

# **G|SCORE**

**An Institute for Civil Services**

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## **IAS TOPPER'S**

## **TEST COPY**

# **KUMARI SOMEYA**

**AIR - 502  
(CSE 2022)**

## **GEOGRAPHY OPTIONAL**



**8448496262**



**iasscore.in**

124

**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.

Name Someya Kunan

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

Date \_\_\_\_\_

Signature Az1. Invigilator's Signature R2. Invigilator's Signature R

REMARKS

GS SCORE

## Section - A

1. (a) Explain the mechanism of the formation of Bomb Cyclone

(10 Marks)

Recently USA's eastern coast experienced bomb cyclone, causing physical and human costs due to strong cyclonic winds.

### Mechanism of formation

#### (i) For Bomb cyclone

*air mentioning of unbalance formed due to sudden drop in pressure of 24 mb of these phenomenon.*



in 24 hours period.

(ii) This sudden drop can be due to interaction of strong contrasting

Remarks

## Section - A

1. (a) Explain the mechanism of the formation of Bomb Cyclone

(10 Marks)

Airmasses.

In winter when the American land has cold airmass (cT), the warmer ocean with maritime Tropical (mT) air mass interacts.

(H<sup>13</sup>) This interaction causes sudden low pressure that attracts wind from nearby region causing cyclonic conditions (Hurricane).

The Bomb cyclone prediction is necessary to avoid disasters.

try to  
come up  
with  
better  
conclusion

Remarks

1. (b) 'Modern day land forms bear more complexity than simplicity'. Elaborate.  
(150 Words) (10)

As per Davisian trio "Landform is product of structure process and time". The modern day landforms are result of multiple processes, structural changes over time.

*fair  
intro  
clue  
given  
here.*

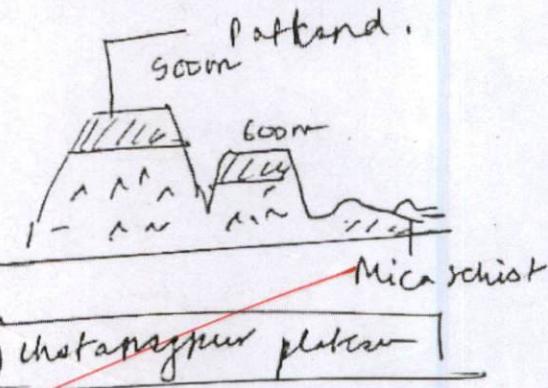
### COMPLEXITY :-

#### Cyclicity & processes :-

- ① Hutton's Uniformitarianism, finds little scope when polygenic landforms are considered.

→ eg Chotanpur plateau,

Aravallis, Appalachians.



- ② Climatic variations

- with pleistocene glaciation period

Remarks

most of the post landforms where submerged,  
eroded, which are today seen as exhumed  
surfaces, isostatic rebound (creates endogenetic)  
process ~~to variation~~ <sup>by</sup> Scandinavia

### ③ Baselevel Change

- Rejuvenated  
landforms,

~~older~~

Captures,

on

(e.g. Ganga Valley)

upper course /

Saraswat river capture -



Thar  
desert:  
once marine transgression

by

### ④ Interplay of endogenetic & exogenetic processes:

fair  
competition  
written  
here

As [Gibbert] had explained in his text

equilibrium principle  $\rightarrow$

$\therefore$  Domination studying modern landforms has its own challenges.

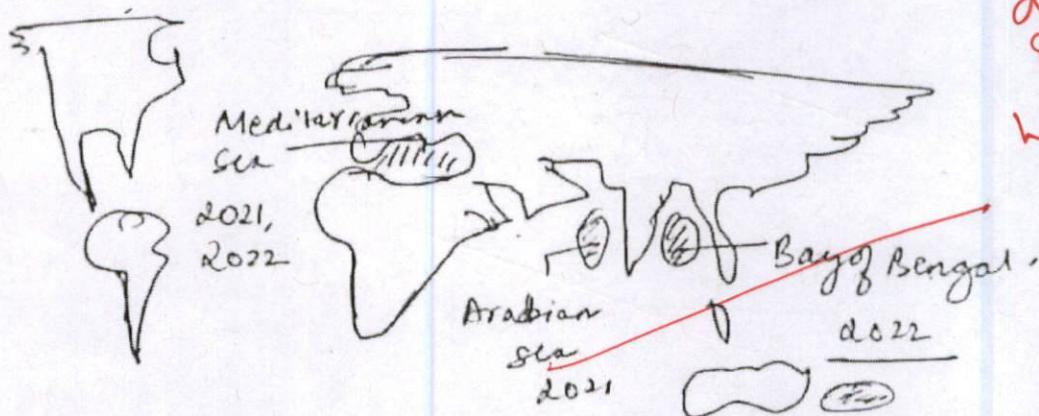
→ mention more events which forms  
or leads to these events.

1. (c) What is marine heat wave? Discuss its consequences.

(150 Words) (10)

Marine heat waves, are rise in the sea surface temperature  $> 4.5^{\circ}\text{C}$  from normal average. With rise in global temperature, the phenomena has increased.

try to quote some standard criteria for declaration of marine heatwaves



Marine heat waves cause ~~too~~ rise in temperature having consequences

① on Marine Biodiversity:

- Rental reefs, with low temperature

Remarks

mention how Impact in coral bleaching, tropical cyclone etc.

tolerance: Mass coral bleaching (eg great barrier reef)

(2) Fisheries in oceans & benthic species

~~affected by changing vertical temperature regime~~

(3) ~~On humans: Coastal communities lose~~

~~or livelihood: fisheries,~~

~~→ Tourism, (corals die off)~~

~~→ Health; outdoor activities (eg Mediterranean)~~

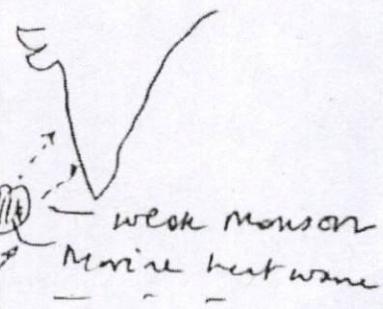
(iv) Disasters: Monsoon

rainfall weaken  $\Rightarrow$

if as moisture +

- cyclone activities

won't (eg cyclone Tantau)

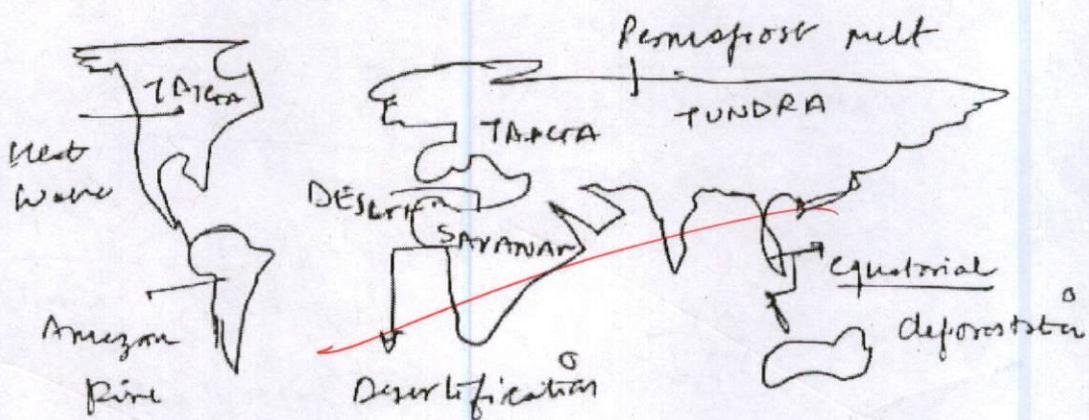


Remarks

1. (d) Present an account of threat faced by various biomes across the world.

(150 Words) (10)

The biomes are rich reserves of biodiversity and gene pool across globe facing various natural and anthropogenic threats.



### THREAT

- ① Tundra biome : UNMO reported arctic recorded  $> 3^{\circ}\text{C}$  rise in temp in April 2022
  - Permafrost melt
  - Siberian wild fires (Polar Heatwaves)

Remarks

① TAIGA Biome: Rosedale / Boreal fires of 2022

↳ polar jet stream (omega shaped heat waves)

→ AMOC (~~Arctic~~ ~~weakening impact~~  
~~atlantic ocean current~~)

(S.O.)

② Savannah & Desert Biome

→ desertification on rise

→ Man's animal poaching,  
overgrazing ~~disturb~~  
balance.

Equatorial

→ Deforestation: habitat destruction of wildlife  
(eg elephants in DRC),

→ Agricultural expansion  
(eg rubber plantations →  
forests orangutans  
in Malaysia)

③ Marine Biomes

- marine heat waves  
~~coral bleaching~~

*good fair conclusion given here*  
thus the IPCC's warning of tipping points  
with irreversible damage in the biomes need  
strategic action -

Remarks

→ mention how various conventions  
like UNCBD, UNFCCC etc.. helps in  
addressing various of these threats.

1. (e) What is Eco-system restoration? Discuss with suitable examples.

(150 Words) (10)

The UN has declared 2021-2030 as decade

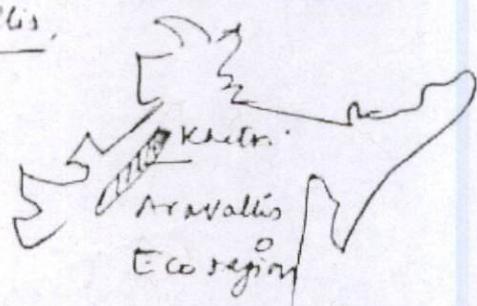
of ecosystem restoration. Ecosystem restoration is the process of restoring the natural ecosystem and its functions from degradation.

) good  
Intro  
duction  
given here  
with  
standard  
content

### Ecosystem Restoration

- ① Allow Natural regeneration of forest:

(eg) Efforts made in Aravallis, Khetri, to restore, allow natural wild floral regeneration.

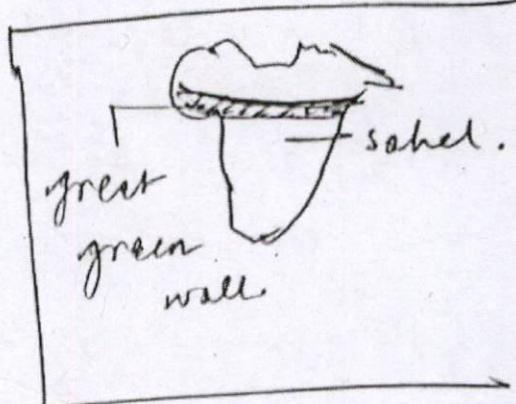


- ② ManMade/ Artificial restoration:

Remarks

② Afforestation methods?

→ ① Forest green wall formation in Sahel region for restoration of degraded land.



③ Urban forestry:

- Mayawati technique to restore & grow a natural forest (e.g. Japan's technique) adopted in Saurashtra & Sundergarh)

④ Soil and land restoration:

- protect from erosion (sand dune stabilizer)

⑤ Species reintroduce/protect (e.g. cheetah, Bustard)

*Fair  
Conclusion*  
UNCCD has pledged to achieve land degradation neutrality by 2030, is step  
step in right direction for restoration.

\* You have written a fair well

Structured answer were keep it  
up.

Remarks

3. (a) Discuss the concept of fronts. In what way are the fronts related to cyclones? Present a comparative distinctiveness of a-tropical cyclone with that of an extra-tropical cyclone. (250 Words) (20)

Fronts are dynamic systems of air masses, that have distinct thermal properties, have constant atmospheric properties or (moisture,) temper in the air mass system.

) air definition given here.

The interactions of fronts cause distinct climatic variations:

(1)

① cold and warm fronts impact the

British type of climate along with rossby waves.

② fronts play major role in heat transfer

of heat budget from tropics to

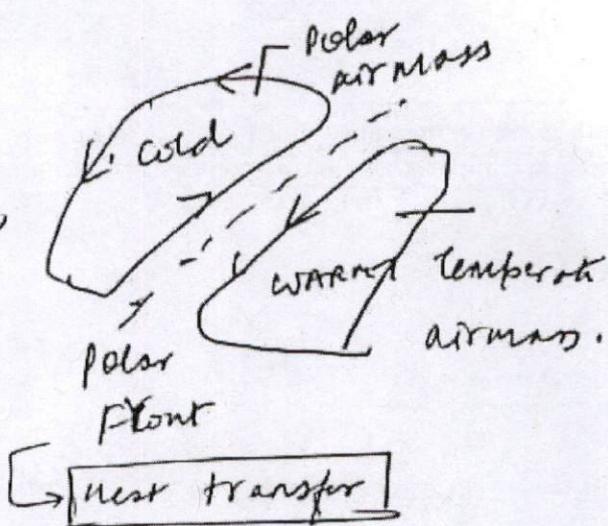
+ mention various characteristics & criteria for formation of front, different types of fronts.

Remarks

polar regions.

- ③ Impact on anticyclonic,  
cyclonic conditions

is mid latitude.



### Fronts related to cyclones :-

Bjerknes & Bjerknes had proposed

Wave theory model of temperate cyclone

study being impacted by frontal (Dynamic)  
action.

As per the model: Temperate cyclones have stages

① stages :- Stationary front

Remarks

Where warm & cold fronts are not interacting

④ Due to Baroclinic

variations, sudden low pressure

~~Conditions causes fronts~~

~~to interact.~~ Cold

front being faster ~~parts~~

with time ~~reduces~~,

the warm front.

- one rising this

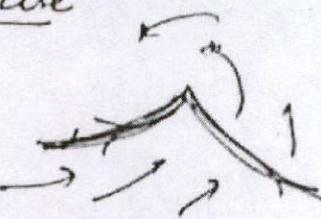
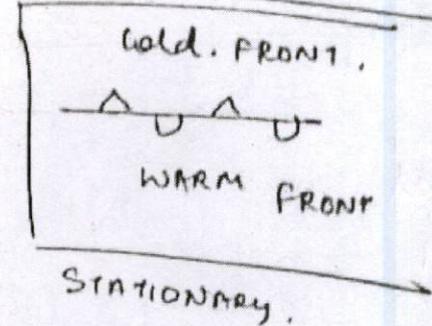
~~causes temperature~~

~~systems in mid~~

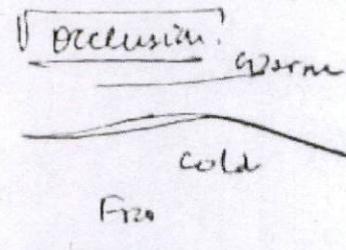
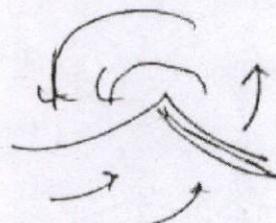
~~latitudes.~~

→ warm & cold fronts have different

~~impact on weather conditions~~ → rainfall,  
temperature.



Baroclinic low press



Remarks

\* Could have briefed about tropical cyclones & various of its characteristics here.

## Distinction of Tropical cyclone & Extratropical

\* mention more on territorial extent of these systems.

<u>Tropical cyclone</u>	<u>Extratropical</u>
① speed of wind: Faster → <u>destructive</u> (super cyclones)	① relatively slower, especially warm fronts.
② Need water, sea surface for formation (latent heat of evaporation)	② <u>can form on land</u> , not thermal.
③ thermally induced low pressure (temp $> 27^{\circ}\text{C}$ )	③ Dynamically induced: Baroclinicity
④ Area covered is less (landfall along coasts)	④ Area covered can be high ↗
⑤ Destructive winds, Raging nimbus clouds	⑥ less destructive, <u>static</u> (no cumulus clouds)
The fronts <u>have important role in climatic &amp; pressure variations on earth.</u>	

### Remarks

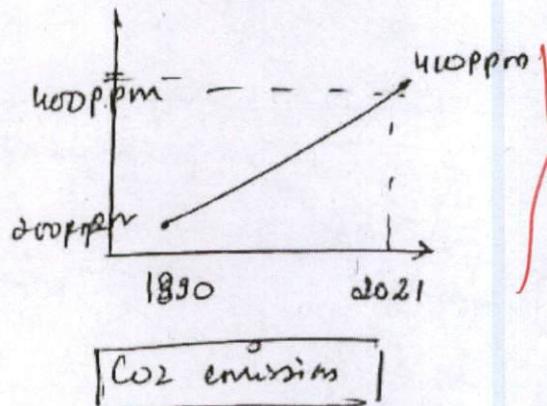
\* write on how there has been change in Intensity, frequency of these cyclones due to Climate Change.

3. (b) Discuss the present need to control Carbon emission. Illustrate key mechanisms of controlling carbon emission. (200 Words) (15)

~~The IPCC report highlighted highest concentration of carbon emission in atmosphere 7410 ppm.~~

~~Since?~~

~~The rising emissions pose threat to human, ecosystem survival and stability & need control for:~~



*fair presentation of Ideas.*

### ① Climatic and Atmospheric stability:

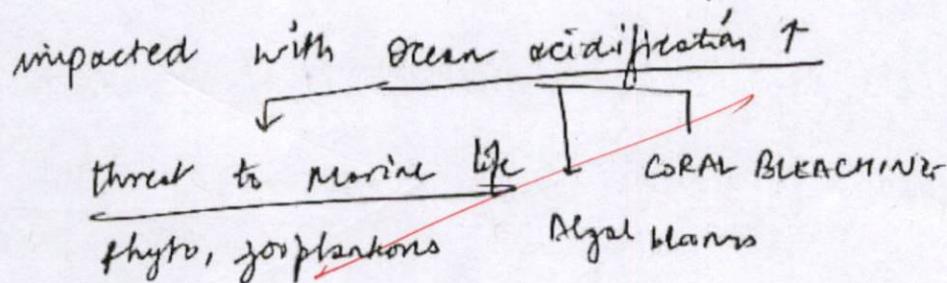
- the feedback loop of climatic system caused climatic extremitiess (by Heatwaves, ~~& drought~~)

### ② Biogeochemical cycle:

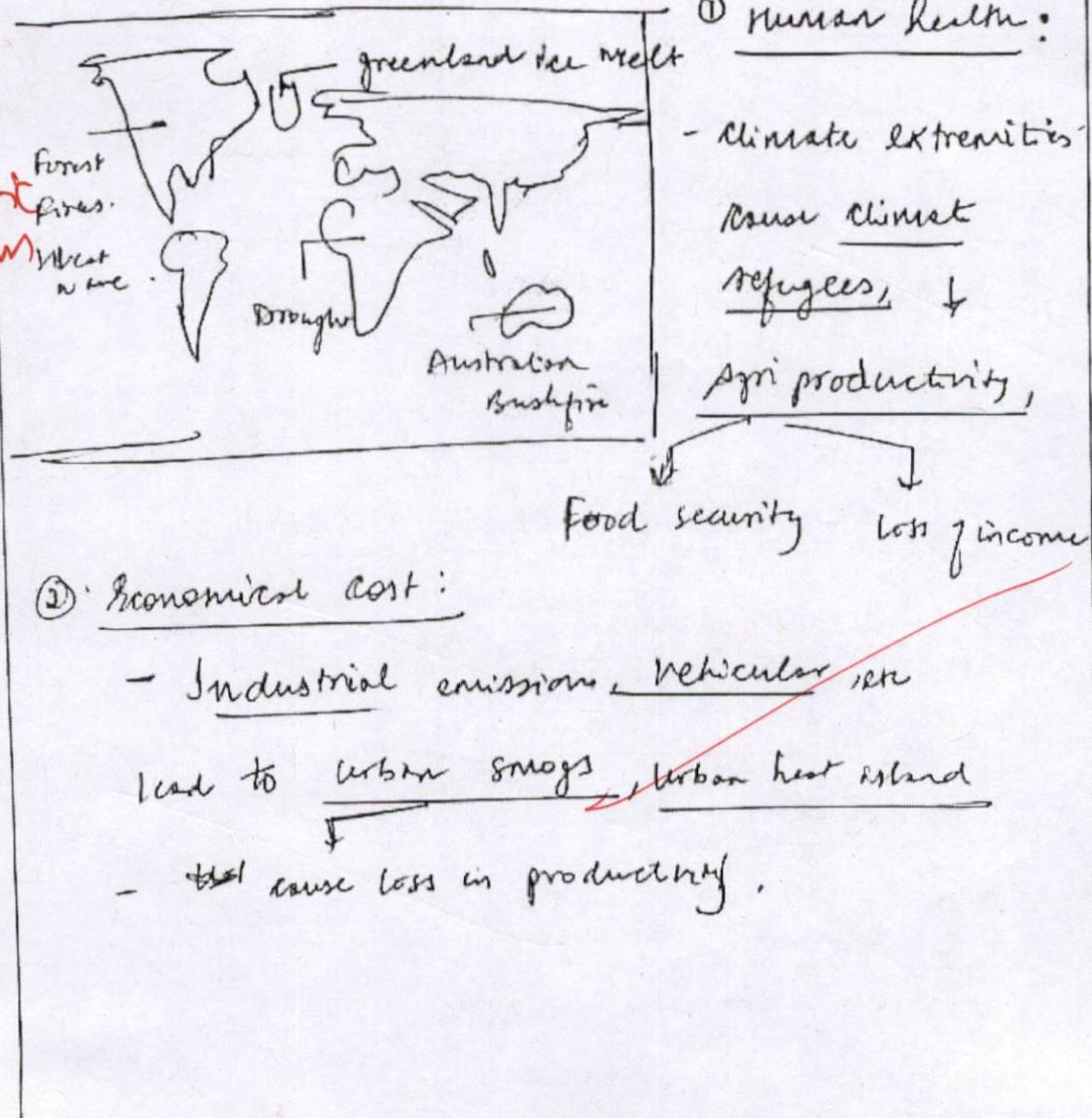
- Nutrient cycle → Hydrological cycle

Remarks

+ mention Why need of controlling carbon emission ie Dead zones rise in ocean, ocean acidification etc..



Good thermal diagram given here.



Remarks

## Key mechanisms of combating

### Ecosystemic Nature Based

- ① Natural sinks:  
 (eg Amazon forest  
 absorb ~20% of CO<sub>2</sub>)

- ② Marine sinks:  
 (eg seaweeds, kelp forest)

- ③ Decrease deforestation

- ④ Decrease emissions

energy: Hydrogen fuel

the Carbon Budget, <sup>will last for</sup>  
only 10 years, need SDG 13, 14, 15  
act immediately.

### Artificial

mention rather  
 technocentric  
 approach  
 here.

- ① Carbon capture & storage  
 - geological, underground  
 store
- ② leg electro precipitators used  
 to capture → store

- ③ R&D: Nanoteches  
 capture (eg orchid  
 plant; Iceland)

Agriculture: stubble  
 burn

transport: e-vehicles

Remarks

+ mention how FEDD, REDD+, Bonn  
 challenge & various initiatives help in  
 addressing carbon emission.

{ fair  
 conversion  
 written  
 here.

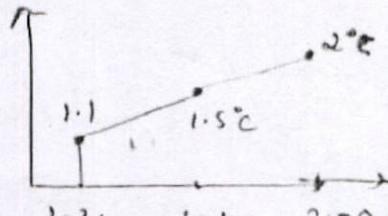
3. (c) "Climate change is no longer some far-off problem; it is happening here; it is happening now." Elaborate the statement using suitable examples. (200 Words) (15)

IPCC report (AR6) highlighted global temperature rise  $1.1^{\circ}\text{C}$ , the Himalayan glacier melt by 15% in (1970-2021), Arctic polar heat waves ( $>30^{\circ}\text{C}$  rise in temp.)

} Good contextual introduction note.

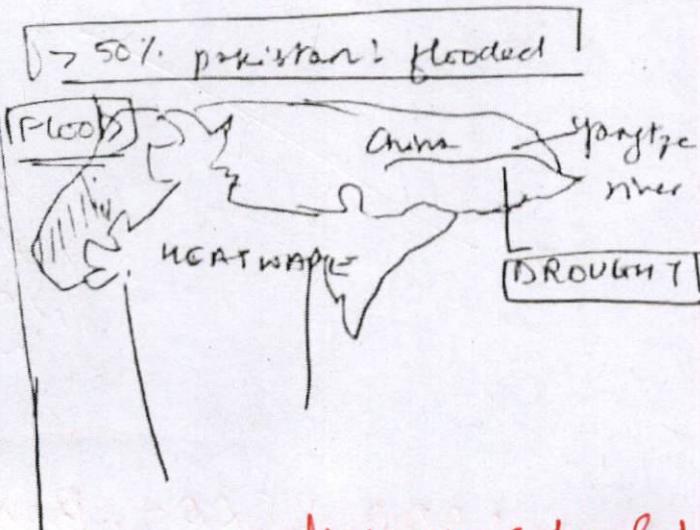
(Q)

Climate change is thus happening here; & happening now:



[Temp. rise]

### ① Climatic extremitiess



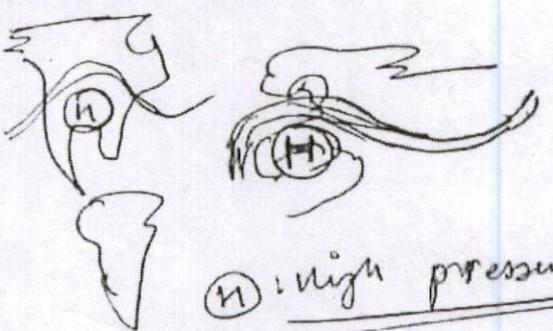
→ Despite in similar latitudes, different climatic extremes found in 2022.

→ Use diagrams to show various regional trends in Impacts of these climate change by their causes.

① India experienced hottest march in 122 years, >16<sup>th</sup> states under heat wave.

② Climate change's impact leads natural process

③ Polar Jetstreams weakening:



- polar vortex in  
2020 upto Texas to  
Heat waves in  
Nevada, (2021) &  
Europe (2022)

- loss of property (Road sign boards melts,
- Energy demand: Cooling ↑ →

④ Rise in sea level:

- IPCC reported rise of  $0.7$  m in sea surface levels →

Remarks

Threatening ~~sea~~ island nations,  
(e.g. Maldives, Palau, Vanuatu etc.)

### ① Loss of Biodiversity:

- IPBES report 2022 highlighted > 1 million species face risk of extinction
- 6<sup>th</sup> mass coral bleaching in last seven years (e.g. Australia)

### ② Droughts, desertification; floods:

- Agricultural productivity ↓, IPCC reported further ↓ by 2050 in India by 20%

Water scarcity  
Forest Rain

Thus the climate change  
has huge impact, 30 million climate  
refugees & number to increase (IDM report)  
need urgent action.

fair &  
conclusion  
written here.

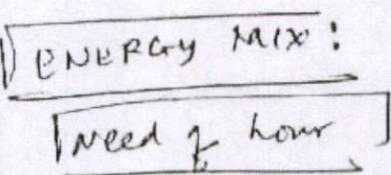
### Remarks

\* Mention some initiatives which are in  
line to address these climate change.

## Section - B

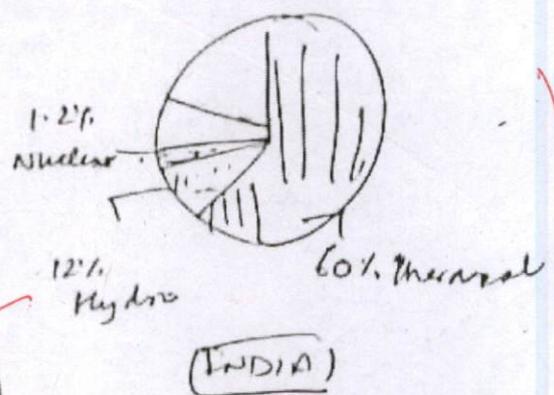
5. (a) 'Energy mix is the need of hour'. Elucidate with examples. (150 Words) (10)

India's energy basket is largely skewed to thermal sources ( $>60\%$ ), similarly the world's energy basket still relies on thermal sources.



① Reliance on

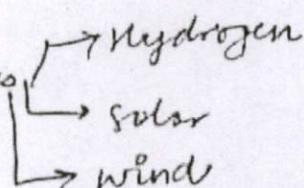
wood fuel  
↓  
Deforestation  
→ adding



(FAO report highlighted poverty & non-energy access in Sahel region → ↑ direct risks).

② Need energy shift need:

- Reliance on renewables



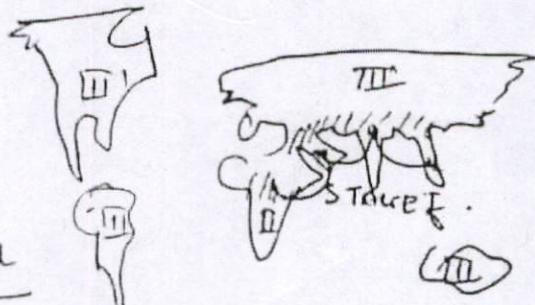
} Good presentation of various energy mix here.

Remarks

decrease emissions in air (by 410 ppm &  
Carbon emission, - maximum from energy)

③ Help decrease  
risk: STRATEGIC

(eg Ukraine war:  
Europe 780%  
reliance on natural  
gas)



ISA: Solar Alliance

Stage I, II, III connect

④ Meet Demand  
Supply Gap:

surplus energy can be traded (eg  
Hydro electricity in Nepal → India)

⑤

Cheaper energy:

eg PMAKUSUM: solar, hydro, formers.

The energy mix for ~~the~~ cleaner source  
is needed to stop meet Net zero by  
2050 (IPCC report)

Remarks

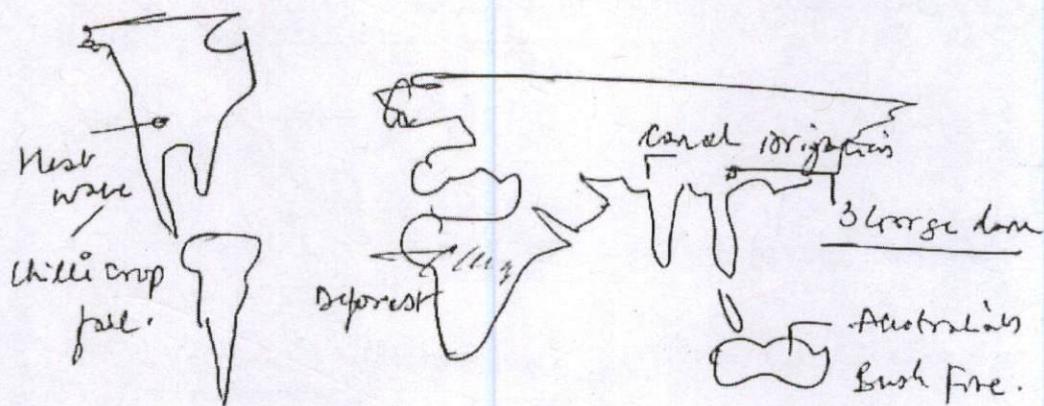
\* mention various shortcomings in present  
day energy mix & how various diversification  
is need of the hour & various initiatives in  
that direction.

5. (b) "Man-induced famines are becoming more common than nature-induced ones."  
Comment. (150 Words) (10)

Famines and food insecurity has reached  
1.2 billion count as per FAO's state of  
food resource report Famine threats } fair  
explanation  
given here.

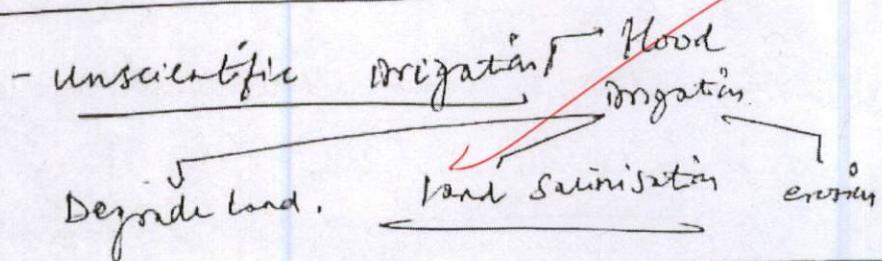
the human development.

Man induced famines more common



Good schematic diagram given here.

#### ① Agricultural activity



Remarks

② Overshadowing: cause soil erosion +  
 (e.g. Banni grassland, Sabarkantha region)

③ Deforestation: Consolidation of soil ↓ → erosion  
 = Agricultural production ↓. (e.g. Drought conditions in Nagaland 2022)

④ Inaccessibility: & social inequality +  
 (Oxfam report top 10% have 77% worldwide)  
 - India 22% population face malnutrition.

⑤ Greater need of economic & political :

→ Civil war in Afghanistan, Afghanistan (70% population face famine risks)

→ Poverty - African nations

Naturally also, climate change has increased crop failure statistics (e.g. USA)

Remarks + mention more on population explosion, ethnic wars, economic sanctions, political conflicts etc... .

5. (c) Religion and settlement have long been closely interconnected (150 Words) (10)

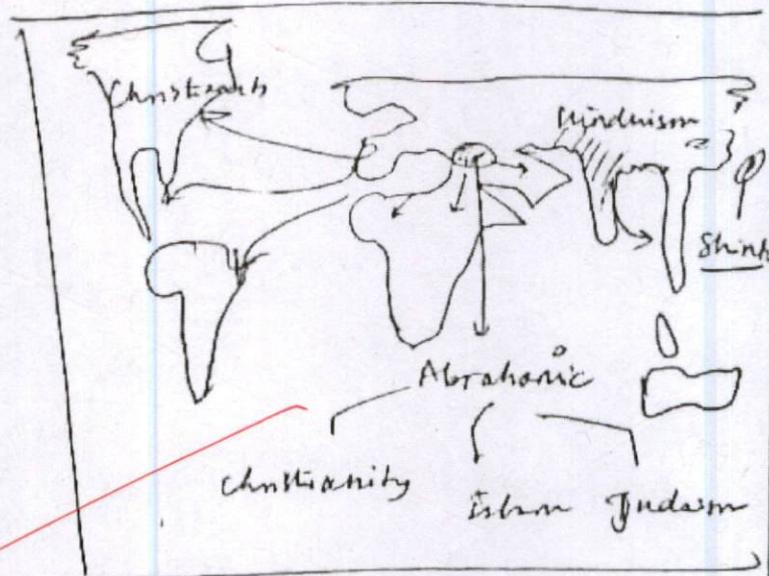
The religion and settlement has close connections impacting genre de vie & cultural setting of region.

*fair introduction given here.*

### Religious Herths & Settlements

Broek identified cultural regions based on religion.

The religious herths and their diffusion has impacted settlement pattern.



e.g. Arabic North with major muslim population, west asia, Pakistan,

Remarks

have muslim majority.

② Israeli settlement near its religious heart,

③ Impact of migration & spread of religion:  
impact settlement

leg Angkor wat temple in Cambodia: Hinduism,

Christian missionaries in  
North east India, posted

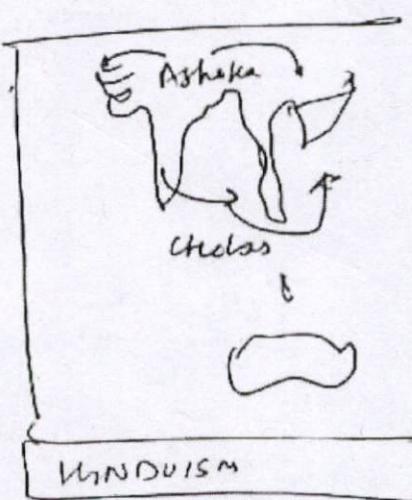
④ Housing based on Vastu,  
temple (e.g. Hampi)

However, with & urbanisation,

secular institutions, globalisation,

"Secularisation" has been rising & not  
importance to religion for settlement  
(leg Mumbai, New York).

fair  
contribution  
given  
here.



MINDUISM

Mention how various temple towns &  
other structures were.

Remarks

5. (d) 'Rural-Urban Fringe'.

(150 Words) (10)

R.J. Pryor gave concept of Rural Urban fringe indicating region between the urban core area & rural areas, transition zone.

The rural urban fringe

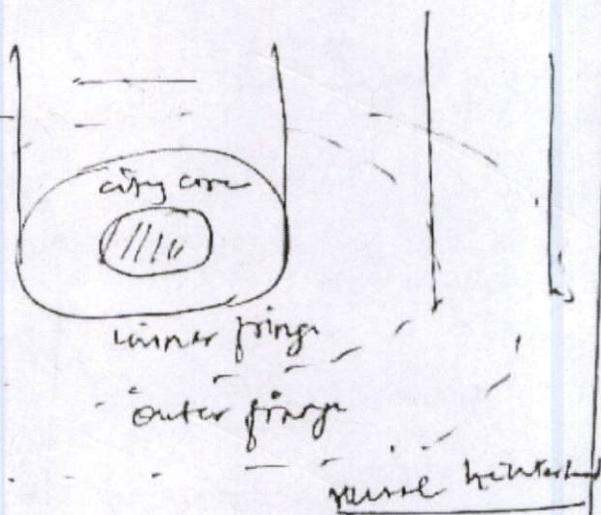
has two :

① Inner fringe

- consisting of higher urban influences.

Land use : Market garden, commercial activity. (eg Delhi to Noida)

② Outer fringe : has more influence of



Li's

Remarks

rural activities, with agriculture focus.

- livelihood shifting to secondary jobs, urban  
doddy mobility for jobs.

① Companies relocate,

influenced by

cheap land

availability,

(e.g. green project:

Airport (e.g. Sewa)

near Delhi)

→ gondhagan.  
Ahmedabad  
Saurashtra.  
Gujarat.

expansion of Ahmedabad city

sphere of influence is  
Ahmedabad District

② more RUF is also used as landfill sites, but urban sprawl expansion,  
there is misalignment in admin & thus  
need proper sphere of influence demarcation  
& planning

Remarks

\* mention various issues associated  
with these RUF's, mention various  
stages in formation of RUF.

5. (e) Concept of heartland

(150 Words) (10)

The heartland concept was given by

H. Mackinder in his book 'The pivot of history'

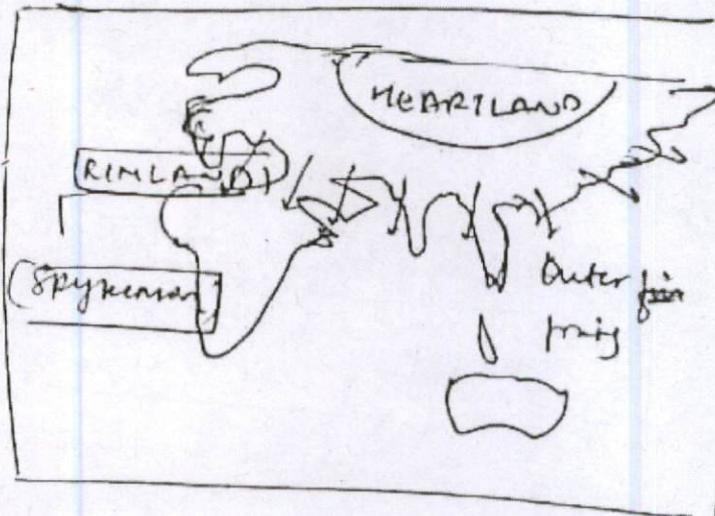
The Heartland

is region with  
rich natural  
resources (eg

coal, natural  
gas, gold,  
copper etc).

It is strategically important &  
difficult to be invaded by external forces.

According to Mackinder, the heartland ~~is~~  
shows prowess of a land power,



Remarks

and one who captures land eventually captures world.

This heartland was further expanded by

him in 1512, 1540, covering Ukraine,

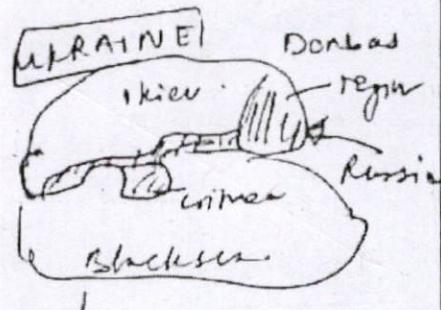
central Asian nations up to Caspian sea

④ Today's times: Russia Ukraine war

- the Heartland's expansion  
its prowess be seen.

- However, the Russian  
war is also to access

the Black sea (Water or Rimland region)



⑤ Opposition of great game in central Asia

= Being frontier nation faces political  
game

Thus the heartland has its importance to yet  
Rimland is also equally important

Remarks

+ mention various shortcomings in  
the theory & mention how spymen's  
rimland theory better explains most of  
present day geopolitics.

7. (a) Discuss the generic classification of international boundaries. How does it differ from the morphological classification? (250 Words) (20)

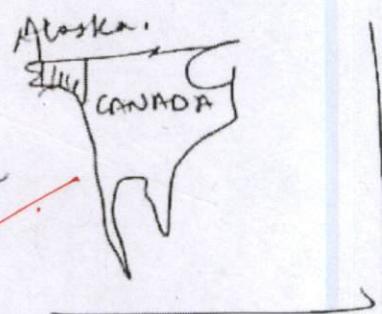
International Boundaries generic classification  
was given by H. Martshorne based  
on political, geographical and cultural  
conditions.

### Generic Classification

100%

#### ① Antecedent boundaries:

existed before cultural or human  
settlement  
 - non disputed & peaceful  
boundaries  
 (e.g. Canada - USA (Alaska))



#### ② Subsequent boundary:

Remarks

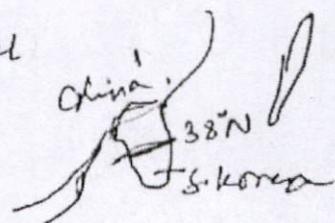
\* Boundaries & their general characteristics would have been written here.

formed due to human intervention,  
political agreements (eg Pakistan India  
East Boundary)

③ Superimposed boundary:

- these boundaries have not had complete agreement, the cultural setting is divided, → ceasefire.

(eg Korean peninsula 38°N parallel)



④ Relict boundaries:

- these boundaries existed in past but no longer.

(eg West & East Germany, & Berlin)

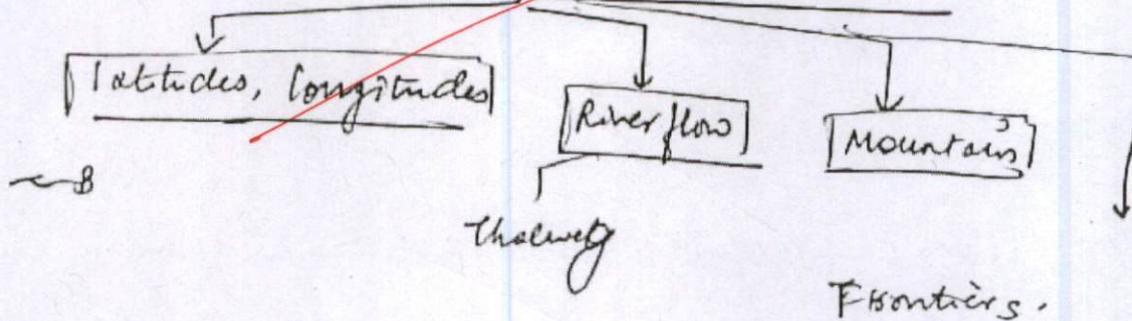
⑤ Consequent boundary:

Remarks

→ mention various issues arising out of these boundaries here.

Differ from morphological classification?

① Morphological classification considers



\* largely frontier based considerations.

(eg Indo-china boundary)

② Morphological classification is based on  
shapes, morphological setting of  
the region.

③ Not account cultural aspects,  
human settlement, ethnicity, religion,

Remarks

but on latitudes, longitudes.

(ii) Morphological boundaries are physical frontiers which may decrease or change

thus the ~~generic classification~~ is more human centric with socio-politico considerations.

Remarks

7. (b) Discuss the Demographic transition theory with special reference to India.  
(200 Words) (15)

Demographic transition theory studies (DTT)  
the change in demography based on changing social political, economical conditions.

India has undergone (DTT), stages depending on social-political conditions

① At National level

① Pre independence,

India was in  
stage I, with

1511 census

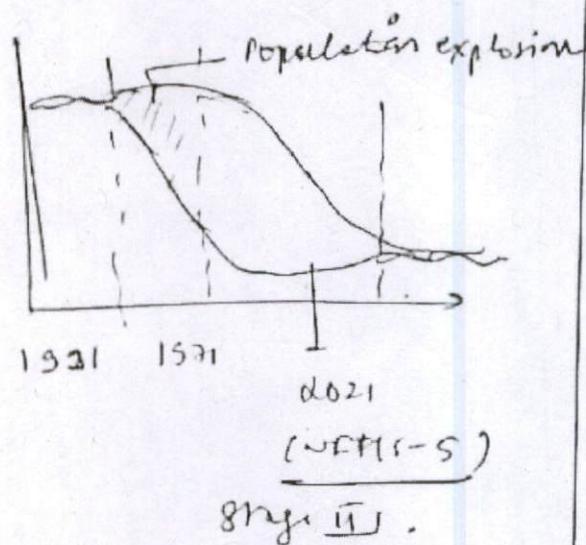
recording negative

population growth rate.

low medical facility

famine

(e.g. 1941 Bengal)



Remarks

→ Properly mention various stages of demographic transition in Indian case.

Population remained stable, with high birth rate & death rates.

After Independence:

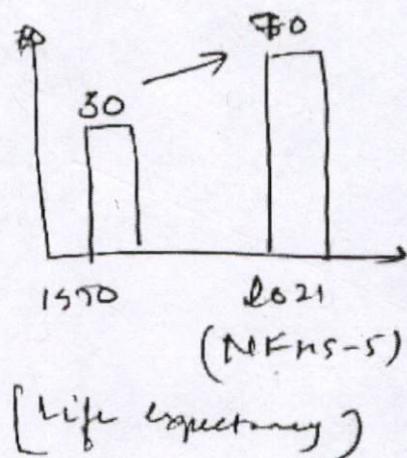
- With better health, food security

(green revolution,  
white revolution in  
~~1970~~) → high

population explosion →

& gareebi notes & family planning motives &

from 8th FYP (1971 - 1982)



Q) DTI = population stabilizing i.e. in [2000 - 2021]

- Birth rates low [~~TFR 2.0 : NFHS-5~~)
- Death rates ↓ (~~IMR : 42/1000 → MMR : 103~~)  
(Lata.)
- Higher education,

Remarks

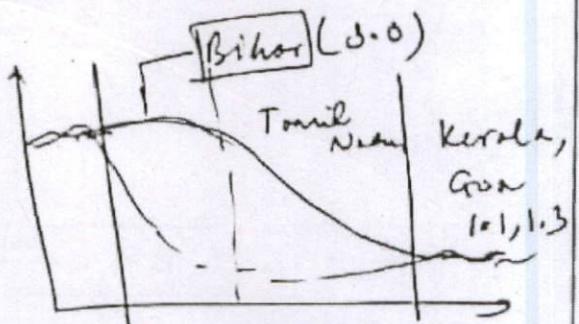
family planning helped secure stable growth.

However, inter regional variation

① Interstate disparity:

High poverty, population

in Bihar: No  
( $<60\%$  literacy rate)



\* good addressing  
of  
regional  
variation

\* demographic  
attributes  
here

\* try to  
bring in  
the  
reasons for  
the  
variance

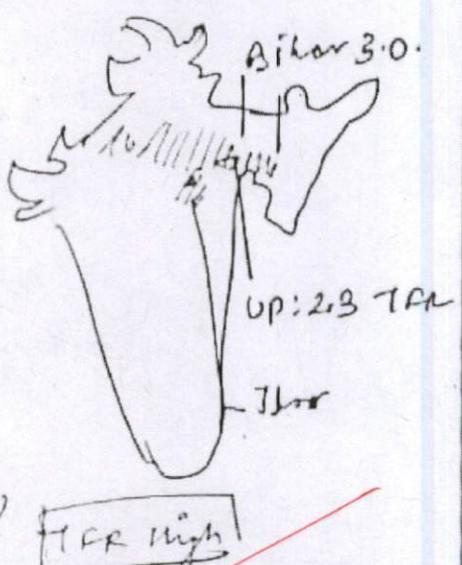
② Rural Urban:

Urban TCR 1.6

vs Rural 2.1

(PMC: low doctors)

tribals  $>60\%$  malnourished)



③ Thus the DIT is diverse too India

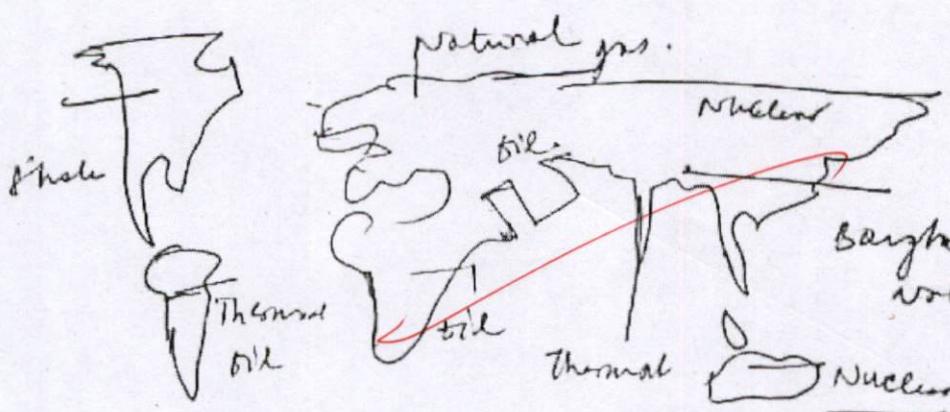
varies due to socio, economic  
reasons → need balanced regional  
development

Remarks

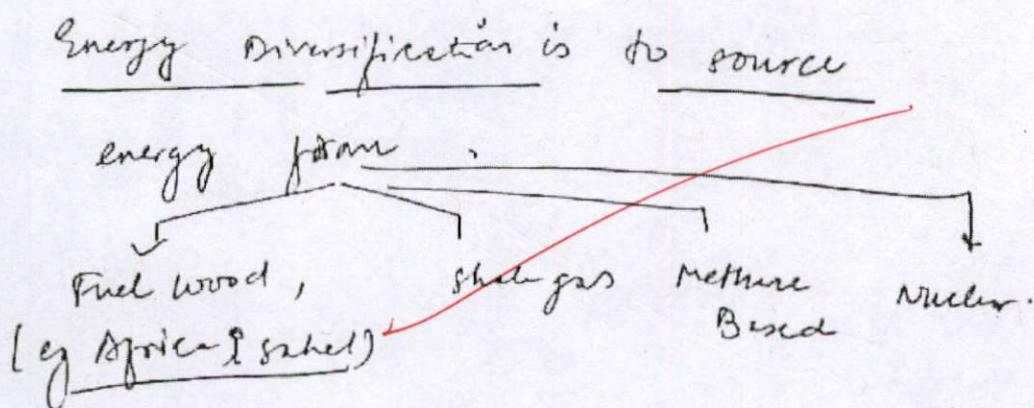
7. (c) What is Energy diversification? Discuss its viability for the developing countries like India. (200 Words) (15)

Energy diversification is change in energy mix including diverse energy sources.

### I [Energy Diversify]



} good schematic diagram.



Remarks

International Solar Alliance tries to diversify world energy basket to renewable, solar energy.

- green grids project →   
      wind → solar energy.

### For India Viability :-

\* mention ①) Economic viability in

good  
arguments  
here of

why  
it is  
viable

vast  
territorial  
extent  
geographical  
diversity  
etc... →

→ coal & thermal  
plants → fuel  
economy

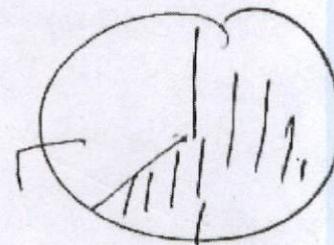
industry develop.

Mining : jobs

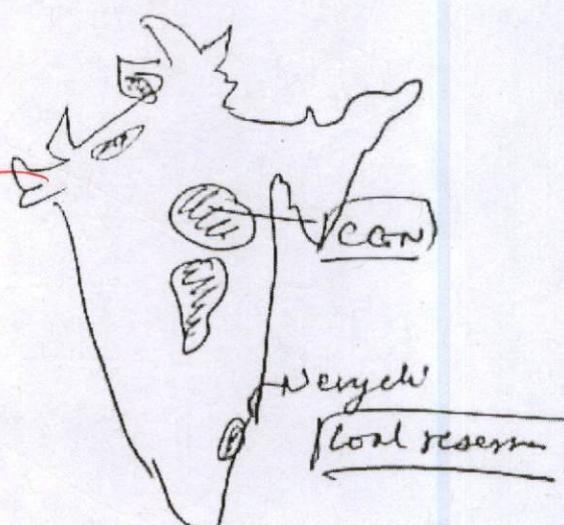
coal domestic  
available

But diversification

10%  
Renewable



66% Thermal



Remarks

help in ↓ reliance on one source

(eg coal crisis 2021, 2022 → global supply chain disrupt)

④ Green new jobs → solar, wind energy sectors

⑤ Resource & geographical visibility

① Solar: Tropical nation → cheap raw material

② Marine: coastal → tidal OTEC.

③ soil visibility:

✓ Punjab: arid soil

Cheap solar access → □

④ geographical visibility

- ↓ emission, meet INDC target

the goal of 2070 Net zero, tries with Energy diversification

Remarks

mention various initiative in diversifying fuel energy sources in India.

8. (a) "There is a rejuvenation of environmentalism as a paradigm in geographical studies" comment. (250 Words) (20)

The environmentalism paradigm is an offshoot of behavioral geography in 1970s, 1980s, that focussed on conservation of environment and behavioural changes.

Paul Ehrlich "Population bomb" & the "Silent Spring" book highlighted need for environmental conservation.

The London smog, its ill effects etc. led to Stockholm conference & later, on environmental summits

#### Remarks

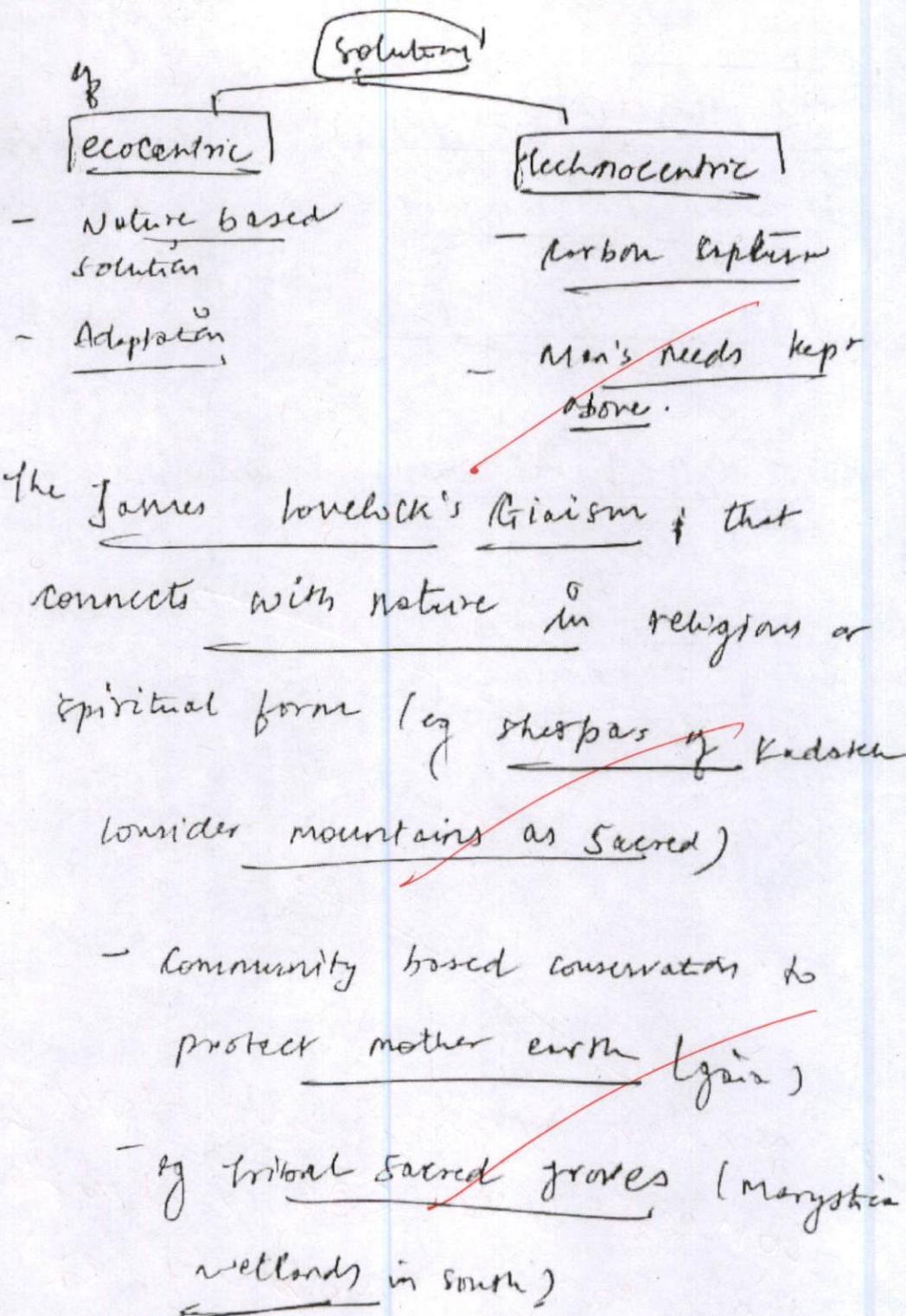
\* mention contribution of various earlier thinkers like Rachel Carson, "Silent Spring," "Limits to growth", theory etc.,

UNFCCC for sustainable development in  
(Braundtland report),

Rejuvenation of environmentalism as a paradigm

- ① with climate change & several  
~~climate extremes, COP16 (COP15 Paris  
 climate goals)~~
- ② Need to study environment - man  
 relationship,  
 - find solutions to environmental  
 problems is rising.
- ③ Riordan gave the interlinkage of  
 man - environment & solution

Remarks



Remarks

→ Arne Naess [ Ecosophy, or philosophy around environment -

- environmental ethics

- principle of Bio-equity

- All have right  
to live.

- principle of man's

responsibility

+ sustainable development

→ [ Ecological principles ]

10's

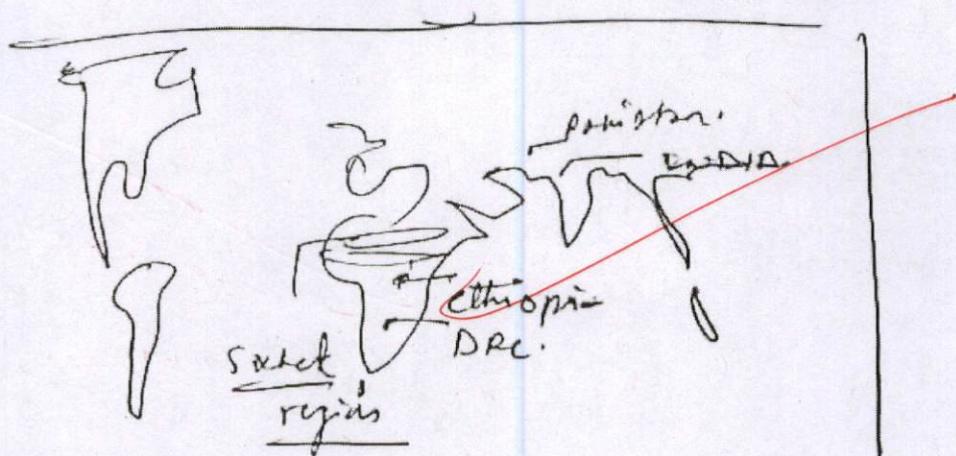
treats ~~man~~ & animals, ~~but~~  
as intrinsic values, ~~not~~ as  
end <sup>in</sup> themselves.

\* mention various initiatives &  
concepts like SDG, Extended  
producer responsibility, 3R's policy  
etc..

Remarks

8. (b) Many poor nations have higher rates of population density, thereby putting more pressure on resources like land and water. Analyse the statement in light of the present trends in world population. How far will these trends be impediments for achieving sustainable goals? (200 Words) (15)

Many poor nations have high population density, world population prospects report highlighted by 2050, the world population will be based on 8 countries (poor developing) that will increase



Remarks

~~fair inheritance~~ The Ackerman's population resource  
 of geographical concepts  
 focusses on ethiopian region having  
 high population density with low  
natl. resources,  $\rightarrow$  impact

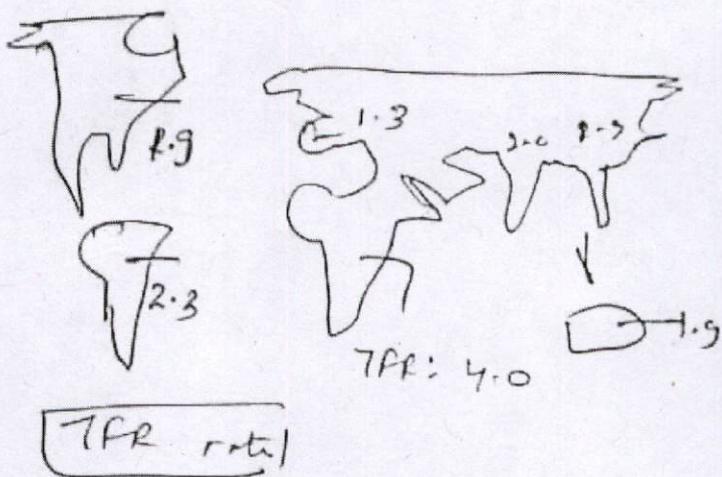
poor economic development.

$\rightarrow$  Poverty,

more mouth  
to feed

Malnutrition

fears impact



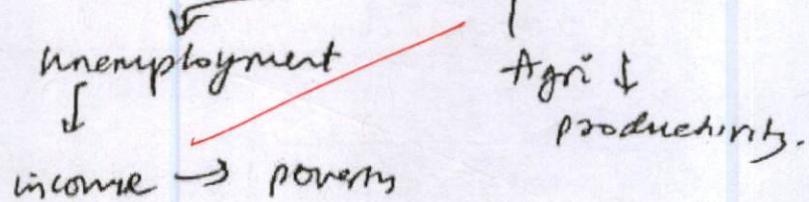
the growth of poor nations

Malnutrition  
poor

Remarks

[TRENDS] impediments for achieving SDG 1.

① ~~Food~~ Poverty: [SDG 1]. less resources



② Food: [SDG 2]

~~Malthus: More Molecules required~~

③ Gender inequality: [SDG 5]

~~education ↑~~

~~Access to resources ↑~~

④ [SDG 13] F14/15: degrades environment  
~~Pure wood~~

Poverty is the parent of revolution &  
crime → ↑ population in poor nations  
which destabilize.

Remarks

4. (c) Based on the specific physical conditions prevailing and the physical, chemical or biological activities involved, discuss some of the processes involved in soil formation.  
(200 Words) (15)

① Regional imbalance lead to  
decreased access to resources.

~~poverty rates ↑~~

⑥ Crime rates high: Civil unrest.

Reason for Radicalisation

e.g. TBIS, recruit

in Nigeria, Iraq

- Kurdistan

② Nagorno Karabakh movement

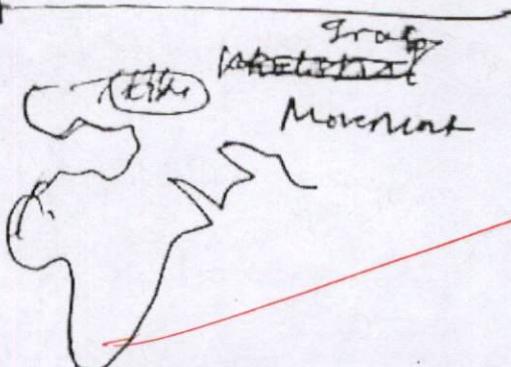
[SBI]

good  
worst  
changes  
given  
work

③

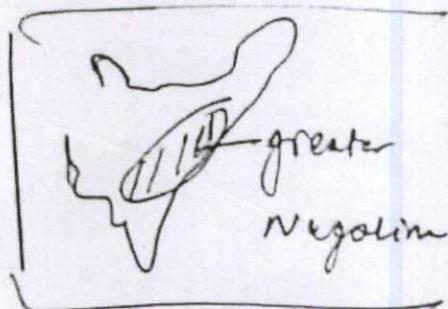
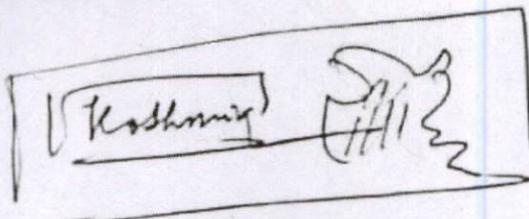
Cost

Sri Lankan crisis:  
public demands →  
political change



Remarks

INDIA



- Radicalisation  
was demands for  
Greater Nagaland, Kashmir,

→ ~~lack of connectivity,  
economic development,  
social development impacts.~~

mention more on ~~Illes de Balears~~ in  
Sri Lanka, Spain etc...

Remarks

① Regional imbalance lead to decreased access to resources.

~~[poverty rates ↑]~~

~~crime rates high: Civil unrest~~

Reason for Radicalisation

eg ISIS, recruit  
in Nigeria, Iraq

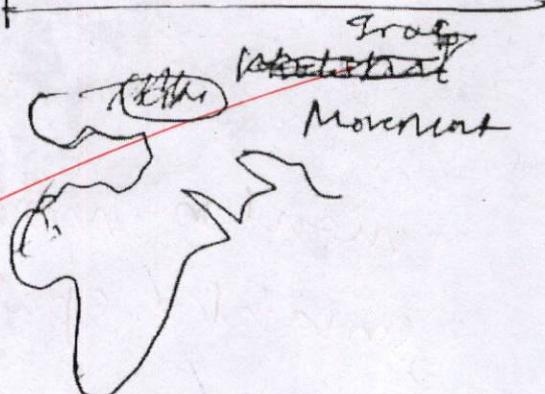
- Muslims ↑

② Nagorno Karabakh  
movement

[SBD]

Cost

- Eritrean crisis:  
public demands → political change



③ \* mention more content on this,

Remarks

Please refer hint for more insights on the issues.