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GENERAL STUDIES (TEST CODE : 1828)

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Medium Eng./Hindi	English	Registration Number	1062113
Center	Online	Date	23/8/22

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
2	10	
3	10	
4	10	
5	10	
6	10	
7	10	
8	10	
9	10	
10	10	
11	15	
12	15	
13	15	
14	15	
15	15	
16	15	
17	15	
18	15	
19	15	
20	15	

Total Marks Obtained:

Remarks:

INSTRUCTIONS

- Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code).
उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न-पत्र कोड, विद्यार्थी क्रमांक आदि)।
- There are **TWENTY** questions printed in **ENGLISH & HINDI** इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
- All questions are compulsory.**
सभी प्रश्न अनिवार्य हैं।
- The number of marks carried by a question/part is indicated against it.
प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
- 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. No marks will be given for answers written in medium other than the authorized one.
प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे।
- Word limit in questions, if specified, should be adhered to.
प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
- Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off.
उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।

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Plot No. 857, 1st Floor, Banda Bahadur Marg (Opp Punjab & Sindh Bank), Dr. Mukherjee Nagar
Delhi- 110009

1. Discuss the significance of the International Solar Alliance and highlight the initiatives taken by it in recent times. (150 words) 10

अंतर्राष्ट्रीय सौर गठबंधन के महत्व पर चर्चा कीजिए और हाल के दिनों में इसके द्वारा आरंभ की गई पहलों को रेखांकित कीजिए।

International Solar Alliance (ISA)
was formed on the backdrop of
2015 Paris Summit by India &
France

Significance

- ① Increase adoption of solar energy → A way to increase share of renewable energy
- ② Green energy → To reduce effects of climate change
- ③ Reduce dependence on fossil fuels
 - ↳ Reduce import bill
 - ↳ Reduce dependence on oil producing countries
- ④ Sharing of data, expertise,

Technology & personnel → among various members for holistic development

⑤ Significant for India

✓ Green leadership role

✓ Fulfill Commitment Pledge of COP26

Initiatives Taken

① Establishing of Secretariat at Gurgaon

② One Sun One World One Grid

In partnership with UK's Green Grid Initiative

③ Global energy alliance for people and planet (GEAPP) → To increase investment in Green Energy.

Recently, ISA was given observer status at UNGA, showing its growing left.

2. Identify the factors behind the problem of low agricultural productivity in India. What initiatives have been taken by the government to address this problem? (150 words) 10

भारत में निम्न कृषि उत्पादकता की समस्या के लिए उत्तरदायी कारणों की पहचान कीजिए। इस समस्या के समाधान के लिए सरकार द्वारा कौन-सी पहलें शुरू की गई हैं?

India has the largest area of farmlands in the world. However, the productivity is not at par with the rest of the world (2750 kg/hectare, world average is 3289 kg/hectare).

Factors

① Fragmentation of land holdings.
cannot lead to economies of scale in agriculture

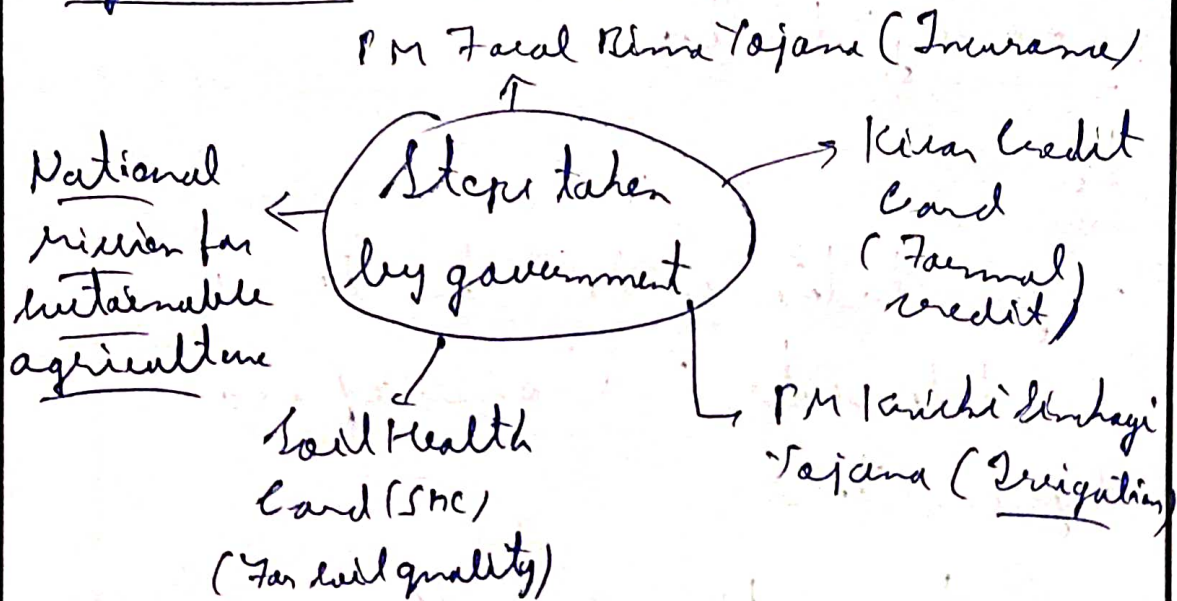
② Use of traditional methods.
↳ Manual labour, lack of developed irrigation, lack of mechanisation etc

③ Structural Problems

- Delayed Unemployment
- Low worker productivity
- Flawed procurement policy → More focus on rice & wheat.
- Lack of formal credit

④ International competition → Due to WTO's liberalisation

⑤ Environmental factors → Soil degradation, drought, erratic monsoon



Agriculture forms the backbone of Indian State. Urgent steps are needed to rejuvenate Agriculture.

3. Despite pulses providing dual benefits of nutritional security and sustaining agricultural production systems, India has not been able to achieve self-sufficiency in their production. Discuss. (150 words) 10

हालांकि, दलहन पोषण सुरक्षा और कृषि उत्पादन प्रणालियों को स्थायी बनाए रखने का दोहरा लाभ प्रदान करते हैं, तथापि भारत इनके उत्पादन में आत्मनिर्भरता प्राप्त करने में सक्षम नहीं हुआ है। विवेचना कीजिए।

India is the largest producer as well as largest importer of pulses. However, India has not been able to achieve self-sufficiency because:

① Flawed Procurement Policy

MSP regime is biased towards rice & wheat

② Traditional Method of Agriculture

↳ Lack of HYV seeds, fertilizers, mechanisation

↳ Lack of formal credit system

③ Underdeveloped food processing industry - To process pulses for daily consumption..

⑥ Dietary Specification

- ↳ Pulses are a substantial part of meals
- ↳ Used in mid-day meals for children

Importance of Pulses

- ① Nutritional Security → Provision of protein to human body
↳ Counters hidden hunger

② Sustainable Agriculture

- ↳ Nitrogen fixation of soil
- ↳ Less water intensive crop.

Thus, pulses are an important component of agriculture. Targeted interventions are needed to obtain self sufficiency. Eg. Subsidy, HYV seeds etc.

4. What do you understand by methanol economy? Critically discuss its role in achieving India's energy security and economic prosperity. (150 words) 10
मेथनॉल अर्थव्यवस्था से आप क्या समझते हैं? भारत की ऊर्जा सुरक्षा और आर्थिक समृद्धि प्राप्त करने में इसकी भूमिका की समालोचनात्मक विवेचना कीजिए।

Methanol economy refers to the use of blending of fuel with methanol and dimethyl ether.

It is in regular usage. e.g. Transportation, energy production.

Advantage → Low cost, less pollution, No harmful emissions.

It can play an important role in energy security & economic prosperity!

① Reduce import dependence

→ of fossil fuels from OPEC
→ Lower import bill. i.e. Current Account Deficit (CAD)

② Self sufficiency

- ↳ India can mass produce methanol via indigenous chemical industries
- ↳ Chance of export to other countries

③ Cost factor - Less than normal fuel (oil)

- ↳ Multiple savings from fuel.

④ Sustainable Development

- ↳ Create a green economy
- ↳ Reduce pollution.

Thus, Methanol economy is the future. India already has a target of 10% reduction in fuel imports via methanol substitution by 2030.

5. Despite many initiatives towards road safety, India accounts for 11% of the global death in road accidents with about 1% of the world's vehicles. Discuss. (150 words) 10

सड़क सुरक्षा की दिशा में की गई अनेक पहलों के बावजूद, विश्व स्तर पर सड़क दुर्घटनाओं में होने वाली मृत्यु के मामले में भारत 11% के लिए जिम्मेदार है, जबकि यहाँ विश्व के लगभग 1% वाहन हैं। विवेचना कीजिए।

India accounts for highest amount of deaths by road accidents. This causes huge loss of life and property, but also has a social cost on families.

[Steps taken so far]

① Motor Vehicles (Amendment) Act, 2019

↳ Increase of fine & punishment for offenders

② Installation of speed bumps, reflective mirrors, etc on roads.

③ Use of CC TVs to monitor speed

④ Good Samaritan Rule (Supreme Court Judgement): No harassment to people who help.

However, road accidents still persist due to:

(A) Pre Accident reasons

- ↳ Corruption in issuing licenses and charging of fines
- ↳ Repeat offenders are not punished.
- ↳ Poor quality roads
- ↳ Issues with vehicular safety

(B) Post Accident reasons

- ↳ Lack of emergency health facilities
- ↳ Lack of road humanitarian
eg. People recording accidents.

Thus, a holistic approach needs to be taken. Proper infrastructure with strict implementation of laws and behavioral change can lead to transformative change.

6. Increasing the share of rail freight in the overall modal mix could present a golden opportunity for India to shift to an efficient freight paradigm. Discuss. (150 words) 10

समग्र मोडल मिक्स में माल बुलाई में रेलवे की हिस्सेदारी बढ़ाने से भारत को एक कुशल माल बुलाई प्रतिमान में स्थानांतरित होने का एक सुनहरा अवसर प्राप्त हो सकता है। विवेचना कीजिए।

Share of railways in freight is at very low levels.

Reasons → Low track density, same lines for passenger and freight, delays, red-tape, corruption

Advantages of efficient freight

- ① Surplus revenue source → can be used to develop more infrastructure
- ② Use of economies of scale
↳ Reduce freight costs
↳ Ease of doing business
- ③ Environmental factors → Decrease of pollution significantly.

④ Efficiency → For heavier & time bound cargo

Way Forward

① Investment & Infrastructure

↳ To increase connectivity to freight areas, ports etc.
↳ Factor & ability to carry large loads → Increase K & D expenditure.

② Administration steps

↳ Separate civilian & freight lines
↳ Reduce delays, avoid accidents
↳ Multimodal transport integration
↳ Holistic development of transport sector
↳ Monitoring → E.g. LEADS survey by Ministry of Commerce.

At present logistics cost are around 15% of GDP. Efficient freight can reduce this gap.

7. The Major Port Authorities Act, 2021, seeks to grant greater autonomy and flexibility to the major ports and professionalise their governance. Discuss.

(150 words) 10

प्रमुख बंदरगाह प्राधिकरण अधिनियम, 2021, प्रमुख बंदरगाहों को अधिक स्वायत्तता और लचीलापन प्रदान करने तथा उनके शासन को पेशेवर बनाने का प्रयास करता है। विवेचना कीजिए।

Ports are the centre of economic activity of coastal economies.

Major Port Authorities Act, 2021 can lead to:

(A) Greater Autonomy

↳ Formation of Board of Ports Authority → Replace Port Trusts

↳ Autonomy for planning and development → Integrated Port development.

↳ Rationalise Tariffs charge

(B) Greater Flexibility

↳ of finance, developmental plans, multi modal transport etc.

② Professional Governance

↳ Reduce government interference

↳ Independent body for management

Thus, it is a crucial step to
boost overall transport sector.

It will play a huge role to
develop \$5 trillion economy.

8. Analyse the need for shifting from presumptive land titling to conclusive land titling system in India. Also, highlight the hurdles in its implementation. (150 words) 10

भारत में अनुमानित भूमि स्वामित्व से निर्णायक भूमि स्वामित्व प्रणाली में स्थानांतरण की आवश्यकता का विश्लेषण कीजिए। साथ ही, इसके क्रियान्वयन में आने वाली बाधाओं को रेखांकित कीजिए।

One of the most important areas of concern in India is the lack of conclusive titling of land.

Need of Conclusive Land Titling

- ① Improve ease of doing business

↳ Land acquisition becomes a nightmare for companies.
↳ Reduces incentive to invest.

- ② Lack of clear titling.

↳ Price discovery becomes opaque.
↳ Ownership becomes ambiguous.
↳ Use of land to hide black money.
↳ Difficult to access formal credit.

③ Increase in litigation

- ↳ Increase costs & delays in project
- ↳ Increases burden of court & government

Hurdles

① Poor maintenance of records

Use of stamp paper, forgery of records, etc.

② Bureaucratic hurdles

- ↳ Lack of technical expertise
- ↳ Red-tapism & corruption

③ Cash economy → No paper transaction to show sell/purchase of land → Evidence of ownership becomes difficult

Thus, the government ~~is~~ has launched Digitalisation of land records, SWAMITVA Scheme etc. to pave way for land reforms.

9. In light of various issues being faced, discuss the need for a revamped and need-based PDS in India. (150 words) 10

सामना की जा रही विभिन्न समस्याओं के आलोक में, भारत में एक पुनर्निर्मित और आवश्यकता-आधारित पी.डी.एस. की आवश्यकता की विवेचना कीजिए।

Government PDS system is one of the most effective affirmative action policy

Issues

① Inefficiency in PDS system

↳ No link between market forces
↳ Leakages, corruption etc.

② Rising cost of food subsidy

↳ Increase burden on government

③ Issue of Issue Price

↳ Political tool to appease farmers
↳ Detrimental to balanced cropping patterns

④ Storage problems → FCI godowns are incapable of handling such large quantities of grain

⑤ Hidden hunger issues → Lack of balanced diet

Measures

① Rationalise pricing system
↳ make it more responsive to market conditions.

② Diversifying procurement
To include pulses, vegetables, coarse seeds etc. Ex: Operation Greens.

③ Use of technology → To reduce ~~leaky~~ leakages, wastage & corruption
ex. e-PDS system, geotagging etc.
Thus, a need based system PDS can help government to intervene effectively

10. Planning for the potential long-term impacts of climate change on agriculture needs to be prioritised to mitigate threats it poses to India's food security. Discuss. (150 words) 10

भारत की खाद्य सुरक्षा के समक्ष जलवायु परिवर्तन से उत्पन्न होने वाले खतरों को कम करने के लिए, कृषि पर इसके संभावित दीर्घकालिक प्रभावों की योजना बनाने को प्राथमिकता दिए जाने की आवश्यकता है। विवेचना कीजिए।

As per IPCC 6th Report, agriculture is going to be one of the most affected sectors of India due to climate change.

Potential long term impacts

- ① Increase in population → Increased burden on land. Ex. Malthusian Prediction.
- ② Erratic rainfall → Affects the agriculture cycle & water table. Ex. Erratic monsoons etc.
- ③ Degradation of land → Soil erosion, acidification, desertification etc. Ex. ISRO's Desertification Atlas.

④ Increase in disasters → like droughts, cyclones, pest attacks, floods etc.

Mitigation Measures

① Sustainable Agriculture

↳ Organic farming, Zero Budget Natural farming, Hydroponics etc.

② Use of Technology based solution

Eg. Geospatial surveys, drip irrigation, use of drones, Nano urea

③ Biotechnology → Increase resistance of crops and nutritional value

Eg. Bt-cotton

④ Climate Mitigation Steps → Afforestation, reduce emissions etc.

Along with mitigation, adaptation techniques should also be introduced.
Also increased investment and research.

11. Private sector participation in the operations of Indian Railways can provide a solution to the multiple issues that it faces. Discuss. Also, highlight the features of the Bharat Gaurav Scheme in this context.

(250 words) 15

भारतीय रेलवे के संचालन में निजी क्षेत्र की भागीदारी इसके समक्ष विद्यमान अनेक समस्याओं का समाधान प्रदान कर सकती है। विवेचना कीजिए। साथ ही, इस संदर्भ में भारत गौरव योजना की विशेषताओं को भी रेखांकित कीजिए।

Indian Railways is part of strategic sector, which does not allow for Privatization.

Need of Private Operation

- ① Financial losses → Due to inefficiency, underinvestment, corruption etc.
- ② Losing market share → To roadways → leads to further loss
- ③ Passenger losses → As ticketing procedures are prone to cheating, forgery etc. and competition by low budget airlines.

④ Conditions on train → Still very poor → creates an unsustainable environment. ex. Poor washrooms, improper food etc.

⑤ Overburdening of government

To take efficient steps to reduce stress.

Entry of private sector, thus, will:

① Bring in technical & managerial expertise

② Increased focus on efficiency, better service delivery and better travel experience

③ Boost investment → Infrastructure, service improvement, safety etc.

④ Reduce losses → Technology based solution.

(5) Reduce burden on government and
ensure healthy competition

In the context, Bharat Gaurav
scheme will lead to overall
development of railways.

Features → ① Development of theme
based units.

↳ ② Operator freedom → To
run theme based units,
route, halts etc.

↳ ③ Use of advertisement

To boost railway revenues

↳ ④ Boost tourism & railway
sectors → Post Covid recovery.

Thus, Bharat Gaurav Scheme is
part of larger step to initiate
structural reforms in Railways.

12. Discuss how the India Digital Ecosystem of Agriculture (IDEA) will help the government in increasing farmers' income and improving efficiency of the agriculture sector as a whole. Also, state the associated concerns.

(250 words) 15

चर्चा कीजिए कि इंडिया डिजिटल इकोसिस्टम ऑफ एग्रीकल्चर (IDEA) किसानों की आय बढ़ाने और समग्र रूप से कृषि क्षेत्र की दक्षता में सुधार करने में सरकार की किस प्रकार सहायता करेगा। साथ ही, इससे संबंधित चिंताओं का भी उल्लेख कीजिए।

IDEA is an initiative by government to introduce technology based solutions in Agriculture.

It will lay the foundation of AgriStack.

It will help government to:

① Raise farmer's income

(i) Increase investment in agriculture

(ii) Increase productivity &

decrease costs

(iii) Enable farmers to compete better at national & international markets

(iv) Introduce digital solutions and data based policies.

⑬ Improving efficiency of Agriculture

① Improved Service Delivery
via use of digitisation

② Provision of adequate data
for future research purposes

③ Remove leakages, rent-taxes
in agricultural process

Issues

① Digital divide → Because of
lack of access & capacity to
use services.

② Cost factor → India has the
highest agricultural land -
so policy cost will be massive

③ Expertise issue → Of agriculture
officials to implement solutions.

④ Data Privacy - Exploitation
by private players especially in
absence of data privacy law.

⑤ Commercialization of Agriculture
can lead to problems in food
security.

Thus, the government should
take adequate steps like data
privacy, independent regulation
and other before rolling out
IDEA based Agriculture.

13. Owing to rapid depletion of water resources, there is an urgent need to increase water use efficiency. In this context, discuss the status of irrigation in India and challenges faced. Also, suggest suitable measures to address the challenges. (250 words) 15

जल संसाधनों के तीव्र ह्रास को देखते हुए, जल उपयोग दक्षता बढ़ाने की तत्काल आवश्यकता है। इस संदर्भ में, भारत में सिंचाई की स्थिति और सामना की जाने वाली चुनौतियों पर चर्चा कीजिए। साथ ही, उन चुनौतियों से निपटने के लिए उपयुक्त उपायों का सुझाव दीजिए।

As per WIT 2 Survey's Composite
Water Index, most of India faces
water stress inspite of being a
monsoon & river intensive country

Acute water stress is faced in
irrigation in following ways

① Heavy dependence on monsoon
and groundwater → can be detrimen-
tal to crop security. Eg. Punjab,
Haryana.

② Incompletion of projects

Due to inefficiency, bureaucratic
procedure etc is leading to water
stress.

① Water inefficiency - Use of water in traditional ways
eg. Flood of fields

② Cost factor - Due to 88% of farmers being marginal farmer, who cannot afford projects.

③ Overall investment in agriculture has decreased as a percent of GDP
↳ leading to lower investment on irrigation.

Measures required

① Watershed Management

- Diversion of rainwater etc to sustainable agriculture

② Change crop pattern - Increase share of pulses, coarse seeds, reduce rice, sugarcane etc.

③ Micro Irrigation Projects

Eg. Drip Irrigation reduces water use by 90%

④ Rationalise subsidies → On electricity, purchase of motor, food procurement etc → Incentivise sustainable irrigation.

⑤ International cooperation → With countries like Israel who have advanced agriculture

The Government so far has taken a few correct steps - PM Kishi Sinchayi Yojana (PMKSY), Micro Irrigation Fund. However, more steps are required to produce qualitative change.

14. Dairying is a viable livelihood option for a large section of the population. In this context, discuss the significance, challenges faced and associated government initiatives for the dairy sector in India. (250 words) 15

डेयरी व्यवसाय, आबादी के एक बड़े हिस्से के लिए आजीविका का एक व्यवहार्य विकल्प है। इस संदर्भ में, इसके महत्व, विद्यमान चुनौतियों और भारत में डेयरी क्षेत्र के लिए सरकार द्वारा की गयी पहलों की विवेचना कीजिए।

India is the world's largest
producer of milk. Dairying is
an important practice under
Livestock Agriculture.

[Significance]

① Increase of income → Supplemen-
tary source of income is created
for farmers → can double farmers
income

② Development of food processing
industries → Usher in rural
development & economic growth
Eg. Amul in Gujarat

- ③ Socio-economic development
↳ Impetus to cooperative
movement, women empowerment,
nutritional diversification etc.
- ④ Demand of Milk → Reason to
increase owing to large amount
of population, particularly the youth
- ⑤ Tackle unemployment → Especially
Disguised unemployment

Challenges

- ① Lack of infrastructure
To conduct dairy farming on a
large scale
- ② Rural Urban gap → Avenue of
sales reduce due to poor connecti-
vity, storage facility etc.

- ⑤ Middlemen → Diversion of profit away from farmers
- ⑥ Productivity issues → As the breeds of cattle are inferior in milk production.
- ⑦ Animal health issues → Lack of veterinary services

⑧ Environmental burden → Livestock are one of the biggest source of green house gases.

On dairying front, government has taken following steps:

- ① NDDB → National Dairy Development Board
 - ② Rashtriya Gokul Mission → To develop indigenous breed.
 - ③ Animal breeding & Artificial insemination
 - ④ Supporting cooperatives & FPOs.
- The development of sustainable dairying can produce multipplier effects in agriculture.

15. Food subsidy bill is becoming an "unmanageably large" expenditure for the government. In this context, analyse the need for revisiting the National Food Security Act (NFSA), 2013. (250 words) 15

खाद्य सन्निधि बिल सरकार के लिए एक "बहुत बड़ा और बोझिल" खर्च बनता जा रहा है। इस संदर्भ में, राष्ट्रीय खाद्य सुरक्षा अधिनियम (NFSA), 2013 पर पुनः विचार करने की आवश्यकता का विश्लेषण कीजिए।

Food subsidy bill of government is the largest subsidy given in Agriculture sector.

NFSA, 2013 provides the basis of food subsidy.

Need of revisiting NFSA, 2013

① Huge burden on government balance sheet → Reduce funds for welfare and infrastructure

② Inefficient pricing

↳ MSP regime is bad for farmer appeasement

↳ Not linked to market prices

↳ Affect cropping pattern.

① Storage Issue

↳ Most of grain put rate in
FCI godowns

② Double subsidy - Certain state
governments also give own
subsidy to farmers

Proposed changes

① Reduction of NFSA coverage

↳ 75% of ~~the~~ rural population
and 50% of urban population to
60% of rural and 40% of
urban population

② Rationalising MSP regime

To reduce monetary stress

③ Use of technology based
solutions to reduce inefficiency

2 leakages. Eg. DBT, Jan Dhan
Aadant, Creatagging, e-POS system

④ Develop storage & processing
facilities to prevent food wastage

Thus, a multi-dimensional
approach is needed to revamp
food subsidy regime in India

16. Food processing industry provides a vital link between the two pillars of the economy, i.e. agriculture and industry. In view of this, examine the constraints faced by the agri-food supply chain system in India. Suggest suitable solutions as well. (250 words) 15

खाद्य प्रसंस्करण उद्योग अर्थव्यवस्था के दो स्तंभों अर्थात् कृषि और उद्योग के बीच एक महत्वपूर्ण कड़ी है। इसे दृष्टिगत रखते हुए, भारत में कृषि-खाद्य आपूर्ति शृंखला के समझ आने वाली बाधाओं की जांच कीजिए। साथ ही, उपयुक्त उपायों का भी सुझाव दीजिए।

(1502)
Food Processing Industry refers to the industry which uses agricultural & livestock outputs as inputs. Eg, Dairy Industry, food processing plants etc.

Most important significance of FPIs are to provide vital link between two pillars of economy i.e. agriculture & industry by:

- ① Provision of raw material
- ② Value addition process → Increase revenue
- ③ Increase income of farmers as well as of industries

Constraints

① Lack of forward & backward linkages between Agriculture & Markets

↳ Inefficient supply chain
↳ rise of costs

② Poor logistics → lead to cost escalation, delays, damages and others

③ Lack of infrastructure → Like modern plants, equipment etc.

④ Storage facilities

↳ Normal storages are inadequate
↳ Cold storages are present in marginal quantities

⑤ Problem of certification → Reduces export opportunities

Solution

- ① Increase investment → In FPIs
across country Eg. Shilling
- ② Improve connectivity → Reduce
local costs
- ③ Increase R & D expenditure → To
develop new products.
- ④ Modernization of supply
chains → To increase market
responsiveness.
- ⑤ Export Promotion facilities

The development of FPIs can
provide a holistic growth in
primary & secondary sectors.

17. Availability of adequate storage infrastructure has a direct bearing on agricultural yield and farmer's income. Comment. In this context, discuss the measures that can be undertaken to enhance India's agriculture storage capacity. (250 words) 15

पर्याप्त भंडारण अवसंरचना की उपलब्धता का कृषि उपज और किसान की आय पर सीधा प्रभाव पड़ता है। टिप्पणी कीजिए। इस संदर्भ में, भारत की कृषि भंडारण क्षमता को बढ़ाने के लिए किए जा सकने वाले उपायों पर चर्चा कीजिए।

Storage facilities form a broader part of agricultural logistics.

Availability of adequate storage infrastructure has a direct bearing on agricultural yield & farmer's income in following ways:

- ① Increase in Agricultural Investment.
- ② Development of adequate forward & backward linkages between Agriculture & Food Processing Industries.

- ③ Product Quality → Remains constant → Price of goods become stable
- ④ Reduce wastage (eg. FCI godowns)
Cold Storage significantly increase shelf life of products.
- ⑤ Better price negotiations
↳ Farmers are always in haste because of fear of spoilage especially of ~~food~~ perishables.
- ⑥ Enhance horticulture and organic farming → As proper preservation can be conducted.

Way Forward

- ① Increase of government expenditure → To ~~also~~ develop adequate cold & normal

Storage facilities

② Rationalising the role of FCI

For better management of
government warehouses.

③ Involvement of private sector

↳ To build state of the art
storage facility → Help in contract
farming

④ Centre State cooperation → To reduce clashes, rationalise funding etc.

Thus, provision of adequate
storage facilities can create
spillover effects in socio-economic
indicators like health, nutrition
and other

18. A farmer-centric approach is required to realise the true potential of the animal husbandry sector in India and address the issues it faces. Discuss. (250 words) 15

भारत में पशुपालन क्षेत्र की वास्तविक क्षमता को साकार करने और इसके सामने आने वाली समस्याओं का समाधान करने के लिए एक किसान-केंद्रित दृष्टिकोण की आवश्यकता है। विवेचना कीजिए।

Animal Husbandry sector of India is an important part of allied activities. It involves rearing of sheep and cattle.

Significance

- ① India has the highest number of sheep animals.
- ② Source of sheep and cattle counter hidden hunger. E.g. Milk for protein
- ③ Creation of supplementary income for farmer - Doubling of farmer income

④ Rural economic development of
rural India in terms of gender
Justice, Women empowerment,
nutrition, health etc.

⑤ Domestic demand → India
has a large youth and health
conscious population

⑥ Export Opportunity → Processed
milk, cheese, ice creams etc.

Issues faced

① Low productivity of Indian breeds

② No governmental support in
monetary terms (like MSP)

③ Infrastructure inadequacy

To develop animal husbandry
facilities at a large scale

④ Cost issues → Of running a
secondary business.

- ⑤ Problems on Animal Health
Due to tropical climate & lack of veterinary facilities
- ⑥ Market Volatility → With respect to animal products, sanitary & phytosanitary barriers

A farmer centric approach can help this industry:

- ① Cooperative Model → For economies of scale, better bargaining power
- ② Provision of formal financial services → Like low interest loan, insurance, banking facilities etc.
- ③ Infrastructure development → Storage, logistics, processing plants etc.
- ④ Targetted Incentivents → In PPP model, Eq. Centent Farming.

Animal Husbandry can prove to be a game changer for rural India with a farmer centric approach.

19. Despite being one of the largest agricultural producers in the world, India's agricultural exports have been a laggard. In this context, discuss the issues that need to be addressed for India to emerge as a top global exporter.

(250 words) 15

विश्व के सबसे बड़े कृषि उत्पादकों में से एक होने के बावजूद, भारत का कृषि निर्यात पिछड़ा हुआ है। इस संदर्भ में, उन मुद्दों पर चर्चा कीजिए जिनका, भारत को एक शीर्ष वैश्विक निर्यातक के रूप में उभरने के लिए, समाधान करने की आवश्यकता है।

Agriculture in India contributes
17% of GDP and employs 42% of
workforce.

However, despite being an
agricultural country, India is
not a top exporter.

Reasons

① Huge domestic demand

↳ India has 2nd largest population
↳ Huge PDS system, mid day meals

② Lack of Investment

↳ Infrastructure → Poor agricultural
modernisation
↳ Logistics → Increase product cost,
reduce competitiveness
↳ Export Promotion facilities like marketing,
etc.

③ Poor Productivity

↳ Prevents economies of scale
which is necessary for exports

④ Poor Supply Chain Management

- Due to poor connectivity
- Absence of forward & backward linkages

⑤ International environment

↳ stiff competition from China,
Bangladesh, Vietnam

↳ Trade Tariff & Non tariff barriers

↳ Pressure by WTO

Thus, following issues can
be addressed by taking
following measures:

① Increase Agricultural Moderniza-
tion → To boost production &

productivity.

② Quality of Produce - Development of appropriate certification authority. Eg, PGS system

③ New Product Development via increased research & development ~~is~~

④ Improve Supply Chain Management. Develop roads, railways, ports, storage facility etc.

⑤ Post Production Activities like marketing of produce etc.

The Government has taken certain steps like PGS system, NPOP certification, Horticulture, PLI in food processing industries. However, increased steps are needed to produce qualitative & quantitative changes.

20. The imperative to increase farmer's income must shift to creating value chains and must not be reliant on the MSP regime and subsidy bias prevalent in the current Indian agricultural system. Examine. (250 words) 15

किसानों की आय बढ़ाने की अनिवार्यता को मूल्य श्रृंखलाओं के गुंजन से जोड़ा जाना चाहिए और इसे वर्तमान भारतीय कृषि प्रणाली में प्रचलित एम.एस.पी. व्यवस्था एवं पूर्वाग्रहयुक्त सब्सिडी पर कतई निर्भर नहीं होना चाहिए। परीक्षण कीजिए।

Doubling of farmer's income
has been a crucial post liberal
target of Government of India.

At present, a major chunk of
farmer income comes from MSP
~~but~~ and subsidies. But, there is
a need to change the system:

① Increasing subsidy bill

↳ Detrimental to government
finances especially after liberal
↳ Diverts resource from capital
investment in agriculture

② Pressure of World Organisation
like WTO → an amount of giving

subsidy greater than 10% of produce
(Accumulation of trade dilution)

③ Cropping Pattern dilution

- ↳ Due to excessive reliance on rice & wheat & sugarcane
- ↳ Affects nutritional status
- ↳ Affects water table

④ Food Wastage due to over production of key items.

⑤ No link between market forces and MSP & subsidy regime

Thus, there is a need to create value chains to boost income.

- Advantages → Multiples effect on agriculture & food processing industries
- ↳ Creation of efficient supply chains
 - ↳ Finished products → have value and revenue
 - ↳ Increased export potential.

Way Forward

① Supply Chain Management → Improve efficiency & reduce time delays.

② Infrastructural development
↳ By targeted investments, PPP model, contract farming etc.

③ Creation & Maintenance of quality standards → To better facilitate exports

④ Modernization of Agriculture
Eg. Biotechnology, HYV seeds, advanced technologies like AI, ML, Data analytics etc.

⑤ Creation of entrepreneurial mindset
↳ Change mindset of agriculture as subsistence activity.

Agriculture is the backbone of economy. Increasing of farmer income (doubling) will create a virtuous cycle of development.