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GENERAL STUDIES (TEST CODE : 2076)

Name of Candidate	Nehaa K		
Medium Eng./Hindi	English	Registration Number	892821
Center	Online	Date	07. 08. 2023

INDEX TABLE			INSTRUCTIONS	
Q. No.	Maximum Marks	Marks Obtained	1. Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code). उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न-पत्र कोड, विद्यार्थी क्रमांक आदि)। 2. There are TWENTY questions printed in HINDI & ENGLISH. इसमें बीस प्रश्न हैं हिन्दी और अंग्रेजी में छपे हैं। 3. All questions are compulsory. सभी प्रश्न अनिवार्य हैं। 4. The number of marks carried by a question/part is indicated against it. प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं। 5. 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 medium other than the authorized one. प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे। 6. Word limit in questions, if specified, should be adhered to. प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए। 7. Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off. उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।	
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Total Marks Obtained:				
Remarks:				

16-B, 2nd Floor, Above National Trust Building, Bada Bazar Marg, Old Rajinder Nagar, Delhi-110060

Plot No. 857, 1st Floor, Banda Bahadur Marg (Opp. Punjab & Sind Bank), Dr. Mukherjee Nagar, Delhi- 110009

EVALUATION INDICATORS

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

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

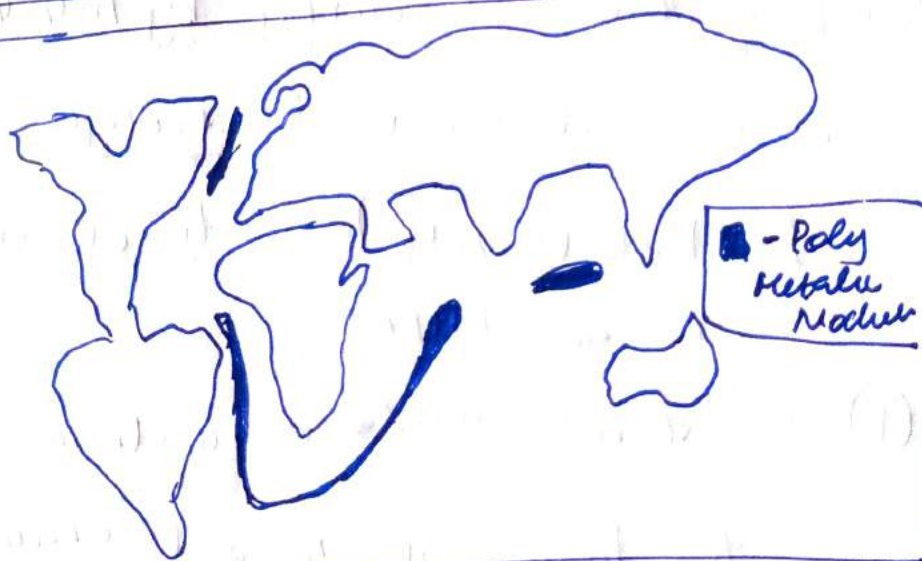
Candidate must adhere to the word limit specified in the question.
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① Polymetallic Nodules are ~~for~~ ^(or) mixture of many metals like Iron and Manganese along with Lead, Arsenic, Cobalt etc. found in the Sea Bed

They are formed at a rate of 0.5 mm/decade and are found in few cm of length

Geographical Distribution

Distribution of Poly
Metallic Nodules.



They are found in the Clarion Clipperton zone of Atlantic and Indian Ocean.

Candidate must adhere to the word limit specified in the question.
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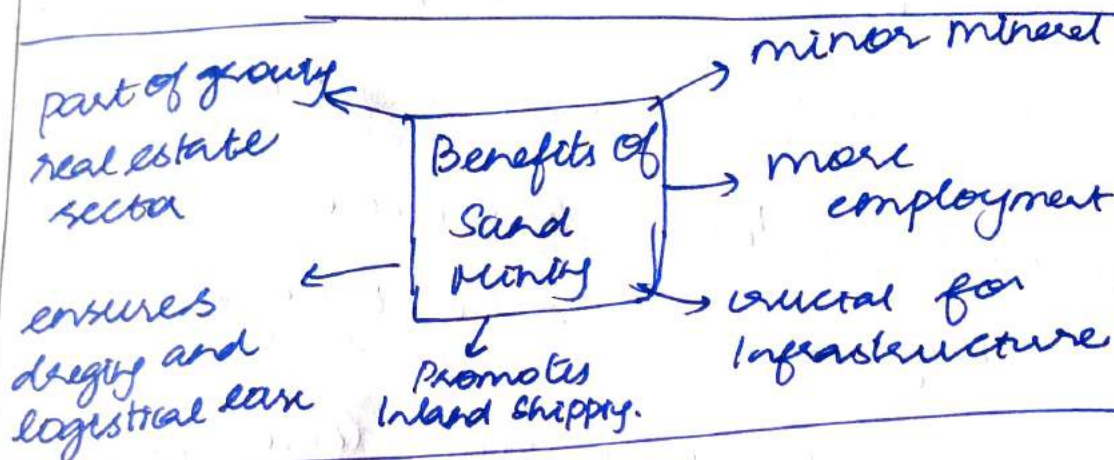
Significance of PMN

- ① They are found in relatively easily processable quantities
- ② They are source of Rare earth metals that play a key role in semi conductors, batteries and other new age technology
- ③ They are extractable by minimum cost and limited technology
~~eg~~ Matsyaan of India to claw and extract PMNs.
- ④ Supplements the resources in land.

The Indian Government has gained access to PMN in Indian Ocean by the Sea Bed Authority, which can change India's mining industry's growth to 2% as envisaged.

Candidate must adhere to the word limit specified in the question.
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- ② India ranks second to China in Idabegal sand mining.



Ecological Costs

- ① Reduced Buffer to flooding due to destruction of natural levees
- ② Reduced Carbon sequestration Capacity due to disturbance of the ecology → sea grass, sea weed etc.
- ③ Reduced nesting places for marine and fresh water bio diversity.

Candidate must adhere to the word limit specified in the question.
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④ Increased Erosion at coasts

↳ G.S.I. has indicated high erosion
in east coast and Northern west coast.

Importance of Sustainable Sand mining

① Just Sand Policy to ensure sustainable
mining and utilisation of sand.

② To ensure Biodiversity through
regulatory framework from states
since it is a minor mineral.

③ GPS based Tracking and monitoring
of the Sand mines will ensure
reduced and zoned extraction

④ Use of alternatives like M Sand on
the lines of Rajasthan must be
encouraged to ensure sustainable
mining.

Candidate must adhere to the word limit specified in the question.
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- ④ Project Arth Ganga aims to promote sustainable economic usage of the Ganga.

Components and Significance

①	ZBNF- Zero Budget Natural farming	Lesser pollution and eutrophication due to chemical fertilizers
②	Shipping and Tourism activities through sustainable fuel	Promote employment and economic development
③	Awareness drives	To excite citizens participation
④	Solid Waste Management	Treatment of Human and Industrial wastes

Candidate must adhere to the word limit specified in the question.
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Challenges

- ① Low Adoption Rate of ZBNF and other organic farming methods.
- ② Lower Tourist Attraction due to COVID 19 and post pandemic recovery.
- ③ Resorting to older techniques
- ④ Underutilisation of funds less than 60% is used for the projects.
- ⑤ Thus there is a need to streamline the initiative by National Ganga River Basin Authority and general Public Awareness.

Candidate must adhere to the word limit specified in the question.
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④ The recent survey by NITI Aayog has pointed to 127 GW of Wind energy potential through offshore means alone.

But only 47 GW is obtained from Wind Energy to the energy mix.

Reasons for untapped Potential

- ① High land requirement
- ② High Initial cost to setup the plant.
- ③ Seasonal and Diurnal variations in the wind and hence the power generated.
- ④ Need to import the hardware from foreign countries.
- ⑤ Lack of Private Participation due to restrictions and regulations in

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Renewable Energy Purchase Obligations

- ⑥ DISCOM defaults and Power
Purchase agreements that last for
decades.

Way Forward

- ① Viability Gap Funding based

{ Mapping of viable region
Setting up of wind farms
to encourage private participation.

- ② Encouraging Make in India to include
Wind energy hardware.

- ③ Innovative Means to build small scale
plants on the lines of mininuclear
power plants.

Thus way India can reach
the Net Zero targets faster than
2070

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5) The Cheetah Reintroduction to India was the world's 1st Intercontinental Canine Reintroduction Programme.

Potential Sites

- ① Kuno Palpur National park
- ② Sariska National Park etc.

near the Grassland and desert type ecosystem resembling the deserts of Namibia and the savannahs



Significance of Reintroduction

- ① Diversifying the keystone Species of the ecosystem from Tigers and lions
- ② Heritage of cheetahs - The last cheetah was hunted in 1946, otherwise India

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had asian cheetahs

- ③ Paves way for other reintroduction
projects

eg Gaur in Sri Lanka from India

Challenges

- ① Adaptability of Cheetahs

↳ 6 cheetahs have already died.

- ② Threat to other keystone species

↳ Cheetah Protocol fears diseases
and pests due to reintroduction.

- ③ Competition for prey with the experienced
keystone species.

- ④ Rehabilitation to the new region
is possible only with skilled work
force

The National Tiger Conservation
Authority has played a crucial role
in the project to ensure India's ecosystem
is enhanced, awareness by mascot Chintu
cheetah

Candidate must adhere to the word limit specified in the question.
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⑥

India winning the Oscars for the song Naatu Naatu from RRR shows the significance of the entertainment Industry.

Reasons for growth

- ① Developing Web Design environment with Design Courses in National Institute of design.
- ② Access to Technology encouraging youth to explore and design VFX.
- ③ Demand from Film Industry and Gaming Industry
↳ largest nation of gamers
- ④ Movement to more creative cinema
↳ Animation movies eg Kochadajagan
↳ High Budget Movies eg Baahubali

Candidate must adhere to the word limit specified in the question.
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- ⑤ High Demographic Dividend with average age of 27. to consume new and varied content
- ⑥ Emergence of OTT platforms like Netflix, Prime, Jio Cinemas, Sony etc
- ⑦ Internet Penetration to about 86%. fibrisation
- ⑧ Access to Smartphones, laptops and tablets
↳ largest cell phone manufacturers

This shows India's growing potential for Creative- Orange Economy along with Animation and VFX.

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⑦

One water Approach is the process of Integrated Planning, storage, utilisation, recycling of water from all sources to ensure efficiency and economy of water.

Water Challenges

One water based Solutions.

① Increased water stress with water level below falckenmark's 1400mm³ per person.

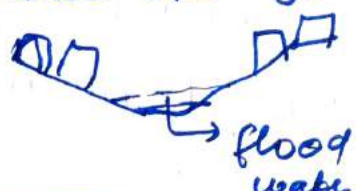
① Use of alternate sources of water
 ↳ Recycling sewage water
 ↳ Treatment of solid waste

② Acidity in about 69.1% of India and Pollution in 376 streams - CPCB.

② Encourage storage structures
 ↳ Zings of Ladakh
 ↳ Ahars of Bihar
 ③ Treat Industrial waste
 ↳ Grey water Footprint

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S-No	Urban ecological challenges	One Water Based solution.
①	Water stress in 40% cities by 2020 - NITI Aayog	① Sponge Cities to absorb and store more water. ② Desalinisation near coastal urban.
②	Industrial effluent release	② Use of Sea water to treat and obtain waste.
③	Urban flooding	③ Copenhagen type elevation and central storage 

This way recycling and circular economy of water will ensure

SDG 6 - Water Security.

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②

IPCC report suggests the Global South will be first to experience the result of climate change

It was visible when:

- ① Vietnam suffered from floods in coastal cities
- ② Indonesia shifted capital to Nusantara
- ③ Kerala building Tetrapod walls to prevent sea water intrusion.
- ④ Frequent floods in South Asia
 - Pakistan floods 2022
 - Bangladesh floods 2020
 - Urban Flooding in India
 - Delhi 2023
 - Bengaluru 2022.
 - China floods 2023.

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However there are effects on the Global North as well.

① Forest Fires in

→ Rhodes - Greece

→ Canada - British Columbia
Causing fog in US East Coast.

② Heat Waves across Europe in

June 2023, touching 40°C and more

③ Cold Waves during winters due to
weak polar vortex.

But the Capacity of Global South to handle these changes is limited. Hence calls for loss and Damage based funding and implementation of General adaptation agreement on COP27.

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- ① Sand and Dust storms have increase with desertification, land degradation and low soil moisture.

eg Expansion of Sahara towards east upto Libya sending dust storms till Egypt.

Environmental Impact

- ① Blow out of Vegetation leading to Biodiversity loss
- ② Soil Erosion resulting in loss of fertility of soil
- ③ Disturbance in Climate
 - Blow out of clouds from the region
 - Reduced precipitation.
- ④ Reduced Photosynthesis leading to high Carbon dioxide in the atmosphere

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and hence increased global warming

Ecological Impact

- ① Low Productivity of Soil due to erosion of fertile top soil, hence reduced food security
- ② Dusting and Rusting of machinery due to excessive blow out of wind.
- ③ Water Security is hampered due to pollution with contaminants.
- ④ High Health Expenditure due to lung and skin diseases.

Thus there is a need to use green wall technique of Sabare and Dravalli to prevent dust storm.

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10

The Arctic ice free summer has been advanced to 2030 by IPCC with 2°C Paris deal breach.

Impact on Oceans

① Increased Water in oceans

② changes in Ocean currents

↳ due to change in temperature and salinity.

③ Increased Sea Surface Temperature

↳ leading to biodiversity loss

corals ↓ stenothermal fishes → plankton growth

④ More Pollution

↳ due to opening up of new shipping routes.

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Impact of India

① Reduced Albedo

↳ Increased temperature and
extreme temperature events
eg heat waves.

② Coastal Flooding

eg Cities like Mumbai, Cochin,
Chennai at risk.

③ Changes in Monsoon

↳ due to changes in Jetstream
patterns.

④ Possible Source of Petroleum and resources from arctic as a member of the Arctic Council

⑤ Polar Silk Route can be threat to strategic security and interest

Thus there is a need to preserve the
ice by reducing emission, sticking to
Paris Deal and INDC targets.

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उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए।
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11

India has recently set up Karavatti Ocean thermal energy plant to generate electricity for water desalination.

Though the potential is estimated to be 180 GW, only few plants have been constructed.

Challenges associated

① Lack of Technology

(1.1) Lack of manufacturing technology for the equipments needed.

(1.2) Lack of technology to map the areas of high efficiency.

(1.3) Lack of efficiency in the plants to be scaled up to the shore from depth.

② Low Human Resource to exploit the resource and study ocean thermal energy.

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- ③ No Dedicated Policy by the government
or sufficient initiatives
- ④ Relatively new way of extracting
energy, thus needing more research
- ⑤ Biodiversity challenges in exploiting
the energy.
- ⑥ Lack of Scalability
 - ⑥.1 Small stations
 - ⑥.2 long distance from the shore
needing high transmission costs.

Remedial Measures

- ① Mapping of regions with the help
of satellites. for high efficiency in
- ② extracting energy
- ② Invite Private Players with viability
gap funding to attract interested
parties.

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इस हाथिए में केवल प्रश्न संख्या लिखें।
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- ③ International Cooperation with agencies like International Sea Bed Authority for research and technology
- ④ Exchanging Best Practices among nations
eg Cooperation with Israel for the Karamatti plan.
- ⑤ Reduce Transmission loss and ensure effective connection with the land from deep sea by new technologies like Optical fibre.
- ⑥ Enable Manufacturing through inclusion in initiatives like Make in India.

To become energy independent, it is imperative to search for alternate energies along with augmentation of mainstream renewables, achieving the Paris goal of 50% renewable by 2030.

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12

Post LPG reforms in 1991, India's Service sector grew contributing to about 50% of the GDP. The IT, BPM industry contributes to about 60% of the Service GDP - nearly 30% of the total GDP.

State of Industry

- ① It employs about 20% of the skilled work force.
- ② It attracts major foreign investment, ranking 2nd after computer and hardware in 2022.
- ③ It contributes to foreign exports as exchange of invisibles and has always grossed a positive balance of payment.
- ④ It has contributed to startups.

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and unicorns like zoho

- ⑤ It has offered social mobility to youth with private competition and high pay according to skill.
- ⑥ It has also increased urbanisation and purchasing power, thus increasing consumption to 58%..

Factors determining location

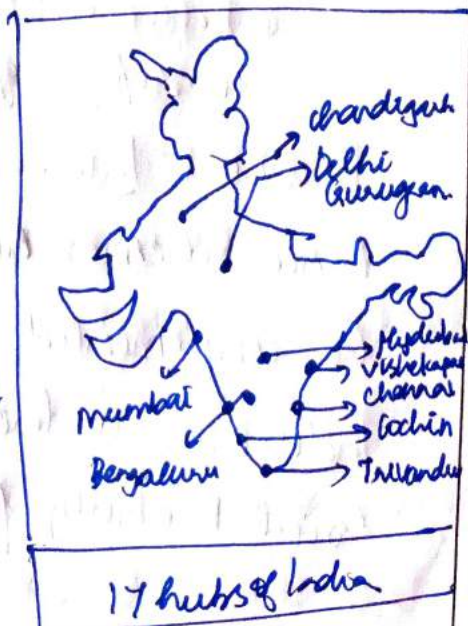
① Skill and Human Resource

- Skilled professionals in computer science
- High language proficiency in English

② Favourable Government

Policy

eg Karnataka government attracted Infosys through Internet fare concession and Import concession.



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③ Since the goods are largely software or other easily transmittable services they don't have to be located near market

~~eg~~ Government's Plan to shift BPM industries to North East.

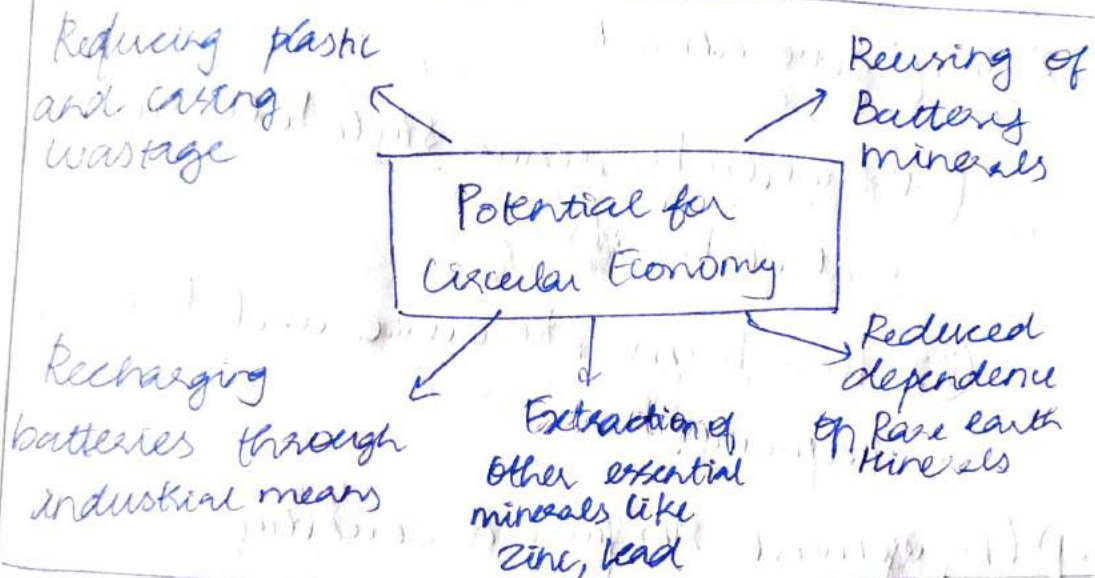
④ The Hardware is imported and hence some enclaves are closer to ports, but is not a necessary condition

~~eg~~ PLI Scheme for manufacturing mobile phones, attraction of Semi conductor Industries has helped diversify region.

However Internet availability is crucial hence Schemes like Bharat Net must be implemented soon to distribute the Industries to the villages, and ensure social mobility for all.

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(B) The New Battery waste Management rules aim at collecting, dismantling, processing and reusing Battery waste through Extended Producer Responsibility



Challenges for the Rules Implementation

① Informal Battery Waste Processing Industry

leading to low → technology adoption
→ accounting standards
→ processing data.

② Reluctance of Companies to follow

(1) Repurchase obligation

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- (ii) IPR relaxation for spare parts.
- (iii) Extended producer responsibility.
- ③ Lack of Regulatory Mechanism on the
side of government
 - ③.1 highly burdened State Pollution
Control Boards
 - ③.2 low Human Resource and technical
capacity.
- ④ Engagement in false accounting
 - ④.1 Paper trading and mere
dismantling.
 - ④.2 NO full scale extraction of
all mined.
- ⑤ Environmental Hazards and Human
safety of handling heavy metals.

Measures to be taken

- ① Dedicated Machinery for e waste

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handling and reprocessing

- ② Incentivising the informal sector to make it formal through online registration with SPCB and CPCBs mentioned already.
- ③ Encouraging technology adoption for efficient reprocessing and reuse.
- ④ Market for recycled materials must also be established and promoted
- ⑤ Governmental Initiative in policy for research and development
- ⑥ Global level Mechanisms on the line of EU's Right to Repair, France's Anti waste Bill can be adopted

NITI Aayog promises 15% Aluminium independence through circular economy
Waste to Wealth plants can also include Battery processing for boosting rules.

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⑭

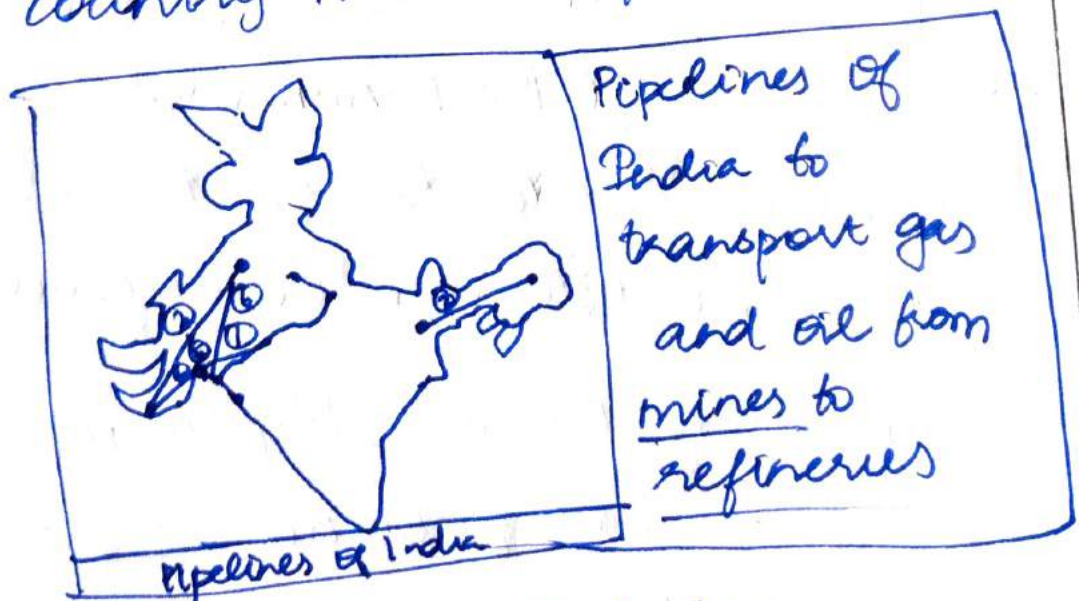
The destruction of Nord Stream I pipeline during early 2022, showed the importance of oil and gas pipelines, bringing many European Super powers like Germany to knees.

Hence it can be called no short of Veins of the economy.

eg Big Inch Pipeline of US

Status of Pipelines in India

① India has 6 major pipelines across the country shown as follows



② These pipeline ~~are~~ include:

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- (i) Kajeer Vijaypur Jagdishpur pipeline
- (ii) Barauni Nahabata pipeline
- (iii) Salseti pipeline
- (iv) Jamnagar pipeline etc.

Advantages of Pipeline

- ① Low Logistical cost of transporting fluids through pipeline by reducing
 - fuel cost
 - material cost - / time investment
- ② Low Hazard of accidents in transport of highly inflammable oil and Natural gas.
- ③ Employment in Refineries at diverse locations away from oil fields
eg Barauni, Jagdishpur, Bhatinda etc.
- ④ low Pollution and spills during transport.

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Disadvantages of Pipeline

- ① High Initial Investment from the government.
- ② Low Private Participation
- ③ High Cost of Repair during cases of leaks.
- ④ Need for high quality Human Capital and technology

With PPP model, these disadvantages can be largely reduced. Rangarajan Committee also points to increasing the pipelines for employment, efficiency and economic use of oil.

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नहीं लिखना
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15

Natural Gas hydrates are frozen form of methane present under the water bodies and cryospheric region.

Indian Reserves

India has abundant reserves in the Bay of Bengal and Arabian Sea coasts and in rivers like Godavari upto 21,000 sq km.



Natural Gas Hydrates

It has been mapped by Geological Survey of India But is yet to be explored and extracted.

Advantage of Reserves:

- ① Energy Independence from fossil fuel imports and hardware dependence

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for renewables.

② Efficient use of Technology through
shifting dependence and use of
petrol → Natural gas

③ Environmental Advantage of lesser
emissions due to clean fuel

④ Lesser Processing cost compared to petroleum.

Challenges in Exploration

① Lack of Capacity - Few marine engineers
and chemical engineers, and low
technology for mapping underwater
phenomenon and occurrence

② Low data on Quality of the Resource
and the raw material

③ Difficulty in Extraction of the
resource due to logistical inefficiency

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of the raw material.

④ Lack of Processing Facility for the raw material.

⑤ Low Involvement from private sector

⑥ Low International Cooperation

~~eg~~ Shale gas reserves are still untapped due to US's strict IPR policy on technology of hydro fracking.

⑦ High Regulation of Use of resources from the seas

{ UNCLOS

{ International sea bed authority etc.

Thus there is a need for exchange of global best practices in international forum to shift to more cheaper

sources of energy to achieve Paris

Target of 2°C ^{limiting to} global warming by the century.

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(6)

The supply chain disruption from COVID 19, No COVID Policy of China, lock down in Taiwan led to shortage of Semiconductor.

With ~~20%~~ ^{many} chip designers from India and rising demographic dividend along with skilling, India can tap into this sector, just like South Korea to see an economic take off.

However, India is confronted with the following challenges.

Challenges in the sector

① Previous Failure in the chip Industry

↳ The Chandigarh plant of 2011, pulling out of foray from deal etc.

② Highly Capital Intensive Industry with minimum of 10,000 crore of

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Industries and Lab.

③ Highly dynamic sector - The move from 12mm to about 10mm now happen within a decade.

④ Need for Highly Skilled labour across the design and manufacturing line

⑤ Facilitatory Policy Environment for confidence of investors.

⑥ Raw Material availability - Silicon extract low

Steps Taken

① Governmental Push

(1.1) PLI scheme for semiconductors and Design Linked Incentives

(1.2) Semi Conductor designs based IPR to encourage research

(1.3) NITI Aayog's - Policy document etc

② Federal Involvement

(2.1) Tirupathi's Battery Plant

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- ② Tamil Nadu's deal with Foxconn
- ③ Raw Material Facilitation - Exploration
for lithium in Jammu and Kashmir
and Karnataka, strategies for
exploration by KABIL.
- ④ Capital Facilitation by opening up
FDI policy for semi conductors.
- ⑤ International Cooperation to join
supply chain
- (i) China +1
 - (ii) Critical Supply ~~Chain~~ Initiative
of USA.

In the recent semiconductor conference,
PM Modi promised

"India would lead the Semi Conductor
Industry in the coming decade"

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(17) Wetlands are bodies with water less than 6m, saline brackish or fresh water, natural or manmade, peatland, marshland, lake, reservoir.
- Ramsar Convention

They are important ecological zones with manifold operations in the following:

① Climate Mitigation and Adaptation

①.1 Carbon Sequestration in peatlands, marshlands which are reservoirs of methane from decomposition.

①.2 Green-Blue Connect to ensure health of land and soil.

①.3 Mangroves and their role in Bio remediation and accumulation of toxic heavy metals.

①.4 Shock absorber in case of extreme

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floods or tsunami.

② Biodiversity

- ②.1 Edge Ecosystem with unique species, with specialised niche.
- ②.2 Fresh stock and shell fishes depend on Wetland for nesting
- ②.3 Constant supply of water even during dry season.

③ Human Health

- ③.1 Reduced water stress by absorbing water when abundant.
- ③.2 Aesthetic appeal for mental health.
- ③.3 Ribal dependence on produce from wetland.
- ③.4 Purification of water by bio accumulation.

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Mechanism in India

- ① National Wetland Policy that defines wetlands and preserves the ecological nature of these wetlands
- ② Integrated Water Resource Policy under National Water Policy.
- ③ West Bengal's Initiative for Mangroves
- ④ MISHTI - Government's Initiative for cultivation and access and benefit sharing of Mangroves.
- ⑤ Amrit Sarovar as a part of Amrit ~~Sarovar~~ ^{Kare} to renovate 75 wetlands
- ⑥ More than 120 Ramsar sites and abeyance to Ramsar convention

This way the kidneys of the earth are preserved for maximum Sustainable utilisation and development.

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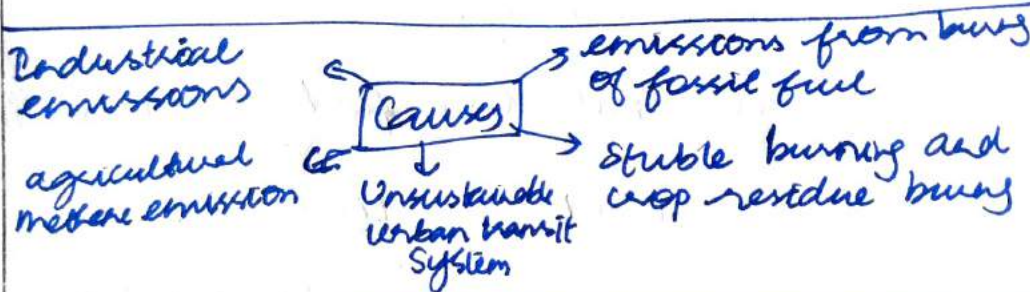
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(13)

Air Pollution is the presence of pollutant in air.

Pollutant is the solid, liquid, or gas that qualitatively or quantitatively reduces the standard of air.

- Air Pollution Prevention Act.



Recent cases of crop residue and stubble burning in the wheat and paddy belt of Punjab and Haryana for quick shift from kharif to Rabi has caused pollution in Delhi NCR.

The Air Quality Index reaches severe level of about 300 in score. Hence there is a need to take measures in this regard.

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Measures Taken

① Agronomic

- ①.1 Technology Infusion - Harvesters, stubble cutters etc.
- ①.2 Encouraging alley farming and Permaculture
- ①.3 Promoting other Kharif and Zaid crops > Horticulture etc.
 ↳ Mission for Integrated Horticulture development.

② Technological

- ②.1 Stubble Busters to be used a petecoke
- ②.2 Procurement for National Biofuel Policy - both stubble and crop residue.
- ②.3 Encouraging Research and Development

③ Legal Ban on stubble Bury

④ Community Cooperation through Farmer Producer Organisations

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But still the problem is yet to be solved. Hence there is a need for holistic solutions.

Measures to be taken

- ① Procurement of Stubble in APMCs at a assured price
- ② Encourage Private Participation in stubble processing technology.
- ③ Enable Panchayats to invest in Technology like
 - Biofield making technology
 - Biogas plants with KVIC
 - Khadi Village Industrial Cooperator
 - Stubble peeler making etc
- ④ Encourage Awareness among the public along with consequences of such action.

This way holistic solution can be ensured to bring multistakeholder behavioural change along with supplemental income and circular economy.

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19) Eco sensitive zones refers to areas that are crucial for the survival of the ecosystem in its original form.

In the recent supreme court case the court had relaxed the norms from 10km to 1km and now to the choice of states.

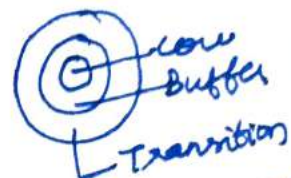
Need to create ESZs

- ① To prevent human intrusion into eco sensitive areas like Western Ghats
- ② To enable expansion of the ecosystem around the core.
- ③ To prevent disturbance to the biodiversity
- ④ Buffer zone to prevent external influence on the line of biosphere reserves for experiments, research

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⑤ To decrease Man
Wildlife Conflict

↳ about 300 elephant deaths in 2022 due to railway crossings.



Biosphere reserve

Issues Associated

① Low Scope for Infrastructure

eg Kerala Government's Silver Sail project was delayed due to supreme court case on ESZs.

② Reduced Tourism Development preventing new resorts, houses, tourism establishments etc.

③ Rights of tribals in the region might be restricted.

Recent developments

① The supreme court had held on the first judgement that ESZs

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are crucial for Ecosystem and need to maintain 10km zone between the Core.

② Later the Supreme court relaxed it to 1km.

③ Now the Supreme Court has relaxed the norms to 0km and discretion of states.

The Court has left it to State Wild Life Board and Central Government to decide on ESZ.

Thus way the states and centre now has to show federal unity in managing forests that are primarily in State list of VII Schedule.

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20

Climate Reparation refers to the compensation to be paid by the polluter countries to the countries that are at the brunt of climate change.

It is envisaged as loss and Damage fund as per Warsaw Pact, Agreement 2013, Adaptation Fund under Global Environment fund under Article 11 of Paris Climate deal.

The UNFCCC aims to collect \$1 Trillion in this regard. But IPCC points \$3.5 Trillion more is needed.

Need for Climate Reparation

- ① Historical Pollutions by the developed countries like Britain, USA from Industrial revolution.
- ② CBDR-RL - Capacity Based contribution

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to Disaster Risk and Respective Capacities.
to ensure climate equity

③ Global South at the brunt of risks

eg Vanuatu - Polynesian Island

President highlights the suffering of the country by floods.

④ Relatively poorer than Global North

to handle climate change symptoms
many with income lower than \$1.9.

⑤ Low Technical Expertise to handle these risks.

Challenges to climate Reparations

① Resistance of Developed Countries

→ Less than \$0.8 Trillion has been mobilised

→ Resorting to unfair Carbon Credit
and mitigation obligation like double counting

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- ② Lack of Enforcing mechanisms
 ↳ Weaker Organisation of SIDS
Small Island Developing Nations
 ↳ Global Institutions skewed
towards Global North
 eg UN, WHO, IPCC etc

- ③ Climate Equality as mechanism
is proposed by global north.

Hence there is a need for India to
 act as a bridge in the G20 summit.
 to ensure Vasudhaiva Kutumbakam
 is extended to the natural cohabitants
 as well.