

Q.1) "The demand for legal guarantee to MSP reflects deeper anxieties about market volatility and rural distress." Critically analyse the implications of legalizing MSP in India. (150 words, 10 marks)

Introduction

Minimum Support Price (MSP) is a **government-declared price** that protects farmers from market fluctuations. As noted by the **Shanta Kumar Committee**, only **6%** of farmers benefit from MSP procurement—triggering continued protests in **2020**, demanding a legal guarantee.

Body

Rationale Behind Demand for Legal MSP

- 1. Market volatility and price crashes:** Non-MSP crops like pulses often sell below cost, forcing distress sales. MSP acts as a floor price against such shocks.
- 2. Rising input costs:** High prices for diesel, seeds and fertilisers make farming unsustainable. A guaranteed MSP offers financial stability.
- 3. Uneven procurement:** FCI procurement is concentrated in states like **Punjab**. This excludes most farmers and deepens regional disparities.
- 4. Lack of income alternatives:** Schemes like **PM-KISAN** and **Rythu Bandhu** exist. But they aren't enough to counter market failures.
- 5. Rural economic distress:** Events like **COVID-19** and **demonetisation** hurt rural incomes. Legal MSP could boost consumption and demand.

Arguments in favour of Legal Guarantee to MSP

- 1. Income security and risk protection:** Legal MSP provides stable income. It shields farmers from climate shocks and price crashes.
- 2. Rural distress alleviation:** It boosts rural purchasing power. This reduces financial vulnerability in times of crisis.
- 3. Benchmark price for the market:** MSP signals a minimum price to the market. This ensures traders do not exploit farmers during gluts.
- 4. Crop diversification and sustainability:** With assured returns, farmers may diversify. This could promote millets and pulses.

Arguments Against Legalising MSP

- 1. Huge fiscal burden:** Universal MSP procurement may cost over **₹5 lakh crore** annually. This could worsen fiscal health.
- 2. Market distortion and storage issues:** Government may be forced to procure even unwanted crops. This would worsen warehousing woes.
- 3. Inflationary pressure:** Higher procurement costs could raise food inflation. This affects poor and middle-income consumers.
- 4. WTO concerns and export competitiveness:** Legal MSP risks violating **WTO norms**. It may hurt India's farm exports.

5. **Demand spill over effect:** Allied sectors like **dairy** and **horticulture** may also demand MSP. This strains policy capacity.
6. **Regional imbalance in production:** Farmers may grow MSP-covered crops unsuited to their ecology. This distorts cropping patterns.
7. **Political and administrative complexity:** Enforcing legal MSP across **22+ crops** is difficult. It needs massive institutional capacity.

Way Forward

1. **Price Deficiency Payment Schemes:** As recommended by **NITI Aayog** and the **Economic Survey**, compensate for price gaps without enforcing procurement.
2. **Strengthen FPOs and cooperatives:** Empower farmer collectives to boost bargaining power and market presence.
3. **Gradual MSP crop expansion:** Widen MSP coverage gradually to ensure balance and promote diversification.
4. **Invest in market and storage infrastructure:** Build mandis, logistics, and storage to reduce distress selling.

Conclusion

Rather than blanket legalisation of MSP, a **farm-to-market approach** grounded in the **National Commission on Farmers** vision of income assurance and market support would better address rural distress sustainably.

Q.2) India's agricultural subsidy system is often criticised for being inefficient, inequitable, and fiscally unsustainable. Examine how Direct Benefit Transfer (DBT) can address these concerns while highlighting the challenges it may face in effective implementation. (150 words, 10 marks)

Introduction

India's agriculture subsidies, amounting to over **₹4 lakh crore** annually (**Budget 2024**), are riddled with leakages and misallocation. Therefore, Direct Benefit Transfer (DBT) is being increasingly promoted to offer direct subsidy, reduce inefficiencies, and empower farmers.

Body

Present Issues with Subsidy System

1. **Leakages and ghost beneficiaries:** **CAG (2023)** flagged fertiliser diversion to industries and ghost beneficiaries in PDS due to poor targeting.
2. **Regional and crop bias:** Subsidies are concentrated in crops like **rice and wheat** and in states like **Punjab**, skewing resource distribution.

3. **Input-based distortion:** Subsidies on fertiliser and electricity encourage overuse, harming soil health and water tables (**NITI Aayog, 2021**).
4. **Fiscal burden and inefficiency:** **Economic Survey 2022** highlighted ballooning subsidy bills crowding out investment in rural infrastructure and R&D.

How DBT Can Address These Issues

1. **Targeted benefit delivery:** DBT ensures subsidies reach genuine beneficiaries, cutting down leakages and corruption in delivery.
2. **Farmer autonomy and efficiency:** Direct cash transfers give farmers flexibility to buy best-suited inputs based on local conditions.
3. **Neutral input usage:** DBT discourages overuse of fertilisers and electricity by delinking subsidy from physical input use.
4. **Administrative transparency:** Digitised DBT platforms enhance accountability through Aadhaar seeding, **GPS tagging**, and real-time tracking.
5. **WTO-compliant structure:** Direct income transfers are permissible under **WTO "green box,"** unlike price-distorting input subsidies.

Challenges in Implementation of DBT

1. **Land ownership complexity:** Majority of tenant and sharecroppers lack formal land titles, excluding them from DBT eligibility.
2. **Digital and banking divide:** In remote areas, lack of connectivity and banking access hinders timely and inclusive transfer.
3. **Resistance from stakeholders:** Fertiliser and power lobbies, along with state governments, resist DBT due to loss of control and revenue.
4. **Risk of exclusion and errors:** Issues in Aadhaar-linking or data mismatch can exclude deserving farmers and delay benefits.
5. **Price volatility exposure:** Without subsidised inputs, farmers face market fluctuations unless DBT is accompanied by other support measures.

Way Forward

1. **Update land records and include tenants:** Adopt recommendations of the **DILRMP** and **Bhoomi Project (Karnataka)** to digitise land records and include actual cultivators.
2. **Strengthen rural banking and digital access:** Follow **Jharkhand's DBT-enabled fertiliser pilot** and expand banking correspondents in remote areas.
3. **Phase-wise implementation:** **NITI Aayog** recommends a calibrated, region-wise DBT rollout, starting with inputs like fertilisers.
4. **Combine with advisory services:** Madhya Pradesh's **"Krishi Upaj Mandi" model** shows how advisory + income support can guide optimal farm investments.
5. **Centre-State coordination:** As per the **15th Finance Commission**, cooperative federalism is vital for effective subsidy reforms like DBT.

6. **Use DBT-linked data analytics: NITI's 2023 report** suggests leveraging DBT data for policy targeting, grievance redressal, and course correction.

Conclusion

A well-designed DBT model ensures subsidy efficiency, farmer empowerment, and fiscal prudence while aligning with **WTO rules**. It is time India transitions to this sustainable and inclusive alternative.

Q.3) Livestock rearing in India is a vital livelihood source for rural communities. Examine the economic potential and challenges of promoting animal husbandry as a sustainable livelihood option. (150 words, 10 marks)

Introduction

According to the **20th Livestock Census (2019)**, India has over **535 million livestock**, supporting millions of rural households. Leveraging this sector sustainably offers immense potential for economic security and inclusive rural growth.

Body

Livestock as a Vital Livelihood Source for Rural Communities

1. **Supplementary income and risk buffer:** NSSO 77th round show over **70%** of rural households engaged in livestock; it cushions against crop failure and seasonal unemployment.
2. **Women empowerment and inclusive growth:** **70%** of livestock care is done by women (FAO), giving them financial agency and decision-making power.
3. **Smallholder-friendly enterprise:** **87%** of livestock farmers own less than two hectares, making it accessible and scalable for marginal farmers.
4. **Region-specific models:** Amul dairy cooperatives in Gujarat and Kudumbashree's goat-rearing in Kerala show successful decentralised rural livelihoods.

Economic Potential of Animal Husbandry

1. **High value output:** Livestock contributes over **30%** to the **agricultural GVA (2022-23)**, growing faster than crop sectors.
2. **Export earnings:** India is the world's largest milk producer and a top exporter of buffalo meat, earning over **\$3 billion annually (APEDA)**.
3. **All-season income flow:** Unlike crops, dairy, poultry, and goatery offer daily/weekly cash flows, reducing rural credit dependency.
4. **Agro-industrial linkages:** Growth in sectors like leather, feed, cold chains, and vet services creates employment and rural industrialisation.

Challenges in Promoting Animal Husbandry

1. **Low productivity and breed quality:** India's milk yield is half of global average (**FAO, 2022**), with limited AI and selective breeding coverage.
2. **Disease outbreaks and vet gaps:** Only **one vet per 5,000 animals** (against **WHO** norm of **1:400**), making disease control difficult.
3. **Feed and fodder shortage:** National Dairy Development Board (**NDDB**) notes a **35%** green fodder deficit and overdependence on crop residues.
4. **Climate vulnerability:** Heatwaves and floods impact livestock health, water availability, and increase disease risks in climate-sensitive zones.

Government Initiatives

1. **Rashtriya Gokul Mission:** Promotes indigenous breeds and genetic improvement through AI and IVF.
2. **Animal Husbandry Infrastructure Development Fund (AHIDF):** Encourages private investment in dairy processing and meat value chains.
3. **National Livestock Mission (NLM):** Supports entrepreneurship in poultry, sheep, and fodder cultivation.
4. **Budget 2024 allocation:** ₹10,000 crore set aside to boost livestock health infrastructure and disease surveillance.

Way Forward

1. **Breed improvement and research:** Adopt recommendations from **NITI Aayog's 2023 Livestock Sector Roadmap** to enhance genetic potential and resilience.
2. **Veterinary outreach and digitisation:** Expand e-Vet services and rural mobile clinics as piloted in **Haryana and Karnataka**.
3. **Fodder and feed innovation:** Promote hydroponic fodder, dual-purpose crops, and enforce **Fodder Development Programme (2018)**.
4. **Inclusive cooperatives and FPOs:** As suggested by **Ashok Dalwai Committee**, scale up women-led dairy and poultry collectives with credit and training.

Conclusion

As per the **Ashok Dalwai Committee**, **doubling farmers' income** needs strong livestock integration. With inclusive reforms and rural investment, animal husbandry can transform into a sustainable and resilient livelihood pillar for millions.

Q.4) "The public Distribution System (PDS) is a lifeline for the poor but suffers from substantial leakages and inefficiencies." Examine the objectives, structural flaws, and digital solutions required to overhaul the PDS. (250 words, 15 marks)

Introduction

India's Public Distribution System (PDS) distributes over **60 million tonnes** of food grains annually to nearly **80 crore** people. Despite its wide reach, it remains plagued by leakages, diversion, and exclusion errors, demanding urgent systemic reforms.

Body

Objectives of the Public Distribution System

1. **Food security for the poor:** PDS ensures nutritional access for vulnerable groups, particularly under the **National Food Security Act, 2013 (NFSA)**.
2. **Price stabilisation:** Helps regulate food grain prices in the open market and curb inflation during shortages.
3. **Buffer stock management:** Supports offtake from **FCI** warehouses and helps maintain food reserves.
4. **Social justice:** Acts as a welfare mechanism by ensuring entitlement-based delivery to marginalised communities.

Structural Flaws in the PDS

1. **Leakages and diversion:** **Economic Survey 2020-21** estimated over **36%** of PDS grains do not reach beneficiaries due to pilferage and corruption.
2. **Exclusion and inclusion errors:** **NITI Aayog (2022)** noted crores of eligible poor excluded due to flawed databases; many ineligible continue to receive rations.
3. **Poor targeting and duplication:** Ghost cards, duplicate entries, and **fake beneficiaries** weaken the system's credibility and efficiency.
4. **Lack of transparency and accountability:** Manual records and weak grievance redressal foster non-transparency and reduce public trust.

Digital Solutions to Strengthen PDS

1. **Aadhaar-based authentication:** As per **UIDAI** and **Ministry of Consumer Affairs**, over **95%** of ration cards are now seeded with Aadhaar, reducing identity fraud.
2. **One Nation One Ration Card (ONORC):** Enables portability across states; covers over **100 crore** people, aiding migrant workers.
3. **End-to-end digitisation (Annavitran Portal):** Tracks grain movement, enabling real-time monitoring and reducing diversion at every level.
4. **ePoS machines:** Installed in over **95% FPSs**, enabling biometric verification, real-time updates, and stock transparency.

Government Initiatives

1. **NFSA, 2013:** Covers **67%** of population, ensures legal entitlement to food grains at subsidised prices.

2. **ONORC Scheme:** Launched in **2019**, ensures seamless ration portability across India.
3. **IM-PDS Project:** Strengthens interstate portability, and data sharing among states.
4. **Digitisation drive:** Under **Digital India**, most states have completed beneficiary and supply chain digitisation.

Way Forward

1. **Targeted subsidy via DBT:** Adopt pilot models from **Chandigarh** and **Puducherry**, where cash transfer for food ensures choice and efficiency.
2. **Strengthen grievance redressal:** As suggested by **Shanta Kumar Committee (2015)**, set up independent social audit units and toll-free help centres.
3. **Periodic beneficiary updating:** Regular deletion of ineligible names and inclusion drives using **Socio Economic Caste Census (SECC)** data.
4. **Integrate supply chain tech:** Use **blockchain pilots** from states like **Andhra Pradesh** to ensure tamper-proof tracking of food grains.

Conclusion

To transform PDS into a **modern, transparent, and inclusive food safety net**, digital reform must align with beneficiary empowerment. Effective use of technology and targeted delivery can convert **PDS from a leaky lifeline into a resilient system.**

Q.5) The food processing sector plays a critical role in enhancing farmer incomes and reducing post-harvest losses. Elaborate on its significance and examine the major upstream and downstream challenges in developing an efficient supply chain ecosystem. (250 words, 15 marks)

Introduction

India's food processing industry, contributing over **12% of manufacturing GDP**, is a **sunrise sector** with immense export potential. It links **farm to fork**, enhances value addition, and supports income diversification for millions of farmers.

Body

Role and Significance of Food Processing Sector

1. **Enhances farmer income:** Increases value realization through grading, packaging, and branding of produce. The **Ashok Dalwai Committee** recommends value chain strengthening for doubling farmers' income.
2. **Reduces post-harvest losses:** As per **MOFPI** and **NITI Aayog**, India loses over **₹90,000 crore** annually due to wastage; processing curtails this.
3. **Boosts employment:** According to the **Economic Survey**, the sector generates **1.77 times** more jobs per investment than general manufacturing.

4. **Promotes crop diversification:** Ensures markets for perishables like fruits and vegetables, encouraging farmers to move away from cereal-dominated patterns, as noted in the **Committee on Doubling Farmers' Income**.
5. **Enhances export competitiveness:** Processed foods help tap global markets; India's agri-exports stood at **\$53 billion** in **2022–23**, with processed foods forming a growing share (**APEDA Report**).

Supply Chain Challenges in Food Processing

Upstream Challenges

1. **Fragmented farm production:** Small landholdings limit economies of scale and consistency in raw material supply, a concern raised by the **Ramesh Chand Committee** on Agricultural Marketing.
2. **Poor pre-harvest infrastructure:** Lack of cold storage at farm-gates leads to spoilage, especially for perishables.
3. **Weak farmer-industry linkages:** Limited contract farming and **FPO** involvement restrict market integration and backward linkages.

Downstream Challenges

1. **Inadequate logistics and cold chains:** Only **15%** of produce moves via cold chains; leading to nutrient and value losses (**ICRIER Report, 2023**).
2. **Regulatory bottlenecks:** Multiple food safety norms (**FSSAI**) create compliance burdens for MSMEs.
3. **Low processing levels:** India processes only **10%** of its agro-produce vs. **40–60%** in countries like China and Thailand (**MOFPI data**).

Solutions

1. **Cluster-based approach:** Adopt **Mega Food Parks** and Agro-Processing Clusters to integrate infrastructure and reduce logistic costs, as recommended by **Shanta Kumar Committee (2015)**.
2. **Strengthen farmer-FPO linkages:** Implement **Model Contract Farming Act** to ensure price assurance and steady raw material.
3. **Technology adoption:** Use **AI and blockchain** for supply chain monitoring, grading, and demand forecasting to cut waste and improve quality.
4. **Ease of business reforms:** Streamline approvals through single-window clearance and reduce **GST** on processed food items.

Government Measures

1. **PM Formalisation of Micro Food Enterprises (PM-FME):** **₹10,000 crore** scheme to assist **2 lakh** units through credit and capacity building.
2. **PLI Scheme (2021):** **₹10,900 crore** to incentivize branding, innovation, and global market access.

3. **Operation Greens:** Extends price stabilization and value chain support for perishables beyond tomato, onion, and potato (**TOP**) crops.
4. **Budget 2024–25 push:** Allocation for cold chain and food labs **increased by 25%**, emphasising quality exports and rural infrastructure.

Conclusion

Food processing is pivotal to making agriculture a **profitable enterprise**, as envisioned by **M.S. Swaminathan**. Building robust **farm-to-fork systems** can ensure that agriculture becomes a source of dignity, stability, and higher incomes for rural India.