

EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

1. Explain why it is important to urgently address the problem of poor land records and infirmity of land titles in India. Also discuss how this problem can be addressed.

(150 Words) 10

व्याख्या कीजिए कि भारत में खराब भू-अभिलेखों एवं भूमि अधिकारों के सुदृढ़ नहीं होने की समस्या का तत्काल समाधान करना क्यों महत्वपूर्ण है। साथ ही, चर्चा कीजिए कि इस समस्या का समाधान किस प्रकार किया जा सकता है।

Currently, around 67% of litigation in Indian courts is because of poor land records & infirmity of land titles.

Importance of addressing this problem

1. To improve agricultural productivity (~~no~~ no land records $\Rightarrow$ no access to credit).
2. To promote ease of doing business / contract enforcement - India ranked at 164).
3. To reduce litigation in courts (3 crore cases pending).
4. To promote effective leasing of land.

5. To enable effective compensation for land ~~acq~~ acquisition.

Suggestions

1. Move from presumptive to conclusive titling system.
2. Modernisation of land records using digital technologies (ex:- Bhoomi project in Karnataka).
3. Enact land titling Act (ex:- in Rajasthan)
4. Use modern technologies such as Blockchain (ex:- in Andhra Pradesh) for land records.
5. Liberalise land leasing laws.
6. Integration of temporal & spatial land records.

2. What are the special features of the infrastructure sector that make its financing a challenge? What measures have been taken to facilitate adequate amount of finance to this sector?

(150 Words) 10

अवसंरचना क्षेत्रक के वे विशेष लक्षण क्या हैं जो इसके वित्तीयन को चुनौतीपूर्ण बना देते हैं? इस क्षेत्रक में वित्त की पर्याप्त उपलब्धता को सुनिश्चित करने के लिए कौन-से उपाय किए गए हैं।

According to Economic Survey
2017-18, infrastructure development
in India requires \$ 4.5 trillion by
2040.

Features of infrastructure sector: financing
challenge

1. long gestation period $\Rightarrow$ delayed
returns on investment.
2. high risks involved (ex:- toll
collection risks, inflation risks).
3. large capital requirement $\Rightarrow$ difficult
to mobilise
4. Procedural issues $\Rightarrow$ cost overruns due

to delays.

5. low user charges → difficulty in recovering returns.

Measures taken

1. Issuing of municipal bonds for urban infrastructure.
2. FASTags → for easy collection of toll tax.
3. Innovative PPP models
 - ↳ Hybrid Annuity model
 - ↳ Toll Operate Transfer model
4. Creation of Rs. 40,000 crore National Infrastructure Investment Fund (NIIF)
5. Measures taken to increase State Revenues (Goods & Service Tax, demonetisation)

Way forward

It is important to implement Deepak Parekh Committee recommendations to increase infrastructure financing.

3. Despite favourable circumstances, India's electronics manufacturing has been unable to respond to the rising demand. Discuss. What steps can be taken to address this situation? **(150 Words) 10**

अनुकूल परिस्थितियों के बावजूद, भारत का इलेक्ट्रॉनिक्स विनिर्माण बढ़ती मांग के प्रति अनुक्रिया करने में असमर्थ रहा है। चर्चा कीजिए। इस परिस्थिति को संबोधित करने के लिए कौन-से कदम उठाए जा सकते हैं?

The success of Digital India mission depends on the health of India's electronics manufacturing ecosystem.

Favourable circumstances

1. Rising incomes
2. Rising aspirations of neo-middle class.
3. Digital India push by government.
4. Growing demand for electronic gadgets.

Unable to respond

1. Growing import dependence.

2. low domestic manufacturing.

- ~~Current capacity~~
 - Current industry size: \$ 75 billion
 - Requirement by 2020: \$ 400 billion

⇓
 shortfall of domestic manufacturing

Reasons

1. Inverted duty structure → favourable to manufacturing ~~and~~ items' imports.
2. Weak R&D base (just 0.6-0.7% of public expenditure).
3. Poor economies of scale due to small-sized firms.
4. Increased competition in international markets, particularly from China.

Steps needed

1. Tax incentives needed.
2. ~~to~~ Improve R&D ecosystem.
3. Skill development in electronics sector.
4. Creation of electronics clusters (e.g. - Greater Noida, Lucknow, Bengaluru).

4. Despite registering a high growth rate in the post-reform era, India continues to witness a high incidence of poverty. Explain this paradox and suggest ways to resolve it.

(150 Words) 10

आर्थिक सुधारों के बाद की अवधि में उच्च संवृद्धि दर दर्ज करने के बावजूद, भारत लगातार निर्धनता की अति व्यापकता का साक्षी रहा है। इस विरोधाभास की व्याख्या कीजिए और इसका समाधान करने के उपाय सुझाइए।

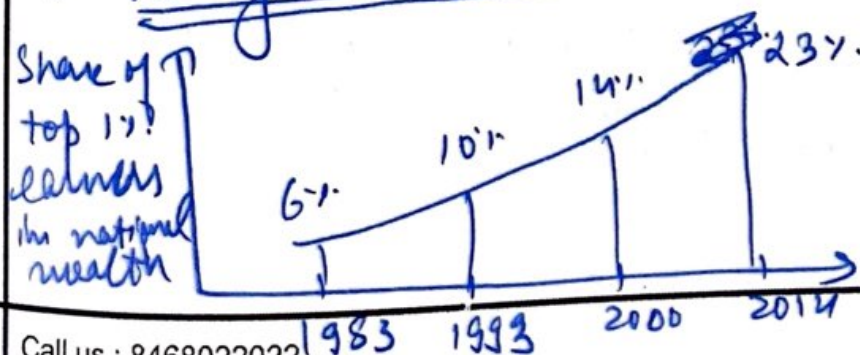
Post economic reforms, India has seen an increase in economic growth rates.

Economic growth rate (average)	1965-1990	1990-2015
	4.1%	6.3%

In the post-reforms period, although poverty ratio has declined, absolute number of poor remain very high (1 in 5 of world's poor are in India).

Reasons for this paradox

1. Rising inequalities : Thomas Picketty's report



2. Jobless growth (rate of employment growth $\rightarrow$ less than 2% per annum).

3. Regional imbalances $\rightarrow$ 70% of India's exports come from 5 States (Gujarat, Maharashtra, Karnataka, Tamil Nadu & Telangana) $\rightarrow$ poverty in hinterland states.

4. Social inequalities $\rightarrow$ high poverty rates in villages, among Muslims, SCs, STs.

2011: Tendulkar poverty ratio

Overall: 22%, Villages: 25%, SCs: 29%,
STs: 43%, Muslims: 25%.

Way Forward

1. Focus on backward regions (ex:- 115 districts in Aspirational Districts Programme)
2. Creation of jobs (focus on labour intensive sectors such as textile, footwear).
3. Strengthen anti-poverty schemes such as MGNREGA, NRLM, PDS.

5. In light of the argument that India has entered a regime of "permanent surpluses", discuss whether the time has come to remove agricultural commodities completely from Essential Commodities Act. (150 Words) 10

इस तर्क के आलोक में कि भारत "स्थायी अधिशेषों" के युग में प्रवेश कर गया है, चर्चा कीजिए कि क्या कृषि जिनसे को आवश्यक वस्तु अधिनियम से पूर्णतया हटा देने का समय आ गया है।

Regime of permanent surpluses

↳ Excessive sugarcane production
(~~230~~ 377 MT in 2016-17)

↳ problem for sugar
industries

↳ Large post-harvest losses.

Time to remove commodities from
ECA

Yes

- To prevent wastage
- To ~~to~~ provide marketing
freedom to farmers.

(No)

- To control price rises.
- To ensure food security.

6. The 1988 National Forest Policy (NFP) was visionary in its scope and ambition. However, there is a need for a new forest policy in the current context. Discuss. (150 Words) 10

1988 की राष्ट्रीय वन नीति (NFP) अपने विषय-क्षेत्र और लक्ष्य की दृष्टि से दूरदर्शी थी। हालांकि, वर्तमान संदर्भ में एक नवीन वन नीति की आवश्यकता है। चर्चा कीजिए।

National Forest Policy (1988) replaced 1952 policy with a view to improve forest conservation.

NFP 1988: visionary in scope & ambition

1. To bring 33% of country's geographical area under tree & forest cover.
2. To initiate Joint Forest Management through local community involvement.
3. To preserve traditional knowledge of forest dwellers.
4. To integrate forest and wildlife management.
5. To strengthen legal and regulatory

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measures for forest protection.

6. To prevent smuggling & poaching activities in forest.

Achievement

Forest & tree cover has increased from 19% in 1988 to 24.4% in 2018 (ISFR-2018).

Need for new forest policy

1. Adopt ecosystem & landscape approach to forest protection.
2. Integrate climate change concerns in forest management.
3. To promote sustainable use of wood.
4. To encourage commercial utilisation of forest products.
5. Shift from Joint Forest Management to Community Forest Management.

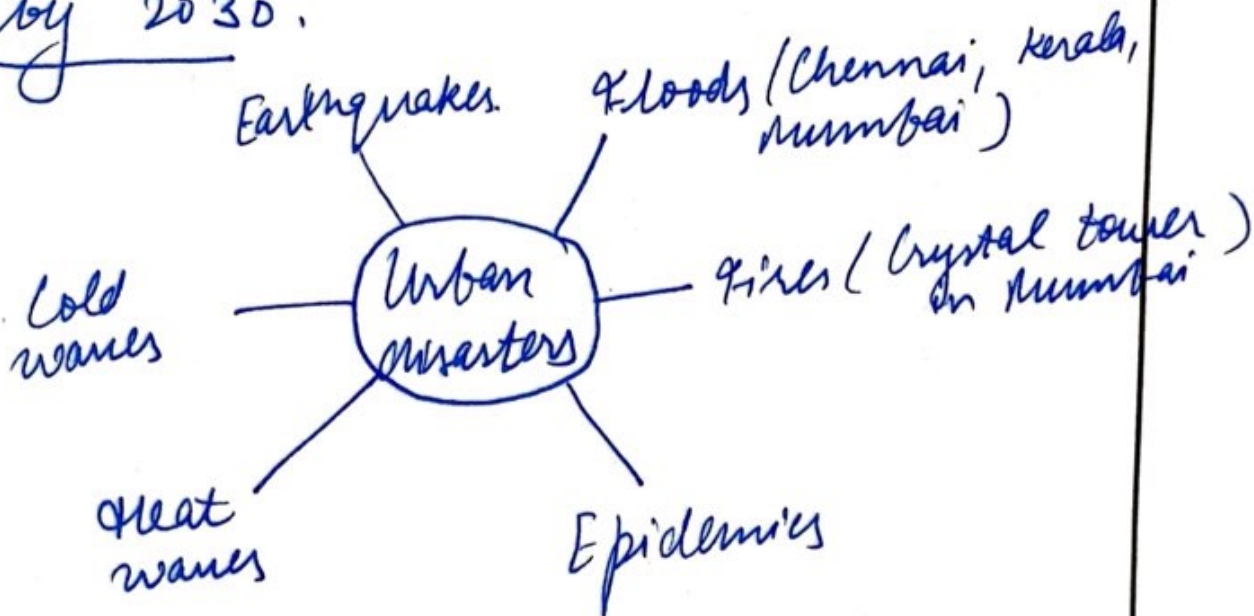
Way forward

The new forest policy (draft) seeks to incorporate this approach in forest conservation.

7. How does rapid urbanization increases the vulnerability to major disasters?
Explaining with examples, suggest measures to develop disaster-resilient cities.
(150 Words) 10

दुत शहरीकरण प्रमुख आपदाओं के प्रति सुभेद्यता को कैसे बढ़ाता है। उदाहरणों के साथ व्याख्या करते हुए, आपदा-प्रत्यास्थ शहरों का विकास करने के उपाय सुझाइए।

As per Census 2011, 31% of India's population is urban and it is expected to grow up to 40% by 2030.



Increasing vulnerability

Floods

- Examples - Chennai (Dec 2015), Mumbai (June 2018)

- Reasons - poor drainage
unplanned expansion
encroachment into wetlands (ex: Mithi river in Mumbai)

Fires	- Diffused settlements (ex:- slums) - Poor regulations (ex:- <u>Uphaar</u> Cinema tragedy).
Epidemics	- Poor sanitation conditions. - Poor healthcare system. - Examples → Dengue & Chikungunya in Delhi
Earthquakes	- No enforcement of building bye-laws - Ex:- Bhuq earthquake
Extreme weather	- Death of homeless people (17 lakh homeless people in India)

Suggested measures

Structural

1. Wetlands conservation.
2. Urban planning.
3. Disaster-resistant buildings.
4. Well-functioning drainage system

Non-structural

1. Strict enforcement of zoning regulations & bye-laws.
2. Effective early warning system
3. Well-functioning healthcare system.
4. Increased insurance coverage.

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Way forward

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It is important to address urban vulnerabilities in line with Sendai framework and SDG-11.

8. Explain DNA profiling and highlight its forensic application. Also discuss the significance of DNA Technology (Use and Application) Regulation Bill, 2018 in this regard. (150 Words) 10

डीएनए प्रोफाइलिंग की व्याख्या कीजिए और इसके फॉरेंसिक अनुप्रयोग पर प्रकाश डालिए। साथ ही, इस संबंध में डीएनए प्रौद्योगिकी (प्रयोग और लागू होना) विनियमन विधेयक, 2018 के महत्व पर चर्चा कीजिए।

DNA profiling: It is the process of ascertaining the identity of an individual using his DNA samples.

Forensic application

1. To establish the identity of criminals.
2. To establish paternity of an individual.
3. To identify dead bodies post-disaster.
4. To trace evolutionary relationships.
5. To improve the quality of police investigation.

DNA Technology (Use & Application) Regulation Bill, 2018

Provisions

Significance

Establish DNA
Protection Authority

- Better regulation
of DNA profiling
technology.

Establish DNA Banks

- Secured storage of
DNA data.

Specifies purpose
limitation (criminal
investigation)

- Ensures privacy
of individual
- Prevents misuse of
DNA data.

Sun-set clause
(deletion of DNA data)

- Prevents unnecessary
profiling of an individual.

Way Forward

It is a right step in the direction
of regulated DNA profiling. The
recommendations of law Commission's 271st
report should also be considered

9. What is meant by the term Blue Water Capabilities? In this context, identify the key measures that have been undertaken to enhance the blue water capabilities of the Indian Navy.
(150 Words) 10

ब्लू वाटर क्षमताएँ पद का क्या अर्थ है? इस प्रसंग में भारतीय नौसेना की ब्लू वाटर क्षमताओं का संवर्द्धन करने के लिए किए गए प्रमुख उपायों की पहचान कीजिए।

Blue Water Capability refers to the capability of navy to undertake security operations in high seas away from Indian Ocean.

Measures taken

1. Control of Dugam port in Oman.
2. Access to Changi Naval base in Singapore.
3. Having nuclear submarines (SSBN)
/ ex:- INS Arighat
4. Aircraft carriers / ex:- INS Vikrant
5. LEMOA & COMCASA agreements with USA.

6. Reciprocal Logistics Support
agreement with France.

Way Forward

Indian Navy needs to act as
the net security provider
in the region and beyond.

10. Identify the factors that make India vulnerable to drug trafficking? Also discuss the key steps taken to deal with it in our country. (150 Words) 10

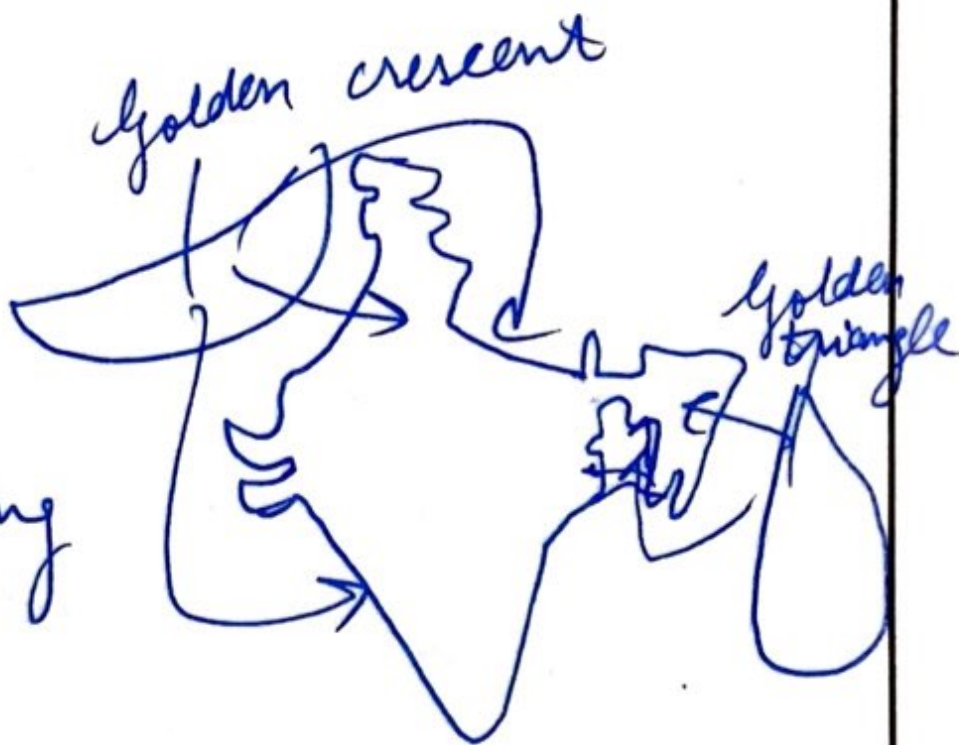
उन कारकों की पहचान कीजिए जो भारत को ड्रग तस्करी के प्रति सुभेद्य बनाते हैं? साथ ही, हमारे देश में इससे निपटने के लिए उठाए गए प्रमुख कदमों की चर्चा कीजिए।

Drug trafficking is a major problem to India, particularly for India's security.

Factors

1. Geographical

↳ situated between two opium producing regions



2. Border-related factors

↳ porous borders

↳ Free movement regime along Myanmar border

} → easy narcotics smuggling.

3. Social factors → easy availability of drug couriers (ex:- Tharu tribals along Nepal border).

4. Economic factors → jobless growth → vulnerability of youth to drug addiction (ex: in Punjab).
5. Technological factors → use of Pakistani SIM cards by drug traffickers to evade Indian agencies.

Steps taken

1. Project Sunrise → to address drug addiction problem in northeast
2. Comprehensive Integrated Border Management System (CIBMS) → to strengthen border security.
3. Bilateral agreements with Myanmar, Bangladesh, Afghanistan → to check narcotics smuggling.
4. Punjab → death penalty for drug peddlers

Way forward

It is important to focus on rehabilitation of drug addicts. Madhukar Gupta Committee recommendations to strengthen border security (Pakistan) should be implemented.

11. How do higher global crude oil prices affect the Indian economy? What steps can be taken to gradually insulate India from global oil price volatility in the long term?

(250 Words) 15

कच्चे तेल की उच्च वैश्विक कीमतें भारतीय अर्थव्यवस्था को कैसे प्रभावित करती हैं? दीर्घावधि में भारत को वैश्विक तेल की अस्थिर कीमतों से सुरक्षित करने के लिए उत्तरोत्तर कौन-से कदम उठाए जा सकते हैं?

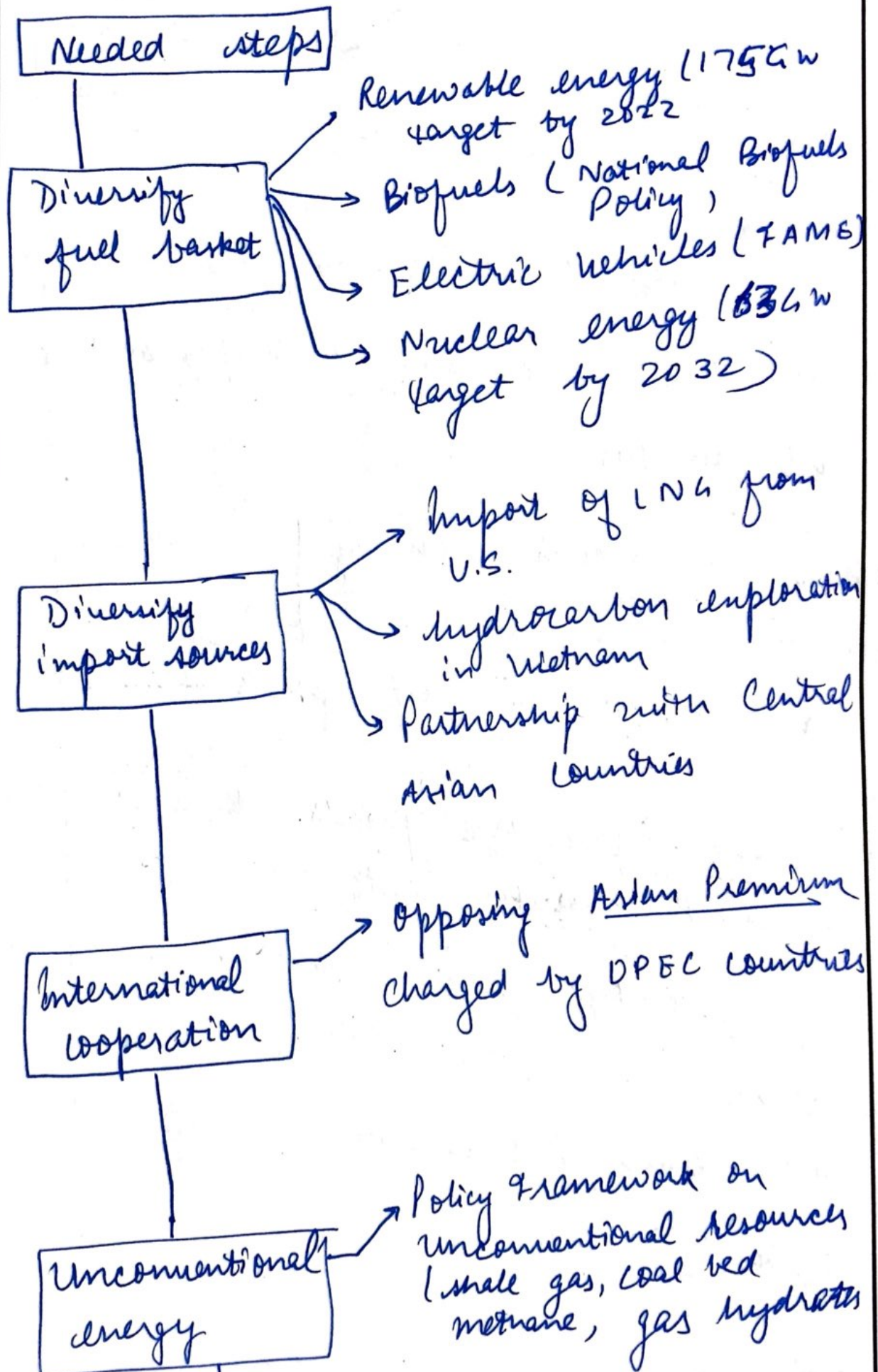
Global crude oil prices
have been increasing sharply over
recent months.

Effect on Indian economy

Economic Survey 2017-18 : \$ 10 per
barrel increase in oil prices leads

to

1. 0.2-0.3 percentage points decrease
in GDP growth rate
2. 1.7 percentage points increase in
WPI.
3. \$ 10 billion increase in current
Account Deficit



Promote
energy
efficiency

Promote inland
waterways.

Per litre fuel → distance
covered

Road → 25 km

Rail → 85 km

EW → 104 km

} NIT 1 Aayog

National LED Programme

Jump from BS IV to BS VI
standards by April 2020.

Way Forward

It is important to shield Indian
economy against rising oil prices,
while providing energy access
to all in line with

SDG-7 (Affordable & Clean
Energy to All).

12. Critically discuss the role of private sector in skill development in India in recent years. In this context, what are the measures required to improve oversight as well as financing in the skill development sector?

(250 Words) 15

हाल के वर्षों में भारत में कौशल विकास में निजी क्षेत्र की भूमिका की समालोचनात्मक चर्चा कीजिए। इस संदर्भ में, कौशल विकास क्षेत्र में निरीक्षण और साथ ही वित्तीयन में सुधार के लिए कौन-से उपाय आवश्यक हैं?

India has 54% population
below 25 years of age. To
productively employ this young
workforce, we need to create
11.5 crore jobs over the next
decade.

In this context, skill development
becomes very important.

Current skill development scenarios

1. Only 2% of workforce has undergone formal skill training.
2. Less than 18% graduates are employable.

Role of private sector in skill development

1. Sector Skill Councils → to design skill curriculum with private sector involvement.
2. Apprenticeship Pratsahan Yojana
to provide industry-relevant apprenticeship training to youth.
3. Recognition of Prior Learning
→ recognition & certification of informal skills to work in private sector.
4. Women Wizards Tech Programme
NASSCOM initiative for skill development of women in IT sector.

Criticism

1. The skilling has to be done in requirements of the economy.
2. Private sector should ~~not~~ not discriminate on the basis of caste or gender. (Inclusiveness).
3. Skills upgradation should be a continuous exercise and not a one-time task.

Measures needed

Oversight

1. Regular inspections
2. Target-oriented approach.
3. Clear mechanisms of accountability.
4. Transparency in designing curriculum.
5. Participation of all stakeholders

Financing

1. Provide affordable loans to MSMEs to facilitate skilling (ex:- MODRA)
2. Strengthen venture capital ecosystem.
3. Role of trigger corporates in financing.

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Way Forward

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To further strengthen skill development ecosystem, we need to implement the recommendations of Sharda Prasad Committee.

13. The e-commerce sector has been booming in India for the last few years. Examine the need for its regulation in light of the recently proposed draft e-commerce policy. Further, identify the challenges that the sector is currently facing.

(250 Words) 15

ई-कॉमर्स क्षेत्रक विगत कुछ वर्षों से भारत में तेजी से बढ़ रहा है। हाल ही में प्रस्तावित ड्राफ्ट ई-कॉमर्स नीति के आलोक में इसके विनियमन की आवश्यकता का परीक्षण कीजिए। साथ ही, इस क्षेत्रक द्वारा वर्तमान में सामना की जाने वाली चुनौतियां की पहचान कीजिए।

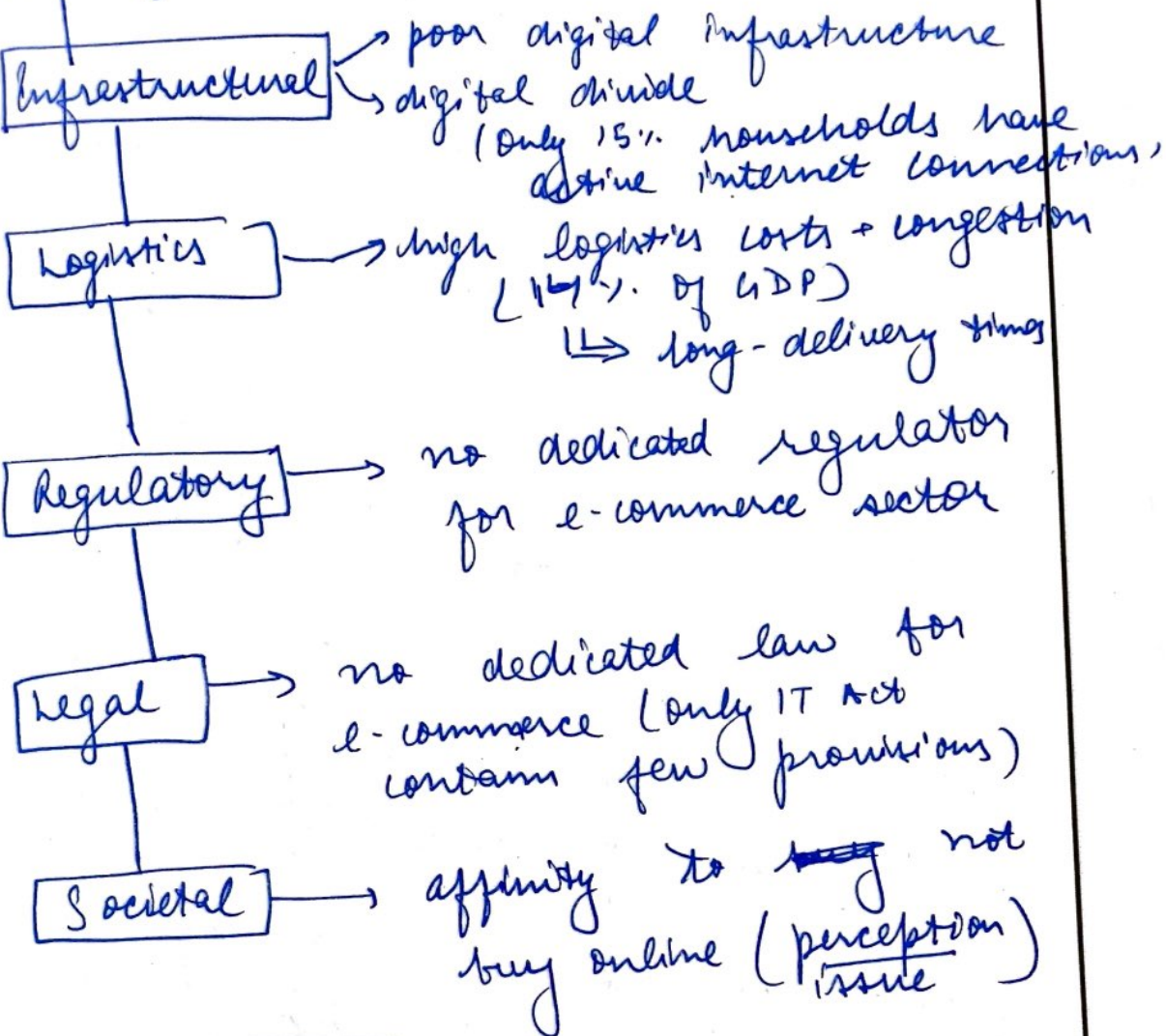
currently the Indian e-commerce industry is valued at \$ 25 billion and is expected to grow to \$ 200 billion by 2025.

Need for regulation

<u>Challenge</u>	<u>Measures in draft e-commerce policy</u>
- Inadequate investment	- Attracting FDI in e-commerce through liberalised FDI norms.
- Information asymmetry.	- Clear information to be provided to customers. - Transparent disclosure of information

Predatory pricing	- Promotes aggregator model - 25% cap on stock of a particular seller.
Protecting physical retailers	- Encourages procurement from indigenous retailers. - Indian shopkeepers are encouraged to integrate.
Protecting customers' interests	- Effective grievance redressal mechanisms. - In line with Consumer Protection Act.
Privacy issues	- Policy seeks to safeguard individual privacy. - In line with BN Srikrishna Committee recommendations
Data localisation	- A copy of data to be stored within India. - Sensitive data to be stored only in India.
Level playing field	- Establishes a level playing field between small & large players

Challenges



Way Forward

The e-commerce sector should aim
for inclusive development, for
example, through Mahila-e-Shakti.

14. Explaining the importance, highlight the achievements of dairy sector in India. Examine whether over-production is the reason for the problems being faced by the dairy industry. Give some solutions to address the problems. **(250 Words) 15**

भारत में डेयरी क्षेत्र के महत्व की व्याख्या करते हुए, इसकी उपलब्धियों पर प्रकाश डालिए। परीक्षण कीजिए कि क्या अति-उत्पादन डेयरी उद्योग द्वारा सामना की जा रही समस्याओं का कारण है। इन समस्याओं को दूर करने के लिए कुछ उपाय सुझाइए।

The dairy sector contributes
to 26% of agricultural GDP
and employs 8% of population.

Importance

1. Additional incomes to farmers
(doubling farmers income by 2022)
2. Labour-intensive → address disguised
unemployment in agriculture.
3. Food & nutritional security → milk & its
production are a rich source of calcium, proteins.
4. Women empowerment → 71% of
dairy workforce comprises of women.

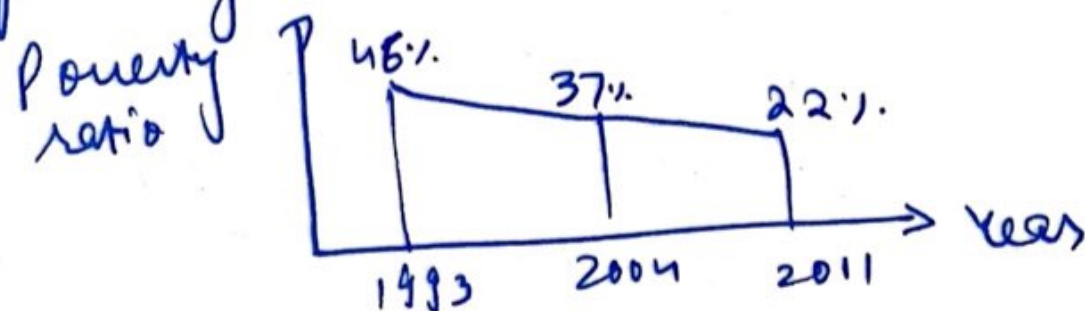
Achievements

1. Increase in milk production →
at 165 million tonnes (2017-18),
India is the largest milk
producer.

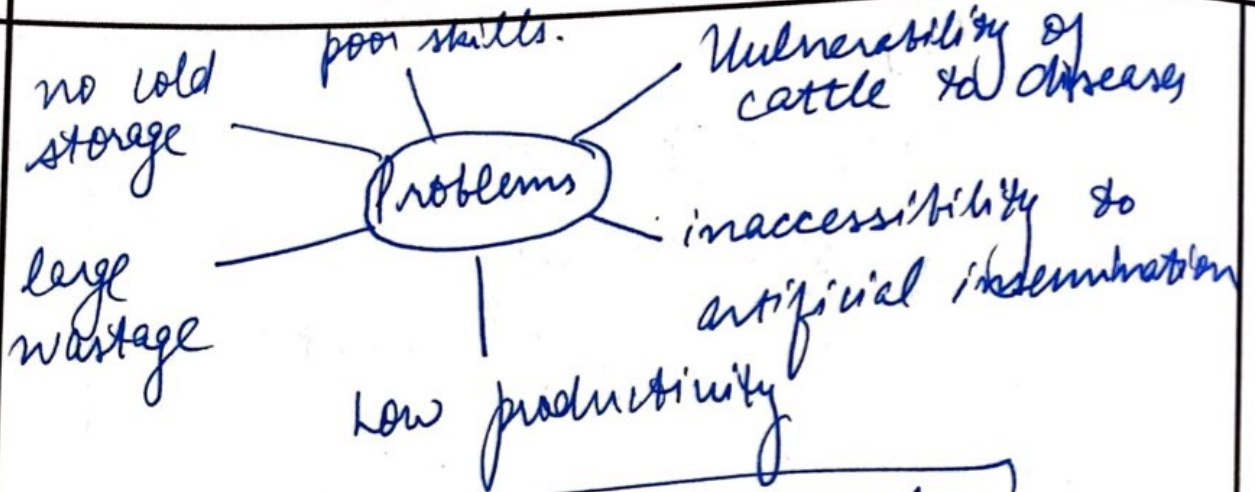
2. Successful cooperative movement
(ex:- Amul)

3. Established forward linkages
with food processing industry
(ex:- Nestle).

4. Socio-economic development in
rural areas. For ex:- decline in
poverty levels.



5. Contributed towards women
empowerment.



Is over-production responsible

Yes

1. Large wastage
2. Lower consumption
3. Low per cattle productivity

No

1. Challenge is due to poor infrastructure.
2. Production is needed to meet nutritional security.

Solutions

- Development of indigenous breeds.
- Spread the reach of artificial insemination.
- Skill development.

Steps taken

- National Bouvine Breeding & Dairy Development Programme
- Rashtriya Gokul Mission
- Dairy Processing & Infrastructure Development Fund.

15. There has been a focus on Textile and Apparels industry in India in recent years. Elaborate the potential of this industry and the challenges that lie in achieving it. What steps have been taken in this regard? **(250 Words) 15**

हाल के वर्षों में भारत में वस्त्र एवं परिधान उद्योग पर ध्यान केंद्रित किया गया है। इस उद्योग की संभावित क्षमता और उसे हासिल करने में निहित चुनौतियों की सविस्तर वर्णन कीजिए। इस संबंध में कौन-से कदम उठाए गए हैं?

Textile & Apparels contributes around 8% to manufacturing GDP of the country.

Potential of textile & apparels sector

1. Job creation → 80 times more labour-intensive than capital goods sector.

2. Export-potential → as China is increasing wages and ceding market, scope exists for increasing India's exports in this sector.

3. Women empowerment → 76% of workforce in this sector comprises of women.

Challenges

1. Informalisation → 83% of firms in textiles sector operate in informal sector.

2. Small-size → small firms in this sector account for 70% of employment, but only 12% of manufacturing output.

3. low labour productivity → $\frac{1}{3}$ rd of that in China.

4. Regulatory cholesterol → cumbersome labour laws.

5. Inadequate capital availability.
6. Outdated technology
7. Lack of skill development
8. High logistics costs (14% of GDP)
9. Losing exports market to Bangladesh and Vietnam.

Steps taken

1. Special package (Rs. 1000 crore) for textile sector.
2. SAATHI (Scheme for Accelerated Adoption of Advanced Technologies to Help Small Industries).
3. Power Ten - to promote powerloom sector.
4. Introduction of fixed-term employment.
5. Rationalisation of labour laws in 4 codes.
6. MUDRA Yojana → for capital availability.

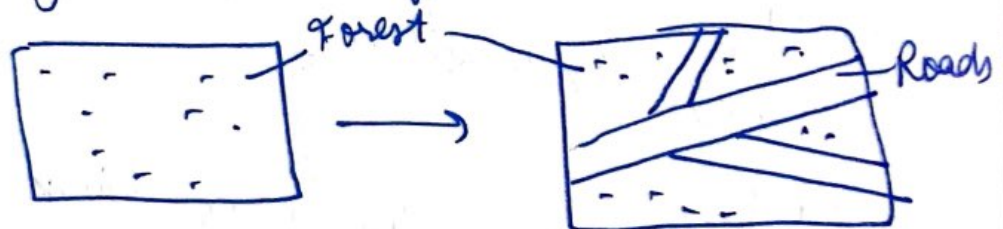
16. How do transportation corridors in biodiversity rich areas impact the wildlife? Examine the current policy framework in this regard. Also, suggest measures to minimise the negative effects while balancing the need for development. (250 Words) 15

जैव विविधता से समृद्ध क्षेत्रों में परिवहन गलियारे वन्य-जीवन को कैसे प्रभावित करते हैं? इस संबंध में वर्तमान नीतिगत ढांचे का परीक्षण कीजिए। साथ ही, विकास की आवश्यकता को संतुलित करते समय इसके नकारात्मक प्रभाव को न्यूनतम करने के उपायों का सुझाव दीजिए।

India hosts 8% of world's species biodiversity and is one of the biodiversity hotspots country.

Transport corridors: impact on wildlife

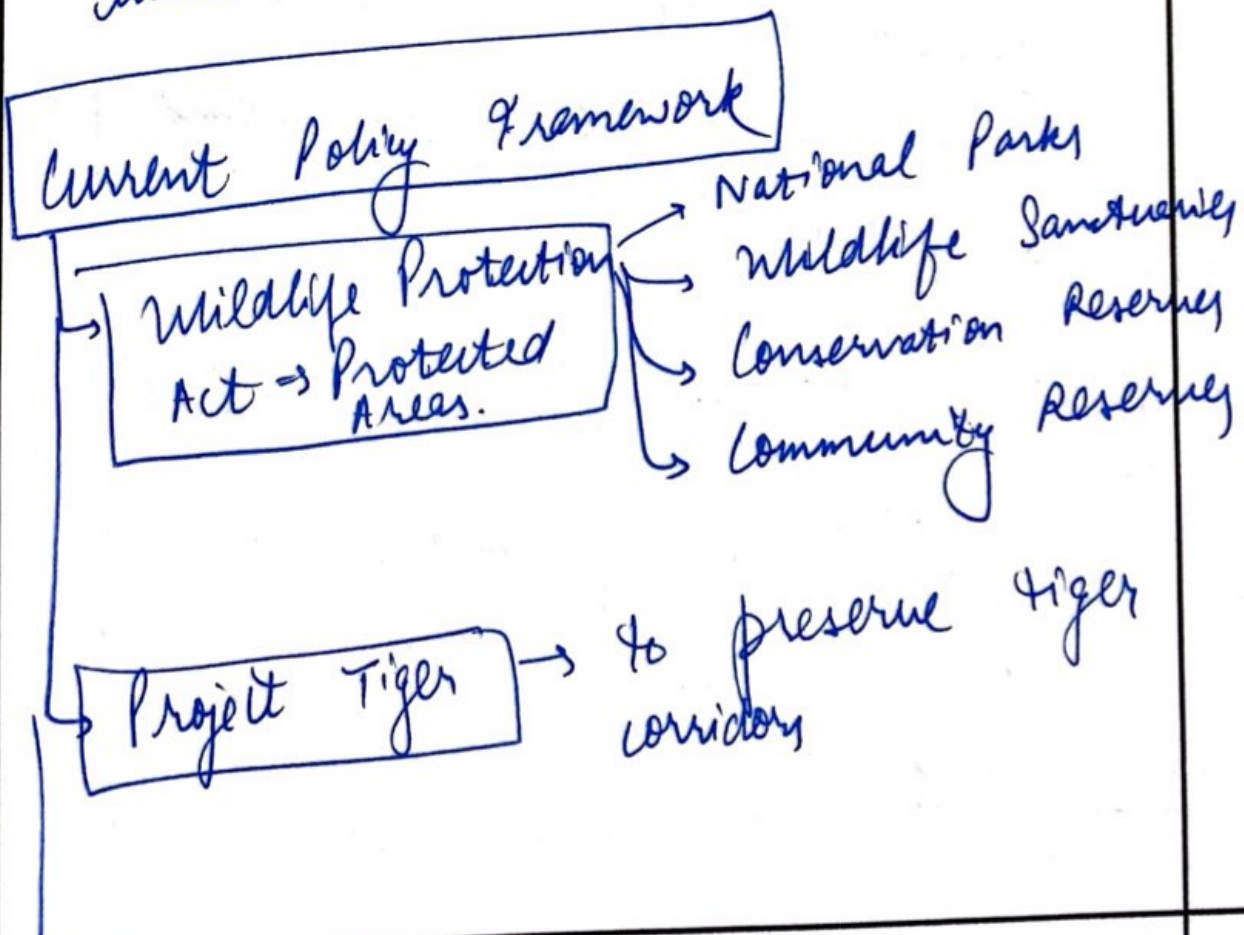
1. Fragmentation of habitat.

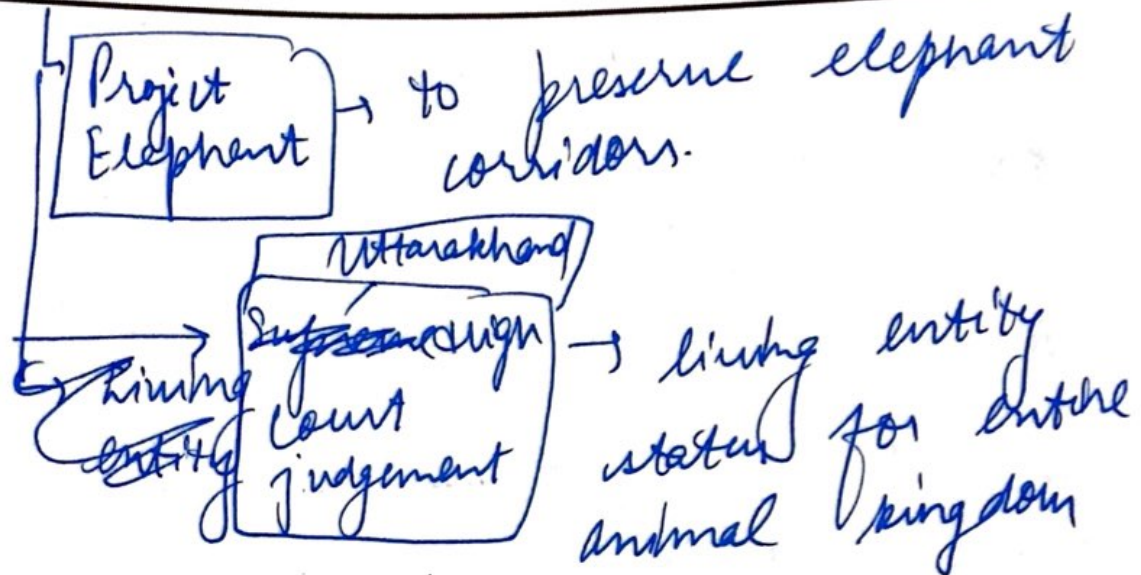


2. Reduced genetic variability due to lower inter-mixing.

3. Increased ~~and~~ killings of animals on roads.

4. Adverse impact due to vehicular pollution.
5. Cutting of trees due to road construction $\Rightarrow$ impact on tree-dwelling species.
6. Reduced migration of animals.
7. Increased man-animal conflicts with wild animals entering human habitations.





Suggested Measures

1. Ecosystem & landscape approach to wildlife conservation.
2. Strengthen Environment Impact Assessment process.
3. Construct underground or overground roads in forests
4. Role of technology (ex:- AFID tags for animals to avoid collisions).
5. No vehicular entry during night (ex:- Bandipore Tiger reserve).

Way forward

The Draft Wildlife Action Plan (2017-31)

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seeks to incorporate progressive approaches to resolve this issue

17. The potential of technology to aid farmers in increasing productivity as well reducing susceptibility to climate change remains underutilized. Identify the reasons for the same and suggest measures to improve technological penetration in agriculture. (250 Words) 15

उत्पादकता में वृद्धि के साथ-साथ जलवायु परिवर्तन के प्रति सुभेद्यता को कम करने हेतु किसानों की सहायता करने के लिए प्रौद्योगिकी की क्षमता का पूर्ण दोहन नहीं हो पाया है। इसके कारणों की पहचान कीजिए और कृषि में प्रौद्योगिकी प्रसार में सुधार हेतु उपाय सुझाइए।

Technology can play a big role in ~~increasing~~ the aid of farmers

Technology: increasing productivity

1. National Mission on Agricultural Extension & Technology (NMAET) ⇒ to provide extension facilities to farmers.

2. e-Choupal ⇒ to provide various advisories to farmers.

3. Marketing (better prices ⇒ better returns ⇒ better investment ⇒ better productivity)
 ↳ e-National Agricultural Market

↳ AGRAMAKNET → marketing information
to farmers

4. Access to modern inputs, ex:-
IFFCO-i-mandi (fertilisers).

Technology: reducing susceptibility to
climate change

1. Precision agriculture
↳ more input use efficiency
 ↓
low water requirement
 ↓
low susceptibility.

2. Role of biotechnology (GM crops -
BT Cotton, Mustard DMH-11).
 ↳ better biotic resistance (pests)
 ↳ abiotic resistance (shorter duration,
 drought adaptability).

3. Use of mobile technology

- ↳ provide weather advisories
- ↳ assessment in crop insurance claims.

Underutilised : reasons

<u>Reason</u>	<u>measures needed</u>
low awareness among farmers	- DD-Kisan channel - Content in local languages.
low capital availability	- Interest Subvention Scheme
Poor extension facilities	- Lab-to-land connect
Apprehensions against technology (ex: GM crops)	- Information & Awareness generation campaign.

Conclusion

Technology can be a big enabler in realising the goal of doubling farmers' incomes by 2022.

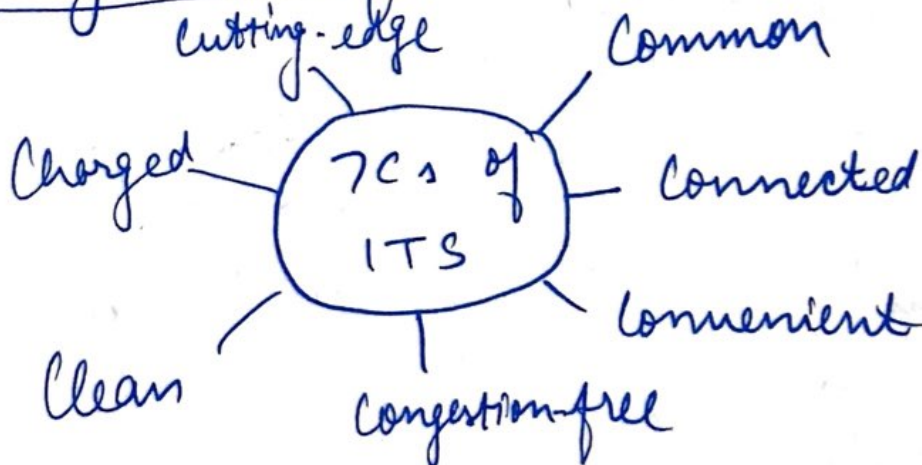
18. What is Intelligent Transportation System (ITS)? Explaining the need of ITS in India, identify the challenges in deploying it. (250 Words) 15

कुशल परिवहन व्यवस्था (इंटेलिजेंट ट्रांसपोर्टेशन सिस्टम: ITS) क्या है? भारत में ITS की आवश्यकता की व्याख्या करते हुए, इसके परिनियोजन में आने वाली चुनौतियों की पहचान कीजिए।

Intelligent Transport Systems (ITS) refers to transport systems that utilize modern technologies such as information technology, artificial intelligence, internet of things.

Examples

1. Intelligent traffic control in Dubai
2. ~~Inte~~ ITS in Mysore.
3. Parkmslot platform in Ujjanwada for automated parking



Need for ITS in India

1. Reduce congestion on roads
(currently 23 crore vehicles).
2. To ensure effective multi-modal integration.
3. To encourage SMART mobility.
4. To promote ease of travel.
5. To reduce local air pollution
from transport sector.
6. To reduce greenhouse gas emissions.
(road sector contributes 20% of GHG
emissions).
7. To promote the use of
electric vehicles in the country.
8. To ensure effective last-mile connectivity.

Challenges in deploying ITS

Institutional

capacity constraints of urban local bodies & ineffective coordination between different transport departments.

Regulatory

no effective regulation of ITS systems

Economic

large capital investment is required in deploying ITS

Social

may increase inequality between haves & have-nots.

Technological

underdeveloped technologies in India such as AI, IOT
misuse of technology is possible.

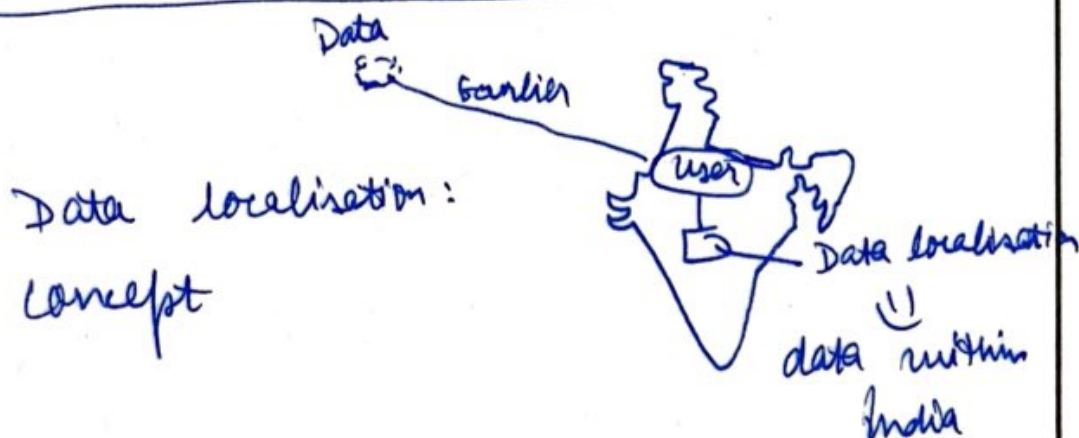
Way Forward

These challenges should be addressed while realising 7C1 as given by Hon'ble Prime Minister in utilising

19. Explain the concept and significance of Data Localisation. Also discuss its limitations in strengthening law enforcement efforts in the context of Srikrishna Committee report and the draft Personal Data Protection Bill, 2018. (250 Words) 15

डेटा लोकलाइजेशन की अवधारणा और महत्व की व्याख्या कीजिए। साथ ही, श्रीकृष्णा समिति की रिपोर्ट और ड्राफ्ट पर्सनल डेटा प्रोटेक्शन बिल, 2018 के संदर्भ में कानून प्रवर्तन प्रयासों को सुदृढ़ करने में इसकी सीमाओं की चर्चा कीजिए।

Data localisation : It means that foreign IT technology companies should store their data ~~within~~ⁱⁿ servers located ~~at~~ within India.



Significance

1. To uphold right to privacy (Puttaswamy case).
2. To ensure accountability of digital platforms.

3. To protect sovereign interests of India.
4. To deal effectively with cyber crimes.
5. To reduce the vulnerability to cyber espionage.
6. To inspire public confidence in digital technologies.
7. To protect sensitive government data.

Justice B.N. Srikrishna Committee Report:
Draft Personal Data Protection Bill, 2018

1. Defines

- ↳ Data principal : owner of data
- ↳ Data fiduciary : controller of data
- ↳ Data processor : processes data.

2. Data localisation.

→ each copy to be stored within India
→ sensitive data: only in India.

3. Data Protection Authority is to be constituted.4. Data Protection Officers in significant fiduciaries.5. Right to be forgotten is to be provided to citizens.6. Data ~~pro~~ trust scores of fiduciaries.Limitations of data localisation

1. Strong opposition by companies
2. May impact foreign investment in India.
3. May prevent competition against Indian companies.
4. Problems due to jurisdictional issues.

Way Forward

The data localisation norms should be

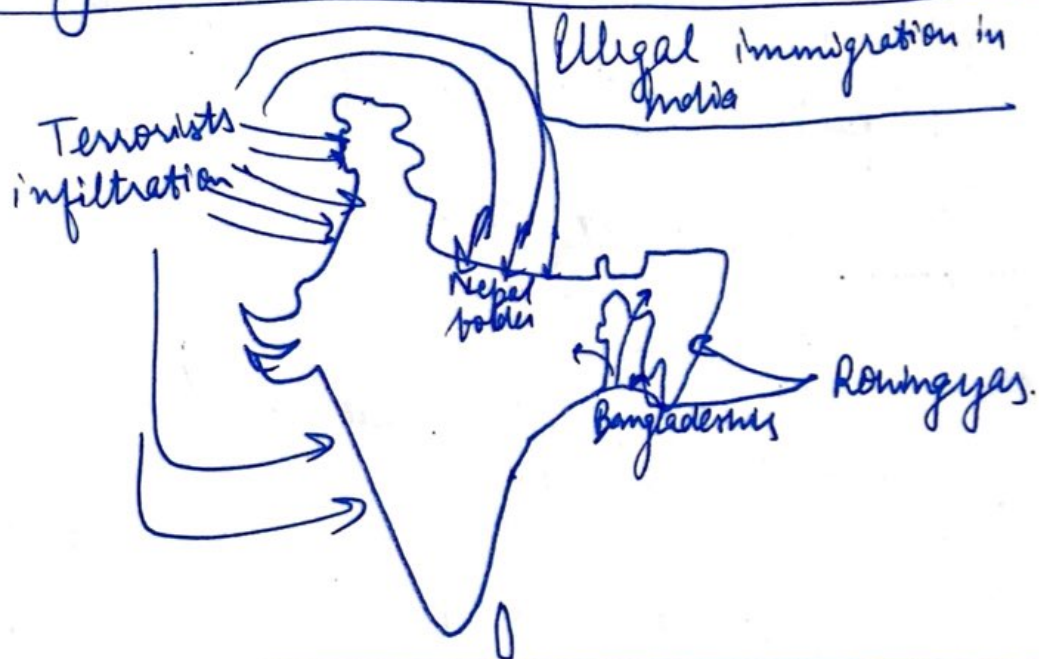
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adopted in the larger interests of India.

20. What is the link between illegal immigration and national security? In this context, critically discuss the exercise of creating a National Register of Citizens in Assam. (250 Words) 15

अवैध आप्रवासन और राष्ट्रीय सुरक्षा के मध्य क्या संबंध है? इस संदर्भ में, असम में नागरिकों के राष्ट्रीय रजिस्टर को तैयार करने की कवायद की समालोचनात्मक चर्चा कीजिए।

According to Ministry of Home Affairs, currently there are 1.5 to 2 crore illegal immigrants living in India.



Link with national security

1. Linker with terrorist organisations
Ex:- ISI link with Arakan Rohingyas
Salvation Army.

2. Arms & Narcotics trafficking in
the guise of illegal immigration.
3. Use of illegal immigrants as
couriers to supply fake Indian
currency notes (FICN).
4. Illegal infiltration of terrorists.
5. volatile security situation in
Assam due to illegal Bangladeshi
immigrants.

"National Register of Citizens" Exercise
in Assam

Rationale

It seeks to identify illegal
immigrants who entered Assam
after 24th March 1971 and
seeks to deport them.

2. Only those who entered Assam before this date would be considered as citizens.

3. It is in line with Assam Accord (1985).

Criticism

1. Many indigenous tribes do not have any identity records.
2. Practical difficulty in deporting illegal migrants.
3. There have many exclusion errors in NRC.
4. It is against the principle of non-refoulement (Dian - Han - Khan judgement by Supreme Court).

Way Forward

The NRC exercise should be done very accurately, while providing ample time to those included. The negotiations should

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also be conducted with Bangladesh in this regard.