



TEST CODE 7 1 3 3 0 4

MGP 2024

Time Allowed : Three Hours
समय : तीन घंटे

Forum IAS

Maximum Marks : 250
अधिकतम अंक : 250

GENERAL STUDIES / सामान्य अध्ययन

Name Of Candidate परीक्षार्थी का नाम	Wasim Ur Rahman		
Roll No./अनुक्रमांक	1910082837	Medium/माध्यम	English <input checked="" type="checkbox"/> हिंदी <input type="checkbox"/>
Center Code/परीक्षा केंद्र	1901	Date/दिनांक	07-09-2024

*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 TWENTY questions printed in ENGLISH & HINDI, all questions are compulsory. उत्तर पुस्तिका में अंग्रेजी/हिंदी में बीस 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	250		For Student Only / केवल परीक्षार्थी प्रयोग हेतु		
Examiner's Discretion/मूल्यांकन कर्ता का विवेक :			Start Time/प्रारंभ करने का समय : 10:00 AM	End Time/समाप्त करने का समय : 01:10 PM	
Total Marks/कुल अंक :			Mode Of Examination/ परीक्षा की विधि :	Online/ऑनलाइन <input type="checkbox"/> Offline/ऑफलाइन <input checked="" 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 आदि के उपरान्त, प्रस्तुति, तथ्यों और आकृतियों या समग्र रूप किसी अन्य विषय पर, जो मूल्यांकन कर्ता को आपकी कॉपी में परंपरा आदी के आधार पर (लेकिन इन्हें तक सीमित नहीं) पर दिए गए अंक हैं।			For Office Use Only / केवल कार्यालय प्रयोग हेतु		
			ECN CODE/ ईसीएन कोड :	EG/ईजी : ① ② ③ ④ ⑤	Evaluation Date/ मूल्यांकन तिथि :

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 answer (through combination of (a) but not all!) suggestions, ideas, quotes, flow charts, 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) Why has there been an increased focus on negotiating, renegotiating and concluding Free Trade Agreements (FTAs) by India in recent years? (10 marks, 150 words)

हाल के वर्षों में भारत द्वारा मुक्त व्यापार समझौतों (FTAs) पर बातचीत, पुनर्वार्ता और समापन पर ध्यान क्यों दिया जा रहा है? (10 अंक, 150 शब्द)

As per Ministry of Commerce, Free Trade Agreements (FTAs) are arrangement between two markets to mutually reduce Tariffs and enhance Market Access for goods & services.

Increasing Focus on FTAs by India

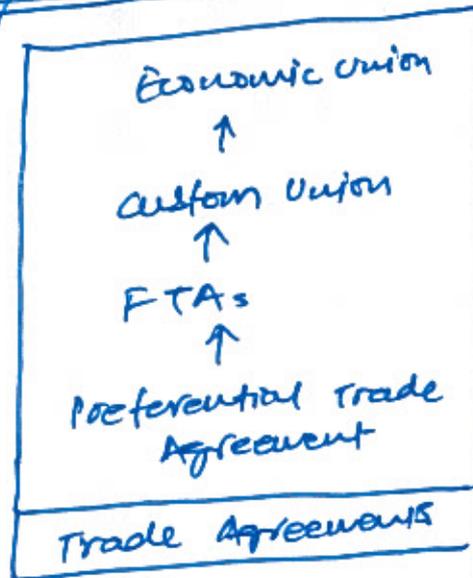
I. Negotiation

- 1) Getting better market Access for exports.
 (ex) BTIA between India and EU.

- 2) Harvest opportunities

from changing Geoeconomic scenario.

- (ex) India negotiating FTA with UK after Brexit



II. Renegotiation

- 1) Trade Deficits widening from existing FTAs. (ex) India trade deficit with

ASEAN has jumped from $\$864$ to around $\$2564$ in last 10 years (NITI Aayog)

2) Comparative Advantage in services could be leveraged. (ex) service agreement could be finalised with ASEAN.

III. Concluding New FTA

1) Leveraging good geo-political ties for Geo-economic benefits.

(ex) India - Australia ECTA

2) Expanding avenues for domestic exports.

(ex) India - UAE CEPA has accelerated trade between two countries.

Therefore, an EXPORT-LED DEVELOPMENT could thrust Indian economy towards its goal to become $\$7$ trillion economy by 2030. A well-crafted FTA regime need to be evolved as suggested by NITI Aayog.

Feedback

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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) A well-designed fiscal policy can serve as a vital instrument to facilitate the equitable distribution of resources and ensure the welfare of all sections of society. Elaborate. (10 marks, 150 words)

एक अच्छी तरह से डिज़ाइन की गई राजकोषीय नीति संसाधनों के समान वितरण को सुविधाजनक बनाने और समाज के सभी वर्गों के कल्याण को सुनिश्चित करने के लिए एक महत्वपूर्ण साधन के रूप में काम कर सकती है। विस्तार से वर्णन कीजिए।
(10 अंक, 150 शब्द)

Fiscal Policy refers to borrowings, investment, expenditure and taxation policies of the government. It is the mainstay route for the state to pursue Inclusive Development.

Fiscal Policy for Equitable Distribution

- 1) Progressive Taxation facilitate transfer of resources from rich to poor section.
 - (ex) Corporation Tax, Income Tax.
- 2) Budgetary Allocation to different sectors ensure fair distribution of resources.
 - (ex) 2.1% of GDP being spent on Healthcare.
- 3) Budgetary focus on marginalised regions of the country. (ex) Special package for Bihar in Union Budget 2024
- 4) Capital Expenditure being focussed to

enhance the capacity of different regions and different sectors. (ex) 13% average growth in capital expenditure by Union govt (2014-2023).

Additionally, Fiscal policy can also ensure welfare of various sections,

- 1) Tribal sub-plan is fiscal innovation to catalyse tribal development.
- 2) Gender Budgeting is a tool to promote focus on gender specific initiatives.
- 3) Budgetary support to alleviate condition of marginalised section. (ex) PM-SVANidhi for Street vendors.

challenges → Fiscal Populism (ex) Farm loan waiver
 → Non-adherence to Fiscal deficit targets.
 → Higher Revenue Expenditure by states.

Thus, there is a need to follow FISCAL

MARKSMANSHIP for facilitating inter-generational

equity and sustainable development.

Feedback

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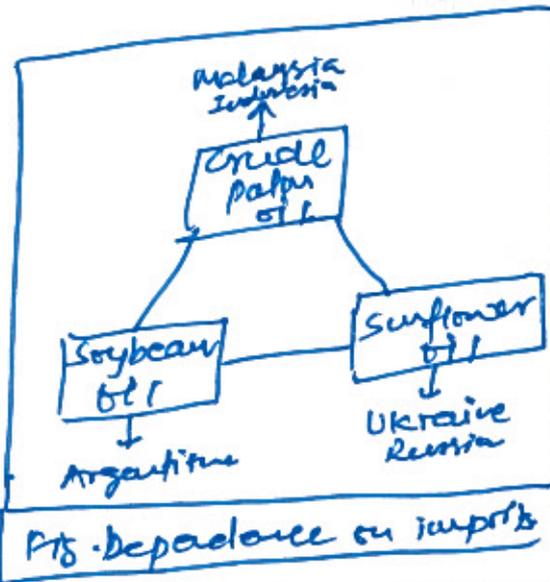
Q.3) What are the primary factors contributing to India's significant reliance on imported edible oils? What measures do you suggest to increase domestic production and to reduce India's reliance on imported edible oils? (10 marks, 150 words)

आयातित खाद्य तेलों पर भारत की महत्वपूर्ण निर्भरता में योगदान देने वाले प्राथमिक कारक क्या हैं? घरेलू उत्पादन बढ़ाने और आयातित खाद्य तेलों पर भारत की निर्भरता को कम करने के लिए आप क्या उपाय सुझाएंगे? (10 अंक, 150 शब्द)

As per **MPIIT**, India is dependent on imports for **60%** of its edible oil demands. This requires an urgent focus to enhance **Trade Sovereignty** and self-sufficiency.

Factors for reliance on Import of edible oil

1) **Huge domestic demand** for edible oil.
 (e) India is the largest consumer of edible oil.



2) Unsuitable **agro-climatic** zones for production of edible oil. (e) Palm oil require Tropical climate

3) **Comparative disadvantage** of domestic produce. (e) Imports are relatively cheaper.

4) Rising demand due to organised retail and growing food-processing industry (Fr. AAQR)

5) skewed focus of Agricultural production
on grain produce @ MSP policy, subsidies

Hence, a concerted effort is
required to reduce input dependency,

1) Accelerate implementation of National Mission

on Edible oil & oil Palm

- 10 lac hectare under production
- Triple edible oil production

2) Cropping pattern need to be shifted towards
edible oil. @ Sunflower, Soybean.

3) Build robust processing facilities by
attracting private capital

4) Mandatory use of domestic oil could be
brought in the policy.

Hence, a Triple Bottom Line approach
by balancing needs of economy and environment
is needed to enhance edible oil production
and becoming ATMANIRBHAR.

Feedback

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TOTAL MARKS			

Q.4) With the growing water crisis in India, micro irrigation offers a sustainable solution for water conservation; however, its adoption remains skewed and below its potential. Discuss.

(10 marks, 150 words)

भारत में बढ़ते जल संकट के साथ, सूक्ष्म सिंचाई जल संरक्षण के लिए एक स्थायी समाधान प्रस्तुत करती है; हालाँकि, इसका उपयोग अभी भी विषम है और इसकी क्षमता से कम है। चर्चा कीजिए।

(10 अंक, 150 शब्द)

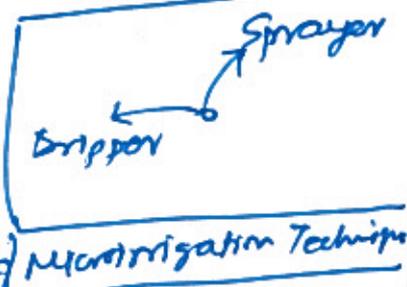
As per NITI Aayog CDMI, average per capita

water availability in India is in water stressed zone (1545 m³). Micro-irrigation is inevitably

required as Agriculture consumes 87% of groundwater.

Microirrigation offer sustainable solution

1) Reduce water-demand in Agriculture. (e) Dependence on Tubewells



2) Increased water availability for plants and better absorption from roots.

3) Water-use efficiency in water-intensive crops. (e) Rice farming.

4) Reduce Salinization and Alkalinization of land hence reduce land degradation.

However, FICCI report held that

Micro-irrigation adoption has been skewed

and concentrated in 5 states only.

- 1) High upfront cost of the microirrigation equipments.
- 2) Maintenance cost of the equipments is high. (a) Regular declogging is required, damage by rodents.
- 3) Land fragmentation makes micro-irrigation adoption unviable. (a) 1.09 hectare is the average land parcel size (Economic Survey)
- 4) Poor access to formal credit reduce capacity of the farmers. (a) 28% farmers - Informal debt.
- 5) Indian Easement Act & power subsidy makes groundwater extraction easier.

Best practice
Israel is the world leader in Microirrigation by laying down extensive infrastructure

Newer technologies, Micro-irrigation Technology must be widely adopted with spirit of PER DROP MORE CROP to make agriculture ECONOMYCALLY & ECOLOGICALLY sustainable

Feedback
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Q.5) The recurring railway accidents highlight the urgent necessity for addressing the myriad challenges related to safety, undercapacity and lack of modernization within Indian Railways. Analyse.

(10 marks, 150 words)

बार-बार होने वाली रेल दुर्घटनाएँ भारतीय रेलवे के भीतर सुरक्षा, अल्प-क्षमता और आधुनिकीकरण की कमी से संबंधित असंख्य चुनौतियों के समाधान की तत्काल आवश्यकता को उजागर करती हैं। विश्लेषण कीजिए। (10 अंक, 150 शब्द)

As per Ministry of Railway, consequential rail accidents have come down by 80% but major rail accidents (like Balasore) and frequent train derailment recently requires a holistic solution.

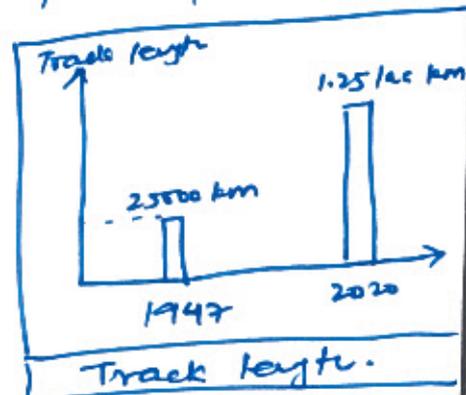
Challenges being faced by Railways

(I) Safety

- Overutilization of existing tracks.
② 160% in some routes.
- Poor infrastructure
② Elphinstone bridge collapse
- Human errors ② 25% accidents due to locomotif fault.

(II) Undercapacity

- slow expansion of railway tracks.
- ICR coaches replacement with LHB has been slow



(ii) Lack of modernisation

- Kavaach - ATP system adoption has been slow
- Slow adoption of technology.
 - ⊙ Anti-fogg binoculars, radars.
- Electrification rates are still slow.

Hence, following steps are required,

1) Anil Kakodkar Committee

- Establish Railway Safety Regulatory Authority
- Strengthen Railway Safety Commission

2) Bibek Debroy Committee

- Accelerate modernisation of railway
- Facilitate greater private sector participation.

Hence, National Rail Plan need to be effectively pursued to modernise railway and enhance Railway safety to achieve EASE OF MOVING.

Feedback
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TOTAL MARKS			

Q.6) How does NISAR mission exemplify international cooperation in space exploration and scientific research? In what ways will it help in climate change monitoring and natural hazard management? (10 marks, 150 words)

NISAR मिशन अंतरिक्ष अन्वेषण और वैज्ञानिक अनुसंधान में अंतर्राष्ट्रीय सहयोग का उदाहरण कैसे प्रस्तुत करता है? यह जलवायु परिवर्तन की निगरानी और प्राकृतिक आपदा प्रबंधन में किस तरह से मदद करेगा? (10 अंक, 150 शब्द)

NISAR Mission stands for NASA-ISRO

Synthetic Aperture Radar Mission. It is a collaborative project of NASA and ISRO to put Earth observation satellite in Earth's orbit.

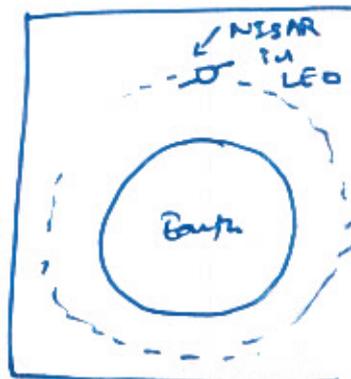
NISAR Mission exemplifying Int'l Cooperation

- 1) NASA and ISRO seek to leverage their comparative advantage and capabilities in the space sector with this mission.
- 2) NASA will provide S-band and L-Band radars while ISRO will provide logistical support and PSLV rocket facility.
- 3) Observations made by NISAR would be collaboratively used by both NASA & ISRO highlighting convergence on scientific research.

Role of NISAR Mission

I. Climate Change Monitoring

- 1) Assessing change in sea-level rise.
- 2) Glacial lake mapping and monitoring changes.
- 3) ~~Coast~~ Glacial Ice melting @ Arctic Amplification.
- 4) changes in Himalayas could be monitored.



II. Natural Hazard Monitoring

- 1) GLOR - Glacial Lake outburst flood could be predicted.
- 2) Coastal erosion could be monitored.
- 3) Cyclone development could be studied.

Hence, NISAR mission showcases India's increasing prowess in space sector collaboration. It needs to be expedited for

MUTUAL BENEFIT SHARING between India & USA.

Feedback

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TOTAL MARKS			

Q.7) Nuclear technology can play a transformative role in enhancing food security and agricultural sustainability. Discuss. (10 marks, 150 words)

परमाणु प्रौद्योगिकी खाद्य सुरक्षा और कृषि स्थिरता को बढ़ाने में एक परिवर्तनकारी भूमिका निभा सकती है। चर्चा कीजिए। (10 अंक, 150 शब्द)

~~Nuclear technology~~ As per CACP, over ₹90000 cr are lost in agricultural post-production management. Nuclear technology can play a pivotal role in enhancing resilience of agri-production in India.

Role of Nuclear Technology

I. Enhancing Food Security

1) Irradiation of the horticulture produce

to enhance storage time.

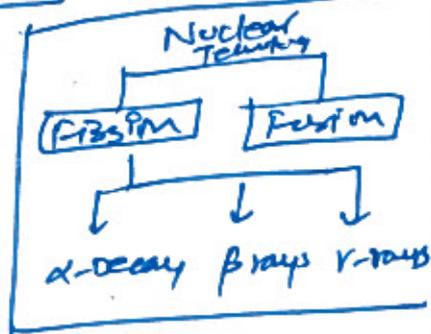
ex) Mango,

2) Pest control in the silos (storage tanks)

ex) Irradiation kills pathogens.

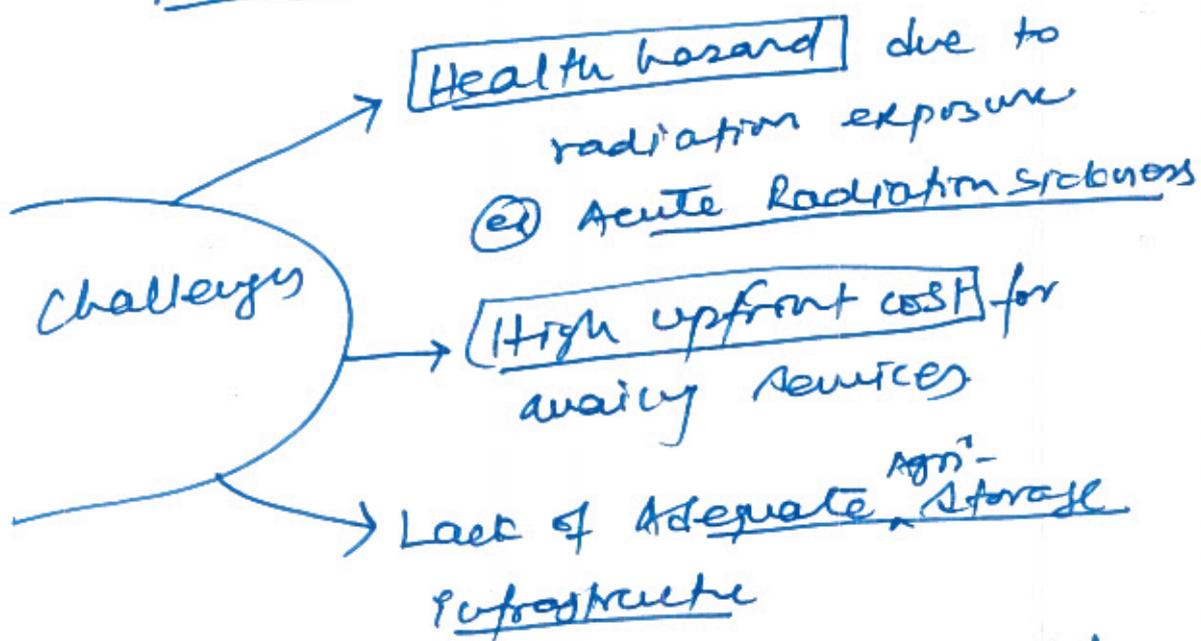
3) Increasing shelf-life of the perishable

commodities. ex) Tomato.



II. Enhance Agriculture Sustainability

- 1) Reduce Post-production losses.
- 2) Enhance export-potential by improving quality. (ex) Litchi export to Middle east.
- 3) Reduce wastage of seeds during storage.



Nevertheless, Nuclear technology need to be employed across the Agri-value chain to make agriculture VIABLE, PROFITABLE and SUSTAINABLE

Feedback

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TOTAL MARKS			

Q.8) Increasing frequency of forest fires in India underscores the urgent need for sustainable forest management practices. In light of the statement, bring out the causes and multidimensional impact of forest fires. Also, suggest measures for their prevention and management. (10 marks, 150 words)

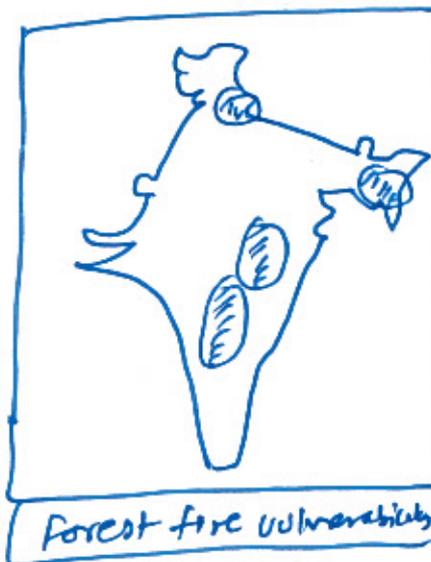
भारत में जंगल की आग की बढ़ती आवृत्ति स्थायी वन प्रबंधन प्रथाओं की तत्काल आवश्यकता को रेखांकित करती है। इस कथन के प्रकाश में, वनाग्नि के कारणों और बहुआयामी प्रभावों का उल्लेख कीजिए। साथ ही इनकी रोकथाम और प्रबंधन के उपाय भी सुझाएं। (10 अंक, 150 शब्द)

As per **MOEFCC**, **36%** of India's forest are vulnerable to forest fires with **90%** forest fires arising due to ~~another~~ man-made reasons.

Causes of Forest Fires

I Natural

- 1) Heatwaves @ 2023
summer heatwave
- 2) El-Nino
- 3) drought and delayed
monsoon.



II Man-made causes

- 1) Shifting cultivation @ Mizoram
- 2) Smoking and lighter use in forest
- 3) Deliberate fire to clear land.
- 4) Accidental ignition.

Impact of Forest Fires

I. Negative

- 1) Deforestation and loss of vegetation
- 2) Loss of biodiversity and animal migration
- 3) Loss of livelihood for the locals.
- 4) Carbon Footprint of forest fires is high

II. Positive

- 1) Soil enrichment of the forest land.
- 2) Ecosystem regeneration & practices.

Measures Required

- 1) Hazard zonation and vulnerability mapping
- 2) Planned rehabilitation away from settling cultivation (NCST recommendations)
- 3) Barrier (Biological) around forest fringes

Hence, a holistic approach is required to ensure Disaster Risk Reduction as per SENDAI FRAMEWORK to reduce forest fires.

Feedback

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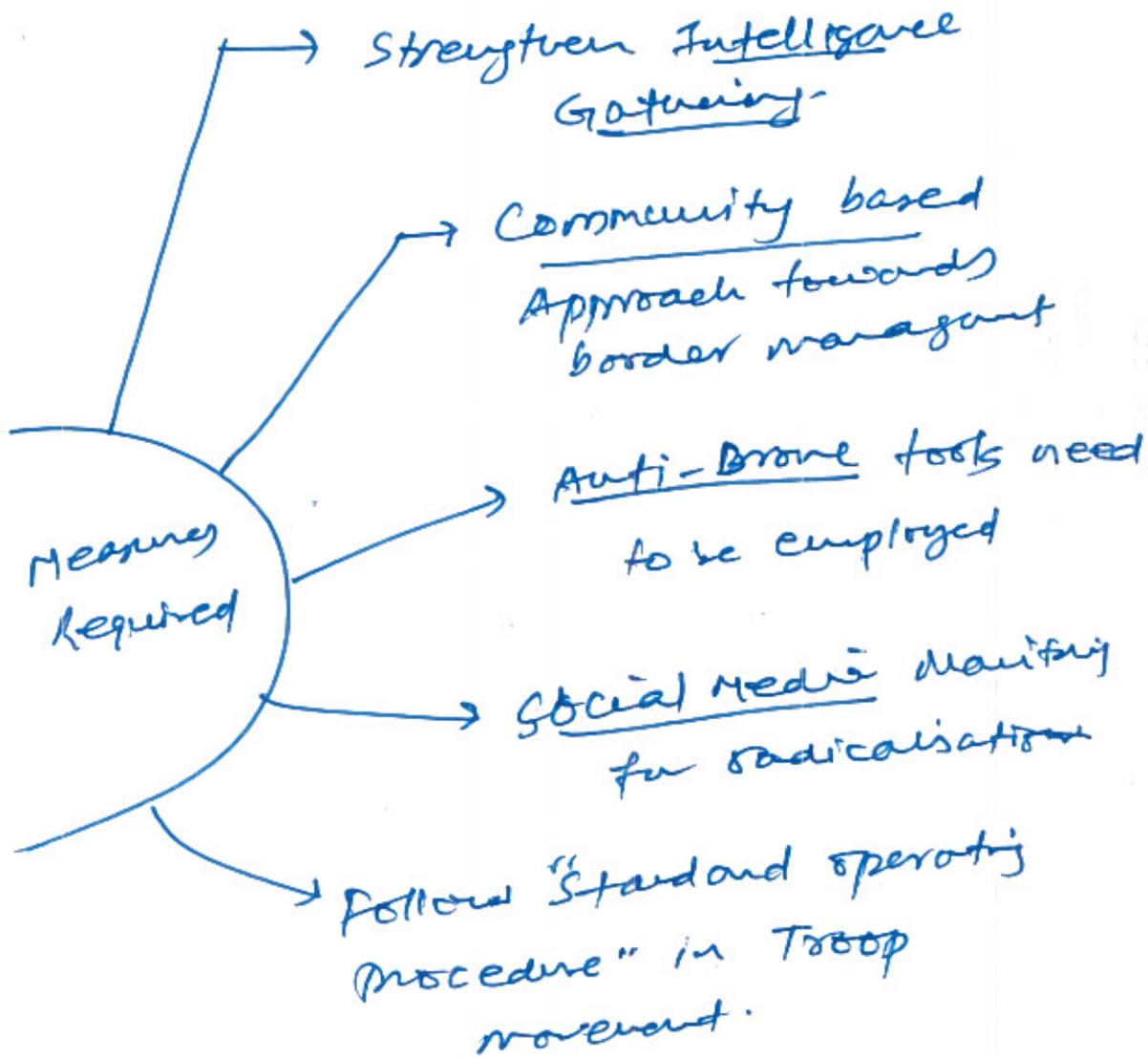
Q.9) What reasons can be attributed to the recent surge in terror related violence in Jammu and Kashmir? What strategies would you suggest to counter it? (10 marks, 150 words)

जम्मू-कश्मीर में हाल ही में आतंकवाद से संबंधित हिंसा में वृद्धि के क्या कारण हो सकते हैं? इसका मुकाबला करने के लिए आप क्या रणनीति सुझाएंगे? (10 अंक, 150 शब्द)

As per MHA data, there has been ~~over~~ zero incidents of cross-border firings due to agreement last year. But, terror related cases have again risen in J&K.

Reasons for recent surge in terror

- 1) J&K reorganisation and Article 370 abrogation
- 2) Political instability in Pakistan
- 3) Use of Overground workers by the terror outfits.
- 4) Outgoing radicalisation across the border.
- 5) Hybrid warfare techniques as being employed. (ex) Doones Attack in Jammu



Hence, Amitabh Mattoo suggested approach of Development, Decentralisation and Delegation for improving security scenario in J&K.

Feedback
(For OFFICE use only)

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

Q.10) In the light of recent events, throw light on the possible implications of cyber slavery on internal security of India. (10 marks, 150 words)

हाल की घटनाओं के आलोक में, भारत की आंतरिक सुरक्षा पर साइबर स्लेवरी के संभावित प्रभावों पर प्रकाश डालिए। (10 अंक, 150 शब्द)

Cyber slavery refers to the situation where people are trapped to work as ~~bond~~ forced labour for conducting cybercrimes. Recent incidence of cyber-slavery of Indians in south-east Asia has raised concerns.

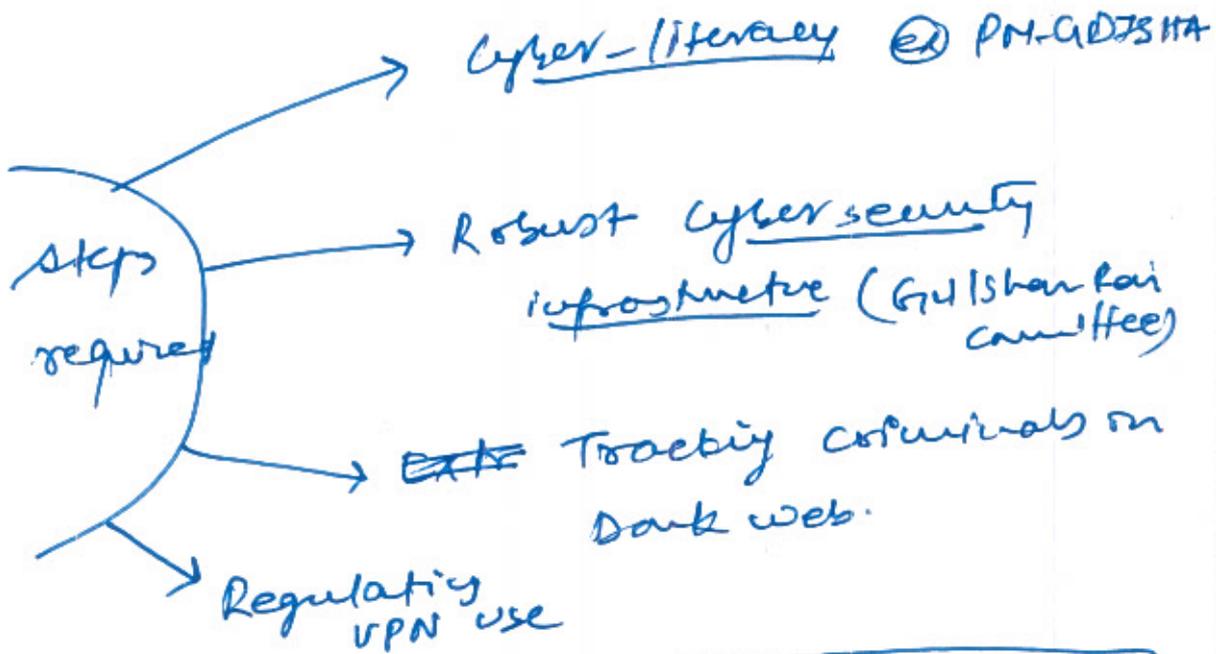
Implications of Cyber Slavery

- Using Indians against India
- Threatens peace in India by Disinformation by Cyber-slaves
- Cybercrimes against vulnerable
 (a) Elderly, women, children
- "Trust" of Indian voice to deceive people → Higher risk.

→ Grey zone warfare could be accelerated with the help of cyber slaves

→ Vulnerable groups falling in trap

⊗ Love of jobs in foreign countries



Hence, Gulshan Rai Committee recommendations need to be adopted to build robust cyber-security ecosystem.

Feedback

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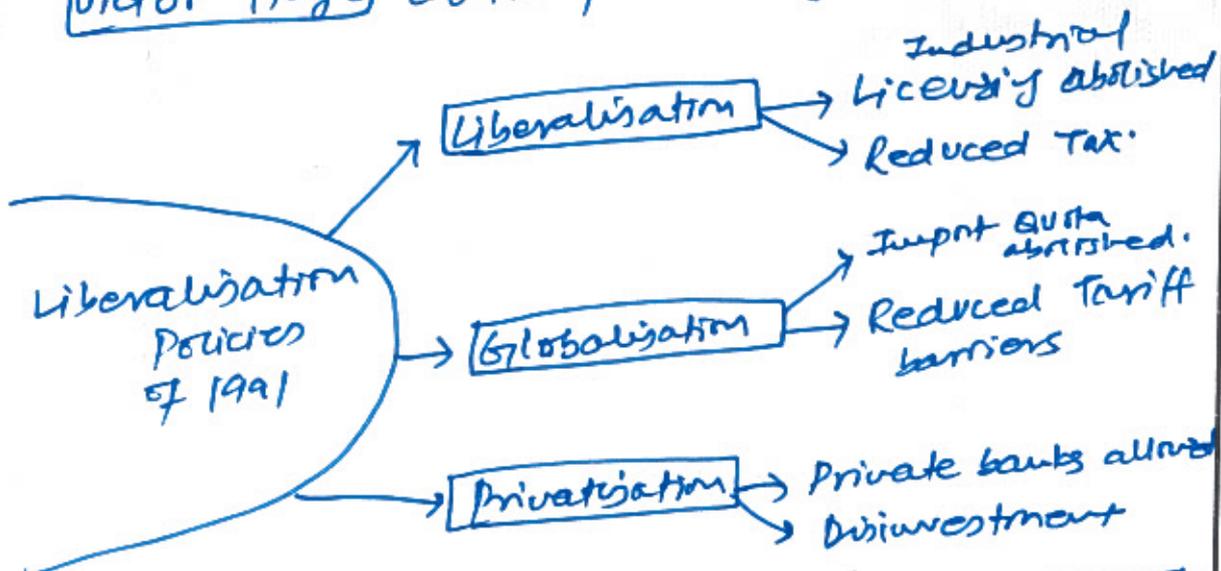
Here G is Good, A is Average and P is Poor.

TOTAL MARKS	
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Q.11) "The liberalization policies of 1991 significantly enhanced India's economic dynamism, but the evolving global and domestic landscape necessitates Reforms 2.0 for sustained economic development and prosperity." Comment. (15 marks, 250 words)

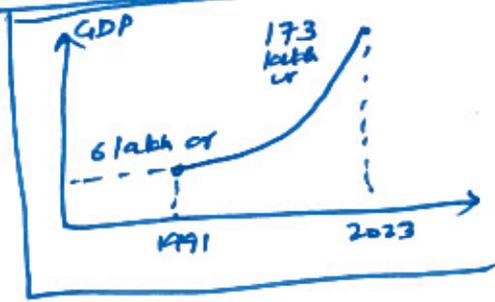
"1991 की उदारीकरण नीतियों ने भारत की आर्थिक गतिशीलता को महत्वपूर्ण रूप से बढ़ाया, लेकिन उभरते वैश्विक और घरेलू परिदृश्य में सतत आर्थिक विकास और समृद्धि के लिए 'सुधार 2.0' की आवश्यकता है।" टिप्पणी कीजिए। (15 अंक, 250 शब्द)

"No body can stop an idea whose time has come" - Dr. Manmohan Singh quoted Victor Hugo while presenting budget in 1991.



LPG (1991) significantly enhanced economic dynamism

1) Accelerated economic growth and size of India's GDP.



2) Shift of India's economy from Agri-based to Service led economy

(ex) Agriculture - 18% , Service - 54%

3) Enhanced Foreign exchange reserves

\$ 65bn \longrightarrow \$ 600 bn
 1991 2022

4) Foreign Direct Investment rushed to India. @ \$ 70bn in 2023-24.

However, current landscape necessitates reform 2.0 because of,

1) Stagnant Manufacturing sector

@ Manufacturing sector stagnated at 18-19% of GVA.

2) Sluggish growth in agriculture sector

@ Average 2% annual growth

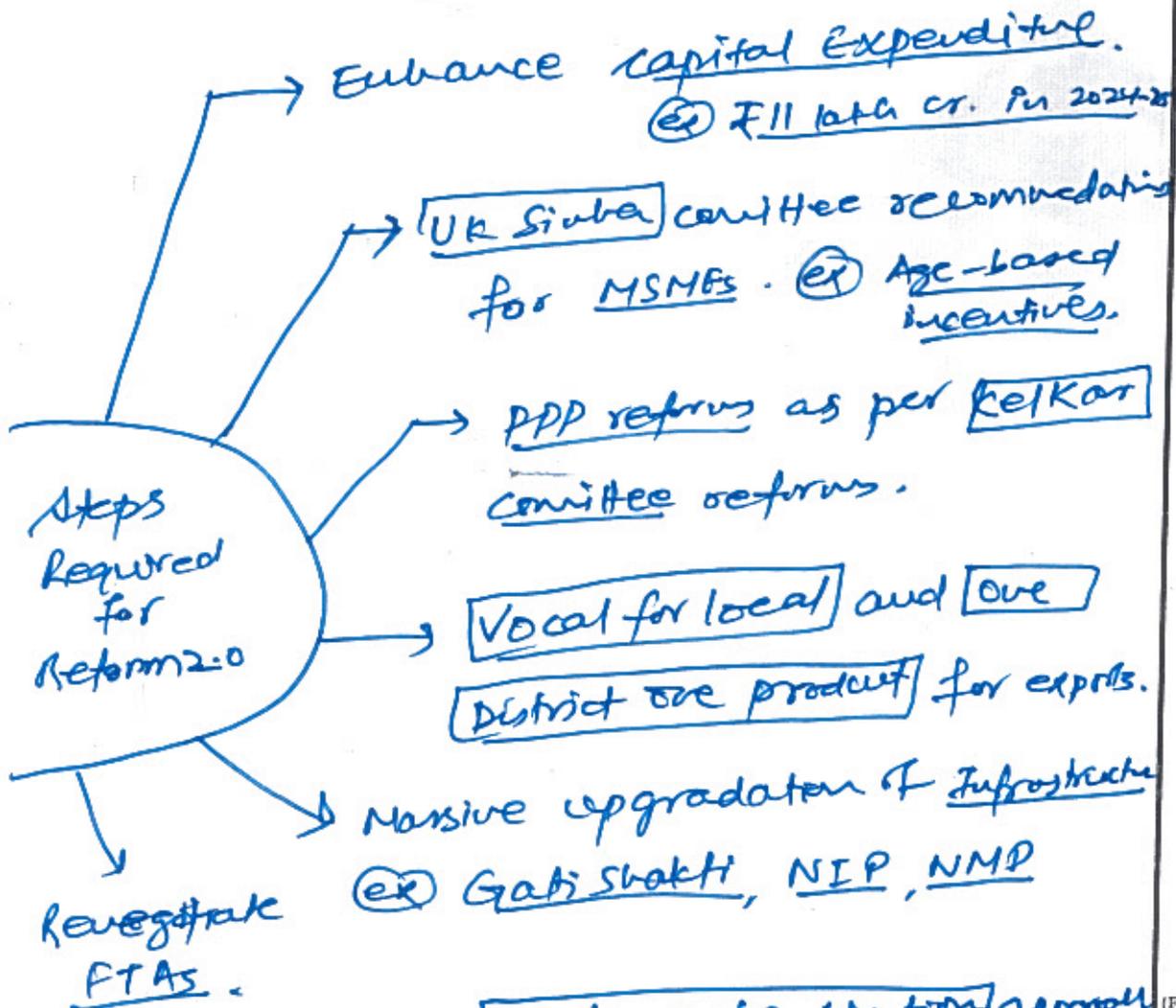
3) Poor Ease of Doing Business dissuading investors. @ Red-Tapism

4) High Logistics cost reducing export competitiveness. @ 13-14% of GDP - logistics cost.

5) Problem of Dwarfism in MSMEs. (Economic Survey)

6) Import dependency for crucial products.

(ex) crude oil, edible oil, Pulses, semi-conductor, API (Pharma) etc.



Hence, a whole of the Nation approach is required to catalyse Reform 2.0 to achieve VISIT BHARAT by 2047.

Feedback

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

Q.12) Infrastructure development is essential not just for economic transformation but also for sustainable development and societal well-being. Elaborate with examples. (15 marks, 250 words)

बुनियादी ढांचे का विकास न केवल आर्थिक परिवर्तन के लिए बल्कि सतत विकास और सामाजिक कल्याण के लिए भी आवश्यक है। उदाहरणों के साथ विस्तार से समझाइए। (15 अंक, 250 शब्द)

Union Budget has allotted historic **₹ 11.11**

lakh crore for capital expenditure with extensive focus on Infrastructure development.

As part of **SAPTRISHI**, Infrastructure development has a crucial role in the development.

Role of Infrastructure Development

I. **For Economic Transformation**

1) **Multiplier Effect**

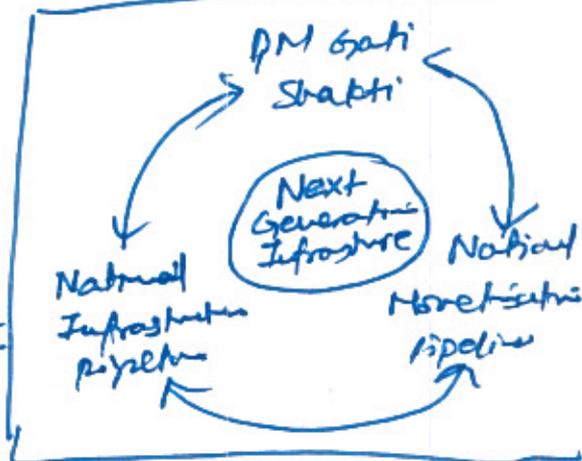
is seen in infrastructure investment.

ex) ₹1 invested in railway infrastructure → ₹2.5 created in economy.

2) **Enhancing Export Competitiveness**

ex) National Logistics Policy, 2022

Logistics cost **14% of GDP** → **8% of GDP**



3) Employment generation for people.

(ex) 6 crore man days of employment created under Sagarmala Project

4) Attract Private Capital and Foreign Investment (ex) \$70bn FDI (2023-24)

II. For Sustainable Development

1) Energy Transition could be accelerated.

(ex) National Solar Mission, PM-Surya
Bijli Yojana

2) Reducing Carbon Footprint by a right Modal-Mix of transportation



3) Reducing Pollution in the cities (ex) RRTS, BRTS.

III. For Societal Well-being

1) Ease of Housing for people.

(ex) UDAN scheme, Parvatmala scheme.

- 2) Enhance Quality of life
 - ex) 24x7 electricity access (Saubhagya scheme)
- 3) Improve Security of health
 - ex) City Gas Distribution - Piped gas supply
- 4) Enhance Connectivity
 - ex) 5G connectivity, Bharatnet.



Thus, Kelkar Committee recommendations need to be implemented for enhancing private sector participation in infrastructure and to accelerate infrastructure development for becoming VISHWAQURE.

Feedback

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TOTAL MARKS			

Q.13) Bring out the significance of aquaculture towards nutrition security, livelihood generation, and economic growth. Also, mention various measures taken by the government to promote aquaculture in the country. (15 marks, 250 words)

पोषण सुरक्षा, आजीविका सृजन और आर्थिक विकास के लिए जलीय कृषि के महत्व पर प्रकाश डालिए। साथ ही, देश में जलीय कृषि को बढ़ावा देने के लिए सरकार द्वारा उठाए गए विभिन्न उपायों का उल्लेख कीजिए। (15 अंक, 250 शब्द)

As per **MPEDA**, India is the **2nd largest** aquaculture producer in the world which signifies its crucial role in the **economy** and for **inclusive development**.

Significance of Aquaculture

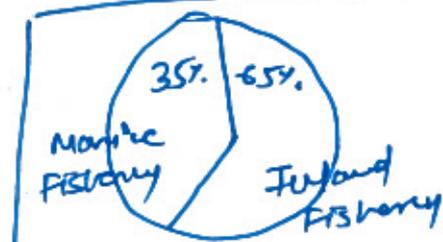
I. Nutrition Security

1) Diet-Diversification

⊕ Malnutrition in Odisha could be tackled. (KBR region)

2) Fighting **hidden hunger** by accessing **vitamins** and **minerals** from fish.

3) **Food security** for **vulnerable population**.
⊕ Machhliyan tribes.



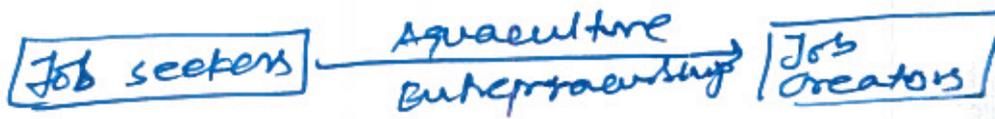
Aquaculture share.

II. Livelihood Generation

1) **Employment generation** in the **6 (1.6 crore)**

vicinity of house. (ex) Inland aquaculture.

2) Promotion of entrepreneurship



3) Harnessing traditional knowledge of the local communities, and remunerative income to them.

III. Economic Growth

4) Export potential could be harnessed.

(ex) Shrimp farming

2) Attracting private sector participation

(ex) Signate Pvt-Ltd forming formal

supply chain in aquaculture.

3) Allied sector growth

reduce Agri-distress in the rural areas.

Best practice

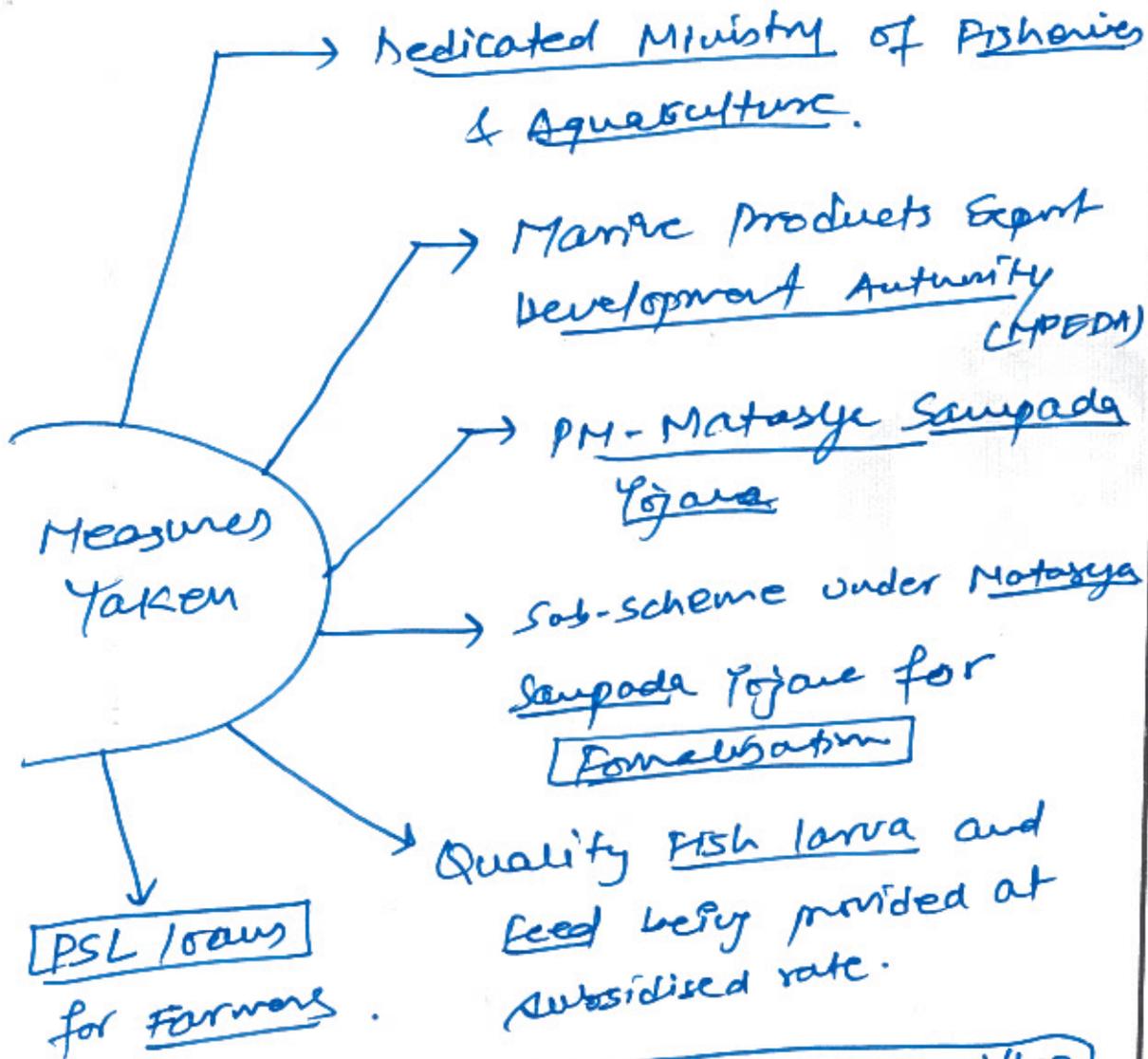
Rice - Fish farming

by Apatani

Tribe in Arunachal

pradesh

4) Domestic demand could be captured due to diversification of food habits



Hence, B. Meenakumari Committee recommendations need to be followed to harness full potential of Aquaculture and transform Agriculturists to AGRIPRENEURS

Feedback

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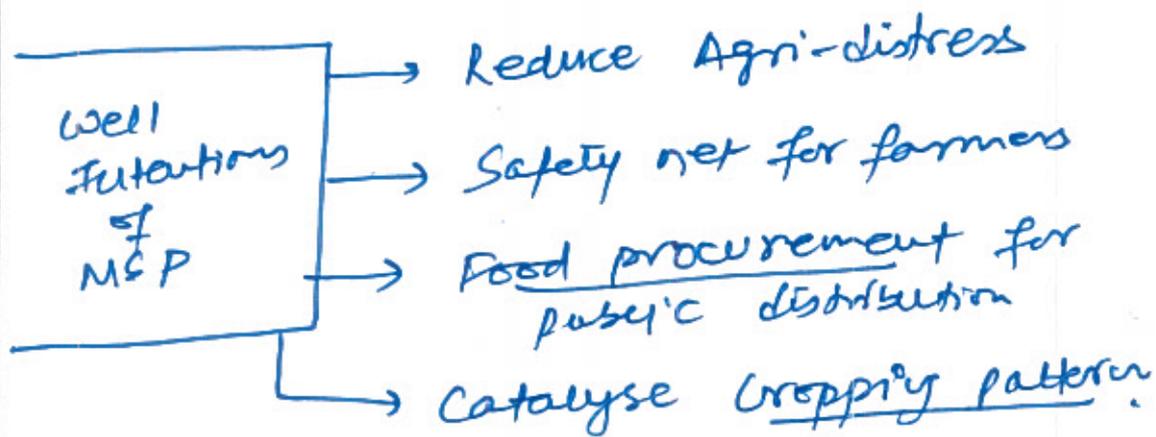
TOTAL MARKS	
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Q.14) The MSP system, though well-intentioned, has led to market distortions and ecological stress, necessitating reforms to make it more inclusive and efficient. Examine. (15 marks, 250 words)

MSP प्रणाली, हालांकि अच्छी नीयत से बनाई गई है, लेकिन इसने बाजार में विकृतियां और पारिस्थितिकी तनाव पैदा किया है, जिससे इसे और अधिक समावेशी और कुशल बनाने के लिए सुधारों की आवश्यकता है। परीक्षण कीजिए।

(15 अंक, 250 शब्द)

CAEP defines MSP as the minimum floor price offered by the government to hedge farmers against sharp fall in the price of agri-commodities.



However, MSP regime has had various unintended consequences.

- 1) Economic survey highlighted de-facto Nationalisation of the grain market.
- 2) Skewed cropping pattern
 - ⊕ Sugarcane (water intensive) grown in Maharashtra (water scarce)

- 3) Disincentivise crop diversification
 (ex) Overemphasis on Rice & wheat in North India due to MSP procurement.
- 4) Distorts price realisation of the farm commodities due to state intervention.
- 5) Land Degradation due to over-cropping of rice & wheat. (ex) Punjab-Haryana belt.
- 6) Discrimination in procurement skews local market. (ex) Eastern regions of India is neglected in procurement.

Steps required

Shanta Kumar committee laid down elaborate recommendations to reform MSP & Food procurement system.

- 1) Buffer Stocking Norms should be liberalised
- 2) Open Ended procurement policy need

to be reconsidered.

2) Procurement of Food should be decentralised reducing burden on PCT.

4) Ashtak Dalwai Committee recommended promoting Contract Farming to wean away from MSP regime.

5) NITI Aayog recommended re-considering the basket of products in MSP regime.

6) e-Negotiable warehouse Receipts should be promoted to get easy access to Credit to farmers.

Hence, a shift from MSP regime to a new paradigm is required with the vision of MS Swaminathan to make build ATMANIRBHAR KRISHI, ATMANIRBHAR TRISAN.

Feedback

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TOTAL MARKS			

Q.15) Biotechnology holds immense potential for achieving sustainable food production, efficient waste management and significant advancements in human health. Elucidate. (15 marks, 250 words)

जैव प्रौद्योगिकी में टिकाऊ खाद्य उत्पादन, कुशल अपशिष्ट प्रबंधन और मानव स्वास्थ्य में महत्वपूर्ण प्रगति हासिल करने की अपार संभावनाएं हैं। स्पष्ट कीजिए। (15 अंक, 250 शब्द)

India's bioeconomy is of $\$96\text{bn}$ size.

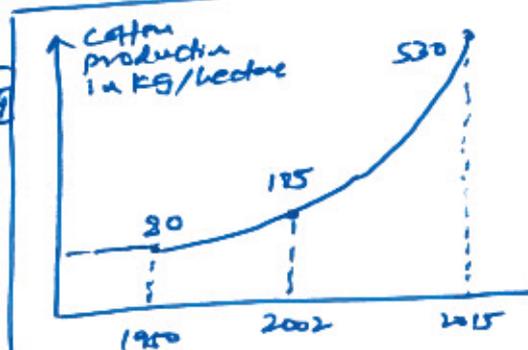
Biotechnology refers to manipulation of biological processes for utilitarian benefits.

It has immense role in thrusting development in multiple fields.

Role of Biotechnology

I. Sustainable food production

1) Increasing productivity of the crops.
(ex) Bt-cotton →



2) Bio-fortification leading to food-security. (ex) Iodised salt, Biofortified Rice

3) Increasing shelf-life of perishable food.
(ex) FlavrSavr Tomato.

4) Resilience of food ~~needed~~ crops

could be enhanced. (e) B7M - Mustard has better climate resilience.

II. Improve waste management

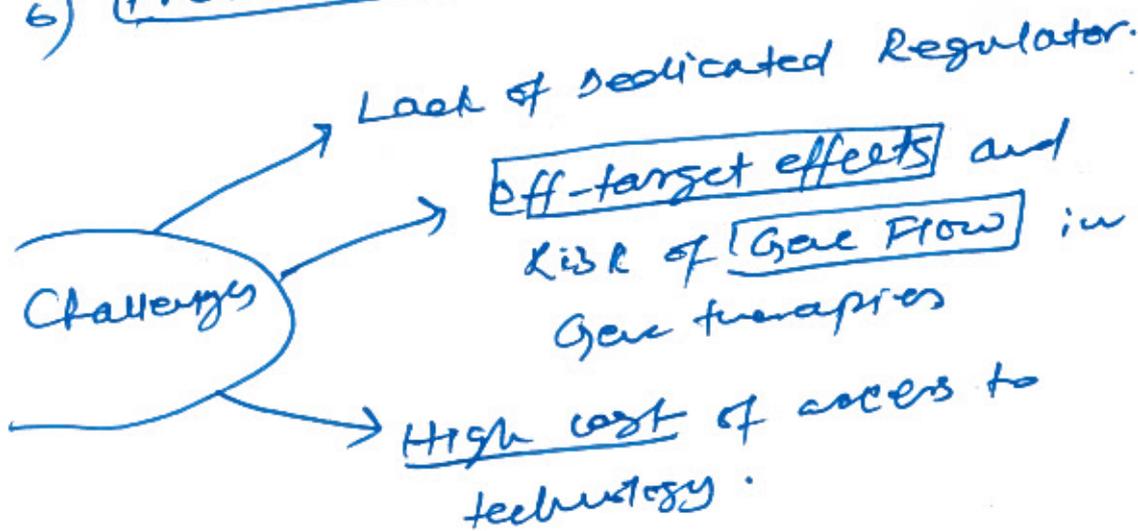
- 1) Bio-degradation of wastes could be accelerated.
- 2) Bio-sporaging to improve aeration and faster waste decomposition.
- 3) Bio-leaching for catalysing waste to wealth
- 4) Biological agents could be developed for Bio-cleaning.

III. Improving Human Health

- 1) Preventive measures for diseases.
(e) mRNA vaccine
- 2) Diagnosis of diseases. (e) Biomarkers to detect cancers.
- 3) Treatment of diseases. (e) CAR-T

cell therapy for B-cell lymphomas.

- 4) Genetic therapy to reduce burden of genetic diseases. (ex) sickle cell anemia, Luxturna
- 5) stem cell treatment to improve health outcomes. (ex) Spinal muscular Atrophy
- 6) Precision Medicine (ex) CRISPR-Cas9.



Hence, Helsinki Declaration on Medical Research and Precautionary Principle should guide biotechnology advancement to make India a Global BIOTECH Hub.

Feedback

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TOTAL MARKS			

Q.16) Climate change is leading to significant alterations in ecosystems, resulting in cascading effects on biodiversity, ecosystem services, and human livelihoods, necessitating integrated approaches to conservation and climate adaptation. Analyse. (15 marks, 250 words)

जलवायु परिवर्तन के कारण पारिस्थितिकी तंत्र में महत्वपूर्ण परिवर्तन हो रहे हैं, जिसके परिणामस्वरूप जैव विविधता, पारिस्थितिकी तंत्र सेवाओं और मानव आजीविका पर व्यापक प्रभाव पड़ रहा है, जिसके कारण संरक्षण और जलवायु अनुकूलन के लिए एकीकृत दृष्टिकोण की आवश्यकता है। विश्लेषण कीजिए। (15 अंक, 250 शब्द)

IPCC AR6 report held that world is going to breach 2°C rise in temperature before 2040 itself with 50% probability. It calls for sustained focus on climate change adaptation & mitigation.

Impact of climate change

I. On Biodiversity

- 1) Threatens mangroves. @ 40% of sunderbans could be lost by 2070 due to rising sea level.
- 2) Alteration in migration pattern of trees. @ Tropicalisation of temperate regions of earth.
- 3) Threats of extinction due to climate change induced weather hazards.

a) Rising Forest fires, droughts.

4) Life-cycle events of various animals could be impacted. ex) breeding season of turtles.

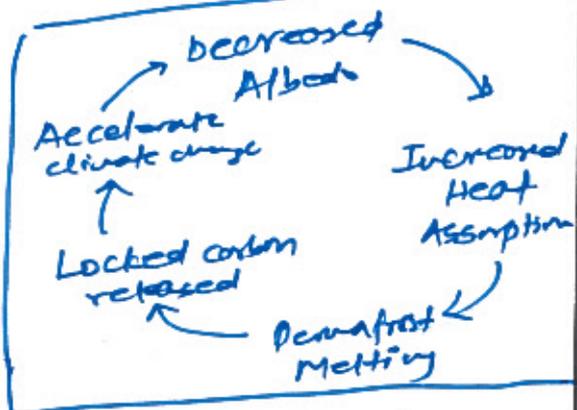
II. OM Ecosystem Services

1) Reduced Carbon sequestration capacities of tropical forests due to change in weather.

2) Land degradation due to altered rainfall pattern → poor carbon sequestration

3) Permafrost melting

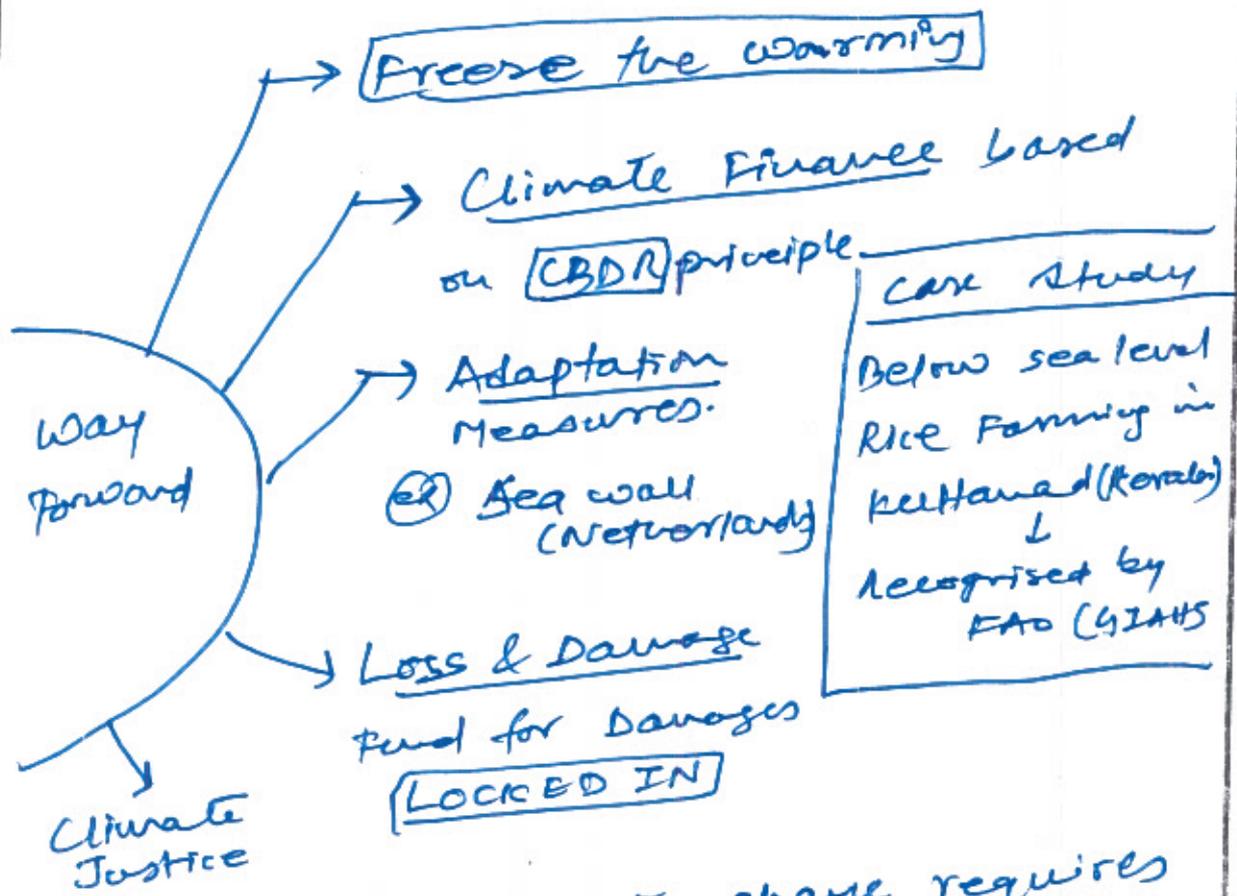
leading to acceleration of climate change.



4) Water Recharge altered due to erratic weather, coastal erosion, salt-water ingress etc.

II- On human livelihood

- 1) Reduced fish catch
- 2) Threatens Tourism @ Maldives.
- 3) Fear of submergence @ Tuvalu
- 4) Reduced crop productivity @ Post Attacks.



Hence, climate change requires a whole of the world approach based on principles of Climate Justice and Common but Differentiated Responsibility.

Feedback

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Q.17) Urban areas, often referred to as the cradle of civilization and growth engines, are increasingly experiencing various natural and man-made disasters. Discuss in the Indian context. Also, suggest suitable mitigation and management strategies. (15 marks, 250 words)

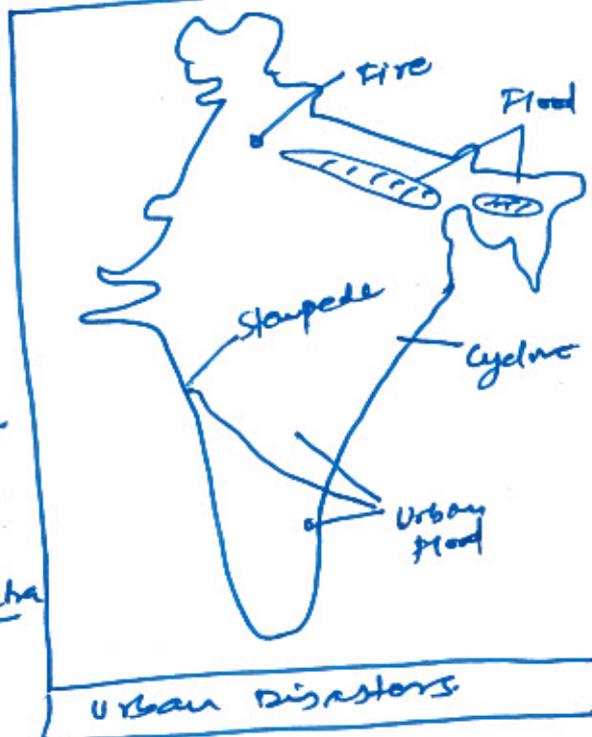
शहरी क्षेत्रों को अक्सर सभ्यता और विकास के इंजन के रूप में संदर्भित किया जाता है, जो विभिन्न प्राकृतिक और मानव निर्मित आपदाओं का सामना कर रहे हैं। भारतीय संदर्भ में चर्चा कीजिए। साथ ही, उपयुक्त शमन और प्रबंधन रणनीतियों का सुझाव दीजिए। (15 अंक, 250 शब्द)

As per UN-DESA, 53% of Indian population would be living in Indian cities by 2050. Cities contribute 60% to the GDP of India but faces myriad of challenges related to disasters.

Various Disasters Experienced by cities.

I. Natural

- 1) Cyclones
 @ Puri, Chennai.
- 2) Earthquake
 @ Delhi in zone IV
- 3) Flooding
 @ Ganga-Brahmaputra valley cities.
- 4) Cloudburst @ Hyderabad



II. Man-made disasters

- 1) Urban fires (ex) Rajkot Ganj zone fire
- 2) Urban Flood (ex) Mumbai (2008), Hyderabad (2021)
- 3) Crowd disasters (ex) Morbi bridge collapse, Elphinstone Railway Stampede
- 4) CBRN disasters (ex) Mahipalpur Nuclear leak
- 5) Urban Heatwaves (ex) North Indian cities (2024)

Hence, a new paradigm of urban disaster management is required.

I. Mitigation

1) National Building Code by BIS

should be followed.

2) Model Building Bye Law by MHA

need to be adopted.

3) Hazard Zonation and vulnerability mapping of different disasters

4) Capacity building of community and Community led disaster management (2nd ARC)

5) Master-plans for integrated development
 (a) Beller's master plan 2011

II. Response

1) Mock drills for quick deployment of response teams.

2) Community led response approach (ex) Oxfam NGO in odisha cyclones.

Best practice
Odisha Cyclone management Model
 showcased integrated approach to disaster management

III. Rehabilitation

- 1) Sustained and complete rehabilitation
- 2) Prioritise most vulnerable.

Hence, Sendai Framework for Disaster Risk Reduction and UN-Habitat New Urban Agenda need to be adopted for disaster resilient cities.

Feedback

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TOTAL MARKS			

Q.18) "India's disaster management framework has made significant progress in the 21st century, yet challenges persist in ensuring timely response and effective coordination during crises." Comment. (15 marks, 250 words)

"भारत के आपदा प्रबंधन ढांचे ने 21वीं सदी में महत्वपूर्ण प्रगति की है, फिर भी संकट के दौरान समय पर प्रतिक्रिया और प्रभावी समन्वय सुनिश्चित करने में चुनौतियां बनी हुई हैं।" टिप्पणी कीजिए। (15 अंक, 250 शब्द)

An integrated approach to disaster management was adopted in India with Disaster Management Act, 2005 and formation of NDMA, however various challenges still persists with regard to Responses.

Significant progress in Disaster Management

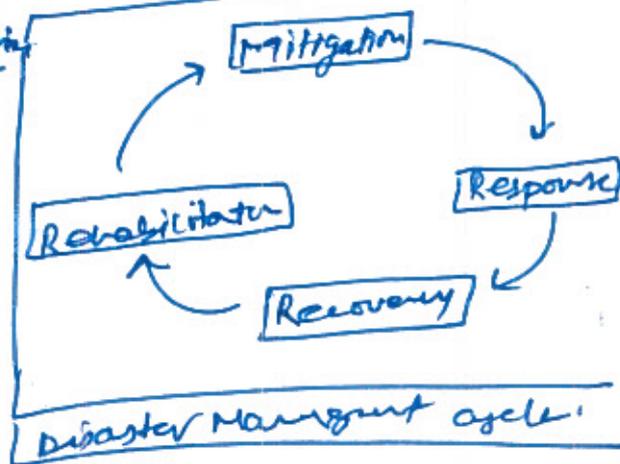
1) Dedicated legislation
 (a) DM Act, 2005

2) NDMA as the primary body for disaster management.

3) National Crisis Management Committee (NCMC)

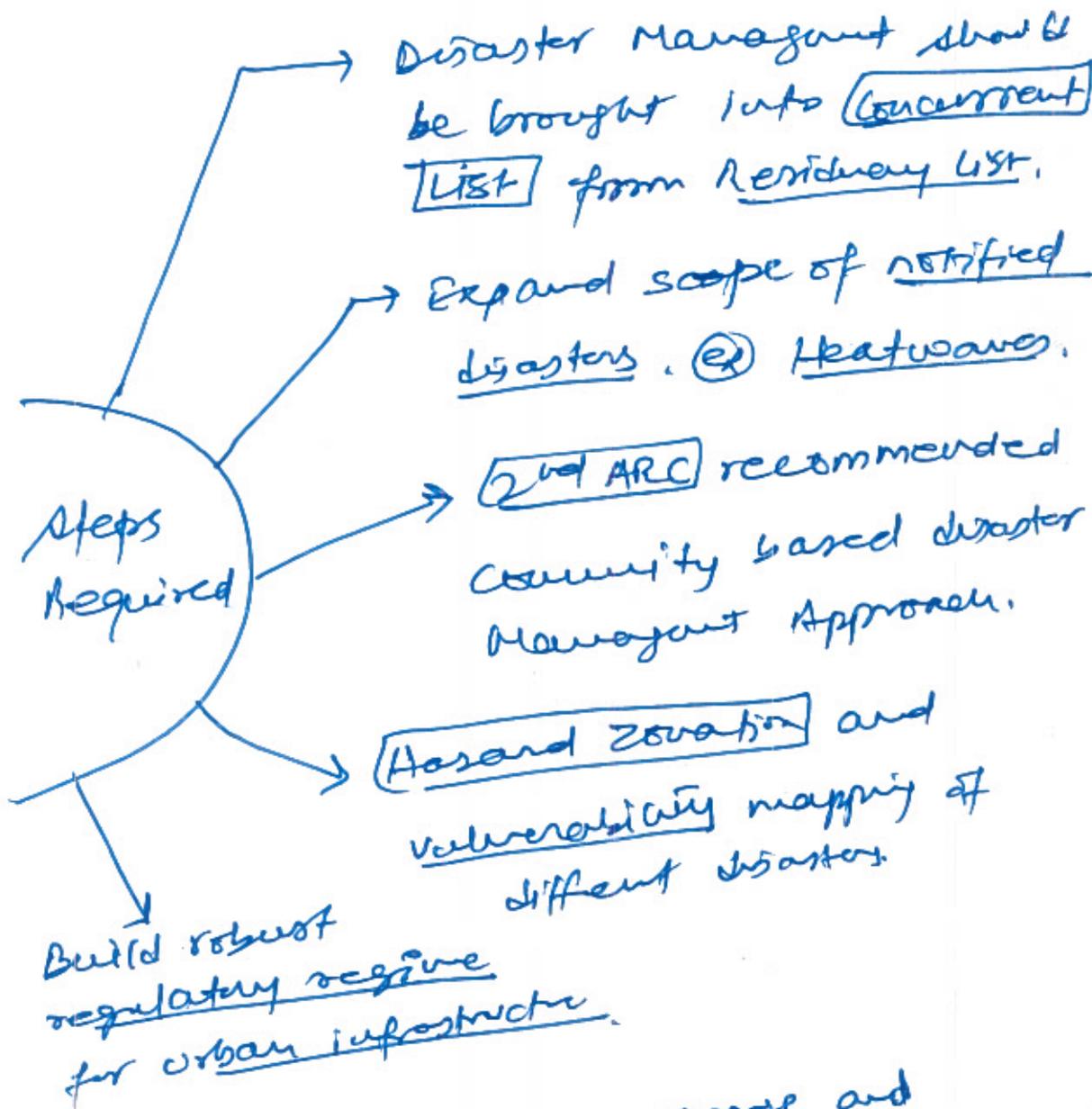
4) National Disaster Response Forces and State Disaster Response Forces.

5) National Disaster Response Fund and State Disaster Response Funds.



Challenges persists

- 1) CAG highlighted the lack of utilisation of Funds from NDRF.
- 2) 2nd ARC highlighted Ad-hocism and Response based Approach instead of Pro-active Approach.
- 3) Parliamentary Comm Standing Committee highlighted lack of coordination between Central and State agencies.
- 4) Delayed response by the agencies
(ex) Delhi coaching flooding case.
- 5) Community role in Disaster management is marginalised.
- 6) Lack of integrated planning of cities and prevailing corruption in enforcement of Municipal laws.



Hence, Disaster response and mitigation should follow **BUILD BACK BETTER** principle to build a **Disaster Resilient India** by 2047.

Feedback

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Q.19) Explain how the symbiotic relationship between organized crime and terrorism further aggravates internal security concerns. What steps can be taken to address this linkage and the threats emerging from it? (15 marks, 250 words)

बताइए कि संगठित अपराध और आतंकवाद के बीच सहजीवी संबंध किस तरह आंतरिक सुरक्षा संबंधी चिंताओं को और बढ़ाता है। इस संबंध और इससे उत्पन्न होने वाले खतरों से निपटने के लिए क्या कदम उठाए जा सकते हैं? (15 अंक, 250 शब्द)

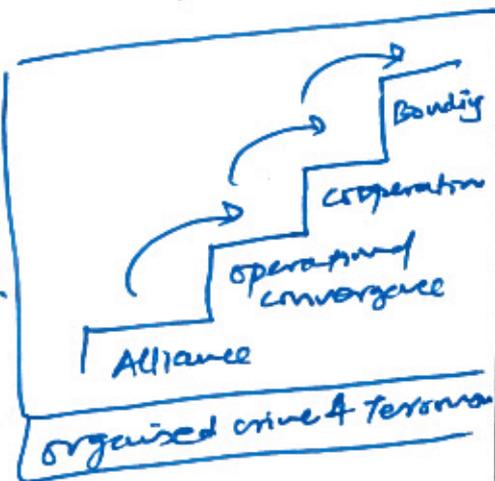
As per ~~Interpol~~ UNODC, organized crime is a continuing criminal enterprise that seeks to benefit from illegal activities that are often in high demand. organized crime and terrorism has been found to share a symbiotic relationship where both augment each other and mutually benefit,

1) Logistical support provided by organized criminals for terrorism.

Ex) Mumbai Blast (1993) by D-Company

2) Funding from organized criminal networks to terror organisations.

Ex) Drug Trafficking in North-east



- 3) Procurement of personnel and arms by organised criminal groups for terror attacks. $\textcircled{e.g.}$ J&K Militancy.
- 4) Recruitment of terrorists from the organised criminal gangs. $\textcircled{e.g.}$ Al-Shabab in Somalia
- 5) Political support ~~and~~ provided by organised criminals to terror groups. $\textcircled{e.g.}$ NSCN in Nagaland.

Hence, following steps have been taken ~~reported~~ to break the nexus of organised criminals with Terror groups,

- 1) National Security Act
- 2) National Investigation Agency (NIA)
- 3) UAPA Act
- 4) Various provisions in IPC (BNS) & CrPC (BNS) $\textcircled{e.g.}$ IPC - Sec. 120

Steps Required

- 1) Vohra Committee suggested to break nexus between criminals, bureaucrats and politicians.
- 2) Narresh Chandra Task Force suggested for integrated Intelligence gathering.
- 3) Shekhar Committee suggested robust border management to check organised criminal activity
- 4) 2nd ARC recommended formation of National Counter Terror Commission.

Hence, a concerted effort is required ~~to~~ to break nexus between organised criminals & Terror groups. Djibouti Code of Conduct can show the light.

Feedback

(For OFFICE use only)

	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.20) Strengthening security apparatus in border areas and forging developmental partnerships with the locals are essential components of a robust and effective border management strategy. Discuss, with initiatives taken by the government in this regard. (15 marks, 250 words)

सीमावर्ती क्षेत्रों में सुरक्षा तंत्र को मजबूत करना तथा स्थानीय लोगों के साथ विकासात्मक साझेदारी बनाना एक मजबूत और प्रभावी सीमा प्रबंधन रणनीति के आवश्यक घटक हैं। इस संबंध में सरकार द्वारा उठाए गए प्रयासों के साथ चर्चा कीजिए। (15 अंक, 250 शब्द)

India shares over 7500 km land borders with its neighbouring countries, many of whom are hostile. Hence, a collaborative effort between forces & community in border areas is required.

Role of Locals in Border Management

1) First responder in cases of ingress.

2) Dual use villages could be built.

② Kiosk village by chivras

3) Better access to intelligence gathering.

4) Countering Over-ground workers ② J&K



Role of security Apparatus

- 1) Building robust security ecosystem on border
- 2) Responding to incursion by hostile forces. (e.g.) Galwan incident.
- 3) Checking illegal migration (e.g.) Indo-Bangladesh Border.

Hence, various initiatives have been taken by the government,

- 1) Vibrant villages programme to provide essential services to border villages.
- 2) Parvatmata scheme to enhance connectivity via ropeways.
- 3) Himayat Scheme and Mission Sadbhavana to forge strong ties between security forces & the local people.
- 4) Application of technology (e.g.) BOZD-OIT

5) Comprehensive Borders Management (CIBMS)

6) Missionat Pehal for capacity building of youths @ Kashmir

Hence, Sherkatkar Committee

recommendations need to be followed to strengthen Border security and leverage the local community for improving security situation

Feedback

(For OFFICE use only)

	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			

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		

* Subject to change without prior notice.

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