



**An Institute for Civil Services**

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**IAS TOPPER'S**

**TEST COPY**

**RUPAL SRIVASTAVA**

**AIR - 113**

**(CSE 2022)**

**GEOGRAPHY OPTIONAL**

# GS SCORE

34377 (1195)  
Geography Test Series 2022

TEST - 07

134

## GEOGRAPHY

Time Allowed: 3 Hrs.

Max. Marks: 250

### Instructions to Candidate

- Please read each of the following instructions carefully before attempting questions.
- There are EIGHT questions divided into TWO SECTIONS and printed in ENGLISH.
- The candidate has to attempt FIVE questions in all.
- Question Nos. 1 and 5 are compulsory and out of the remaining, THREE are to be attempted by choosing at least ONE question from each Section.
- The number of marks carried by a question/part is indicated against it.
- Answers must be written in the medium authorized in the Admission Certificate which must be stated clearly on the cover of this Question-cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in a medium other than the authorized one.
- Word limit in questions, wherever specified, should be adhered to.
- Illustrate your answers with suitable sketches/maps and diagrams, wherever considered necessary. These shall be drawn in the space provided for answering the question itself.
- Attempts of questions shall be counted in sequential order. Unless struck off, the attempt of a question shall be counted even if attempted partly. Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off.

1. Invigilator's Signature \_\_\_\_\_

2. Invigilator's Signature \_\_\_\_\_

Name RUPAL SRIVASTAVA

Mobile No. \_\_\_\_\_

Date \_\_\_\_\_

Signature Rupal

## REMARKS

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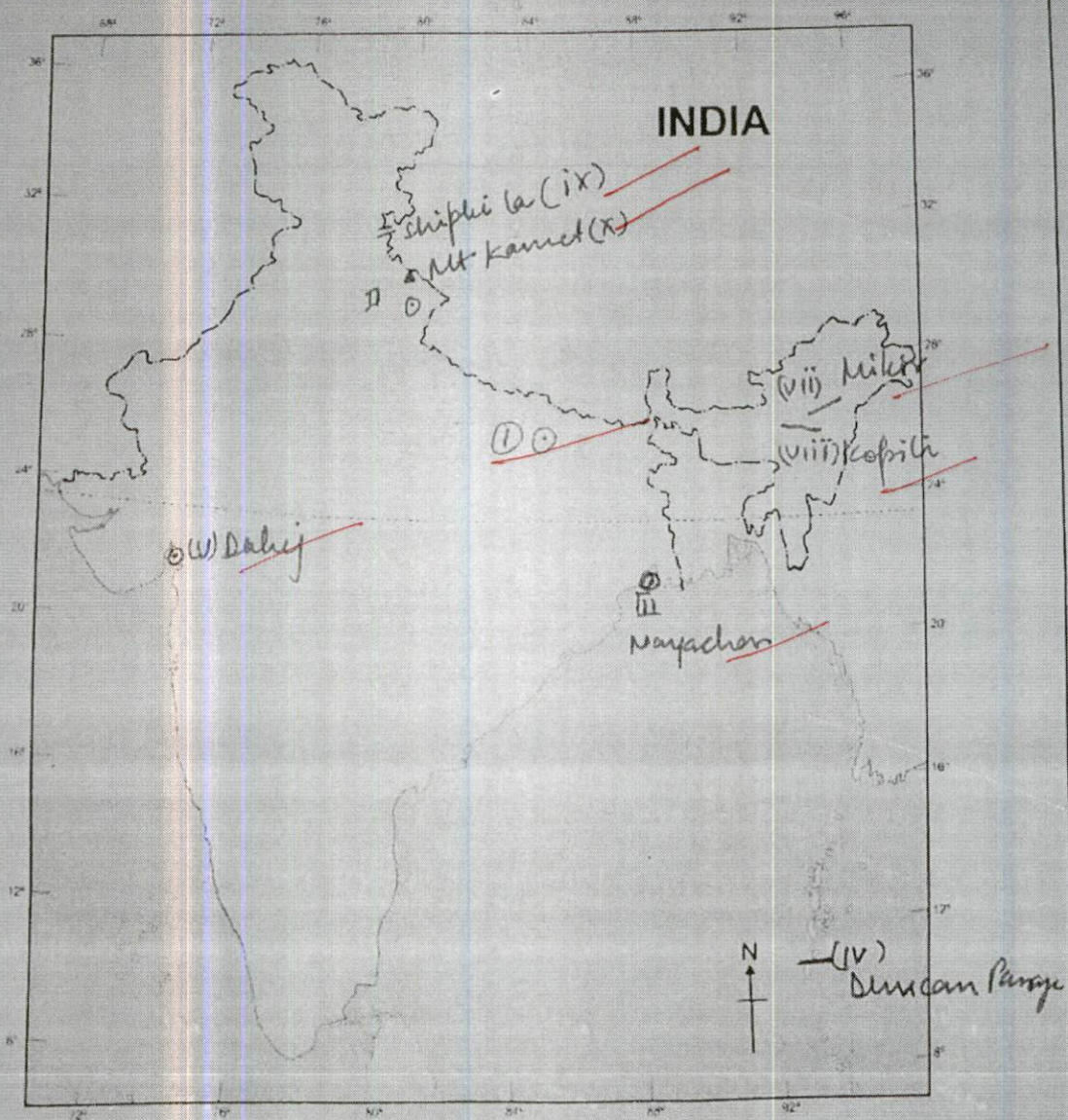




Section - A

1. (a) Locate these map entries on the map and write about 50 words: (20 Marks)

- i) Mirzapur
- ii) Naukuchiatal
- iii) Nayachar
- iv) Duncan Passage
- v) Dahej
- vi) Sarju river
- vii) mikir range
- viii) Kopili River
- ix) Shipki La
- x) Mt Kamet



Remarks



(i) Mirzapur

- (i) located near Varanasi in Uttar Pradesh
- (ii) Important centre for 'Brassware' industry
- (iii) Fertile middle gangetic plains favour cultivation of 'Longda' mango.
- (iv) Temple tourism - Vindhyachal Peeth

(ii) Nainikuntaal

- (i) near Nainital in Uttarakhand
- (ii) 'group of 9 taals' - some of them are Paltital, Mallital, Bheemtal etc.
- (iii) Seismic zone V area of Kumaon Kinlay
- (iv) Important tourist centre.

(iii) Nayagarh

- (i) Sand bar island at the mouth of Ganga in West Bengal
- (ii) Important mangrove ecosystem - Sundarban
- (iii) Local fishery centre

(iv) Duncan Passage

- ↳ narrow passage between South and North Andaman.

Remarks



- ↳ geostrategic significance - as frontier areas.
- ↳ lies in the seismic zone V.

(v) Dahej

- ↳ located at the Gulf of Khambhat coast
- ↳ important petro-chemical industry exist
- ↳ recent - Dahej to Bhavnagar 'RORO'  
(Belty developed)

(vi) Saryu River

- ↳ flows through Uttarakhand
- ↳ Antecedent river - cuts across the Kumaon Himalayas.

(vii) Nikir Hills

- East West running hills
- Between Meghalaya and Southern Assam
- Physiographically similar to Meghalayan plateau - Archaen and Dharwan rocks

(viii) Kopili River

- Southern tributary of the Brahmaputra in Assam

Remarks

→ try to write the climate regions where most of these locations are located.



- (i) Flows through the active 'Kopili Fault' and close to other faults like 'Athercant'
- (ii) prone to 'flooding' due to channel annulsion.

### ix) Shipkila

- (i) — Pass near the Uttarakhand - China Border
- ii) — River Satluj enters through this
- iii) — Strategic significance and also one of the highest motorable passes of India.

### x) Mt. Kamet

- (i) Second highest peak of Uttarakhand after Nanda Devi
- (ii) Lies in the Kumaon / Middle Himalays
- (iii) Complex structure like Nappe folds etc. also found.

Remarks

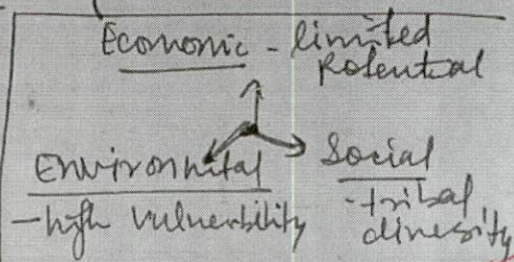


1. (b) Highlight the importance of "Holistic development of islands" Programme in India's island development. (150 Words) (10)

India's Island development programme needs to cover the areas of coastal sand bar islands, Andaman and Nicobar volcanic islands and coral Lakshwadeep island.

A 'holistic development' of islands should address the 3 pillars of development

Importance of Holistic Development



Potential for palm cultivation

- ① Economic diversification -  
 - as limited agricultural potential due to adaptive factors  
 - Also 'low mineral resources'  
 \* Potential for ecotourism

Case:

Lakshwadeep  
 ① Coconut farming and export under ODOP (one district one product)  
 - Organic farming

- ② Safeguard the 'tribal diversity' as some of PVTGs like Sentinelese, Jangas, Jarawas etc found in Andamanen.  
 Thus the need to build 'Social Capital' in development - (en) mapping of tribal knowledge &

Remarks

marketing their produce.

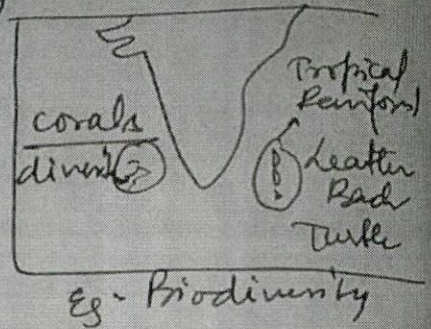


maintaining ecological balance

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③ Environmental sustainability - as some of the critical ecosystem.

Eg Andaman plan say  
NITI Aayog can risk the  
leatherback sanctuary



④ Disaster proofing - According to CEEW, Indian Ocean prone to 15% of tropical cyclones  
thus development of 'bioshield'

Also connectivity to mainland must be maintained for critical resources. Along with this, the islands also have geostrategic significance.

\* Also mention their role in  
geostrategic aspect i.e. near to choke points  
of malacca Strait.

\* these islands helps in enhancing India's  
trade & economic potential by develop-  
ment - of - major port set -

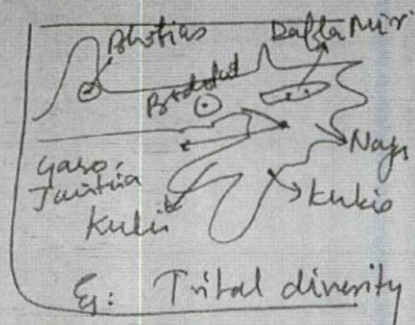
Remarks



1. (c) To what extent 'tribal autonomous councils' have fulfilled the aspiration of tribals of north-east regions. Discuss. (150 Words) (10)

The 6th schedule of the constitution aimed to establish the 'tribal autonomous councils' with a view to safeguard tribal identity and foster inclusive development.

Tribal autonomous councils in the North-east have been established in the districts and also at regional levels.



### Success

- ① Improving the political representation of tribals in the decision making.  
Eg: List of regional parties like Garo Jaintia Khasi Mura.
- ② Development of human capital by spreading education through missionaries.  
Eg: North East literacy higher than average national.
- ③ Creation of localized employment of the labour intensive sector.

talkpoint more related to TAC.

### Remarks

\* can add role of these autonomous councils in revenue devolution & hence addressing regional disparity.

\* further their role in preservation of cultural identity & improving demographic



Ex: like cooperative in Assam - Imphal  
expert

However, there have been limitations also -

\* mention  
financial  
devotion  
isn't upto  
mark.

① Issue of connectivity of northeast to  
mainland is not yet achieved.

\* further  
mod of  
TAC  
marred  
with  
corruption

② Rise of ethnic conflicts can still be  
seen Ex: Bnei-Balang issue between  
Tripura and Mizoram

③ Demands of secessionism → Ex: 'Tippaland',  
'Nagaland'

④ Threats of insurgency and illicit drug trade.

\* women  
issues  
neglected  
citing  
tribal  
cultural  
practices

there is a need to renew the  
tribes autonomous council with fixed  
incentive and connectivity to north-east  
under NE-SARDP of Bharatmala

⑤ Naga tribal council.

Remarks



1. (d) Write a short note on Conurbation

(150 Words) (10)

The term conurbation was first given by Pattrick Geddes. It refers to a continuous urban growth with multiple nuclei centres generally along arterial transport routes.

The earliest conurbation was formed in USA - BOWASH - (Boston - New York - Baltimore - Washington Dc)

### Features

① High economic potential due to development of industrial 'growth poles' of Perraux

② Rapid urbanization and population growth due to migration

③ Centres of innovation diffusion.

Eg: Japan  
Tokyo  
Yokohama  
Taipei  
Kyoto

Urban centres

### Conurbation in India

According to NTI Aayog, the conurbations in India can be seen along the industrial corridors' leading to the propulsive growth

Remarks

- \* causes of conurbation could be written
- a) urban sprawl
  - b) Industrial corridors
  - c) Transportation arteries
  - d) migration, reverse migration

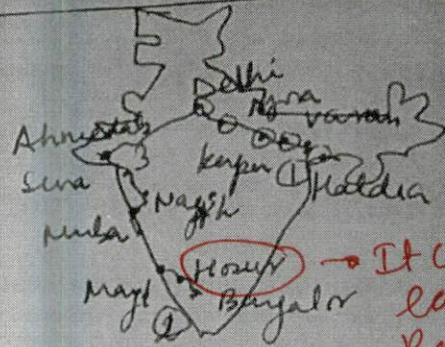
e) high price rise in main city or rise of many C.D.



① Along the Eastern Dedicated Freight Corridor - (Delhi to Kaldia)

② Along Delhi Mumbai Industrial Corridor

③ Mini conurbation - Bangalore - Mangalore



en Hobli-Belgaum

Agra-

Agra-mathura

### Conurbation Problems

Urban sprawl and slum

Waste and pollution to heavy industries

Can lead to suction pump effect

It is essential to plan the growth of conurbation and also link them to smaller town by feeder routes

Remarks



2. (a) With the development of Smart Cities there will occur a greater migration from urban and rural areas to these Smart Cities. Discuss various urban and peri-urban issues resulting from the prospective spate of migration to these futuristic cities. Suggest measures to be taken for facing these challenges. (250 Words) (20)

The launch of smart cities mission to 100+ cities aims to improve the economic levels and 'quality of life' of the rapidly urbanising population. 2. ease of living improvements

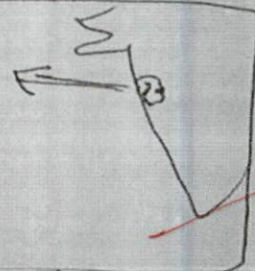
It deploys the strategy of retrofitting, red envelopment and area based development.

However, due to increased migration, these cities will create a new set of challenges.

① Increasing urban sprawl and slum development in the urban and periurban areas.

According to Niti Aayog, the slum population can increase from present 6 cr to almost 9 cr by 2030.

Eg: Mumbai - Dharavi Slum = 1 million  
 ↳ high disease outbreaks  
 ↳ 4000 typhoid cases  
 ↳ pollution



Remarks

→ Give a brief of why migration happens to these spaces i.e. absence of counter magnets or absence of intervening opportunity.



→ Attention Increased instances of outbreak of diseases i.e. COVID-19, Swine flu etc.

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→ Increasing social disparity within societies

② Increased pressure on environmental resources like groundwater, green spaces etc.

Ex: According to UN Habitat, Chennai (a smart city) expected to run out of water by 2020.

③ Increase waste generation due to high population influx

Eg: Rise of Delhi Bhalsana landfill @ 10 mtr/year

Eg: Kanpur  
most polluted stretch of Ganga at Kanpur  
Source: WRI Report

④ Urban disasters - high population influx in these smart cities increase the urban heat island effect

Case: Shimla floods  
- a smart city  
- Tourist footfall  
- extensive hotel industry

⑤ Issues of urban mobility like traffic congestion

Case: Bangalore  
- IT hub, smart city  
Average Traffic = 3hr/day

→ good examples

To overcome these issues and achieve the true aim of 'smart' and 'innovative centres' of smart city, following can be done.

Remarks



13

① 'Smart housing' - planned slum development by high rise, high density settlements

Ex: Brazil  
'favelas' = studio room, apartment

② 'Smart resource management'

① use of GIS based mapping by Cartosat, Risat for groundwater aquifer

② 'water metering' on lines of South Korea

③ 'Smart waste management' by the promotion of circular economy and technologies like 'Pyrasol'

Case: Bhopal  
- 1st e-waste clinic in India in collab with CLCB.

→ good examples

④ 'Smart urban mobility' using e-vehicles, metro, hyperloop etc

Case: Gurakhpur  
Smart city  
- proposal to develop 'Trams' or 'overhead Raths.'

⑤ 'Smart urban morphology' using blue-green infrastructure and materials like 'bioswales', 'geotextiles'

Case: China  
'sponge city'  
- geotextile  
- water percolate  
- aquifer

Remarks

\* Also mention role of various govt schemes in making/addressing migration issue i.e. Satellite cities, & more growth poles.



Along with these measures, development of center magnets as level 2 smart cities can help to absorb waves of migration by acting as 'intervening centres' of Stouffer.

The rapid urbanisation expected to reach 51% from current 33% (MOHUA Report) can thus be effectively planned.

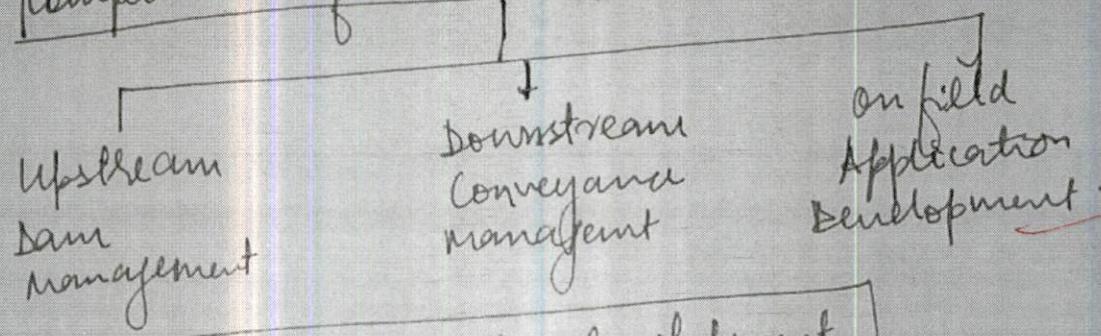
- \* you could have concluded that developing growth poles or growth foci as envisioned by R. P. Mishra to address migration.
- \* You have written good examples keep it up.



2. (b) Discuss the role of Command Area Development Programmes in improving farmers socio-economic conditions. (200 Words) (15)

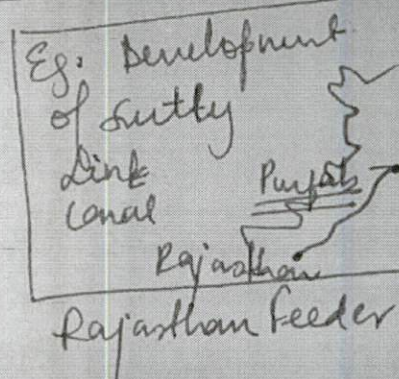
The Command Area Development Plan was launched in the 5th Five Year Plan in 1973-74 with the aim to improve the irrigation utilization and thus help in socio economic development

### Components of Command Area Development



### Role in Socio Economic development

① Improved irrigation efficiency as the ultimate utilization potential was 110mha but developed was only 50-90mha



② Development of backward areas under the watershed based approach of 'basin led development'.

Remarks



Es: the ~~Sharda~~ canal system -  
one of the largest in India

Uttarakhand  
& UP  
watershed  
in Bareilly etc

③ Improved power generation  
due to the ~~multi purpose~~  
river valley projects in the  
upstream

Es: ~~Panchet~~ Tadainga  
Damodar  
River = Power gen

Es: SVC Power

④ Development of extensive system of canals  
and on-farm drip and sprinkler for improving  
crop yields. [ Increase in production  
from 70 mT in 1970  $\rightarrow$  310 mT  
(ESI-2022) in 2020 ]

however, it also had certain limitations

① Limited to selected regions only.

Es: Neglect of north eastern areas


② Focussed on the agricultural production but  
not the resource use efficiency

Es: Still average irrigation efficiency is  $\sim 35\%$

Remarks



③ the structural interventions of dams, canals etc. increased the risk of disaster vulnerability

eg:   
Taki Dam  
breach

There is a need for a Command Area Development Program 2.0 which focuses not just on irrigation but also on crop diversification, sprinkled development, rainwater harvesting by linking it to Jal Shakti Abhiyaan.

Remarks



2. (c) 'Hilly area development programmes can't ignore the geological characteristics and related vulnerability of the region'. Elucidate. (200 Words) (15)

Hilly area development programmes in the Himalayas, Purvanchal Hills and Western Ghats cannot ignore the geological features and vulnerabilities for the sustainable development.

Himalayas and Purvanchal

Western Ghats

① Geological features

① Sedimentary rock structure (Eg. Fluvial sediments in Shivaliks, Marine sediments in Greater and Middle)

② Critical fault lines due to active-plate collision of Asian-Eurasian plate  
Eg: Dehradun Ridge, Synclinal bends.

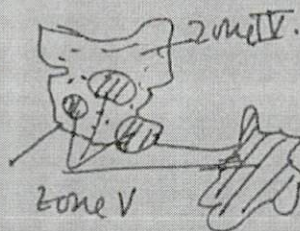
① Resistant mountains and thus low water percolation (Basaltic, archaen rocks)

② Slope modification due to extensive plantation  
eg: Kerala Tea and coffee plantation.

③ Short swift drainage cutting across (superimposed)

Vulnerabilities

① Seismic zonation and landslide prone



Vulnerabilities

① Heavy rainfall (>2000 mm rain)

Remarks

\* you have arranged both the dimensions in a fair manner, but could have related them therewith i.e. Geological features → steps to be taken to address



low factor of safety of the region

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Case: Manipur landslide

→ Ijai River channel

→ 12 tunnel in 6km

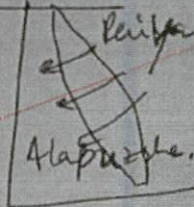
→ Zone V

② >2000 dams in the western ghats - threat of Reservoir Seismicity

Case: Kerala landslides

- 30% deformation in Wayanad

- All 34 dams overfilled



Strategy for development

① Hazard Vulnerability Risk Assessment

- by GIS based mapping of fault lines in Bhima fault, Kopili fault etc.

② Delineation of Eco sensitive zones (Aroop Chopra and Kasturirangan Committee)

③ Watershed Based development using models of ecotourism

Eg: Sikkim & Arunachal Pradesh  
- Horticulture development organic farm under OBOP & Eco tourism  
Kiwi, Lily

④ Decentralised development by autonomous tribal councils utilizing the indigenous knowledge.

Eg: Recent Bodoland Territorial reorganisation

good interlinkage.

⑤ Ice tower in Ladakh to promote water for agriculture

Remarks



⑧ Hilly area development can unleash the economic development in line with the local ecology and inclusive development of local tribal diversity.

Remarks



Section - B

5. (a) 'Bazar based model of cities' properly explains most of Indian cities morphology, critically analyse. (150 Words) (10)

The 'Bazar model of cities' was uniquely given for Indian Central Business District (CBD) by Metcalf

This model of cities can be seen to a great extent in the old presidency towns of India.

Relevance to Indian cities

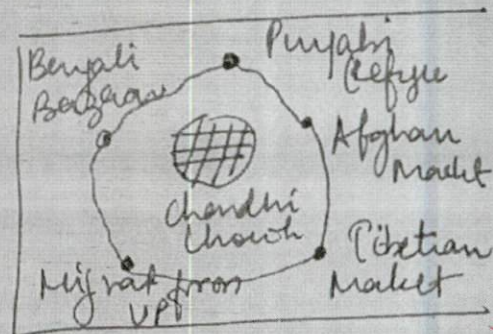
① The 'Bazaar' model CBD is not like the American CBD which is purely commercial.

It has residential features also.

Eg: Chandni Chowk CBD → Commercial market - clothes, electronic  
↓  
'Residential kothis'

Residential areas  
Commercial shops

② The presence of linguistic groups around the CBD can be seen in India due to waves of migration



good illustration

③ The CBD does not 'die' after the working hours and still remains vibrant.

Remarks

Also mention how most of Indian cities lack vertical rise & has horizontal rise depicting bazar based model.



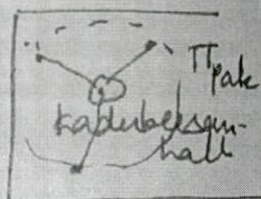
eg: Old Lucknow - Ameenabad  
CBD - 'market centre' - Chikanbazar  
 also food centre - 'Lucknowi Biryani'  
 etc  
 hence very active

However Bazaar Model has some limitations

① It cannot explain the development of port cities which was explained by the Port model. Eg: Kolkata, Mumbai

② The recent 'trends of urbanization' have changed the nature of CBD

Eg: Rise of IT Parks in Bangalore



③ Also does not account for the recent 'residential change' of high rise building' due to migration Eg: Greater Noida

The Bazaar model explained the historical and cultural towns well. But it could not address the neo-urban cities

Remarks



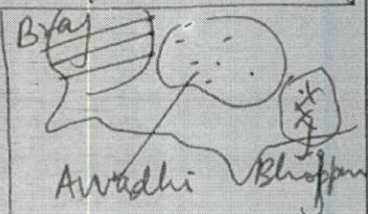
5. (b) Cultural diversity of a place is the manifestation of the demographic pattern of that region. Elucidate. (150 Words) (10)

Cultural diversity is closely linked to the idea of Vidaal's 'genre-de-vies' (ways of life) of people. Thus it manifests the demographic pattern of the region.

4.5

Manifestation of demographic pattern on cultural diversity can be seen as follows.

① Existence of different linguistic races affect the language of the region



Eg: different dialects in UP due to different demographic pattern.

② The age-sex distribution also determines the culture of societies

Bihar	North East
- lower sex ratio (~930)	- higher sex ratio (>950)
- Patriarchal setup	- hence many Matrilineal societies
	Eg: Garo

Good depiction of core argument

③ The patterns of migration also shape the cultural diversity of a region. It leads to development of 'cultural hearths'

Cultural diversity → food  
→ clothing  
→ value systems for women

Remarks



Es: Bangalore local culture of 'Malnad' cuisine  
 Also impacted by Rise of North  
 western culture Indian foods - Ditti Chokla  
 - of Macdonalization

④ The presence of tribal groups leads to culture of environmentalism

Eg: Odisha - largest tribal population  
 culture of tree-worship,  
 hill worship = Eg: Niyangiri  
 by Dongria khonds

The demographic patterns interact with the physical landscape and lead to the development of the 'Cultural Landscape' as described by Carl Sauer

\* you seem to have written a bit of confusing answer, please try to decode the question in correct manner.

\* try to answer cultural diversity → food, how food consuming pattern is determined by demographic patterns  
 ie youth → fast food consumption  
 old → more focus on local varieties,  
 write on such parameters.



5. (c) Connectivity is the solution to address regional inequalities in India. Critically Examine. (150 Words) (10)

Connectivity is the process of establishment of pathways for the 'spread of growth' according to Gunnar Myrdal.

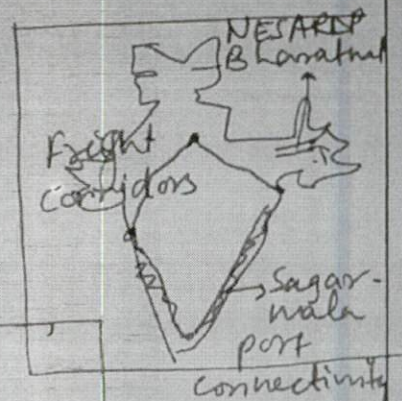
It can address regional inequalities in India as follows.

### ① Transport Connectivity

↳ Reaching out the far flung areas, underdeveloped regions and hinterlands

Eg: North East - NE SAPDP

- all weather road connectivity via the chicken neck corridor to all state capitals - establish hubs for export



### ② Distribution of Agrarian benefits to neglected areas of green revolution

Eg: Link of Dryland areas via the dryland development Bundelkhand, Maharashtra

### ③ Digital connectivity

↳ spread of fiber optic cables under the Bharatnet to 2.5 lakh gram Panchayat

Remarks

It will lead to diffusion of ideas from urban areas to rural areas etc...



to address Urban-Rural digital divide

Urban	Rural
nearly 42% households	only 14% households

Fig: Internet

However, along with this it is also essential to develop

the capacity of local manufacturing and labour industry to avail the benefits of growth

Eg: MSME cluster development

Along with this, in the post modern era, social connectivity by ~~Bridging~~ Bridging, Linking and Bonding is essential for fostering social capital (Robert Putman's view)

\* Also bring in some dimensions like how road density, railway connectivity helps in determining development of a region.

Remarks



5. (d) Write a short note on reasons behind Niti Ayog replacing Planning commission. (150 Words) (10)

The erstwhile Planning Commission <sup>was</sup> replaced by the NITI Aayog in 2015 for the development of a 'New India'

### Reasons for Niti Aayog replacing PC

- ① The Planning Commission was ~~overburdened~~ with the task of financial planning and developmental planning. thus

Niti Aayog  
Development

Finance Commission  
- Finance.

- ② ~~limited diversification~~ of the Planning Commission due to rigid structure

- ③ Niti Aayog - could foster the spirit of cooperative federalism by increasing representation from states under 'Team India' group.

- ④ ~~Redundant~~ policy making - ineffective to ~~chose~~ tackle the emergent issues.

→ mention some weakness/woopholes in

working of planning commission & think how it lead to bringing in off NITI aayog.

Remarks



③ Since the idea of Five Year Plan has ~~gone~~ away with, it was essential to have a new 'Think Tank' for India.

Niti Aayog has helped in innovative development models by competitive and collaborative federalism in this New India.

Remarks

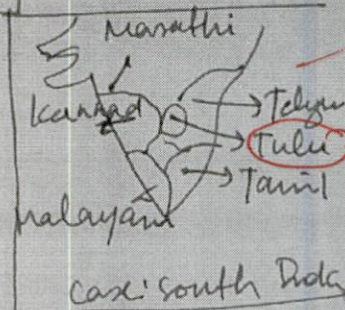


5. (e) The extensive geographical spread of the country is conducive to the growth of regional diversities in social milieu. Explain. (150 Words) (10)

It is often said that there are 'pockets of mini Indias' within India. The extensive geographical spread of country from Kashmir to Kanyakumari and Arunachal to Rajasthan has supported this

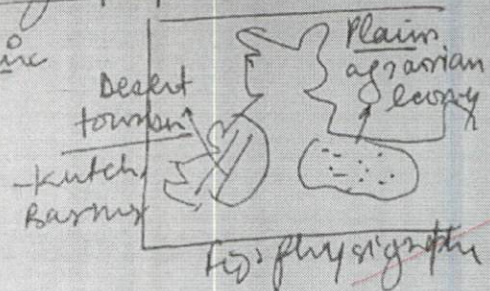
Regional diversity due to spread

- ① Presence of different ethnic groups in diverse parts of the country. Thus 12 different linguistic provinces



It is coastal Karnataka & some Kerala region.

- ② Diversity due to physiography and thus different economic development

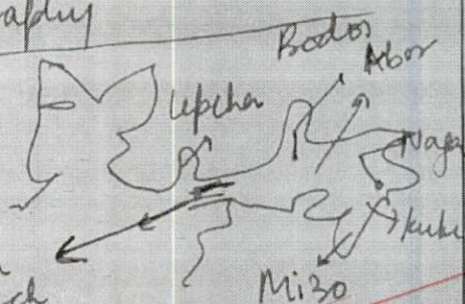


- ③ Diversity due to racial segregations linked to geography

E.g. North East

by narrow land strip →

narrow chicken neck



fair dimension on 5.

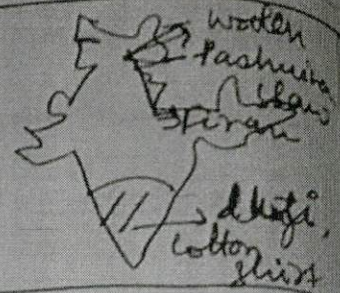
Remarks

\* could also add role of various other dimension on diversities i.e. food, clothing & demography, status of women.



fair  
diversity

⑫ Geographical spread determines on the climate thus shaping culture. (Environmental determinism of Ellen Semple)



Thus the geographical spread affects the cultural diversity of India. It is rightly quoted as 'Kos-kos par parni badle, Chae kos par Bani' (the water changes at every mile and then the language)

Remarks



6. (a) India currently holds the largest demographic dividend of the world which provides opportunity to export services to the ageing developed nations and enhance its economic growth. Analyze. (250 Words) (20)

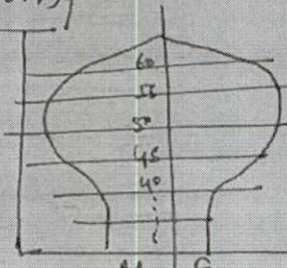
According to the UN World Population Report, India's demographic dividend (65% of working age population) is expected to last for the next 35-40 years.

This thus provides a 'window of opportunity' to export services to the ageing developed nations.

### Requirements of the Developed nations

- ① Declining labour force in the manufacturing sectors.

Es: Japan → hub of semi-conductor manufacturing with a TFR < 1.4



Age sex Pyramid of developed nation

+ could also add case of Russia registering negative population growth.

- ② Increase in 'dependency ratio' leading to stress over the working age population

Es: UK - pro migration policy and Sweden's 'Time for India' drive to attract migrants.

good examples

- ③ Requirement of a 'Care economy' for the old age population. in terms of healthcare

Remarks

→ Show some trends which are developing where Indian medical professions can move to give services i.e. Kerala → middle east → up → middle east etc..



sector - medicines, nursing etc.

Eg ① Japan - 'time bank scheme' - affords the young population for the hours served to old

② High medicine demand during COVID by the Western 'aged' nations.

To utilise this 'opportunity window', RBI and NITI Aayog have collectively advised a road map. The steps can be as follows -

① Investing in training & skilling the young labour force to suit the market requirements.  
Ex: McKinsey Report - only 40% of graduates - employable

Eg:

Launch of collective skilling mission with Japan - under Skill India.

② Developing partnerships and free trade agreements for the export of services  
Es: Ind-Australia - 'ECTA' deal where significant labours.

③ Development of medical and healthcare sector.  
Services like 'medical tourism' and

Remarks



manufacturing of bulk drugs under the production linked incentive schemes can help.

Eg: Uttarakhand and Himachal (Baddi)

Jamnagar. centre for Traditional medicine.

④ focussing on providing mental and psychosocial healthcare for the old aged potential via the internet medium

Ex:  
Export of the  
'MANAS' app  
services to countries.

Good examples

This will intern help in the economic growth of India -

① ~~Already~~ one of highest recipient of remittances, which will further increase.

② ~~Impetus~~ to the global trade share in the service sector.

③ Domestic 'special economic zones' for the medical parks Eg: European Union investment in Bangalore medicine park.

④ Can lead to higher FDI growth as the developed countries have higher propensity to invest.

Remarks



however, care must be taken to maintain the 'demographic balance' within India also. this window of opportunity also has to boost the domestic manufacturing sector. thus careful planning of migration is needed.

+ Also mention how this will also create brain drain in long run & how this is to be coped up in India.

Remarks

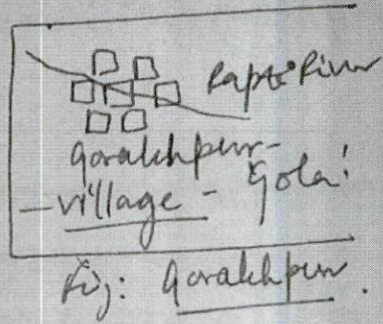


6. (b) Give an account of morphology of rural settlement in the middle Ganga Plain of India. (200 Words) (15)

The middle Ganga Plain comprises of the floodplains between Gomti - Ghagra - Gandak thus forming the Awadh plains and parts of Terai plains.

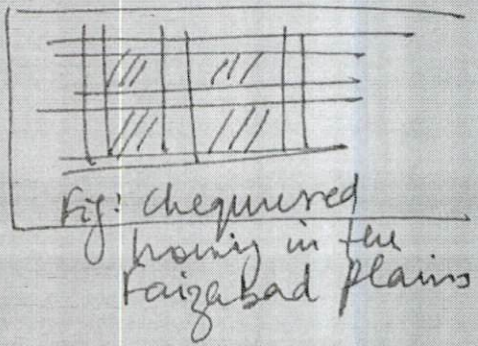
The morphology of rural settlement in this area can be seen as follows -

- ① Compact nucleated settlements  
- due to fertile agriculture setup especially sugarcane, rice dense settlements can be seen.

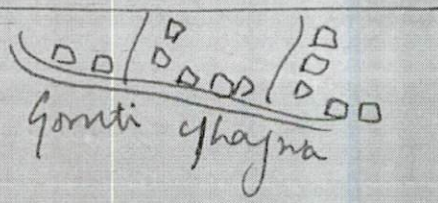


The arrangement of the settlements thus follows different patterns

- ① Presence of rectangular structures - around the farms.



- ② Also some of the linear settlements can be found along the river length



Remarks

mention role of rail networks, road networks in influencing settlements pattern.



### The material for construction

- ① Due to abundant availability of building materials like cement, sand, clayey loams the houses are of these materials.  
(unlike the Bamboo houses of villages in Assam)

### Impact of climate on settlement

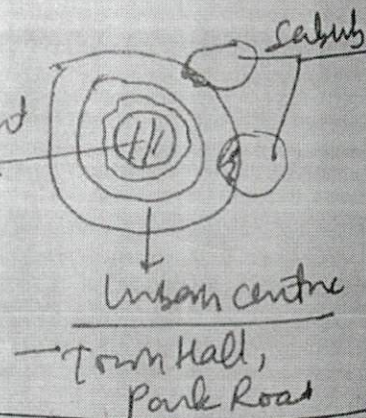
- ① The rural settlements are prone to flooding due to antecedent rivers in their mature stage. Hence the presence of raised plinth can be seen. as

Case: flooding of Kapti river in Goralhpur in 2000 → raising of mud houses.

### Impact of economy and changes due to ~~also~~ migration

- ① With the expansion of localized manufacturing in the area and MSME sectors, mini CBDs are also formed in rural areas.

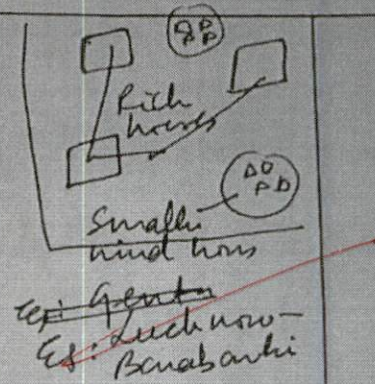
Eg: Rise of fertilizer plant in Goralhpur



Remarks



② Impact of migration - Now UP is one of the largest recipient of migrants, improved standards of living have led to changes in rural settlements leading to gentrification.



Rural settlements have changed with the development. It is however also essential to climate proof them.

- \* Also mention how some of government schemes have altered rural settlement pattern (e.g.) under Indira Awas Yojana rural settlements have been divided into two settlements i.e. old & New settlements.
- \* Also mention role of religious place or rural haat in rural settlements, speak on social segregation etc...



6. (c) Enumerate the measures taken and challenges faced in regional planning in different parts of the country. (200 Words) (15)

the vast geographical extent of India necessitates the planning on a regional basis unlike the 'one size fits all' approach.

### Regional planning of different areas

#### ① Hill Area Planning

##### Challenges

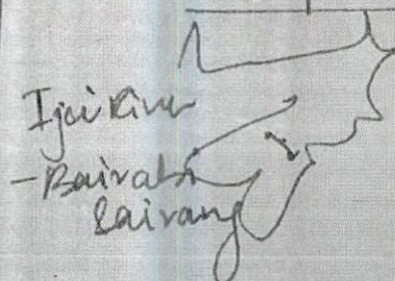
- ① Physiography - Presence of sedimentary rock in Himalayas - prone to earthquakes, landslide
- ② Drainage pattern - of Himalayas = antecedent and Western Ghats = superimposed
- ③ Critical ecosystem Biodiversity hotspots
- ④ Limited economic/agricultural potential
- ⑤ Tribal diversity  
E: Bhutias, Lepchas  
- Todas, Irulas

##### Measures

- ① Hasard Vulnerability Zonation by GIS
- ② Watershed based approach under Jal Shakti
- ③ Ecotourism and horticulture  
E: Sikkim = organic tourism

##### Case: Mandiyan landslide

1.2 turns in 6 km  
landslide season zone IV



Remarks



## II Dryland Areas Challenges

- ① Limited agriculture potential as marginal rainfall ( $< 75 \text{ cm}$ )
- ② Risk of socio-economic droughts
- ③ High levels of poverty, farmer suicides  
Eg: Marathwada - MH  
~~maximum farmer suicides due to crop failure~~

## Measures

- ① Crop diversification + non crop  
oilseed  
mustard  
Dairy development  
milklets  
- Kodo, Kutlu
- ② Income support schemes. Eg: PM-KISAN  
KCC loans
- ③ Watershed and Rainwater Harvesting  
Eg: Bundelkhand - Kuan  
Talab Tijao Abhyasa

## III Island and Coastal Areas

- ① Threats of disaster and sea level rise  
(10% of tropical cyclones in Indian Ocean - ~~UNEP~~ Report)
- ② Coastal tribal community = Eg: Santikela, Todas, etc
- ③ Salinization of soil

- ① Sustainable aquaculture development by local participation
- ② Export-led growth under Sagorhala.
- ③ Eco cities concept  
Eg: Port Blair.

Remarks

\* write more on watershed planning, desert area planning etc...



#### IV Urban Areas

- Challenges
- ① Sprawl and migration
  - ② Urban disasters

Sol<sup>n</sup> → ~~Smart city approach, Eco-cities model~~

#### Tribal Areas

- ① Land alienation (Xaxa Report = 80% dependence on land)
- ② Low human development

Sol<sup>n</sup> - 'Panchsheel' for tribal development

Every region must focus on socially relevant development models which balance the economic viability and environmental sustainability.

\* You have written a good answer following challenges faced & measures taken approach, keep it up.

Remarks



7. (a) Development of satellite towns is the important remedy for tackling the issue of haphazard urban development. How far do you agree with this statement? Illustrate. (250 Words) (20)

According to World Bank, the Indian urbanization is currently in its 'dysfunctional' stage due to haphazard development. While presently 33% of population lives in urban areas, it is expected to increase to 51% by 2050 (NITI Aayog Report).

Thus the development of satellite towns, smaller towns around the large urban centres, can help to a great extent.

### Problems with haphazard urban development -

① Unplanned urban sprawl and growth of slums leading to a 'bloated city' (Lewis Mumford)

Case: Kolkata  
- 23 million population and 33% living in slums - like Sonagachi, Budge Budge

② Problems of urban resource stress and waste generation

Landfill at Ghazipur  
- Asia's largest  
- 65 mtr (20 mtr < 65 mtr) <sup>Qutub minar</sup>

→ (in) Bangalore lost 37% of its wetlands b/w

Remarks

2000-2015 AIC to a report.  
or

recent Gowathi lake banned for fishing due to overfishing cases.

13



③ Conflict and crimes due to competition for the jobs as labour migration (due to Rann theory)

Eg: Bangalore - Burning of hindi signboards.

2019

Mumbai  
Floods

300cm rainfall in 24hr  
- due to convection of storm + sewer drains

Case: Mumbai

④ Risk of 'urban disasters' due to urban heat dome and concretization

This development of 'satellite towns' can help in the following

ways-

① Act as centres of counter migration and develop as local growth poles supporting main centre

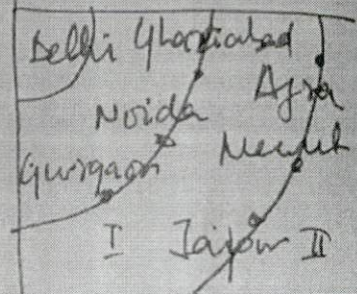


Fig: Inner + outer satellite

② Ease the pressure on urban green spaces by providing 'eco-cities' around metro cities.

Eg: Mumbai - 66% decline in forest in 2013  
- can be supported - [Karjat, 'Thane', Nani  
'Green infra' of Mumbai]

③ These 'satellite towns' can develop as counter

Remarks

\* It helps in step-by-step migration or provides intervening opportunities as demanded by Ravenstein's theory.



towns and provide for high density residential areas

Eg: Greater Noida - housing groups like Gaur Sporthood, Indira Puri etc along highway route.

However, this will not solve the problem completely. There can be hazards to the development of satellite towns.

① These towns can in the due course of time develop into equally larger and congested cities.

Eg: Ghaziabad - once a satellite town, now itself faces water crisis.

good example

② Sometimes their relation with the main urban centre can turn into 'parasitic' (core periphery model of Friedman)

Eg: the tragedy of Deansol, Chittaranjan in rust belt

good example

③ New towns will require further 'land clearance' thereby reducing the green cover.

Remarks



① often administratively mismanaged and can turn into dumpsites of tier I town waste etc.

Satellite town can be a panacea for the problem only when there are proper 'growth channels'. Also, redevelopment of the already congested areas is needed to maintain the sustainability of this model.

✓ You have written good answer, with examples justifying your argument.  
Keep it up.

Remarks



7. (b) Discuss the Regional Planning strategies for Island Territories in India.

(200 Words) (15)

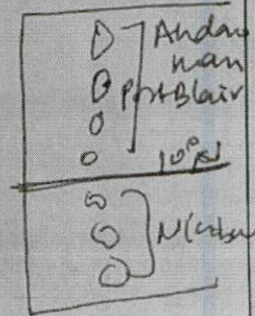
The nature of 3 Island territories of India differ from each other - the volcanic Andamans, the coral Lakshadweep and the sand bar coastal islands. Therefore they have different challenges and need different strategies.

7.5

Strategy for Andaman & Nicobar

① Economic Planning

↳ Aggradation towards oil palm development  
Eg: NMED-OP mission in Port Blair



② Ecotourism - based on mangrove (Baratang Rainforest and Radhanagar beaches (Blue Flag)

③ Social Planning

① Presence of PVTs like Sentinelese, Onges, Jarawas etc.  
② Can lead to neglect/isolation of locals  
Hence for tribals - focus on exclusive healthcare, 'Panchayat' integration.

Remarks

\* Briefly mention some Importance of these Islands  
a) geostrategic Importance  
b) Biological diversity  
c) Potential for port development.



mention the economic importance of these Islands as they extend Ind **GS SCORE**

### ① Environmental Planning

- ① Conservation of the Leatherback Nesting sites, and pristine Oryx Reserve forest

(see: the latest NITI Aayog Plan can lead to submergence of 500 km<sup>2</sup> of area

### ② Geostategic significance

- ① link to South-East Asia via Great channel and Coros channel

- ② Prisernte naval / air force / army command

### Strategy for Lakshmadweep

#### Economic Planning

- ① Coconut plantation and MSME sector of dehusking, coir industry
- ② Aerial connect to Kochi port for horizontal unity
- ③ Coral tourism

#### Social Planning

- ① Utilisation 100% literacy rate for service sector
- ② facilities of human capital development by skilling under Kaushal Vikas

#### Environmental Planning

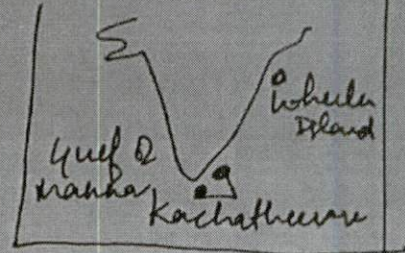
- ① Regulation of shipping pollution under 'Green Voyage' Mission and GLOBILITER Partnership

Remarks



### Strategy for Land Bar Island

- ① Sustainable aquaculture and fishery in line with WTO principles.



- ② Export market with Processing cluster at Port under Sagarmala.

Island Development has to be ecologically sustainable as they face the risk of submergence by 2100 as per the IPCC Report - Ocean & Atmosphere.

+ Use holistic development of Island program as a step in right direction.



7. (c) Analyse the potential for development of Hilly Areas in India. Suggest suitable planning measures to develop these areas. (200 Words) (15)

Hilly areas of the Himalayas, Purvanchal hills and Western ghats offer tremendous potential for the sustainable development goals of India.

### Potential of Hilly Areas Development

① Potential for agricultural diversification due to rich Agro-climatic variety and demand for horticultural products to develop X2 time (High Season Theory)

Apple Horticulture in Uttarakhand & Himachal

en lavender mission or Aroma mission in himachal Pradesh.

en Loktak lake, Tamenglong money any, Protected areas

② Potential for ecotourism as heavy tourist footfall

Eg: North East - 'Paradise Unexplored'

Manipur  
Aizawl  
Guwahati  
Loktak

③ Relative low levels of development of the tribal hamlets. Hence potential for human capital development.

Eg: Most of them involved in (unorganised sector) ~ 62-64% of youth.

Remarks



④ Availability of skilled manual labour for small scale MSME sector and inclusive growth

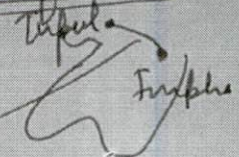
Eg: Pashmina  
Wool making  
Shawl making by women.

However, certain challenges need to be addressed

### ① Ecological Vulnerability

① Seismic zone V due to 'active faults'

Eg: ~~Korla~~ Manipur landslide  
2 tunnels in 6 km.  
Bairabaisairay Rail



② Pristine biodiversity and some critical ecological niches.

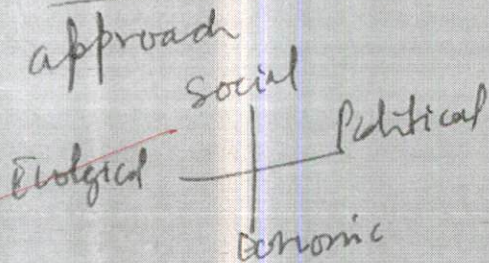
Eg: Western Ghats  
65% endemic species

② Limited connectivity due to terrain issues

③ Including the ethnic diversity Eg: Northeast conflicts.

### Measures to develop

① Decentralised development based on Watershed approach



Eg: Sikkim  
- organic farming  
- Bhutia tribes  
- Ecotourism  
- 6th schedule empowerment

Remarks

\* Also mention these regions exhibit centrifugal forces due to cross border cultural similarity & hence politically sensitive.



Good

② Hazard vulnerability assessment and demarcation of eco-sensitive zones (ESZ) (Pasturirangam Committee)

Es: Western Ghat - Report for avoiding construction cutting across the swift river -

Periyar  
Alapuzha

③ Slope stabilisation by afforestation and temporary structures of stone pitching - use netting

Hilly area development should have an element of Eco-sensitive development. The Indo-German partnership can eco-cities can help.

Remarks