

VISION IAS

www.visionias.in

VISION IAS
01 SEP 2019 NO. 03

GENERAL STUDIES (TEST CODE : 1244)

Name of Candidate	Vishakha Yadav	Registration Number	295520
Medium Eng./Hindi	English	Date	
Center	Karol Bagh.		

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
2	10	
3	10	
4	10	
5	10	
6	10	
7	10	
8	10	
9	10	
10	10	
11	15	
12	15	
13	15	
14	15	
15	15	
16	15	
17	15	
18	15	
19	15	
20	15	

Total Marks Obtained:

Remarks:

INSTRUCTIONS

- 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)।
- There are **TWENTY** questions printed in **ENGLISH & HINDI** इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
- All questions are compulsory.**
सभी प्रश्न अनिवार्य हैं।
- The number of marks carried by a question/part is indicated against it.
प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
- 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।
- Word limit in questions, if specified, should be adhered to.
प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
- 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।

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 & Sindh 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

1. Discuss the need of an Independent Fiscal Council (IFC) in bringing about transparency and accountability in fiscal processes in India. (150 words) 10

भारत में राजकोषीय प्रक्रियाओं में पारदर्शिता और जवाबदेही का समावेश करने हेतु एक स्वतंत्र राजकोषीय परिषद (IFC) की आवश्यकता की चर्चा कीजिए।

Independent Fiscal Council would oversee

- Budgetary and Non-Budgetary Allocations
- Fiscal Health - Deficits of the Govt
- Accountability to the Parliament
- Keep a tab on the overall expenditure framework of the Govt

NITI Ayog has mooted the idea of IFC recently.

Need of an IFC

- Transparency of system
 - ⊙ The share of EBR to fund capital projects rose to 60%. (Mo Finance)
- ⊙ Allocation of funds by 15th FC - new parameters creating skepticism in states
- ⊙ Removal of plan and non-plan distinction
- ⊙ Merging of Railway and General Budget

Accountability

- ① PRBM provisions - where fiscal deficit rose to 3.5% (2019) and CAD (2.4%)
- ② Central sector schemes such as PM-KISAN, Bank recapitalisation, PM-Shram Yogi, etc requires new allocations

other processes

- ① Low economic growth (slowdown to 5% very recently)
- ① Demographic dividend (Median age to reach 29 by 2030) - monetising to have productivity led growth
- ① Need of rationalising of the Central Sector (300) schemes and centrally sponsored (28)
- ① Rising NPA's and twin deficit problems.

Thus, a transparent, non-partisan check on the budgetary process can be achieved through IFC.

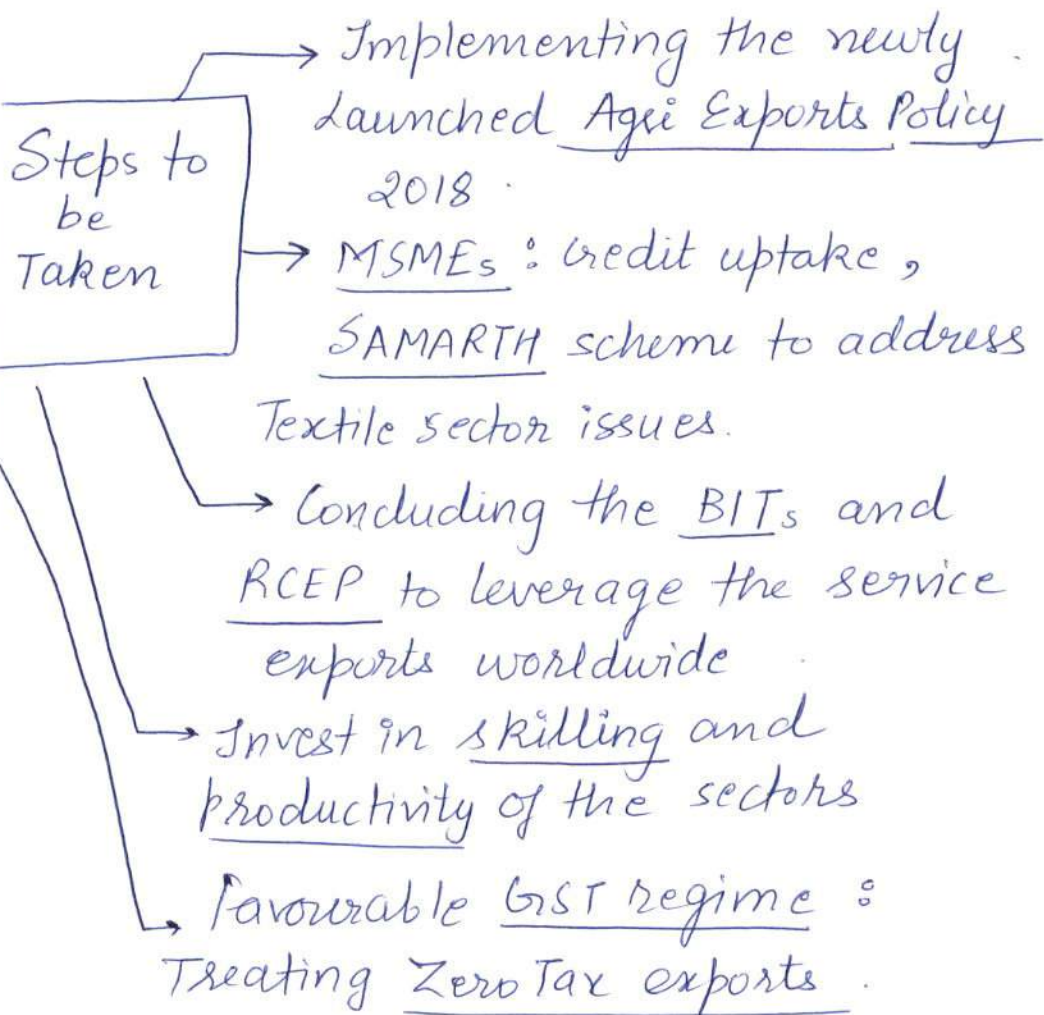
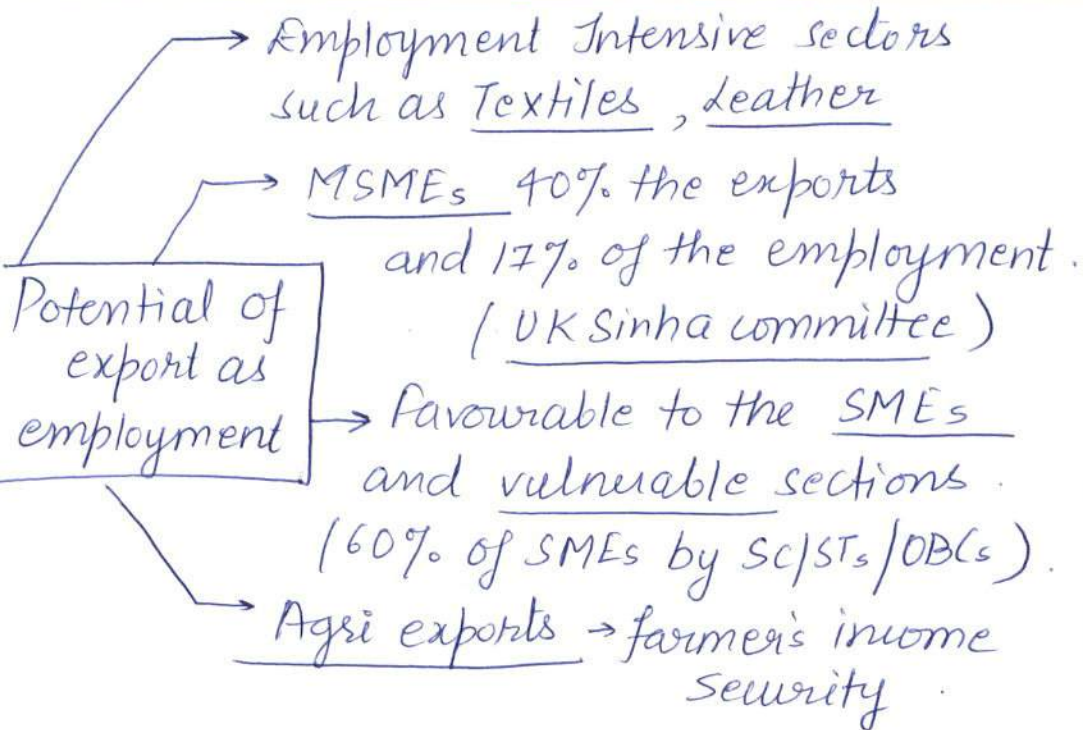
2. Recognizing the potential of exports in generating employment, a number of steps need to be taken to address India's weakening export competitiveness. Analyze. **(150 words) 10**

रोजगार सृजन हेतु निर्यात क्षेत्र की क्षमताओं की पहचान करते हुए, भारत की कमजोर होती निर्यात प्रतिस्पर्धा को संबोधित करने हेतु कई कदम उठाए जाने की आवश्यकता है। विश्लेषण कीजिए।

Indian exports grew at 3.2% on an average in 2015-18 registering a slowdown and weakening competitiveness (EC Survey 2017-18)

Reasons for the weakening Growth

- ① lower manufacturing output growth (IIP : 3.1% growth 2017-18) one of the lowest
- ② Tariff Regime : Withdrawal of GSP Benefits affecting \$240Mn of exports directly
- ③ Restrictive Trade Policies : Imposing the custom duties as high as 50% (eg: Automobiles) on the finished parts → leading to Inverted duty structure



3. Highlighting the main features of National Mineral Policy, 2019, discuss how it can help in ensuring sustainable and responsible mining.

(150 words) 10

राष्ट्रीय खनिज नीति, 2019 की मुख्य विशेषताओं पर प्रकाश डालते हुए, चर्चा कीजिए कि यह संधारणीय और उत्तरदायित्वपूर्ण खनन सुनिश्चित करने में कैसे सहायता कर सकती है।

An expert committee under the K. Rajeshwara Rao formulated the National Mineral Policy 2019.

Features of the Policy

- ① Creation of the National Mineral Authority to oversee the mining activities.
- ② Creation of the Mining Corridors to enable smooth processing, transportation and supply of the minerals.
- ③ To enhance the mining exploration potential (OEM) from 10% to 20% in next five years by 2022.
- ④ District Mineral Fund to ensure the sustainable rehabilitation of the displaced persons.

- ⑤ Granting mining activity an industry status.

Policy ensuring sustainable and responsible mining :-

- ① A dedicated authority to oversee a balance between the exploration and the sustainability.
- ② Mining corridors would create employment potential and smooth transitioning.
- ③ Rehabilitation of the displaced persons coupled with PMKKY where DMF oversee the welfare operations
- ④ Applications such as DEEP, PRAAPTI ensures the timely tracking and real time data ensuring transparency.

Thus, Inclusive growth and development has been aimed through above policy. (SDG 11)

4. Highlighting the salient features of the PM JI-VAN Yojana, analyze how it can assist in achieving the vision and goals of the National Policy on Biofuels, 2018. (150 words) 10

“प्रधानमंत्री जी-वन योजना” की मुख्य विशेषताओं पर प्रकाश डालते हुए, विश्लेषण कीजिए कि यह जैव ईंधन राष्ट्रीय नीति, 2018 की दृष्टि और लक्ष्यों को प्राप्त करने में किस प्रकार सहायक हो सकती है।

PM JI-VAN Yojna or Jai Indhan,
Vatavaran Anukool Niryat Yojna aims
to address energy security of India
through clean and sustainable
energy.

Features of the PM-JI-VAN Yojna

- ① It allows the 2G Ethanol
Blending through the biomass and
lignocellulosic materials -
- ② Divides the fuels into Basic (1G)
and Advanced (2G, 3G fuels).
- ③ The sugarcane molasses and
baggasse could be used for
the cogeneration of the energy
in the Biomass plants and
waste to energy (WTE) plants

Vision
and
Goals of
Nat. Policy
on Biofuels
2018

- Aims to push the Ethanol Blending to 20% of the fuel.
- Categorisation of the fuels (1G, 2G, 3G)
- Reducing import dependence of India by 30% by 2050
- Clean and sustainable energy
- Banning the import of the feedstock for the Biofuels abroad.

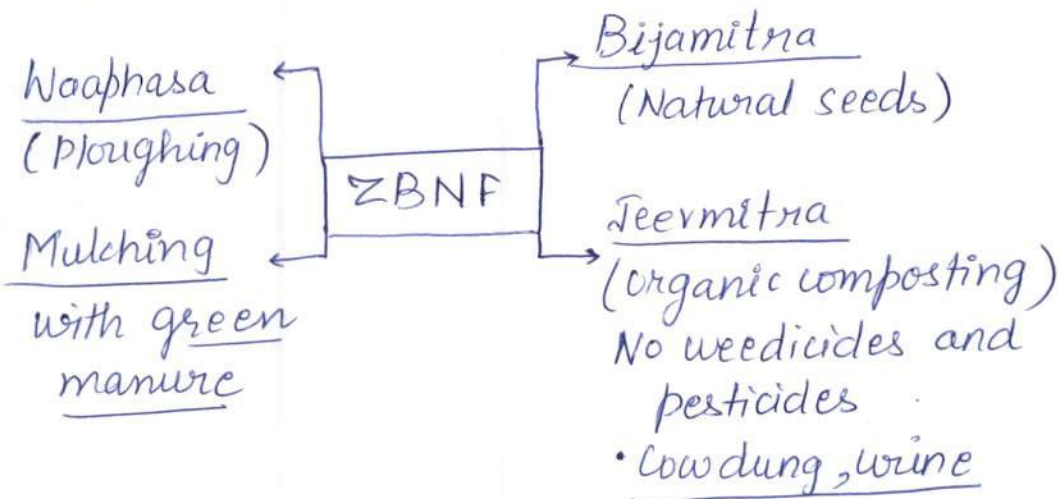
Synergy between the two

- Reduce the India's import dependence (85% imports abroad - oil & gas)
- Sustainable, safe and clean energy (SDG 11 Goals)
- India's INDC to increase renewable energy mix to 40%.
- Utilisation of the wasted excess of total 300MnTonnes foodgrains to produce clean energy.
- Thus, the energy poverty of India specially rural areas can be addressed.

5. Zero Budget Natural Farming (ZBNF) provides an alternative to capital and chemical intensive agriculture currently being practiced in India. Analyze. (150 words) 10

जीरो बजट प्राकृतिक कृषि (ZBNF), भारत में वर्तमान समय में प्रचलित पूंजी और रसायन गहन कृषि का एक विकल्प प्रदान करती है। विश्लेषण कीजिए।

Zero Budget Natural Farming as conceptualised by Subhash Palishkar has involved the traditional inputs utilisation to decrease the input bill of farmers to approximately Zero.



ZBNF Alternative to capital and chemical Intensive agriculture

- ① No need of the chemicals such as Pesticides, weedicides, fertilizers which harm
- Soil fertility
 - Income expenditure
 - output and Quality of Grains

- ② Capital required in the form of machinery, hybrid seeds aren't required. It uses ploughing, natural seeds (against terminator hybrid seeds)
- ③ Traditional practices
- ↳ Cow farming
 - ↳ Mixed farming
 - ↳ Vedic farming
- is widely practised.
- ④ Zero or no cost input and the quality and yield are also considerable

way forward

Andhra Pradesh, Telangana and Himachal have already pioneered

- ZBNF
- ↳ reducing farm distress
 - ↳ Boosting natural farming
 - ↳ Ensuring food security
 - ↳ Inclusive Growth of rainfed vulnerable areas
 - ↳ A domino effect of the SHG-cooperative farming.

6. Marine life is facing 'irreparable damage' from the millions of tonnes of plastic waste which ends up in the oceans each year. In this context, examine the implications of plastic pollution on marine ecosystem and suggest some measures for addressing this problem. **(150 words) 10**

समुद्री जीवन, प्रति वर्ष समुद्र में पहुँचने वाले लाखों टन प्लास्टिक कचरे के कारण 'अपूरणीय क्षति' का सामना कर रहा है। इस संदर्भ में, समुद्री पारिस्थितिकी तंत्र पर प्लास्टिक प्रदूषण के प्रभाव का परीक्षण कीजिए और इस समस्या के समाधान हेतु कुछ उपाय सुझाइये।

UK Based NGO Remove Debris launched the 1 dedicated mission to clean the marine debris in the Great Pacific Garbage. highlighting presence of more 3.5 Mntonnes waste generated every year.

Implications on Marine Ecosystem

- ① Non-Biodegradable takes 100s of years to decompose.
- ② Bioaccumulation in the intestines and organs of the marine life.
- ③ Nano-Plastics less than 0.1 microns fare even worse reaching the food chain and marine food products.
- ④ Threat to the life under sea, blocking photosynthesis and productivity.

Measures to address the problem

- ① Phasing out the single use plastics : As pledged by PM Modi which form 65% of the plastics.
- ② International and subnational collaboration : Projects in Japan, UK etc at UNEP platform.
- ③ Sustainable dumping of the garbage in oceans and water bodies ensuring marine fisheries lives.
(Dr Meenakumari Committee)
- ④ Stringent implementation of the Plastic Waste Rules 2016 with EPR and thickness above 5 microns.

PM Modi achieved UN Champions of the earth award for the initiative.

China, India banned imports of plastic waste from developed countries.
We need to use 3R framework

Reduce → Reuse → Recycle (Circular economy)

7. Write a short note on the evolution of Bharat Stage norms in India. Also discuss the significance and challenges posed by the planned introduction of BS-VI norms in India from the year 2020. (150 words) 10

भारत में भारत स्टेज मानकों के विकास पर एक संक्षिप्त टिप्पणी लिखिए। साथ ही, वर्ष 2020 से भारत में BS-VI मानकों को योजनाबद्ध रूप से लागू किए जाने के महत्व और उसमें आने वाली चुनौतियों की भी चर्चा कीजिए।

Ministry of Environment launched the Bharat Stage Norms taking cognizance of Air Pollution threat globally in 1990s following the Rio Earth Summit 1992. It follows the EU norms and constitutes → the PM_{2.5} PM₁₀ particulate matter composition
→ Sulphur and Nitrogen oxides (NO_x SO_x content)
→ Release of Hydrocarbons, soot, and CO₂.

BS-I → BS-II → BS-III → BS-IV → BS-V
↓
BS-VI → latest

in consonance with respective EU norms making provisions more stringent in every iteration

Significance of BS-VI

- ① Reduction of the Sulphur content by 10 times
- ① Particulate matter PM 2.5 PM 10 causing more than 12000 deaths/year - WHO
- ① Clean and sustainable environment.
- ① Justice Saumitra Chaudhary committee highlighted urgency based on WHO report of 14/15 most polluted cities in India.

Challenges

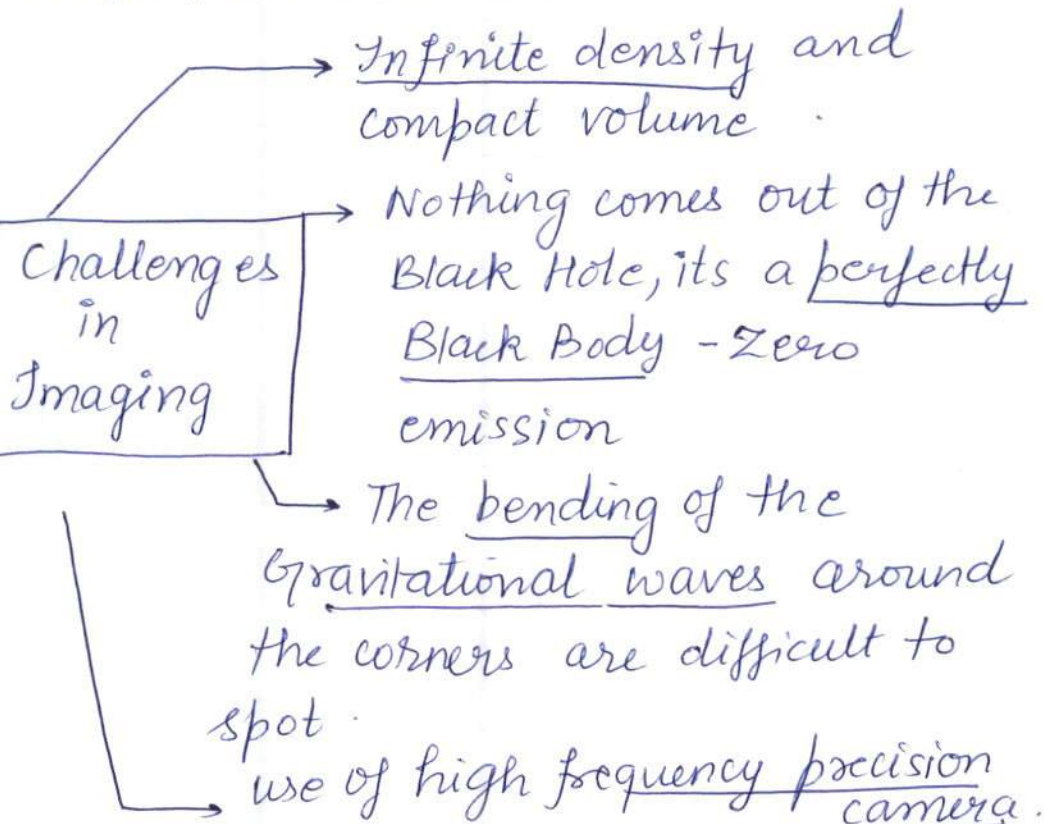
- Automobile slowdown.
(SIAM report: 13% decrease in vehicles sale)
- ↳ Upgradation of existing ICI
(combustion engine to accommodate BSVI compliant engines)
- ↳ The rising thrust on the Electric mobility.
- ↳ Losses due to the unspent stock
- ↳ Early rollout date of 2020 and jumping BSV norms.
- SDG10 and Art 51 mandates Govt to ensure a 'Healthy Life for All', It is a step in that direction.

8. What are black holes? Highlight the challenges in imaging a black hole? How were these challenges overcome by the Event Horizon Telescope project? (150 words) 10

ब्लैक होल क्या हैं? ब्लैक होल के चित्रण (इमेजिंग) में आने वाली चुनौतियों पर प्रकाश डालिए। इवेंट होराइज़न टेलीस्कोप प्रोजेक्ट द्वारा इन चुनौतियों को कैसे दूर किया गया?

Black Holes are the highly dense, compressions in the time and space invisible to humans due to the bending of the gravitational waves.

Recently, the Event Horizon Telescope spotted a black hole with 8 astrophysical observatories spread across three continents.

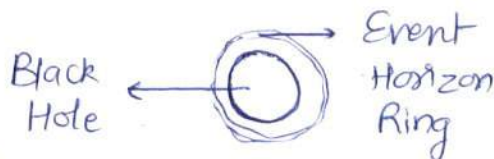


The Event Horizon Telescope overcame those challenges in following ways :-

- ① It constructed a full image of the Black Hole spotted in the Messier Galaxy through placing of (8) High Altitude Telescopes in Europe, South America (Atacama) and North America.
- ② The Gravitational waves produced and energy transmitted along the corners was captured to denote the presence of a Black Hole inside (The ring-Event Horizon Ring)

Thus, it opened frontiers for the further research

on the concept of Singularity and Einstein's Theory of Relativity.



9. While mentioning the objectives of the Arms Trade Treaty (ATT), discuss the challenges which are hindering the utilization of the ATT to its full potential. (150 words) 10

शस्त्र व्यापार संधि (ATT) के उद्देश्यों का उल्लेख करते हुए, उन चुनौतियों की चर्चा कीजिए जो ATT को इसकी पूर्ण क्षमता से उपयोगित किये जाने में बाधक हैं।

Arms Trade Treaty was one of the Bilateral treaty signed by USA and USSR during the cold war rivalry.

Objectives of ATT:

- Reduce the conventional arms race (tactical and non tactical weapons)
- Aim to create a weapon-free secure world
- Enhance the security through multilateral trust and reducing the cross border flow of arms to terrorists

Challenges in attaining full potential

- ① US-Russia new cold war arms race (US pulling out INF, ABM, etc)

- ② US industrial arms lobby which forms 55% of global arms trade.
- ③ Lax gun laws under US
- ④ Growing unstable security environment worldwide (India procuring Howitzer guns)

Thus, it is the need of the hour to encompass human security best served in a weapon-free world.

10. Threats to internal security of India may be posed both through the communication networks and also to the networks. Discuss. Also, highlight the steps taken by the government in making the networks more secure.

(150 words) 10

भारत की आंतरिक सुरक्षा को खतरा संचार नेटवर्कों के माध्यम से एवं स्वयं संचार नेटवर्कों को खतरा होने, दोनों ही प्रकार से हो सकता है। चर्चा कीजिए। साथ ही, नेटवर्कों को अधिक सुरक्षित बनाने हेतु सरकार द्वारा उठाए गए कदमों पर प्रकाश डालिए।

Symantec report of the Internet Security
highlighted India as third most
vulnerable country to cyber attacks.

Threats to Internal Security

Communication Networks

- using communication (electronic, cyber) to spread propaganda, violence, recruitment and destabilisation
- It encompasses a Social Media Monitoring Hub, vigilance and cooperation of the ISPs and MNCs.

Threat to the Networks

- Attacking the network security of a Nation to achieve ulterior motives.
- It requires a robust cyber framework and National Cyber Security and inter agency coordination.

• The recent Christ church attacks highlights the use of communication as threat to national security.

• The data breach (Wannacry, Petya) etc which uses phishing, malware, ransomware etc.

Steps taken by the Govt

- ① Using the technology to secure the data framework (National cyber Security Policy 2018)
- ② National Communications Policy
— Propel, Secure and connect India - verticals
- ③ Proposal to create a monitoring hub with global giants such as Google, Fb (end to end encryption decoding)
- ④ National Cyber Coordination Center, NIC-CERT etc to dedicated vigilance.

Thus, above steps are useful for security along with signing of Budapest Convention.

11. Highlight the importance and challenges related to integration of Variable Renewable Energy (VRE) in India. Mention some steps that can be taken for its smooth integration with the synchronized Indian grid. (250 words) 15

भारत में परिवर्तनीय नवीकरणीय ऊर्जा (VRE) के एकीकरण के महत्व और इससे संबंधित चुनौतियों पर प्रकाश डालिए। ऐसे कुछ कदमों का उल्लेख कीजिए जो समक्रमिक (सिंक्रनाइज्ड) भारतीय ग्रिड के साथ इसके सहज एकीकरण के लिए उठाए जा सकते हैं।

Ministry of New and Renewable Energy presented a report on the status of VRE in India recently.

VRE is the renewable energy component that isn't available seamlessly round the clock due to the lack of continuous energy supply.

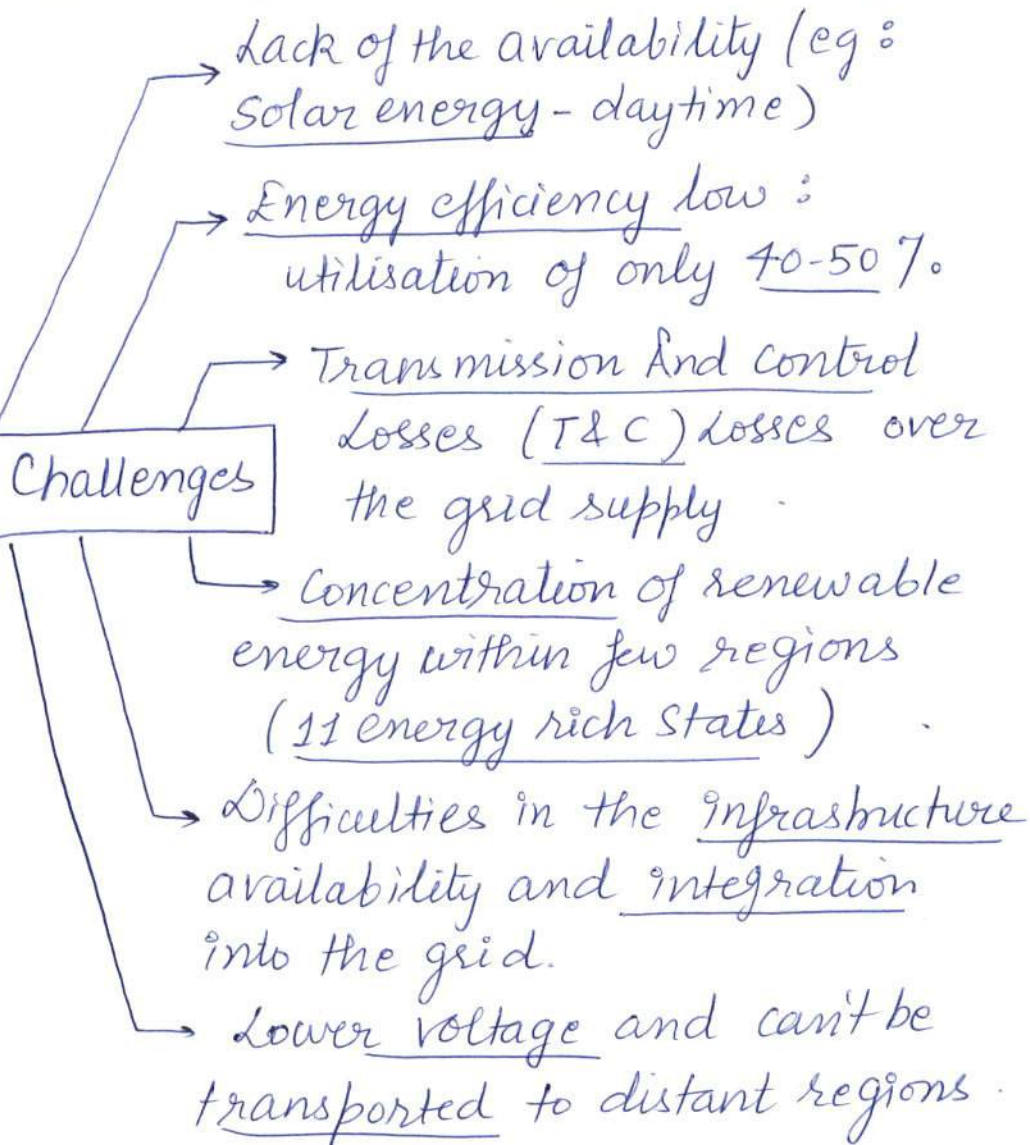
Importance
of
VRE

→ Energy Security of India

→ Ind's INDC goal in the Paris Pact : Increase share of Renewable energy mix to 40%.

→ Utilising the renewable energy potential of the country (Solar, wind, etc)

→ Addressing the energy poverty of the remote districts.



Steps to be taken for the Smooth integration

- ① MNRE has recently rolled out a strategy policy paper on the VRE guidelines. This needs to be deliberated effectively.

- ② Creation of the Green Energy corridors through resource rich states (Eg: Tamil Nadu to Central India)
- ③ Utilising the micro grids and off the roof top decentralised energy utilisation .
- ④ Intra and Inter state smooth transmission guidelines - Tariff liberalisation for energy procurement .
- ⑤ Using the flexible VRE to integrate the energy mix with the transmission grid (AC current).
- ⑥ Real time tracking and the data inventory and minimizing the T&C losses.

Sustainable and clean energy (SDG 10) is the global need .
and with these steps India can increase its mix from 26% → 40%
(2018)

12. There have been arguments that India could fall into a 'middle income trap'. Explaining the phenomenon, highlight the reasons behind such arguments. How can India avoid it? (250 words) 15

ऐसे तर्क दिए गए हैं कि भारत 'मध्यम आय पाश' में फँस सकता है। इस परिघटना की व्याख्या करते हुए, ऐसे तर्कों के लिए उत्तरदायी कारणों पर प्रकाश डालिए। भारत इससे किस प्रकार बच सकता है?

① Middle Income Trap can be defined as the condition where the economy enters into the middle income category but is unable to grow out of it and is trapped within the same bracket due to structural issues.

World Bank

Reasons behind

- ① focus on the resource led growth instead of the productivity led growth.
- ② Absence of the skilled human resources
- ③ Rising of the wages (labour) and loss of the competitiveness in the economy.

- ① Global structural changes –
economic slowdown and
competition from the low waged
countries (Vietnam, Indonesia, etc)

India and the middle Income Trap

- ① India despite being fastest economic growth (7% avg/annum) is facing Jobless growth (Unemployment - 6.1% all time high - NSSO)
- ② The per capita income of country has already reached 6000\$ approx. but huge disparity - regional and economic inequalities
- ③ Consumption led economy and is facing slump, slow manufacturing growth (IIP: 3% growth 2018)
- ④ The technological advances of IOT, AI, Automation requires skilled labour force
(IndiaSkills Report : only 47% higher education students employable)

⑤ Growing CAD and the lowering export growth (GSP withdrawal)

How can India avoid it

- ① Focus on the skilling (Skill India, SHREYAS, vocational training, NSQF, RPL, etc)
- ② Boost R&D to 2% instead of 0.7% currently (NITI Aayog Ind@75)
- ③ Focus on the productivity led growth, sunrise employment intensive sectors—Tourism, Textiles, Leather (ES 2017-18)
- ④ Boost to MSME (17% employment) specially the nascent/infant ones.
- ⑤ Inclusive Growth (Oxfam Report 73% wealth in 1% population)

Thus, ensuring the export-led growth and taking leverage of Service sector in int platforms (RCEP, etc)

13. Highlighting its importance, discuss the major issues that plague effective monetary policy transmission in India. Also, mention the steps taken by RBI to improve it. (250 words) 15

भारत में मौद्रिक नीति संचरण के महत्व पर प्रकाश डालते हुए, उन प्रमुख मुद्दों पर चर्चा कीजिए जो इसकी प्रभाविता को बाधित करते हैं। साथ ही, इसमें सुधार के लिए RBI द्वारा उठाए गए कदमों का उल्लेख कीजिए।

(MPT)

RBI defines the Monetary Policy

Transmission as the passing on the effective benefits of the rate cuts (interest rates) to the end customers seamlessly.

Importance
of
MPT.

- Ensures the credit growth in the economy effectively.
- Increases the consumption demand and Bargaining power of citizens.
- Helps to boost the industrial and manufacturing sector growth.
- Boosts the investors confidence making it attractive for the investments and FDI.
- Domestic consumption gets impacted positively.

→ Enables Banks to deal with NPA crisis through the credit growth.

Issues in effective MPT

- ① Reluctance of Banks to pass on the benefits due to
 - Double financial Repression (₹ 2017-18)
 - Twin Balance sheet issue showing poor health of the Banks.
- ② MCLR system issues as highlighted by Tanakh Raj Committee and recommending linking of the rates to repo rates.
- ③ Structural slowdown in the economy with slump in the domestic consumption and credit growth.
- ④ Sectors such as Power and Infra where most of the NPA's

are concentrated leading to the
Banks poor profitability.

Steps taken by the RBI

- ① RBI has linked the MCLR system of the Banks to external lending rate thus, enabling the true reflection of rates based on the economic growth.
- ② An Authority to ensure the passage of the rate cuts to the end customer.
- ③ Mandating and penalising the banks which fail to pass on within a month. (Bibek Debroy committee)

14. Highlight the constraints faced by rainfed agriculture in India. Discuss some agronomic practices that can be adopted for stabilizing agricultural production in rainfed areas. **(250 words) 15**

भारत में वर्षा सिंचित कृषि में आने वाली बाधाओं पर प्रकाश डालिए। वर्षा सिंचित क्षेत्रों में कृषि उत्पादन को स्थायित्व प्रदान करने हेतु अपनाई जा सकने वाली कुछ कृषि-वैज्ञानिक पद्धतियों की चर्चा कीजिए।

Agriculture Census 2015-16 stated that 65% of the 200Mha of land under the operational holdings is under rainfed agriculture in India.

Constraints faced

① Irrigation

Absence of the irrigating water and low IPC and IPU efficiency ranging from 30-38% (NITI Aayog).

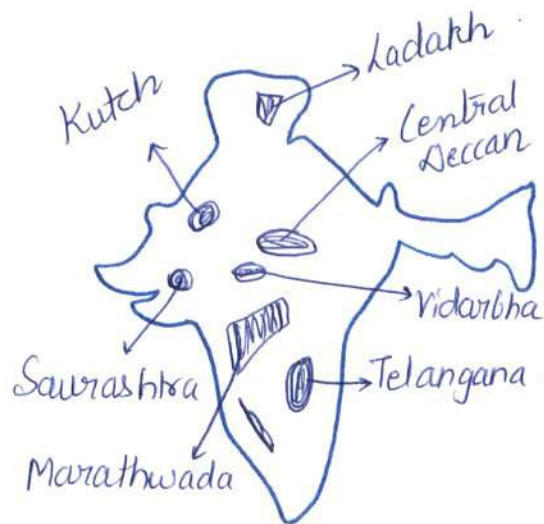


Fig: Rainfed Areas
prominent

② Usage of water demanding crops (Rice, wheat) - Lack of the crop

diversification

- ① Awareness of the farmers : →
SHCs and KVKs inaccessibility
- ① Affordability of the water resilient
quality seeds
- ① Forward Linkages and Backward
Linkages (Such as hi-tech machinery,
tractor penetration is low)
- ① Monsoon dependent vagaries
- ① Lack of the agoclimatic
regionalisation in crop plantings
- ① 40% of the area receiving less
than 75cm of rainfall giving
low yield /hectare
- ① Inefficient marketing extension
services and infrastructures
- ① Lack of the farm credit due
to rising farm loans menace.
(NCRB: 8000 suicides in 2015)

Agronomic practices - Stabilise Agriculture in Rainfed Areas

- ① Use of the ZBNF - (Bijamitra, Jivamitra, Waaphsa, Mulching) → Buhash Palushkar.
- ② Organic farming as practiced in Himachal. [Sikkim entirely organic state].
- ③ Cow farming, Vedic farming → Traditional practices with almost Zero inputs costs.
- ④ Agro forestry and community participation with collective farming.
- ⑤ Agro climatic regionalisation use of water resilient crops such as - Coarse grains, or legumes.

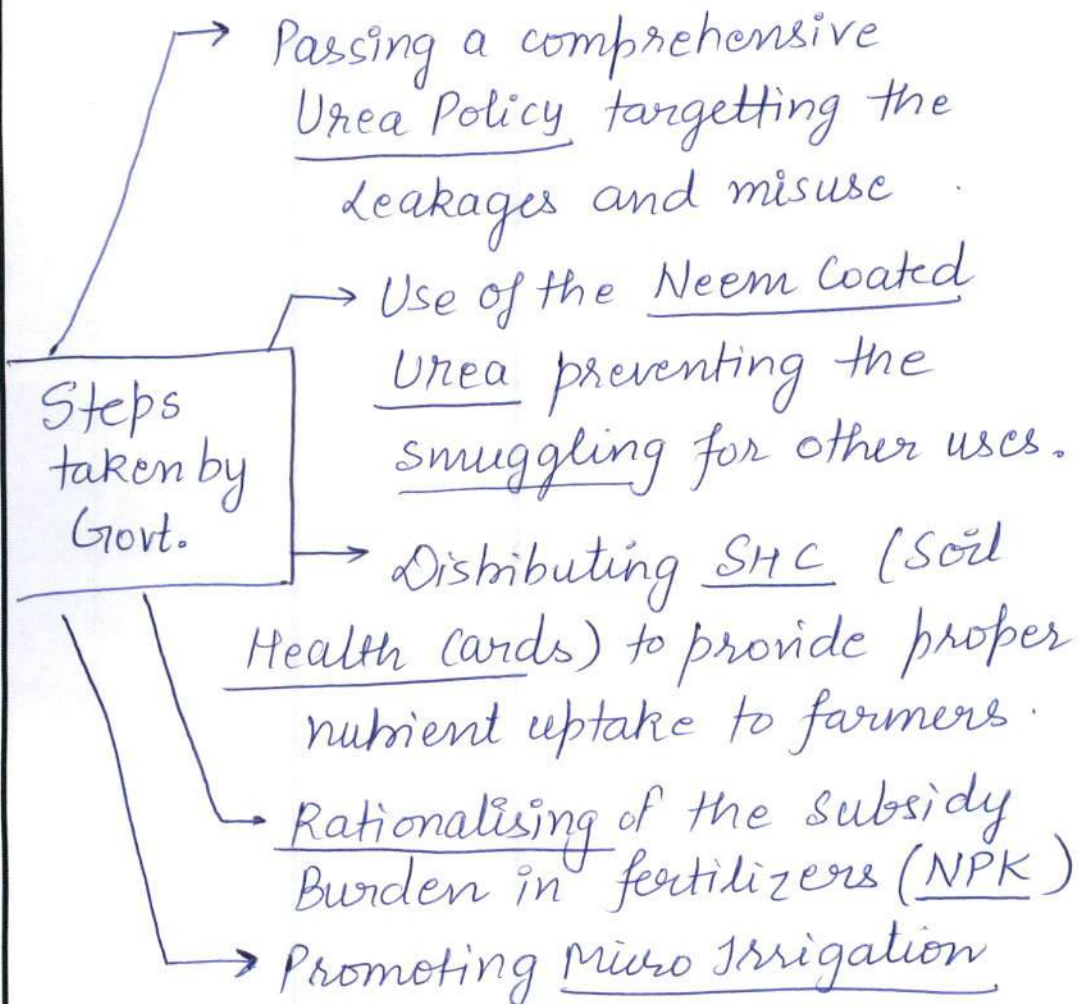
India thus can fulfil its
SDG 1, 2 ensuring goal of food
security as also mandated under
Art 40 of Constitution

15. Despite the steps taken by the government in recent years, a number of problems continue to persist in the urea sector in India. Discuss. What reforms should be taken to address the persisting problems?

(250 words) 15

हाल के वर्षों में सरकार द्वारा उठाए गए कदमों के बावजूद, भारत में यूरिया क्षेत्र में कई समस्याएं निरंतर बनी हुई हैं। चर्चा कीजिए। मौजूदा समस्याओं के समाधान हेतु क्या सुधार किए जाने चाहिए?

Fertilizer subsidy forms the II largest burden on the Govt of which urea includes 85% of the subsidised part. (Eco Survey 2017-18)



techniques requiring less usage
of the urea.

Problems still persisting

- ① Diversion of the Urea for the agricultural purposes to the non-agricultural industrial processes.
- ② Cross Border Smuggling of the Urea creating the artificial slumps and lows in the stock, giving rise to cartelisation.
- ③ Black Marketing of the urea through Indo Bangladesh border
- ④ Overuse by farmers to the tune of 10:8:1 instead of the ideal 4:2:1 (NPK)
- ⑤ Illicit trade of the subsidised urea leading to the overconsumption.

Reforms that should be taken

- ① Educating farmers through the VRCs (Village Resource Centers) and the KVKs (Krishi Vigyan Kendras)
- ② Regulating the cross Border flow of the urea through proper enforcement channels.
- ③ Finding alternatives to less urea consuming crops based on Hydroponics and ageo-climatic regionalisation
- ④ Rationalising the nutrient Subsidy scheme (NBS) further.
- ⑤ Use of the rising organic farming, ZBNF (Andhra, Himachal) as viable and remunerative sources of income.

16. What is Access and Benefit Sharing? Explain how it aids in sustainable use of biodiversity. Also, mention the different global and national level mechanisms for ensuring Access and Benefit Sharing. **(250 words) 15**

पहुंच और लाभ साझाकरण (एक्सेस एंड बेनिफिट शेयरिंग) क्या है? यह जैव विविधता के संधारणीय उपयोग में किस प्रकार सहायक है, स्पष्ट कीजिए। साथ ही, पहुंच और लाभ साझाकरण सुनिश्चित करने हेतु वैश्विक और राष्ट्रीय स्तर की विभिन्न प्रणालियों का उल्लेख कीजिए।

Access and Benefit Sharing (ABS) ensures the benefits of a scientific exploration and technological research in an area are passed on to the local and indigenous population under CBD

ABS and Sustainable use

- ↳ Ensures the traditional knowledge is in harmony with the technological advances
- ↳ The indigenous people usually follow the landscape approach and the cultural mode of the conservation (Eg: Bishnoi Tribe of Rajasthan)

↳ The community participation along with the socio economic development creates a fine balance and prevents untoppable regressive exploitation of resources -
(Eg: Ayurveda knowledge found in the foothills of Himalaya)

Global Mechanisms

↳ Nagoya Protocol : Legally binding under the Convention of the Biodiversity (CBD)

↳ CBD under the Rio earth Summit 1992 .

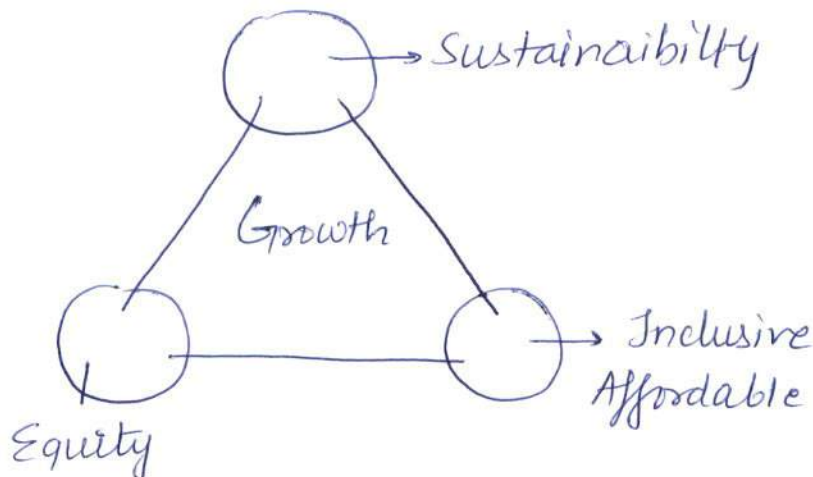
National Mechanism

↳ Biodiversity Act mandates the MNCs to share the benefits with the local communities

↳ Forest Conservation Act 1980

- ↳ Biodiversity Register
- ↳ Tribal rights under the FRA 2006
- ↳ Biodiversity welfare committees to oversee the implementation

Sustainable Environment and economic development need to be in harmony and in line with the UN-SDGs to ensure the Inclusive, equitable growth.



17. Stating the significance, discuss the challenges in achieving disaster resilience of infrastructure. Suggest some ways for mainstreaming it in the development paradigm. (250 words) 15

अवसंरचनाओं का आपदाओं के प्रति सुनम्य (रेजिलिएंट) होने के महत्व को स्पष्ट करते हुए, इससे संबंधित चुनौतियों की चर्चा कीजिए। इसे विकास प्रतिमान की मुख्यधारा में लाने हेतु कुछ उपाय सुझाइये।

(DRI)

Disaster Resilient Infrastructure

endures the operability of the critical infrastructure during the adverse disastrous conditions.

It is prominent in the backdrop of the Kerala floods, Chennai floods, cyclone Okhi, Assam floods and numerous other catastrophes which our country faces every year.

Significance of DRI

- ① WB - 'South Asian Hotspots' report highlights India as the most vulnerable disaster risked area.

- ② Continuous means of the communication and relief operations during disaster mitigation and relief.
(eg: Satellite Phones, Wireless communication towers)
- ③ Supplies of food, materials and human resource support is only possible through a robust infrastructural network.
- ④ Reduces the impact, and losses of lives and tangible things.
- ⑤ Ensures the coordination effectively between various departments and institutions seamlessly (NDRF, CRPF, Army, NGOs, SDRF, etc)

Challenges in DRI

- ① funding : to create robust

framework and quality hi tech infrastructure

- ① Coastal Zone Regulation : Illegal Encroachment over the lands, bad
- ② Land use planning
- ③ Clearances from various departments and regulatory hurdles along with Bureaucratic rigidity
- ④ Absence of the EIA of the projects undertaken (category A and B → recent dilution in the norms)

ways to mainstream in development paradigm :

- ① Community participation at every stage (Gram Sabha)
- ② Proper Land Zoning and use of the equilisation grants to address fiscal deficit
- ③ CSR funds utilisation under PMRF targeting most vulnerable areas

18. Highlighting the significance of data localization for India, discuss various challenges associated with data localization. (250 words) 15

भारत के लिए डेटा के स्थानीयकरण के महत्व पर प्रकाश डालते हुए, डेटा के स्थानीयकरण से जुड़ी विभिन्न चुनौतियों की चर्चा कीजिए।

Data Localisation is the process of storage of the electronic payments or transactional data within the territory of a Nation instead of the storage in the servers outside.

Recently, RBI issued the VISION-2020 document where it highlighted the need of data Localisation under the Payment and Settlements Act.

Significance

- ① Data as a National/Strategic Asset : With growing technological advancement 'Data is the new oil', India is expected to house

2nd largest data repository by 2030.

- ② Economically, TRAI consultation paper highlighted that data processing and analytics could add \$2.5 Trn to our economy.
- ③ Goal of India to become a KITE economy (Knowledge and Technology economy) requires data processing.
- ④ Concerns of the security and data sovereignty which is forcing govt to reduce the processing costs. (Cambridge Analytica breach, FB data breach)
- ⑤ Could help in the Evidence Based policy making, better targetting of the issues using various types of Household, Transactional, Survey data. (Economic Survey 2018-19)

challenges

- ① Huge storage Infrastructure and nascent cloud storage (Meghraj) in India.
- ② operation of data in silos may increase security threats (Symantec report : Ind III largest phone country)
- ③ Threat of the Surveillance and the data privacy
- ④ Increasing inward-looking policies and spate of protectionism globally.
(Eg : EU GDPR, Japan, China)

Recently, USA has passed CLOUD Act which allows usage of data by private entities. India also needs to create a balance between monetising data as a financial asset and privacy of an individual.

19. Money Laundering as a socio economic offence is a menace especially for developing countries like India. Comment. What measures have been taken at the domestic and international levels to deal with this menace?

(250 words) 15

एक सामाजिक आर्थिक अपराध के रूप में धन शोधन विशेषकर भारत जैसे विकासशील देशों के लिए एक खतरा है। टिप्पणी कीजिए। इस खतरे से निपटने हेतु घरेलू और अंतरराष्ट्रीय स्तर पर क्या उपाय किए गए हैं?

Money Laundering is the phenomenon of channeling the money through illicit and illegal means for the purpose detrimental to the economy of a Nation
(OECD)

- Hawala Transactions
- Black market
- Organised crime
- Terrorism
- Wealth Accumulation

It is a socio-economic offence specially for developing countries like India in following ways :—

- ① Detrimental to the economic growth, diversion of the funds which could otherwise be used for the socio-economic welfare policies

- ② Pumping money for the drugs trafficking, human trafficking and other trans-organised crime. (Bangladesh, SEA)
- ③ Acc to IMF, India stands to lose more than 2.6% of GDP due to money laundering offences.
- ④ Giving rise to parallel underground economy of black marketing.
- ⑤ Potential to turn the demographic dividend to demographic disaster

Measures - Domestic level

- ① PMLA act - Prevention of Money Laundering under the ED which oversees implementation
- ② FIU-Ind : Intelligence gathering and information sharing

- ③ Fugitive Economic offenders Act
to prosecute the fleeing offenders
above 100 crores and confiscating
property.
- ④ Prevention of Corruption Act
- ⑤ Demonetisation, Benami Transactions
Act - executive measures

International Level

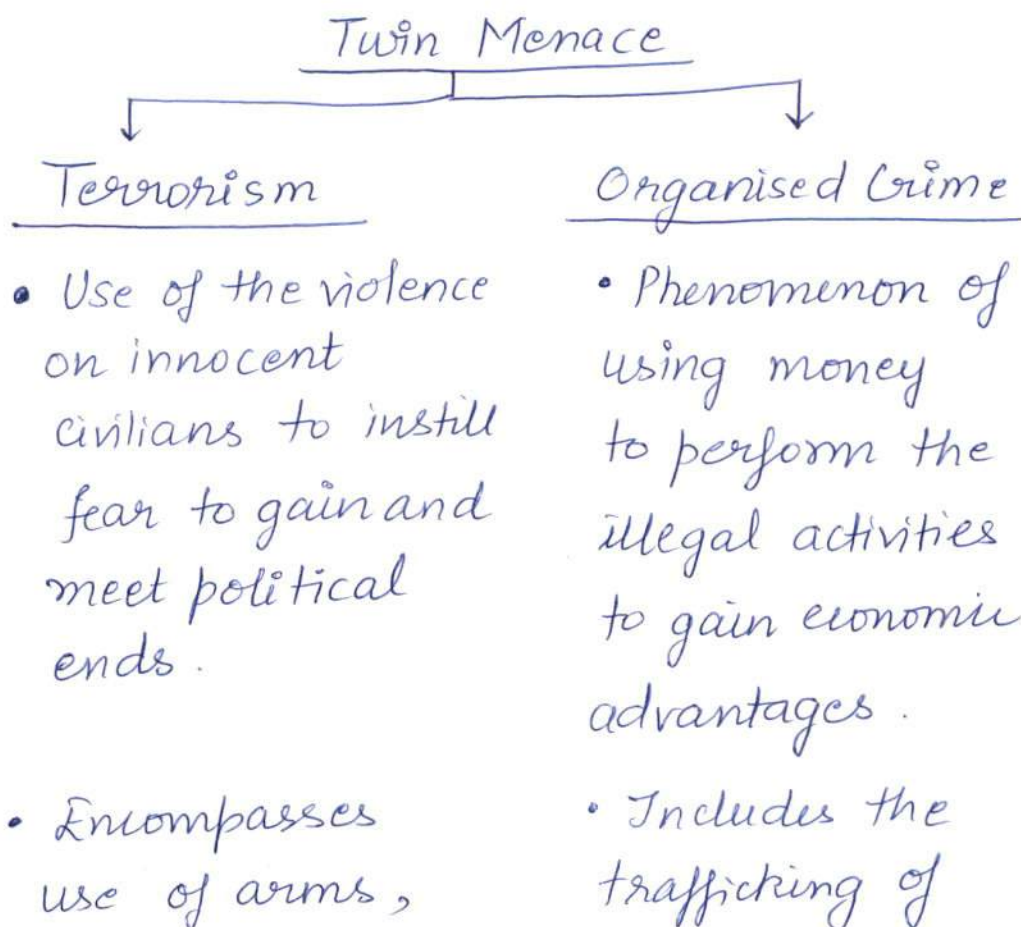
- ① OECD BEPS (Base Erosion and
Profit Sharing)
- ② UN Convention Against Corruption
and UN Convention Against trans-
organised crime (UNCAC, UNTOC)
- ③ DTAA with various countries
such as Singapore, Cyprus.
- ④ Cracking down on shell
companies through TIEA
(Tax Info exchange Agreement)
with countries
- ⑤ FATCA with USA - Tax transparency.

20. The primary motive of terrorism differs from that of organised crime but there exists a symbiotic relationship between the two. Discuss.

(250 words) 15

आतंकवाद का प्राथमिक उद्देश्य संगठित अपराध के उद्देश्य से भिन्न होता है, किन्तु दोनों के मध्य एक सहजीवी संबंध पाया जाता है। चर्चा कीजिए।

RAND Corporation in its report highlighted the South Asian Arc of Instability where India is one of most vulnerable countries facing menace of Terrorism and organised crime.



naked violence,
Bombings, hijacking,
Lone wolf attacks
etc.

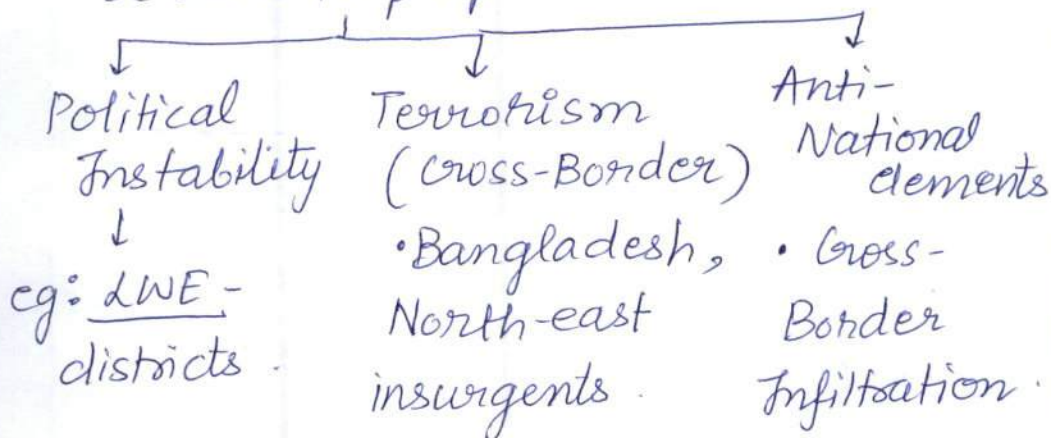
- Eg: ISIS attacks
on Syria.

humans, drugs,
illicit materials
transportation
throughout a channel

- Eg: Golden triangle and
Golden Crescent for
drugs

Symbiotic Relationship between two

- The money laundered through
the Trans organised crime can
be used to propel



- Drug Trafficking across the
Punjab-Rajasthan border forms
a major means to finance the

Pakistani insurgents



- The human trade (slaves) women trafficking across the South-east Asia to eastern Africa has close nexus with the ISIS recruitment.

way forward

- ① Strengthening cross border security architecture - CIBMS
- ② Greater vigilance and strict law enforcement (PMLA, etc)
- ③ Coordination between agencies and strengthening maritime security
- ④ Early conclusion of CCIT at UN comprehensively.