

1. The Sunga dynasty contributed significantly to the cultural and social development in ancient India. Discuss.
 प्राचीन भारत में सांस्कृतिक और सामाजिक विकास में शुंग वंश का महत्वपूर्ण योगदान रहा है। चर्चा कीजिए।

(150 words) 10

The Sunga dynasty succeeded the Maurayan dynasty in the north.

Its founder Pushyamitra Sunga, and important rulers like Agastya, Nasumitra, Bhadrabata contributed to the cultural and social developments in ancient India.

Contributions to Cultural Development

① Art and Architecture :- Although there are accounts of the Sungas plundering many stupas yet :-

- ↳ Construction of gateway/torans near Sanchi Stupa
- ↳ Change in material from wood to stone and intricate carvings on Bharut Stupa.
- ↳ Commissioned sculptures of Yaksha & Yakshagini's

② Language

Patronised sanskrit - (Patanjali's court poet)

③ Impacted by Brahmanism

Contributions to social Development

① Reflect a break from Ashokan culture of Dhamma and nonviolence

② Ruled kingdom with dominance (eg → conducted Ashvamedha Yagyas)

③ Focus on consolidation of empire over expansion.

Thus a strong base built by the Sunga dynasty gave space to the succeeding dynasty (like Kanva) to have a firm control over north India

Mauryan → SUNGA → KANVA



Expanses of Sungas

2. Discuss the role of foreign nationals in the Indian freedom struggle during the Gandhian phase. (150 words) 10

भारतीय स्वतंत्रता संघर्ष के गांधीवादी चरण के दौरान विदेशी नागरिकों की भूमिका की विवेचना कीजिए।

Not only dedicated Indians, but the Indian independence struggle saw the contributions of foreigners like Annie Besant, C.F. Andrews, Miraben (Madeira Slade), Satyendra Nath Bose, Sister Nivedita, etc.

Role of foreigners

① Annie Besant

- ✓ Demanded self rule
- ✓ member of theosophical society
- ✓ worked for women

set up home rule league to bring political consciousness to masses which was upto now reserved for elite.

② C.F. Andrews - also known as Deenbandhu advocated the rights of Indians in other colonies and aroused public opinion in England against colonial exploitation.

- ③ Murabehn - influenced by Gandhiji, promoted Khadi, Charkha and Satyagrah, accompanied Gandhi to Round table conference.
- ④ Satyranand Stokes - American who fought against labour exploitation in Shimla hills.
- ⑤ Sister Nivedita - worked for women employment and social development.
- ⑥ Sarala Ben - disciple of Gandhiji - helped families of social political prisoners.
- ⑦ V. Alwin - fought for tribal rights & set up Gaud seva Mahamandal.

Not only the above, but Lord Mountbatten also helped to convince princely states to join Indian Union.

Thus, since the cause was just, the Indian freedom struggle resonated with many foreigners.

3. Provide an account of the contributions of Ram Manohar Lohia during the Indian freedom struggle and in post-independence India. (150 words) 10
भारतीय स्वतंत्रता संघर्ष के दौरान एवं स्वातंत्र्योत्तर भारत में राम मनोहर लोहिया के योगदान का विवरण प्रस्तुत कीजिए।

Ram Manohar Lohia was a true guardian and staunch supporter of Democratic socialism. His contribution to the Indian freedom struggle and provision of a socialist philosophy post independence is unparalleled.

Contribution during Indian Freedom Struggle

- ① Part of Congress underground radio - made people aware of their rights, encouraged protests against the exploitative rule, important figure in Quit India movement also managed various underground activities and parallel government. sent to jail for same
- ② Also held key positions in All India Congress Committee for foreign collaboration

- ③ Presented an alternative view of Congress through formation of Congress Socialist Party

Contributions post independence:

- ① Staunch supporter of the "Saptakranti" and Chaturbhuj Rajnети which included 4 pillars of state governance

- ↳ Centre
- ↳ State
- ↳ District
- ↳ Village

His ideas were actualised through 73rd & 74th amendment to provide democratic decentralisation in India

- ② Believed in Equality of caste, women & religious minorities.

↳ For this he worked with B.R. Ambedkar. The positive affirmations given to marginalised is manifestation of Lohia's & Ambedkar's vision (Article 14, 15, 16 of Constitution)

Thus, Ram Manohar Lohia would forever be remembered as a true patriot and committed son of the Indian motherland

4. What do you understand by tsunamigenic zones? Giving an account of their global distribution, explain the propagation of tsunamis. (150 words) 10

सुनामी जनक क्षेत्रों से आप क्या समझते हैं? उनके वैश्विक वितरण का विवरण देते हुए, सुनामी के संचरण की व्याख्या कीजिए।

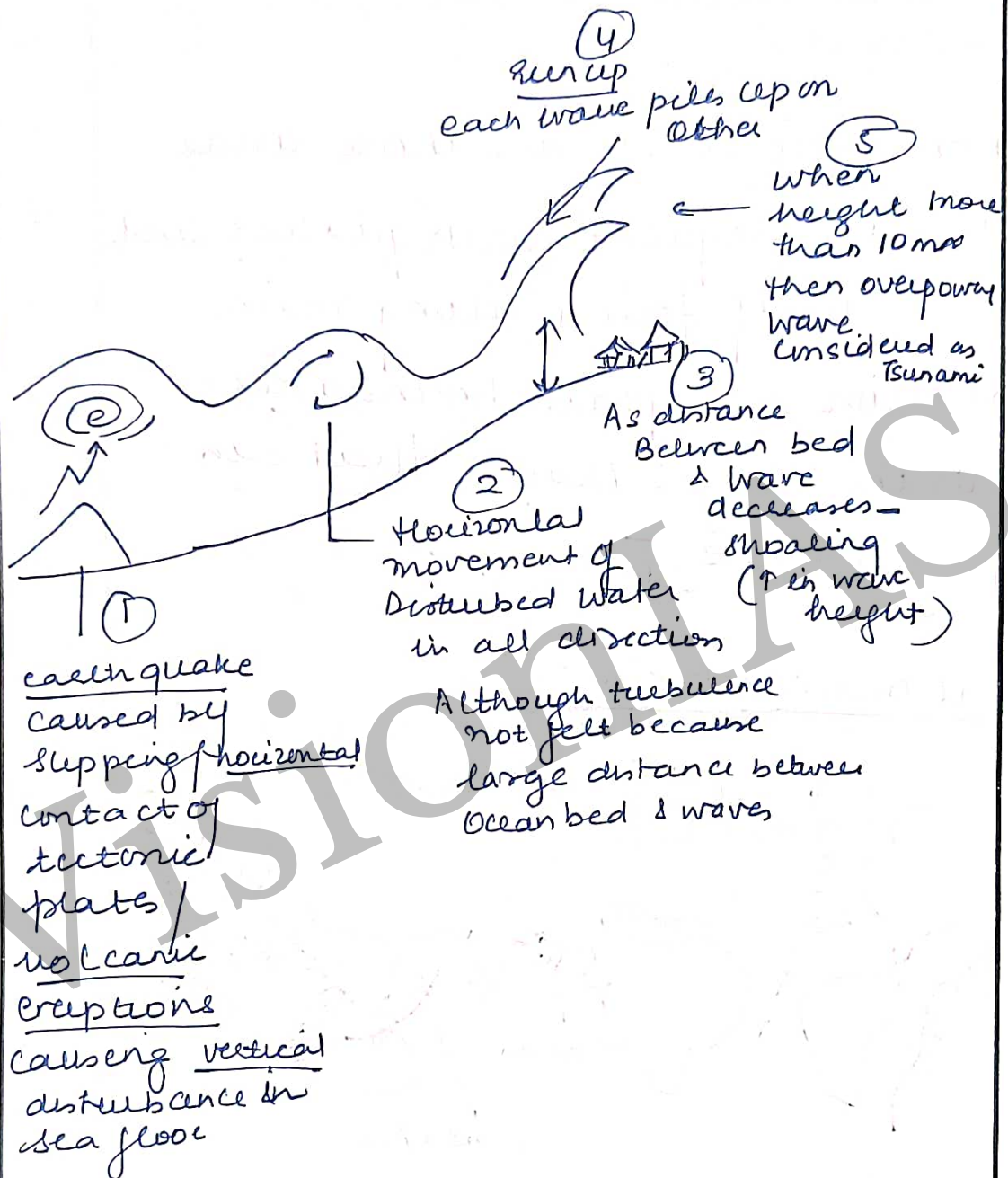
Tsunamigenic Zones are those areas which have frequent earthquakes and are commonly found along major subduction zone plate boundaries such as the Pacific Ocean, that can help generate Tsunamis.

Global Distribution



Thus, Tsunamigenic zones are located at places of, mid-oceanic ridges, Pacific ring of fire, due to its high susceptibility of earthquakes and where Indian plate creates convergent boundaries (Makran Coast & Sunda Arc)

Propogation of Tsunami



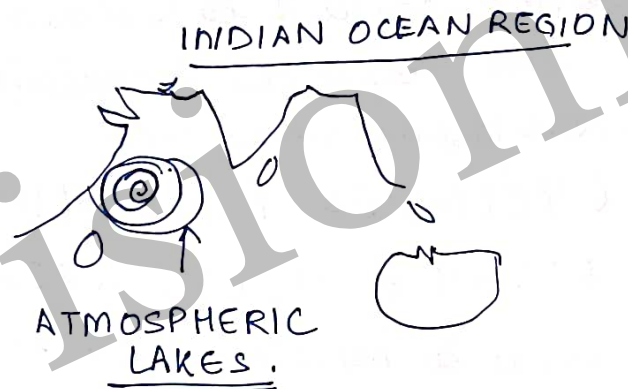
5. What are atmospheric lakes? Highlight their characteristics.

(150 words) 10

वायुमंडलीय झीलें क्या हैं? उनकी विशेषताओं पर प्रकाश डालिए।

Atmospheric lakes are huge still masses of water vapours found in stagnant position in the atmosphere in the Western Indian Ocean.

Characteristics of the Atmospheric Lakes



- ① Immobile, stagnant
↳ in contrast to moving streams of atmospheric rivers
- ② Impact the humidity profile of the region :- Has an effect on the weather phenomena's like El Niño, La Niña, ENSO (Southern Ocean Oscillation) Indian Ocean

diapoles) and thereby can impact the strength of Indian monsoon

③ Causes precipitation in the Western Indian Ocean Region

④ Usually works in tandem with moving streams of atmospheric water vapour (called atmospheric rivers) to affect global wind patterns)

Way forward

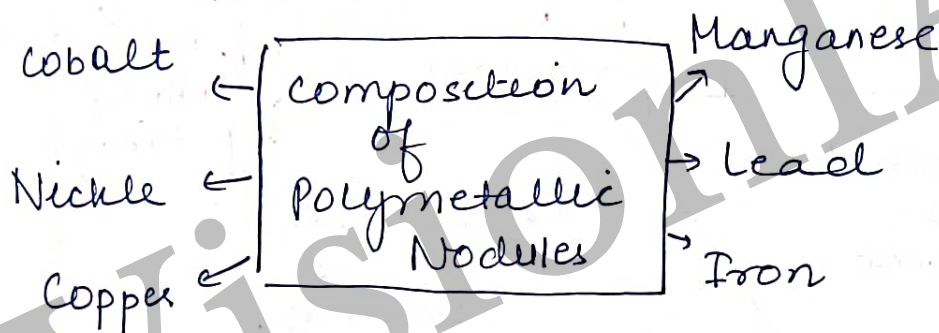
→ IMD studies to research the impact, periodicity on phenomena like CYCLONES, TSUNAMIS, MARINE HEAT WAVES so as to build resilience in India's Disaster management

→ Study effects on Indian monsoon, precipitation in west coast to enable predictive analysis for farmers.

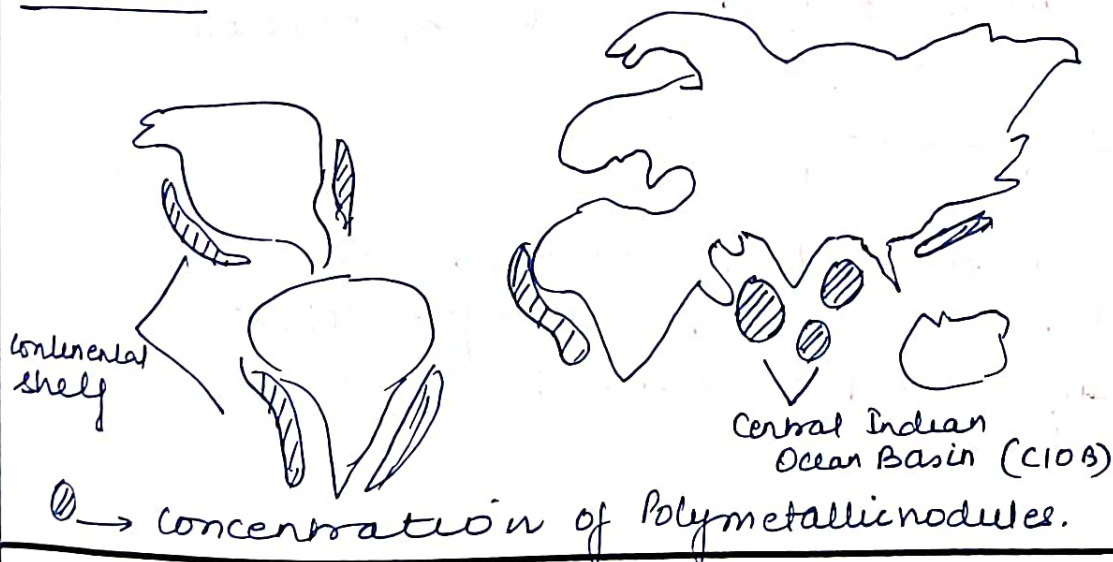
6. What are polymetallic nodules? Highlight their geographical distribution and state their significance. (150 words) 10

पॉलीमेटेलिक नोड्यूलस (बहुधात्विक ग्रंथियां) क्या हैं? उनके भौगोलिक वितरण पर प्रकाश डालिए और उनका महत्व बताइए।

Polymetallic nodules are mineral concentrations of manganese and Iron, found under the ocean (sea bed) which are extracted for commercially important rare earth minerals.



Geographical Distribution around the world.



Therefore, as can be seen from the figure polymetallic nodules are majorly found in the continental shelves and abundantly in central Indian Ocean Basin

Significance of Polymetallic Nodules

Enhance employment generation for coastal communities

Extraction will reduce dependence on China for rare earth metals

Importance

(95% of REM held by china)

Give impetus to Research & development

Give a boost to Blue economy.

Inputs to critical industries including automotive, solar energy, electronics manufacturing etc.

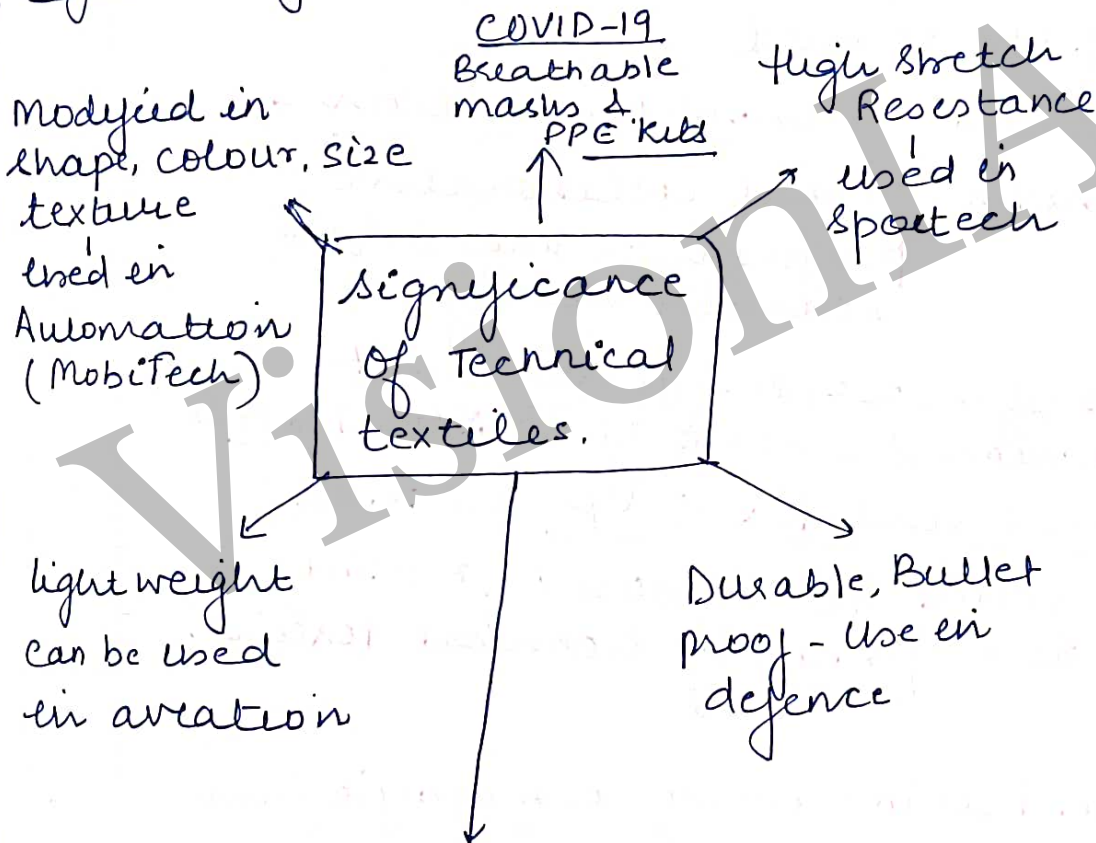
(₹ 4000 crore mission to build submersibles for ocean bed exploration)

India has agreed to jointly explore the Central Indian Ocean basin as per UNCLOS guidelines with International Seabed Authority.

7. What are technical textiles? In view of their significance, discuss the steps taken by the government to promote them in India. (150 words) 10

तकनीकी वस्त्र क्या होते हैं? उनके महत्व को देखते हुए भारत में उन्हें बढ़ावा देने के लिए सरकार द्वारा उठाए गए कदमों पर चर्चा कीजिए।

Technical textiles refer to functional fabrics which find application in variety of industries including engineering, automation, personal protection, defense, agriculture, aviation, sports etc.

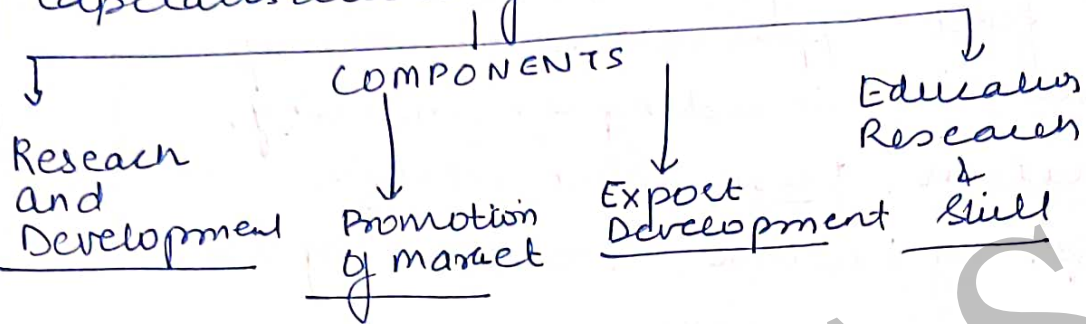


Contribution to Indian economy

13% of total textile sector
0.7% of total GDP

Steps taken

- ① National mission on Technical Textiles
(to capitalise on potential - ensure 15-20% growth in the sector and market capitalisation of 40-50 billion)



- ② 100% FDI allowed

- ③ PLI Scheme to boost production -

- ④ Technotex - global collaborative platform for knowledge & research sharing.

- ⑤ In Budget 2022, the government announced scheme of Technical Textile Mitras and Textile parks :- This will further give impetus to market led development of technical textiles.

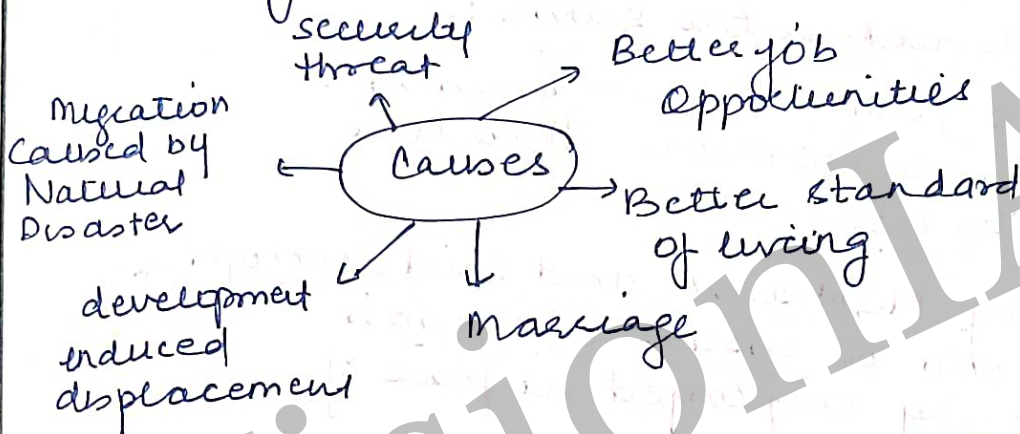
Therefore, Indian economy can benefit from a labour intensive sunrise industry which will create the Brand of Indian Textiles.

8. Discuss the challenges that internal migration creates for urban governance in India. Also, suggest measures to address the same. (150 words) 10

भारत में आंतरिक प्रवासन द्वारा शहरी शासन के समक्ष उत्पन्न चुनौतियों की विवेचना कीजिए। साथ ही, इससे निपटने के उपायों का भी सुझाव दीजिए।

As per the census of 2011, the number of internal migrants in India is about 450 million. Internal Migration

is usually done to :-



However, Internal migration creates the following challenges

① For the Destination state

↳ Competition for limited economic resource

↳ Change in population demography

(eg. Tripura's population change due to migration of Bengali's)

↳ Creates insecurity among native population - manifest in violence

towards migrants (eg. Marathi sentiment against UP migrant)

- ↳ lead to formation of slums and lack of basic facilities
- ↳ led to increased crime, theft, robbery, rapes (due to cultural shock)

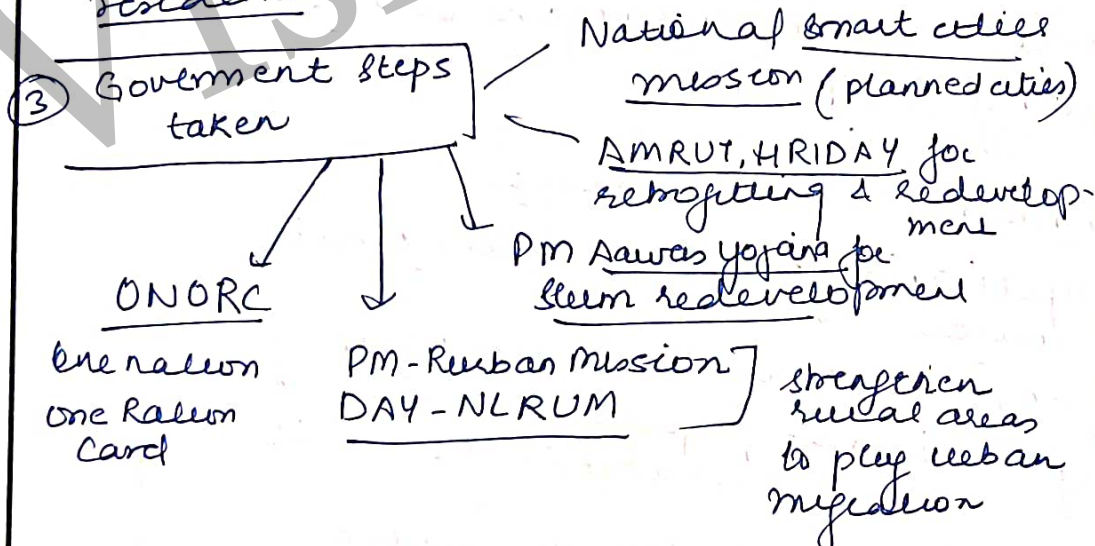
② For source state

- ↳ loss of economic contribution
- ↳ increasing number of economic dependants
- ↳ feminisation of workforce

Measures to address the same :-

① Smart & planned development -
buffer space creation through
satellite cities

② Increasing MGNREGA and skill development
allocation to ensure everyone is
productively employed at place of
residence



Thus, migration needs to be planned, a matter of choice rather than compulsion

9. Discuss the various opportunities and challenges posed by globalization on working women in India. (150 words) 10

भारत में कामकाजी महिलाओं के लिए वैश्वीकरण द्वारा उत्पन्न विभिन्न अवसरों और चुनौतियों पर चर्चा कीजिए।

Globalisation is the integration of world with similar set of values of individualism, technology advancement, modernisation and interdependence.

Opening of India in 1991 to the wave of globalisation has led to various opportunities and challenges for Indian working women:-

OPPORTUNITIES

- ① Increased opportunities for employment in private sector companies, startups, multinational companies
(eg) 190 (out of every 1000) ^{managerial} positions held by woman)
- ② Sense of independence and autonomy
- ③ Greater choice of dressing, leisure activities (social media, netflix) and other stress relieving (spa) avenues

- ④ Improved opportunities to work from home through telecommunication facility of zoom and webex meetings
- ⑤ Access to courses of foreign universities for refresher training & PhD courses.

However, this has also created certain Challenges

- ① Low wage/self employed women workers in fisherwomen, street vendors & vegetable sellers facing stiff competition from e-commerce portals like Buiggy, Instamart, Bebasket
- ② Domestic workers replaced by Urban Company services
- ③ Growing informalisation of jobs
- ④ Double burden of jobs with unpaid care work
- ⑤ Creation & Aggravation of inequality

Wayforward

- Provision of social security nets for working women in informal sectors
- Countering glass ceiling, motherhood penalty with affirmative corporate efforts

10. Discuss the rationale behind anti-conversion laws in India. Also, state the concerns that have been raised with regard to these laws.

(150 words) 10

भारत में धर्मांतरण विरोधी कानूनों के पीछे निहित तर्कों पर चर्चा कीजिए। साथ ही, इन कानूनों के संबंध में व्यक्त चिंताओं का भी उल्लेख कीजिए।

Anticonversion laws in India seek to
punish religious conversions by way
of force, undue influence, coercion
or use of matrimonial alliance.

Rationale behind Anti-conversion law

- ① Article 25 dealing with religious
freedom doesnot allow proselytising
- ② Attempt to protect poor and vulnerable
from conversion attempts using
enticement through benefits etc.
- ③ Curb religious fundamentalism &
consequent security threats
- ④ Curb fraudulent marriages and
misrepresentation of religion and
consequent forced conversions.

In this regard, various governments like
Haryana, Uttar Pradesh, Karnataka have

passed various anticonversion laws:-

However the following are concerns
raised in this regard:-

- ① Vague definition of terms of - coercion
undue
influence
misrepresentation
- ② Can be misused against
interfaith marriages to
target religious minorities
(eg Haduja case)
- ③ Antithetical to concept of secularism &
non interference of state in religion
matters of individuals
- ④ Against right to privacy (K.S puttaswamy
judgement) (Religion is private matter)
- ⑤ Against right to choice (SC Haduja
Judgement) (Right to marry partner
of own choice)

Way Forward

→ Delineation of
Specific meaning to
vague provisions

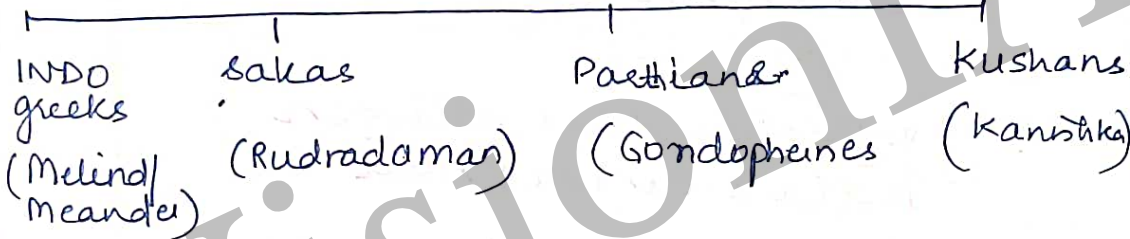
→ Case by case basis trial
so that right to freedom
is balanced with
right to choice

11. Central Asian contacts had a profound political and cultural impact on India in ancient times. Discuss.

(250 words) 15

प्राचीन काल में मध्य एशियाई संपर्कों का भारत पर गहरा राजनीतिक और सांस्कृतिक प्रभाव पड़ा है। विवेचना कीजिए।

Absence of the strong mauryan empire led to incursions by Indo Greeks, Sakas, Parthians and Kushans from central asia which impacted the political cultural & social life in ancient times.



Impact

- ① POLITY — Idea of divine kingship propagated
 — Kushans called sons of god.
 — Indo greeks introduced MILITARY GOVERNORSHIP/ SATRAPS
 Empire was divided into various satrapies and each placed under appointed military governorship

- ② SOCIETY - Settled in India
- called themselves kshatriyas
 - indianised
 - Increased societal integration

- ③ RELIGION - Melind adopted Buddhism

- Kanishka organised 4th buddhist council
- gave rise to Mahayana Buddhism which made buddhism inclusive

- ④ Trade - Direct contact between India & Central Asia

Kushanas controlled the silk route

- Kushans also promoted Agriculture
- Indo greeks introduced first gold coins

- ⑤ Military - Popularised cavalry
- use of reins, saddles
 - boots & better gear

- ⑥ Art and Architecture

- a) Pottery - introduced redware pottery
- constructed brick walls
from burnt bricks.
- b) Stupas - Banarut - railings
- Sanchi - enlarged to twice
size.
- Amravati & Nagarjinkonda
- c) Patronised 3 schools of sculptures - The three main schools
included Gandhara
School of Art;
Mathura School of Art.
Amravati School of Art.
- d) Literature and Learning - Patronised
Sanskrit literature
and Kavya style
- Creative writers like Asvaghosha
- Important books like Mahavastu &
Divyadana
- e) Science & Technology - Growth of astrology
& astronomy,
medicine, botany &
Chemistry.

Thus, cultural linkages with central Asian are
evident even now.

12. Governance, during the British rule, was a means of exploitation of India rather than a vehicle of public welfare. Discuss. (250 words) 15

ब्रिटिश राज के दौरान शासन (गवर्नेंस), लोक कल्याण के एक माध्यम के बजाय भारत के शोषण का एक साधन था। विवेचना कीजिए।

British governance was borne out of the requirements of colonialism, imperialism and finding suitable market for exploitative capitalism rather than genuine welfare of its subjects.

EXPLOITATION OF INDIA THROUGH BRITISH GOVERNANCE :-

① Policy of Mercantilism of EIC

⊙ State control over resources

⊙ Political control over territories

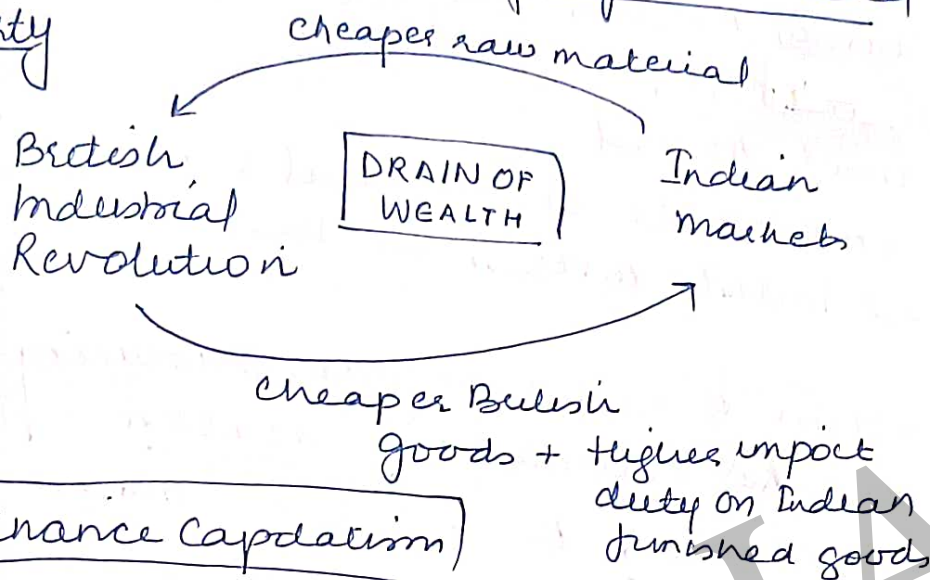
enabled them to buy cheaper goods with revenue collected from Dwani rights and export for higher price

② Policy of exploitative Capitalism

⊙ India became market for british goods

⊙ Cheaper + Abundant supply ruined the Traditional industries which

marginalised traditional artisans, led to wide scale unemployment and poverty



③ Finance Capitalism

① Increase in investments in assets like railways (not for transport/welfare of people but used for goods transportation)

② Drain of resources through high profits & dividends on investments made

④ Agricultural policies

① Forced people to grow indigo, tea plantation, rubber, sugarcane as cash crops lead to ϵ scarcity of food crops \rightarrow led to frequent famines.

⑤ Other policies like "DIVIDE and RULE"

- = formation of Muslim league
- Bengal Partition
- = Communal Award
- = lead to vast scale communal riots & extended british interest in India.

⑥ Delegation of non revenue producing subjects like education, health and sanitation to local government not for betterment of people but due to neglect of these areas.

Thus British rule in India led to deindustrialisation, ruralisation commercialisation and stagnation of agriculture all in the name of White's man Burden

13. Discuss how India successfully dealt with the sensitive issue of language, which had the potential of threatening national unity in the post-independence period. (250 words) 15

चर्चा कीजिए कि भारत ने भाषा के संवेदनशील मुद्दे का, जिसमें स्वातंत्र्योत्तर अवधि में राष्ट्रीय एकता के समक्ष खतरा उत्पन्न करने की क्षमता थी, किस प्रकार सफलतापूर्वक समाधान किया।

India on the eve of independence, was a cumilation of 585 princely states and 17 british provinces, each having own culture, rule and language.

It had to deal with 2 issues related to language:-

- ↳ Declaration of an official language
- ↳ Lingustic reorganisation of states

OFFICIAL LANGUAGE ISSUE

- Need for developing genius in own language and shedding foreign language.
- No consensus on national language (South Indian states against Hindi being national language)

① Through Official language Act of 1965, Hindi made official language, English permitted be continued (even after 15 years) to give adequate space to sentiments of southern states.

① Apart from above, India recognised 22 languages (see schedule) and has worked towards 3 language formula to ensure national integrity.

LINGUISTIC REORGANISATION OF STATES

① Initially scorned upon due to creation of linguistic swaley & chauvinism in nation who had just gone through partition

① But due to increasing protest & self immolation of Potti Srimulu Telugu speaking Andhra Pradesh created.

① Although Justice Dhae commission and JVP committee had advised against creation of linguistic states, yet States Reorganisation Commission recommended states to be reorganised on basis of linguistic lines and then on basis of administrative convenience.

Consequences

→ did not hamper federal structure, but helped in national integration

→ Political power now open to other than english speaking elite (Vent for grievance)

→ Acceptance of diversity
Tilt to regional languages

Thus, creation of states with linguistic consideration has led to better administration of homogeneous political units.

14. Bring out the factors, which led to decolonisation after the Second World War. Also, discuss the role played by India in this regard. (250 words) 15

उन कारकों का उल्लेख कीजिए, जिनके चलते द्वितीय विश्व युद्ध के बाद विउपनिवेशीकरण हुआ। साथ ही, इस संबंध में भारत द्वारा निभाई गई भूमिका की भी विवेचना कीजिए।

The second world war change the political & economic power games in the world which eventually led to colonies coming out of clutches of colonisers.

About 3 dozen asian and african countries were decolonised after the second world war.

FACTORS

- ① The conquest of south east colonies & china by a small power like Japan, questioned the invincibility of the European empire.
- ② Treatment meted by the native population, when the British left them be in face of Japanese invasion strengthened the anti-

Colonial resistance

③ Due to huge finances incurred during the war, Britain was no more an economic powerhouse

④ USA emerged as the most powerful nation after the war because it had capitalised on the opportunity of providing arms & ammunition to fighting countries and thus was pressurising its allies to grant freedom to its colonies.

(Eg:- Winston Churchill's insistence on decolonised world)

ROLE PLAYED BY INDIA IN THIS REGARD

① Refusal of Congress to support war efforts if no provision of independence after war
(Rejection of August offer, Dasgupta mission)

② Resistance through Individual Satyagrah, and Quit India movement

③ The impact created by INA trials which led to Royal Indian Mutiny

had a paralysing effect on colonial dominance.

④ India's international efforts including being the torch bearer of Non -
Align movement, conferences like

Asian Relations Conference, Bandung
 Afro Asian conference, Conference
 against Dutch aggression in
 Indonesia and Panchsheel treaty all
advocated decolonisation and
mutual respect for territorial integrity.

Thus, being a colonised country itself,
India could unshackle from its
past to shoulder the greater role
of advocate for decolonisation.

15. What are Marine Heat Waves (MHW)? Identify the causes of their formation and discuss their consequences for India. (250 words) 15

समुद्री ग्रीष्म लहरें (MHW) क्या हैं? उनके निर्माण के कारणों की पहचान कीजिए और भारत के लिए उनके परिणामों की विवेचना कीजिए।

Marine Heat waves are abnormally higher temperature over sea surfaces than surrounding areas for a specific period of time.

causes of formation



marine
heat waves
Bay of Bengal
and western
pacific ocean

① IPCC reports states that major cause of marine heatwaves is the increasing temperatures due to anthropogenic activities which emit

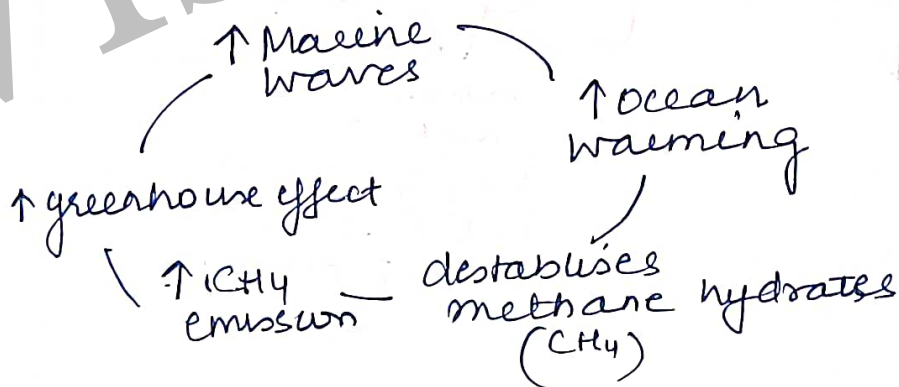
GHG's and increase absorption of solar insolation.

(eg) 1.5-2°C increase in world temperature would cause a 1°-2°C increase in marine temperatures.

② Ocean currents also create stagnant zones of hotwaters which lead to increase in heatwaves

③ winds often diffuse / strengthen the effects of heatwaves.

④ Increasing ocean warming creates a feedback loop



Consequences for India

① Increases unpredictable events and disasters like cyclones, Tsunamis

- ② Increase in ocean warming would impact marine habitats of fishes which would impact livelihood of farmers and affect blue economy
- ③ Coastal Areas would suffer from double whammy of marine & urban heatwaves
- ④ Impacts indian monsoon = may cause cloud bursts / extreme droughts
- ⑤ Makes marine surveillance difficult (this increases security threat)
- ⑥ makes weather forecasting difficult (eg Recent report by IMD says that climate change makes weather forecasting inaccurate)

Way forward

→ Use of emerging tech like AI, supercomputers to create predictive weather forecasting models

Adoption of coastal regulation zone guidelines to reduce carbon footprint of coastal cities - to not aggravate marine heat waves.

16. What are the geo-climatic conditions required for oil palm cultivation? Do you agree with the view that India should promote its large-scale cultivation to reduce import dependency? (250 words) 15

ऑयल पाम (ताड़ के तेल) की खेती के लिए आवश्यक भू-जलवायविक दशाएं क्या हैं? क्या आप इस विचार से सहमत हैं कि आयात निर्भरता कम करने के लिए भारत को इसकी बड़े पैमाने पर खेती को बढ़ावा देना चाहिए?

India imports about 80% of its vegetable oil requirement, with 55% being oil palm.

Oil palm is a tropical crop which contains oil in the kernel inside a hard fibrous shell like structure

Geoclimatic conditions required for oil palm cultivation :-

↳ High temperature

Maximum $28^{\circ} - 35^{\circ}C$

Minimum $22^{\circ} - 24^{\circ}C$

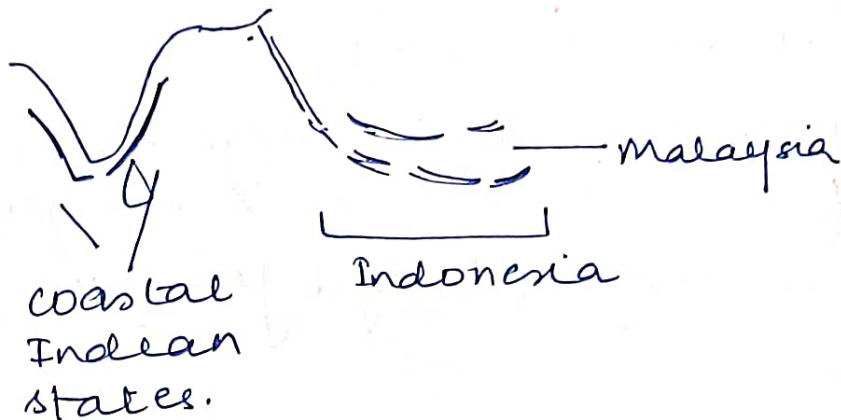
↳ High rainfall = 250-400 cm

↳ Presence of large swathes of land

↳ cheap labour - oil has to be manually extracted through huge rotating choppers

↳ Presence of sea breeze's moderating effect

Therefore Palm oil first found mainly in



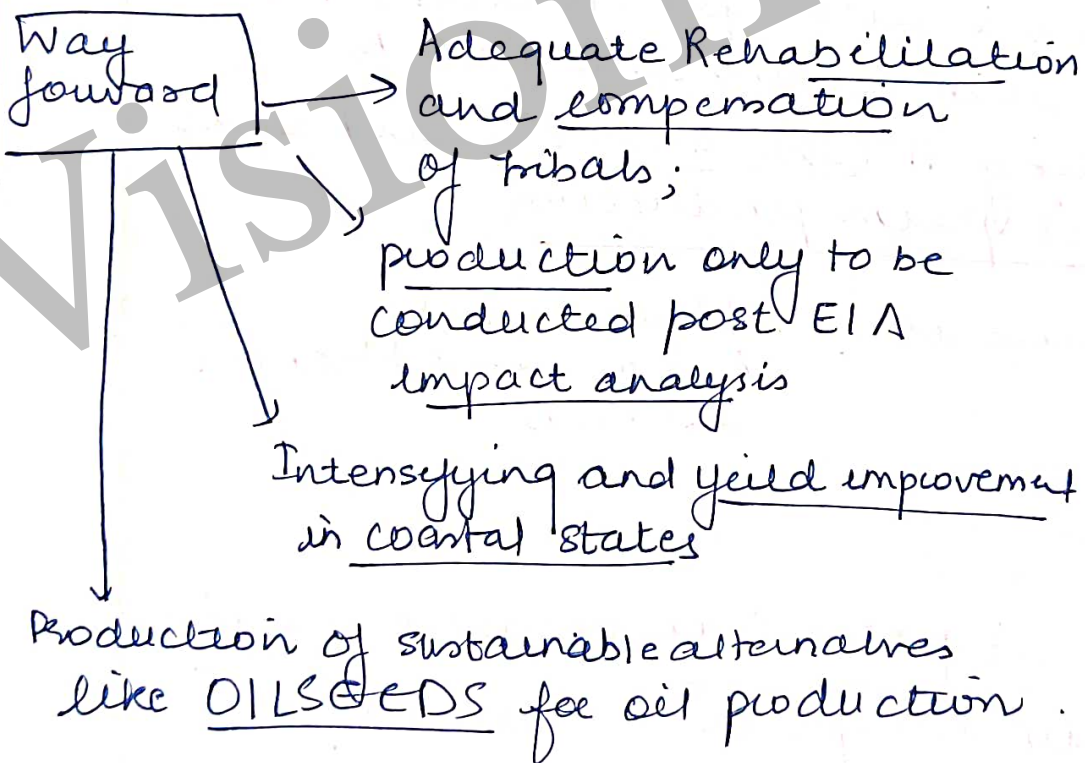
Promotion of large scale cultivation
to reduce import dependency

- ① According to the National Mission for oil palm production, the Indian government seeks to bring 11 lakh hectares of land under oil palm production
- ② Focus areas :- North East & Andaman & Nicobar Islands

Concerns

↳ Oil palm is an invasive specie
(may disrupt the biodiversity in the area it is planted)

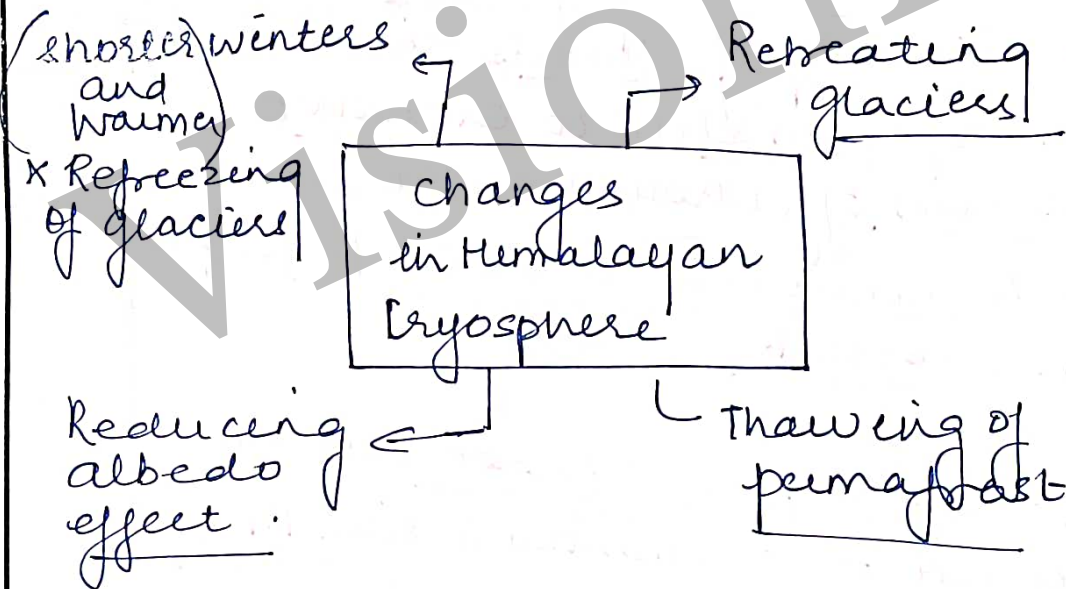
- ↳ May create problems of land use change and acquisition of Tribal land (Resettlement issues)
- ↳ oil palm also requires huge tracts of farm land so small & marginal farmers may not benefit from the same
- ↳ The provision of MSP for fresh fruit bunches of oil palm is also not certain



17. In view of the changes witnessed in the state of Himalayan cryosphere, discuss the implications for India's water security. (250 words) 15

हिमालयी क्रायोस्फीयर (हिमांक-मंडल) की स्थिति में देखे गए परिवर्तनों को ध्यान में रखते हुए, भारत की जल सुरक्षा के लिए इसके निहितार्थों की विवेचना कीजिए।

According to the 6th IPCC report on Impact of climate on Oceans & Cryosphere, the Himalayan Cryosphere is vulnerable to increased temperature changes & glacier destabilisation



Implications of cryosphere changes for India's water security

- ① 1.3 billion people depend directly

On Hindukush Himalayan Ranges for
(HIKH)
irrigation drinking water and
power (ORF)

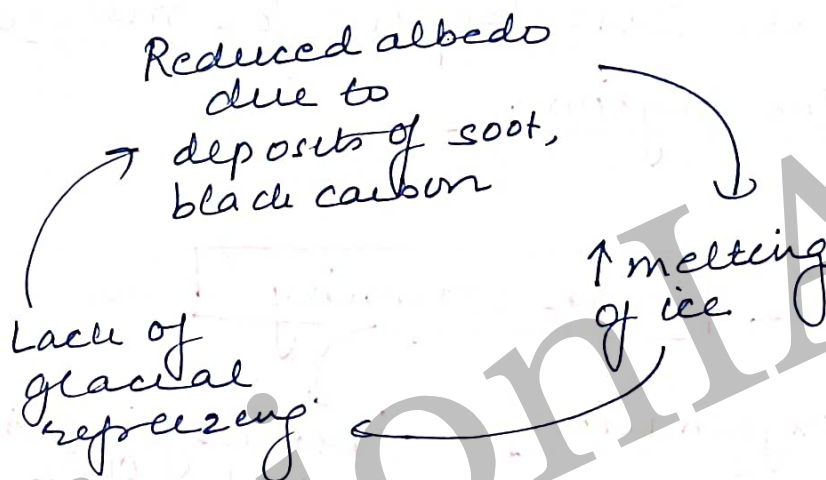
② Destabilised Himalayan cryosphere
would lead to increased
instances of floods and droughts
which would jeopardise the
drinking water security of
perennial rivers

③ Due to retreating glaciers, there
is possibility of floods in
northern plains due to excessive
river surges which would cause
losses to economic livelihood and
marine habitat

④ Thawing of permafrost would
lead to runoff of chemicals like DDT,
soot in rivers which would
jeopardise agricultural water
security & irrigation

④ Reduction in river water amount during lean seasons will impair the hydropower potential of himalayan region.

⑤ Reducing albedo creates a positive feedback effect



Way forward

→ National Action plan for conservation of himalayan ecosystem as a part of (NACPP) would ensure coordination among various stakeholders

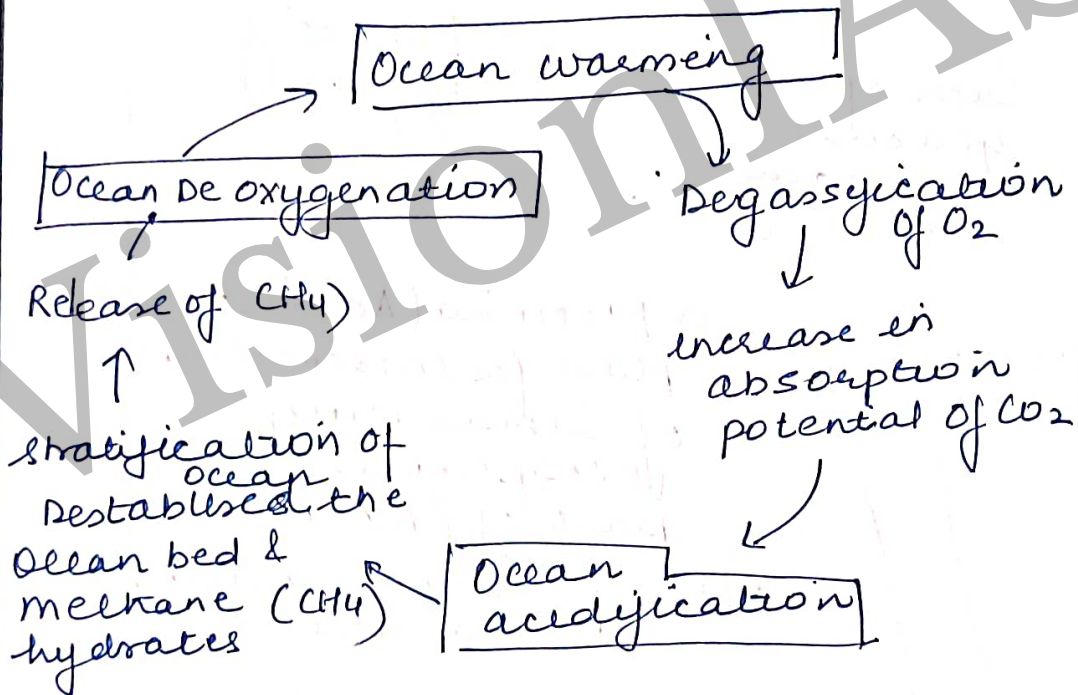
→ Monitoring economic activity in HKH;

→ Mandatory EIA for all projects impacting himalayan ecosystem

18. Ocean warming, ocean acidification and ocean deoxygenation are often referred to as the 'deadly trio' for marine life. Discuss. (250 words) 15

महासागरीय तापन, महासागरीय अम्लीकरण और महासागरीय विऑक्सीकरण को प्रायः समुद्री जीवन के लिए 'घातक त्रयी' के रूप में संदर्भित किया जाता है। विवेचना कीजिए।

Ocean warming, ocean Acidification and Ocean deoxygenation operate in a loop to reinforce each other, this spells catastrophe for marine life of the region.



Impact of the deadly trio on the marine life :-

① Ocean warming

↳ causes thermal shocks which may be beyond coping capacity of marine life.

(eg. In May 2020, 85% of coral reefs in Gulf of Mannar were bleached due to excessive marine heatwaves)

↳ Ocean warming may lead to migration of species to colder climates - impacting livelihoods of fishermen ⇒

(eg. Deep sea fishing adopted by Tamil Nadu fishermen due to lack of fishes)

② Oxygen Ocean Acidification

↳ caused by oil spills, excessive nutrient runoff to ocean and increase of GHG in atmosphere.

↳ may effects spawning habits - change in reproductive cycle of

marine biodiversity

↳ Excessive acidification may lead to saturation & impair ocean's ability to act as natural carbon sinks!

③ Ocean Deoxygenation

- ↳ Increased Chemical & Biological oxygen demand (COD+BOD)
- ↳ excessive eutrophication causes nutrient deficiency and death of marine life

Way forward

→ International Collaboration
(like Beyond National Jurisdiction Biodiversity Treaty)

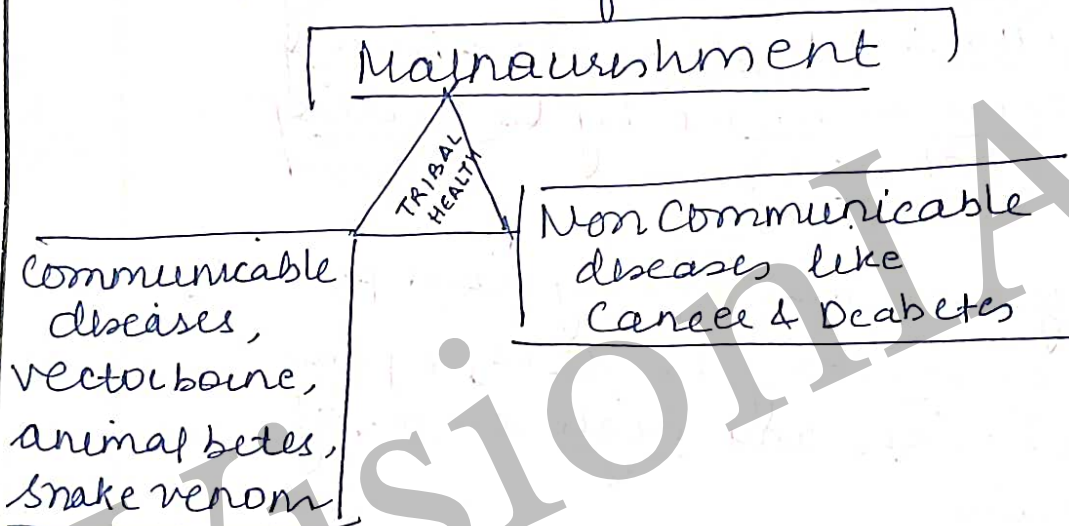
→ Sustainable Blue Economy - sustainable fishing practices

→ Reducing carbon footprint, Beach cleaning, reducing GHG emission & plastic use.

19. Tribals in India continue to face myriad challenges with regard to healthcare. Discuss the issues faced by them in this context and suggest remedial measures. (250 words) 15

भारत में आदिवासियों को स्वास्थ्य देखभाल के संबंध में निरंतर अनगिनत चुनौतियों का सामना करना पड़ रहा है। इस संदर्भ में, उनके द्वारा सामना किए जाने वाले मुद्दों की विवेचना की जाए एवं उपचारात्मक उपायों का सुझाव दी जाए।

About 8.6% of India's population consists of tribals who suffer from the triple burden of :-



Issues faced by tribals in lack of adequate healthcare :-

- ① Lack of institutional healthcare facilities like Primary health centres, hospitals in tribal areas.
- ② Reluctance of doctors to serve in tribal areas.

- ③ Lack of infrastructure and connectivity to tertiary/secondary healthcare facilities in bigger towns & cities
- ④ Uncertainty of diseases due to varied terrain, primitive practices - which are not easily diagnosed
- ⑤ Dangerous practices borne out of suspicion & ritualism (eg. using malnourishment by branding with hot iron)
- ⑥ Lack of awareness among tribal population
- ⑦ Lack of sanitary practices, open defecation and high cases of infection
- ⑧ Addictions, drug abuse, alcohol consumption (70% tribal men tobacco users (55% nontribal))

Recommendations

- ① The focus of government should be to provide adequate health infrastructure,
 - ↳ Opening medical colleges in tribal districts (eg. As done in

Aspirational Districts programme)

- ↳ Incentivising hospitals in scheduled areas
- ↳ Mandating a minimum time period to be served by doctors in tribal areas to gain license

② Schemes like Aarogya Mitra - and AYUSH grid to combine tribal indigenous knowledge with modern science

③ Increasing ASHA workers in tribal areas

④ Customising programmes like mid day meals, PM-POSHAN to suit dietary requirements in PESA Areas.

⑤ Monitoring through tools like ST Health card, Tribal Health Index

⑥ Increasing awareness & functional health literacy in Tribal Areas
(eg. Mandla, MP, first tribal village to have 100% health literacy)

⑦ Special emphasis on women & girl child development (eg. distribution of sanitary pads to end period poverty among tribal women)

⑧ Thus, tribal health would ensure India meeting its Universal health coverage goals for Sabka Saath, Sabka Vikas

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20. Reservation for women perpetuates a "proxy culture" as seen in the phenomenon of "sarpanch patis". In this context, discuss whether reservation can address the issue of poor participation of women in Indian politics. (250 words) 15

महिलाओं के लिए आरक्षण एक "प्रॉक्सी कल्चर" को बनाए रखता है जैसा कि "सरपंच पति" की परिघटना में देखा जाता है। इस संदर्भ में, चर्चा कीजिए कि क्या आरक्षण भारतीय राजनीति में महिलाओं की निम्न भागीदारी के मुद्दे का समाधान कर सकता है।

73rd ammendment Act. mandated reservation of one third seats in panchayats for women. Such was its impact, that actual women participation in PRI political representation is more than 40%. (8-10% compared to central & state level representation)

However, this reservation has also led to creation of Sarpanch Pati's because :-

- ① Ingrained Patriarchy in Indian society
- ② Lack of exposure of women in political representation
- ③ Illiteracy
- ④ Social stigma/norms delegating women to household chores
- ⑤ Practices of Purdah

Although in the first instance the reservation may seem to be tokenistic, giving husband of women sarpanches opportunity to yield real power,

Yet, Reservation can address the problem of poor participation of women in Indian politics

- ① Institutionalises equality in membership i.e. states can be penalised for not providing reservation
- ② Enables exposure to overwhelm home relegated women
- ③ women have been seen as easily approachable and tend to spend more on social development when compared to men (eg → health education)
- ④ Reservation can provide training ground for political empowerment

However, reservation is necessary but not a sufficient condition.

There is a need to :-

- ① Women Specific training with women Role Models (eg Chave Rajawat)
- ② Capitalise on potential of women SHG for political training (eg Kudumbshree)
- ③ Gender sensitisation & behaviour training through making changes in name of post (Chairman → gender neutral Chairperson)
- ④ Incentivising women leadership & partnership by sharing stories of best practices (eg MAVIM, Ujjat Udyog)

Thus, when the only indicator that India fares well in Gender Equality Report is political empowerment, it is time to substantially lead the way for women led development.