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K. LALITH

RANK - 626

GS MAINS



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GEOGRAPHY, DISASTER MANAGEMENT AND AGRICULTURE

Time Allowed: 3 hrs.

Max. Marks: 250

Q.	Marks	Instructions to Candidate
1.	4	
2.	4	
3.	2	
4.	4	
5.	3.5	
6.	3	
7.	4.5	
8.	3	
9.	4.5	
10.	4	
11.	4	
12.	6	
13.	5.5	
14.	5.5	
15.	5.5	
16.	5.5	
17.	5	
18.	6	
19.	4.5	
20.	5.5	

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Name K. Lalith

Roll No. _____

Mobile No. _____

Date 26th August 2018

Signature K. Lalith

1. Invigilator Signature

T. Balaji
Rohit Vodha

2. Invigilator Signature

REMARKS

- Dear Candidate,
- following are areas where you need improvement:
 - Improve your presentation skill (Most Important)
 - Proper spacing between words + paragraph needed.
 - Add flowchart, diagrams, maps.
 - Give recent examples from Current Affairs

Section - A

- Q1. Discuss the major features of Tropical Rainforest Biomes. How Human activities are impacting these biomes? (10 Marks)**

The tropical rainforest biome is characterised by evergreen and wet, dry deciduous vegetation following are the key features:-

① Forests → Thick evergreen forests, dense and layered structure, form a canopy like structure at the top. Trees not of pure stands hence commercial activities not viable also deciduous both of dry and wet conditions.

② Fauna :- Huge variety, rich faunal diversity, mammals, ~~vertebrate~~ vertebrates, reptiles, rich bird species

③ Rainfall → Various ranges from 100-
200 cms with 2 maxima in March
and September. } High rainfall

④ Geographical location & soil type
→ Found between 10-20° North and South of the Equator, soil type is usually of lateritic type due to presence of heavy rainfall and leaching.

Impact of human habitations on the climate of tropical rain forests has been deleterious because :-

- ① Global Warming → It is changing floral and faunal diversity.
- ② Excessive deforestation, It is increasing industrialisation and areas of habitation, loss of carbon sink example of this being Amazon forests.
- ③ Poaching and Hunting of keystone species is disrupting food chains in these biomes.
- ④ Due to global warming rainfall pattern is changing (Shift in pressure belt system impacted).

In a nutshell the beauty of tropical evergreen forest have witnessed a decline due to anthropogenic activities.

Remarks

- Q2. India is slowly cleaving into two countries- a richer, older South and a poorer, younger North. Critically analyze. (10 Marks)

~~The demographic divide of India is its greatest advantage in 21st century.~~

~~The divide in demographics across the country shows a distributed picture where southern states such as Telengana, Andhra Pradesh, Tamil Nadu etc. perform high on human development index, the so called North Indian "BIMARU" states is young but poor.~~

Reasons in favour of this are :-

- ① Industrial belts such as Sugar Cane, Cotton shifting from North to South thereby bringing prosperity to southern states.
- ② Life expectancy in South India is relatively higher due to increased literacy rates.
- ③ The fertility rate have come down in South India. TFR less than 1.8 versus North Indian TFR

Remarks

more than the replacement rate 2.1..

④ Booming IT industry through hubs like Bangalore, Hyderabad thus IT employment in South.
Reasons against the statement:-

① Central and western States like Gujarat, Maharashtra, MP are performing consistently on economic front.

② Except for Bihar, UP, Jharkhand TFR in other states have drastically come down, health services improved hence life expectancy increased.

③ Mineral resources such as Coal etc. Conceived in some of these northern regions hence potential prosperity is feasible.

In view of the above the so called economic cleavage between the South and north seems to be bridging by constant government efforts. 14th Finance Commission recommended disbursement of funds on fiscal capacity is an indicator of this.

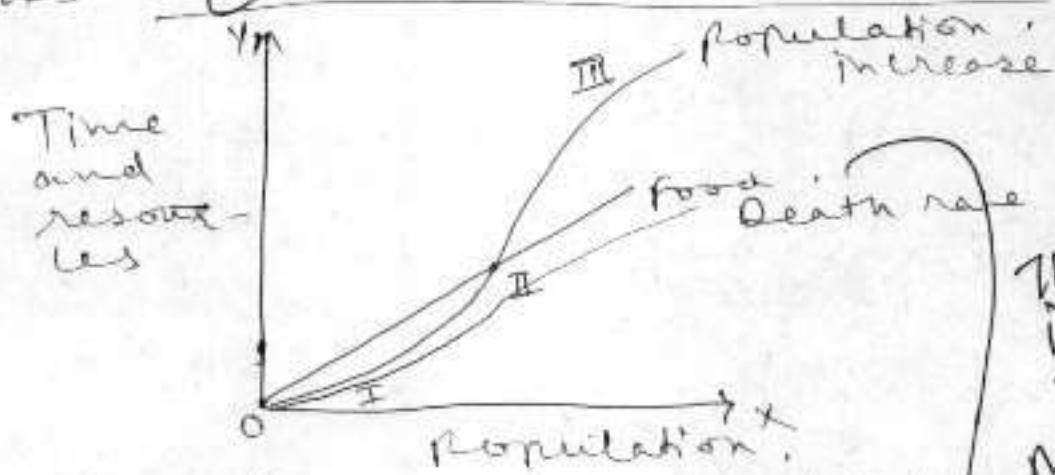
Remarks

Q3. Critically examine the Malthusian theory of population growth and discuss its relevance in context of India? (10 Marks)

The Malthusian theory of population growth is categorised as development of a civilization in 5 critical stages. Malthus said resources increase arithmetically but population increases geometrically thus increasing competition.

He also cited wars, natural disasters like famines, fight for resources, as positive checks by nature and coined it as "environmental resistance".

Critically examine the main problems of this theory



This is not Malthus theory

Stage I → High birth and death rates, barbaric civilization.
Stage II → Slowing down birth rates and high death rates.
Stage III → Slowing down birth.

Remarks

rate and death rate.

Slowing down population due to
lower death & birth rate and
having sufficient food.

~~This is
not a
Malthusian
theory~~
~~conceptual
clarification
of
the
Reasons~~

India is at the 3rd stage of population ecology theory
and entering the 4th stage.

- ① Slowing birth rates (TFR falling)
- ② Improved life expectancy,
rising around 40 during independence
to 70 presently).
- ③ Improving health services
thereby stabilising population growth.

② India should be
cautious before entering the
stable phase as it would mean
loss of demographic dividend
and increasing burden on older
population.

Remarks

- Q4. Critics argue that organic farming is inefficient and requires more land than conventional agriculture to yield the same amount of food. Do you agree? Critically analyze the potential of organic farming in solving hunger problem and its economic viability for farmers. (10 Marks)

~~Ques.~~

Organic farming refers to use of natural pesticides and fertilizers in farming in place of chemical fertilizers thereby improving the quality of output.

It is the bright future towards ensuring a sustainable fight against Hunger because:

- ① Less energy intensive overall
- It involves use of By-products of domestic and animal wastes Hence beneficial.

- ② Healthy less use of chemical fertilizers + pesticides, which makes crop safer for human consumption.

- ③ Intensive farming is possible through Scientific methods like conservation tillage etc.

For example increasing yield.

- ④ Research has promised use of organic farming in hydroponics

Discuss the issue of low yield of organic farming

Stick to the demand of question

Remarks

Hence need for more space is a misnomer.

Demerits

- ① More time consuming in overall agricultural cycle.
- ② Not possible instantaneously over arid and semi-arid land.
- ③ May require higher space per unit of production if unscientifically undertaken.

(4)

Viability for farmers

- ① Organic farm yield seeds at higher prices hence beneficial for farmers. Vision of Doubling farmers income by 2022.
- ② Government support through subsidies in Panchayat Krishik Vikas Yojna etc.
- ③ It is a sustainable method of agriculture - government schemes such as govt. of India are Comptt. inventory, M.S. Swaminathan recommended Green Revolution which is possible through organic farming.

Remarks

- Q5. 'Animal rearing is a key livelihood and risk mitigation strategy for tribals and small and marginal farmers, particularly across the rainfed regions of India'. Substantiate; also discuss some strategies to realize the potential of this sector? (10 Marks)

Animal husbandry has been a complementary activity in traditional agriculture in India since ages. Only 45% of the total net cropped area is irrigated than that is more than half of farmland depends on monsoon.

Global Warming and change in monsoon and rainfall patterns determine the crop yield drastically. Thereby leaving marginal farmers with no income security.

Government's vision to double farmers' income involves allied activities such as animal rearing, fishing etc to support primary income through agriculture.

Postmodern VRasgajna intended while revolution in 21st century are commendable

explain how it is a key livelihood & risk mitigation strategy

not needed

Remarks

*is related to
solar revolution*

Orange revolution initiatives are beneficial for tribals and marginal farmers who can earn directly and indirectly through "on farm cattle".

Various strategies to improve animal husbandry:

- 3.5 *live strategies* *specific to tribals* *& small & marginal farmers*
- (1) Improve quality of livestock through preservation of indigenous breeds.
 - (2) Artificial insemination for hybrid cattle for greater yield of milk through Rashtriya Krishi Mission.
 - (3) National Livestock Mission has improved animal husbandry as major economic activity.

In a nutshell, green-gent initiatives like gobardhan Scheme etc. improves avenues for small and marginal farmers to intensively undertake animal rearing and benefit for the same.

Remarks

Q6. What is mass movement? Discuss its various types?

(10 Marks)

Mass movement refers to movement of a large volume of rocks, debris, soil and other material over a geographical gradient due to natural or anthropogenic factors which may at times lead to disasters.

* Mass movements would be triggered by various natural agents such as water, wind and glaciers.

Anthropogenic factors such as deforestation, damming of water bodies etc. can also cause mass movement and siltations.

Types:

- ① Water, Sheet erosion due to intensive precipitation or rain fall on mountainous slopes or plateau regions.

Remarks

② fast flowing rivers and streams dislodge heavy masses of sand and silt.

③ Landslides, Avalanches may

~~occur~~, landslides happen due to extensive vibration in loosely packed geographical gradients through debris, industrial activities etc. Whereas in Avalanche mass movement of ice and snow and associated debris due to various factors.

④ Earthquakes If terrestrial causes movement of rocks etc. if submarine causes mass movement of water causing ~~earthquakes~~ Tsunamis etc.

⑤ ~~Denudation~~ which can happen through wind, water etc

Even large scale deforestation may lead to mass movement of landscapes which is due to anthropogenic interventions which are at rise.

Remarks

- Q7. Recently, India's Prime Minister has appealed for a "three-pillared" approach to farming, which included crop farming, agro-forestry and animal husbandry. Discuss what needs to be done to successfully implement this approach to bring about farmer's welfare.

(10 Marks)

~~The integrated approach towards farmer's welfare is to ensure embedded at all levels and make farming as a sustainable activity.~~

4 key pillars towards doubling farmers income are:-

① Improved remuneration by bringing reforms in APMC Act. (APMC Act 2016 was proposed).

② Improve and Increase MSP for various crops and reforms in working of FCI - Shanta Kumar panel recommendations. recent budget announcement to make Kharif crop's MSP 1.5 times more.

③ Productivity → Various factors such as high value commodities, seeds, irrigation, judicious use of fertilizers, pesticides,

Remarks

(Soil Health Card) scheme etc
to ensure greater fiscal to
farmer

(4) Co-operative farming and
contract farming to be models
for agroforestry.

(5) Model Land leasing policy
proposed by NITI Aayog Action
plan for facilitating trans-
fer of title, subletting etc.

(6) Pashushthan Viras Yojna for
improved animal husbandry,
~~good~~ tribal mission and ~~tribal~~ than
mission as initiatives.

(7) Per Deop More leop (Har
Khet Ko pari) as initiatives
under Pradhanmata Krishi
Sankalp Yojna.

(8) Relief measures such as
Crop Insurance such as Pradhan
mata's Fasal Beema Yojna and
Agricultural Credit Facilitation
etc could be the way forward
to ensure safety and sustain-
ability by attracting and retaining
young in agriculture (ARYA)

Remarks

- Q8. India need significant focus in agriculture research through projects like TIGR2ESS using multi-partner approach to deliver a second, more sustainable Green Revolution. In this context, discuss TIGR2ESS project funded by Global Challenges Research Fund (GCRF) by Research Councils UK in India. (10 Marks)

Agricultural extension plays a vital role in agricultural productivity in the long run.

~~Research & Development is crucial to ensure 2nd green revolution of Green revolution as envisaged by M.S. Swaminatha n by India~~

~~Lab-to-farm research work is indispensable. For example, System of Rice Intensification. It is a sustainable method of cultivation of using less water thereby increasing the net crop areas of rice towards Western regions of India.~~

~~precision farming techniques like drip irrigation, direct application of nutrient through plant roots.~~

Lack of conceptual clarity is there

Revise TIGR2ESS project

You must know the basic features of project

Remarks

Land levelling through lasers, recently brought in use Pungals, Hengans etc.
~~Scientific farming methods~~
Such as ~~green house cultivation~~, hydroponics etc. give greater productivity through scientific means.

~~Trees, the project TIGER 2050 by Global challenges research fund is a step in this direction.~~

Remarks

- Q9. Why fishing industry is well developed on the western coast of India than eastern coast? Discuss the recent steps taken by the Indian government for the growth of this sector. Also discuss why commercial fishing is less developed in southern hemisphere?

(10 Marks)

~~Fishing is one of the chief economic activities of coastal communities ~~most of~~ over. Fisheries in the west of India are more developed than Eastern India because;~~

- ~~① Indented coastline thereby providing natural harbours,~~
- ~~② Cold upwelling zones towards the western side of continents.~~
- ~~③ Mechanised logistics and warehouse facilities being afforded by richer states like Maharashtra, Goa, Gujarat.~~
- ~~④ Lesser number of tropical cyclones in Arabian sea as compared to Bay of Bengal.~~

Following are the government steps.

- ① SAMPADA Scheme → This scheme was brought in to provide forward and backwards linkages to the fisheries sector to help

Remarks

its potential fully.

- ② Encouraging ~~blue~~ Blue economy through integrating Marine and Inland fishing.
- ③ Mega food parks to be created for increased exports of processed marine catch.

Commercial fishing is less developed in Southern Hemisphere

Because :-

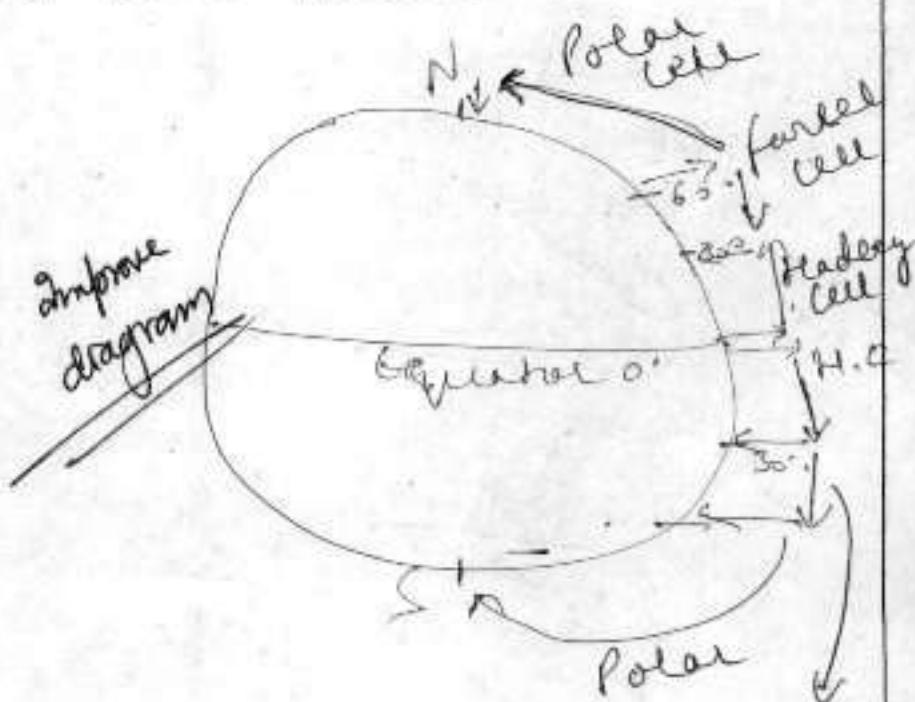
- ① Low population density and nutrition through tropical and subtropical crops.
- ② Low development of mechanised fisheries and logistics (poor economies)
- ③ Distorted cold upwelling zones at Eastern Pacific margins due to frequent El-Niño etc.

In totality fisheries form an integrated scheme of development of coastal civilization.

Remarks

Q10. While discussing the causes of formation of planetary winds elaborate on their major characteristics. (10 Marks)

Planetary winds are also called global winds and are persistent throughout the year thereby determining world climate. Major planetary winds are Trade winds, westerlies and Polar winds.



Causes of formation.

- ① Rotation of Earth from west to East. Coriolis force towards Right in Northern Hemisphere and Left in Southern hemisphere.

Remarks

- (A) Thermal factors like Differential heating Temperatures latitudinally
- (B) Atmospheric Dynamic Factors such as Wind & Pressure Gradient force
- (C) Distribution of Land and Ocean determines the strength of global winds.
features of global winds.

- (D) Constant throughout the year.
- Shift in latitudinal movement due to apparent movement of sun.
- (E) Determines global climatic regions.
- (F) Responsible for climatic phenomenon such as temperate cyclones, polar vortices etc.
- (G) Global winds also determine the flow and direction of ocean currents through drift on surface water thereby generating oceanic gyres etc.

Add conclusion

Remarks

Section - B

- Q11. Gulf Dust storm is considered as one of the contributing factor (apart from stubble burning) behind the smog that had smothered Delhi and its neighborhood, as per Scientific Assessment of Delhi Winter Air Quality Crisis Report by SAFAR. Elaborate on the factors that increase dust storm and analyze its impact on Indian weather? (15 Marks)

Dust Storms have become a new menace and have acquired disastrous proportions, especially in northern India. The major reason behind the smog pollution in Delhi-NCR region is understood to be dust generated through various sources.

Recently huge dust storms caused casualty in UP, Haryana, Rajasthan, Delhi (July 2018), also it has led to loss of valuable property and invoked the attention of Disaster Management bodies in the country. SAFAR India attributes the following factors to

Remarks

Pollution in NCR :-

- ① Dust from vehicular pollution.
- ② Improper management of solid wastes.
- ③ Cement factories emit soot and ash which aggravate the problem further.
- ④ Coal based thermal power plants in the regions.
- ⑤ ~~Stone~~ stubble burning in neighbouring states.
- ⑥ Over seas sand and dust carried by strong jet streams and winds.
- ⑦ Open pavement and construction activities are a contributing factor.

Factors that increase

Dust storm are :-

- ① Non treatment of industrial emissions, dust like Ashes
- ② presence of strong and continuous winds like Monsoon Easters which

Remarks

- Carry dust from gulf regions and other deserts.
- ③ Change of monsoon patterns and lack of precipitation due to which dust does not settle
 - ④ Geographical location of NCR
 - a) Landlocked,
 - b) Subsidence zone of global winds during monsoon,
Shift of ITCZ to 25° North.

add
deforestation
+
and
conditions
prevailing
in the
region.

IMPACT ON INDIAN WEATHER

- (1) Increased level of PM2.5 & 10. 4
- (2) formation of secondary pollutants like Soot, ground level ozone.
- (3) During winters, Delhi NCR region be covered like a gas chamber due to subsidence of dust, no wind flow, high pressure zone over the land.
- (4) Dust storms impact 6-8% of Indian land mass and lead to loss of life and property.
- (5) NIDM has devised a protocol to deal with the rising menace of dust storms.

Remarks

Q12. Oceans are suffocating, as dead zones have quadrupled in size since 1950s. In this context, discuss the causes and effects of Ocean Dead Zones on marine ecosystem.
 (15 Marks)

The phenomenon of oceanic Dead zones is a rising menace of contemporary times.

It happens due to lack of enough dissolved oxygen per unit of water due to increased BOD (Biological oxygen demand) and COD (Chemical oxygen demand), thereby leaving less oxygen for other living organisms in the marine ecosystem.

~~Causes~~

A.) NATURAL FACTORS.

- ① Breakage in foodchain due to loss in phytoplankton which is the primary diet of NEFTON'S & DOME-FSAE fishes.
- ② Algal bloom thereby stopping penetration of oxygen and sunlight into the photic zone of oceans.
- ③ Marine epidemic concentrated in a certain location due to ~~pollution~~

good point

Remarks

diseases -

~~B) Global Warming and thermal expansion of water thereby loss of marine flora and fauna due to lack of soler and water temperature changes.~~

~~(B) Human factors -~~

~~① Accumulation of anthropogenic wastes such as plastics and other non biodegradable substances example the Great Pacific Ocean dump recently in news.~~

good

~~② Marine oil spills in mid-oceans and continental shelf regions and inefficient bio remediation effects.~~

~~③ Human induced global warming due to industrialisation.~~

~~④ Release of nuclear, industrial and domestic waste and toxic material into oceans.~~

IMPACTS OF DEAD ZONES.

- Recent examples like Bay of Bengal ocean dead zone due to

Remarks

Waste Oceanic water and
chemical being carried by
ganga river into Bay of Bengal

Also, Mexican Gulf ocean dead
zone because of excessive water
pollution.

~~good
Add
such
example~~ Arabian gulf and Pacific ocean
dead zones because of extremely
rare and dangerous algal
bloom and invasion of alien
species.

General Impact over marine
ecosystem is:-

- (a) Loss of biodiversity in photic
zones and continental shelf
sheet regions.
- (b) Loss of corals & coral bleaching
world over due to breakage
in marine symbiosis.
- (c) Impact on fisheries, especially
nesting reektons ~~thus~~ loss of
livelihood for coastal popula-
tions.
- (d) International tensions at Bilateral
and multilateral level.
Thus, O.D.I's need to be
remedied at the earliest to
reduce their impact on the marine foodchain.

Remarks

- Q13. The United Nations Convention on the Law of the Sea (UNCLOS) not only protect the jurisdiction and economic rights of its member states overseas, but also the marine life and environment. Examine. (15 Marks)

~~UNCLOS and International Sea Bed Authority are taking care of marine ecosystem overall and regulating economic activities therein at national and international level especially in international waters. It is the chief authority which determines rights and responsibilities of different countries both individually and collectively over the marine resources.~~

OBJECTIVES OF UNCLOS ARE:-

- ① To provide a global Dispute Settlement mechanism (DSM).
- ② To demarcate Exclusive Economic Zones and jurisdiction of nations over Open Seas so as to ensure peace and harmony bilaterally and multi laterally.
- ③ Equitable and fair distribution

Remarks

tion of resources among countries
- International Seabed Authority
(ISA)

④ Making legislations / Bye-laws
~~which would act as a common~~
law on sea in International
waters e.g. examples bunker
convention, Ballast water treaty.

⑤ Along with UNCLOS, ISA gives
rights to nations to sustainable
extract ~~PNA~~ (Poly Metallic
Nodule), recently increased the
~~India's~~ ~~license~~ lease to extract
them in Central Indian ocean
region.

⑥ Protection of Environment and
Marine life through:-
 (1) Setting Standards for conducting
~~motorised fishing in International~~
waters exploration of petroleum
and natural gas etc.
 (2) prohibits poaching of ~~edge~~
~~endangered marine species like~~
~~prohibition on whale hunting etc.~~
done by Japan.
 (3) work in collaboration with IUCN
to protect and catalogue the

Remarks

~~Marine flora and fauna for sustainable development of marine ecosystem.~~

In recent times, UNCS has given verdict on key international issues like New Moore, Talapatty Island Conflict between India and Bangladesh etc. Against aggressiveness of China in the EEZ of Vietnam and other countries etc.

It has laid down methods to determine boundaries through Talweg principle etc. in order to maintain peace among marine neighbours.

given
by rca

55

Q14. Why are the west coast beaches receive more tourists and are more famous than east coast beaches in India? Also shed some light on India's Port led development initiatives.
(15 Marks)

India has a long coastline of around 7500 km ~~extending~~ from Gujarat in the west to West Bengal in the east.



Western coasts are relatively more famous because:-

- ① Better development of coastal areas ~~by State governments~~.
- ② More efforts on promoting tourist spots such as ~~Goa, Mumbai etc.~~
- ③ Availability of Marine Sports such as Deep Sea Diving, Surfing etc. due to favourable condition offered by Arabian sea.

Remarks

- (4) Receding coast lines due to which various natural patterns and ~~due to~~ ~~inland~~ inundations like back water channels & Kayals Kerala attract tourists.
- (5) Absence of more natural and Artificial harbours ranging from Kandla port in the west to cochin port thereby giving it more exposure through industrialisation and shipping activities. -
- (6) Lesser number of cyclones and Oceanic disturbance on western coast vis-a-vis Eastern coast example the Eastern coast and Bay of Bengal experiences frequent tropical cyclones.
- (7) Absence of coral reefs and coral Islands on the west coast.
- (8) International cultural festivals for example loc film festival etc.

 Remarks

However the phenomenon is changing. Mandarash Aga Beach of Konark has got 1st Blue flag certification in Asia. Nishatkhapetra is now emerging as a new tourist destination post bifurcation of the state.

~~Q.5.5~~ India's Port led development initiatives (Sagar Kalyan initiatives) are as follows:-

- Developing roads or other logistics near ports.
- Overall development of coastal communities.
- Modernisation of existing ports and development of new ports.

~~Government Initiatives like Coastal regulation zones (CRZ) and Coastal Economic zones (CEZ)~~ are a way forward to integrate port led development with coastal tourism.

Remarks

- Q15. Migration is a physical and social transformation and is also an instrument of cultural diffusion and social integration. Elaborate. Also, explain the nature of gendered mobility in India. (15 Marks)

~~Migration is an inevitable phenomenon in a democratic nation state due to varied nature of economic opportunities, urbanisation and industrialisation.~~

~~Migration could be within the states and between states of India generally in search of resources, jobs, health and educational facilities.~~

PHYSICAL TRANSFORMATION. → It's because when people migrate they may experience different climatic zones, temperature and altitude differences etc. Migration from Kerala to Delhi would bring along a package of physical challenges such as extreme temperature, pollution etc. People need to develop a robust coping mechanism.

Remarks

SOCIAL TRANSFORMATION

Migration may lead to change in Demographic and social status & and economic class for example, a farmer generally become a slum dweller in big cities ~~in~~ ^{influx} of youth or employment in ~~new~~ ^{new} metropolises.

CULTURAL DIFFUSION

~~Add example~~ Migration usually leads to a cultural meeting melting pot especially in metropolises people from different religion, castes and ethnicities stay together in harmony, therefore differences are narrowed down, even a South Indian may prefer North Indian food.

SOCIAL INTEGRATION

It is similar and complementary to cultural diffusion.

Remarks

~~and ensures harmony and cohesion in the society. Quest of common resources & forces divergent roles to converge. For example hold USA saw people of various social backgrounds jumping into profession and working together.~~

~~Greece~~

Gendered mobility 5.5
in India, usual

Usually male migration happens more due to economic opportunities in the big cities. Stress on land in agric culture leads to migration of both male & female. Female migration usually happens due to marriages etc.

In a nutshell, Migration is a deep chief characteristic of varied geographical terrain of India.

Remarks

- Q16. Population growth and urbanization rates will have dramatic impact on food security across the world by 2050. In light of this, discuss the role of Big-data and upcoming start-ups in bringing next green revolution in the Indian agriculture? Examine. (15 Marks)

~~Second green revolution is a must to satisfy the food security of rapidly growing Indian economy with the population of more than 1.3 Billion.~~

~~Role of Big Data in bringing next generation green revolution:-~~

- (1) ~~Meteorological prediction through super computer thus better prediction of monsoon,~~
- (2) ~~Analysis of emerging demand through certain crops thereby better demand management leading to production of such needed agricultural commodities.~~

Remarks

③ Big Data Analysts help to gauge the nutritional requirements of current generation thereby bringing biofertilization initiatives through GM crops etc.

④ Startups can play a very important role :-

- They may provide agriculture extension services.
- Innovations in farm to fork linkage would help agriculture to become economic and target oriented.
- Startups could increase competition in allied sectors to agriculture thereby reducing costs.
- R & D based startups can use the dreams of lab to farm initiatives to further intensify second green revolution.

Add examples

for example, terrace farming, vertical farming, greenhouse (polyhouse) cultivation etc.

- Big Data Analytics are helpful in penetrating crop insurance scheme and agricultural credit facilities.

(5.5) Soil Health Card is based on Big Data Analysis thereby increasing yield of agriculture equally across the country.

Smart agricultural initiatives such as targeted micro irrigation, e-NAM (Marketing), prediction of natural disasters would facilitate better farm management and enhance the fruits of second green revolution.

Remarks

- Q17. Every hazard is unique in terms of local socio-environment factors that control it, social response it generates and the way each social group deals with it. Citing specific examples, examine the importance of the role of local government and community in dealing with disasters. (15 Marks)

Disaster Management is an All-pervasive activity as per DM Act 2005, initiatives of Disaster management are taken at National, State and District level.

14th Finance Commission stressed on disbursement of more funds to local government to deal with the local disasters for example coastal States have coastal erosion which inland states do not have.

The NDRM (National Disaster Management Plan) 2016, ~~built~~ on the lines of Sendai Framework (2015-30) also advocates acceleration of

10% of total Central sponsored schemes to local governments (LG) for management at the micro level.

(5)

explain
by
citing
examples

- The principle of subsidiarity is key to success in DM as local problems would be best known by local governments rather than Central government.
- Community role in DM is specific per demands to reconstruction, rehabilitation and construction for example Japanese economy.
- Local government plays a vital role in Disaster resilient infrastructure.
- Agenda put forward in International workshop of Disaster Resilient Infrastructure in 2016

Remarks

- Reaction ~~and~~ by local community quickly is the key to reduction in loss of life and ease of rescue operations for example Chennai floods 2015.
- Mitigation of Disasters can only happen when national policies are implemented by local governments for example empowerment by govt of Gujarat local governments to stress & upon earthquake resistant infrastructure after 2002. Be it to India In totality even the 710 point programme by PM in Asian Ministerial Conference 2016 on DRR stresses on participation of local community, women, local educational institutions, Social media etc.

Remarks

- Q18. Drought is a broader concept than just deficiency of rainfall. Discuss, how drought is more of a man-made disaster than a mere deficiency of rainfall. Elaborate on the consequences of desertification that drought prone regions face. Also, bring out the preventive steps need to be taken in light of targets to curb desertification as mentioned under the SDGs. (15 Marks)

~~Drought is not mere
the deficiency of rainfall according
to UN's standards per capita avail-
ability of water below 100 cubic
meters per annum makes a region
drought prone.~~

~~India has recently
revised its definition of drought
from merely a departure from
average rainfall to a holistic
concept including food, nutrition
and decent life.~~

Drought is more of
a man-made disaster :-

- Over exploitation of ~~the~~ aquifers further
depressed the drought condition
of land water bodies
- Pollution of existing water resources
renders it to be
unuseable thus aggravating
Drought.

Remarks

- Improper Watershed management by local municipalities
- Inefficiency in farm management of water increases drought prone areas.

CONSEQUENCES OF DESERTIFICATION ON DROUGHT PRONE REGIONS ARE :-

- Loss of livelihood due fall in industrial activity.
- Loss of crop leading to farmer distress.
- Livestock management becomes tedious. Land becomes arid hence agriculture is also affected.
- Migration begins thereby leaving mental impact on the community.
- Around 40 million hectares of India is drought prone thus challenging further expansion

Remarks

of net sown area in the western region.

PREVENTING STEPS FOR COMBATING DESERTIFICATION :-

- Formation of UNCCD (UN convention on combating desertification in Asia and Africa).

- Global initiatives like Bonn challenge to reclaim desertified land in Jordan, Israel etc.

6. ~~Water Harvesting, rain water harvesting.~~

- ~~feed and food management.~~

- ~~Dryland agriculture and increase of millets in consumption baskets.~~

- ~~Planting grasses on the edges of farmlands to prevent its further encroachment. As per SDG, furtherance of desertification has to be curbed as the first order of business.~~

Remarks

- Q19. Cooperativization was seen as an important element in the agenda for institutional changes sought to be achieved through land reforms. Discuss. Also explain why the progress made by the cooperative movement in India largely fell far short of the goals set by its early proponents. (15 Marks)

~~Cooperativisation of land was one of the key pillars of the post independent land reforms.~~

~~It referred to pooling of land by small farmers and land workers to create large land parcels thereby facilitating economic farming activities.~~

~~Cooperativisation failed due to:-~~

- ① Legal factors → Tenancy laws were not strongly enforced
- ② There was not uniform law on co-operativisation as Land is a State Subject,
- ③ Cultural factors, The hereditary nature in Indian families holds distribute land

explain
why
cooperativisation
was seen
as agenda
for
institute
change

Remarks

- Among children created further smaller land for lets and disputes among Kins thus disputes arose and hindered the process.

~~Co-operative culture~~

~~Was not widespread in Ryssari and Zamindari areas.~~

- ④ ~~Political factors~~ → Lack of willingness of GRAN PANCHAYATS to make efforts.

- The land titles were also not truly distributed and well treated administrative hurdles.

- ⑤ ~~Economic Reasons~~ → Land was a priced asset and no one wanted to part with it even for shared benefits.
Absentee landlordism still rampant prevalent in Bengal

Remarks

Orissa, thus firmly on
Exploitative grounds continued

However despite
 of shortfall cooperation sation
 gained initial support
 through Bo. Bhoj Daan. Move-
 ment by Nimoba Bhane in
 North India.

Recent governmental
 efforts for creating Land
 Banks is a way forward
 to realise the dream of pooled
 land/use and economic
 farming like the
 success of IFCCO.

45

first part of
 question is
 not answered
 properly

Remarks

Q20. What are the various types of rural tourism? What will be the impact of promoting rural tourism in India? Elaborate the steps taken by the government so far? (15 Marks)

Rural tourism has emerged as a great opportunity to increase the aggregate income of non urban India where 70% of the total population lives.

TYPES OF RURAL TOURISM

- ① Medical Tourism, especially in the state of Kerala & Karnataka where Ayurveda & Siddha are famous world over.
- ② Eco-tourism → The flora and fauna in rural areas is still intact so there is great potential for rural communities to earn livelihood.
- ③ Theme based tourism, for example, Prestap gosh farms

Remarks

Hazane which lets you experience rural life, cuisines and culture.

(A) Cultural tourism. → Especially popular among international tourists.

Add adventure

(B) Bed and Breakfast scheme Offered in Himachal Pradesh.

IMPACT OF PROMOTING RURAL TOURISM IN INDIA.

- ① Increased livelihood opportunity for rural folks.
- ② Gross increase in rural per capita income thereby increasing per capita demand.
- ③ Balanced Regional growth and development initiatives realised thereby reducing fiscal gap/distance.

(4) Increase in Exchequer revenues for state governments thereby better allocation of funds for public use

The explanatory negative impact

(5) Competitive federalism among local governments thereby better infrastructure creation.

STEPS BY GOVERNMENT

- 5.5
- (1) Theme based tourism circuit covering urban & rural areas
 - (2) RURBAN Mission.
 - (3) Skill Development Initiative
 - (4) HRIDAY & PRASAD Mission to improve tourism overall.

Remarks