

NEXT IAS

GS MAINS ADVANCED COURSE 2024

(To be filled by candidate)

TEST CODE : GSMAC2407

Test No. : 07

Name of Candidate: Priyanshu Mishra Mobile No. [REDACTED]Roll No. : 0845090 Start Time 11:00 End Time 2:00Date of Examination: 04/09/2024 Medium : English ☒ Hindi ☐

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	
TOTAL MARKS - 100		

Q. No.	Maximum Marks	Marks Obtained
11	15	
12	15	
13	15	
14	15	
15	15	
16	15	
17	15	
18	15	
19	15	
20	15	
TOTAL MARKS - 150		

GRAND TOTAL -/ 250

EVAL CODE: EVAL DATE:

GENERAL INSTRUCTIONS

1. Immediately on receipt of the QCA booklet, please check that this QCA booklet does not have any misprint or torn or missing pages or items, etc. If so, get it replaced by a fresh QCA booklet.
2. Candidates must mention all relevant details like Name, Email, Roll No, Mobile, etc. in the space allocated.
3. Candidate is expected to attempt all 20 questions within the given timeline.
4. Answers must be written in the medium authorized at the time of admission.
5. Candidates must write answers for the specific question under the respective question itself. Any answer written outside the space allotted may not be given credit.
6. Please write neatly. Avoid illegible writing.
7. Do not write/mark irrelevant matters in the QCAB.

सामान्य निर्देश

1. QCA पुस्तिका प्राप्त होने पर कृपया तुरंत जांच लें कि इस QCA पुस्तिका में कोई पृष्ठ या सामग्री आदि गलत छपी हुई या फटी हुई या गायब तो नहीं है। यदि ऐसा है, तो इसे एक नई QCA पुस्तिका से बदल लें।
2. अभ्यर्थियों को सभी प्रासंगिक विवरण जैसे नाम, ईमेल, रोल नंबर, मोबाइल नंबर आदि का आवंटित स्थान पर उल्लेख करना होगा।
3. अभ्यर्थियों से अपेक्षा की जाती है कि वह आवंटित समय-सीमा के भीतर ही सभी 20 प्रश्नों के उत्तर-लेखन का प्रयास करें।
4. प्रत्येक उत्तर, प्रवेश के समय चुनी गयी भाषा के माध्यम में ही लिखे जाने चाहिए।
5. अभ्यर्थियों को विशिष्ट प्रश्न के उत्तर संबंधित प्रश्न के नीचे ही लिखने होंगे। आवंटित स्थान के बाहर लिखे गए किसी भी उत्तर को क्रेडिट नहीं दिया जाएगा।
6. कृपया साफ-सुथरा लिखें। अपठनीय लेखन से बचें।
7. QCAB में अप्रासंगिक तथ्यों को न लिखें / न ही चिह्नित करें।

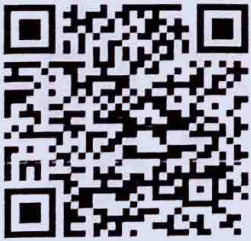
REMARKS:

FOR OFFICE USE ONLY

<u>Student Concerns / Query</u>	<u>Evaluator's Feedback / Response</u>
1	1
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2	2
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3	3
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<u>MARKING SCHEME *</u>			
Marks Per Ques	Below Average	Average	Above Average
10 Marks	Below 3.00	3.00 - 3.75	4.00 and above
15 Marks	Below 4.50	4.50 - 5.75	6.00 and above

* Subject to change without prior notice.

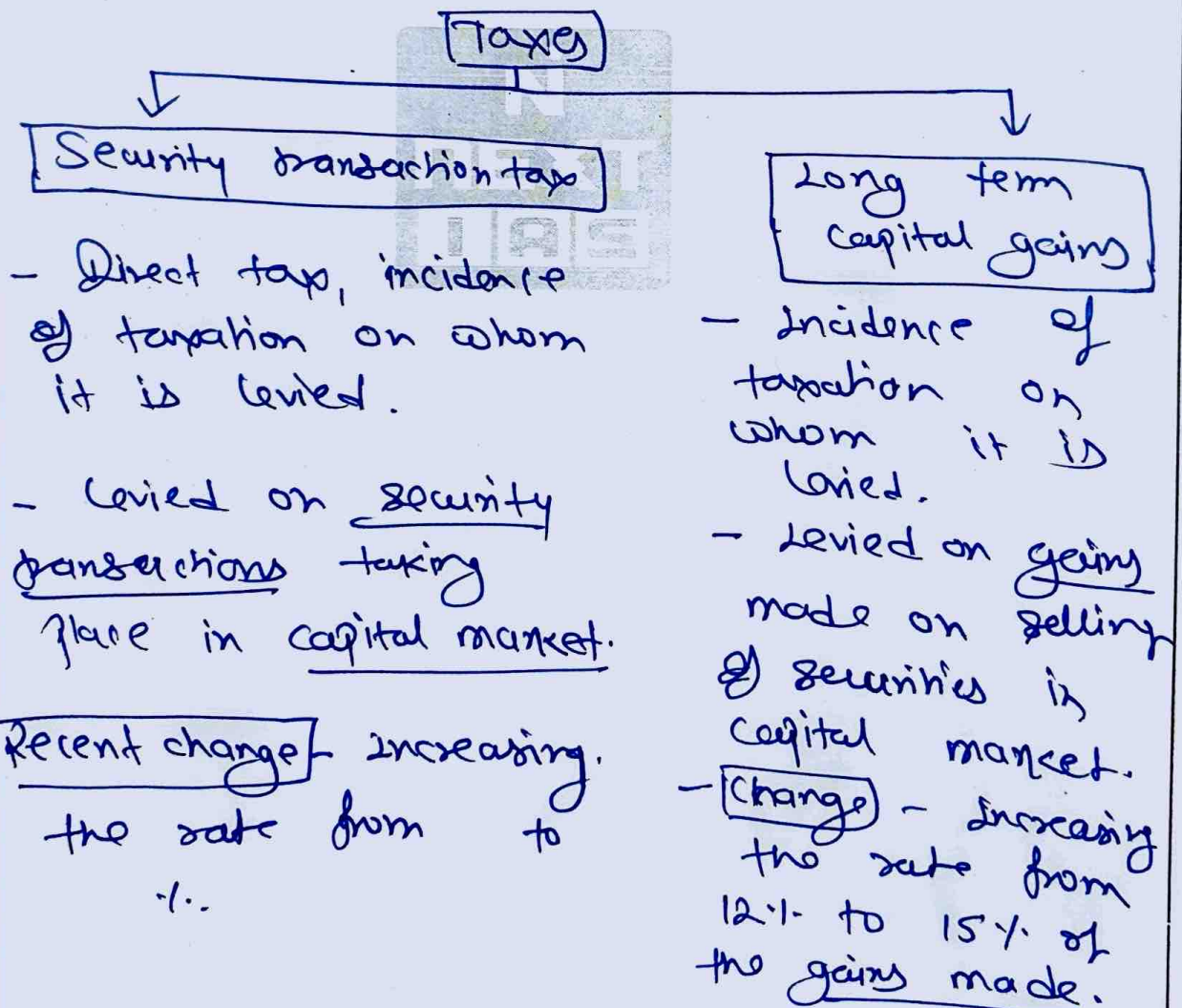
<u>IMPORTANT QR CODES</u>	
 Topper's Copy	 Common mistake and Correct Filled QCAB
 Copy Scanner App	 Next IAS Test Centre Location

MACRO COMMENTS <i>The Purpose of evaluation@nextias.com is to provide constructive suggestions on 'How to improve Answer Writing and thereby score better marks.</i>
STRENGTHS OF THE CANDIDATE
AREAS OF IMPROVEMENT
IMPROVEMENT SUGGESTIONS

1. केंद्रीय बजट 2024-25 में दीर्घकालिक पूंजीगत लाभ (LTCG) और प्रतिभूति लेनदेन कर (STT) के संबंध में महत्वपूर्ण परिवर्तनों पर टिप्पणी कीजिए। भारत की बचत और निवेश व्यवस्था पर ऐसे परिवर्तनों के प्रभावों का मूल्यांकन कीजिए। (10 अंक, 150 शब्द)

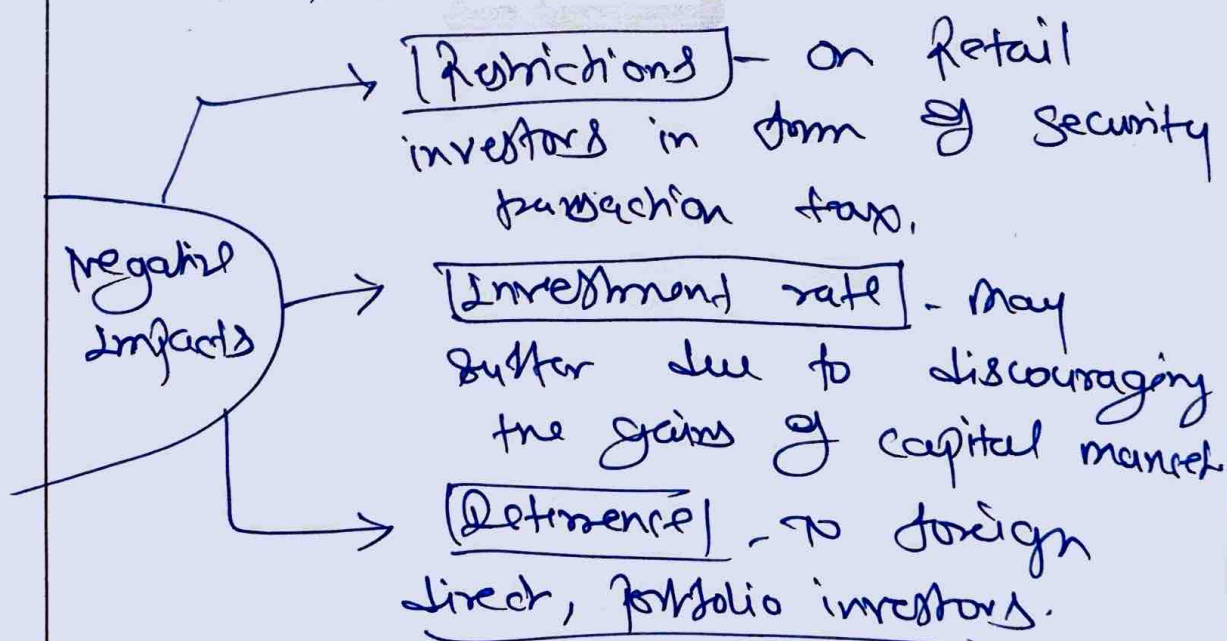
Comment on the important changes with respect to the Long-Term Capital Gains (LTCG) and Securities Transaction Tax (STT) in the Union Budget 2024-25. Evaluate the impact of such changes on India's savings and investment regime. (10 marks, 150 words)

Long term capital gain tax and
Security transaction tax are
direct taxes under India's
taxation regime.



Positive impact of recent changes -

- 1) Preventing speculation - in stock market through artificially increasing of stock prices.
(Ex) - Pump and dump schemes leading to sudden price changes.
- 2) Safeguarding retail investors - from stock manipulation practices.
- 3) Progressive taxation - As L.T.C.G ensure benefits made are utilised by society through appropriate taxation.



Taxation must maintain fine balance between tax payer and government must to ensure sustainability.

NEXT IAS

Candidates
write on this

2.

भारत की एक कल्याण योजना "कोई भी व्यक्ति पीछे न छूटे" की कहावत के साथ आगत-आधारित दृष्टिकोण से परिणाम-आधारित सशक्तिकरण में परिवर्तन आया है। उपरोक्त कथन के आलोक में, चर्चा करें कि सरकार के दृष्टिकोण में इस परिवर्तन ने समावेशी विकास को किस प्रकार बढ़ावा दिया है। (10 अंक, 150 शब्द)

India's welfare scheme has undergone a shift from an input-based approach to outcome-based empowerment with the maxim of "no person left behind". In light of the above statement, discuss how this change in the approach of the government has fostered inclusive growth. (10 marks, 150 words)

India has shifted its budgeting methods from traditional to outcome based budgeting, zero budgeting and gender budgeting to ensure outcome oriented governance.

Advantages of outcome budgeting -

1). Promoting welfare - Through outcome based budgeting welfare can be realised in two sense.

Ex. Targets given under various schemes under budget.

2). Accountability ensure - Through factoring in current performance not just performance, leading to non manipulation of data.

31. Easy to measure - Outcome based budgeting is also easy to measure.

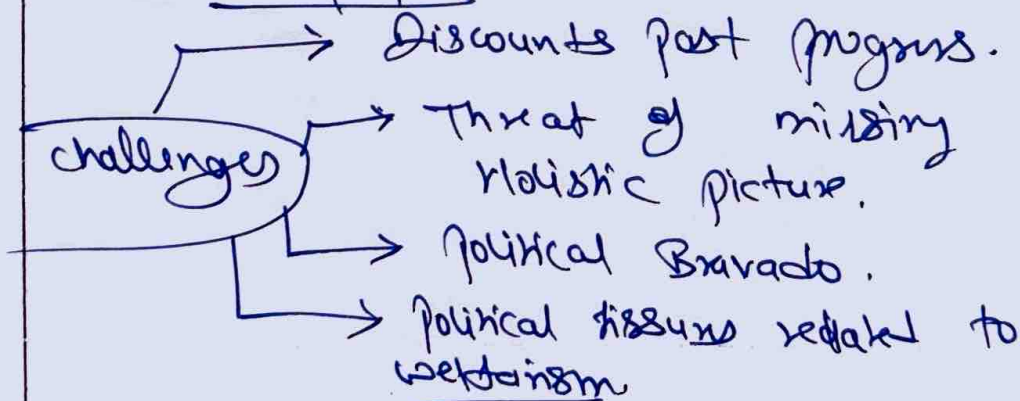
[Ex.] - Number of insurance done under P.M.J.D.Y in particular F.Y.

4). Appropriate targeting - of desired intention to ensure public welfare.

[Ex.] - National food security act's outcome based approach targets maximum coverage.

5). Data collection - As every year new targets, new beneficiaries add new data, helping in future policies.

[C-b.] - M.G.N.R.E.G.A muster role updation every year.



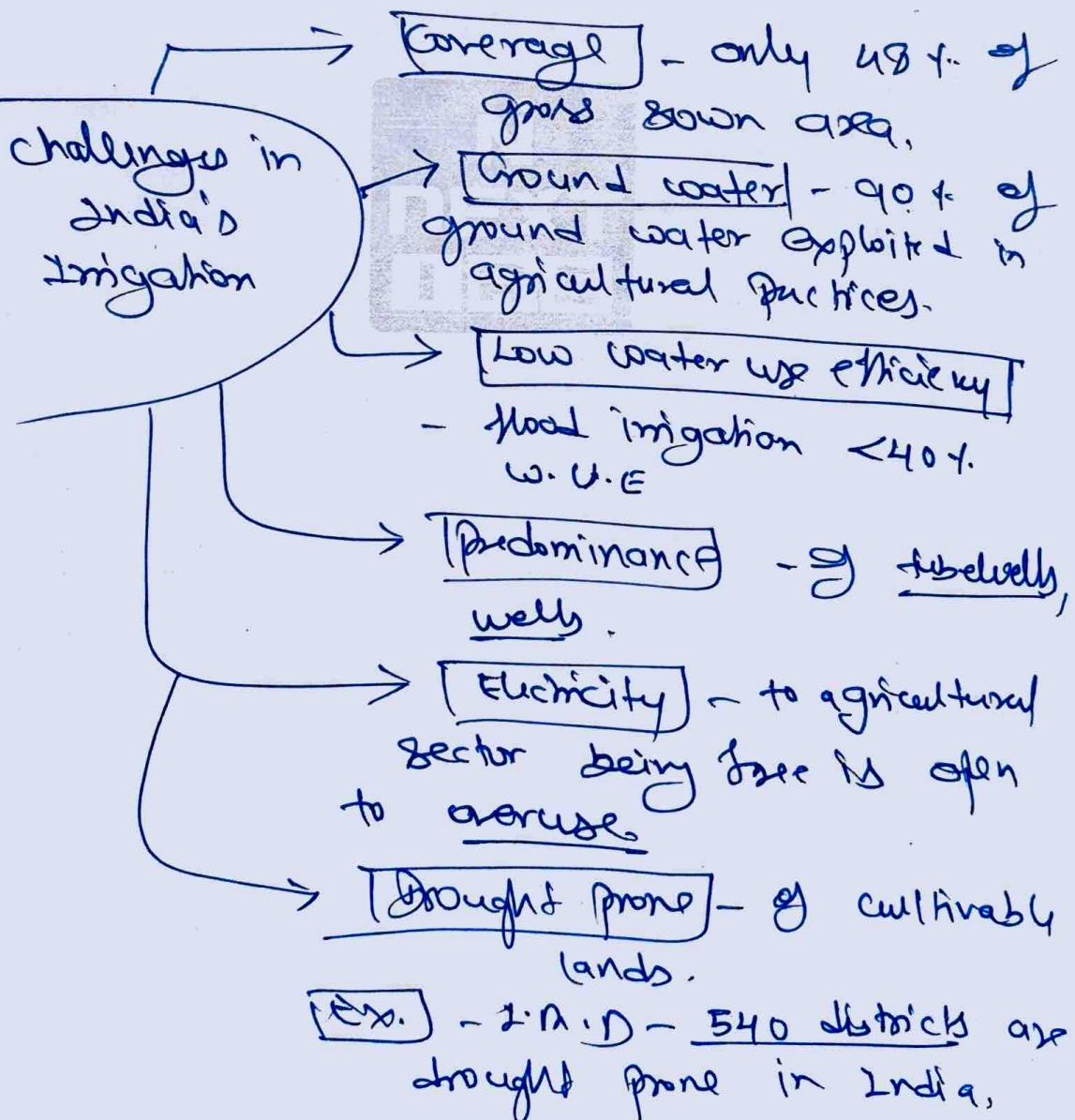
yet, outcome based budgeting has been crucial in improving India's governance in welfare of people.

3. भारतीय कृषि की वर्षा आधारित प्रकृति इसे जलवायु परिवर्तन के प्रति अधिक संवेदनशील बनाती है। कृषि की जलवायु-अनुकूलता में गुणवत्तापूर्ण सिंचाई के महत्व पर प्रकाश डालिए। भारत में उपलब्ध सिंचाई पद्धतियों की समग्र दक्षता में सुधार के लिए क्या-क्या उपाय किए जा सकते हैं? (10 अंक, 150 शब्द)

The rainfed nature of India's agriculture makes it more susceptible to climate change. Highlight the importance of quality irrigation in the climate-adaptability of agriculture. What measures can be undertaken to improve the overall efficiency of the available irrigation practices in India?

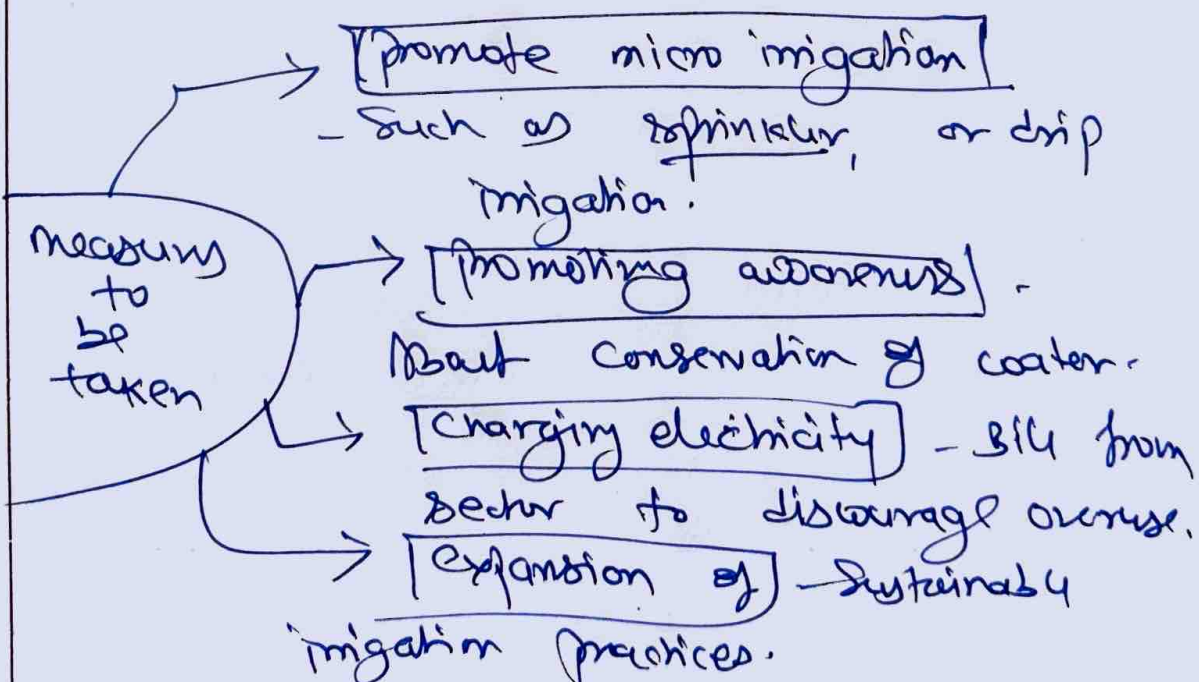
(10 marks, 150 words)

Out of total cultivable land of India (329 mntl.) 48% is equipped with irrigation support while 52% is rainfed.



Importance of climate adaptability -

- 1) - Drought resistant - crop can ensure stable production.
(Ex) - Drought resistance in wheat seeds produced by P.A.U.
- 2) - Crop diversification - Shifting from rice + wheat system to climate resilient crops such as millets.
- 3) - Increasing farmers income - By offsetting negative impact of climate change on agri.
- 4) - Ensuring food security - Through stability in crop production in turbulent times.

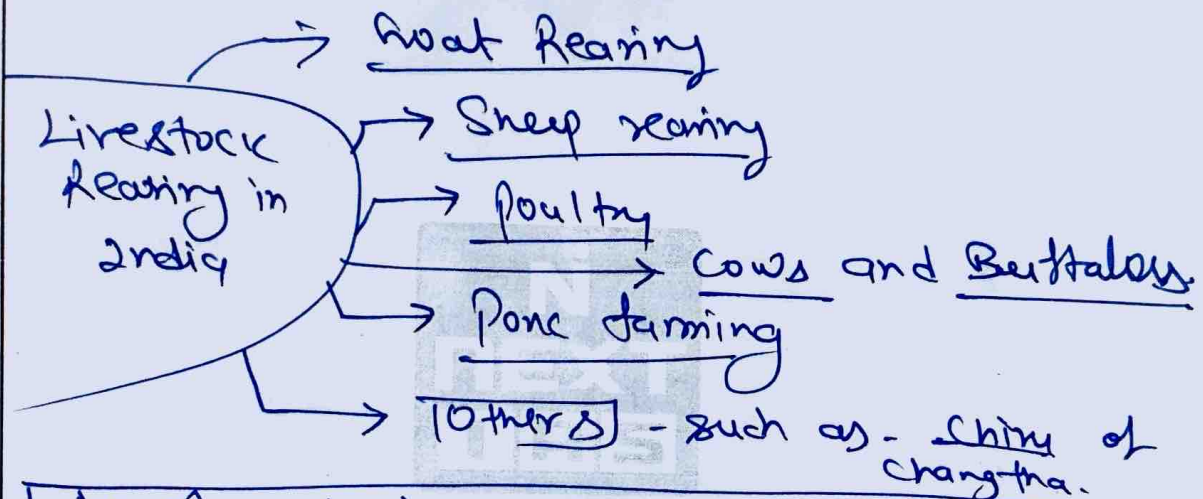


in this regard p.m
Kishori Singhai Yojana is step
in right direction.

4. भारतीय कृषि में पशुधन के महत्व को ध्यान में रखते हुए, विश्लेषण करें कि पशुपालन में निवेश भारतीय कृषि को प्रोत्साहित करने में किस प्रकार मदद कर सकता है। (10 अंक, 150 शब्द)

Considering the importance of livestock in Indian agriculture, analyze how investment in animal husbandry can help in incentivizing Indian agriculture. (10 marks, 150 words)

India with 2.4% land is blessed with world's largest livestock population of 17%.



Investment in animal husbandry incentivizing Indian agriculture.

1) - Increasing wealth - of farmers who are among most distressed lot of population.

Ex. Dairy sector providing much needed liquidity for farm operations.

2) - Solving land problem - Fragmented

land holding making agri of B. tougher for farmers. This can be solved by livestock sector.

Ex: Land requirement for setting a dairy or goat rearing farm is much lesser.

3) - Promoting sustainable agriculture - Use of waste from livestock can be used in agricultural operations.

Ex: - Dairy wastes used as manure in fields.

4) - Export potential - Although largest producer, India do not export milk products as per its potential.

5) - Kickstarting rural economy - Through promotion of animal husbandry.

6) - Nutritional sufficiency - can be ensured by poultry farming and dairy sector.

challenges → Awareness - about animal husbandry is low.
→ Access to - institutional credit
→ Policy support - by government.

Through tackling above issues, animal husbandry can propel into era of profit making agricultural sector.

5. आंध्र प्रदेश में भारतीय लॉरेल वृक्षों (Indian Laurel trees) की खोज ने पेड़ों में पानी को संग्रहीत करने और छोड़ने (store and release) की क्षमता में वैज्ञानिकों की रुचि जगाई है। इस संदर्भ में, पेड़ों में जल परिवहन और भंडारण (transportation and storage) की प्रक्रिया के पीछे के विज्ञान की व्याख्या कीजिए। (10 अंक, 150 शब्द)

The discovery of Indian Laurel Trees in Andhra Pradesh has sparked the interest of scientists in the capacity of trees to store and release water. In this context, explain the science behind the process of water transportation and storage in trees. (10 marks, 150 words)

Trees are sustained by water, and their shape, size and even existence depends on availability of water.

[Ex] - Lush green forest in rain heavy area, while cactuses in deserts.

Process of water transportation and storage -

1). Absorption of water - is done by expansive roots of the plants.

[Ex] - Euklyptus plants are known as water succulent plants.

2). Transportation - By xylem particly present in tree's bones.

3). Supply to various parts - xylem

further transports water to various parts of tree such as leaves, stem, fruits etc.

4/- [Flow of minerals] - Phloem conduct the function of transportation of minerals to various parts of tree.

5/- [Transpiration] - In final stage, plant perform transpiration leading to release of water.

Benefits

→ [Storage] - tree are known as good storage mediums.

[Ex] - Baobab trees of Madagascar.

→ [Environmental cooling] - Through transpiration of trees

→ [Rainfall] - mass transpiration leads to rainfall.

[Ex] - tropical rainforest of Brazil.

This ~~way~~ trees plays crucial role in water cycle.

6. सैन्य क्षेत्र में जिम्मेदार कृत्रिम बुद्धिमत्ता पर हाल ही में आयोजित वैश्विक शिखर सम्मेलन (आरईएआईएम, 2023- responsible artificial intelligence in the military domain) ने सैन्य अनुप्रयोगों में कृत्रिम बुद्धिमत्ता के उपयोग से जुड़े अवसरों, चुनौतियों और जोखिमों को प्रदर्शित किया। इस संदर्भ में, रक्षा और सैन्य अनुप्रयोगों में कृत्रिम बुद्धिमत्ता के प्रभाव का आलोचनात्मक विश्लेषण कीजिए। (10 अंक, 150 शब्द)

The recently conducted global Summit on Responsible Artificial Intelligence in the Military Domain (REAIM, 2023) showcased the opportunities, challenges and risks associated with the use of Artificial Intelligence in military applications. In this context, critically analyse the impact of Artificial Intelligence in defence and military applications. (10 marks, 150 words)

Artificial intelligence refers to the ability of solving complex problems by computers, digital devices through application of machine learning.

Application in military and defence -

- 1) - Hardware development - can add to productivity of defence manufacturing companies.

Ex - Lockheed martin using A.I in development of avionics.

- 2) - Defence Hardware - can be made more precise.

Ex - Use of A.I in honing capacity of Iron dome by Israel.

- 3) - Innovative development - of military hardware.

4). Tackling cyber security threats - Through use of A.I models.

[Ex] - Lavender programme by Israel against Hamas, Iran.

5). Tool in grey zone warfare - By use of A.I, we can tackle problems of grey zone warfare.

6). Adding precision - To existing missiles and ammunitions.

[Ex] - Agni guided by A.I can be even more precise.

challenges

→ Limited programme

- Regarding A.I in Indian universities.

→ Billed professionals

- lacking or leaving to better opportunities in U.S. or Europe.

→ Low R&D

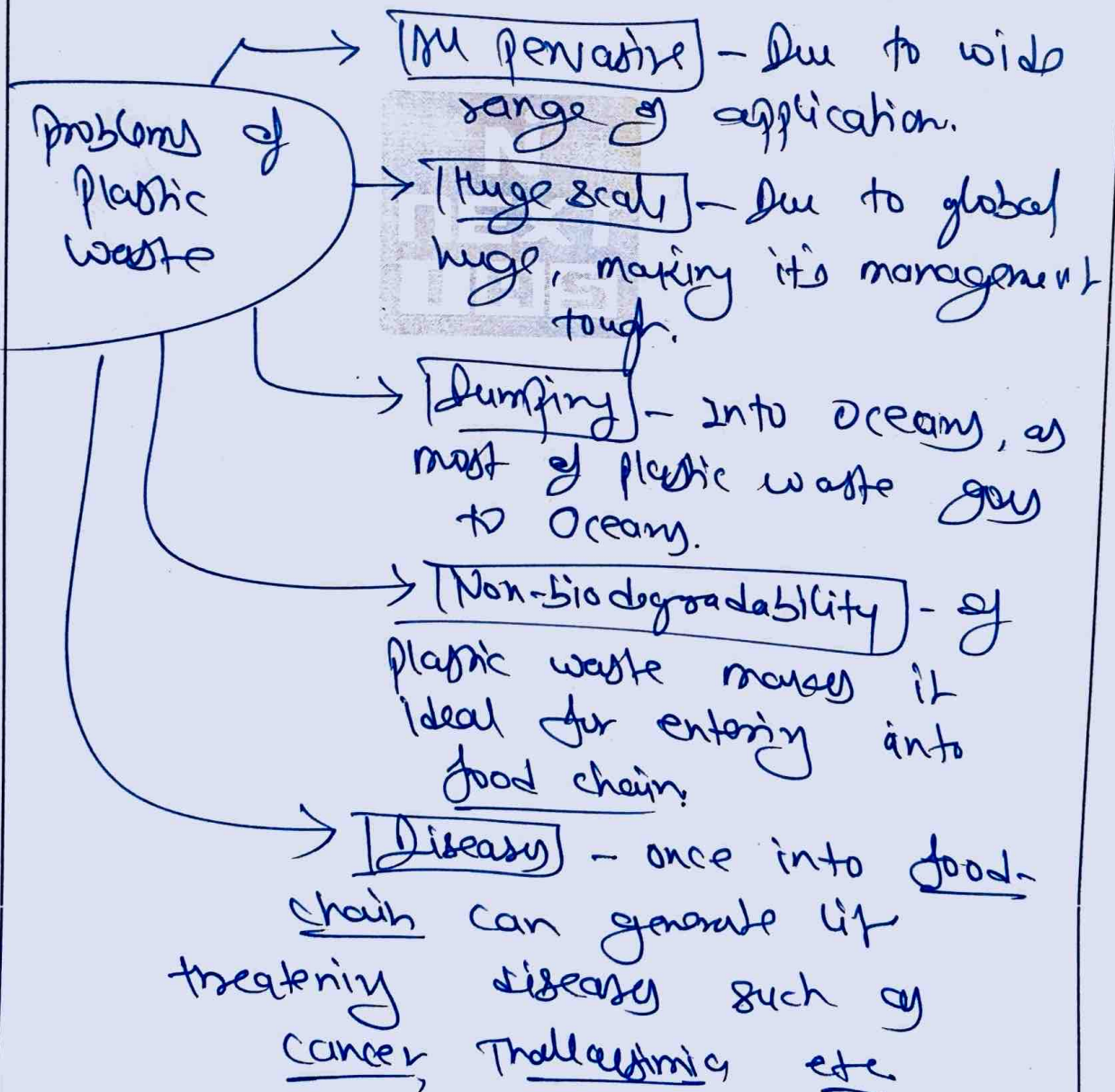
- 0.5-1% of A.I.P against Israel's 5+.

India needs to pay close attention on A.I's capacities to new age warfare.

7. लोक लेखा समिति ने हाल ही में प्लास्टिक प्रदूषण के बढ़ते खतरे के बारे में चिंता व्यक्त की है। इस संदर्भ में, प्लास्टिक प्रदूषण को रोकने के लिए सरकार द्वारा हाल ही में प्रारम्भ की गई पहलों पर प्रकाश डालिए। (10 अंक, 150 शब्द)

The Public Accounts Committee has recently flagged concerns about the rising menace of plastic pollution. In this context, highlight the recent initiatives taken by the Government to curb plastic pollution. (10 marks, 150 words)

During f.y 2022, India produced nearly 2.0 metric tonnes of plastic waste which is non-biodegradable in nature.



Initiating by government to tackle
plastic pollution.

- 1). Banning - of single use plastic
such as plastic straw, and other products.
- 2). Increasing thickness - of plastic
from 20 micron to 50 micron.
- 3). Promoting recycling - Through providing
Concessional loans to entities involved
into plastic waste recycling.
- 4). Extended producer responsibility - under
environmental protection act. 1986.
[Ex] - Plastic producing entities liable to
be sued for violation of plastic
rules.
- 5). Banning of import - of plastic
waste from developed countries.

Despite these measures,
plastic waste generation is on
aspirance path. Need is of
strict implementation - of above
taken measures.

8. भूस्खलन एक प्राकृतिक घटना के बजाय मानव-प्रेरित घटना बन गई है। भूस्खलन की बढ़ती घटनाओं के कारणों पर प्रकाश डालें और आपदा को कम करने के लिए क्या उपाय किए जा सकते हैं। (10 अंक, 150 शब्द)

Landslides have become more of a human-induced phenomenon rather than a natural phenomenon. Highlighting the reasons for increasing incidences of landslides, suggest measures that can be undertaken to mitigate the disaster. (10 marks, 150 words)

Landslide refers to the phenomenon of sudden subsidence of land leading to significant loss of lives and property in incidence of exposure to hazard.

Reasons of landslides -

Natural -

- 1). Topography - Sedimentary rock areas are more prone to landslides.

Ex - Himalayan region's prone to landslides.

- 2). Excessive rainfall - Concentrated rainfall leads to increased vulnerability.

Ex - Wayanad landslides.

- 3). Nature of land - loose soil texture makes land prone to landslides.

Anthropological

1). Unsustainable constructions - Specially in urban areas.

Ex - Not following of Building code.

2). Construction in landslide prone areas - leading to enhanced exposure and frequency of landslides.

3). Encroachment in eco sensitive zones - Increasing burden on fragile regions leading to incidence of landslides.

→ Risk assessment - Hazard mapping for landslides.

→ Early warning system - Upgradation of L.M.D weather forecasting system.

→ Enforcement - of Building Code in urban areas.

→ Planned - urbanisation to prevent increased stress on land.

measures
to
Mitigate
Disaster

Reducing
Encroachment
+
Ecologically
Sensitive
Zones.

They thought about
measures, better handling of
disaster can be ensured in
spirit of Sendai framework for DRR.

9. राष्ट्रीय सुरक्षा के लिए खतरे धीरे-धीरे "भौगोलिक" से "विषयगत" (thematic) में बदल गए हैं। इस संदर्भ में, आंतरिक सुरक्षा की समकालीन चुनौतियाँ (contemporary challenges) क्या हैं और ऐसी चुनौतियों से निपटने के लिए क्या उपाय किए जा सकते हैं? (10 अंक, 150 शब्द)

The threats to national security have gradually transformed from being "geographic" to being "thematic". In this context, what are the contemporary challenges of internal security and what measures can be undertaken to deal with such challenges? (10 marks, 150 words)

India surrounded by hostile forces
 faces not only external security
threats but also internal security
challenges.

causes behind
 increasing
 internal
 security
 challenge

→ Pakistan's - policy of shedding
 India from terrorist cuts

→ State sponsored terrorism

→ Era of grey zone warfare
 - China playing psychological
 ops.

→ Increased cyber security threat
 - due to increased connectivity

→ Economic warfare - to
 disrupt economic stability,
Ex: Dumping of goods by
China.

→ Asymmetric warfare - by
promoting social divisions within
India.

- Neighbourhood Situation - Due to lawlessness in Bangladesh, Myanmar

Problems such as

- Human trafficking
- Drug trafficking
- Counterfeit currency.
- Illegal migration are on rise.

Measures to be undertaken -

1) - Cyber security - Need to be enforced to ensure security of cyber space.

2) - Border management - must be improved with adequate technical interventions

Ex. BOLD O.I.I at Bangladesh Border.

3) - Global cooperation - with countries such as Israel, UK, USA regarding expertise in managing internal security threats through sharing of best practices.

4) - Christchurch call of action - must be adopted.

It is increasingly important to safeguard our half heart to better equip India to tackle security challenges.

10.

भारत के सीमा सुरक्षा ढांचे को मजबूत करने और सीमा पार खतरों से निपटने में उन्नत सीमा निगरानी प्रौद्योगिकियों (enhanced border surveillance technology) की भूमिका का मूल्यांकन कीजिए। (10 अंक, 150 शब्द)

Evaluate the role of enhanced border surveillance technologies in bolstering India's border security framework and addressing cross-border threats. (10 marks, 150 words)

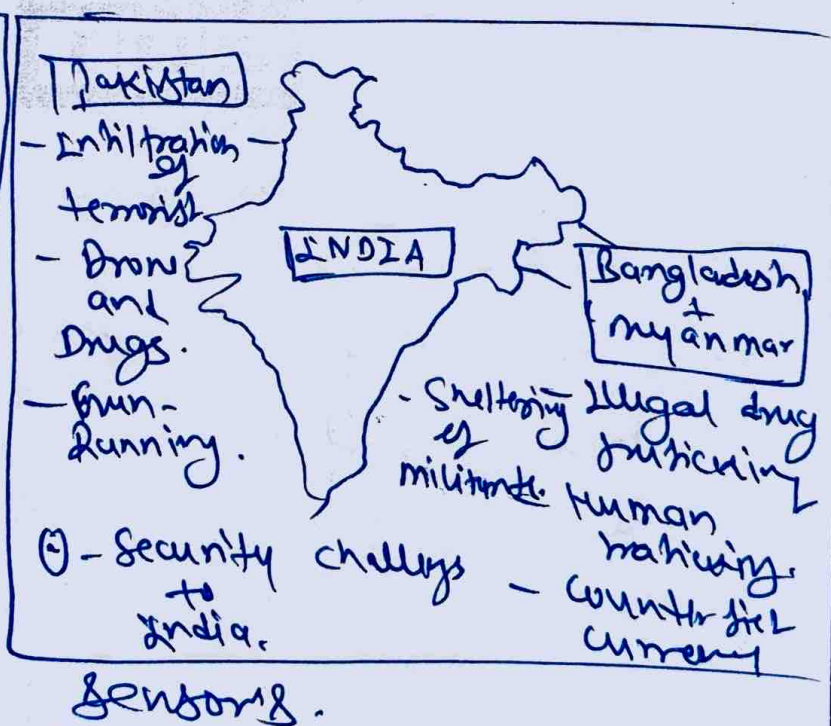
India share 8 border with 8
country with different profile
of being hostile to country
incapable of their own border
management.

[Ex] - Myanmar's civil war → lawless, no border control.

Role of Border
Surveillance
technology

1) - Better
management of
Borders -

through use
of automatic
sensors.



[Ex] - Sensors identifies illegal trespassing and alarming.

2). Regulated migration - can be ensured through electronic gateway system.

3). Overcoming geographical limitations - such as rivers, and mountains.

Ex - Use of integrated border management technology in geographically challenging regions with Pakistan.

4). Prevention of threats - Having potential of causing harm to India's national security

Challenge → Coverage - 81%
very low.

Ex - Bangladesh - only 94 km.

Pak. - 116 km.
Cost - comes at high cost.

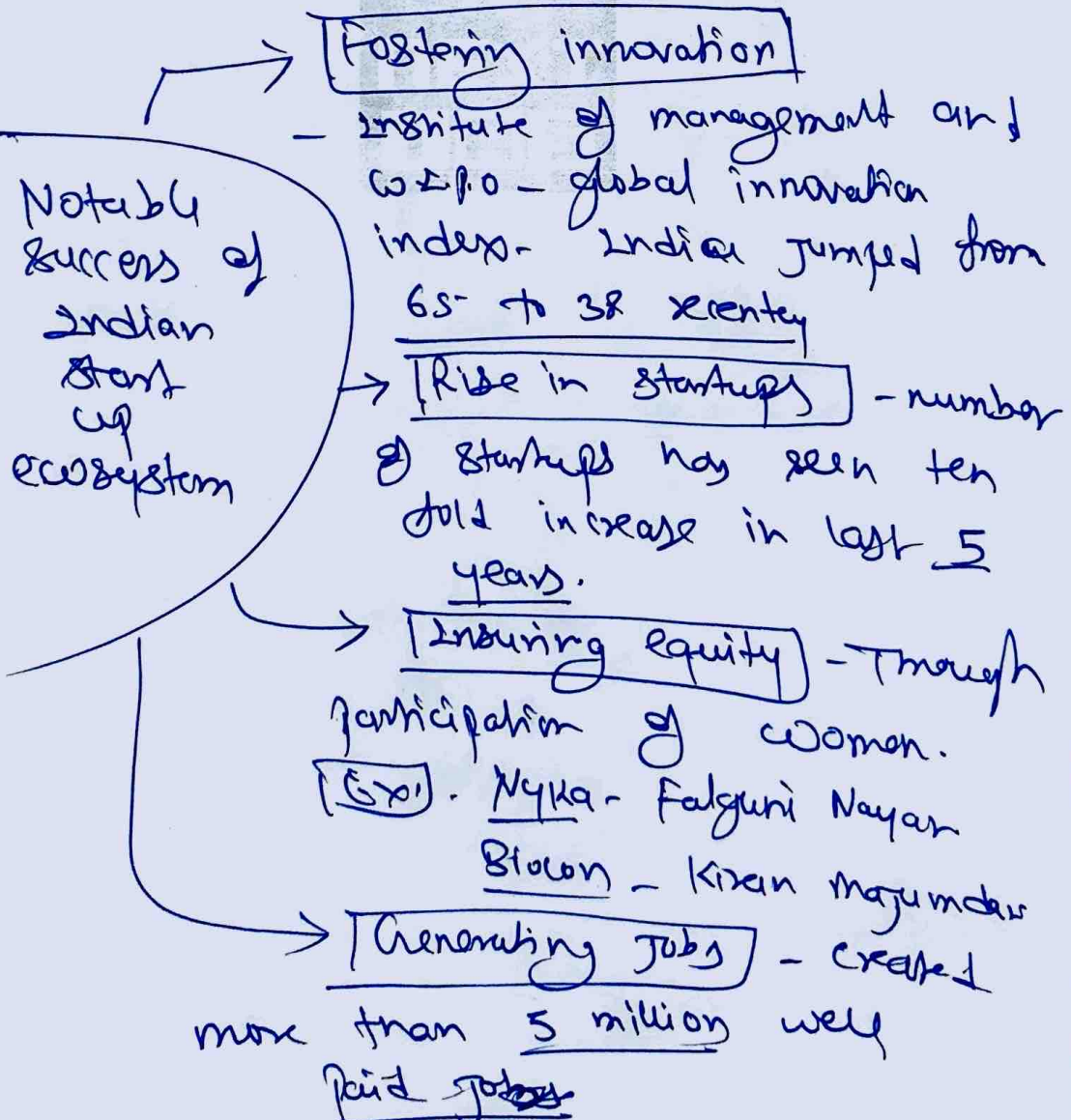
Need is to gradually increase coverage to ensure complete security of Indian borders.

11.

जबकि भारत में स्टार्टअप्स ने अर्थव्यवस्था में उद्यमशीलता और नवाचार को बढ़ावा देने में उल्लेखनीय सफलता हासिल की है, भारत में स्टार्टअप्स की स्थिरता को चुनौती देने वाले कुछ संरचनात्मक मुद्दे हैं। स्टार्टअप्स के सामने आने वाली इन चुनौतियों पर प्रकाश डालें और समस्याओं के व्यावहारिक समाधान सुझाएं। (15 अंक, 250 शब्द)

While startups in India have achieved notable success in fostering entrepreneurship and innovation in the economy, there are certain structural issues challenging the sustainability of startups in India. Elucidate upon these challenges faced by startups and recommend practical solutions to the problems. (15 marks, 250 words)

India has emerged as world's third largest startup ecosystem with more than 100 unicorns and more than 1000 sooni-unicorns according to Humu research.



Facing certain structural challenges -

1). Access to funding - is getting increasingly difficult in era of tight monetary policy.

Ex Central Banks around the globe increasing rates to counter inflation.

2). Challenges in scalability - Due to lesser reach to diverse geography.

Ex - Limited reach of Zomato to tier-2 - tier-3 cities.

3). Hostile acquisition - of startup by domestic and foreign companies.

Ex - mindtree acquisition by L&T

4). Ensuring profitability - most of India's unicorns are in cash burn period saving few like Zomato, Myka etc.

5). Heavy dependence - on foreign capital.

Ex - Softbank's share in most of startups.

Solutions to structural issues -

1) - Government's intervention - can support by creation of fund that can ensure sustainability in cash burn period.

2) - Joint ventures - with corporate entities such as Reliance, Tata to support budding startups.

3) - Expansion of - schemes such as stand-up India, Startup India,

4) - Helping in scalability of operations.

Ex - Ensuring internet connectivity to pan-India, also easing the functioning of startups.

5) - Establishment of play and play - models.

Ex - Estonia's model ensuring financial security to entrepreneurs.

Thus though above measures India can ensure its rise as innovation power.

12.

भारतीय रेलवे के बुनियादी ढांचे के आधुनिकीकरण में सार्वजनिक-निजी भागीदारी की प्रभावशीलता का आलोचनात्मक मूल्यांकन कीजिए। सुरक्षा क्षेत्र को रेलवे के लिए प्रमुख चुनौतियों में से एक मानते हुए, भारतीय रेलवे के समग्र सुरक्षा मापदंडों में सुधार के लिए क्या उपाय किए जा सकते हैं? (15 अंक, 250 शब्द)

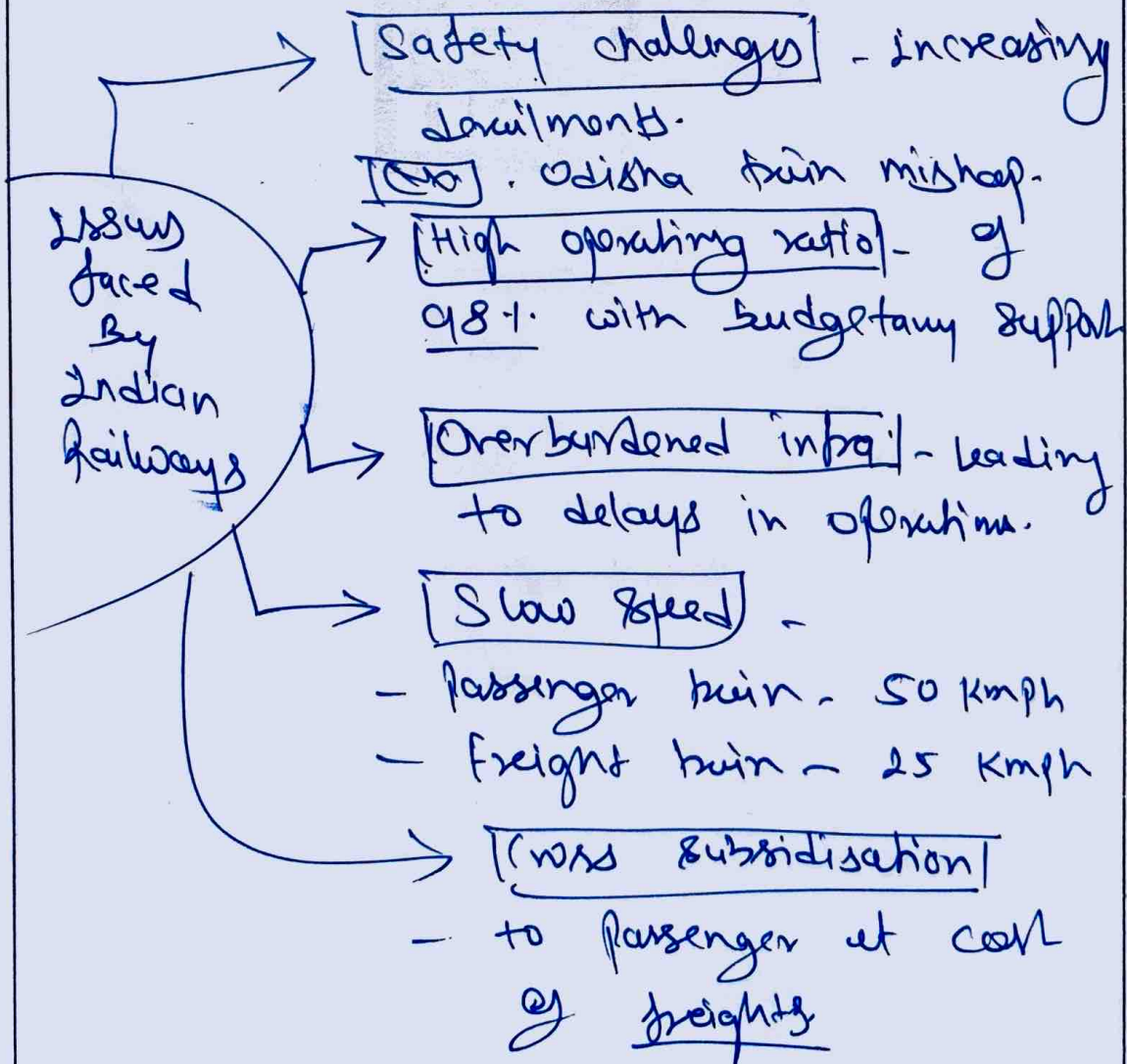
Critically evaluate the effectiveness of public-private partnerships in the modernization of railway infrastructure in India. Considering safety as one of the major challenges for railways, what measures can be taken to improve the overall safety parameters of Indian Railways?

(15 marks, 250 words)

Various committees such as
Anil Kakodkar Committee and

Virek Debroy Committee has

recommended private partnership in
modernisation of railways.



Advantages of private Partnership -

1). Burden sharing - By private sector in Railways operations.

[Ex]. Privatisation of railway station leading to private investment in railways.

2). Building quality infra. - By private sector.

[Ex]. Habibganj (Rani Kamabai) station.

3). Innovative solutions - to problems such as train derailments.

[Ex] - Bangalore based startup suggesting use of sensors to detect derailment before its occurrence.

4). Reducing operating ratio - from 98% to desirable levels ensuring financial efficiency.

5). Boosting overall efficiency - Through participation of private sector in management.

Measures to be taken -

1). Reducing monopoly - of single entity in railway operations.

[Ex]. currently there is monopoly of I.R.C.T.C.

2). Encouraging participation - of private entity in railways operations.

3). Conducting innovation challenges - to suggest innovative solutions to problems faced by railways.

4). 2-Dex model - as in defence manufacturing can be emulated in railways to boost innovation and promote private participation.

Thus though about ensuring safety in railways can be ensured at the same time its efficiency can be boosted.

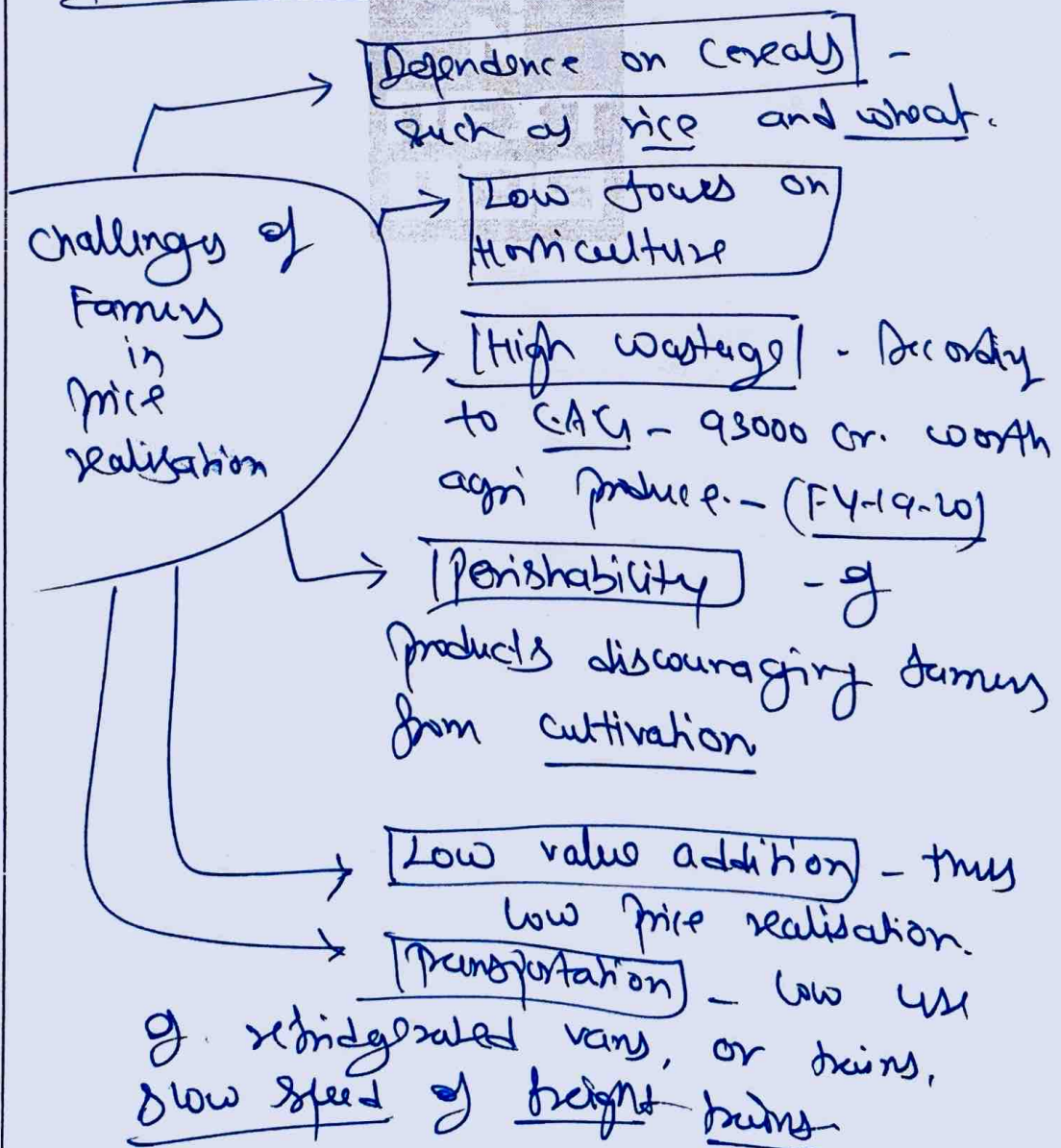
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13.

“अगर उपज समय पर हमारी थाली तक पहुंच जाए तो खेती लाभकारी हो जाती है।” इस संदर्भ में, भारत में कृषि विपणन और परिवहन क्षेत्र के समक्ष आने वाले अपस्ट्रीम और डाउनस्ट्रीम मुद्दों पर प्रकाश डालिए। इस क्षेत्र की समग्र दक्षता में सुधार के लिए कौन-सी पहलें प्रारम्भ की जा सकती हैं? (15 अंक, 250 शब्द)

“Farming becomes remunerative if the produce reaches our plates in time”. In this context, highlight the upstream and downstream issues faced by the agriculture marketing and transport sector in India. What initiatives can be undertaken to improve the overall efficiency of the sector? (15 marks, 250 words)

Agricultural sector contributes 18% to India's GDP while employing 43% of its workforce. However it is fraught with challenges of low price realisation to farmers.



upstream issues of agri marketing and transport

1). High logistic cost - Thus discouraging farmers to use transportation.

Ex - logistic cost in India - 14.1% of GDP against global average 10.1% (2013)

2). Last mile connectivity - Though railways and roadways is missing.

3). Predominance of mandis - Leading to farmers using private modes less likely.

4). Perishability of commodities - Hampering their reach to markets.

Ex - Average life span of Tomatoes after getting plucked is less than 7 days.

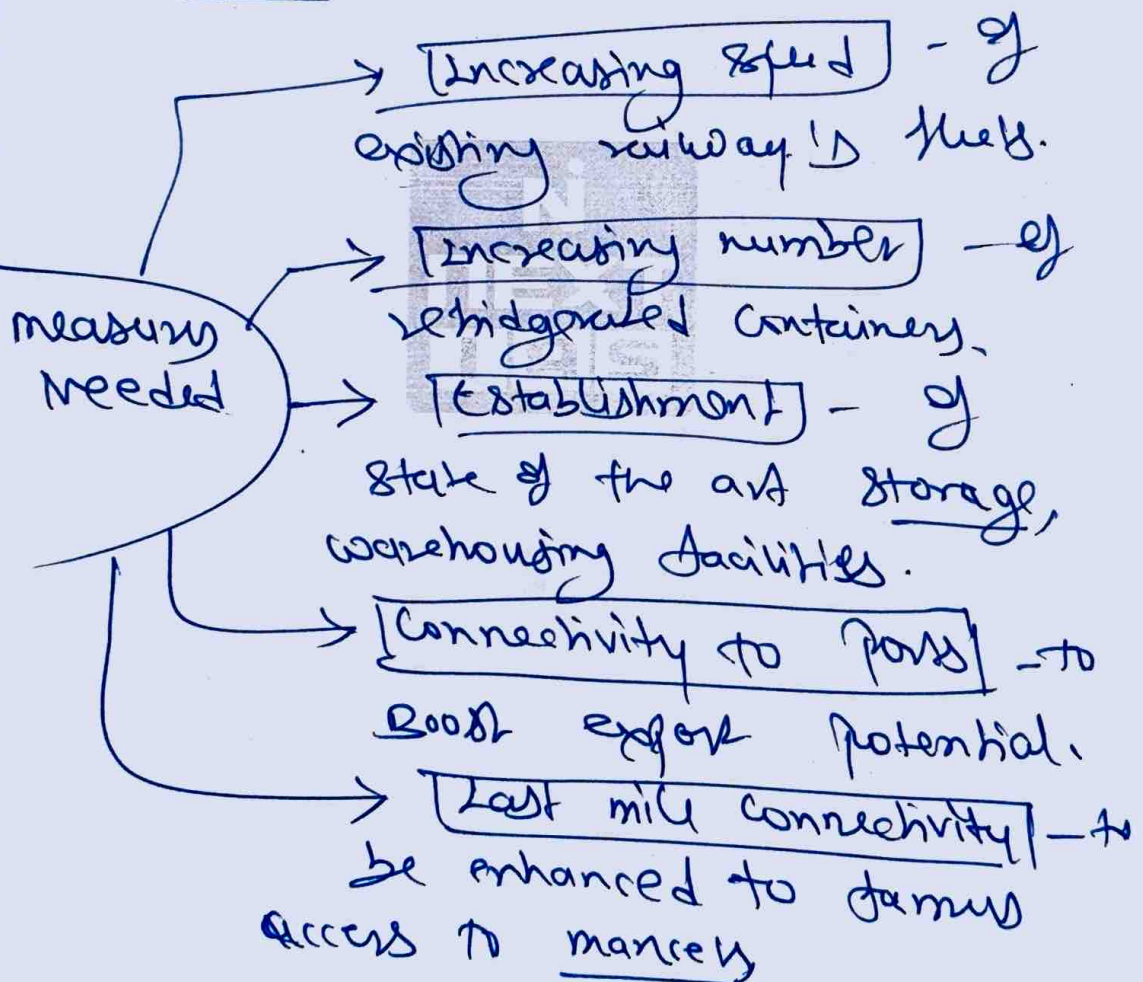
Downstream challenges -

1). Slow speed - of Indian railways hight trains.

Ex - Average speed of 25 kmph.

2) - Availability of - Refrigerated Containers is low thus hampering transportation of perishable commodities.

3) - Port Connectivity - Lack of leading to less potential of agri produce reaching to plates of foreign consumers.



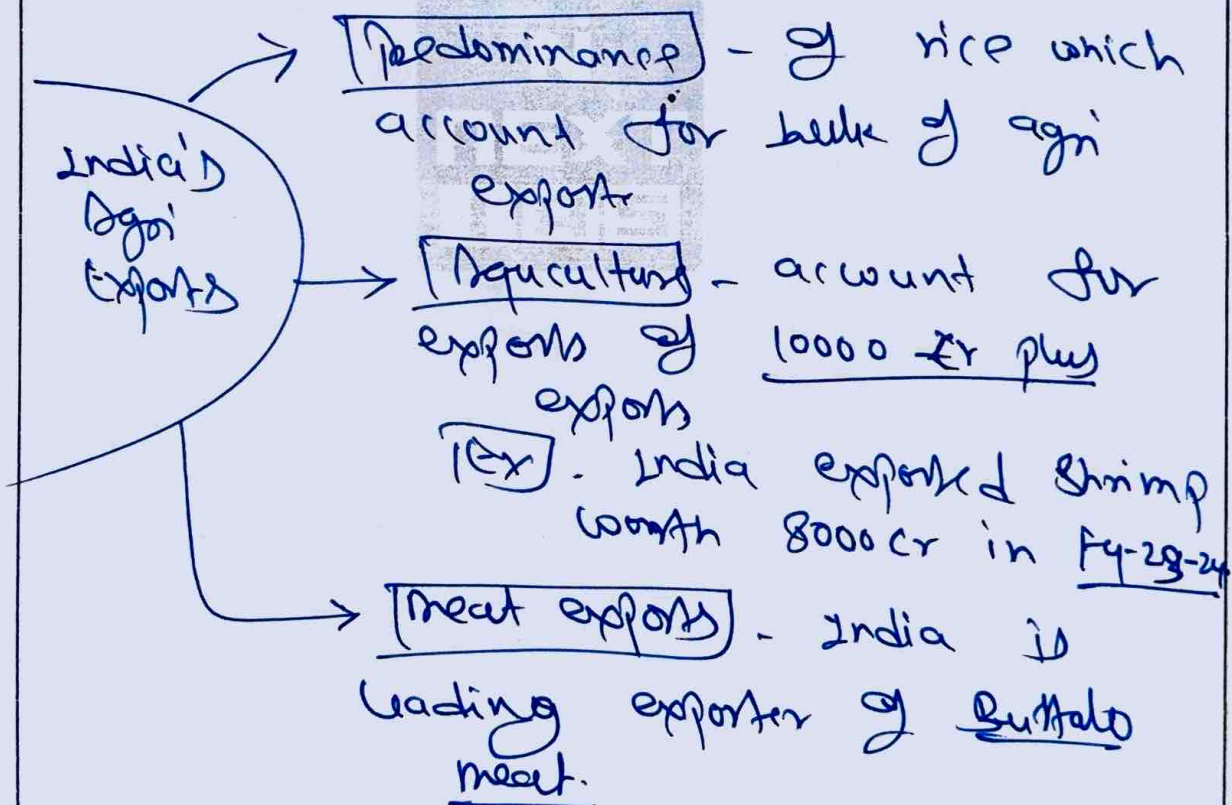
Govt. has taken initiatives like Krishi Railways, Krishi Udan that needs to be scaled up to boost price realisation by farmers.

14.

भारत की कृषि संबंधी निर्यात-आयात की नीतियां किसानों के बजाय उपभोक्ताओं की ओर अधिक झुकी हुई हैं। दिए गए कथन के आलोक में, किसानों पर आयात और निर्यात नीतियों के प्रभावों का आलोचनात्मक विश्लेषण कीजिए। किसानों को आयात-निर्यात संबंधी मूल्यों के दहशत से बचाने के लिए क्या उपाय किए जा सकते हैं? (15 अंक, 250 शब्द)

India's agriculture export-import policies are tilted more towards the consumers rather than the farmers. In light of the given statement, critically analyze the impact of import and export policies on farmers. What measures can be undertaken to shield farmers from import-export price shocks? (15 marks, 250 words)

During FY-23-24, India's agricultural exports reached to 44 Billion \$, against target of 60 Billion \$ under agri export policy.



Challenges of India's agri. exports -

1). High transportation cost - leading

to hampering competitiveness of India's agri produce.

2). Policy uncertainty - Considering domestic consumers.

Ex. Inflation increased $\rightarrow$ Govt banning export of onion and sugar.

3). Awareness among - Farmers regarding export of produce to appropriate destination.

4). Market intelligence - lacking in agri export policy leading to inappropriate targeting of export destination.

5). Lack of diversification - in terms of products as well as destinations.

Ex - Shrimp + Rice = 45% of India's agri exports.

- U.K + U.S.A = 40% of India's agri exports.

challenges
regarding
imports

Oilseeds dependency

- Foreign outflow of above 20 Billion \$. on palm, soybean oil.

Pulses import

- cost India 5 Billion \$ annually.

Potentiality - to reduce agri imports in huge as pulses are suitable for rainfed agri.

Measures to shield farmers

- 1). Reducing policy uncertainty - By reduction in frequent tweaking of export policies.
- 2). Reliable supplier - establishing India as reliable supplier of agricultural products.
- 3). Insulating from domestic consumer's necessity -
By adoption of appropriate food security policies.
- 4). Free market - with less regulation may ensure better price realisation apart from above diversification of export basket and destination can help farmers in shielding from uncertainties.

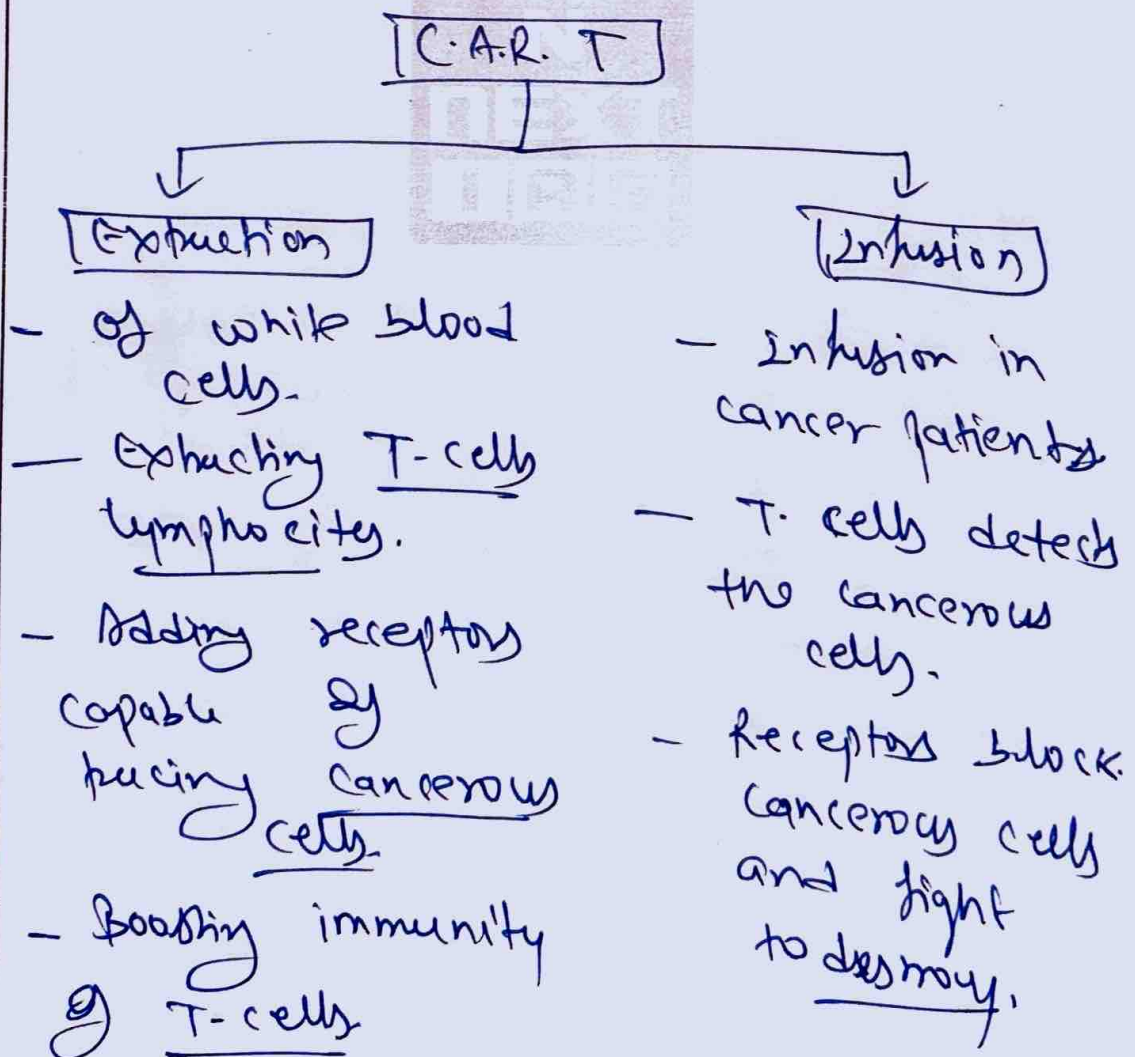
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15.

चिकित्सा विज्ञान में भारत की उन्नति, भारत की पहली कैंसर रोगी के इलाज के लिए CAR-T सेल थेरेपी का उपयोग करने में सफलता में परिलक्षित होती है। कैंसर और संबंधित बीमारियों के इलाज में CAR-T सेल थेरेपी के कामकाज और प्रभावशीलता पर चर्चा कीजिए। (15 अंक, 250 शब्द)

India's advancement in medical science is reflected in India's success in using CAR-T cell therapy to treat the first cancer patient. Discuss the working and effectiveness of CAR-T cell therapy in treating cancer and related diseases. (15 marks, 250 words)

India recently used C.A.R.T cell therapy in treating cancer patient (Thalassemia) which is indigenous technology to treat the huge non-communicable disease.



Advantages of C.A.R-T cell therapy

- 1). Indegenuous development - This therapy has been indegenously developed by joint collaboration of doctors from ASTIMS and Tata institute.
- 2). Cost effective - Compared to prior methods such as chemotherapy.
- 3). Less side effects - C.A.R-T cell therapy has lower side effects compared to chemotherapy or other methods.
- 4). Use of innate immune system -
→ patient's own white blood cells are used in treatment.
- 5). Long term efficacy - In CAR

- T cell, as cases of reemergence are low compared to other therapies.

Challenges -

- 1). Reach - of the therapy is in nascent phase, to only few elite medical institutions.
- 2). Accessibility - to therapy by people from all social background is a challenge for now.
- 3). Scalability issue - Requires scale of the ant research lab and laboratories for the treatment process.
- 4). Side effects - not known fully they can have unintended health complications.

There is need of scalability to enhance reach as well as further research to do away with any potential side effect.

16.

भारत के गगनयान मिशन और भारतीय अंतरिक्ष स्टेशन का मुख्य उद्देश्य क्या है? किन अन्य देशों ने अंतरिक्ष में अपने मानवयुक्त मिशनों को सफलतापूर्वक लॉन्च किया है? गगनयान मिशन और उससे संबंधित भारतीय अंतरिक्ष स्टेशन के सफल क्रियान्वयन के लिए कौन सी प्रमुख प्रौद्योगिकी की आवश्यकता है? साथ ही, इन मिशनों से जुड़ी चुनौतियों को भी स्पष्ट कीजिए। (15 अंक, 250 शब्द)

What is the main objective of India's Gaganyaan Mission and Bharatiya Antariksha Station? Which other countries have successfully launched their manned missions into space? What major technologies are required for the successful execution of the Gaganyaan Mission and related Bharatiya Antariksha Station? Also, elucidates the challenges associated with these missions.

(15 marks, 250 words)

India's space agency has been actively engaged in upcoming most important missions Gaganyaan and Bharatiya Antariksha Station which will add India into group of elite countries having attained the ability of such complex missions.

Countries having such capacities and attainment

→ U.S.A - first country to have its own space station.

- Have also sent its astronauts into space -

Ex: Apollo 11 - first landing on moon

Russia

→ first to send astronauts to space.

- Yuri Gagarin

→ China

→ Building Tiangong.
- Active member of International Space Station.

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Major technology requiredFor Gaganyaan -

- 1). new module technology - to ensure safe functioning of crew in comfortable environment.
- 2). ~~and~~ Rad abort technology - to ensure safety and security of Cosmonauts.
- 3). Powerful spare engine - Having capacity of lifting heavy module to low earth orbit and bringing back safely.

For Bhartiya Ambiksh mission -

- 1). State of the art facility - with size of around one football court.
- 2). Advanced lab - capable of functioning in zero gravity atmosphere.

3)- Advanced docking system - For constant supplies as well as sending receiving of astronauts.

Challenges associated

1). Experience - India is venturing first time on such ambitious ~~new~~ missions.

2). Expenditure - India space budget is abysmally low for such missions.

Ex. - I.S.R.O Budget - 8000 Cr ₹. (131\$)
- N.A.S.A Budget - 320000 Cr ₹ (403\$)

3). Global cooperation - is hindered by complex global situation.

Ex. - USA warning India's attempt to seek help from Russia.

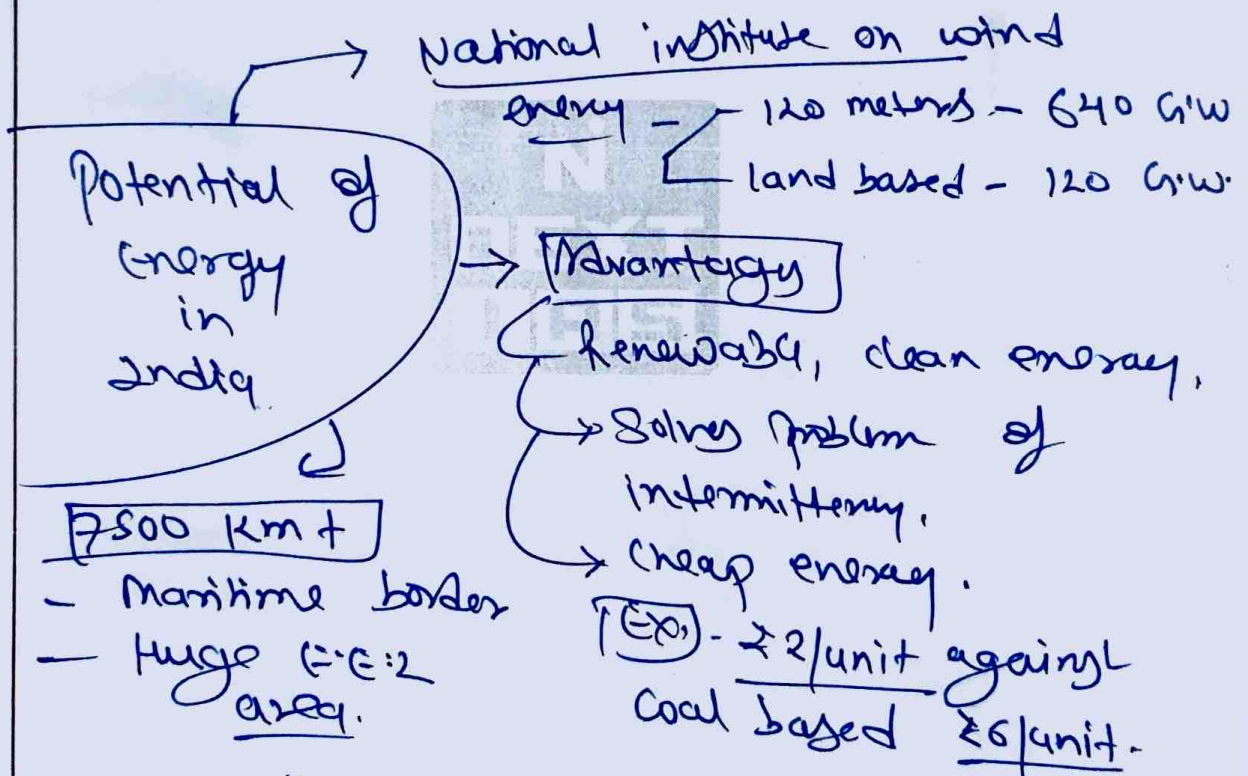
4). Uncertainties - of space domain

Although fraught with challenges, I.S.R.O has been able to pull out exceptional missions such as (Chandrayan-2), accordingly acumen and intellect of scientist will enable India to attain the success in mission.

17. "भारत की अपतटीय पवन ऊर्जा के क्षेत्र में उच्च क्षमता है, लेकिन कार्यान्वयन अभी भी कम है।" अपतटीय पवन ऊर्जा के दोहन में बाधा डालने वाली चुनौतियों पर चर्चा करें और संभावित समाधान सुझाएँ। (15 अंक, 250 शब्द)

"India's offshore wind energy has high potential but remains low on implementation". Discuss the challenges impeding the harnessing of offshore wind energy and suggest possible solutions. (15 marks, 250 words)

India has ~~total~~ 40 GW of total installed wind capacity electricity generation, with Tamil Nadu leading wind electricity generation.



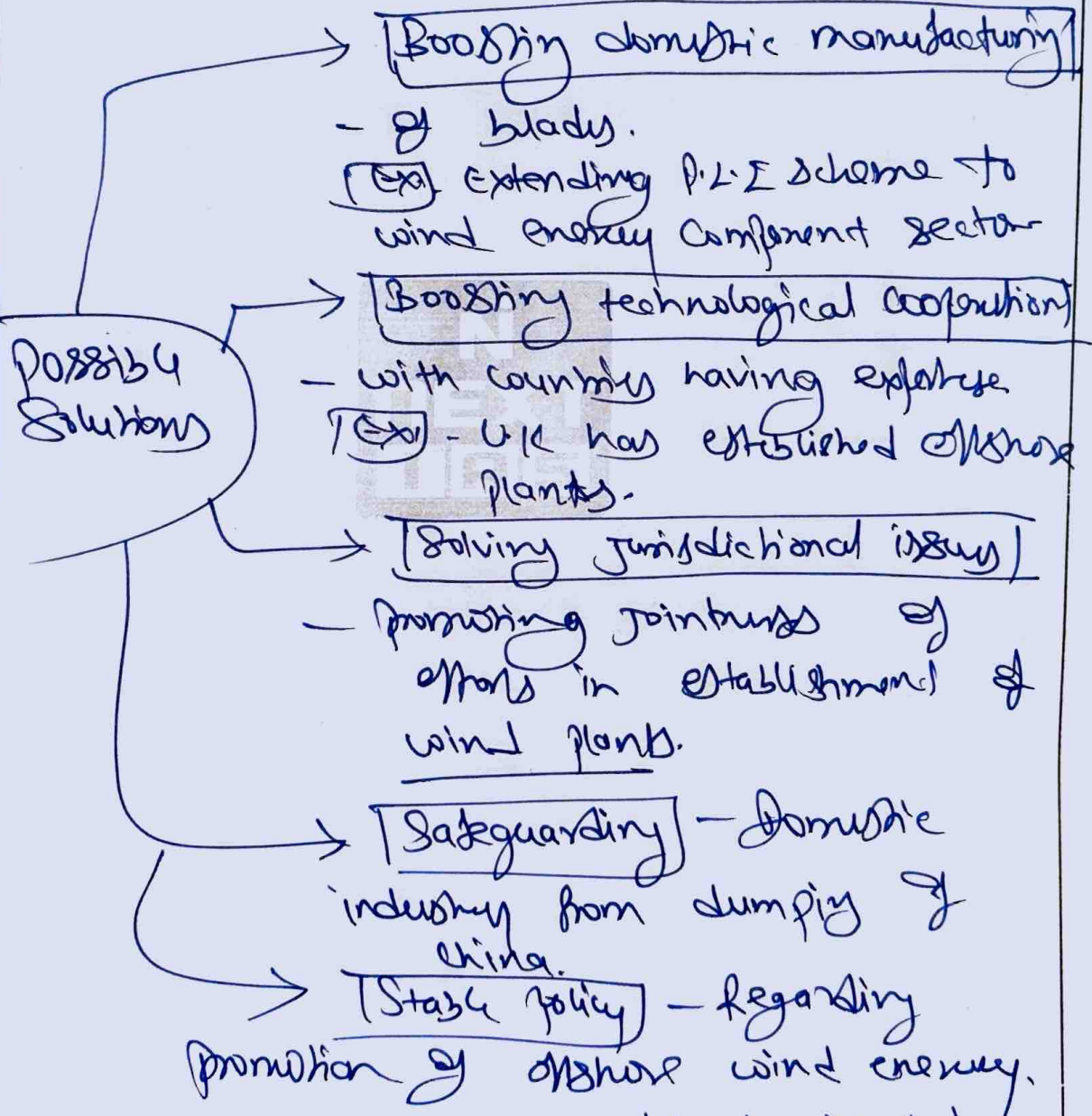
However despite great potential India's current installed offshore capacity is literally zero, with ~~no~~ all of its wind energy coming from land based wind installations.

Challenges in wind energy installation

- 1). Technological deficiency - Regarding building of wind blades hampering development of wind energy plants.
- 2). Capital intensive - Establishment of offshore wind energy plants is highly capital intensive.
[Ex] - Cost of one wind turbine in offshore area - is thrice cost of establishment on land.
- 3). Jurisdictional problems - overlapping of jurisdiction in territorial water and Economic zone.
- 4). Security concerns - Regarding functioning of offshore wind plants.
- 5). Integration with grid - of offshore plants is also a challenge.

6). [High import dependency] - for carbon fibre blades on China.

7). [Low domestic production] - of components of wind energy plants.



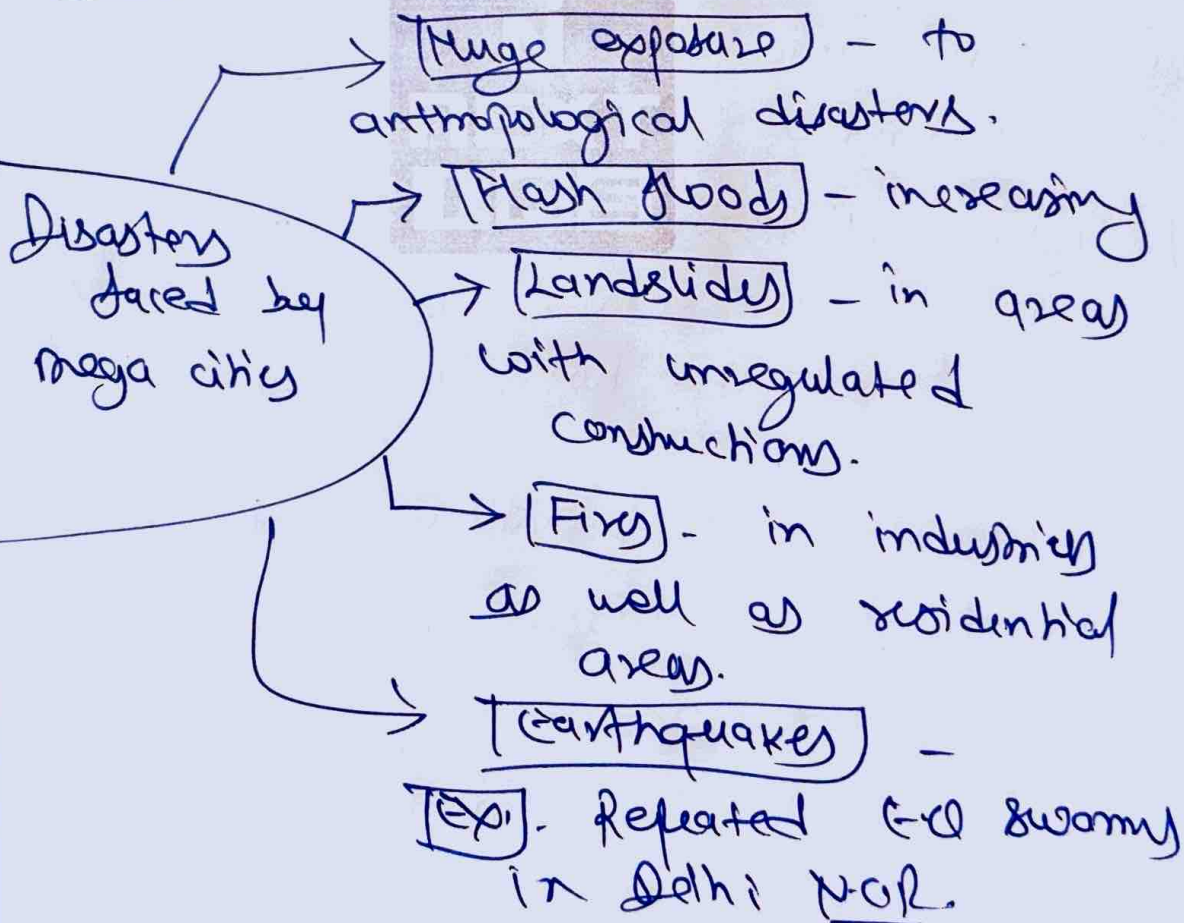
This may add to India's efforts of sustainable development through addressing energy poverty with clean energy.

18.

विकास के केंद्र होने के अलावा, शहरी क्षेत्र आपदा जोखिमों के संचय के केंद्र भी हैं। मेगा-शहरी समूहों (Mega urban cities) में आपदा प्रबंधन विशेष रूप से जटिल क्यों है? शहरी क्षेत्रों में आपदा प्रबंधन और जोखिम न्यूनीकरण की समस्याओं को दूर करने के लिए क्या उपाय किए जा सकते हैं? (15 अंक, 250 शब्द)

In addition to being the centres of growth, urban areas are also centres of accumulating disaster risks. Why is disaster management particularly complex in mega-urban cities? What measures can be undertaken to address the problems of disaster management and risk reduction in urban areas? (15 marks, 250 words)

According to 2011 census, India's urban population was 31.1%, which according to U.N.D.P population division is scheduled to reach 45.1% by 2050.



Thus India's megacities are faced with spate of urban disasters

Complexity of disaster management in urban areas.

1) - Population Density - High population density means huge exposure to Hazard of vulnerable population.

Ex. - Population density of Delhi - 12000 + 89/km.

2) - Improper risk assessment - There has been lack of risk assessment in urban areas.

3) - Structural issues - Policies made under State disaster management authority are not implemented well.

4) - Inter departmental cooperation - Becomes a challenge in disaster management in urban areas.

5) - Lack of capacity and training - of disaster relief forces.

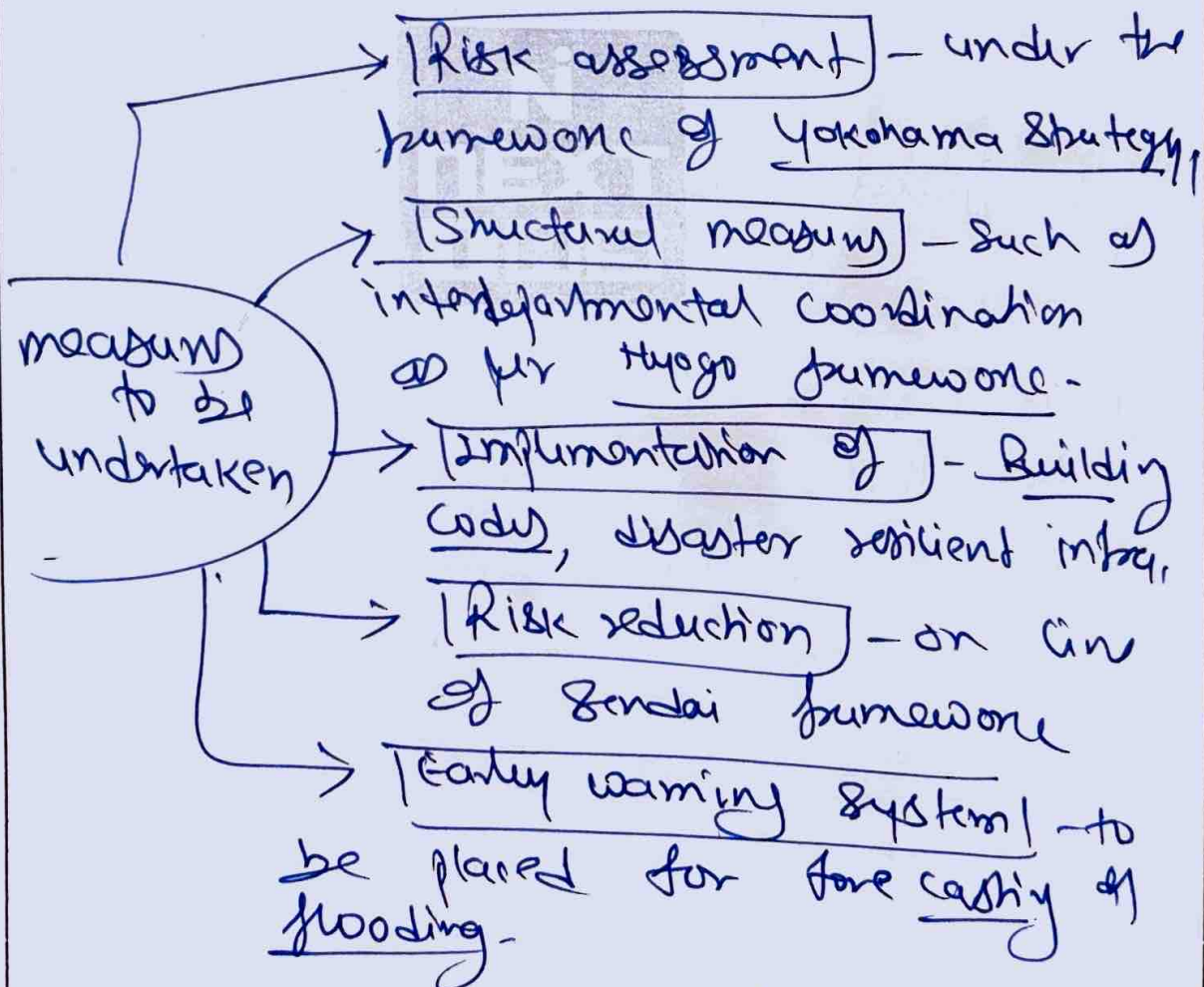
Ex. - Army has to be deployed during disaster despite presence of NDRF.

6/- Lack of implementation - of
Building codes in urban areas.

[Ex: Delhi coaching institute mishap.

7/- Disappearing wetlands - and other
natural safeguards that can prevent
urban disasters such as flooding.

[Ex: Chennai floods of 2015 - led by
disappearance of wetlands.



Thus though above measures,
an measured response is
urban disaster can be
given.

19.

भारत की आंतरिक सुरक्षा के लिए सोशल मीडिया और नेटवर्किंग साइट्स द्वारा उत्पन्न खतरों पर चर्चा कीजिए। सूचना और प्रौद्योगिकी नियम, 2021 के तहत तथ्य-जांच इकाइयाँ (FCU) सोशल मीडिया पर फर्जी खबरों के प्रसार के समग्र खतरे को नियंत्रित करने में किस प्रकार मदद करती हैं? सरकार द्वारा तथ्य-जांच इकाइयाँ (फैक्ट चेक यूनिट) स्थापित करने के बारे में प्रेस प्रसारकों और डिजिटल मीडिया प्रतिभागियों की क्या-क्या चिंताएँ हैं? (15 अंक, 250 शब्द)

Discuss the threats posed by social media and networking sites to the internal security of India. How do the fact-check units (FCUs) under Information and Technology Rules, 2021 help in controlling the overall menace of the spread of fake news on social media? What are the concerns of press broadcasters and digital media participants about the Government establishing fact-check units? (15 marks, 250 words)

Recently social media post caused huge internal security situation in Britain where public order got disrupted and people started rioting.

Threats posed by social media and networking sites to internal security -

1) Massive reach - These networking sites have huge reach.

Ex. - Instagram base - More 1 Billion.
- Facebook - More 3 Billion users.

2) Anonymous accounts - Escaping responsibility making inflammatory statements.

3) Misuse by foreign actors - to

Important hub in society.

(Ex) - L.S.E trying to disrupt communal harmony in India.

4) - Data theft - of Indian users and use of same for nefarious practices.

5) - Grey zone warfare - Networking & emerging as tool of grey zone warfare and psychological ops.

Role of fact check units in prevention -

1) - Flagging of misinformation - Before it becomes mainstream.

2) - Adding credibility - of the genuine, and correct information.

3) - Placing accountability - on promotion of false news.

4) - Safe-Harbour - warns social media platforms to lose safe harbour clause in case of inaction.

Concerns of various stakeholders -

- 1) - Authoritarianism - Is government deciding what should be acceptable on social media platforms.
- 2) - Govt as arbiter of truth - Fact checking units establish government as sole arbiter of truth.
- 3) - Misuse - of fact checking to safeguard itself from public criticism on social media platforms.
- 4) - Negative picture - of India as country with restriction on freedom of speech.

Way forward

→ Participatory approach

- taking all stakeholders opinion

→ Self regulation - must be first resort.

→ Collaboration - with

social media platforms to prevent fake news.

In this age need to balance national security with individual's rights on internet.

20.

कश्मीर घाटी में हिंसा भड़काने में हिंसक गैर-राज्य अभिकर्ताओं (वीएनएसए-अपवसमदज Non-state actors) की भूमिका पर प्रकाश डालते हुए, चर्चा कीजिए कि सशस्त्र बलों द्वारा "ऑपरेशन सद्भावना" स्थानीय युवाओं की आकांक्षाओं को संबोधित करके वीएनएसए-ओजीडब्ल्यू (ओवर ग्राउंड वर्कर्स) गठजोड़ से कैसे निपट सकता है। (15 अंक, 250 शब्द)

By highlighting the role of Violent Non-State Actors (VNSAs) in inflicting violence in Kashmir valley, discuss how "OPERATION SADBHAVNA" by armed forces can tackle the VN-OGW (Over Ground Workers) nexus by addressing the aspirations of local youth. (15 marks, 250 words)

Violent non state actors are
unruly elements of society acting
on behalf of some outside power
to disrupt peace and security of
region.

Role of
Violent
non
state
actors

Propaganda -- Adding to
Anti India Propaganda.
[Ex]. unruly workers of
Jamiat-E-Islami

Recruitment - They also
act as recruitment tool for
terrorist organisations.

Creating support - for
terrorist organisation on
ground.

Home world attacks - these
actors also conduct low
world attacks.

[Ex]. Jammu attacks
recently

Operation Sadbharna

- 1). Initiative - By Indian Army for Ladakh and Jammu Kashmir.
- 2). Objectives - to create goodwill among local population.
- 3). Activities - Helping out the local population in various issues.
- 4). Construction - of public infrastructure such as community halls etc.
- 5). Employment opportunities - Generated under operation Sadbharna for local youth.

Role in breaking nexus, and addressing aspirations of youth.

- 1). Changing perception - negative perception getting created by O.G.W and V.N.S.A's.

- 2) - Destroying ground support - for these elements thus reducing scope of terrorism.
- 3) - presenting counter narrative - to win war of ideology against terrorism.
- 4) - Fostering national integration - Through activities of Indian army,
Ex - Cross country tour for students of region.
- 5) - Bringing stability - Through reduction of violence.
- 6) - Stigmatisation - of support to OW's by U.N.S.A's.
- 7) - Mainstreaming - of youth of the regions thus reducing scope of joining militancy,
Operation Sadhana is exceptional measure by Indian armed forces to attack on root of the terrorism.