

# NEXT IAS

## MAINS TEST SERIES 2.0 - 2025 (FLT)

(To be filled by candidate)

TEST CODE : FLT2503

Test No. : 03

Name of Candidate: Sushri Yadav Mobile No. ....Roll No. : MT23FLTON013 Start Time ..... End Time.....Date of Examination: ..... 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	
<b>TOTAL MARKS - 100</b>		

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	
<b>TOTAL MARKS - 150</b>		

**GRAND TOTAL** - ...../ 250

EVAL CODE: ..... EVAL DATE: .....

### GENERAL INSTRUCTIONS

- 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.
- Candidates must mention all relevant details like Name, Email, Roll No, Mobile, etc. in the space allocated.
- Candidate is expected to attempt all 20 questions within the given timeline.
- Answers must be written in the medium authorized at the time of admission.
- 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.
- Please write neatly. Avoid illegible writing.
- Do not write/mark irrelevant matters in the QCAB.

### सामान्य निर्देश

- 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।
- अभ्यर्थियों को सभी प्रासंगिक विवरण जैसे नाम, ईमेल, रोल नंबर, मोबाइल नंबर आदि का आवंटित स्थान पर उल्लेख करना होगा।
- अभ्यर्थियों से अपेक्षा की जाती है कि वह आवंटित समय-सीमा के भीतर ही सभी 20 प्रश्नों के उत्तर-लेखन का प्रयास करें।
- प्रत्येक उत्तर, प्रवेश के समय चुनी गयी भाषा के माध्यम में ही लिखे जाने चाहिए।
- अभ्यर्थियों को विशिष्ट प्रश्न के उत्तर संबंधित प्रश्न के नीचे ही लिखने होंगे। आवंटित स्थान के बाहर लिखे गए किसी भी उत्तर का क्रेडिट नहीं दिया जाएगा।
- कृपया साफ-सुथरा लिखें। अपठनीय लेखन में बर्चें।
- QCAB में अप्रासंगिक तथ्यों को न लिखें / न ही चिह्नित करें।

REMARKS: .....

**Student Concerns / Query**

1 .....

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**Evaluator's Feedback / Response**

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3 .....

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**MARKING SCHEME \***

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.

**IMPORTANT QR CODES**



Topper's Copy



Common mistake and Correct Filled QCAB



Copy Scanner App



Next IAS Test Centre Location

**MACRO COMMENTS**

The Purpose of MTS 2.0 Score Improvement Program (SIP) is to provide constructive suggestions on 'How to improve Answer Writing and thereby score better marks.'

Q1.

Introduction	Body	Conclusion

Q2.

Introduction	Body	Conclusion

Q3.

Introduction	Body	Conclusion

Q4.

Introduction	Body	Conclusion

Q5.

Introduction	Body	Conclusion

Q6.

Introduction	Body	Conclusion

Q7.

Introduction	Body	Conclusion

Q8.

Introduction	Body	Conclusion

Q9.

Introduction	Body	Conclusion

Q10.

Introduction	Body	Conclusion

Q11.

Introduction	Body	Conclusion

Q12.

Introduction	Body	Conclusion

Q13.

Introduction	Body	Conclusion

Q14.

Introduction	Body	Conclusion

Q15.

Introduction	Body	Conclusion

Q16.

Introduction	Body	Conclusion

Q17.

Introduction	Body	Conclusion

Q18.

Introduction	Body	Conclusion

Q19.

Introduction	Body	Conclusion

Q20.

Introduction	Body	Conclusion

1.

सरकारी बजट में जेंडर बजटिंग की ओर हाल ही में किए गये प्रयास महिला सशक्तिकरण के लिए इसके महत्व को दर्शाता है। भारत में जेंडर बजटिंग की दिशा में हालिया पहल और उनके महत्व क्या हैं? (उत्तर 150 शब्दों में दीजिए) 10 अंक

The recent push towards gender budgeting in the Government Budget reflects its importance for women empowerment. What are the recent initiatives towards gender budgeting in India and their importance? (Answer in 150 words) 10 Marks

Government focus on Women as one of the Four Major Pillars of Development in Budget 2025-26.

(Push towards gender Budgeting)



with 23% of Budget exclusively for women

Recent Initiatives towards gender Budgeting

- 1.) women as pillar of growth as well as focus on other genders :- Transgender
- 2.) PM Kisiki Sakhi Yojana & Prone Didis to empower women technically
- 3.) LIC Bina Sakhis to provide financial autonomy to women with fixed remuneration of 7000 → 6000 → 5000 monthly

4) Promoting entrepreneurship via Standup India scheme

5) Loans under MUDRA Yojana

Social empowerment

1) Increased Budgeting for Healthcare of women.

2) Targeting Lactating & Pregnant Mothers under PM Jarani Suraksha Yojana

Importance → Financial Autonomy to women  
 → Independence in decision making  
 → Social Indicators could be improved.

Challenges → Structural challenge → Corruption & Red Tapism  
 → In joint schemes diversion of funds to other sectors.  
 → Lack of Autonomy due to limited Social Mobility.  
 → PM Aarogya Yojana

To tap economic potential, imp to tap gender Productivity, can help increase GDP by 27%.  
(WB)



2. बंदरगाह आधारित विकास को भारत में आर्थिक विकास और क्षेत्रीय एकीकरण के प्रमुख चालक के रूप में देखा जाता है। चर्चा कीजिए कि सागरमाला पहल किस प्रकार बंदरगाह आधारित विकास और तटीय अर्थव्यवस्था को बढ़ावा दे सकती है।  
(उत्तर 150 शब्दों में दीजिए) 10 अंक

Port-led development is seen as a key driver of economic growth and regional integration in India. Discuss how the Sagarmala initiative can promote port-led growth and the coastal economy.  
(Answer in 150 words) 10 Marks

Indian ports are responsible for 95% of trade by volume & 65% of trade by value, thus serving as key drivers of economic growth.

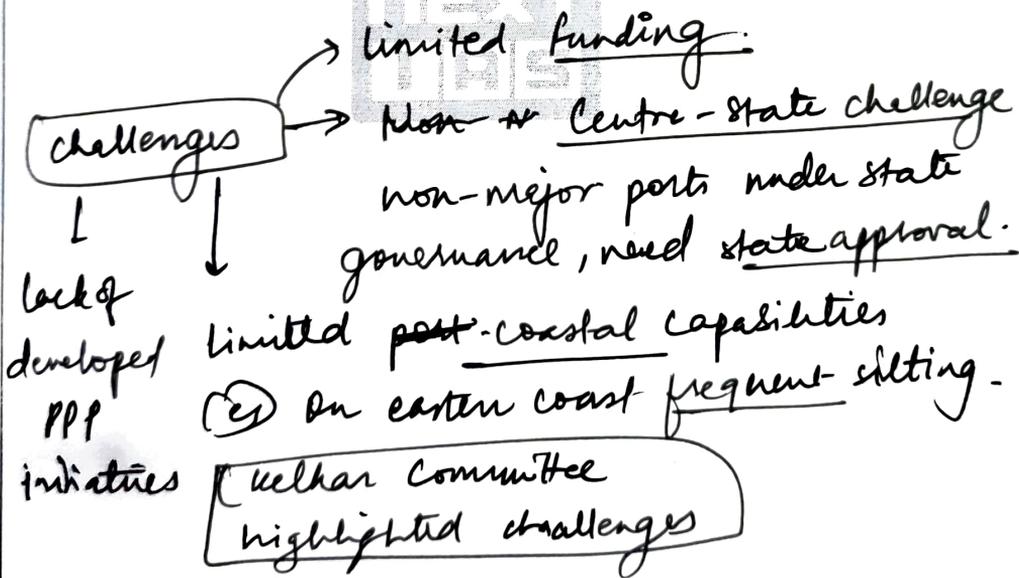
Regional Integration by acting as export collection centres (eg) Kolkata port caters to not only WB but Bihar & even Nepal

Sagarmala Initiative can promote port led growth by

① Development of Infrastructure, especially non-major ports (217) (eg) Rameswaram port - strategic location but underdeveloped

② Aid in development of transshipment ports - (eg) Vizhinham, Kerala.  
currently 95% of needs via Singapore or Sri Lanka port

- 3) Engage in Private Sector Participation  
 (eg) Mundra Port - Adani  
Sikka Port - serve needs of Khance
- 4) Promote Tourism via Port-Development  
 (eg) Amiri port in Lakshadweep
- 5) Develop export related background  
Warehousing facilities (eg) one stop  
labelling, tagging, packaging & custom  
clearances



Ports can serve India's 11,098 km  
 long coastline as major hubs & boost to  
Manufacturing sector.



3. गैर-कृषि अर्थव्यवस्था में पशुपालन के महत्व पर चर्चा कीजिए। पशुपालन को बढ़ावा देने के लिए हाल ही में प्रस्तावित पशुधन जनगणना की क्या आवश्यकता है? (उत्तर 150 शब्दों में दीजिए) 10 अंक
- Discuss the importance of livestock farming in a non-farm economy. What is the need for the recently proposed livestock census in promoting animal husbandry? (Answer in 150 words) 10 Marks

Livestock sector has seen the growth of 8-9% AAGR, where Agriculture has seen only 4% AAGR in last decade. Thus

Importance of livestock farming in Non-farm Economy

① Help in Doubling Farmers Income

↳ Small & Marginal Farmers Income

33% from Agri & 67% from Allied sector

(NABAR All India Financial Inclusion Survey)

② Help in developing Food Processing Industry

↳ Milky Mist developed over ₹20,000 cr

turnover based on livestock sector

③ Help in Inclusive growth

↳ Majority of livestock rearing by women.

④ Help in Meeting the Export Demands

(es) Poultry & Meat demanded in USA.

- ⑤ Help in Reducing disguised Unemployers  
by Promoting Secondary Agriculture  
(Dalwai Panel) Recommendation

Recently government proposed to conduct livestock  
census after 5 year

Importance in Animal Husbandry

- ① Help in Data collection & tapping  
Research & Development (es) IVRI, Bareilly
- ② Help in Identifying Diseases in Animals  
(es) Lumpy Skin, Foot & Mouth.
- ③ Help in conserving breeds via Artificial  
Insemination & Sex Sorted Semen Tech
- ④ It may promote farmers informed  
Decision making in which livestock to  
rears.
- ⑤ Tech Aid (es) Brainwired in livestock  
management shall be better with Data.

Livestock can act as blessing in rising  
Agrarian Distress due to climate change

4. न्यूनतम समर्थन मूल्य किसानों की आय को बढ़ाने में कैसे मदद कर सकते हैं? न्यूनतम समर्थन मूल्य का लाभ प्राप्त करने में किसानों को किन चुनौतियों का सामना करना पड़ता है?  
 How can minimum support prices help in promoting farmers' income? What are the challenges faced by farmers in accessing the benefits of minimum support prices? (Answer in 150 words) 10 Marks

Minimum Support Price (MSP) is announced by the government Cabinet Committee on Economic Affairs before growing season.

MSP help in promoting farmer's income by

- 1.) Assured minimum price ensure better income safety. (eg 2500 for wheat)
- 2.) Announcement before growing season ensure better Decision making
- 3.) Prevent exploitation of farmers  
Reason low Bargaining Capacity because 86% have less than 2ha land
- 4.) Promote integration via traders in APMC mandis & eNam further.  
Price Realisation
- 5.) Help identify demand & supply & prevent from Cobweb cycle

## Challenges faced by Farmers

- ① Poor coverage of
  - 1) Farmers - only 6% farmers benefit  
- Shanta Kumar Committee
  - 2) Crops - only 10% of Agri Produce  
NITI Aayog.
  - 3) Areas/States - mainly Punjab, Haryana benefit.
- ② No open ended procurement for crops except Rice & wheat.
- ③ Cartelisation of APMC lead to poor price.
- ④ Lack of APMC area coverage force farmer to sell locally (1 APMC cover 450 sq km area against recommended 80 sq km  
M.S. Swaminathan Committee)
- ⑤ Lack of transportation / cold storage promote distress sell by farmers.

Recently, MSP legalisation has been demanded but it has its own challenges. Alternative methods like Infra Development - Market, Cold Storage etc shall be Harnessed for Better price Realisation

कृत्रिम तंत्रिका नेटवर्क क्या हैं? मशीन लर्निंग और कृत्रिम बुद्धिमत्ता में उनके महत्व पर चर्चा कीजिए।  
 (उत्तर 150 शब्दों में दीजिए) 10 अंक

What are artificial neural networks? Discuss their importance in machine learning and artificial intelligence.  
 (Answer in 150 words) 10 Marks

Industrialisation 4.0 has come up with multiple new technologies of which ANNs are new development.

Artificial Neural Networks

1- They're set of Artificially trained networks that behave like human

Brain Neural Network

2- They could do language processing & generate original ideas like a human brain can.

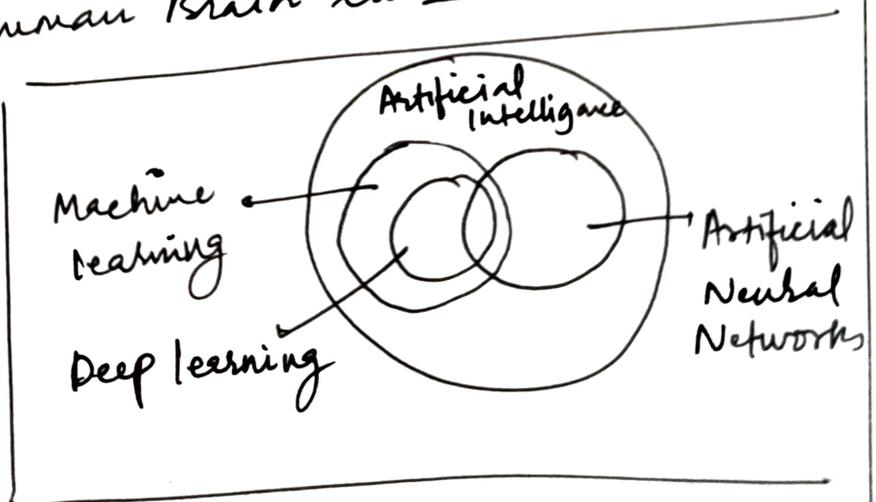


Fig: Relationship b/w AI, ML, ANN & Deep Learning

## Importance in Machine learning & Artificial Intelligence

- ① They help in better understanding of Machine learning.
- ② Introduced more personalised Response  
eg Insple App for personal care products
- ③ It helps in Independent Response without human intervention Actively.  
eg Robotics in warfare
- ④ They help in Satellite Based communication eg used by Agricultural

### Challenges

→ Data Biases. eg left hand writing image dilemma.

→ Ideological Biases. eg Hitler in good light.

↓ Threat to Human Development

↓ IPR Issues eg NY case on OpenAI.  
Times

→ Invasive on Traditional Art eg Ghibli Art

The New Tech needs to be used with caution

Legal Frameworks to be established for

Equitable Justice

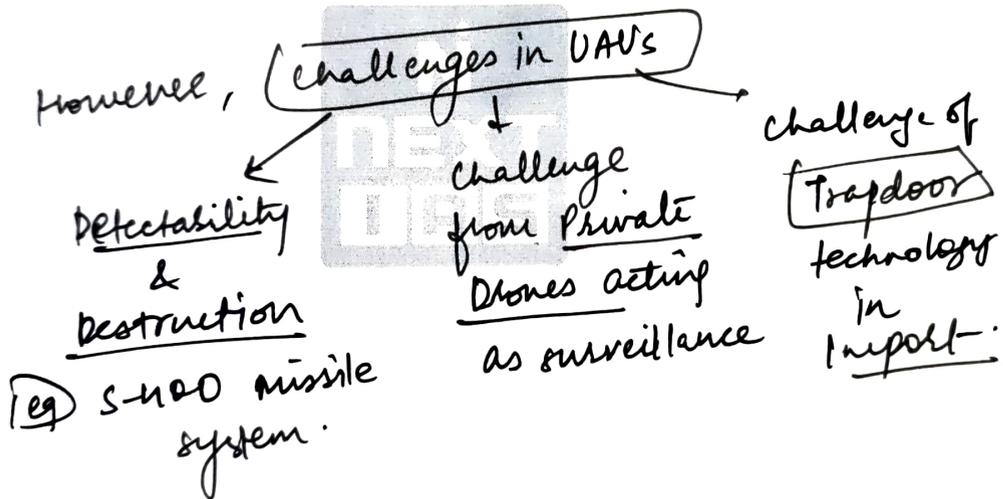
6. रक्षा क्षेत्र और आधुनिक युद्ध में मानव रहित हवाई वाहनों (यूएवी) के महत्व पर चर्चा कीजिए।  
(उत्तर 150 शब्दों में दीजिए) 10 अंक
- Discuss the importance of Unmanned Aerial Vehicles (UAVs) in the defense sector and modern warfare.  
(Answer in 150 words) 10 Marks

The recent operation Sindoor saw widespread use of Unmanned Aerial Vehicle (UAVs) as important strategic warfare tool.

### Importance

- ① Can help in surveillance of difficult terrain eg Pir Panjal valley where human inaccessible.
- ② Can help in Border Management eg Sundarban area Indo-Bangladesh
- ③ Can carry warloads, so can be used to attack eg Heron drone from Israel.
- ④ They prevent Human casualties eg India-Pakistan escalations Operation Mahadev & Op Shivshakti

- ⑤ They can help in Medical Aid during casualties.
- ⑥ Diplomatic Significance - Important UAVs to SE Asian nations like Vietnam helped India collaboration.
- ⑦ Help attack in far off areas  
(eg) Ukraine drone on Russian Military Aircraft Base.



### Way forward

- 1- Increased defence modernisation  
DRDO collaboration with Private sector
- 2- Indigenisation of UAVs
- 3- Integrated Training Mechanism to Indian Army Personnel.

8. भूकंप संबंधी आपदाओं के प्रति उत्तरी भारत की संवेदनशीलता पर चर्चा कीजिए। उनके प्रभावों को कम करने में भारत की तैयारियों पर प्रकाश डालें। (उत्तर 150 शब्दों में दीजिए) 10 अंक
- Discuss the vulnerability of northern India to earthquake-related disasters. Highlight India's preparedness in mitigating their impacts. (Answer in 150 words) 10 Marks

Earthquake is natural disaster occurred due to tectonic plate movement. where two plates meet, they are the most vulnerable zones.

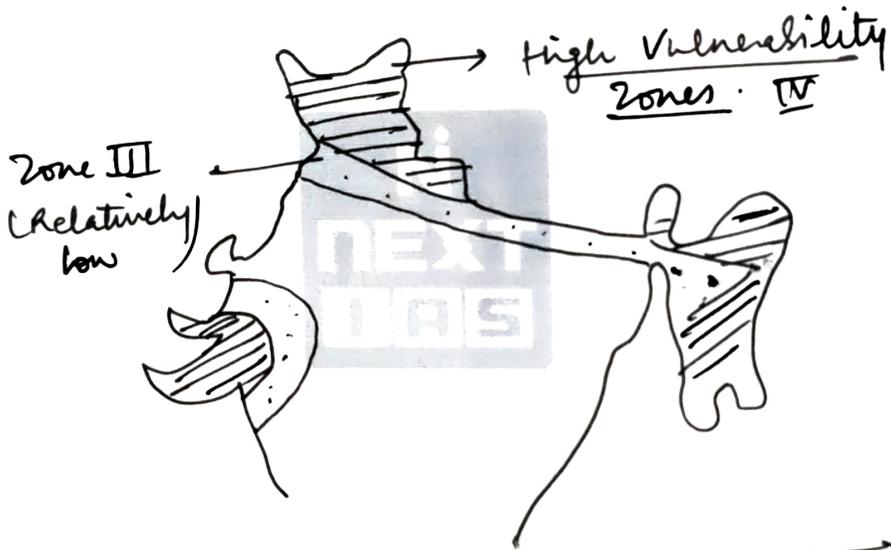


Fig.: Vulnerability zones.

- Vulnerability** ① High seismic activities in Himalayan Region & Bhuj Region, Gujarat
- ② High **population** density regions

are more vulnerable (eg) Delhi, Ahmedabad

③ Infrastructural Vulnerability (eg) made  
of concrete without Earthquake  
Building code following

### India's Preparedness in Mitigating Its Impacts

#### 1) Pre disaster

→ Building code & passage of Plan  
of High Rise Building in earthquake  
adequate.

→ Training in schools → hide under  
solid table / door - evacuation  
techniques in seconds

#### 2) During Disaster

→ Information Dissemination via IMD.

→ Master Evacuation Plans.

#### 3) Post Disaster

→ NDRF team readiness response.

→ First Aid kits.

→ Rehabilitation Programmes of

Infrastructure.

→ Coastal Evacuation for Tsunami Alerts.

Thus, India has Robust Plan for 2002  
earthquake.

9. चर्चा करें कि क्रिप्टोकॉर्सेसी और अन्य उभरती प्रौद्योगिकियां मनी लॉन्ड्रिंग और आतंकवाद के वित्तपोषण के खतरे में कैसे योगदान करती हैं। इस समस्या से निपटने के लिए भारत सरकार द्वारा क्या कदम उठाए गए हैं?

(उत्तर 150 शब्दों में दीजिए) 10 अंक

Discuss how cryptocurrency and other emerging technologies contribute to the menace of money laundering and terror financing. What steps have been undertaken by the Government of India to tackle this issue? (Answer in 150 words) 10 Marks

ED has reported over 27% of India's GDP money has been laundering & operate as Black Market & Terror Financing.

### Contribution of Technology to Money Laundering & Terror Financing

#### ① Cryptocurrency

→ Decentralised ledger so no sovereign control.

→ Anonymous transactions by Public Distribution Key.

(eg) Recent contribution & financing of Pahalgam Attack

② Integration via Multiple channels of money → Shell companies

③ Use of Tax Havens for money laundering (eg) Solomon Islands Cyprus Islands

- (4) Use of legal loopholes like Citizenship  
 (eg) Asha Bhatt not Indian citizen.  
Akshay Kumar
- (5) Smuggling via GPS enabled trucks through  
 maritime border (eg) Drug trucks  
 caught near Surashtra Mundra Port.

### Steps taken by India

- (1) Tracking via Bank Accounts
- (2) Increasing taxes to act as Deterrence  
 28% of profit
- (3) Increased vigilance 1% of transaction
  - CERT-in
  - International Cyber Crime Control Centre
- (4) Special operations via RAW & Intelligence  
Bureau to track finances
- (5) ED has been proactive in mapping  
 of finances by illegal means.

Thus, Indian government has used  
multipronged approach to address  
 money laundering in India

10.

हाइब्रिड युद्ध क्या है? यह पारंपरिक युद्ध से किस प्रकार भिन्न है? भारत हाइब्रिड युद्ध की चुनौतियों का सामना किस प्रकार कर सकता है? (उत्तर 150 शब्दों में दीजिए) 10 अंक

What is hybrid warfare? How is it different from conventional warfare? How can India navigate the challenge of hybrid warfare? (Answer in 150 words) 10 Marks

With new technological advancements, new warfare challenges have been emerging.

### Hybrid Warfare

→ Mix of Both conventional warfare system that is fought on ground between two armies using military artillery

+

Use of Information Dissemination & Social Media & Internal Disturbance as methods to destabilise government internally.

### Hybrid Warfare

- 1- Use of social media platforms.
- 2- Use of Information & Data

③ Attack on Cyber Security.

### Conventional Warfare

- 1- Use of only armies
- 2- Fought on ground
- 3- Use of Tanks, Helicopters, Rockets etc.

## Ways India can Navigate Hybrid Warfare

### ① Addressing Cyber Threats

1- Robust cyber security investment via VPN system (eg) NordVPN.

2- Enhanced encryption (eg) Whatsapp

3- Use of Deep Web to store information

4- Use Blockchain to secure data.

5- New technology like Quantum Computing entanglement to ensure security.

### ② Addressing conventional warfare

1- Defence Indigenisation (eg) DRDO developed INS Vikrant

2- Double Deterrence (eg) Nuclear Submarine INS Arihant

3- Defence Modernisation

4- diversify source of buying technology to ~~lower~~ Reduce dependency.

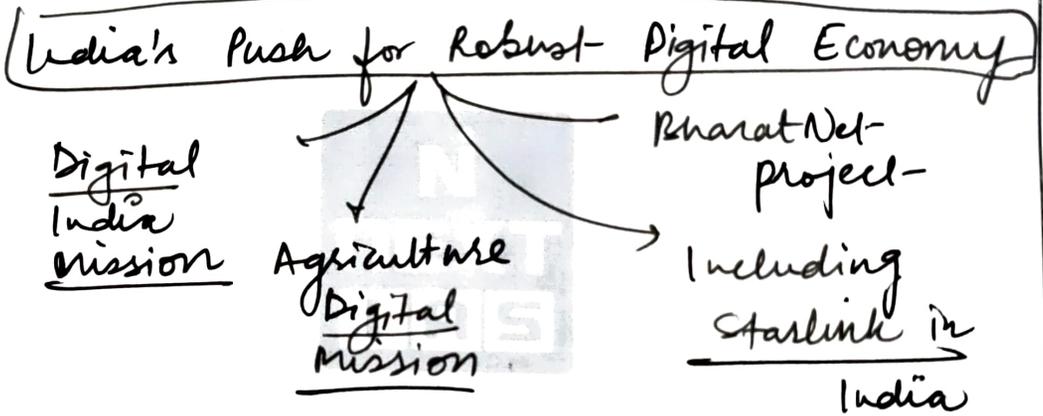
Thus, multiple methods can help India address new warfare challenge.

11.

भारत द्वारा मजबूत डिजिटल अर्थव्यवस्था के लिए प्रयास करने के बावजूद, भारत को डिजिटल समावेशन के संबंध में चुनौतियों का सामना करना पड़ रहा है। चर्चा कीजिए। डिजिटल संसाधनों तक समान पहुँच सुनिश्चित करने के उपाय सुझाएँ।  
(उत्तर 250 शब्दों में दीजिए) 15 अंक

Despite India's push for a robust digital economy, India faces challenges with regard to digital inclusion. Discuss. Suggest measures to ensure equitable access to digital resources.  
(Answer in 250 words) 15 Marks

NSSO data says that only 46% of Digital Penetration with Rural (24%) and Urban (67%) divide.



India Faces challenges with regard to  
Digital Inclusion

① Digital Divide → Regional (Rural/Urban)  
↳ gender Based Divide  
(only 1/3 of Men - women have access to Internet)

Area → NE Region lower penetration  
than other areas.

## ②. Sectoral challenge

while Service sector - mainly Urban Based have access & operate on Digital system  
(eg) e-commerce platforms like Zepko, Urbanek

- Agriculture sector face challenge with low integration (eg) only few farmers use ~~ART~~ AGRIMARKET, ENAM or eChoupal initiative of ITC.

③. Challenges due to current Optical Fibre Based Internet system - limited scalability in Remote areas. (eg) Arunachal Pradesh villages ~~are~~ connected via DIGI KARSHA in 2025.

④. Limited Satellite Based Digital Services

## Measures for equitable access to Digital Resources

- ①. Women - education digitally in school to introduce familiarity.

→ Integration via SHA like Kudumbshree to increase access.

→ changing social outlook. via Financial Independency (eg) Drone Didis & LIC Bina Sakshis

2) Rural Areas → Bharat Net Project

→ Starlink to ensure Internet in Remote Abrant Villages. via Satellite.

→ Increased towers & optical cable

→ Increased Agri Digital Agricultural Mission

3.) Private Partnership - Initiatives like

Brain Wired for livestock rearing

& Increased Farmer awareness.

→ PPP in Infrastructure development

Digital India & Economy are base for

Industrialisation 4.0, to ~~be~~ important-

to make India 5 trillion dollar Economy

12.

जैसे-जैसे कृत्रिम बुद्धिमत्ता अर्थव्यवस्था के विभिन्न क्षेत्रों में प्रवेश कर रही है, वैसे-वैसे नौकरियों का खत्म होना एक वास्तविकता बनती जा रही है। रोजगार पर एआई के प्रभावों का विश्लेषण करते हुए, इस चुनौती से निपटने और रोजगार वृद्धि को बढ़ावा देने के उपाय सुझाएं। (उत्तर 250 शब्दों में दीजिए) 15 अंक

As artificial intelligence penetrates into various sectors of the economy, job losses are becoming a reality. Analysing the impacts of AI on employment, suggest measures to navigate this challenge and promote job growth. (Answer in 250 words) 15 Marks

Artificial Intelligence has capability to boost Indian Economy growth Rate by

1.8%. Its penetration into various sectors has become inevitable.

Job losses due to AI penetration - Impact Employment

① → Mundane tasks like Data entry jobs

② → They aim to replace even Analytical tasks (eg) SSI Manned AI enabled Robot completed Surgery

③ → Attack on creative roles.

(eg) writing poems or Ghiblitrend

④ → They also replacing humans & leading losses in Mid Age → limited economic mobility to learn new skills & find alternate options.

AI impact on employment is also Positive

- ① Aiding the ~~the~~ tasks via increased & Quick Research [eg] Data Analysts in sports.
- ② They aid in Orange Economy [eg] AI based History channels by Humans

Ways to Navigate this challenge

- ① Upskilling in AI - sponsored via company to all its employee.
- ② Skilling in schools & colleges to make children future ready.
- ③ Using AI to aid human tasks.
- ④ Re-skilling of individuals replaced by AI. [eg] New skills like Machine Learning, Data Analytics

- 5. Integration via traditional methods.
- 6. Workshops by AI professionals  
in colleges eg) IIT Madras.

Thus, India can navigate the Artificial  
Intelligence challenge via new  
skilling methods



13. भारत में फसल-उपरांत होने वाला नुकसान प्रतिवर्ष लगभग ₹1,52,790 करोड़ है। भारत में फसल-उपरांत होने वाली हानियों के लिए किस हद तक कृषि उत्पादों के परिवहन और विपणन में आने वाली बाधाओं को जिम्मेदार ठहराया जा सकता है? (उत्तर 250 शब्दों में दीजिए) 15 अंक
- India's post-harvest losses amount to approximately ₹1,52,790 crore annually. To what extent can post-harvest losses in India be attributed to the constraints in the transport and marketing of agricultural products? (Answer in 250 words) 15 Marks

India has huge post Harvest loss while India also Ranks \_\_\_\_\_ in Global Hunger Index reflects the Irony in Surplus and shortage of food grains in India.

Reasons for Post Harvest losses in India

① Constraints in Transport

1 → limited Reefer Vans (only 1000)

2 → Challenging Multimodal Mixes.

Road - 65% of transport increase transportation costs thus deter farmers

3 → Far off locations of APMC increase transportation cost (∵ APMC serve 450 sq km area)

4 → Use of small vans - limited economies of scale

→ Same National Highway for Transportation

4% NH → 40% traffic

Lack of Dedicated Freight Corridors

## ② Constraints in Marketing

1- Lack of crop diversification

2- Lack of Market Intelligence (veg)

non tapping of Kiwi & Dragon Fruit market.

3- Limited processing (only 10%) while USA (80%) France (70%) leads to losses.

## ③ Other challenges for Post Harvest Losses

1- Limited Cold Storage Facility (only 7000) due to restrictive Essential Commodities Act, 1955

2- Regional concentration of Cold Storage 60% in UP & Bihar

3- Regional concentration of

## Food Processing Industries

⑨ Maharashtra, Tamil Nadu Region

### Way Forward

#### ① Backward Linkages for Food Processing Industries

→ Collection centres at village level via PAES.

→ Model Contract Farming Laws.

→ Liberalise Essential commodity Act.

→ Diversify crop production

#### ② Forward Linkages for PPI

→ Marketable quality of goods.

→ Branding via Private Labelling

→ Single window Custom Clearance Houses

Thus, Post Harvest losses can also be prevented via effective PDS systems & Integrate Demand - Supply.

### Case Study:

Saagii Bage Project under A14A1 - has helped chilli farmers in Telangana double their income & reduce losses via processing

14. भारतीय कृषि में प्रत्यक्ष और अप्रत्यक्ष सब्सिडी क्या हैं? इन सब्सिडी ने देश की फसल विविधता और कृषि अर्थव्यवस्था को किस प्रकार प्रभावित किया है?

What are the direct and indirect subsidies in Indian agriculture? How have these subsidies impacted the cropping diversity and farm economy of the country?

(उत्तर 250 शब्दों में दीजिए) 15 अंक  
(Answer in 250 words) 15 Marks

For the Farmers employ 46% of the Indian population. Thus acting as Backbone of Indian economy (18% of GDP)

Therefore It's Independent to provide various subsidies to farmers.

Direct subsidy

① DBT under Pradhan Mantri-KISAN Yojana  
- ₹ 6000 annually

② MSP - form of Direct subsidy.

Indirect Subsidies

① Fertiliser subsidy - Urea price determination by government  
- stagnant @ ₹ 430 / 40kg pack.

② Irrigation subsidy.

→ PM Krishi Sinchayji Yojana.

Candidates must not write on this margin



- ③ Electricity Subsidy - electricity for irrigation at subsidised rates
- ④ Infrastructure Development - farm mechanisation like Tractors are available at lower price.
- ⑤ Interest Subvention schemes like Kisan Credit Cards (KCC) - loan to farmers @ 7% & if regular payment @ 4% p. annum.

### Impact of Subsidy

#### 1) Cropping Diversity

1- Monocropping - 38% of Net sown Area has only Rice & wheat due to open ended procurement (MSP)

2- Water Intensive crops like Sugarcane, Cotton are grown due to free / low tariff. Electricity

2) Farm Economy (Negative)

- 1- Disguised unemployment (46% PP)
- 2- Flood Irrigation Method → lead to  
Soil Salinity (eg Punjab)

3- Positive Impact

- 1- Promoted Farm Mechanisation via  
PPOs (Budget 10,000 PPOs)
- 2- Reduced farm Distress - via loan  
wavers (eg) Vidarbha region  
highest farm suicide.
- 3- enabled Reinisation of Agriculture.  
(eg) PM-KISAN
- 4- Promoted Integrated Farming Method  
Livestock - 76% owned by small &  
Marginal Farmers

Thus subsidies have helped farmers, but raised  
one 2 lakh crore Revenue expenditure on  
government. Better Infrastructure Investment -  
- cold storage - can help Farm Economy  
Better (Shanta Kumar Committee).

15. भविष्य के अंतरिक्ष संचालन और मिशनों में पुनः प्रयोज्य प्रक्षेपण वाहनों की क्षमता पर चर्चा कीजिए। पुनः प्रयोज्य प्रक्षेपण वाहनों के विकास की दिशा में भारत की क्या पहल है? (उत्तर 250 शब्दों में दीजिए) 15 अंक
- Discuss the potential of reusable launch vehicles in future space operations and missions. What are India's initiatives towards the development of reusable launch vehicles? (Answer in 250 words) 15 Marks

Space Sector is emerging as India's 'SUNRISE Sector' benefitting all other sectors of economy.

### Reusable launch vehicles - Potential

- 1.) They can be reused - Reducing Costs of future operations.
- 2.) They can help reduce Space Debris over 1 million, 1 cm & above discarded particles - threat to humanity (Kessler Syndrome)
- 3.) Aid in Future Research - on the Impact of Space & Microgravity on vehicles
- 4.) They can help in Manned Missions to space.

5.) They can boost economy via private participation → Tourism (Space Tourism) Industry (eg) Blue Origin.

### India's Initiatives towards Development of Reusable Launch Vehicles

- ① Development of lifespace capsules with life safety equipments.
- ② Development by ISRO for Gaganyaan mission to reach 400 km for 3 days
- ③ Testing compar growth in space to understand life.
- ④ Using Spadex experiment → to ensure integration & disintegration of various space satellite parts

## Challenges in India's Reusable Launch Vehicle

- ① Cost constraints - lower Budget.
- ② Research challenges.
- ③ Limited Private Participation
- ④ Technological challenges.
  - availability of various parts
  - Van Allen Belt Radiation  
impact mitigation remains a challenge.
  - Uncertainty still no earlier development

However, India's ISRO has led multiple 1st successful attempts like MOM via GTO & Reusable Launch

Vehicle is step towards Sustainable

Space Practices

XPosat



हाल ही में शुरू की गई BioE3 नीति के लक्ष्यों और उद्देश्यों की व्याख्या कीजिए। यह नीति अर्थव्यवस्था के "हरित विकास" को सुनिश्चित करने में किस प्रकार सहायक हो सकती है? (उत्तर 250 शब्दों में दीजिए) 15 अंक

16 Explain the aims and objectives of the recently launched BioE3 policy. How can the policy help in ensuring "green growth" of the economy? (Answer in 250 words) 15 Marks

Government has recently launched BioE3 policy targeting → Economy  
→ Employment  
→ Environment &

promote greater Bio sustainability for future generations

Aims & Objectives

① Promote sustainable employment opportunities Yes In Biotech Research in Agriculture

2) Aim to promote economy in harmony with nature. Yes Carbon sequestration  
Reducing carbon footprint.

3) Aim to enhance Biotech sector & its applications Yes CAR-T cell therapy for Cancer treatment

- 4.) Equitable environment Access & Benefit sharing (Biodiversity Rules, 2025)
- 5.) Adaptation to Climate change  
 (eg) Disaster Resilient Infra in Coastal cities.
- 6.) Increase [Funding & Investment] in Bioeconomy sector.

Bio E3 policy can help in ensuring green growth by

- ① Afforestation Measures through developing Carbon Markets.
- ② Using techs like Perfor Achieve & Trade & Certificates → Reduce (PAT) Carbon Footprint.
- ③ Increase [Employment opportunities] Bio sector - (eg) GM crops - non-food like Maize for ethanol

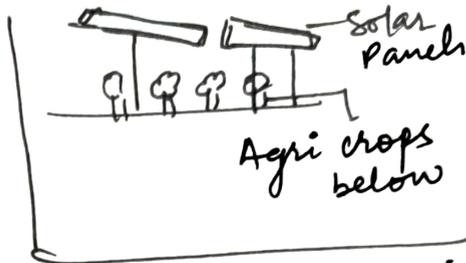
(4) Focus on employment in Renewable sector.

(eg) Agrovoltatics

- employment  
via skilling in

Solar Panels manufacturing & Installation

(3200% growth since 2014)



(5) Contribution to GDP to be increased  
from Bio Sector - Health.

(eg) Crispr-Cas9 → to promote  
Health Tourism in India

Thus, government BioE3 Policy provides  
for sustainable future by balancing  
Economic growth with Environment.



17.

क्योटो प्रोटोकॉल के अंतर्गत विभिन्न बाजार तंत्र क्या थे? पेरिस जलवायु परिवर्तन समझौते का अनुच्छेद 6 क्या है? नेट-शून्य लक्ष्यों को प्राप्त करने में वैश्विक कार्बन बाजार के महत्व की व्याख्या कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

What were the various market mechanisms under the Kyoto Protocol? What is Article 6 of the Paris Climate Change Agreement? Explain the significance of the global carbon market in achieving net-zero targets. (Answer in 250 words) 15 Marks

Kyoto Protocol & Paris Climate Agreement  
under UNFCCC have provided for  
Institutionalised Mechanism of Carbon Markets

Market Mechanism under Kyoto Protocol

- ① Developed-Developed Countries provide for Joint Implementation in each other's country via Infra Dev.
  - ② Clean Development Mechanism when Developed country invest in Developing Nation in green Infra & offset Carbon
  - ③ Assigned Amount Units (AAUs) while developing countries offset carbon.
- Kyoto protocol is Binding on Developed countries while voluntary for Non-Annex Developing countries

Article 6 of Paris Climate Agreement provide for Carbon Offset Market & Non-Market Based - Binding for all countries.

Article 6.2 (Market Based Mechanism)

- cooperate via Internationally transferred Mitigation outcomes (ITMOs)
- It helps country trade to meet its NDCs target.

Article 6.4 (Market Based)

- Supervisory body to monitor mitigation of carbon credits by one country.
- maintain more Transparency.

Article 6.8 (Non-Market Based)

- companies voluntarily take afforestation measures for build green infrastructure
- help in capacity building & financial assistance

Significance of global Carbon Market is Achieving Net zero target- by 2050 by most countries

① They help in creating Penalties &

liabilities → promoting company to adopt cleaner technology (eg) Hydrogen based

(2) They help in mitigating fossil fuel based CO<sub>2</sub> pollution

(eg) EU company building forest in Tanzania to get Carbon offset

(3) They help developing countries realise their Net zero targets via Climate green fund | operationalise COP 29

Challenges → Double counting by company  
 → green washing  
 → Unequal share of Burden (Island nation)  
 Doesn't Address Historical Injustices

Way Forward

- 1- Common But Differentiated Responsibility (CBDR)
- 2- Adaptation by developing country.
- 3- Tech transfer for mitigation in Carbon Markets

Thus, Carbon Markets do seem as effective but may not be as efficient - need more Global collaboration

जलवायु परिवर्तन और तेजी से हो रहे शहरीकरण ने भारत में गर्मी की लहरों के प्रभाव और आवृत्ति को तीव्र कर दिया है।  
 चर्चा कीजिए। हीट एक्शन प्लान (एचएपी) भारत में हीटवेव प्रबंधन को कैसे बेहतर बना सकते हैं?

(उत्तर 250 शब्दों में दीजिए) 15 अंक

Climate change and rapid urbanization have intensified the impact and frequency of heat waves in India. Discuss. How can Heat Action Plans (HAPs) improve heatwave management in India?

(Answer in 250 words) 15 Marks

When temperature of Hill Areas goes beyond 30°C & Plains beyond 40°C for extended period + Normal temperature variation by 6°C. It termed as Heat waves.

Climate change & Urbanisation Increasing Impact & Frequency |

- ① Weakening of AMOC, increase sea temp & Heat waves in Coastal Areas.
- ② Disturbed El Nino & La Nina cycles have led to Increased Heat waves.
- ③ In Urban Areas → concrete jungles absorb 90% of sunlight disturbing Heat Budget of urban areas.  
 → lack of urban area forests & plantations to act as coolant.
- ④ Unequal Impact of Heatwaves - officer/worker - AC chamber but

Candidates must not write on this margin



Street workers like Tomato Delivery Agents,  
Daily Wage Labourers suffer indiscriminately  
reducing their productivity.

- (5) Women & children are more vulnerable  
to Heat Strokes related deaths.

### Heatwave Action Plans Help Improve Heatwave Management in India

- (1) Mitigation of Heat waves. (Prevention)
- Afforestation (Miyawaki Method)
  - Reclamation of Wetlands  
eg Bengaluru
  - Promotion of Vertical gardening
  - using white paints on terraces  
to reflect most Heat Back.

- (2) Preparedness for Individuals
- Hydration to be promoted.
  - electrolysis
  - avoid going out during Peak Hours.

- Heat waves declared as Disaster so relief measures from government.
- Use of Clothes (Cotton) for covering body before moving out.

### ③. Post - Disaster

- Addressing Heat Strokes → Increased Access to Hospitals
- Doctor training in emergency Response.
- Development of outdoor infra.

(eg) Ac chambers / Restrooms for public in Chennai.

Heat waves have become threat to human life & increased impact due to climate change. Robust Heat Action Plan implementation can help address the challenge.

19. बाह्य सरकारी एवं गैर-सरकारी तत्वों द्वारा भारत की आंतरिक सुरक्षा के लिए उत्पन्न खतरे क्या हैं? इन खतरों से निपटने के लिए आवश्यक रणनीतियों पर चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक
- What are the threats posed to India's internal security by external State and non-state actors? Discuss the strategies necessary to tackle these threats. (Answer in 250 words) 15 Marks

India's Internal Security witness multiple challenges.

Threats from External Sector

External State Actors

- 1- State Sponsored terrorism (eg) Pakistan sponsoring / funding Jem → leading to 26/11 & Peshawar like incident.
- 2- Insurgency funding (eg) in North-east Region - ULFA, National liberation Army, Manipur financed by China, Myanmar.
- 3- Smuggling of Drugs: golden Triangle & golden ~~Area~~ Crescent on both sides of India.
- 4- Cyber Threats (eg) possible China's involvement in Power Grid Attack in Mumbai.

External Non-State Actors

- 1- Money laundering to finance terror.  
(eg) cryptocurrency
- 2- Smuggling of warfare (eg) manipul  
conflict b/w kuki - Meitei.
- 3- Smuggling of Currency (eg) counterfeit  
currency caught by Delhi Police  
came via Bihar from Bangladesh.
- 4- Urea smuggling to Nepal challenge  
economic security
- 5- Human Trafficking - prostitution &  
labour. → Myanmar & Bangladesh
- 6- Illegal Immigrants Data over 17000  
Illegal Immigrants sent back to  
Bangladesh by operation Sindoov Start  
& 1st June

Strategies Necessary to tackle theseThreats

- ① Proportionate Use of Force

- Indian military op Shiv Shakti & Mahadev
- APSPA reimposed in 6 manipur district
- Dedicated forces like ISB, BSF for border

### Structural Changes

#### → Use of tech

→ e surveillance system in Border Management Per Sundarban.

→ cyber security

→ tracking cryptocurrency via Bank account & KYC norms.

#### → Economic & Social Upliftment

- Indian Army - operation Sadbhawna
- Project Hridayat for Youth, radicalisation prevention

#### → Infra for connectivity

- Bhupen Hazarika Bridge (NE)
- Chenab & Vanji Bridge (JK)

- Dialogue & Negotiations - with Bangladesh, China, Nepal etc. via Diplomatic channel

Thus, India can address its multipronged challenge of Internal Security

20.

वामपंथी उग्रवाद (एलडब्ल्यूई) भारत की आंतरिक सुरक्षा के लिए चुनौती बना हुआ है। देश में वामपंथी उग्रवाद के मुद्दे को हल करने के लिए भारत सरकार के दृष्टिकोण पर चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक  
 Left-wing extremism (LWE) continues to remain a challenge to India's internal security. Discuss the Government of India's approach towards solving the issue of LWE in the country. (Answer in 250 words) 15 Marks

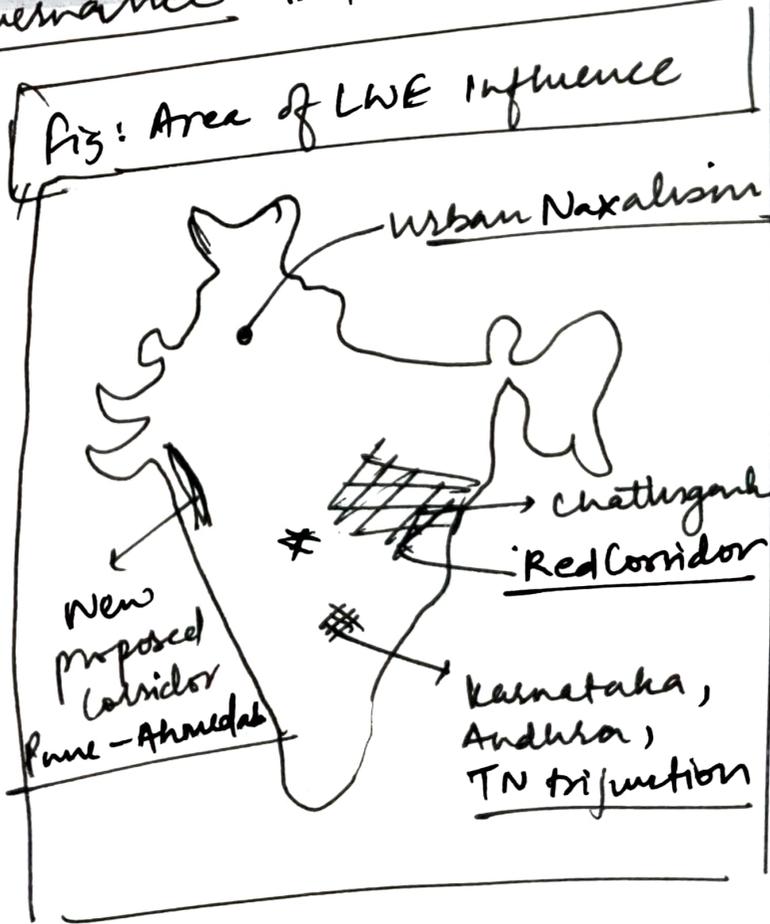
Recent killing of CAPF personnel in Bastar, Chattisgarh highlights LWE as continued challenge.

Challenges due to LWE in India

- ① Loss of human lives (eg) CAPF personnel
- ② Loss of economy (eg) Maintenance of Security Forces & warfare
- ③ Limits governance in tribal Areas.

(eg) limited impact of PRA, 2006

④ Mobilisation in new forms (eg) Urban Naxalism in University etc



## Government's approach to solving

- ① Use of force - Security Measures
  - 1- operation Anaconda - Andhra Pradesh
  - 2- killing of Maoist leader  
Basavaraj Recently
- ② Rehabilitation of surrendered Maoist

ex) Suman, she even helped in identifying & neutralising Naxal operation
- ③ Facilitation of outreach via
  - 1) Economic integration
    - PM Sadak Yojana - over 20,000 km roads into jungle
    - PM SHANMAN Yojana
    - PM SHRI school to address tribal needs.
    - Bharat Net project for digital integration
  - 2) Social upliftment
    - Affirmative Action
    - increased Representation in

governance.

3) Integrating Legal Measures

FRA → giving better tilling & Land Rights - Mha to tribal people

- gram Sabha & extension of PESA into tribal districts

→ Autonomy to tribal areas.

4) Reduce regulatory cost.

Changing Approach from Force to WHAM

(Winning Hearts & minds) have helped

In Reducing Naxalism from over 200 districts

to less than 6 districts.

Operation SABHAJANA has been the

forefront of such achievement.