



TEST CODE 7 1 3 1 0 2

MGP 2024

Time Allowed : One and Half Hours
समय : डेढ़ घंटे

ForumIAS

Maximum Marks : 125
अधिकतम अंक : 125

GENERAL STUDIES / सामान्य अध्ययन

Name Of Candidate परीक्षार्थी का नाम	NANCY SINGH		
Roll No./अनुक्रमांक	1910134805	Medium/माध्यम	English <input checked="" type="checkbox"/> हिंदी <input type="checkbox"/>
Center Code/परीक्षा केंद्र	1902	Date/दिनांक	24-12-2023

*Center Code : For Online - 1900 / Delhi : Karol bagh - 1901, ORN - 1902, Mukharji Nagar - 1903 / Patna : Boring Rd. - 2001 / Hyderabad : Jawahar Nagar - 2101

INDEX TABLE / अनुक्रमणिका			INSTRUCTION / अनुदेश	
Q. No. प्र.सं.	Max. Marks अधिकतम अंक	Marks Obtained प्राप्तांक	1. Please do furnish Name, Email, Roll No and Mobile in the answer sheet. कृपया उत्तर-पुस्तिका में नाम, ईमेल, रोल नंबर और मोबाइल नंबर भरें।	
1			2. There are TEN questions printed in ENGLISH & HINDI, all questions are compulsory. उत्तर पुस्तिका में अंग्रेजी/हिंदी में दस प्रश्न दिए गए हैं, सभी प्रश्न अनिवार्य हैं।	
2			3. The number of marks carried by a question/part is indicated against it. प्रत्येक प्रश्न/भाग के लिए निर्धारित अंक उसके सामने अंकित किए गए हैं।	
3			4. Answers must be written in the medium authorized in the admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided. उत्तर प्रवेश पत्र में अधिकृत माध्यम में लिखे जाने चाहिए, जो कि दिए गए स्थान में इस प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के कवर पर स्पष्ट रूप से लिखा जाना चाहिए।	
4			5. Word limit in questions, if specified, should be adhered to. Any page or portion of the page left blank in the Question-Cum Answer Booklet must be clearly Struck off. प्रश्नों में शब्द सीमा, यदि निर्दिष्ट हो, का पालन किया जाए। प्रश्न-सह-उत्तर पुस्तिका में खाली छोड़े गये किसी भी पृष्ठ या पृष्ठ के भाग को स्पष्ट रूप से काट दें।	
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Total/कुल अंक	125		For Student Only / केवल परीक्षार्थी प्रयोग हेतु	
Examiner's Discretion/मूल्यांकन कर्ता का विवेक :			Start Time/प्रारंभ करने का समय : 3 : 00	End Time/समाप्त करने का समय : 6 : 15
Total Marks/कुल अंक :			Mode Of Examination/ परीक्षा की विधि :	Online/ऑनलाइन <input type="checkbox"/> Offline/ऑफलाइन <input type="checkbox"/>
*Examiner's Discretion is the marks awarded at the discretion of the examiner based on your overall impression, on the basis of (but not limited to) your handwriting, presentation, use of diagrams, flowcharts, facts and figures or absolutely anything that he/she liked in your copy. मूल्यांकन कर्ता का विवेक अंक, आपकी लिखावट, प्रस्तुति, आरेखों के उपयोग, फ्लोचार्ट, तथ्यों और आंकड़ों या समग्र रूप किसी अन्य विषय वस्तु, जो मूल्यांकन कर्ता को आपकी कॉपी में पसंद आयी के आधार पर (लेकिन इन्हीं तक सीमित नहीं) पर दिए गए अंक हैं।			For Office Use Only / केवल कार्यालय प्रयोग हेतु	
			ECN CODE/ ईसीएन कोड :	Evaluation Date/ मूल्यांकन तिथि :
			EG/ईजी : ① ② ③ ④ ⑤	

Note: Students are expected to incorporate suggestions from the feedback provided in the answers. Discussion classes for the tests are also available online in your portal to aid in your preparation. Further, students are requested to see the good copies of the tests and learn from them. You can also discuss your copy with a Mentor and discover ways and means to improve your answers, or if you have any issues with this test / copy. Ask specific questions, to get specific answers.

EXAMINER'S REMARKS

CRITERIA FOR THE FEEDBACK SECTION AT THE END OF EACH QUESTION

1. **AWIS = Answered What is Asked.** This means whether you have addressed the core demand of the question or not. Addressing the core demand of the question gets you an objectively fair score. It is examiner's perception if you have understood the question and if you know the answer in the first place. Creative answer writing, sometimes missing the core demand, may fetch very high or very low scores, and exposes your answer to the subjectivity of the examiner.
2. **CD & VA = Content Density & Value Addition.** Examiner will evaluate the quality and quantity of your content in the answer. In the same word limit and space limit have you (a) written what is asked (b) gone beyond what is asked (c) enriched answers through combination of (but not all!) suggestions, ideas, quotes, flowcharts, diagrams, facts and figures, data etc. This affects objective components of assessment.
3. **S & F = Structure & Flow =** Whether you have structured your answer properly or not. Whether the answer has been broken into parts and sub-parts and each part has been addressed appropriately or not. Whether the flow of the answer is maintained. Affects both subjective and objective components of assessment.
4. **P & R =** How your answer performs on the criteria of **presentation, ease of read, clarity and apparent effort** in writing the answer. This affects the subjective components of assessment.

Q.1) How does livestock rearing contribute to India's agricultural and economic landscape. Elaborating the key government initiatives for the growth and development of the sector, discuss the successes and limitations of livestock rearing in India. (10 marks, 150 words)

पशु पालन भारत के कृषि और आर्थिक परिदृश्य में कैसे योगदान देता है? इस क्षेत्र की संवृद्धि और विकास के लिए प्रमुख सरकारी पहलों का विस्तार से वर्णन करते हुए, भारत में पशु पालन की सफलताओं और सीमाओं पर चर्चा कीजिए। (10 अंक, 150 शब्द)

Livestock sector contributes 5% to India's GDP and 30% to agricultural GDP. Livestock rearing includes raising of animals like cow, buffalo, goat, sheep etc and using them for production of milk, meat etc.

SUCCESSSES OF LIVESTOCK REARING

- ↳ White Revolution has made India the largest producer of milk with annual contribution of \$ 1 bn in exports.
- ↳ India ranks 8-th in terms of meat production.

CONTRIBUTION OF LIVESTOCK REARING

- ↳ Provides employment to about 8.8% of population in India.
- ↳ It is a source of livelihood to 2/3rd rural population.
- ↳ Livestock sector is more gender inclusive and equitable.

LIMITATIONS OF LIVESTOCK REARING

- ① Poor veterinary and vaccination facilities.
- ② Poor connectivity to the markets.
- ③ Absence of credit and insurance facilities.
- ④ Deficit of fodder.
- ⑤ Lack of food processing industries.
- ⑥ Export issues related to sanitary and phytosanitary measures.
- ⑦ Low productivity (1777^{kg} per animal while world average is 2699 kg per animal)
- ⑧ Milk adulteration.

GOVERNMENT INITIATIVES

- ① National Animal Disease Control Programme
 - ② Livestock sector package
 - ↳ Development programmes (Rashtriya Gokul Mission, National Programme for Dairy Development)
 - ↳ Animal Husbandry infrastructure Fund
 - ↳ livestock health and disease control
 - ③ e-GOPALA app
 - ④ 'Dairy Sahakar scheme'
- livestock sector should be reformed to overcome the challenges as it can help in doubling farmers' income which is the need of the hour.

Feedback

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#	G	A	P
AWIS			
CD & VA			
S & F			
P & R			
Please put tick marks in the above table.			
Here G is Good, A is Average and P is Poor.			
TOTAL MARKS			

Q.2) The Green Revolution, with its focus on land productivity, created a crisis for water productivity, leading to the situation of water stress in farming. In this perspective, suggest measures to make agriculture sustainable and future-ready. (10 marks, 150 words)

हरित क्रांति ने, भूमि उत्पादकता पर अपना ध्यान केंद्रित करते हुए, जल उत्पादकता के लिए संकट पैदा कर दिया, जिससे खेती में जल संकट की स्थिति पैदा हो गई। इस परिप्रेक्ष्य में कृषि को टिकाऊ एवं भविष्य के लिए उपजाऊ बनाने के उपाय सुझाएँ। (10 अंक, 150 शब्द)

Use of high yielding variety of seeds, chemical fertilizers, pesticides is collectively termed as Green Revolution. Though Green Revolution made India food surplus with increased productivity, it created a crisis for water.

CRISIS OF WATER

- ↳ As per Composite Water Management Index by NITI Aayog, nearly 600 million people are facing water scarcity.
- ↳ Agriculture uses 89% of surface water & 92% of groundwater leading to lowering of water table and salinization.
- ↳ As per Falckenmark Water Index, nearly 76% people are in acute water scarcity.
- ↳ According to World Resources Institute, India is 13th among the 17 most water stressed countries.
- ↳ Acc. to GSI, number of districts reporting water scarcity is increasing.

MEASURES TO MAKE AGRICULTURE SUSTAINABLE

- ① Adopting micro irrigation techniques like drip irrigation, sprinkler irrigation, sub-surface irrigation. → PMKSY
 - ② Growing crops as per agro-climatic conditions.
 - ③ Recharging groundwater, aquifers → Atal Bhujal Yojana, Armit Sarovar Mission.
 - ④ Construction of local water storages like Johads or tank, rainwater harvesting → Catch the Rain Campaign
 - ⑤ Zero Budget Natural Farming, Organic Farming, Permaculture, Conservation agriculture, Agroecology must be practiced.
 - ⑥ Soil Health Card to make efficient use of fertilizers.
 - ⑦ Rainfed Area Development Programme must be adopted efficiently.
 - ⑧ Integrated Farming to use waste of one as input of other.
- Agriculture is important sector as it 44% of workforce depends on it. It Sustainable practices must be adopted to develop agriculture along with environment.

Feedback

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	G	A	C
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CD & VA			
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P & R			

Please put tick marks in the above table.
Here G is Good, A is Average and P is Poor.

TOTAL MARKS	
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Q.3) Analysing various issues associated with farm subsidies, suggest ways to rationalise the same. (10 marks, 150 words)

कृषि सब्सिडी से जुड़े विभिन्न मुद्दों का विश्लेषण करते हुए इसे तर्कसंगत बनाने के तरीके सुझाएं।

(10 अंक, 150 शब्द)

An agricultural or farm subsidy is a financial aid given by government to farmers, agri business owner and supplier of raw materials.

TYPES OF SUBSIDIES → Direct Ex: PM-KISAN, MSP
 ↳ Indirect Ex: PDS, Fertilizer, seed, irrigation subsidy.

ISSUES RELATED TO SUBSIDIES

① Direct subsidies can divert resources towards non-productive work.

Example: Marriage, Alcohol.

② Environmental degradation

↳ Fertilizer subsidy has led to soil degradation, salinization, top soil erosion.

↳ Irrigation subsidy has led to overextraction of groundwater depleting water table.

③ Discourages crop diversification

↳ MSP Assured MSP and PDS leads to

diversion of growth of crops like wheat and rice.

Example: 40% of ^{gross cropped} area is of rice and wheat.

- ④ Irrigation subsidy leads to diversion from agricultural to non-agricultural purposes like industry causing huge losses for DISCOMS.
- ⑤ High import bill due to lack of growth of pulses and oilseeds.
- ⑥ Subsidies disincentivise farmers to efficiently utilize resources.
- ⑦ Urea subsidy resulted in smuggling for industrial activities. ⑧ Huge burden on govt.

WAYS TO RATIONALISE SUBSIDIES

- ① As per Shanta Kumar Committee, fertilizer subsidies must be given per hectare into the bank account.
 - ② Neem coating of urea and liquid nano urea to increase efficiency.
 - ③ Encourage crop diversification
 - ④ Provide extension services to farmers to grow crops as per agro-climatic conditions.
- Budget 2023-24 provisioned 1.97 lakh crore food subsidy and 1.75 lakh crore fertilizer subsidy. It is crucial to rationalise subsidies for both reducing fiscal burden as well as sustainable agriculture.

Feedback

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Please put tick marks in the above table.

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TOTAL MARKS

Q.4) Agriculture sector needs to turn into an enterprise to become sustainable; ICT interventions are the key to this transformation. Comment. (10 marks, 150 words)

कृषि क्षेत्र को टिकाऊ बनाने के लिए एक उद्यम में बदलने की जरूरत है; आईसीटी हस्तक्षेप इस परिवर्तन की कुंजी हैं। टिप्पणी कीजिए। (10 अंक, 150 शब्द)

Agriculture sector contributes 17% to India's GDP and employs 14% of workforce.

WHY AGRICULTURE NEEDS TO TURN INTO ENTERPRISE TO BECOME SUSTAINABLE

- ① Informalisation of agriculture sector has resulted in decreasing efficiency.
- ② Constant growth in agriculture
- ③ Unsustainable practices in agriculture has led to environmental degradation and decrease productivity.
- ④ To achieve Economies of scale and reap benefits of other sectors like livestock, fisheries, food processing, it is necessary that agriculture turns into enterprise.

ICT interventions - KEY TO TRANSFORMATION

- ① Smart Farming → Semi-automatic robots can detect weed and kill them at the point of contact.
→ GPS aided tractors can be operated from mere phone screens.

② Precision Farming

↳ ICT can help in best time for sowing seeds
 Example: Microsoft has designed AI sowing app.

③ e-NAM → It can create unified market and allow purchasing as per the needs and demand.

④ Extension services

IoT led remote sensors can be installed in farms to get information about nutrient, soil health and moisture, ^{via messages} and thus resources can be used efficiently.

⑤ Weather Forecasting → KISAN SUVIDHA mobile app.

⑥ Market intelligence → AGMARKNET Portal

⑦ AI enabled drones for monitoring of crops

⑧ Mechanisation → Custom hiring centre and

uber like platforms like Goldfarm.
 → With Trindo, Mahindra goes online to provide tractor on rent.

⑨ SBI YONO Kricchi app → For agricultural inputs.

⑩ Digital connectivity for easy access to loans.

Budget 2023-24 lays emphasis on development of digital infrastructure to provide farmer centric and inclusive solution for sustainable and climate smart agriculture.

Feedback

(For OFFICE use on)

#	G	A	P
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CD & VA			
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Please put tick marks in the above table.

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TOTAL MARKS

Q.5) What is regenerative agriculture? How is it helpful in addressing the issues of agriculture?

(10 marks, 150 words)

पुनर्योजी कृषि क्या है? यह कृषि के मुद्दों के समाधान में किस प्रकार सहायक है?

(10 अंक, 150 शब्द)

Regenerative agriculture is holistic farming system that focuses on soil health, food quality, water quality through methods such as reducing use of chemical fertilizers & pesticides, reducing tillage, integrating livestock.

ADDRESSING ISSUES OF AGRICULTURE

- ① Maintaining soil quality
 - ↳ Regenerative agriculture keeps soil aerated and fertile, top prevents top soil erosion.
 - ↳ crop residues maintain fertility of soil by providing humus.
- ② Doubling farmer's income
 - ↳ Integrated farming has high potential in doubling farmers' income.
 - ↳ livestock provides off season employment.
 - ↳ Reduces pressure of population on land.

③ Maintaining food quality standards

↳ Zero Budget Natural Farming (ZBNF), Organic farming ensures food quality and minimises the risk of diseases.

↳ Regenerative agriculture keeps nutrient content of crops high.

④ Minimize cost of production

↳ ZBNF can efficiently reduce the cost of production and at the same time can increase yield and productivity.

↳ Waste of one sector can be used as input for other. Example: Cow dung can be used as manure.

⑤ Climate Resilient Agriculture

↳ Regenerative agriculture ensures that water table is maintained which can help in addressing issues such as climate change that can have negative impact.

Regenerative agriculture is the need of the hour. It must be extensively adopted for inclusive growth (SABKA SATH, SABKA VIKAS).

Feedback

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TOTAL MARKS

Q.6) Discuss the multifaceted significance of the fisheries sector and the challenges faced by it.

(15 marks, 250 words)

मत्स्य पालन क्षेत्र के बहुमुखी महत्व और इसके सामने आने वाली चुनौतियों पर चर्चा कीजिए।

(15 अंक, 250 शब्द)

Fisheries sector has witnessed 11%^a growth per annum since 2015. India is the fourth largest exporter, third largest producer and second largest producer of aquaculture in fisheries sector.

SIGNIFICANCE OF FISHERIES SECTOR

① It contributes 7.00% to agricultural GDP.

② Fisheries provide support of livelihood to 280 lakh people.

③ It contributes 1.28% to ago national GDP.

Example: Fisheries contributed ~ 8 billion in FY 2021-22 with a production of 16.25 MMT.

④ Fisheries are a source to double farmers' income.

Example: Fisheries along with livestock can

promote integrated farming → Fish Rice fish production

- 5) Fish is a good source of protein which can address challenges of nutritional deficiency.
- 6) Fisheries can provide employment all round the year unlike agriculture.
- 7) India has a large coastline 7500 km which can be helpful in fisheries production.

CHALLENGES FACED BY FISHERIES SECTOR

- 1) Illegal, unregulated, unreported fishing
 - ↳ Fishing is highly unregulated which undermines the sector.
- 2) Lack of development of aquaculture
 - ↳ Aquaculture has become stagnant.
 - Freshwater aquaculture is ~~not~~ on a decline.
- 3) Demand issue
 - ↳ There is less demand for ready to eat marine products.

④ Use of fine nets by the fishermen results in catching of fish larvae thus undermining production.

⑤ Poor infrastructural and marketing facilities.

⑥ Mechanised fishing creates issue with countries like Sri Lanka.

Example : Use of deep sea trawlers has been

STEPS TAKEN BY GOVERNMENT TO PROMOTE FISHERIES

① PM Matsya Sampada Yojana

② National Policy on Marine Fisheries, 2017

③ Fisheries and aquaculture development fund.

④ Construction of pond as an activity under MGNREGA.

⑤ Sagar Parikrama.

Fisheries is also one of the crucial sector for development and doubling farmer's income. Its challenges must be overcome as per

Meena Kumari Committee to move from Neel Kranti and to Arth Kranti.

Feedback

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TOTAL MARKS			

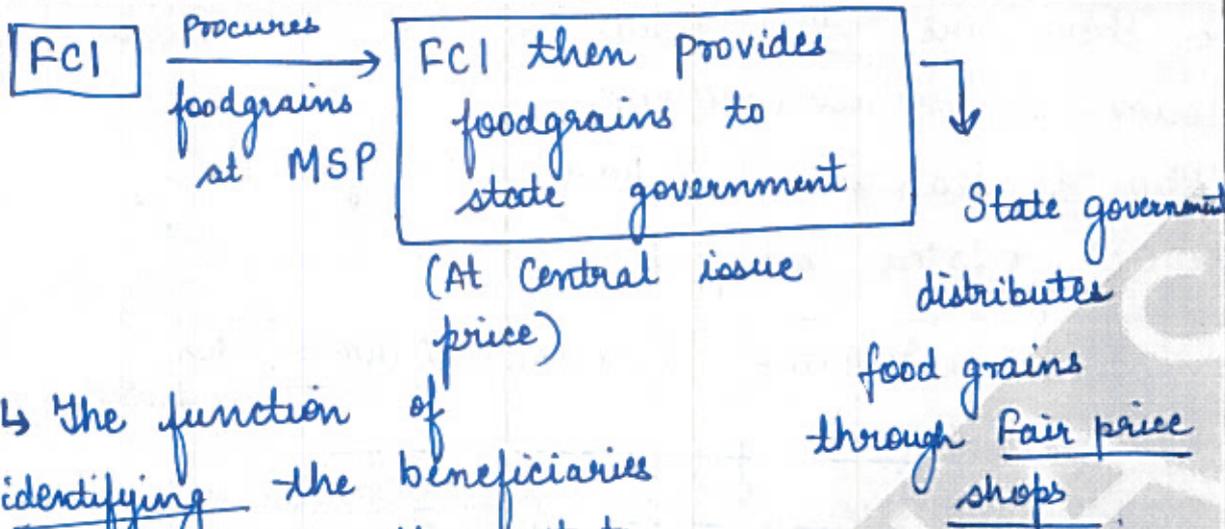
Q.7) Describe the functioning of the Public Distribution System (PDS) in India. To what extent are the issues in PDS a result of the problems in Food Corporation of India? (15 marks, 250 words)

भारत में सार्वजनिक वितरण प्रणाली (पीडीएस) की कार्यप्रणाली का वर्णन कीजिए। पीडीएस की समस्याएं किस हद तक भारतीय खाद्य निगम की समस्याओं का परिणाम हैं? (15 अंक, 250 शब्द)

Public distribution system is an intervention by government under National food security Act, 2013 to ensure food security, as well as, nutrition security so that people can attain 'right to live with dignity'.

FUNCTIONING OF PUBLIC DISTRIBUTION SYSTEM

- ① It aims at selling foodgrains - ~~rich~~ rice, wheat & millets at ₹ 3, ₹ 2, ₹ 1 respectively.
- ② It covers 75% of rural population and 50% of urban population.
- ③ It has 2 categories : entitled to receive
 - ↳ Antyodaya Anna Yojana - 35kg per family per month.
 - ↳ Priority sector households - ~~it~~ entitled to receive 5kg per person per month at ₹ 1, ₹ 2, ₹ 3 (millets, wheat & rice).
- ④ It aims to provide ration card to the female.



↳ The function of identifying the beneficiaries starts with the state government.

↳ Also, sometimes FCI can ask state government to procure food grains.

ISSUES IN PDS AS A RESULT OF PROBLEMS IN FCI

↳ Storage issue: CAG report states that there is serious shortfall in storage of FCI.

↳ Use of conventional methods like Cover & Plinth storage.

↳ FCI procures double the amount which it is entitled to store ~~is~~ leading to wastage. Example: As per UN, 40% of foodgrain is wasted post-harvest.

↳ Leakages in procurement

↳ As per planning commission, there are 36% leakages.

However, there are other issues in PDS.

- ↳ Inclusion & exclusion error
- ↳ Corruption & leakages ↳ Huge burden of subsidy.
- ↳ Challenges related to quality, card issue etc.

SHANTA KUMAR COMMITTEE RECOMMENDATIONS FOR REFORMS IN PDS

- ① FCI must outsource procurement through other agencies like Central Warehousing Corporation etc.
- ② Existing storage system must be converted in silos & private investment must be allowed
- ③ Food grains to priority sector households must be issued at MSI 50% of MSP.
- ④ % coverage must be brought down to 40%.
- ⑤ FCI must procure only the surplus & rest to be procured by government.

OTHER REFORMS → End to end computerisation of FPS

- ↳ GPS aided trucks like in Tamil Nadu
- ↳ Digitisation of ration cards.
- ↳ DBT could be introduced (done on pilot basis in Puducherry, Chandigarh)

PDS is an important welfare scheme that ensures food security but certain reforms are the need of the hour to bring in efficiency.

Feedback

(For OFFICE use on)

#	G	A	P
AWIS			
CD & VA			
S & F			
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Please put tick marks in the above table.

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TOTAL MARKS	
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Q.8) Why are TOP (tomato, onion, potato) crops susceptible to large price fluctuations? Elaborating upon the implications of inflation in horticulture crops, assess the role of Operation Greens in containing the same. (15 marks, 250 words)

TOP (टमाटर, प्याज, आलू) फसलें बड़े मूल्य में उतार-चढ़ाव के प्रति संवेदनशील क्यों हैं? बागवानी फसलों में मुद्रास्फीति के निहितार्थ पर विस्तार से चर्चा करते हुए, इसे संयमित करने में ऑपरेशन ग्रीन्स की भूमिका का आकलन कीजिए। (15 अंक, 250 शब्द)

Horticulture crops refer to the fruits, vegetables with just 16% of gross cropped area, horticulture contributes 35% to agricultural GDP and employs 20% of workforce.

TOP Crops susceptible to large price fluctuations

① Absence of broad production zones like foodgrains results in ^{decrease in} supply in one region to other regions.

↳ 60-65% of gross cropped area is occupied by cereals (rice, wheat, millets)

② Poor rail and air connectivity to transport high value horticulture crops

③ Absence of food producing industry which could convert tomato into purees or onions into dry onion which can then be used in case of deficiency in supply.

④ Post-harvest losses

↳ According to NITI Aayog, there is loss of 90K crore annually because of post harvest losses.

⑤ ~~Absent~~ Lack of integrated cold chain to minimise wastage.

⑥ Dependency on rainfall is high

⑦ Seasonal variability is high

⑧ Lack of assured irrigation.

IMPLICATIONS OF INFLATION IN HORTICULTURE CROPS

① ~~Vitamins~~ Nutritional deficiency

↳ Fruits and vegetables which are a rich source of vitamins and minerals cannot be consumed by poor people leading to nutritional deficiencies.

② Burden on families impacting savings

③ Burden of diseases

④ Impedes exports

⑤ Stunting, wasting among children, maternal mortality etc.

Operation Greens was introduced to minimize the post harvest losses. It cover 22 crops except wheat and rice.

ROLE OF OPERATION GREEN

- ① Krishi Rail, Krishi Udan to improve infrastructure and connectivity to markets.
- ② Development of integrated cold chain, warehousing to address issues of post harvest losses.
- ③ Grading, packaging & sorting facilities provided at the farms.
- ④ Increased production and increased exports.
Example: Apples of Himachal Pradesh.

ISSUES OF OPERATION GREENS

- ① It yet ~~is~~ lacks extensive coverage.
- ② lack of private sector participation.
- ③ Project delivery slow.
- ④ Essential Commodities Act.

~~Operation~~ Operation Greens is a step in the right direction to increase and efficiently maintain production of horticulture crops. It must be promoted for overall growth & development.

Feedback

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#	G	A	P
AWIS			
CD & VA			
S & F			
P & R			
Please put tick marks in the above table. Here G is Good, A is Average and P is Poor.			
TOTAL MARKS			

Q.9) Adoption of millets can provide unique solutions to the problems of nutritional deficiency, ecological degradation, and receding farm incomes; however, the realisation of its complete potential is hindered by a slew of factors. Comment. (15 marks, 250 words)

मोटे अनाजों को अपनाने से पोषण की कमी, पारिस्थितिक क्षरण और घटती कृषि आय की समस्याओं का अनूठा समाधान मिल सकता है; हालाँकि, इसकी पूर्ण क्षमता की प्राप्ति कई कारकों से बाधित है। टिप्पणी कीजिए। (15 अंक, 250 शब्द)

Millets are small seeded annual grasses that are cultivated as grain crops primarily on marginal lands in dry areas of temperate, tropical and sub-tropical regions. 2023 is declared as International Year of Millets by UN.

MILLETS - A SOLUTION TO THE PROBLEMS

(A) Nutritional deficiency

↳ Millets can address the issue of hidden hunger prevailing within the population.

↳ It can bring down problems of stunting (35%) and wasting (~ 17%) among children.

↳ Millets are highly nutritious food with low gluten free. It can therefore

address problems of obesity.

↳ Millets have a longer shelf life and therefore can be consumed for longer duration.

↳ Good source of protein, fibre, amino acids etc.

(B) Ecological degradation

- ↳ Millet is not a water intensive crop which can hence address the problem of lowering ground water table & salinization.
- ↳ Millets add nitrogen to the soil therefore make the soil fertile.
- ↳ Millet is a climate resilient crop which can address climate change.

(C) Receding farm income

- ↳ Millets have shorter maturity ^{period of} 60 to 70 days and hence can ^{help in} earner faster income.
- ↳ Resistant to pests and diseases and therefore it can minimize the use of pesticide and insecticide (minimise cost of production).
- ↳ Minimize cost of production with respect to irrigation, fertilizer.
- ↳ Awareness among youth regarding good health can increase millets consumption and hence increase in income to farmers.

POTENTIAL FACTORS HINDERING POTENTIAL

- ① Open procurement by FCI of wheat and rice discourages farmer for crop diversification.
- ② PDS involves distribution of rice and wheat and so farmers are encouraged to produce wheat & rice.
- ③ Low awareness among people regarding nutrition content of millets.
- ④ Stereotyping of millets as 'food for poor'.
- ⑤ Assured MSP of wheat and rice and multiple purchasing points for them discourages production of millets.
- ⑥ Lack of food processing industry which could convert millets into ready to eat products.

MAHARISHI initiative, development of Millets Research Centre in Hyderabad are steps in the right direction to promote millets. Millets are truly 'Shree Anna' with high nutrition benefits.

Feedback

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CD & VA			
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P & R			

Please put tick marks in the above table.
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TOTAL MARKS	
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Q.10) Why has the growth in the Food Processing Sector remained subpar in the country? What measures can be taken to break this status-quo? (15 marks, 250 words)

देश में खाद्य प्रसंस्करण क्षेत्र की वृद्धि निम्न स्तर पर क्यों बनी हुई है? इस यथास्थिति को तोड़ने के लिए क्या उपाय किये जा सकते हैं? (15 अंक, 250 शब्द)

Food processing refers to any value addition in raw agricultural materials and livestock products that are suitable for production consumption. Food processing sector is a sunrise industry that contributes 9% to India's GDP.

GROWTH IN FOOD PROCESSING REMAINED SUBPAR

① Infrastructure bottlenecks

- ↳ Lack of storage facilities
- ↳ Lack of integrated cold chain
- ↳ Lack of all weathered metalled roads
- ↳ Lack of warehousing, grading facilities

② Lack of skilled manpower

↳ Farmers of India have poor skills with respect to this sector which leads to demand supply mismatch i.e. demand of industry & that of supply / production mismatch.

- ③ Poor research & development in the food processing sector.
- ④ Lack of assured credit and insurance facilities.
- ⑤ Regulations
 - ↳ APMC highly regulates the food processing sector leading to lack of participation from private sector.
 - ↳ Also, corporates & retailers are not allowed to directly procure from farmers.
- ⑥ Permissions required for setting up food processing unit is not only costly but also time consuming.
- ⑦ Acts like Essential Commodities Act deters private investments in building cold storage chain.
- ⑧ Poor rail & air connectivity for high value horticultural crops.
- ⑨ Poor adherence to food safety standards.

MEASURES THAT CAN BE TAKEN

- ① Developing integrated cold chain, agriculture

clusters to reduce post harvest losses.

Example : PM SAMPADA involves development of mega food parks.

② Providing extension services to farmers so that they can grow crops as per agro-climatic conditions.

Example : KISAN SUVIDHA App, St

③ PM MATSYA SAMPADA YOJANA → that allots ₹ 6000 crore to develop fish and marine products.

④ Inclusion of food processing industry & integrated cold chain in priority sector lending to ease credit facilities.

⑤ Promoting schemes like ONE DISTRICT ONE PRODUCT, Operation Greens.

⑥ 100% FDI under automatic route for setting up food processing industry.

⑦ PLI scheme for food processing (₹10,800 crore)

⑧ Rationalising essential commodities Act and promoting e-NAM.

Prime Minister Narendra Modi has rightly said that 21st century India needs post harvest or food processing revolution for increased income to households & increase in agricultural production.

Feedback

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TOTAL MARKS	
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Mentor Feedback Questions

1

2

3

4

5

Test Goal

1

2

3

Outcomes

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Marking Scheme

Mark	Good	Average	Below average
10 Marker	3.75 - 5.0	3.0 - 3.5	< 3.0
15 Marker	5.75 - 7.0	4.0 - 5.5	< 4.0
20 Marker	7.75 - 10	6 - 7.5	< 6
	Key / Relevant Point		
	Vague / Irrelevant		

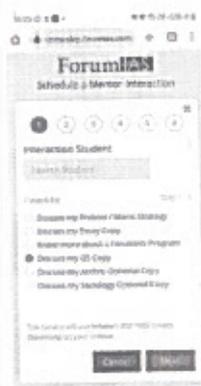
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