

TEST CODE 7 7 1 3 0 3

SPS 2024 – UPPSC MAINS

Time Allowed : Three Hours
समय : तीन घंटे

ForumIAS

Maximum Marks : 200
अधिकतम अंक : 200

GENERAL STUDIES / सामान्य अध्ययन

Name Of Candidate परीक्षार्थी का नाम	Ananya Trivedi		
Roll No./अनुक्रमांक	1910134472	Medium/माध्यम	English <input checked="" type="checkbox"/> हिंदी <input type="checkbox"/>
Center Code/परीक्षा केंद्र	Online	Date/दिनांक	

*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		
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20		
Total/कुल अंक	200	

- 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।
- 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।
- 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।
- 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।
- 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।

For Student Only / केवल परीक्षार्थी प्रयोग हेतु

Examiner's Discretion/मूल्यांकन कर्ता का विवेक :	Start Time/प्रारंभ करने का समय : 7:30 p.m	End Time/समाप्त करने का समय : 10:30 p.m
Total Marks/कुल अंक :	Mode Of Examination/ परीक्षा की विधि :	Online/ऑनलाइन <input checked="" type="checkbox"/> Offline/ऑफलाइन <input type="checkbox"/>

For Office Use Only / केवल कार्यालय प्रयोग हेतु

*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।

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 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.

SHORT ANSWER QUESTIONS

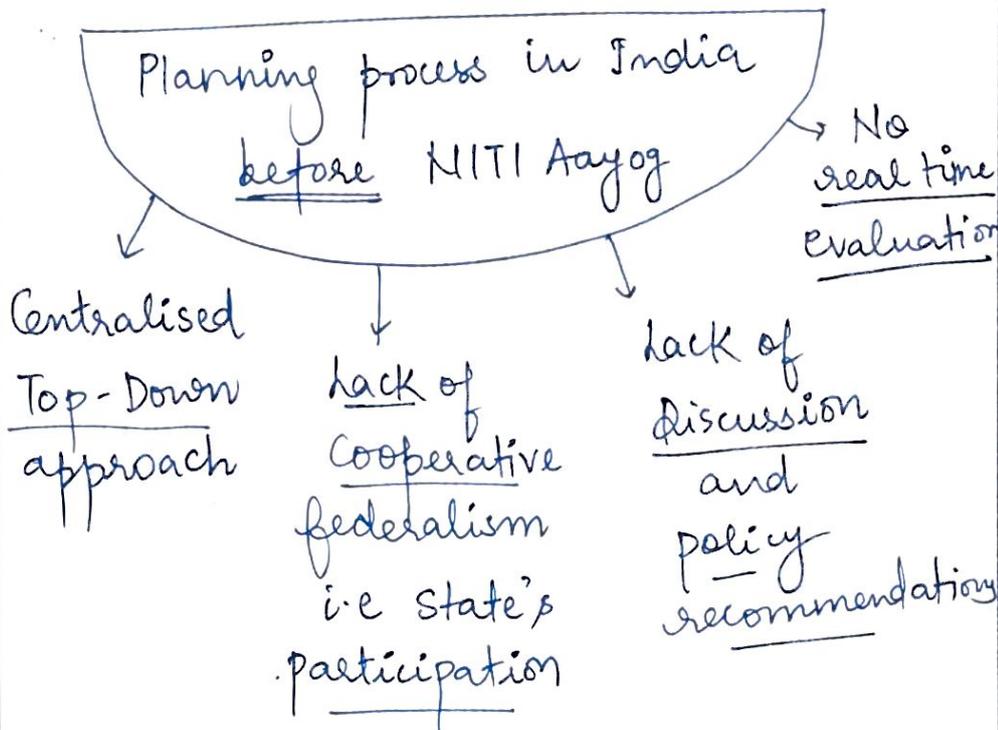
लघु उत्तरीय प्रश्न

Section-A / खण्ड-अ

Q.1) NITI Aayog gave a new dimension to the development planning process in India. Explain

नीति आयोग ने भारत में विकास नियोजन प्रक्रिया को नया आयाम दिया। स्पष्ट करें। (8 Marks)

Formulated on 1st Jan 2015,
replacing erstwhile Planning Commission,
NITI Aayog was constituted to
adapt to changing India giving
"NAYI NEETI" and "NAYI DISHA"



NITI Aayog added New Dimensions

① Fostering Innovation

eg Atal Innovation Mission
Atal Tinkering Labs

② Cooperative and competitive federalism

eg ✓ School Education Quality Index
✓ SDG India Index.

③ Premium think tank for policy formulation

eg PMAASHA, POSHAN Abhiyan
Model land leasing Act etc.

④ Real time Monitoring through DMEQ and localised solutions.

Thus, NITI Aayog redefined the development planning process reflecting spirit of Viksit Bharat @ 2047.

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) Explain the concept of unemployment. Mention the main causes of unemployment problem in Indian context and the efforts made by the government to solve it.

बेरोजगारी की संकल्पना को समझाइए। भारतीय संदर्भ में बेरोजगारी की समस्या के प्रमुख कारणों एवं उसके समाधान के लिए सरकार द्वारा किए गए प्रयासों का उल्लेख करें।

(8 Marks)

Unemployment refers to people belonging to workforce who are able and actively seeking employment.

As per CMIE approx 9% people are unemployed in India.

CAUSES OF UNEMPLOYMENT

① Structural

Indian economy is driven by service sector. Poor labour absorption from agriculture to manufacturing is the root cause.

eg) Approx 45% workforce in agri. sector (disguised unemployment)

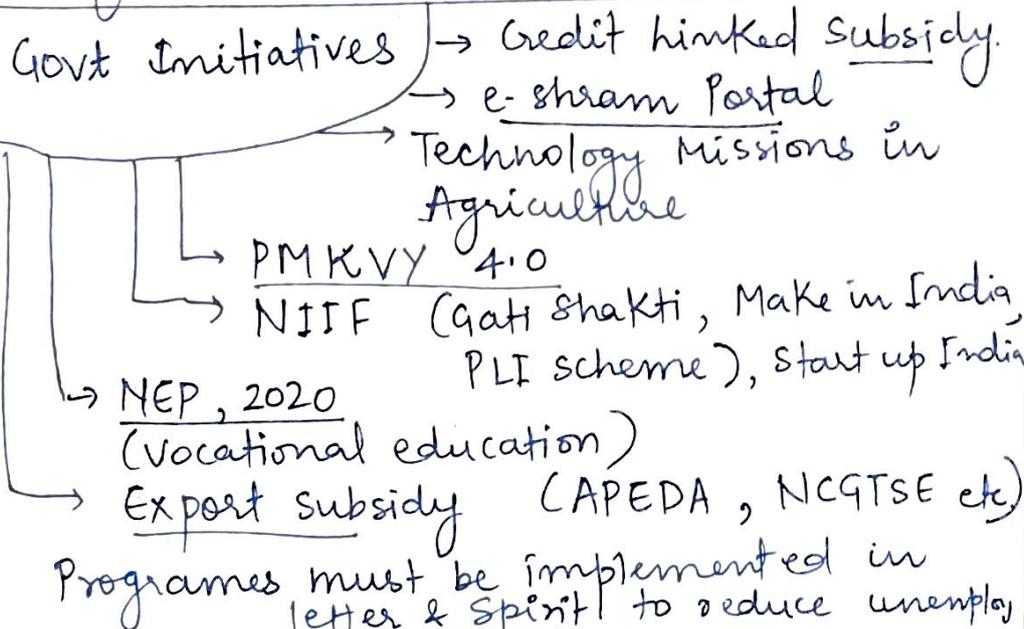
② Poor industry-academia linkage

Need for upskilling and re-skilling in the era of Industry 4.0.

⚡ A mere 5% of skilled workforce as compared to countries like South Korea (97% skilled).

③ low investment in R&D (0.64% of GDP)

Regulatory Cholesterol, economic inequality post LPG reforms and contractualisation and informalisation of workforce etc.



Feedback

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	G	A	P
AWIS			
CD & VA			
B & 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.3) What is fiscal deficit? Explain the ill-effects of fiscal deficit and discuss the measures to reduce it.

राजकोषीय घाटा किसे कहते हैं? राजकोषीय घाटे से उत्पन्न होने वाले दुष्प्रभावों को स्पष्ट करते हुए इसमें कमी लाने वाले उपायों पर चर्चा करें।

(8 Marks)

Fiscal Deficit is the gap between government's total spendings (revenue + capital) and its total revenue (excluding borrowings to cover the shortfall)

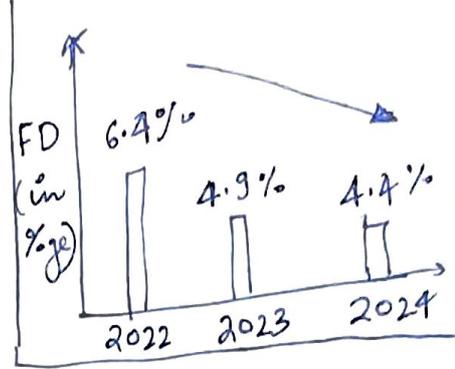
Ill Effects of Fiscal Deficit

- (a) Crowding out of Private Investment since govt. borrows more to finance deficit
- (b) Inflationary pressure (\downarrow purchasing power)
- (c) Increase Debt, higher interest rate and less FISCAL SPACE for investment
- (d) Balance of Payment (turns negative) Value of currency falls, Imports become expensive.

Measures to Reduce Fiscal Deficit

① Fiscal Discipline

Adhering to targets of FRBM Act through:



- Prudent fiscal policies like rationalising subsidy
- Reducing unnecessary spendings

② Broadening Tax base and diversifying revenue resources

eg Tax on cryptocurrency

③ Reforms in economy

like EODB, labour market reforms, enhancing competitiveness.

④ Deepening Bond Market

eg RBI's direct window for domestic households investing in G-sec

Fiscal Sustainability is essential for long term growth to reach target of \$ 7 trillion economy by 2030

(Don't write in this area)

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.4) Ensuring economic stability in any economy The central bank has an important role. Explain

किसी भी अर्थव्यवस्था में आर्थिक स्थिरता सुनिश्चित करने में केंद्रीय बैंक की महत्वपूर्ण भूमिका होती है। स्पष्ट करें।

(8 Marks)

Central Banks are pivotal
economic institutions tasked with
maintaining financial stability
through various tools and
achieve price stability.

Role

① Inflation Targeting

Through various tools like Repo Rate (India), Fed. Interest Rate (U.S.) - they set explicit target.

② Also influence money supply
and borrowing cost for
economic activities.

(Don't forget to mark in this sheet)

③ Currency Management

Through devaluation, selling/
buying of SDR, gold etc. it
tries to maintain strong exchange
rate.

④ Supervision of Banking Sector

✓ Risk Weighted Assets need
equivalent capital as per BASEL
norms.

✓ Protects customers' interest.

eg) PSL norms, credit rationing etc.

⑤ Implements Reforms, work
towards Financial Inclusion &
helps in development of
financial markets.

Thus, central bank of
any country maintains overall
financial health of economy.

Feedback

(For OFFICE use only)

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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.5) What do you understand by compensatory afforestation? Discuss the main elements of government policy in this context.

क्षतिपूर्क वनीकरण से आप क्या समझते हैं? इस संदर्भ में सरकार की नीति के प्रमुख तत्वों की चर्चा कीजिए।

(8 Marks)

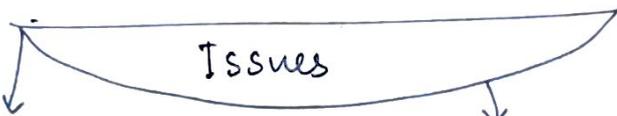
Compensatory Afforestation refers to planting of trees on a non-forest land to offset for diversion of forest land for purposes like mining, infra. projects. etc.

Its a requirement under Forest Conservation Act, 1980.

Govt. policy — Main elements

Compensatory Afforestation Act was passed by Centre in 2016 and CAMPA is the authority for fund management.

- (a) Any agency that diverts forest land has to pay for equal area.
- (b) Money goes to CAMPA fund.
- (c) As per the Act, 90% of the money goes to each State and 10% to Centre for maintaining administrative expenses.
- (d) Funds can be used for relocation of villages, wildlife protection, training etc.



Forest not planted to Suit local ecology

Ecosystem is uprooted that can not be compensated by planting single trees.

A more comprehensive look at CAMPA is required to achieve INDC targets.

Feedback

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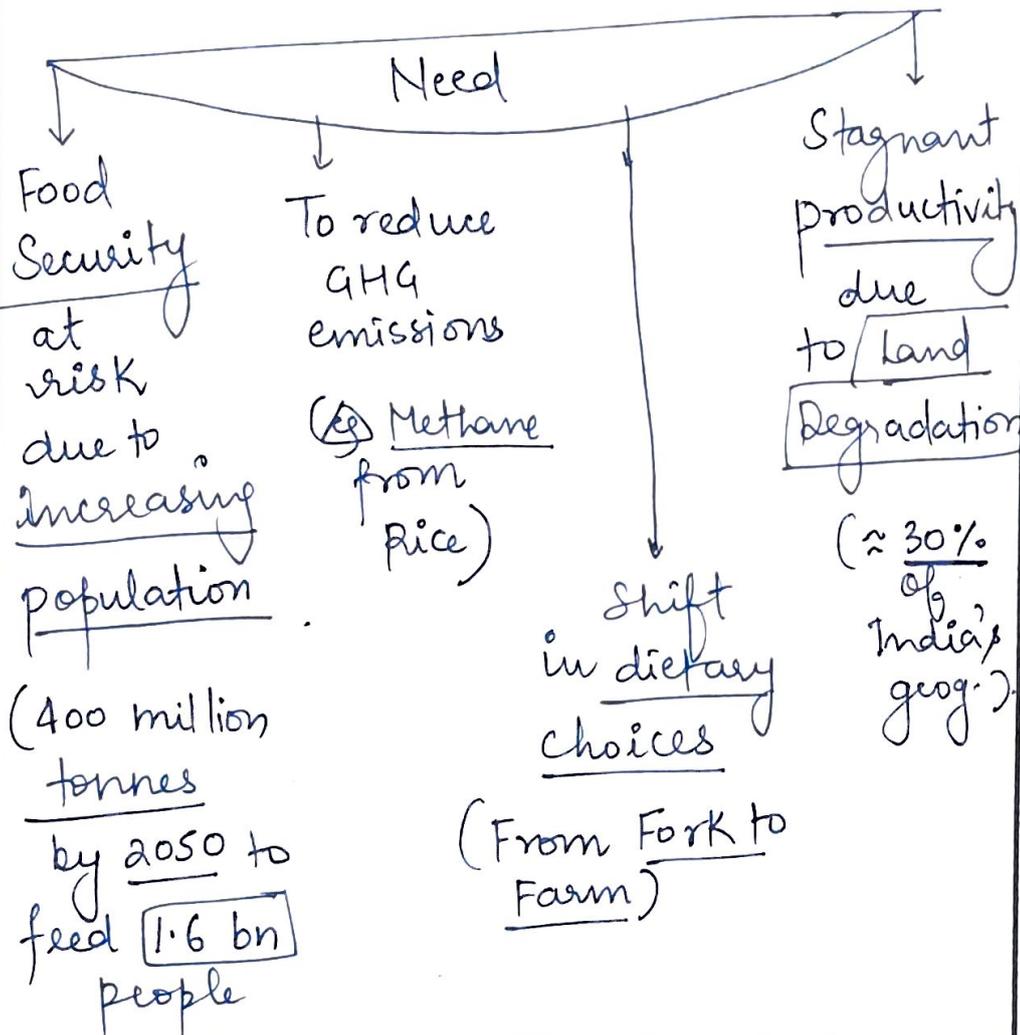
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Please put tick marks in the above table.			
Here G is Good, A is Average and P is Poor.			
TOTAL MARKS			

Q.6) What is Climate Smart Agriculture (CSA)? Highlight the need for adopting CSA and mention some of its salient features.

जलवायु स्मार्ट कृषि (CSA) क्या है? CSA अपनाने की आवश्यकता पर प्रकाश डालते हुए, इसकी कुछ प्रमुख विशेषताओं का उल्लेख कीजिए।

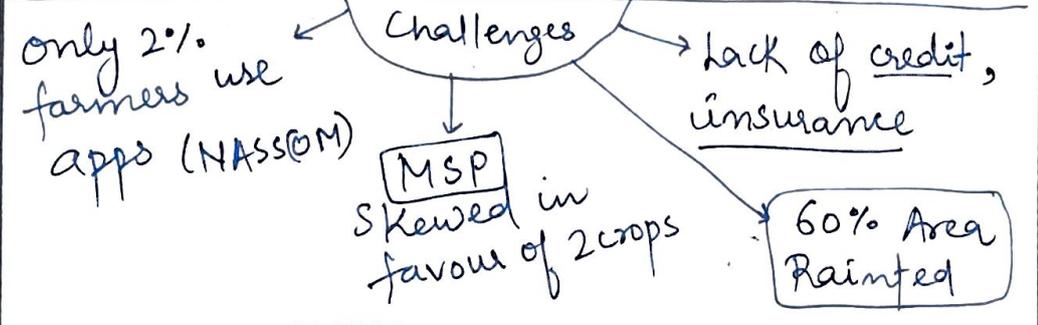
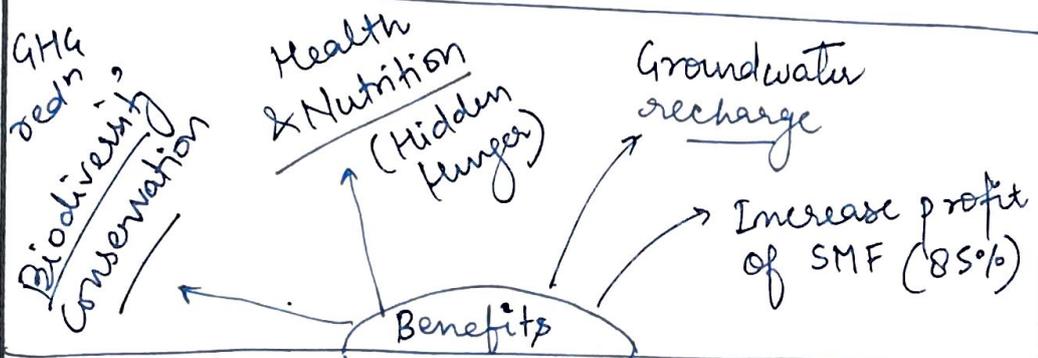
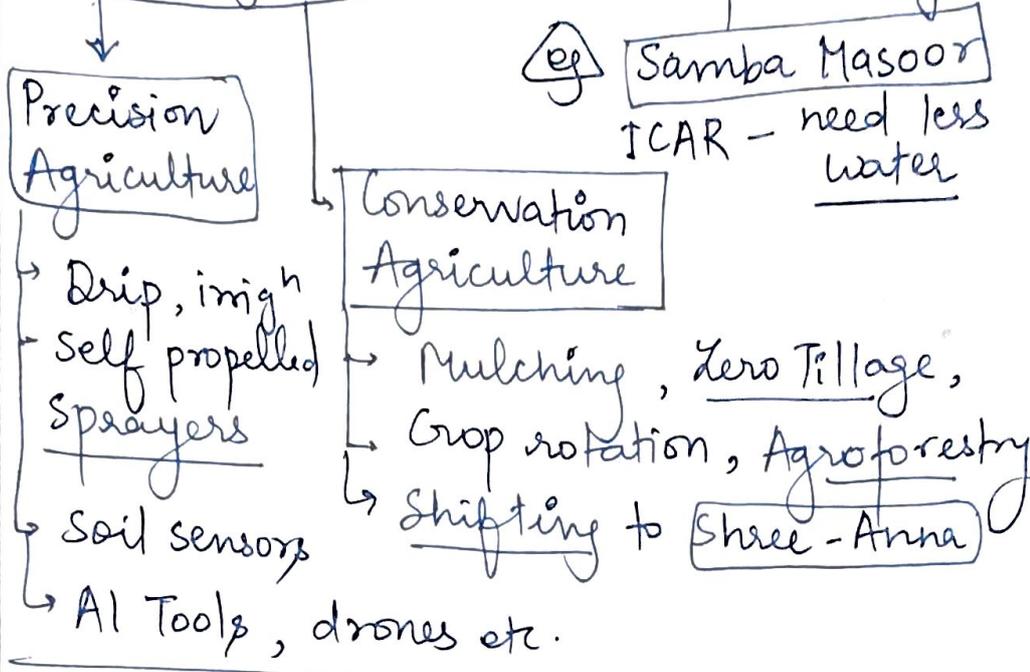
(8 Marks)

"Climate smart agriculture" refers to agri. practices that are both sustainable and avert to phenomena of climate change.





Features of Climate Smart Agriculture → cultivating climate resilient crop variety



21st century challenge of climate change makes it a necessity to adopt it.

Feedback

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#	G	A	P
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CD & VA			
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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	
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Q.7) Discuss the key provisions of "Disaster management (Amendment) bill, 2024, which aims to improve India's disaster management framework

आपदा प्रबंधन (संशोधन) विधेयक, 2024 के प्रमुख प्रावधानों पर चर्चा करें, जिसका उद्देश्य भारत के आपदा प्रबंधन ढांचे में सुधार करना है।

(8 Marks)

India is highly vulnerable to disasters due to its unique "geo-climatic" and "socio-economic" positioning with 27 out of 36 states being disaster prone.

Disaster Management (Amend.)

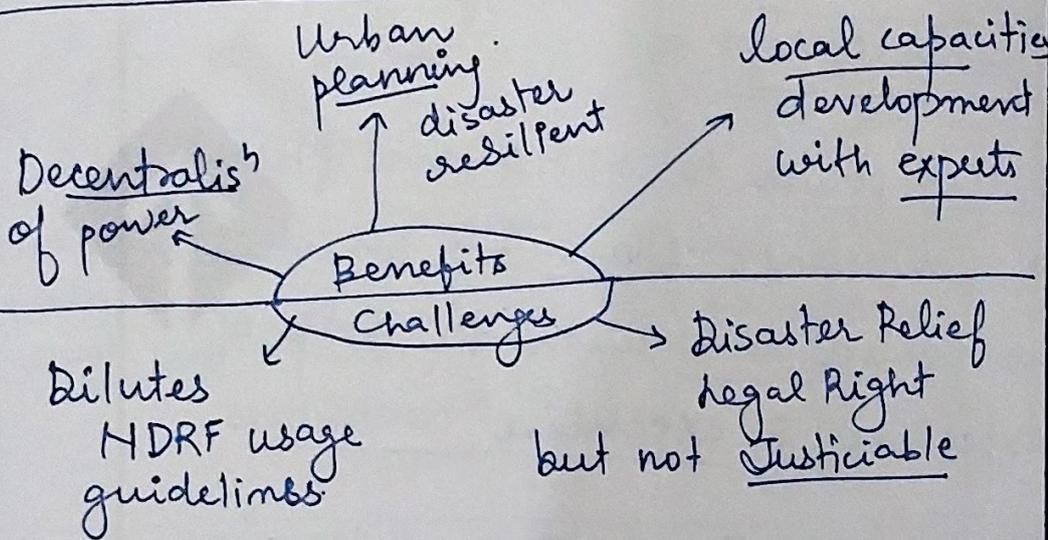
Bill 2024 was draft to overcome the shortfalls of DM Act 2005.

Key provisions

- ① Direct power to SDMA and NDMA to formulate plan → which was earlier done with the help of respective executive committees.
- ② State have power to determine

terms and conditions of SPRF.

- ③ NDMA can specify its own staffing needs and appoint experts with central govt's approval.
- ④ Statutory status to National Crisis Management Committee (NCMC)
- ⑤ Empowers Centre and state for imposition of Penalty.
- ⑥ Introduces UDMA for Urban areas i.e. state capitals and large cities (except NCT Delhi and Chandigarh)



Feedback

(For OFFICE use only)

	G	A	P
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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			

Q.8) Assess the relevance of NISAR mission in observing and managing climate change and natural hazards.

जलवायु परिवर्तन और प्राकृतिक खतरों के अवलोकन और प्रबंधन में एनआईएसएआर (NISAR) मिशन की प्रासंगिकता का आकलन करें।

(8 Marks)

NISAR mission jointly developed by NASA and ISRO is a low Earth Observation satellite to map the entire earth and measure changes.

In Managing climate Change

① Help to monitor changes like :

- melting glaciers
- rising sea level
- ecosystem disturbances

② Also help in analysis of :

- land surface changes
- Resource Management
- Data on groundwater & biomass

(Don't Write in this Area)

The data collected by EOS will be critical to know and plan programmes and policies as per changes

Managing Natural Hazards

- (a) Critical information to manage disasters like earthquakes, Tsunamis and volcanic eruption.
- (b) Early warning → enabling faster response
- (c) Identifying zones of potential hazard.

NISAR's data is publicly available for promoting transparency. It's a helpful tool to understand not only climate change but also man-made disasters like oil spills, deforestation & urbanization.

Feedback

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	G	A	P
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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			

Q.9) In what ways can manned space mission like the Gaganyaan impact India's scientific advancements, international collaborations, and strategic positioning in global space exploration?

गगनयान जैसे मानवयुक्त अंतरिक्ष मिशन किस प्रकार भारत की वैज्ञानिक प्रगति, अंतर्राष्ट्रीय सहयोग और वैश्विक अंतरिक्ष अन्वेषण में रणनीतिक स्थिति को प्रभावित कर सकते हैं? (8 Marks)

Recently, Gaganyaan Missions' four astronaut candidates were announced by GOI for India's first human space flight.

Impact on Scientific Advancement	Features
<p>(a) <u>Demonstrate human space flight capability</u></p> <p>(b) <u>Boost for technology</u></p> <ul style="list-style-type: none"> → Crew safety → Space craft design → life support systems → Effect of <u>Micro-gravity</u> 	<ul style="list-style-type: none"> - GSLV MK-III launch vehicle - <u>Indigenously developed ECLSS</u> (Envst. Control and life support system) - <u>Astronaut training facility at Bengaluru</u>

(Don't Write in this Area)

③ Indian Space Station (aimed to be set up by 2035) will be an extension of Gaganyaan program.

④ Int'l collaboration

- ① French and Russian support in training and technology development.
- ② Strengthen global scientific research.

Impact on strategic positioning

Demonstrate indigenous capability, technological boost as a space faring nation.

Thus, Gaganyaan mission will provide stimulus to space economy & employment. It has potential to inspire generations and contribute to broader goals of advancing humanity's presence in space.

Feedback

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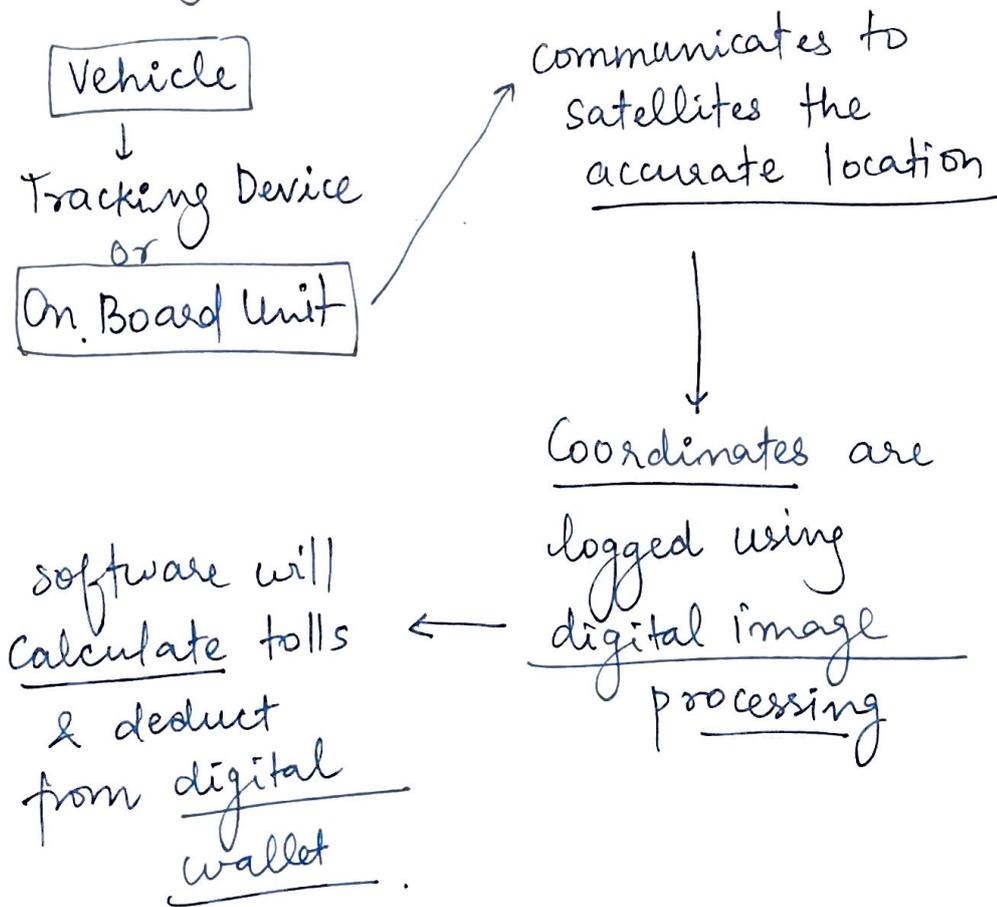
Q.10) Highlight the working mechanism of the new satellite-based toll system. How can the new system plug the gaps in the Fastag system of toll collection?

नए सैटेलाइट-आधारित टोल सिस्टम की कार्यप्रणाली पर प्रकाश डालें। नया सिस्टम टोल संग्रह की फास्टैग प्रणाली की खामियों को कैसे दूर कर सकता है?

(8 Marks)

Satellite based toll system uses GPS technology to track vehicle movement and charge based distance covered on the highway.

Working Mechanism



(Don't Write in this Area / इस क्षेत्र में लिखें)

How it plugs gap of FASTag

FASTag is based on RFID technology. It requires vehicle to slow down at toll booth for bar code reading.

Satellite based toll collection can simplify it by :

- (a) Eliminating the need for physical booths with
- (b) Prevent traffic congestion, seamless flow of vehicles with no need to stop.
- (c) Fair Billing → Based upon actual distance travelled.

However, setting up nation wide infrastructure and data privacy concerns remain. For the time being it co-exists with FASTag and full roll out need to be well thought.

Feedback

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CD & VA			
S & F			
P & R			
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TOTAL MARKS			

LONG ANSWER QUESTIONS

दीर्घ उत्तरीय प्रश्न

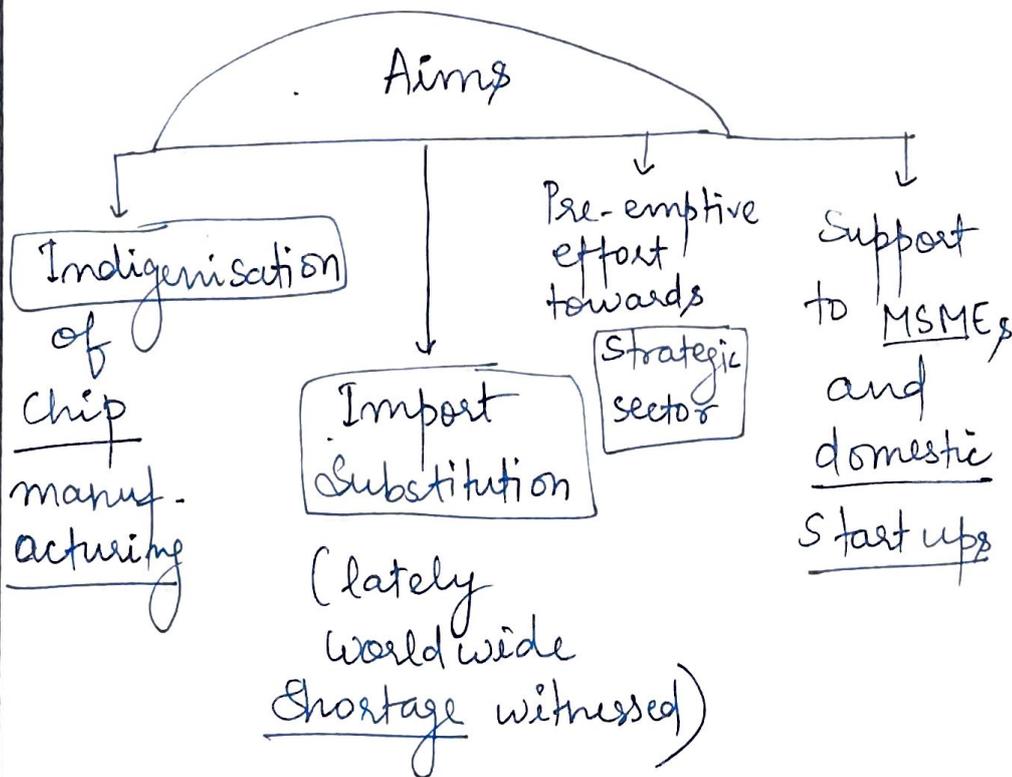
Section-B / खण्ड-ब

Q.11) What is the significance of the Design-Linked Incentive (DLI) scheme? Discuss the challenges faced in the implementation of the scheme.

डिजाइन-लिंकड इंसेंटिव (डीएलआई) योजना का क्या महत्व है? योजना के कार्यान्वयन में आने वाली चुनौतियों पर चर्चा करें।

(12 Marks)

Design linked Incentive scheme is India's effort to offer financial support and design infrastructure to semiconductor sector.



Significance of DLI Scheme

- ① Faster robust Semiconductor chip design ecosystem in India
 - ② Encourage innovation
(50% disimpusement under threshold limit) - facilitate & nurture domestic companies.
 - ③ Geo-economics
 - Shifting Global Value Chains away from China
 - India as an alternative destination for chip design and investment
 - ④ Job creation and upskilling
 - ⑤ Technological advancement towards self-reliance.
- eg) Financial incentive for companies involved in design (ICs, SoCs, Chipsets etc.)

Challenges in implementation

① Limit on incentives

Beneficiary start-ups can not raise
more than 50% of requisite capital
via FDI.

② Concerns regarding C-DAC's role as nodal agency, posing potential conflict of interest

③ High cost for startups; relatively modest incentives lead to a lukewarm response.

Equity financing and
a new and effective implementing
agency will help India boost
indigenous capabilities for long
term success.

Feedback

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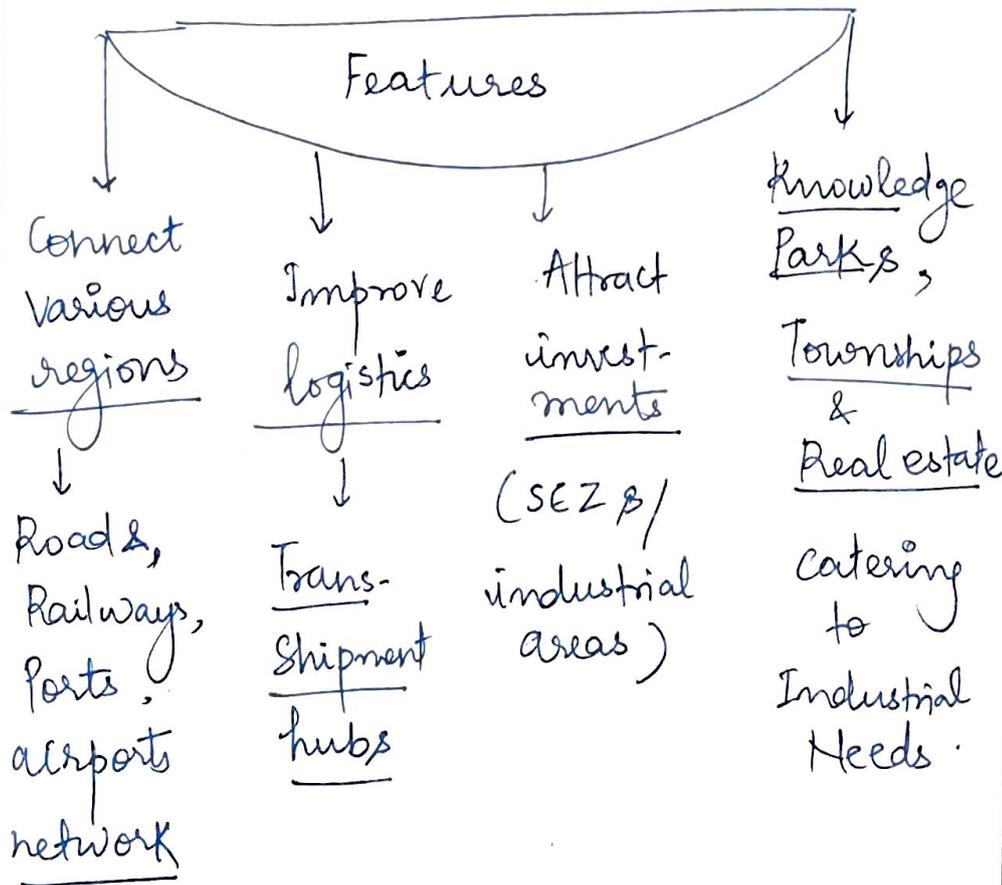
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Q.12) Industrial corridors are not just a network of roads and factories, but a pathway to economic transformation, regional growth and national progress. Comment

औद्योगिक गलियारे केवल सड़कों और कारखानों का नेटवर्क नहीं हैं, बल्कि आर्थिक परिवर्तन, क्षेत्रीय विकास और राष्ट्रीय प्रगति का मार्ग हैं। टिप्पणी करें।

(12 Marks)

Industrial corridors are critical infrastructure projects that facilitate rapid development of manufacturing, commerce and industrial activities.



ECONOMIC TRANSFORMATION

→ Creation of futuristic industrial cities.

→ Delhi - Mumbai Industrial Corridor

→ lowering logistics cost (currently 14% of GDP)

↳ Inclusive development and planned urbanisation (SMART CITIES)

↳ Job opportunities, Making India goods more competitive.

↳ Private sector investment
↳ Raising share of manufacturing sector to 25% by 2025.

REGIONAL GROWTH

→ Prevents concentration

↓
Reduces Distress Migration

of industries at one particular location.

(Don't Write in this Area)

ECO1 NATIONAL PROGRESS

→ Cascading effect
like setting Industrial townships.

↳ Improve human development indicators due to hospitals, educational institutes jobs available locally leading to social integration etc.

Challenges.

Land Acquisition

(legal hurdles)

↳ Rethink at economic feasibility of projects

↳ India lacks technical know how

in certain sectors

Envst. degradⁿ

↳ change in land use

↳ human displacement

Feedback
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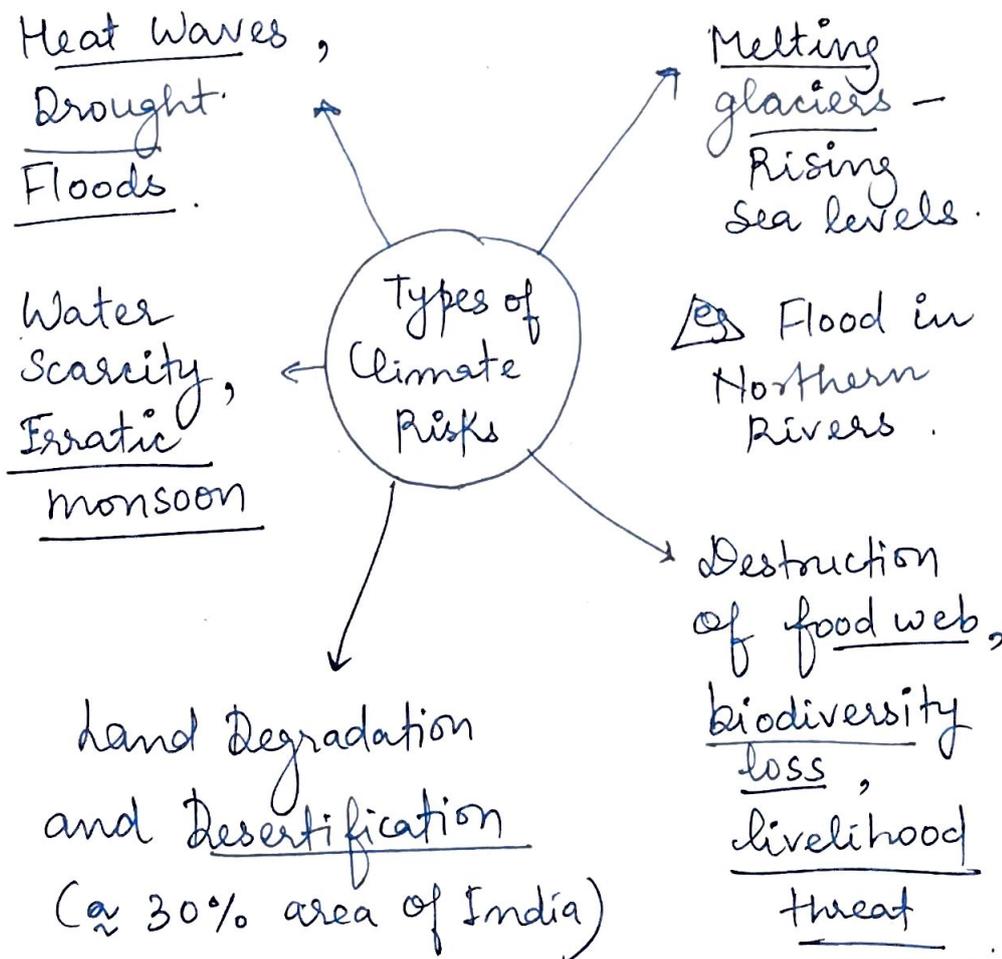
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TOTAL MARKS			

A \$ 1.3 trillion investment in infrastructure is required to achieve \$ 7 trillion economy

Q.13) Why does India face significant vulnerability to the adverse impacts of climate change? Suggest some mitigative measures that can be taken.

जलवायु परिवर्तन के प्रतिकूल प्रभावों के प्रति भारत को अत्यधिक संवेदनशील क्यों होना पड़ रहा है? कुछ निवारक उपाय सुझाएँ जो अपनाए जा सकते हैं। (12 Marks)

As per Climate Change Vulnerability INDEX, India is 7th most likely country to be subjected to climate extremes.



Don't Waste
in this Ans.!!
12/03/2025

Causes for India's High Vulnerability to CC.

Food security

Huge dependence on Agri sector

- ⊗ 60% rainfed.
- ⊙ Stagnant productivity due to declining soil health

Unique geographical Settings

- Coastal Areas (Cyclones, Rising Sea level)
- Changing Monsoon Patterns
- Himalayas (Brown Haze reducing Albedo)
- Tropical country (excessive heat waves)

Socio-economic causes

Ⓐ 1.4 billion population

- Stress on resources. (eg) Falling water table 20cm/year
- Economic Inequalities (uneven impact of Climate change)
- Deforestation → change in land use → Distress Migration etc.

- MEASURES TO MITIGATE THE RISK**
- Climate Risk Atlas - to enhance awareness
 - Climate-resilient agriculture
 - land Restoration (Panchamrit Target)
 - Watershed Management
 - Climate Infrastructure planning (Keeping Risk in mind)
 - Financing (Green Bonds, CSR funding)
 - Sustainable practices (Mission Life)
 - Shifting to renewables (50% of installed capacity by 2030)

Climate Change Requires a multidimensional approach of involving all stakeholders to mitigate its impacts. As it is rightly said its no longer "Climate Change" but "Climate Emergency".

Feedback

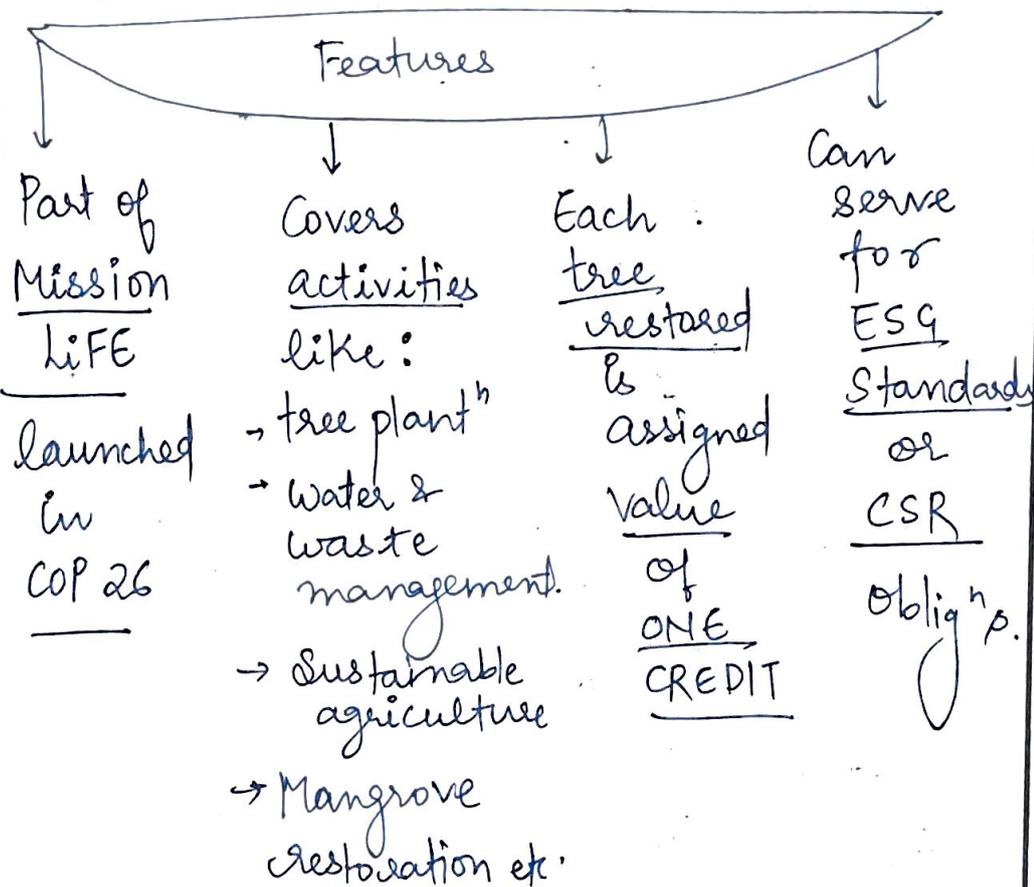
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Q.14) The Green Credit Programme (GCP) could prove to be a significant step taken towards re-shaping financial systems for a more sustainable future. Analyse

ग्रीन क्रेडिट प्रोग्राम (GCP) अधिक संधारणीय भविष्य के लिए वित्तीय प्रणालियों को नया आकार देने की दिशा में उठाया गया एक महत्वपूर्ण कदम साबित हो सकता है। विश्लेषण करें। (12 Marks)

Green Credit Programme is the mechanism designed to incentivize voluntary contribution in terms of environment Actions by various stakeholders.



Significance

→ Protect forest land
diverted for non-
forestry purpose by
restoration

→ Credits can be traded on
TRADING PLATFORM.

→ Aligned with India's Climate
Goals and Environment
Protection Act 1986.

→ Afforestation efforts by private
sector industries, individuals
communities help restore
ecosystem.

→ Eco-friendly practices, reduction
in air pollution, proper waste
disposal and sustainable
lifestyle will be its benefits.

↳ leveraging of traditional Knowledge and conservation practices.

↳ Innovative mechanism → via tradable certificates companies can make up for envt. damage.

Challenges with the Scheme.

Creation of "GREEN DESERTS"

↓
Rules have been criticised for measuring solely by tree count since ECOLOGY is interconnected

↓
Degraded land parcels
Sometimes include ecologically imp. grassland (CO₂ sequestration)

↓
Methodological Concerns regarding Planting Tree

Biodiversity based afforestation

and Technological integration can truly create a sustainable future.

Feedback

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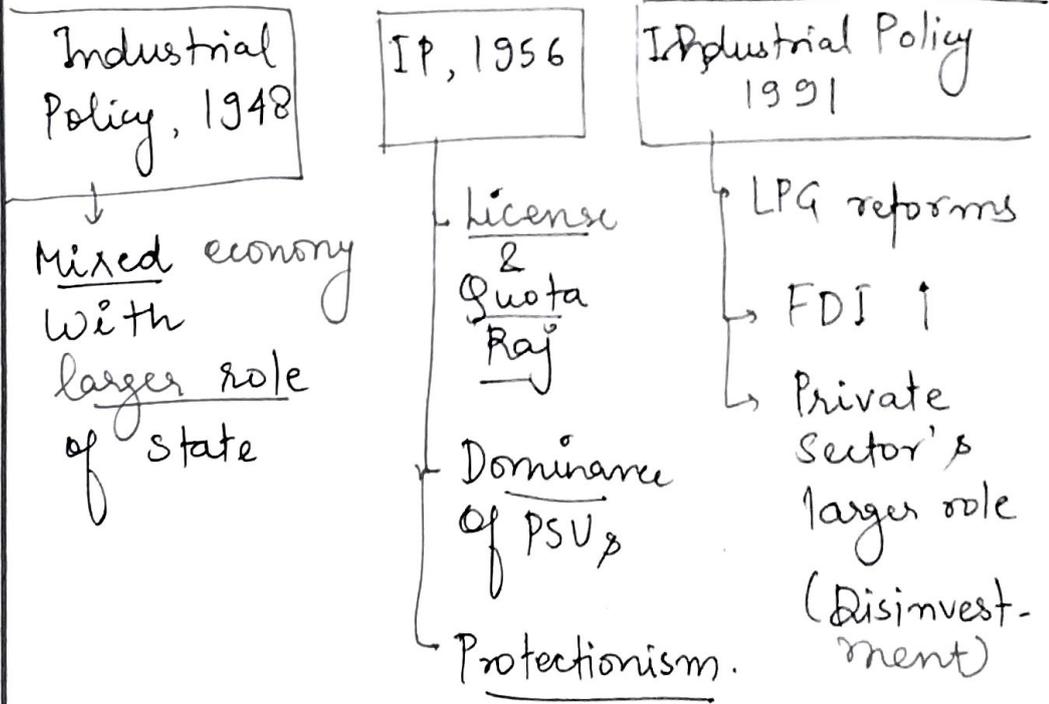
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TOTAL MARKS			

Q.15) The vision to make India a developed Nation by 2047 requires a new look at the Industrial policy. Discuss

भारत को 2047 तक एक विकसित राष्ट्र बनाने के लिए औद्योगिक नीति पर नए सिरे से विचार करने की आवश्यकता है। चर्चा करें। (12 Marks)

Industrial policy of India needs to acomodate new era of global challenges and at the same time shortfalls of previous Industrial Policies.

Evolution



Need for
a New Policy

→ Stagnant manufacturing
Sector $\approx 16\%$ since 1991

→ "Missing Middle" phenomena
Service Sector driven growth

→ Jobless Growth → "Uncertain
Glory" as called by Amartya Sen

→ Distorted nature of investment
(very low in agri. & food processing)

→ Growth Trajectory - Missed crucial
Stages resulting in

- (a) Rising Inequalities (Oxfam 2024)
 (b) ASER reports
 (c) Informalists (89% workforce).
- 1% pop"  -77% wealth 

Thus, A Relook at policy for
Viksit Bharat @ 2047 is a
pressing need.

It must encompass following

areas of focus :

- (a) Innovation & Entrepreneurship
(eg) Start up Innovⁿ zones)
- (b) Wider access to finance via:
 - ↳ DFI s , leveraging fintech
 - ↳ IPR as collateral
 - ↳ Encouraging Micro-Finance Institutions etc.
- (c) labour intensive sectors → performance based incentives eg Textile etc.
- (d) Made in India Brand (local value addition)
- (e) Implementing NEP, 2020 in spirit.
- (f) Creating National Digital Grid
- (g) Social security & Employment → National Capacity Development Programme

Integrated push will lead to enhanced competitiveness and make India investment destination for world.

Feedback

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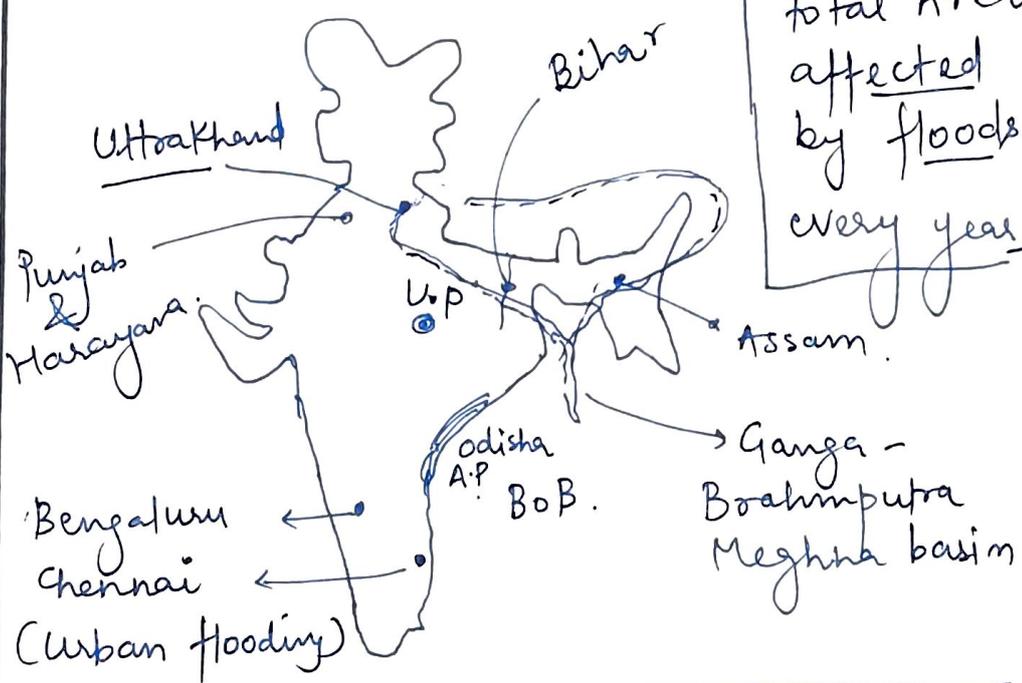
Q.16) List the various flood prone areas of India and identify the reasons for frequent flooding in those areas. What are the guidelines of NDMA for flood management?

भारत के विभिन्न बाढ़ प्रवण क्षेत्रों को सूचीबद्ध कीजिए और उन क्षेत्रों में बार-बार बाढ़ आने के कारणों की पहचान कीजिए। बाढ़ प्रबंधन हेतु NDMA के क्या दिशा-निर्देश हैं? (12 Marks)

Flood is the inundation of dry areas with excess flow of water in river channels and water bodies.

FLOOD PRONE AREAS

12% of India's total Area affected by floods every year



Causes of frequent Flooding

① Himalayan States

- ↳ Glacial lake Outburst Flood (GLOF)
- ↳ Global Warming (Melting of Ice)
- ↳ Cloudbursts

eg ✓ Kedarnath floods (2013)
 ✓ Lohrak lake - flash flood in Teesta River

② Coastal States

- ↳ Tropical Cyclones & Hurricanes due to Sea Transgression
- ↳ Rise in Sea Surface Temperature

③ Uttar Pradesh & Bihar & Assam

- ↳ change in river course
 eg Kosi, Damodar etc.
- ↳ Melting glaciers flood lower areas.

(Don't Write in this Area)
 (Don't Write in this Area)

↳ lower riparian state

eg) China building Dam on Brahmaputra

↳ Deforestation ⇒ soil erosion

↳ Concretisation of catchment Areas.

④ Urban Flooding ⇒ Improper drainage in metro cities like Delhi, Chennai, Bengaluru etc.

NDMA guidelines

→ Flood Mapping and Atlas

→ Early Warning System

eg) M-FLOWS (in Mumbai)

→ Urban planning

→ Afforestation and Agroforestry to prevent soil erosion.

Flood Management is necessary to prevent displacement, loss of lives and livelihoods of agriculture dependent population.

Feedback

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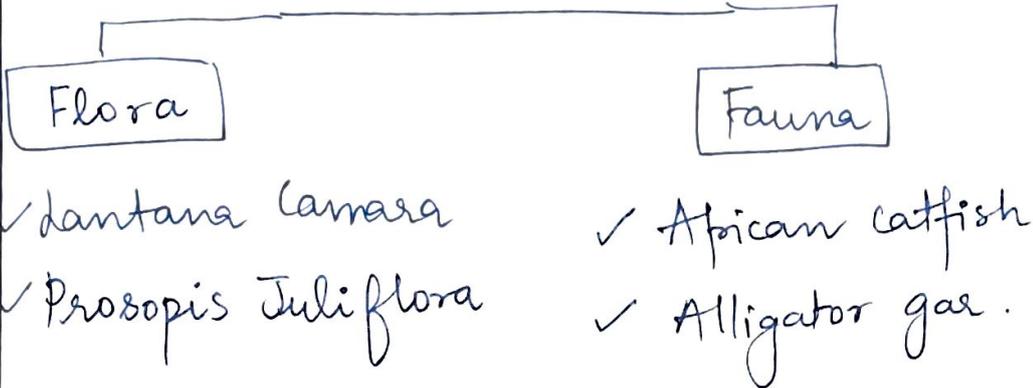
Q.17) Define invasive species and give examples from flora and fauna in India. What are the threats associated with the spread of invasive species ? In this context, also discuss the measures to overcome these threats.

आक्रामक प्रजातियों को परिभाषित कीजिए और भारत में वनस्पति एवं जंतु जगत से उदाहरण प्रस्तुत कीजिए। आक्रामक प्रजातियों के विस्तार से जुड़े खतरे क्या हैं? इस संदर्भ में इन खतरों को दूर करने के उपायों की भी चर्चा कीजिए।

(12 Marks)

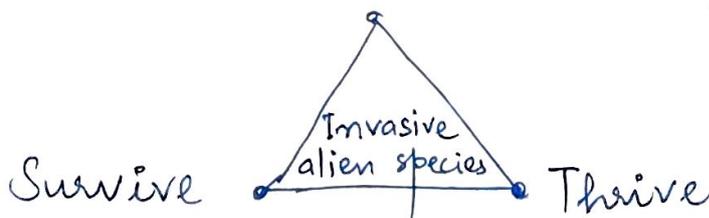
Invasive alien species are non-native species that outshine local flora / fauna creating threat to habitat, biodiversity and health risks.

Examples from India



Arrive

Features .



(Don't Write in this Area) पर कुछ न लिखें

Negative Impact of IAS

→ Ecological Imbalance & loss of habitat

→ Disrupt ecosystem and food chain causing extinction of many species

→ Put Human Health, livelihood and food security at risk

⊗ Cotton Mealybug → causes significant crop loss in Deccan

→ Economic Impact in developing countries where

- agriculture
- forestry
- fisheries etc.

are major source of income.

Invasive Alien Species are one of the Five Major drivers of Biodiversity loss & their threat is serious.

Efforts to Mitigate the Threat

→ CBD (Convention on Biological Diversity) puts obligation on parties for action & info. coordination to eradicate IAS.

↳ Kunming Montreal Protocol

Reduce IAS impact on ecosystem by 50% by 2030

↳ National Biodiversity Action Plan

- ✓ early detection, control & elimination.
- ✓ also mentioned in WPA, 1972.

↳ Traditional Knowledge can be used to deal with the looming threat → local solutions.

Thus, coordinated efforts can help tackle the menace of IAS.

Feedback

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पर कुछ न लिखें



Q.18) FTP 2023 is a dynamic and open-ended policy that will accommodate the emerging needs.
Comment

विदेश व्यापार नीति (एफटीपी) 2023 एक गतिशील और खुली नीति है जो उभरती ज़रूरतों को पूरा करेगी। टिप्पणी करें।

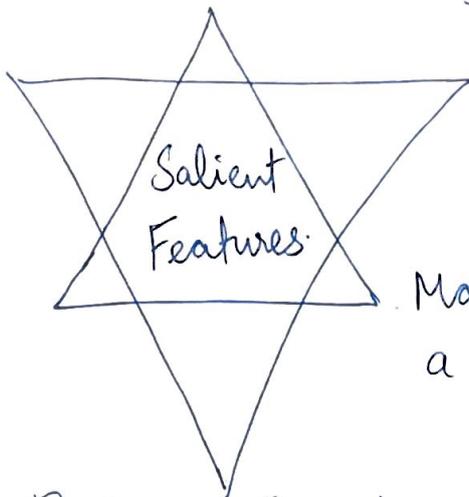
(12 Marks)

FTP 2023 is a continuous framework with no end date, a policy document keeping in mind the requirements of trade and steps to facilitate them.

Target of \$ 2 trillion exports by 2030

Making Rupee a global currency

Digitisation & faster processing



Making India a Trade Hub

Restructuring of Department of Commerce

FTP is
Dynamic

→ Includes Emerging Areas
like E-commerce, Special
Chemicals etc.

→ Promoting EODB with
e-initiatives

→ Collaboration of all stakeholders
i.e. Exporters, State, Districts,
Indian Missions etc.

How it accomodates the emerging
needs.

① Moving away from incentive
regime to facilitating technology
interface.

② Reduction in fee structures

③ Designating new Towns of

(Don't Write in this Area)

Export Excellence (TEE) having access to export promotion funds.

④ Facilitating import of capital goods for quality manufacturing (EPCG Scheme)

⑤ Recognition of export firms via designating based on performance rating.

⑥ District specific strategy (Keeping mind local needs)

⑦ Fuller realization of e-commerce potential ≈ \$300 bn by 2030

⑧ Special one time Amnesty.

Thus, FTP 2023 encompasses trust based, inclusive and open ended - responsive provisions.

Feedback

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Q.19) In what ways have 'Constructed wetlands' emerged as a promising approach towards effective wastewater treatment along with other environmental and economic benefits?

किस प्रकार 'निर्मित आर्द्रभूमि' अन्य पर्यावरणीय और आर्थिक लाभों के साथ-साथ प्रभावी अपशिष्ट जल उपचार की दिशा में एक आशाजनक दृष्टिकोण के रूप में उभरी है?

(12 Marks)

Constructed wetlands are systems designed to replicate the natural process of wastewater treatment by wetlands. Rightly so, they are called "Kidneys of Ecosystem".

Effectiveness in waste water treatment

① Traditional treatment methods can not treat complex mix of pollutants found in industrial waste:

Constructed wetlands are more.

comprehensive and sustainable way of treating.

② Cost effective than traditional waste treatment plants to build, operate and maintain.

③ Varied Applications

- ↳ Municipal waste water
- ↳ Storm water management
- ↳ Agriculture run off.
- ↳ Industrial waste.

Environment benefits

→ Reclaim degraded land by restoring natural Wetland functions

↳ Habitat for variety of plants and animal species

leading to Biodiversity Conservation

↳ Ecosystem Services

- ↳ like flood control
- ↳ Carbon sequestration.

Economic Benefits

→ Require minimal energy and lower cost making it affordable and sustainable way of waste water treatment

However, there are few Challenges associated:

- ① Land Requirement for its construction (constraint in urban areas)
- ② Need for effective plant selection, technical expertise, prevent clogging and mosquito breed.

Global Best Practices (Netherlands) can be replicated

Feedback
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Q.20) Microplastics has emerged as one of the most damaging and long-lived legacies of the plastic pollution crisis. Highlight the threat to human and ecological health caused by microplastic pollution and mention the initiatives taken to combat this threat.

माइक्रोप्लास्टिक प्लास्टिक प्रदूषण संकट की सबसे हानिकारक और दीर्घकालिक विरासतों में से एक के रूप में उभरा है। माइक्रोप्लास्टिक प्रदूषण के कारण मानव और पारिस्थितिक स्वास्थ्य के लिए खतरे पर प्रकाश डालें और इस खतरे से निपटने के लिए उठाए गए कदमों का उल्लेख करें।

(12 Marks)

Recent discovery of Micro-
plastics in common salt and
sugar consumed by every average
person raises the seriousness
of Microplastics present all around.
They are of size less
than 5 mm in diameter.

Most damaging
and
long lived
legacies

⇒ Once they enter
ecosystem they
persist for
thousands of years.

↳ Toxic and Non-Biodegradable
↳ Detection is difficult due to
their diverse properties.

Threat to Human Health

Can enter through eating, breathing etc.

→ DNA Damage & Organ dysfunction

→ Recently found in Testicular tissue having potential impact on reproductive system

→ Found in drinking water

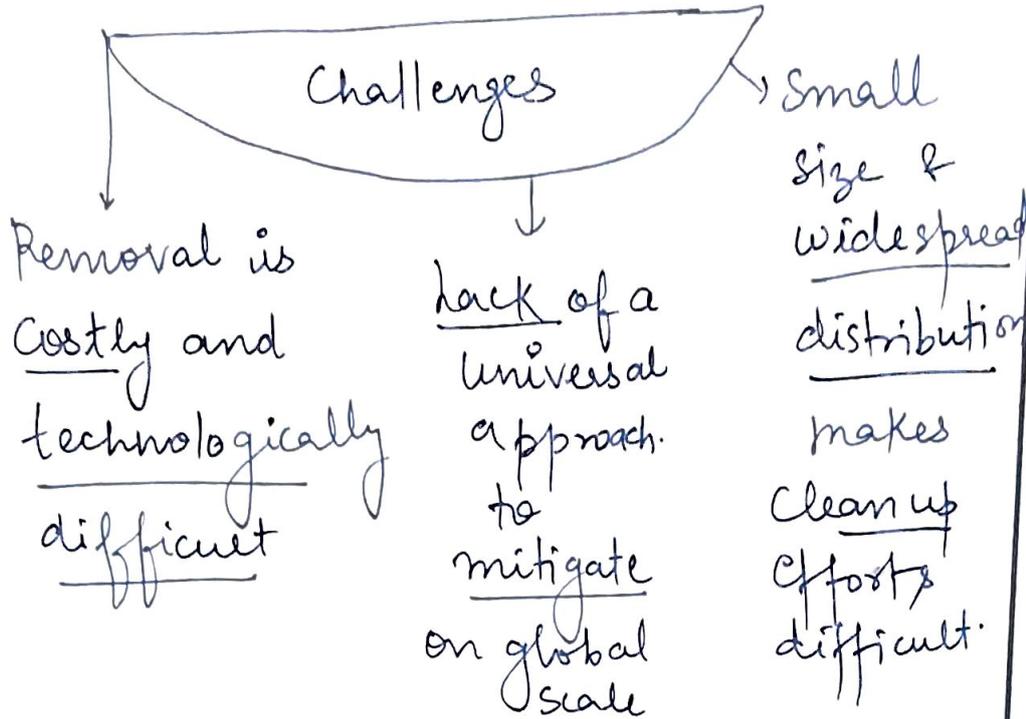
→ lead to metabolic disorders.

Threat to Environment

→ Threat to wildlife (especially marine animals)

→ leads to BIO-ACCUMULATION of toxic chemicals.

→ Found in soil → negatively affect soil health and crop production.



Initiatives Taken

- ① Ban on micro-beads in personal care products eg EU's **REACH** regulation
- ② Extended Producers Responsibility (EPR) incentivises manufacturer to design more sustainable products
- ③ Natural Fiber Textiles, Plant-based filters.
- ④ Ban on Single Use Plastics, Plastic Waste Management Rules, 2024

Feedback

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