



India's Concerns on EU's CBAM and Deforestation Norms

For Prelims: [European Union](#), [Carbon Border Adjustment Mechanism \(CBAM\)](#), European Union Deforestation Regulation (EUDR), [Carbon Price](#), [EU Emissions Trading System \(ETS\)](#), [Trade Barrier](#), [Green Steel](#), [Carbon Leakage](#), [Intellectual Property Rights](#), [Trade Secrets](#), [World Trade Organization](#), [Non-Tariff Barrier \(NTBs\)](#), [India-EU FTA](#), [Clean Technologies](#).

For Mains: European Union's Carbon Border Adjustment Mechanism (CBAM), European Union Deforestation Regulation (EUDR) and Related Concerns.

[Source: HT](#)

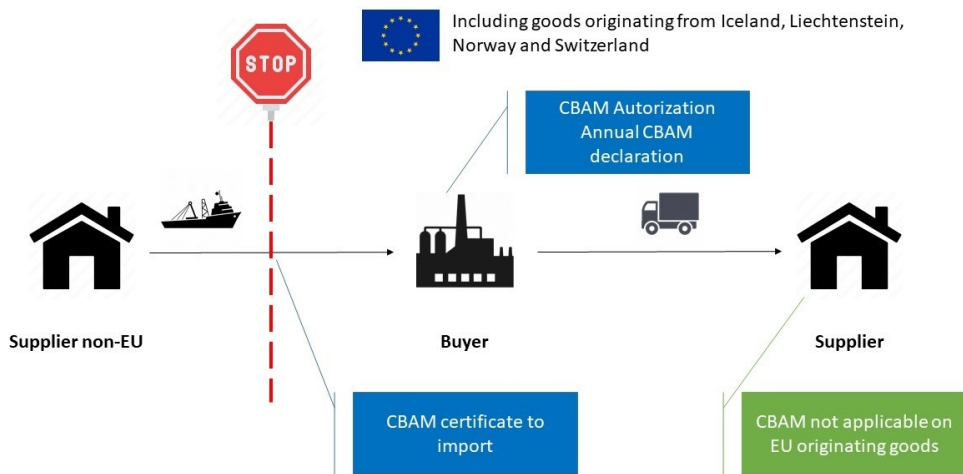
Why in News?

Recently, India's Finance minister termed the [European Union's Carbon Border Adjustment Mechanism \(CBAM\)](#) and [European Union Deforestation Regulation \(EUDR\)](#) as **unilateral, arbitrary and a trade-barrier** aimed at hurting Indian industries.

What is the EU's Carbon Border Adjustment Mechanism (CBAM)?

- **About CBAM:** It is the EU's tool to put a **fair price on the carbon emitted** during the production of **carbon intensive goods** that are entering the EU, and to encourage **cleaner industrial production** in non-EU countries.
 - It ensures that the [carbon price](#) for imports matches the carbon price applied to EU-produced goods, maintaining **fair competition**.
- **CBAM's Functioning Framework:**
 - **Registration and Certification:** EU importers of goods covered by CBAM will need to **register** with national authorities and **purchase CBAM certificates**, reflecting the carbon emissions embedded in their imports.
 - **Annual Declaration:** Importers will need to declare the **emissions embedded in their imported goods** and surrender the corresponding number of certificates annually.
 - **Payment of Carbon Price:** Importers need to prove that a **carbon price** has already been paid during production in a **non-EU country** to get the amount deducted from the CBAM payment.
- **Goods Covered by CBAM:** Initially, CBAM applies to **high-risk carbon leakage goods** such as **cement, iron and steel, aluminum, fertilisers, electricity and hydrogen**.
 - Over time, CBAM will capture more than **50% of emissions** from sectors covered by the [EU Emissions Trading System \(ETS\)](#) e.g., oil refineries, shipping etc.

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What is European Union Deforestation Regulation (EUDR)?

- **About EUDR:** Operators or traders placing specified commodities on the **EU market or exporting them** must prove their products do not come from **recently deforested land** or contribute to **forest degradation**.
- **Objectives of the Regulation:** The primary objectives include:
 - **Prevention of Deforestation:** Ensuring listed products in the EU do not contribute to deforestation or forest degradation.
 - **Carbon Emission Reduction:** Aiming for a **reduction** of at least **32 million metric tonnes of carbon emissions** annually from these commodities.
 - **Combat Forest Degradation:** Addressing deforestation and degradation caused by **agricultural expansion** related to these commodities.
- **Commodities Covered:** It focuses on commodities such as **cattle, wood, cocoa, soy, palm oil, coffee, rubber, and related products** (e.g., leather, chocolate, tires, furniture).
 - It aims to enhance **transparency and accountability** within supply chains linked to these commodities.

What are Key Concerns Related to EU's CBAM and EUDR?

- **CABM as a Trade Barrier:** CBAM could result in tariffs of **up to 35% on imports** of carbon-intensive goods like cement, aluminium, iron, and steel from India, acting as a **unilateral trade barrier**.
 - This is a significant issue, as over a **quarter of India's exports** of these materials in **2022** were directed to the **EU**.
- **CBAM as a Tool of Protectionism:** The EU imposes tariffs on carbon intensive steel imports while it continues to produce the **same kind of steel domestically**, using the **proceeds from CBAM** to fund its transition to **green steel production**.
 - CBAM is intended to prevent **carbon leakage**, a phenomenon where EU-based firms shift their carbon-intensive production to countries with **less stringent climate policies**.
- **Threat to Intellectual property rights (IPRs):** CBAM requires exporters to provide up to **1,000 data points** on production methods.
 - Indian exporters fear that the detailed data collection could not only **erode their competitive edge** but also risk exposing sensitive **trade secrets**.
 - A trade secret is any **practice or process** of a company that is generally **not known outside of the company**.
- **Impact on India's Trade Dynamics:** The EU represents approximately **14% of India's overall export mix**, which includes significant exports of **steel and aluminium**.
 - India's status as the **EU's third-largest trade partner** and its projected economic growth trajectories imply that the size of Indian exports, including those in CBAM-affected sectors,

will likely **increase over time**.

- **Disproportionate Impact:** The **carbon intensity** of Indian products tends to be **higher** than that of their European counterparts.
 - Consequently, the **carbon tariffs** imposed through CBAM would be proportionately higher for Indian exports.
- **Non-Compliance with WTO Norms:** Indian government raised concerns about whether CBAM complies with **World Trade Organization (WTO)** norms.
 - It creates uncertainty and additional challenges for countries like India despite meeting **international commitments**.
- **EUDR as Non-Tariff Barrier:** EUDR mandates that importers of commodities like **cattle, soy, palm oil, coffee, and wood** certify that their products do not come from recently deforested land or contribute to forest degradation.
 - India views this regulation as another form of **protectionism and a non-tariff barrier (NTBs)**.
 - A non-tariff barrier is a trade restriction other than a tariff. NTBs include quotas, **embargoes, sanctions, and levies**.
- **Barrier to Net-Zero Emissions Target:** CBAM imposed by the EU will hinder India meeting **net-zero carbon emission goal by 2070**.
- **Slowing FTA Negotiations:** Sustainability measures like CBAM and the EUDR have become **contentious issues** in the ongoing **India-EU FTA negotiations**.
- **Previous Tariff Barriers:** EU's steel tariffs have caused India **USD 4.41 billion in trade losses between 2018 and 2023**.
 - These steel tariffs were part of the EU's safeguard measures, which were initially set to expire in June 2023 but have been extended.
- **Potential for Global Policy Replication:** The implementation of CBAM may **prompt** other countries to **adopt similar regulations**, potentially leading to additional tariffs or regulations in major markets.
 - This trend could complicate India's trading relationships and impact its balance of payments.

Way Forward

- **Advocating for Fair Trade Practices:** India must advocate for **fair trade practices** and actively engage in **World Trade Organization (WTO)** discussions to challenge the legality of CBAM and EUDR under international trade laws.
- **Investing in Clean Technology:** India should accelerate investments in **clean technologies and sustainable production methods** to lower the carbon intensity of its exports, align with international standards, and mitigate the impact of **CBAM tariffs**.
- **Diversifying Export Markets:** Exploring new markets in **Asia, Africa, and Latin America** can reduce the potential economic impact of CBAM and EUDR.
- **Countering EU's CBAM:** India can counter such unilateral trade moves by imposing a **similar counter-measures** e.g., imposition of **additional tariffs** on products originating from EU countries.
 - Also, India should focus on **domestically producing** such goods to make itself **immune** from such **policy shocks** of other countries.
- **Monitoring Global Policy Trends:** India should monitor global policies like CBAM to anticipate challenges in international trade and proactively develop strategies to address emerging barriers and protect its economic interests.

Drishti Mains Question:

Discuss the potential challenges that India's industries might face due to the implementation of EU's Carbon Border Adjustment Mechanism (CBAM) and the European Union Deforestation Regulation (EUDR).

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q. Which of the following adopted a law on data protection and privacy for its citizens known as 'General Data Protection Regulation' in April, 2016 and started implementation of it from 25th May, 2018?(2019)

- (a) Australia
- (b) Canada
- (c) The European Union
- (d) The United States of America

Ans: (c)

Q. 'Broad-based Trade and Investment Agreement (BTIA)' is sometimes seen in the news in the context of negotiations held between India and (2017)

- (a) European Union
- (b) Gulf Cooperation Council
- (c) Organization for Economic Cooperation and Development
- (d) Shanghai Cooperation Organization

Ans: (a)

National Agriculture Code

For Prelims: [Bureau of Indian Standards](#), [National Building Code](#), [National Electrical Code](#), [Internet-of-Things](#), [International Organization for Standardization](#), International Electro-technical Commission.

For Mains: National Agriculture Code, Standardization in Agriculture, Agricultural Policies in India, Government Policies & Interventions.

Source: IE

Why in News?

The [Bureau of Indian Standards \(BIS\)](#) is in the process of formulating the **National Agriculture Code (NAC)**, an ambitious project that seeks to establish standards across the entire agriculture cycle.

- This initiative, modelled after the [National Building Code \(NBC\) of India 2016](#) and [National Electrical Code \(NEC\) of India 2023](#), aims to enhance agricultural practices and provide clear guidelines for farmers, policymakers, and other stakeholders.
- In conjunction with drafting the NAC, the BIS is establishing **Standardised Agriculture Demonstration Farms (SADF)** at select agricultural institutes.

Note: The tentative deadline for completing the NAC is set for October 2025.

What is the National Agriculture Code (NAC)?

- **Purpose:** The NAC aims to establish a **standardised framework for agricultural practices** across the entire agricultural cycle, from field preparation to storage of produce. It seeks to address areas that are **currently unregulated by existing standards**.
 - Currently, the BIS has established **standards for agricultural machinery** and inputs, but there remains a **significant gap in the regulation of agricultural practices**.
- **Scope:** The NAC will cover all agricultural processes, including **crop selection, land preparation, sowing, irrigation, soil health management, harvesting, post-harvest operations**, and storage.
 - It will also include standards for inputs like **fertilisers, pesticides, and weedicides**.
 - The NAC will incorporate standards for modern practices like **natural farming, organic farming**, and the use of **Internet-of-Things (IoT)** technology in agriculture.
- **Structure:** The code will be divided into **two parts**:
 - The first part will outline general **principles applicable to all crops**.
 - The second part will focus on **crop-specific standards** for various types of crops such as paddy, wheat, oilseeds, and pulses.
- **Objectives:** To create a **national code that considers agro-climatic zones**, crop types, socio-economic diversity, and all aspects of the agri-food value chain.
 - To foster a **quality culture in Indian agriculture** by guiding policymakers and regulators in incorporating NAC provisions into their schemes and regulations.
 - To provide a comprehensive guide for farmers, facilitating informed decision-making in agricultural practices.
 - To address horizontal aspects of agriculture, including **SMART farming**, sustainability, traceability, and documentation.
- **Guidance for Stakeholders:** The NAC will serve as a reference for farmers, agricultural universities, and policymakers, helping them make informed decisions and incorporate best practices into their operations.
- **Training and Support:** After the code is finalised, the BIS plans to provide training programs for farmers to help them understand and implement the standards effectively.

What are the Challenges in formulating a National Agriculture Code in India?

- **Diverse Agricultural Practices:** India has a wide range of **climates (15 agro-climatic zones) and soil types**, making it difficult to **create a one-size-fits-all set of standards**. Tailoring the NAC to accommodate these variations can be challenging.
- **State vs. Central Jurisdiction:** **Agriculture is a state subject** in India under the **Entry 14 of the State List in the Seventh Schedule** of the Constitution of India, which can lead to potential **conflicts between central and state regulations**.
 - Harmonising these laws while respecting state rights is a significant challenge.
- **Resource Constraints:** Many smallholder farmers may lack the resources or infrastructure to adopt new practices recommended by the NAC.
 - This includes access to **modern equipment, quality seeds, and efficient irrigation systems**.
 - Engaging these groups in the formulation process is essential to ensure acceptance.
- **Technological Barriers:** While the code aims to promote technology adoption, many farmers may lack access to the **necessary technology or skills**. Addressing these gaps is essential to realise the benefits of the code.
- **Data and Research Gaps:** There may be a lack of comprehensive data on **agricultural practices, yields, and market trends**, hindering evidence-based policy formulation. Addressing these gaps is crucial for creating an effective code.

What Can be Done to Address the Challenges in formulating NAC?

- **Customisation and Flexibility:** Develop region-specific guidelines within the NAC to address the diverse agro-climatic conditions across India.
 - Ensure the NAC is scalable and adaptable to different farm sizes and resource levels, from smallholder farms to large agricultural enterprises.
- **Environmental Considerations:** The code must address issues such as [land degradation](#), [water scarcity](#), and [climate change](#) while promoting agricultural growth.
- **Capacity Building:** Create hands-on training programs for farmers on the NAC and develop mobile apps like [Meghdoot](#) and platforms like [e-NAM](#) and [Kisanbandi](#) for real-time advice and information sharing.
- **Policy and Regulatory Support:** Establish a supportive legislative framework for the NAC to ensure enforceability and create incentive structures, like **tax benefits and recognition programs**, to reward farmers for compliance.

Agricultural Policy in Other Countries

- **Common Agricultural Policy (CAP):** Agriculture is the only sector in the [European Union \(EU\)](#) with a common policy, the CAP, provides subsidies, direct payments to farmers, supply controls, and overall support for farmers.
- **Growing Forward 2 (GF2):** It is a five-year federal-provincial-territorial policy framework for **Canada's agriculture and agri-food sector**. It focuses on innovation, competitiveness, and market development.

Standardised Agriculture Demonstration Farms (SADF)

- SADF farms will serve as experimental sites to test and implement various agricultural practices and new technologies in line with Indian Standards.
- These farms will offer a platform for extension officials, farmers, and industry professionals to learn about standardised agricultural practices, supported financially by the BIS.

What is the National Building Code of India?

- The NBC is a model code that provides comprehensive guidelines for all agencies involved in building construction.
 - It was first published in 1970, revised in 1983, and in 2005. The current version, **NBC 2016, was introduced to address the changing landscape of building construction.**
- **Key Provisions of the NBC 2016:** Emphasises the involvement of professionals for effective project execution and features a streamlined, **single-window approval process** that allows for enhancing the [ease of doing business](#) and promotes [Digitalization](#).
 - Accessibility requirements have been revised to accommodate [persons with disabilities](#). Enhanced **fire and life safety** measures are included, particularly for **complex buildings and high-rises**.
 - The code incorporates modern structural standards for safety against disasters and encourages the use of innovative materials and technologies to promote sustainability in construction.

What is the National Electrical Code (NEC) of India?

- The NEC is an all-inclusive **Electrical Installations Code** prepared by **BIS**, providing guidelines for regulating electrical installation practices across the country.
 - NEC was originally formulated in 1985 and revised in 2011 and 2023 to align with contemporary international practices.
- **Key Provisions of the NEC 2023:** Focuses on protective measures against electric shock, fire, and overcurrent. They address the **design, selection, and maintenance of standby power sources for emergencies**.

- The guidelines ensure safety against electrical faults in agricultural settings, accounting for **external factors like water and corrosive substances**.
- Additionally, they categorise hazardous areas based on the likelihood of dangerous atmospheres and provide tailored guidelines, while also offering comprehensive standards for [solar installations](#), emphasising safety and quality.

Bureau of Indian Standards (BIS)

- BIS is the **National Standard Body of India** established under the BIS Act 2016 for the harmonious development of the activities of standardisation, marking and quality certification of goods. **BIS has its headquarters at New Delhi**.
- BIS provides traceability, tangibility, safe reliable quality goods, minimises health hazards, promotes exports and imports substitute, and controls proliferation of varieties through standardisation, certification and testing.
- It conducts capacity building programs on quality assurance and represents India in the [International Organization for Standardization \(ISO\)](#) & **International Electro-technical Commission (IEC)**.
 - IEC is an international standard setting body that publishes international Standards for all electrical, electronic and related technologies.
 - **Standardization Management Board (SMB)** is an apex governance body of IEC responsible for technical policy matters.

Conclusion

The proposed NAC represents a significant step towards modernising agricultural practices in India. As the development process unfolds, stakeholder engagement will be crucial in shaping a code that meets the diverse needs of India's agricultural landscape.

Drishti Mains Question:

Discuss the objectives and significance of the National Agriculture Code in transforming agricultural practices in India.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Mains:

Q. Given the vulnerability of Indian agriculture to vagaries of nature, discuss the need for crop insurance and bring out the salient features of the Pradhan Mantri Fasal Bima Yojana (PMFBY). **(2016)**

Weed-Induced Crop Losses

For Prelims: [kharif crops](#), [rabi crops](#), [Krishi Vigyan Kendras](#), [herbicides](#), [mechanization](#), [weed management](#), [organic and sustainable farming practices](#), [precision agriculture](#).

For Mains: Weed control strategies and government initiatives to mitigate weed problems.

[Source: TH](#)

Why in News?

According to a study by **the Federation of Seed Industry of India (FSII)**, **weeds** are causing Rs 92000 crore (USD 11 billion) worth of **loss in crop productivity each year**.

- The report highlights the need for **technology-led weed control strategies** to mitigate this growing problem.

What are the Key Points of the Study?

- **Yield Loss Statistics:** Weeds account for approximately **25-26%** of yield losses in **kharif crops** and **18-25%** in **rabi crops** across India.
- **Diverse Crops and Regions:** The study covered **seven major crops—rice, wheat, maize, cotton, sugarcane, soybean, and mustard**, across 30 districts in 11 states.
- **Stakeholder Involvement:** Researchers interviewed 3,200 farmers, 300 dealers as well as officials from, **Krishi Vigyan Kendras**, and Agriculture Department.
- **Average Expenditure:** The average weed control expenditure ranges from Rs 3,700 to Rs 7,900 per acre.
- **Weed Management Strategies:** The study recommends herbicides, mechanization, crop rotation, cover cropping, and biological control, which could reduce costs by 40-60% compared to traditional methods.

Federation of Seed Industry of India (FSII)

- FSII is a 40-member association **representing the R&D-driven plant science industry** in India.
- It is involved in the production of high-quality seeds for food, feed, and fibre, supporting the country's agricultural sector.
- FSII promotes the adoption of technology-driven farming solutions that improve agricultural productivity while reducing both pre-harvest and post-harvest losses in a sustainable manner.
- It is affiliated with international bodies like the **International Seed Federation (ISF)** and the **Asia and Pacific Seed Association (APSA)**, enhancing its global outreach and collaboration.

What are Weeds?

- **About:**
 - Weeds are typically unwanted plants that thrive in ecosystems where they disrupt agricultural or ecological balance. Examples include **nut grass, portulaca, common couch, and leucaena**.
- **Characteristics:**
 - They are characterized by their ability to **aggressively compete with cultivated crops** and other vegetation for essential resources.
 - Weeds exhibit significant **resilience and adaptability to diverse environmental conditions**, allowing them to colonize various habitats rapidly.
 - Weeds often grow quickly and reproduce in large numbers, primarily through **seeds, rhizomes, or other vegetative structures**, facilitating their spread.

Common Weeds



What are the Challenges Posed by Weeds?

- **Reduction in Agricultural Productivity:** Beyond costs, **weeds are a leading cause of crop loss**, competing for resources from the preparatory tillage stage to the post-harvest stage.
 - Weeds compete with crops for essential resources such as water, nutrients, **sunlight, and space** which can result in lower yields and reduced crop quality.
- **Increased Farming Costs:** Weed management requires significant investments in terms of **labour, herbicides, and other control methods** which can increase the overall expenses of farming operations.
- **Herbicide Resistance:** Continuous **use of herbicides** has led to the development of herbicide-resistant weed species. This **complicates control efforts and** necessitates the use of alternative or more expensive methods to manage resistant populations.

- **Depletion of Soil Health:** Some weed species can degrade soil quality by **altering its nutrient balance or increasing soil erosion**. Their aggressive root systems may also hinder the growth of other plants, leading to long-term soil degradation.
- **Increased Pest and Disease Risks:** Weeds often serve as hosts for various pests and pathogens, providing **breeding grounds for insects and diseases** that can then spread to nearby crops, further aggravating agricultural challenges.

What are the Benefits of Weed?

- **Habitat and Food for Wildlife:** Weeds provide **habitat and food sources for various insects, birds, and small animals**. They play a role in maintaining biodiversity by supporting ecosystems with secondary species that rely on their presence.
- **Medicinal and Nutritional Uses:** Some weeds have medicinal properties or are used as **natural remedies in traditional medicine**. For example, plants like **dandelion and nettle** are known for their health benefits. Certain weeds are also edible and provide nutrients when used as food.
- **Natural Pollinator Attractants:** Many weeds **produce flowers that attract pollinators such as bees, butterflies, and other beneficial insects**. By supporting pollinator populations, weeds indirectly enhance the productivity of nearby crops and plants.

What are the Challenges in Implementing Effective Weed Management Strategies?

- **Weed Resistance:**
 - Over Reliance on herbicides can lead to the development of herbicide-resistant weed strains, making it more difficult to control them over time.
- **Labor Shortages:**
 - With a declining agricultural labor force and increased rural-to-urban migration, **manual weeding is becoming less feasible**.
- **High Costs:**
 - Although technological solutions like **herbicides and mechanization** can reduce costs, the initial investment for these technologies may be **prohibitive for small-scale farmers**.
- **Environmental and Health Concerns:**
 - The excessive use of chemical herbicides can lead to **environmental degradation, water contamination, and potential health risks** for both farmers and consumers.
- **Integration with Organic and Natural Farming:**
 - There is a challenge in aligning chemical and mechanical **weed management** techniques with **organic and sustainable farming practices**, which aim to minimize external inputs like herbicides.

What are the Government Initiatives Related to Agriculture?

- [Pradhan Mantri Kisan Samman Nidhi \(PM-KISAN\)](#)
- [Pradhan Mantri Fasal Bima Yojana \(PMFBY\)](#)
- [Pradhan Mantri Krishi Sinchai Yojana \(PMKSY\)](#)
- [National Mission on Sustainable Agriculture](#)
- [Paramparagat Krishi Vikas Yojana \(PKVY\)](#)
- [Unified Farmer Service Platform \(UFSP\)](#)
- [National e-Governance Plan in Agriculture \(NeGP-A\)](#)
- [Mission Organic Value Chain Development for North Eastern Region \(MOVCDNER\)](#)

Way Forward

- **Technological Integration:** The study recommends a comprehensive, technology-driven weed management framework to enhance agricultural productivity. For
 - example, **in Direct Seeded Rice (DSR)**, seeds are directly drilled into the fields, which helps conserve groundwater. Similarly, **Zero-Tillage (ZT)** wheat technology involves sowing seeds without disturbing the soil.
- **Public-Private Collaboration:** Experts emphasize the need for **collaboration between the public and private sectors** to tackle weed-related challenges.
- **Innovative Solutions:** Adoption of **herbicide-tolerant traits**, and [precision agriculture](#) are seen as key strategies to overcome labour shortages and resource constraints.
- **Crop Rotation:** It is the **practice of growing a series of different types of crops in the same area** across a sequence of growing seasons and can lower weed infestation.
- **Holistic Framework:** According to the Ministry of Agriculture, an **integrated approach combining traditional, mechanical, chemical, and organic farming solutions is critical** for effective weed management.

Drishti Mains Question:

Discuss the major challenges in implementing effective weed management strategies and suggest potential solutions.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims:

Q. Consider the following kinds of organisms: (2012)

1. Bacteria
2. Fungi
3. Flowering plants

Some species of which of the above kinds of organisms are employed as biopesticides?

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Ans: (d)

Middlemen Gain as Farmers Earn Less in Agri Produce: RBI

For Prelims: [Reserve Bank of India \(RBI\)](#), [high inflation](#), [Consumer Price Index \(CPI\)](#), [Wholesale Price Index \(WPI\)](#), [National Agriculture Market \(e-NAM\) platform](#), [Farmer Producer Organizations \(FPOs\)](#), [Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan \(PM-KUSUM\) scheme](#), [Pradhan Mantri Fasal Bima Yojana \(PMFBY\)](#), [Soil Health Card Scheme](#), [Pradhan Mantri Krishi Sinchai Yojana \(PMKSY\)](#)

For Mains: Key Initiatives Related to Agriculture, Inflation and its impact on the food, Middlemen as

[Source: TH](#)

Why in News?

The four working papers released by the [Reserve Bank of India \(RBI\)](#), indicated that during periods of **high inflation** in the **fruits and vegetables sector**, **middlemen and retailers** appeared to capture a significant portion of the price paid by consumers, thereby **benefiting at the expense of farmers**.

Inflation

- **Definition: Inflation** is defined as the rate at which the **general level of prices for goods and services rises**, leading to a **decrease in purchasing power**.
- **Measurement:** In India, inflation is mainly measured through 2 price indices - the [Wholesale Price Index \(WPI\)](#) and the [Consumer Price Index \(CPI\)](#).
- **Types of Inflation:**
 - **Demand-Pull Inflation:** Occurs when **demand for goods and services exceeds supply**.
 - **Cost-Push Inflation:** Results from an **increase in the costs of production, leading to higher prices** for consumers.
 - **Structural inflation:** It is a type of inflation that's caused by **structural weaknesses in an economy**, and is often experienced in developing countries.
- **Impact on Economy: Moderate inflation** is considered a **sign of a growing economy**, but high inflation can erode purchasing power, create uncertainty, and negatively impact savings and investments.

What are the Key Findings of the RBI Papers?

- Four working papers from **the RBI's Department of Economy & Policy Research** found that farmers received a much lower share of the consumer rupee in the case of fruits (e.g., bananas, grapes, mangoes) and essential vegetables (e.g., tomatoes, onions, potatoes) compared to dairy, poultry, and pulses.
 - According to the paper **Livestock and Poultry Inflation in India:**
 - Farmers receive about **70% of the consumer rupee for milk and 75% for eggs**.
 - For poultry meat, farmers and aggregators together receive about 56%.
 - The **Consumer Price Index (CPI) for Milk** shows price fluctuations influenced by factors like **feed costs and availability**.
 - Higher availability of milk results in lower prices.
 - Higher feed costs lead to increased milk prices.
 - The paper **Price Dynamics and Value Chain of Fruits in India** estimates:
 - Farmers receive **about 31% of the consumer rupee for bananas**, 35% for grapes and 43% for mangoes.
 - Grape farming is **capital and labor-intensive** and price volatility is influenced by **seasonality, climate conditions, and input costs**.
 - Grape production is concentrated in **Maharashtra and Karnataka**.
 - Exports grapes primarily to the **Netherlands and Bangladesh**, while **imports from China**.
 - The paper **Pulses Inflation in India** finds:
 - Farmers receive 75% of the consumer rupee for gram (chana), 70% for moong and 65% for tur.
 - Both demand and supply-side factors, such as **stock levels, rural wages, input**

- **costs, and structural bottlenecks**, are determinants of pulses inflation.
- The paper **Vegetables Inflation in India** estimates:
 - Farmers receive **33% for tomatoes, 36% for onions, 37% for potatoes**.
 - Key factors affecting vegetable inflation are **input costs, rainfall, and wages, along with supply-side shocks** like weather conditions and market behavior.
 - Vegetable prices are highly volatile due to **short crop cycles, perishability, regional production concentration, and seasonal weather** conditions.

RBI's Department of Economy & Policy Research

- It serves as a knowledge hub focused on **macroeconomic policy-oriented research** to support policy-related decision-making.
- The department's research agenda addresses key macroeconomic challenges in India, covering areas such as **monetary policy, growth and inflation dynamics, financial markets, macroeconomic forecasting, the banking sector, financial stability, and external sector management**.
- The DEPR is responsible for publishing the **RBI's key statutory reports**, including the Annual Report and the Report on Trend and Progress of Banking in India.
 - It also publishes other important resources such as State Finances (A Study of Budgets), and the Handbook of Statistics on Indian States.

What are the Measures Suggested by the RBI Research Papers?

- **Fruits and Vegetables:**
 - **Expanding Private Markets:** To reduce dependency on middlemen and enhance market access for farmers.
 - Expanding such markets can **encourage competitive pricing and reduce the inefficiencies** in traditional wholesale markets (mandis).
 - **Government Initiatives:** Measures such as **buffer stocks, Price Stabilization Fund (PSF)**, and the **Operation Greens** scheme aim to reduce price volatility and increase value realization for farmers.
 - **Enhancing Use of the e-NAM Platform:** Promoting the use of the **National Agriculture Market (e-NAM) platform** is critical for ensuring transparency and reducing price distortions.
 - **Promoting Farmer Collectives:** **Farmer Producer Organizations (FPOs)** are being promoted to **empower small and marginal farmers**.
 - FPOs can **help farmers pool resources, enhance bargaining power**, and improve access to inputs, credit, and markets.
 - **Building Cold Storage Facilities:** To **minimise post-harvest losses**, particularly for perishable fruits and vegetables. **India loses about 30-40% of its fruits and vegetables due to inadequate cold storage**.
 - Increased investment in cold chain infrastructure can extend the shelf life of produce, stabilizing prices and benefiting both farmers and consumers.
- **Pulses:**
 - **Infrastructure Improvements:** Need for **structural reforms in agricultural markets** such as **investment in rural infrastructure**.
 - These measures are **essential for ensuring sustained price stability** and improving farmers' income over the long term.
 - **Varietal Development for Higher Yields:** Promote **climate-resilient and short-duration seed varieties** to enhance production.
 - For example, **ICAR's Pusa Arhar-16** reduces the maturity period of tur from 180 to 120 days, **increasing yield by 15%**.
 - **Scaling up Procurement and Buffer Reserves:** Strengthen government procurement of domestic and imported pulses for market intervention.
 - **National Agricultural Cooperative Marketing Federation of India's** strategic buffer stock has helped manage inflation.

- **Milk:**
 - **Rationalising Trade Policy:** Adjust **tariffs on imported products** like **skimmed milk powder (SMP) and butter** to stabilise prices, while protecting domestic farmers.
 - **Promoting Germplasm Imports:** Relax restrictions on **importing cattle/buffalo germplasm** to introduce temperate breeds for crossbreeding, thus boosting milk productivity in the medium to long term.
 - **Enhancing Value Chain Infrastructure:** Prioritise investment in **bulk milk chilling (BMC) centers**, modern dairy plants, and small processing units.
 - **Improved processing and storage infrastructure** will enhance the export competitiveness of dairy products.
 - **Integrated Animal Health Plans:** Establish fast medical response units to tackle frequent disease outbreaks like **foot-and-mouth disease**.
- **Policy Suggestions for Poultry Sector:**
 - **Removing Trade Policy Distortions: Rationalise duties on poultry imports**, particularly during periods of high demand, to reduce meat inflation and increase market competition.
 - **Developing Infrastructure:** Encourage **FDI** and **public-private partnerships (PPP)** to improve cold chain facilities, processing infrastructure, and farm management.
 - **Reducing Production Costs:** Prioritise policies to **enhance high quality maize and soybean productivity**, as they constitute **the bulk of poultry feed costs**.
 - **Institutional Support for Small Producers:** Encourage the **collectivisation of small poultry farmers** to improve access to quality inputs and markets.
 - Cooperative models such as **Amul** could help smallholders reduce transaction costs and gain fair prices.

What are the Key Initiatives Related to Agriculture?

- [Pradhan Mantri Fasal Bima Yojana \(PMFBY\)](#)
- [Soil Health Card Scheme](#)
- [Pradhan Mantri Krishi Sinchai Yojana \(PMKSY\)](#)
- [e-National Agriculture Market \(e-NAM\)](#)
- [Paramparagat Krishi Vikas Yojana \(PKVY\)](#)
- [Digital Agriculture Mission](#)
- [Unified Farmer Service Platform \(UFSP\)](#)
- [National e-Governance Plan in Agriculture \(NeGP-A\)](#)
- [Mission Organic Value Chain Development for North Eastern Region \(MOVCDNER\)](#)

Conclusion

Despite farmers' contributions to the economy, their **share of the consumer rupee remains disproportionately low**, particularly in the fruits and vegetables sector. Addressing these disparities is essential for fostering a more **equitable distribution of income** and ensuring that farmers receive fair compensation for their produce. Comprehensive policy measures are necessary to empower farmers, promote sustainable practices, and enhance the overall efficiency of the agricultural sector.

Drishti Mains Question:

What measures can be implemented to ensure equitable distribution of income for farmers and how might these measures contribute to the overall stability and sustainability of the agricultural sector ?

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims:

Q. Under the Kisan Credit Card scheme, short-term credit support is given to farmers for which of the following purposes? (2020)

1. Working capital for maintenance of farm assets
2. Purchase of combine harvesters, tractors and mini trucks
3. Consumption requirements of farm households
4. Post-harvest expenses
5. Construction of family house and setting up of village cold storage facility

Select the correct answer using the code given below:

- (a) 1, 2 and 5 only
- (b) 1, 3 and 4 only
- (c) 2, 3, 4 and 5 only
- (d) 1, 2, 3, 4 and 5

Ans: (b)

Mains:

Q. How did land reforms in some parts of the country help to improve the socio-economic conditions of marginal and small farmers? **(2021)**

Q. What are the impediments in marketing and supply chain management in developing the food processing industry in India? Can e-commerce help in overcoming this bottleneck? **(2015)**

Colombo Security Conclave Charter

[Source: TH](#)

Why in News?

Recently, the members of [Colombo Security Conclave \(CSC\)](#) **India, Sri Lanka, the Maldives and Mauritius** signed a **Charter** and a **memorandum of understanding**, for the establishment of the **CSC secretariat** in Colombo.

- **Bangladesh** was absent and **Seychelles** participated as an observer state.

What are the Key Facts About the Colombo Security Conclave?

- **Background of CSC:** It was originally known as the [NSA Trilateral on Maritime Security](#) and was established between **India, Sri Lanka, and the Maldives** in 2011.
 - It was an initiative of **Sri Lanka** to enhance **maritime security** in the [Indian Ocean Region](#).
- **Members: India, Sri Lanka, and the Maldives** were its founding members.
 - **Mauritius** joined the conclave in **2022** while **Bangladesh** joined in **2024**. **Seychelles** is an observer state.
- **Goals of CSC:** Cooperation under the CSC focuses on **five goals**:
 - **Maritime safety** and security.

- Countering **terrorism and radicalisation**.
- Combating **trafficking** and transnational **organised crime**.
- **Cyber security** and protection of critical infrastructure and technology.
- **Humanitarian assistance and disaster relief**.
- **Defence Exercises:** In November 2021, India, Sri Lanka, and Maldives conducted **Exercise Dosti XV in Maldives**.
 - **India, Sri Lanka, and Maldives** subsequently conducted their first joint exercise in the **Arabian Sea** under the aegis of the CSC.
- **Dialogues and Meetings:** The **first dialogue** among the three countries took place in **2011 in the Maldives**, followed by meetings in **Sri Lanka (2013) and India (2014)**.
 - The dialogue stalled **after 2014** due to rising **India-Maldives tensions** and **China's growing influence** in the Indian Ocean.
 - It was revived and re-branded as the **Colombo Security Conclave** in 2020.
- **Significance of CSC:** The CSC strengthens **India's Indian Ocean outreach**, counters **China's influence**, enhances **maritime security**, aligns with the **SAGAR vision**, and fosters **sub-regionalism** among six Indian Ocean nations on a **shared security platform**.

Why is the Indian Ocean Important for India?

- **Central Location:** The Indian Ocean, stretching from **Africa to Australia**, positions India to control **key maritime routes**, including critical choke points like the **Straits of Malacca and Hormuz**, vital for global trade and national interests.
- **Trade Routes:** India has historically acted as a **resident power** in the Indian Ocean, occupying **40% of strategic waters**
 - Approximately **95% of India's trade by volume and 68% by value** passes through the Indian Ocean.
- **Energy Security:** India relies heavily on the Indian Ocean for its energy needs, with nearly **80% of crude oil requirements** imported via this route.
- **Rich in Minerals:** The Indian Ocean accounts for **40% of the world's offshore oil production** and reservoir for minerals such as **nickel, cobalt, and copper**.
- **Fishing Industry:** The Indian Ocean has significant **fishing grounds** and India's fishing industry employs approximately **14 million people**.



Civil War in Sudan

[Source: TH](#)

Why in News?

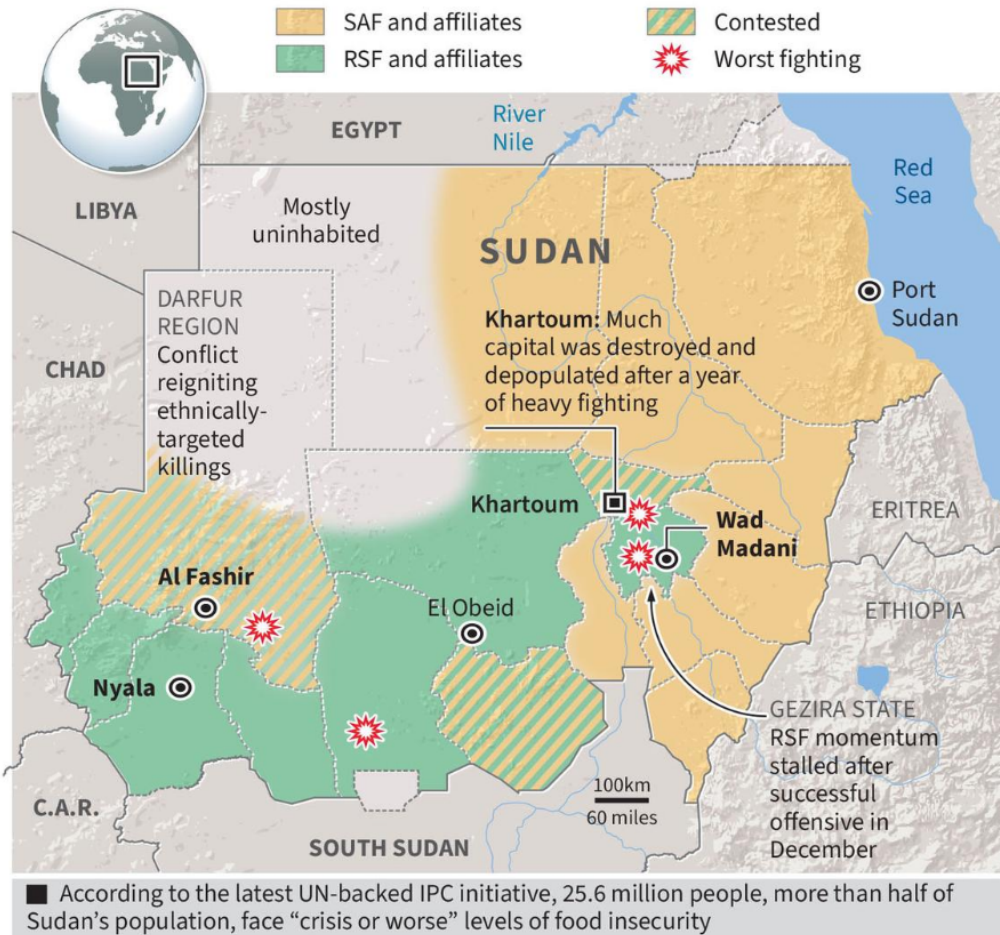
Recently, the [Sudanese Armed Forces \(SAF\)](#) launched a significant offensive against the [Rapid Support Forces \(RSF\)](#) in [Khartoum](#) and [Bahri](#), reigniting a conflict that had quieted for several months.

- This renewed offensive comes amid a civil war that has persisted for over 18 months, with more than **20,000 deaths** reported and nearly **11 million** people displaced as of **October 2024**.





■ **April 15, 2023:**
Power struggle between the Sudanese Armed Forces (SAF), led by Abdel Fattah al-Burhan (left), and the Rapid Support Forces (RSF) militia, led by Mohamed Hamdan Dagalo, known as Hemedti (right), erupted into a full-scale conflict



What is the Origin of Civil War in Sudan?

- The war is rooted in a **power struggle** between SAF leader **Abdel Fattah al-Burhan** and RSF leader **Hamdan Dagalo (Hemedti)**.
- It started in **Khartoum** but has spread to other regions like **Omdurman**, **Bahri**, **Port Sudan**, and the **Darfur** and **Kordofan** states.
- **Historical Background:**
 - Sudan was a joint protectorate under **Egypt** and the **UK** during the **Anglo-Egyptian Condominium**.
 - Sudan gained independence in **1956**, facing internal challenges between the wealthier **Arab Muslim north** and the **Christian/Animist south**.
 - Two major civil wars, **first** (1955-1972) and **Second** (1983-2005), led to the deaths of millions, atrocities, and eventually leading to the **secession of South Sudan** in 2011.
 - The second civil war ended with a peace agreement in 2005, but tensions and internal conflict remained, particularly in **Darfur**.
- **Omar al-Bashir's Regime:**
 - Bashir took power in a **1989 coup** and ruled Sudan for 30 years.
 - He imposed a strict interpretation of **sharia law**, used **private militias (Janjaweed)** to fight rebels, and persecuted minority religions.

- Bashir's regime was condemned for **genocide in Darfur**, particularly targeting **non-Arab groups** like the **Fur, Zaghawa, and Masalit**.
- **Bashir's Overthrow:**
 - By **2019**, protests against Bashir's oppressive rule intensified, leading to his removal in an April coup supported by both **SAF** and **RSF**.
 - After his overthrow, Sudan entered a transitional phase under military and civilian leadership.
- **RSF's Origin and Power:**
 - RSF emerged from the **Janjaweed militia**, a key force in the **Darfur conflict** responsible for widespread atrocities.
 - Formally organized in **2013**, the RSF gained wealth and influence especially through control over **gold mines**.
- **Transitional Government:**
 - After Bashir's fall, a **Transitional Sovereignty Council** was formed.
 - **Prime Minister Abdalla Hamdok**, a civilian leader, sought economic stability but was ousted in a 2021 coup led by the SAF and RSF. Later his resignation left Sudan without effective civilian leadership.
 - **The December 2022 Deal:**
 - The **December 2022 agreement** outlined a two-year transition to **civilian rule**.
 - However, tensions emerged over **RSF integration** into the armed forces, with **Burhan** and **Hemedti** disagreeing on timelines.
 - The involvement of foreign actors, such as the **Wagner Group** and military support from **UAE**, has complicated the conflict, making it harder to resolve.

What are the Reasons for Persistent Conflict in Sudan?

- **Power Struggle:** Both the **SAF** and **RSF** are determined to consolidate power, with each faction seeking dominance over the other.
 - The SAF claims to be the legitimate government, while the RSF challenges it.
- **Weapon Supply:** Despite an arms embargo by the **United Nations** since the **2004 Darfur crisis**, weapons continue to flow into the country.
 - Advanced military equipment, often supplied by **Russia, China, and UAE**.
- **Ethnic Tensions:** The conflict has taken on an ethnic dimension.
 - Eg. In **Darfur**, Arab militias support the RSF, while non-Arab communities like the **Masalit** back the SAF.
- **Foreign Interference:** Each side is receiving external support, reducing their incentive to compromise or seek peace.
- **Failed Peace Talks:** Despite numerous ceasefire efforts, particularly led by **Saudi Arabia** and the **US** like the **Jeddah Declaration (2023)**, none have succeeded.



Revised Procurement Norms for AI Computing

[Source: IE](#)

The **Ministry of Electronics and IT (MeitY)** has revised its procurement norms for **Artificial Intelligence(AI)** computing capacity under the [IndiaAI Mission](#) to encourage broader participation from various companies, including **start-ups**.

▪ Revised Procurement Norms:

- **Annual Turnover Requirements:** For **primary bidders**, it has been reduced from **Rs 100 crore to Rs 50 crore**, while **non-primary** consortium members now need **Rs 25 crore**, down from Rs 50 crore.
 - A **primary bidder** is an entity that is **solely responsible** for the **successful performance** of all subcontractors offered in response to a bid.
- **Graphic Processing Units (GPUs) Requirements:** The requirement of **1,000 GPUs** was changed from a performance threshold of **300 TFLOPS** (Tera Floating-point Operations Per Second) **for FP16** (Half Precision) **to 150 TFLOPS**.
 - The AI compute memory requirement was reduced from **40 GB to 24 GB**.

- TFLOPS measures a system's computing power; for instance, **10 TFLOPS** means it can perform **10 trillion FP16 calculations per second**.
- **Local Sourcing**: Components for **AI cloud services** must be procured from **Class I (50% local content)** or **Class II (20-50% local content)** suppliers to comply with the **'Make in India'** initiative.

Read More: [IndiaAI Mission](#)

USCIRF International Religious Freedom Report

Source: [LM](#)

Recently, India rejected the [International Religious Freedom Report](#) of the **US Commission on International Religious Freedom's (USCIRF)**, labeling it a biased organization with a political agenda.

▪ Highlights of the USCIRF Report (2024):

- The report called for India to be designated as a "**Country of Particular Concern**"(CPC).
 - Countries that commit **systematic, ongoing, and egregious violations** of religious freedom are designated as a CPC by the **US State Department**.
 - The report states that vigilante groups **killed, assaulted, and lynched individuals**, while religious leaders were unjustly arrested, and homes and places of worship were destroyed.
 - It also criticised the [Citizenship Amendment Act, 2019](#), [Uniform Civil Code](#), and state-level anti-conversion and cow slaughter laws.
- ### ▪ USCIRF:
- USCIRF is a US federal commission established in 1998 under the International Religious Freedom Act, with commissioners appointed by the President and congressional leaders from both parties.
- It is based on **international human rights standards**, especially **Article 18 of the [Universal Declaration of Human Rights](#)** that ensured **freedom of religion**.
 - It monitors the universal **right to freedom of religion or belief (FoRB)** in countries other than the US.

Read More: [Universal Declaration of Human Rights](#)

National Maritime Heritage Complex

Source: [PIB](#)

Recently, the **Union Cabinet** has approved the development of the [National Maritime Heritage Complex \(NMHC\)](#) at **Lothal**, Gujarat.

- It will be developed by the **Ministry of Ports, Shipping & Waterway (MoPSW)** to showcase **4,500 years old maritime heritage** of India.
- The **Directorate General of Lighthouses and Lightships (DGLL)** under **MoPSW** will fund the construction of a [Lighthouse Museum](#), which is set to be the **tallest in the world**.
- **About Lothal:** It is one of the **southernmost sites** of the [Harappan civilization](#), located in the **Bhal region of Gujarat**.
 - It is believed to have been built in **2,200 BC**. Lothal had the world's earliest known **dock**,

connecting the city to an ancient course of the **Sabarmati river**.

- Lothal was nominated in April 2014 as a **UNESCO World Heritage Site**.
- Lothal was discovered in **1954 by SR Rao**.

▪ **Surkotada and Dholavira** are other important Harappan sites in Gujarat.

Read More: [Lothal: World's Earliest Known Dock](#)

150th Anniversary of Universal Postal Union

Source: [PIB](#)

The **Department of Posts** has released **commemorative stamps** marking the 150th anniversary of the **Universal Postal Union (UPU)** on **World Post Day (9th October)**.

- UPU is a **United Nations specialised agency** and the **postal sector's primary forum** for international cooperation.
- UPU was established on **9th October 1874**, in **Berne, Switzerland** and **India joined UPU in 1876**.
- UPU has played a crucial role in **standardising international postal regulations**, facilitating seamless mail exchange.
- UPU is **headquartered in Berne** and is the **2nd oldest** international organisation worldwide after **International Telegraph Union (1865)**.
- **Year 2024** also marks **170 years** of establishment of **India Post** which was founded in **1854** during the tenure of **Lord Dalhousie**.
- **Postal Service in India:**
 - **1852:** Issuance of "**Scinde Dawk**," India's first postage stamp.
 - **1854:** Establishment of **India's first post office in Bombay**.

Read More: [Universal Postal Union](#)

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