial significance.
- India-U.S. CEO Forum: Established in 2005, the Forum meets on side-lines of the Commercial Dialogue and submits recommendations to the Commercial dialogue.
- Information and Communications Technology (ICT): A Joint Working Group on ICT was established in 2005 to bring together government and industry from both sides to discuss cooperation in the electronics & IT sector.
- India – U.S. Economic and Financial Partnership Dialogue (EFP): It is led by Finance Minister and the U.S. Secretary of the Treasury.
- Indo-Pacific Economic Framework [IPEF]: India joined the launch of IPEF in 2022 along with 13 Partner countries.
 - India joined three of the four Pillars of IPEF, related to supply chains, tax and anti-corruption and clean energy.

Conclusion

- The evolving relationship between India and the United States holds significant importance in shaping the global order of the 21st century.
- To fully unlock the potential of this partnership, both governments must focus on reducing bilateral and multilateral bottlenecks and charting a course for a comprehensive and strategic global alliance.

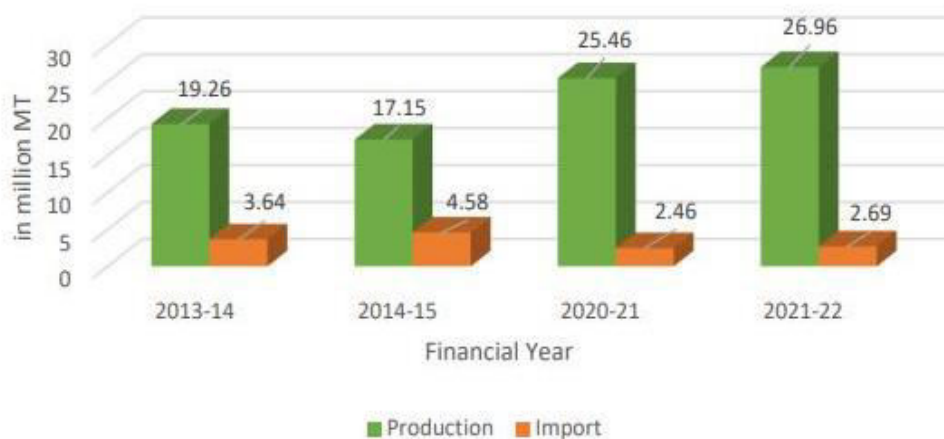
ECONOMY**Growth in Lentil Production in India****Why in News?**

- India's masur (lentil) production is estimated to touch an all-time high of 1.6 million tonnes in 2023-24.

About

- The total masur acreage has increased to 1.94 million hectare in the ongoing rabi season, when compared to 1.83 million hectare in the year-ago period.
- Despite being the world's largest producer and consumer of pulses, India imports certain pulses, including masur and tur, to meet domestic shortages.
- Production of Pulses in India
- India is the largest producer (25% of global production), consumer (27% of world consumption) and importer (14%) of pulses in the world.
- Pulses account for around 20 percent of the area under food grains and contribute around 7-10 percent of the total food grains production in the country.
- Though pulses are grown in both Kharif and Rabi seasons, Rabi pulses contribute more than 60 percent of the total production.
- Gram is the most dominant pulse having a share of around 40 percent in the total production followed by Tur/Arhar at 15 to 20 percent and Urad/Black Matpe and Moong at around 8-10 percent each.
- The main regions with high productivity are Punjab, Haryana, Western Uttar Pradesh, West Bengal delta region, coastal Andhra Pradesh, Tamil Nadu, Kerala, coastal and eastern Karnataka and some parts of Maharashtra.

Production and Import of Pulses



Reasons for Low Production in India

- Low Productivity: Pulses have traditionally been a neglected crop because of the instability of its yields.
- Residual Crop: Pulses in India are considered a residual crop and grown under rain-fed conditions in marginal/less fertile lands, with very little focus on pest and nutrient management.
- With the advent of the Green Revolution, which promoted rice and wheat using external inputs and modern varieties of seeds, pulses were pushed to the marginal lands. This resulted in decline in productivity and land degradation.
- Lack of Technological Advances: There has been no technology breakthrough in any of the pulses crops.
- Less Beneficial: Farmers perceive pulses as having a lower cost benefit ratio vis-à-vis other crops like wheat and rice.
- Penetration and adoption of high yielding varieties (HYV) seeds are also low.
- Post-Harvest Losses: There are post-harvest losses during storage, due to excessive moisture and attack by stored grain pests especially the pulse beetle.

Measures Taken By the Government to Increase Production

- National Food Security Mission: The Department of Agriculture & Farmers Welfare is implementing the National Food Security Mission (NFSM)-Pulses with the objectives of increasing production through area expansion and productivity enhancement in all the districts.
- Research and Development: In order to increase the productivity potential of pulses crops in the country, the Indian Council of Agricultural Research (ICAR) is undertaking basic and strategic research on these crops and applied research in collaboration with State Agricultural Universities for developing location-specific high yielding varieties.
- PM-AASHA: To ensure remunerative prices to farmers, Government implements an umbrella scheme PM-AASHA comprising Price Support Scheme (PSS), Price Deficiency Payment Scheme (PDPS) and

Private Procurement Stockist Scheme (PPSS) in order to ensure Minimum Support Price (MSP) to farmers for their produce of notified oilseeds, pulses and copra.

- Integrated scheme of Oilseeds, Pulses, Oil Palm and Maize (ISOPOM) was launched in 14 major pulses growing states.
- Rashtriya Krishi Vikas Yojna was launched under which states can undertake Pulses Development Programmes.

PRELIM FACTS

1. LiDAR

- A huge city hidden by the luxuriant vegetation of the Amazon rainforest was recently discovered in Ecuador by a LiDAR survey.

About LiDAR:

- Lidar, which stands for Light Detection and Ranging, is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the Earth.
- These light pulses—combined with other data recorded by the airborne system — generate precise, three-dimensional information about the shape of the Earth and its surface characteristics.
- A lidar instrument principally consists of a laser, a scanner, and a specialized GPS receiver.
- Airplanes and helicopters are the most commonly used platforms for acquiring lidar data over broad areas.
- How does it Work?
 - A LiDAR system calculates how long it takes for beams of light to hit an object or surface and reflect back to the laser scanner.
 - The distance is then calculated using the velocity of light. These are known as ‘Time of Flight’ measurements.
- Two types of lidar are topographic and bathymetric.
 - Topographic lidar typically uses a near-infrared laser to map the land, while bathymetric lidar uses water-penetrating green light to also measure seafloor and riverbed elevations.
- Lidar systems allow scientists and mapping professionals to examine both natural and man-made environments with accuracy, precision, and flexibility.
- It is used in a wide range of land management and planning efforts, including hazard assessment (including lava flows, landslides, tsunamis, and floods), forestry, agriculture, geologic mapping, and watershed and river surveys.
- What is the difference between Radar and LiDAR?
 - LiDAR works in a similar way to Radar and Sonar yet uses light waves from a laser, instead of radio or sound waves.

2. Vadnagar

- Multi-institution study found India’s oldest living city in Vadnagar, Gujarat.

About Vadnagar:

- It was a multicultural and multireligious (Buddhist, Hindu, Jain and Islamic) settlement, currently located in the Mehsana district of North Gujarat, India.
- It is also known by names like Vridhanagar, Anandapur, Anantapur and Nagar.
- It is an L-shaped town with Sharmishtha Lake on its northeastern edge.
- The town represents a continuously evolving historic urban landscape/area which played a major role in the hinterland trade network of Western India.
- World Heritage Site (UNESCO): Vadnagar was added to the tentative list in December 2022.

More on News:

- Vadnagar town is a multi-layered and multi-cultural mercantile settlement with its history stretching back to nearly 8th Century BCE.
- Explorations and excavations show evidence of a human settlement that is contemporary to late-Vedic/pre-Buddhist Mahajanapadas or oligarchic republics.
 - The earliest archaeological record is the rock-inscription of Emperor Ashoka during the Mauryan period (320-185 BCE) at Sudarsana Lake, Girnar hill, Gujarat.
- A joint study by the IIT Kharagpur has found evidence of cultural continuity in Vadnagar even after the collapse of Indus Valley Civilisation (IVC), thus making it likely that the ‘Dark Age’ was a myth.
 - The period between the collapse of IVC and the emergence of the Iron Age and cities like Gandhar, Koshal, and Avanti is often depicted as a Dark Age by archaeologists.
- Excavation revealed the presence of seven cultural stages (periods) namely, Mauryan, Indo-Greek, Indo-Scythian or Shaka-Kshatrapas (AKA ‘Satraps’, descendants of provincial governors of ancient Achaemenid Empires, Hindu-Solankis, Sultanate-Mughal (Islamic) to Gaekwad-British colonial rule.

3. India's first Dark Sky Park

- The Pench Tiger Reserve in Maharashtra has been designated as India's first Dark Sky Park and the fifth in Asia, protecting the night sky and preventing light pollution.

About India's First Dark Sky Park:

- The Pench Tiger Reserve (PTR) in Maharashtra is India's first Dark Sky Park within a tiger reserve for earmarking areas around the park that restrict light pollution for stargazers to access pristine dark skies.
- Dark Sky Place certification focuses on lighting policy, dark sky-friendly retrofits, outreach and education, and monitoring the night sky.
- This designation positions PTR as a sanctuary where tourists can witness celestial spectacles, shielded from the intrusion of artificial light pollution.
- PTR became the fifth such park in Asia.
- The certification was given by the International Dark-Sky Association, a global dark-sky movement to promote astronomy.

Key Facts about Pench Tiger Reserve (PTR):

- Location: The Reserve is located in the southern reaches of the Satpura hills in the Seoni and Chhindwara districts in Madhya Pradesh and continues in Nagpur district in Maharashtra as a separate Sanctuary.
- It is named after the Pench River, which flows from north to south through the Reserve.
- It comprises the Indira Priyadarshini Pench National Park, the Pench Mowgli Sanctuary, and a buffer.
- The area of the Pench Tiger Reserve and the surrounding area is the real story area of Rudyard Kipling's famous "The Jungle Book".
- Terrain: It is undulating, with most of the area covered by small hills and steep slopes on the sides.
- Vegetation: The undulating topography supports a mosaic of vegetation ranging from a moist sheltered valley to an open, dry deciduous forest.
- Flora: The reserve boasts a diverse range of flora, including teak, saag, mahua, and various grasses and shrubs.
- Fauna:
 - The area is especially famous for large herds of Chital, Sambar, Nilgai, Gaur (Indian Bison), and wild boar.
 - The key predator is the tiger, followed by leopard, wild dogs, and wolf.
 - There are over 325 species of resident and migratory birds, including the Malabar Pied Hornbill, Indian Pitta, Osprey, Grey-Headed Fishing Eagle, White-Eyed Buzzard, etc.

4. PM-eBus Sewa Scheme

- The Union Housing and Urban Affairs Minister recently said that the Ministry has floated tenders for procuring buses under the PM-eBus Sewa scheme.

About PM-eBus Sewa Scheme:

- Under the PM-eBus Sewa Scheme, 10,000 e-buses will be deployed across cities in the country.
- The scheme was introduced to give a push to the slow adoption of e-buses in public transport.
- Support for Operation:
 - Under this scheme, city bus operations will be done on a Public Private Partnership (PPP) model.
 - This scheme will support bus operations for 10 years.
 - States/Cities shall be responsible for running the bus services and making payments to the bus operators.
 - The Central Government will support these bus operations by providing subsidies to the extent specified in the proposed scheme.
- Funding:
 - It has been allocated a total funding of Rs 57,613 crore.
 - Out of this financial provision, the central government will contribute Rs 20,000 crore, while the remaining portion will be covered by the state governments.
- Coverage: It will cover cities with a population of 300,000 and above and will include all the capital cities of the 'Union Territories, North Eastern Region, and Hill States'.
- There are two segments of the scheme: Augmenting the city bus services and Associated Infrastructure, and Green Urban Mobility initiatives.
 - Augmenting the city bus services and Associated Infrastructure: Under this segment, the scheme will augment city electric bus operations by extending Central Assistance (CA) for 10,000 electric bus operation on Public Private Partnership (PPP) model, bus depots and behind-the-meter power infrastructure.

- Green Urban Mobility Initiatives (GUMI): Under this segment, the scheme will support the implementation of GUMI projects for complementing bus services and demonstrating a reduction in Greenhouse Gas (GHG) emissions in urban areas.
- The segment will include support for implementing the National Common Mobility Card (NCMC)-based Automatic Fare Collection System (AFCS), bus priority infrastructure, etc.

5. Himalayan Wolf

- Himalayan Wolf has been assessed for the first time in the International Union for Conservation of Nature (IUCN)'s Red List and categorised as 'Vulnerable'.

About Himalayan Wolf:

- The Himalayan Wolf (*Canis lupus chanco*), a prominent lupine predator found across the Himalayas.
- It is also called Tibetan wolves, which live at more than 4,000 metres altitudes and are genetically distinct from grey wolves.
- Living at such high altitudes, these wolves have genetically adapted themselves to live in low oxygen (hypoxic) conditions.
- Distribution:
 - In China, the Himalayan wolf lives on the Tibetan Plateau in the provinces of Gansu, Qinghai, Tibet, and western Sichuan.
 - In northern India, it occurs in the Union Territory of Ladakh and in the Lahaul and Spiti region in northeastern Himachal Pradesh.
- Conservation status:
 - IUCN: Vulnerable
 - CITES: Appendix I
 - Wildlife Protection Act, 1972: Schedule I
- Threats: It is illegally hunted for trade in its fur and body parts including paws, tongues, heads, and other parts.
- Measures to be taken to enhance the protection of Himalayan wolves
 - Securing and restoring healthy wild prey populations and landscapes and setting aside wildlife habitat refuges;
 - Improving livestock guarding methods, such as predator-proof corral pens and using sustainable livestock herding practices, including reduced livestock loads, adapted herding, and developing novel but tradition-based holistic management practices
 - Management of feral dog populations
 - Trans-boundary efforts in conservation of the species in range countries through research and monitoring.

ANSWER WRITING

What do you understand by critical information infrastructure and why is it important to secure it? Discuss existing institutional and legislative frameworks in India to guard against cyber threats.

The Information Technology Act of 2000 defines 'Critical Information Infrastructure' as a 'computer resource, the incapacitation or destruction of which shall have debilitating impact on national security, economy, public health or safety'. The government, under the Act, has the power to declare any data, database, IT network or communications infrastructure as CII to protect that digital asset.

Need to secure critical information infrastructure(CII):

- Multiplier effect of disruption: IT resources form the backbone of countless critical operations in a country's infrastructure, and given their interconnectedness, disruptions can have a cascading effect across sectors.
 - For example: Failure at a major power grid can lead to prolonged outages crippling other sectors like healthcare, banking services, etc.
- Security of nation: As an attack on CII can undermine security of a nation by disrupting critical services dependent on access to information infrastructure.
 - For example, Stuxnet computer virus disrupted the Iranian nuclear program by damaging centrifuges used to separate nuclear material
- To prevent cyber-attack and economic loss: In recent years, cyber-attacks on the CII of banks, hospitals, nuclear power plants, IITs have increased.
 - In October 2020, due to a China linked cyber-attack, the electric grid supply to Mumbai suddenly broke down hitting the mega city's hospitals, trains and businesses.

Institutional and legislative framework in India to guard against cyber threats:

- National Cyber Security policy (2013): The goal of this policy is to guarantee safe and reliable cyberspace for individuals, organizations, and the government.

- Computer Emergency Response Team (CERT-In): It operates as an automated cyber threat exchange platform to proactively collect, analyze and share tailored alerts with organizations across sectors for proactive threat mitigation actions by them.
- National Critical Information Infrastructure Protection Centre (NCIIPC): It is the nodal agency for taking all measures to protect the nation's critical information infrastructure.
- National Cyber Coordination Centre (NCCC): It generates necessary situational awareness of existing and potential cyber security threats and enable timely information sharing for proactive, preventive and protective actions by individual entities.
- Indian Cyber Crime Coordination Centre (I4C): It provides a framework and eco-system for law enforcement agencies for dealing with Cybercrime in a coordinated and comprehensive manner.

Conclusion

In order to deal with challenges related to cyber security a division has been established under the Ministry of Home Affairs to deal with Cyber and Information Security. But apart from these a comprehensive cyber security strategy is need of hour to deal with emerging challenges related to it.

MCQs

- Consider the following protected areas:
 - Nagarhole National Park
 - Sathyamangalam Tiger Reserve
 - Wayanad Wildlife Sanctuary
 How many of above Protected Areas are located in the Cauvery basin?

(a) Only one (b) Only two
(c) **All three** (d) None of these
- Right to reside is provided under which constitutional provision:

(a) **Article 19** (b) Article 14
(c) Article 20 (d) Article 21
- Consider the following sphere/areas:
 - Construction of base road
 - Improvement of agricultural soil
 - Production of cement
 Steel slag can be used as a raw material in how many of aforementioned spheres/areas?

(a) Only one (b) Only two
(c) **All three** (d) None of these
- Consider the following pairs:
 - Bhogali Bihu: Assam
 - Uttarayan: Gujarat
 - Makarvilakku: Odisha
 How many of the above pairs are correctly matched?

(a) Only one (b) **Only two**
(c) All three (d) None
- Vultures which used to be very common in the Indian countryside some years ago are rarely seen nowadays. This is primarily attributed to

(a) Destruction of their nesting sites by new invasive species.
(b) **Diclofenac drug used by cattle owners for treating their diseased cattle.**
(c) Extreme weather events due to climate change.
(d) Widespread, persistent, and fatal disease among them.
- Which of the following protected areas has become India's first dark sky reserve?

(a) Papikonda National Park
(b) Pangolakha Wildlife Sanctuary
(c) Hemis National Park
(d) **Pench Tiger Reserve**
- 'It is the second-largest mangrove forest in India after the Sundarbans in West Bengal. It is the breeding place for the endangered saltwater crocodiles which are the prime attractions of the sanctuary. The sanctuary lies in the estuarial region of Brahmani-Baitrani with the Bay of Bengal lying in the East.'
Which of the following wildlife sanctuaries is best described in the paragraph given above?

(a) **Bhitarkanika Wildlife Sanctuary**
(b) Chilika Wildlife Sanctuary
(c) Ushakothi Wildlife Sanctuary
(d) Debrigarh Wildlife Sanctuary
- Consider the following statements with reference to the Millets:
 - They are a group of cereal grains that belong to the Poaceae family.
 - Finger millet boasts the highest calcium content of all cereal grains.
 - They are a gluten-free grain making them a viable choice for people with celiac disease.
 How many of the statements given above are incorrect?

(a) Only one (b) Only two
(c) All three (d) **None**
- Consider the following statements with reference to the Uniform Civil Code:

It refers to a common set of laws on marriage, divorce and inheritance that would be applicable to all Indian Citizens.
Article 44 of the Constitution contains the provision related to the Uniform Civil Code.
Which of the statements given above are correct?

(a) 1 only (b) 2 only
(c) **Both 1 and 2** (d) Neither 1 nor 2
- Consider the following statements regarding prehistoric Dancing Girl sculpture.
 - The Dancing Girl figurine was discovered in Mohenjodaro after India's independence.
 - The sculpture was made in lost-wax casting method.
 - Even though Mohenjodaro and Harappa became part of Pakistani territory after the Partition, the Dancing Girl remained in India as part of an agreement.
 How many of the above statements are correct?

(a) Only one (b) **Only two**
(c) All three (d) None