

GS PAPER-2- GOVERNMENT POLICIES AND INTERVENTIONS FOR DEVELOPMENT IN VARIOUS SECTORS AND ISSUES ARISING OUT OF THEIR DESIGN AND IMPLEMENTATION**Draft Digital Competition Bill**

The Ministry of Corporate Affairs formed a Committee on Digital Competition Law (CDCL) to study the necessity of a new law for competition in digital markets. After a year of discussion, the CDCL decided to add an ex-ante framework to the existing Competition Act, 2002.

Ex-ante competition regulation is uncommon. The European Union is the only place where a comprehensive ex-ante competition framework, known as the Digital Markets Act, is currently enforced.

What does “ex-ante framework” mean?

The Competition Act, 2002 currently operates reactively, with the CCI intervening after anti-competitive behavior has occurred. The proposed ex-ante framework for digital markets would enable the CCI to prevent such conduct proactively before it occurs.

What are the reasons behind proposing “ex-ante framework”?

- 1) **Economies of Scale and Scope** -Digital enterprises benefit from economies of scale and economies of scope, reducing production costs per unit and total costs with increased services. This accelerates their growth compared to traditional market players.
- 2) **Network Effects**-It also enhances utility of digital services as user numbers increase.
- 3) **Effective Regulatory Framework** -Markets can quickly and irreversibly favor established players. The current framework is slow that allows offenders to evade scrutiny.
- 4) **Monopolistic Tendencies**-A group of Indian startups has backed the draft Bill, arguing that it would address concerns about monopolistic practices by big tech.

What are the key features of the draft Digital Competition Bill?

- 1) **Dominant Digital Enterprises**-It is inspired by the EU’s Digital Markets Act. The bill focuses only on “dominant” digital enterprises rather than all. It identifies ten key digital services such as search engines and social networking platforms.
- 2) **Criteria for Determining Digital Dominance**-It establishes clear rules for the CCI to determine if digital companies are dominant. It considers financial strength through the “significant financial strength” test and market presence in India through the “significant spread” test.
- 3) **Designation of SSDEs**- The CCI can designate “systemically significant digital enterprises (SSDEs)” even if they don’t meet quantitative criteria.
- 4) **Restriction on SSDEs**-
 - A) They must operate fairly, non-discriminatively, and transparently with users. The draft Bill prohibits SSDEs from self-preferencing, restricting third-party app availability, and blocking user settings changes.
 - B) They cannot use user data from one service to benefit another or unfairly leverage non-public user data.

Why has the draft bill been opposed?

- 1) **Ex-Ante Regulatory Model in India** -There are doubts about how well an ex-ante regulatory model will work in India, as it seems to be copied from the EU without considering the differences between these regions.
- 2) **Lack of Evidence**-There’s no evidence that this regulatory approach has succeeded in the EU, which raises doubts about its efficacy in India.
- 3) **Impact on Investment**- It could deter investments in Indian startups. This is because startups may avoid scaling up to avoid crossing quantitative thresholds.
- 4) **Impact on MSMEs**- Limitations on tying, bundling, and data usage could harm Micro, Small, and Medium Enterprises (MSMEs) that depend on big tech to reduce expenses and reach more customers.

GS PAPER3-SECURITY**Challenges in Reducing Tensions in the J&K Region**

The articles discuss recent terrorist attacks in Jammu and Kashmir, attributing them to Pakistan-sponsored groups. They mention India’s security challenges and diplomatic efforts to address this ongoing conflict, amidst changing regional dynamics and internal pressures within Pakistan.

How Severe Is the Terrorism Threat in the J&K Region?

1. **Recent Attacks:** In the last two days, seven security personnel were killed, following four attacks in June. These include an ambush in Badnota village, killing five army personnel.
2. **Continued Sponsorship:** Despite international scrutiny, Pakistan continues to support terrorist groups operating in Jammu and Kashmir.
3. **Evolving Threats:** New terror groups and strategies, such as targeting the Rajouri-Poonch area, show an adaptation in terrorist operations, increasing the complexity of the threat.

How Has the Situation Affected Perceptions?

1. **Shattered Complacency:** Recent terror attacks have disrupted the previous perception of Pakistan’s restraint, particularly among India’s strategic community. This reflects a shift in the perceived effectiveness of past peace initiatives and muscular policies.
2. **Misjudged Stability:** The belief that revoking J&K’s special status had largely contained the Pakistan problem is challenged by continued attacks. This indicates that major policy moves have not resolved the underlying issues.

What Are the Challenges in Reducing Tensions in J&K Region?

1. **Persistent Terrorism:** Despite international scrutiny and India’s strong security measures, Pakistan-sponsored terrorism continues unabated, as evidenced by recent fatal attacks on security forces.
2. **Diplomatic Limitations:** The slogan “terror and talks cannot go together” has become a public and political mantra in India, reducing the government’s flexibility in pursuing diplomatic talks with Pakistan.
3. **Pakistan’s Internal Politics:** Political turmoil and military dominance in Pakistan complicate any potential diplomatic engagement. The stand taken by former Prime Minister Imran Khan against trading with India adds to the challenges.
4. **Reduced Local Intelligence:** The redeployment of troops to the Eastern Ladakh border following the 2020 standoff with China has led to a significant gap in local intelligence in Jammu and Kashmir, affecting the effectiveness of security operations and increasing vulnerability to terrorist tactics.

What Are the Implications for Security?

1. **Increased Security Risks:** Recent terror attacks, including the ambush in Badnora village that killed five army personnel, highlight increased security risks for forces operating in Jammu and Kashmir.
2. **Strained Resources:** The redeployment of a large number of troops to the Eastern Ladakh border has created a vacuum in local security, reducing the effectiveness of intelligence and response capabilities in Jammu and Kashmir.
3. **Adaptive Terror Tactics:** Terrorists are utilizing modern technology and shifting focus to less guarded regions like Rajouri-Poonch, complicating security operations.

What Should India Do Next?

1. **Enhance Security Protocols:** India should tighten security measures, especially in vulnerable areas like Rajouri-Poonch, where recent shifts in terrorist activities have been noted.
2. **Diplomatic Engagement:** Despite the challenges, India should seek diplomatic avenues to reduce tensions, possibly resuming quiet talks that have sporadically occurred.
3. **Counter-Terrorism Strategies:** Strengthen counter-terrorism tactics, including the use of advanced technology to bridge the intelligence gaps caused by troop redeployments to other regions.
4. **International Pressure:** Continue efforts to isolate Pakistan internationally, focusing on its role in sponsoring terrorism, while addressing anti-India rhetoric effectively at global forums.

GS PAPER3-SCIENCE AND TECHNOLOGY

Issues with India’s R&D expenditure

The article emphasizes the need for increased investment in science and technology in India. It suggests reforms like merging scientific institutions, mandating private sector R&D spending, and excluding building costs from R&D figures to boost innovation and development.

What is the current state of R&D spending in India?

Current R&D Spending: India currently allocates only 0.6% to 0.7% of its GDP to research and development, significantly lower than the targeted 2%.

What are the issues with India’s R&D expenditure?

1. **Low R&D Expenditure:** India’s spending on R&D is significantly lower than many other countries, standing at just 0.6% to 0.7% of GDP, compared to countries like the US (2.8%), China (2.1%), Israel (4.3%), and South Korea (4.2%).
2. **Disproportionate Government Spending:** The government sector accounts for 56% of India’s total R&D expenditure. This is much higher than in other nations, where private sector involvement is more prominent, like in China (15%), Germany (14%), the UK (7%), and Japan (8%).
3. **Capital Expenditure Bias:** A large portion, 44%, of India’s R&D budget is allocated to capital development, such as infrastructure and land acquisition, which contrasts sharply with countries like the UK and the US where virtually none of the R&D budget goes to such expenditures.

What lessons can India learn?

1. **Lessons from Other Countries**

Increase R&D Funding: As seen with China, which raised its R&D investment from 0.7% of GDP in the 1990s to 2.1% currently. In 2019, China’s R&D spending reached USD 525.7 billion in PPP terms, vastly exceeding India’s USD 58.7 billion in 2018.

1. **Lessons from India's Own Successes**
2. **Autonomy in Key Sectors:** India's success in space and atomic energy is largely due to the autonomy given to the Space Commission and the Atomic Energy Commission. These bodies are free from bureaucratic delays, fostering more effective project execution.
3. **Integrated Leadership:** Effective leadership structures involving senior scientists and high-level government officials have proven successful, as seen with the empowered bodies managing space and atomic energy initiatives, leading to significant advancements.

What should be done?

1. **Promote Private Sector Involvement:** Encourage private sector participation by mandating companies to allocate 2% of their profits to R&D, similar to corporate social responsibility rules.
2. **Support State-Level Research:** Allow state governments to raise funds exclusively for R&D projects approved by the National Research Foundation. This will decentralize and enhance research capabilities across India.

GS PAPER-3- INDIAN ECONOMY AND ISSUES RELATING TO PLANNING, MOBILIZATION OF RESOURCES, GROWTH, DEVELOPMENT AND EMPLOYMENT

Implications of Angel Tax for Startups and Investment

The article discusses the issues associated with imposition of angel tax in India. The Department for Promotion of Industry and Internal Trade (DPIIT) is reportedly considering relief for startups from this tax.

What is India's 'angel tax'?

Angel tax in India, governed by Section 56(2)(viib) of the Income Tax Act since 2012, applies to startups that receive investments from angel investors above the fair market value of their shares. Any excess valuation is taxed as income for the startup.

What are the problems with the imposition of this tax?

- 1) **Flawed Assumptions-** A high share premium usually results from valid business decisions. For instance, if a company initially issued few shares at a low value but now has a much higher valuation, it can legally issue shares at a higher price per share under Indian law. However, such scenarios face scrutiny under angel tax regulations.
- 2) **Scrutiny Selection Process-** The tax department employs Computer-Aided Selection of Cases for Scrutiny (CASS). An examination of companies receiving notices indicates that one criterion for angel tax is whether a startup, despite facing early-stage losses, issued shares at a premium. These initial losses are common for startups and do not imply a lack of value creation.
- 3) **Issues with Implementation** – It is problematic when assessing officers compare startup projections with actual performance without considering deviations in valuation reports. New businesses operate under more uncertainty and the equity risk taken by investors covers it.

What is the impact of imposition of this tax?

- 1) **Startup Funding** – Startup funding dipped by an estimated 63% in 2023 compared to the previous year. 2023 saw the lowest amount of startup funding raised in six years.
- 2) **Non-Resident Investors-** Section 56(2)(viib) was extended to non-resident investors with certain exceptions. However, given that about 85% of Indian startup capital originates from abroad, this extension has been particularly detrimental.
- 3) **Impact on Investment**– It turns capital into taxable income, which goes against the goal of attracting more investment to the country.

What measures were taken by the government?

The Department for Promotion of Industry and Internal Trade (DPIIT) introduced relief measures in February 2019 exempting startups from the angel tax for shares issued up to ₹25 crore, provided certain conditions were met.

What are the issues with these measures?

3 restrictions severely impacted this exemption:

- A) Prohibition on giving loans and advances
 - B) Restriction on capital contributions to other entities
 - C) Limitations on investments in shares and securities
- 2) The restrictions last for seven years after the fund-raise. Since a firm can remain a DPIIT startup for 10 years, these rules can affect routine transactions for up to 17 years. Many startups chose not to take the 2019 exemption because of these strict conditions.

What should be the way forward?

- 1) Exclude unlisted companies from Section 56(2)(viib), mirroring the exclusion for listed companies. This will protect genuine startups from harassment while still allowing tools to catch fraudulent entities.
- 2) Removing Section 56(2)(viib) could reverse the decline in startup funding and boost confidence among entrepreneurs and investors. It wouldn't compromise India's efforts against unaccounted funds and could greatly benefit the Startup India initiative.

GS PAPER-3- STORAGE, TRANSPORT AND MARKETING OF AGRICULTURAL PRODUCE AND ISSUES AND RELATED CONSTRAINTS; E-TECHNOLOGY IN THE AID OF FARMERS**Draft National Policy on Farmer Producer Organisations**

The Department of Agriculture and Farmers' Welfare has recently introduced a draft National Policy on Farmer Producer Organisations (FPOs), aimed at consolidating existing FPOs and promoting the formation of new ones.

What are the challenges in India's agriculture sector?

- 1) **Fragmented Land Ownership**– Indian agriculture is hindered by fragmented land ownership, with small and marginal farmers owning about 85% of land holdings, according to NABARD. These small plots restrict the adoption of modern farm machinery and limit the value that small farmers can earn from their crops.
- 2) **Unorganized Farmers and Small Producers**– Farmers who are not organized lack the ability to negotiate effectively and face challenges storing crops for sale during the off-season. Small producers also cannot take advantage of cost savings from larger-scale production due to their limited inputs and output.
- 3) **Transparency in Agricultural Marketing** -In agricultural marketing, there's a long chain of middlemen, often lacking transparency, which means farmers receive only a small share of the final consumer price.

What is the significance of Farmer Producer Organizations in addressing these challenges?

- 1) **Institutional Support**-Each Farmer Producer Organisation (FPO), led by elected farmer directors, is owned by its members who share profits. These cooperatives receive support from institutions like NABARD and government departments for finance and technical expertise.
- 2) **Support Agricultural Operations** -FPOs streamline operations, cutting out middlemen that can harm farmers. By pooling resources, farmers can improve yields and get better prices for their crops.
- 3) **Enhancing Farmer Bargaining Power** -FPOs strengthen farmers' bargaining power with buyers and suppliers. They procure inputs, provide market information, facilitate access to finance, and provide storage and processing facilities.
- 4) **Marketing Support**– FPOs assist in branding, packaging, and marketing produce to larger buyers.

What are the provisions of the new draft Policy on Farmer Producer Organizations?**1) Objective-**

- A) To consolidate existing FPOs and promote the formation of new ones.
- B) To create an ecosystem that supports income-oriented farming and enhances the overall well-being of farmers.

2) **Operation**– It plans to establish seven to eight active primary-level FPOs in each of the 7,256 blocks in India, with an average membership of 500 farmers per FPO.

3) **Supply Chain Model**-The policy suggests a three-tiered supply chain model, inspired by Amul's successful milk model, for agricultural and horticultural produce. This model covers value addition, processing, and marketing, targeting both domestic and international markets.

4) **Credit & Financing**- It includes funds like the FPO equity grant fund and FPO formation fund, along with support from the Agriculture Infrastructure Fund scheme. This support includes interest subsidies and credit guarantees.

What is the significance of the new policy?

- 1) The policy will benefit around 25 million farmers nationwide, boosting their income through simpler agribusiness operations and more efficient production practices.
- 2) It will enhance the value of agricultural and horticultural produce for farmers, benefiting both domestic sales and exports.
- 3) It will tackle the problem of inefficient management in FPOs, including challenges in hiring and keeping skilled managers.

GS PAPER-3- AWARENESS IN THE FIELDS OF IT, SPACE, COMPUTERS, ROBOTICS, NANO-TECHNOLOGY, BIO-TECHNOLOGY AND ISSUES RELATING TO INTELLECTUAL PROPERTY RIGHTS**Critical and Emerging Technologies (iCET)**

The iCET initiative reflects broader U.S. strategic interests, as highlighted in a Senate report urging closer military ties with India to reduce dependence on Russian weapons.

This aims to integrate India into global supply chains for advanced military technology, reducing dependence on other countries strategically. However, it faces several structural challenges despite positive talks between national security advisors of both countries.

What challenges does the iCET initiative face in its execution between India and the U.S.?

- 1) **Autonomy of U.S. Defence Companies**– U.S. defence firms do not want to transfer technology due to stringent intellectual property rights (IPR) protection and export control laws. They are cautious about sharing military technologies, even in joint ventures that align with U.S. strategic interests.
- 2) **Limited Technology Transfer**-Negotiations have secured technology transfers for projects like manufacturing GE F-414 engines and assembling MQ-9 UAVs in India. However, critical know-how remains restricted.

For ex- General Electric agreed to transfer about 80% of the technology to Hindustan Aeronautics Limited for engine production, but critical aspects like metallurgy for turbine discs are not included

3) **Mercantile Concerns** – U.S. defense vendors are accountable to shareholders driven by commercial interests, which limits their willingness to share technology. These commercial concerns, combined with bureaucratic challenges, were the reasons behind the failure of the 2012 Defence Technology and Trade Initiative (DTTI) between India and the U.S

4) **Prohibition on “Jugaad”**- India’s agreements with the U.S. before acquiring these defence assets limited their use of the innovative jugaad approach. Also, most purchases through the Foreign Military Sales (FMS) route were subject to the strict ‘Golden Sentry’ program, which does not allow for jugaad adaptations.

How does the jugaad approach contribute to India’s military strategy concerning the iCET initiative?

The jugaad approach involves innovative adaptation of imported platforms by India’s military to enhance operational capabilities. Jugaad has allowed Indian forces to optimize foreign equipment for diverse terrain and climatic conditions.

For ex– it enabled Chetak and Cheetah helicopters, mainly French Alouette III and SA-315B Lama models, to operate at altitudes above 14,000 feet in the challenging Siachen glacier region.

What should be the way forward?

1) Domestic defense officials should push for integrating jugaad principles into iCET projects. Allowing flexibility in modifying U.S. platforms could enhance their effectiveness in Indian contexts.

2) It is essential to overcome bureaucratic inertia and prioritize effective implementation of initiatives like iCET rather than merely focusing on discussions.

PRELIM FACT

1.Integrated Tribal Development Programme

The Integrated Tribal Development Programme is a key initiative by NABARD (National Bank for Agriculture and Rural Development) aimed at promoting sustainable livelihoods for tribal communities.

About Integrated Tribal Development Programme

1. This is a major initiative by NABARD focused on sustainable tribal livelihoods.

2. The programme is based on the ‘wadi’ model of tribal development, which has been developed with the help of both national and international development agencies.

3. Funding: Projects under this programme are funded through the Tribal Development Fund.

4. Objectives of the Tribal Development Fund:

i) **Integrated Development:** To create replicable models of integrated development for tribal families through sustainable income-generating activities based on the area’s potential and tribal needs.

ii) **Institution Building:** To build and strengthen tribal institutions, enabling communities to participate in policy formulation, program execution, and improve their social and economic status.

iii) **Producers’ Organizations:** To build and strengthen producers’ organizations.

About NABARD

1. NABARD is a financial institution set up by the Indian government to promote sustainable agriculture and rural development. It is the main regulatory body for the rural banking system in India.

2. NABARD was established in 1982 as a central regulating body for agriculture financing and rural development. It was set up under the National Bank for Agriculture and Rural Development Act of 1981.

3. Objective: To promote agriculture and rural development through participative financial and non-financial interventions, innovations, technology, and institutional development to ensure prosperity.

5. Activities for Rural Development:

i) Providing refinance support to banks.

ii) Improving rural infrastructure.

iii) Supervising Regional Rural Banks (RRBs) and Cooperative Banks.

2.Biligiri Rangaswamy Temple (BRT) Tiger Reserve

The Karnataka Forest Department has recently started collecting a green tax from vehicles entering BR Hills through BRT Tiger Reserve.

About Biligiri Rangaswamy Temple (BRT) Tiger Reserve

Aspects	Description
About	The BRT Tiger Reserve is located in the Chamarajanagar district of Karnataka State. The reserve is named after the “Biligiri,” a white rocky cliff that has a temple of Lord Vishnu, locally known as Rangaswamy. The BRT Wildlife Sanctuary was declared a Tiger Reserve in 2011.

Gographical Location	This unique bio-geographical entity is situated between the Western Ghats and the Eastern Ghats in South India. It was established as a Wildlife Sanctuary in 1974.
Vegetation	The forests are mainly of the dry deciduous type. They are interspersed with moist deciduous, semi-evergreen, evergreen, and shola patches at varying altitudes.
Flora	Major species include Anogeissus latifolia, Dalbergia paniculata, Grewia teliaefolia, Terminalia alata, Terminalia bellirica, and Terminalia paniculata.
Fauna	The Tiger Reserve is home to a variety of animals including tigers, elephants, leopards, wild dogs, bisons, sambars, spotted deer, barking deer, four-horned antelopes, sloth bears, wild boars, common langurs, bonnet macaques, and various reptiles and birds.

3.ONGC's Plan to Achieve Net Zero Emissions by 2038

State-owned Oil and Natural Gas Corporation (ONGC) will invest around Rs 2 lakh crore to achieve net-zero carbon emissions by 2038.

About the ONGC's Plan to Achieve Net Zero Emissions by 2038

- 1. Targets:** By 2030, ONGC will invest Rs 97,000 crore in renewable energy projects, including solar and offshore wind. An additional Rs 65,500 crore will be invested by 2035 mainly in green hydrogen and green ammonia plants.
- By 2038, another Rs 38,000 crore will be spent primarily on setting up 1 GW of offshore wind projects.
- These projects will help offset 9 million tonnes of carbon emissions, including both direct (Scope 1) and indirect (Scope 2) emissions.
- ONGC plans to invest Rs 5,000 crore to eliminate gas flaring by 2030 using advanced technology. In the base year 2021-22, ONGC released 554 million cubic metres of methane into the atmosphere.
- 5. Solar and Wind Energy Projects:** ONGC will spend Rs 30,000 crore to establish 5 GW solar parks and wind turbines by 2030. It will add 1 GW of solar and onshore wind capacity by 2035 and 2038, costing Rs 5,000 crore each.
- 6. Green Hydrogen and Ammonia Projects:** The company will invest Rs 40,000 crore by 2030 and a similar amount by 2035 to develop two 180,000 tonnes per annum green hydrogen or 1 million tonnes green ammonia projects.
- 7. Offshore Wind Projects:** ONGC aims to install offshore wind turbines to generate 0.5 GW of electricity by 2030, with an investment of Rs 12,500 crore. This capacity will double by 2035 with an additional Rs 12,000 crore investment. By 2038, another 1 GW of offshore wind energy will be added, costing Rs 25,000 crore.
- 8. Pump Storage Plants:** The company plans to invest Rs 20,000 crore to set up 3 GW of pump storage plants to provide electricity when renewable sources are not available.
- The remaining investment will be directed towards biogas, carbon capture, and other clean energy initiatives.

High Seas Treaty and its significance

The Indian government has announced that it will soon sign and ratify the High Seas Treaty.

About High Seas Treaty

- The High Seas Treaty is an international legal framework designed to protect and sustainably use marine biodiversity and other resources in ocean waters beyond national jurisdiction.
- These areas are known as high seas or international waters and make up about 64% of the total ocean area.
- This treaty aimed at maintaining the ecological health of the oceans by reducing pollution and conserving marine biodiversity.

2. Scope of the Treaty:

- The treaty deals with oceans outside the national jurisdiction of any country.
- National jurisdictions typically extend up to 200 nautical miles (370 km) from the coastline, known as exclusive economic zones (EEZs). High seas are the areas beyond these EEZs.

4. International Governance: The treaty complements the 1982 UN Convention on Laws of the Seas (UNCLOS) which provides broad frameworks for the use and conservation of oceans but does not specify how to achieve these objectives.

5. Objectives of the Treaty:

- i) Conservation and Protection:** Establishes Marine Protected Areas (MPAs) similar to national parks or wildlife reserves.
- ii) Fair and Equitable Sharing:** Ensures that benefits from marine genetic resources are shared among all countries.
- ii) Environmental Impact Assessments (EIAs):** Mandates EIAs for activities that could harm marine ecosystems, with the results made public.

iv) **Capacity Building and Technology Transfer:** Aims to help developing countries benefit from marine resources while contributing to conservation efforts.

6. **Ratification Process:** The treaty will come into force once 60 countries ratify it. Ratification means a country agrees to be legally bound by the treaty, which often requires legislative or executive approval.

7. **India's Involvement:**

i) India participated in nearly 20 years of negotiations that led to the treaty's finalization.

ii) India's decision to sign and ratify the treaty aligns with the actions of 91 other countries that have signed, and eight that have ratified it so far.

ANSWER WRITING

Q. Discuss how government-controlled buffer stocks of essential food items can stabilise prices and support economic stability in India.

Buffer stocks are reserves of essential commodities maintained to manage supply and demand fluctuations. Introduced in India during the 4th Five Year Plan (1969-74), they ensure food security, economic stability, and price control. For instance, buffer stocks of rice and wheat maintained by the Food Corporation of India (FCI) ensure consistent availability of these staples during adverse conditions, supporting food security and price stability.

Role of Government-Controlled Buffer Stocks in Stabilising Food Prices:

- **Release During Shortages:** Buffer stocks are released during periods of shortage to **boost supply and stabilise prices**, ensuring **availability**.

For example: During the **onion price spike in 2019**, the Indian government released buffer stocks to increase supply, control prices, and prevent inflation, ensuring onions remained **affordable**.

- **Preventing Price Spikes:** By maintaining buffer stocks, the government can **prevent drastic price spikes** during supply shortages, balancing **market demand**.

For example: In **2020**, the government released **pulses** from buffer stocks to stabilise prices, ensuring pulses remained available and affordable despite **production shortfalls**.

- **Smoothing Price Fluctuations:** Buffer stocks help smooth out extreme price fluctuations by **regulating supply and demand** dynamics in the market.

- **Reducing Inflation:** Buffer stocks curb inflation by increasing **market supply** during shortages, thus preventing excessive price increases.

For example: The release of **wheat and rice** stocks in **2021** helped control rising food inflation in India, ensuring **staple grains** remained **affordable** for consumers

- **Supporting Farmers:** Buffer stocks support farmers by ensuring a **stable market**, preventing **price crashes** due to **oversupply**, and providing **price stability**.

For example: The government procured **excess milk** and converted it into **skimmed milk powder (SMP)** to stabilise **milk prices** for farmers, preventing **financial losses** due to oversupply.

Government-Controlled Buffer Stocks and Economic Stability in India:

- **Food Security:** Buffer stocks ensure **consistent access** to essential food items, promoting **national food security and stability**.

For example: During the **COVID-19 pandemic**, essential items were distributed to ensure food availability for the poor, preventing hunger and ensuring food security.

- **Economic Stability:** Buffer stocks **prevent economic shocks** by stabilising prices and maintaining **market balance**, contributing to economic stability.

For example: The release of buffer stocks during the **2018 drought** in **Maharashtra** helped stabilise prices and support economic stability, preventing economic distress in the region.

- **Climate Resilience:** Buffer stocks mitigate the impact of **climate-induced supply shocks** on food availability, enhancing climate resilience.

- **Supporting Farmers:** By **procuring excess produce** during **surplus years**, buffer stocks provide farmers with a stable market and **fair prices**, contributing to **rural economic stability**.

- **Sustaining Welfare Programs:** Buffer stocks ensure the **smooth operation** of welfare schemes, which are crucial for economic stability by supporting **vulnerable populations** and **maintaining social stability**.

For example: The **Pradhan Mantri Garib Kalyan Anna Yojana (PMGKY)** relied on buffer stocks to distribute food to the poor during the **COVID-19 pandemic**, ensuring economic and social stability by preventing hunger and deprivation.

As India faces increasing climate-induced volatility and economic challenges, government-controlled buffer stocks will be pivotal in stabilising prices and supporting economic stability. By ensuring consistent supply, mitigating inflation, and supporting welfare schemes, these buffer stocks will enhance food security and economic resilience, driving sustainable development and fostering a stable economic environment in the future.

MCQS

1. Integrated Tribal Development Programme is a key initiative by which of the following organization
 - a) **NABARD**
 - b) SBI
 - c) UNION BANK OF INDIA
 - d) FEDERAL BANK
2. Biligiri Rangaswamy Temple (BRT) Tiger Reserve located in which of the following state?
 - a) Odisha
 - b) Andhra Pradesh
 - c) Tamil nadu
 - d) **karnataka**
3. Consider the following statements about high seas treaty
 1. The High Seas Treaty is an international legal framework designed to protect and sustainably use marine biodiversity and other resources in ocean waters beyond national jurisdiction.
 2. The treaty deals with oceans outside the national jurisdiction of any country.
 Which of the above statements are incorrect?
 - a) 1 only
 - b) 2 only
 - c) Both 1 and 2
 - d) **None**
4. What are the potential agricultural benefits of using 'Silica Nanoparticles (SiNPs)' in soil?
 1. Enhanced nutrient availability
 2. Improve pest and disease resistance
 3. Improved soil structure
 4. Nanocarriers for plant genetic modification
 Select the answer using the code given below:
 - a) 1 and 2 only
 - b) 2 and 4 only
 - c) 1, 2 and 3 only
 - d) **1, 2, 3 and 4**
5. Which of the following statements are correct about Biodiversity Beyond National Jurisdictions (BBNJ) Agreement?
 1. It is an international treaty under the United Nations Convention on the Law of the Sea (UNCLOS).
 2. The treaty allows countries to claim sovereign rights over marine resources derived beyond national boundaries.
 3. It will be an international legally binding treaty after it enters force 120 days after the 60th ratification.
 Select the answer using the code given below:
 - a) 1 and 2 only
 - b) 2 and 3 only
 - c) **1 and 3 only**
 - d) **1, 2 and 3**
6. Which of the following brings out the Financial Inclusion Index?
 - a) **Reserve Bank of India (RBI)**
 - b) Ministry of Finance
 - c) National Bank for Agriculture and Rural Development (NABARD)
 - d) NITI Aayog
7. Zombie start-ups are companies that:
 - a) Have been acquired by larger corporations but continue to operate under their original name.
 - b) Are no longer operational but still exist on paper.
 - c) **Have enough funding to continue operations but lack significant growth or innovation.**
 - d) Have been declared bankrupt but continue to operate in a limited capacity.
8. Which of the following languages have been granted classical status in India?
 1. Malayalam
 2. Telugu
 3. Odia
 4. Bengali
 5. Hindi
 Select the correct answer using the code below:
 - a) **1, 2 and 3 only**
 - b) 2, 3 and 4 only
 - c) 3, 4 and 5 only
 - d) 1, 2, 3, 4 and 5
9. Consider the following statements:
 1. Water microdroplets can carry electric charges.
 2. Water microdroplets are capable of engaging in chemical reactions.
 3. Water microdroplets can break down crystals like silica and alumina into nanoparticles.
 Which of the statements given above are correct?
 - a) 1 and 2 only
 - b) 2 and 3 only
 - c) 1 and 3 only
 - d) **1, 2 and 3**
10. The purpose of designating some companies as Systemically Significant Digital Enterprises (SSDEs) is to:
 - a) Promote innovation among large tech companies
 - b) Increase tax revenue from digital businesses
 - c) **Regulate dominant digital platforms and prevent anti-competitive practice**
 - d) Encourage foreign investment in the digital sector