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प्रश्न संख्या
लिखें।

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Name - Neeti Agrawal

Roll No. - 1910047472

Test Mode - Online

Date - 11th September, 2023

Time taken - 11am - 2pm

Subject - GS-III

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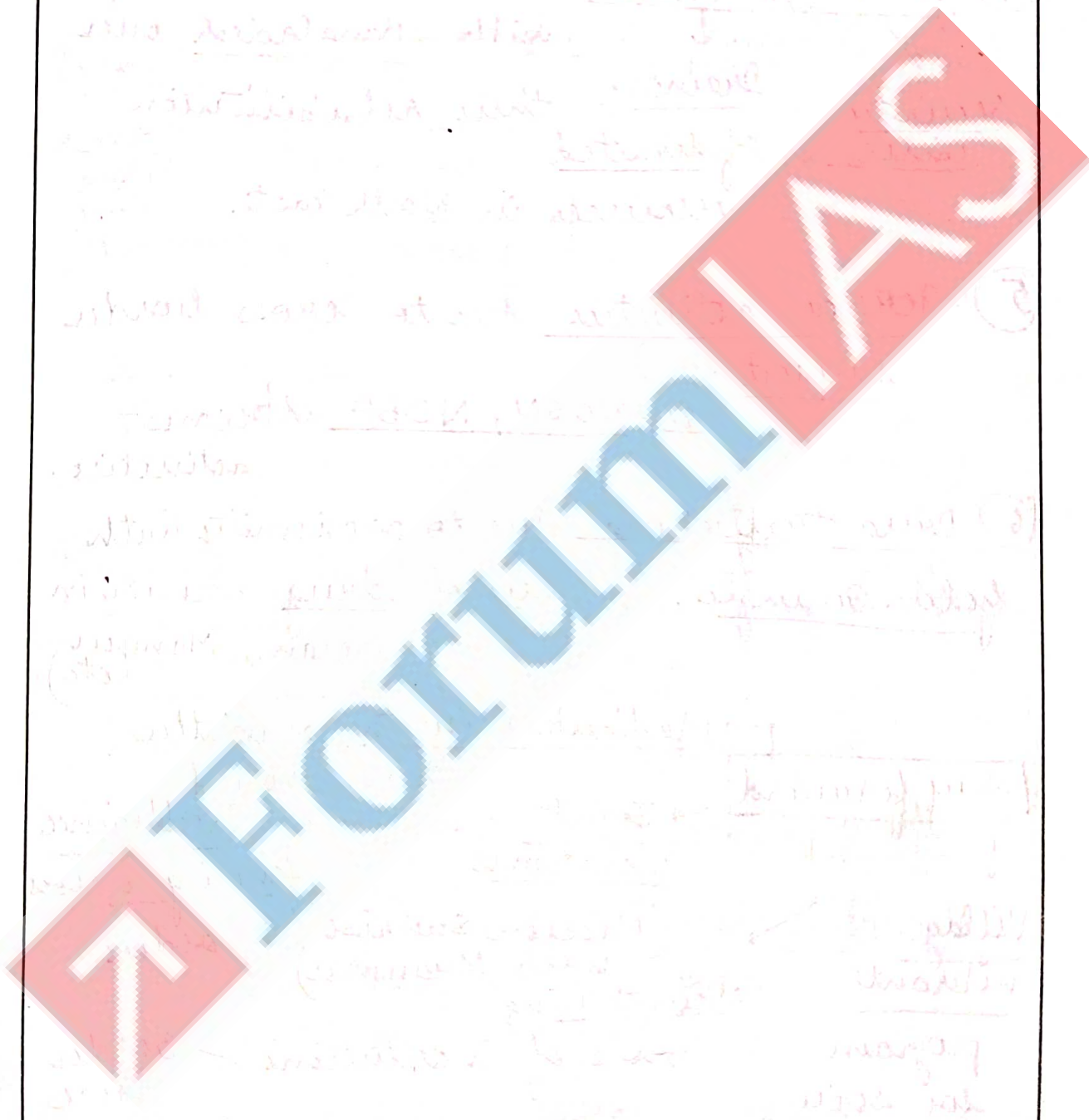
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Ans 1: Foreign trade is one of the important component to realise economic growth and stability. The recently released FTP harnesses the domestic strength while integrating it with global demands.

Potential of FTP -

- ① Defines the role of districts, states and nation on the whole to utilize its full potential.
- ② Strengthening logistics to reduce ^{time} _{cost} ^{inefficiency}
- ③ Integrating the role of MSMEs in boosting the exports.
- ④ Digital services along with trade facilitation to improve the exports.
- ⑤ Incentivising the businesses for their enhanced role in improving exports.

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6) Diversification of export commodities while harnessing the diversity of Indian products.

Challenges remain → Structural issues like land, labour, capital

↓ ↓ ↓

Reduced efficiency of MSMEs (dwarfism)

Poor logistics efficiency (13-18% of GDP)

Coordination among different agencies.

Way forward → Address structural issues.

↓ → Strengthen PLI scheme

Harnessing the potential of New logistics policy.

Thus, newly released FTP aims to provide filip to economic growth while fulfilling the global demands.

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Ans 2. Acc. to social progress Index,
less than 30% of Indian population is
covered under social protection scheme.
Further, article 46 of the constitution
provides welfare benefits.

Old pension scheme

- ① Argues for greater contribution from States in providing pension.
 - ② But, ignores the fiscal discipline.
 - ③ States → Own resource generation
↓
→ Populist measures
frivolous
culture
- decreased to 38% in 2020-21.

Need of social protection scheme

- ① To reduce out of pocket expenditure.
- ② Buffer in times of distress.

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③ Mandate of welfare State (Article 46)

④ Protects the poor from further sinking into poverty (downward mobility)

Way forward -

- ① Balancing fiscal prudence with welfarism.
- ② Targetted beneficiary oriented scheme.
- ③ Rationalization of scheme.
- ④ Other enabling measures - skilling / social promotion / social infrastructure.

Thus, in a democracy, the interests of all sectors should be taken into account while breathing cautiously on fiscal discipline.

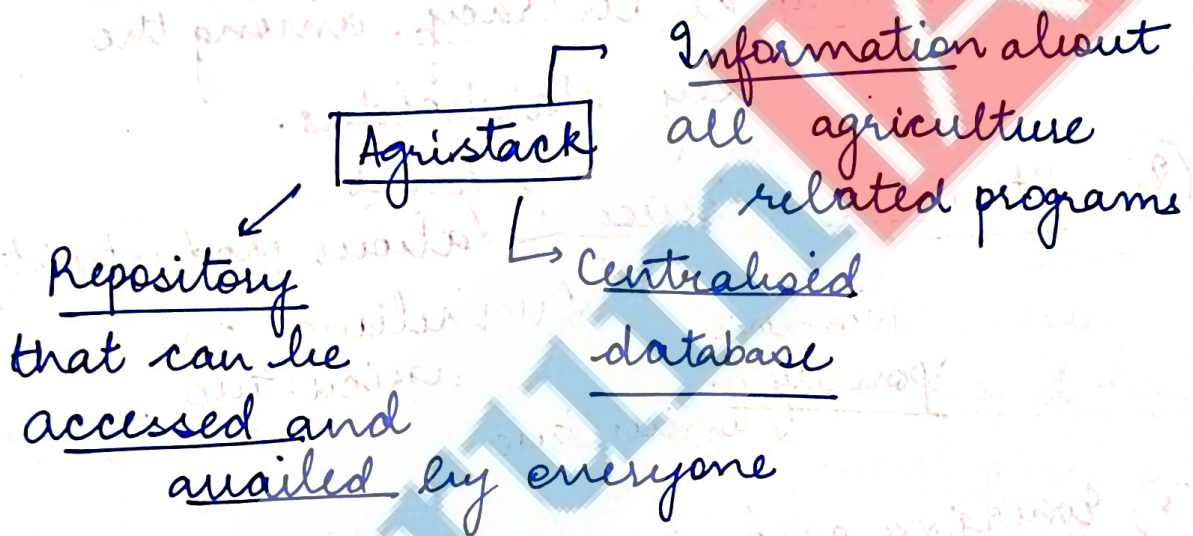
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Ans3: 'AgriStack' is the prominent of component of Digital public infrastructure in realms of agriculture.



Panacea for farm sectors

- ① Reducing info asymmetry.
- ② Democratisation of agriculture
↳ Profit to small and medium farmers (86%)
- ③ Improving farm productivity
(weather based apps)
- ④ Reducing market inefficiencies
(e-NAM)

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5) Easy, affordable & viable inputs.
(Seeds, manure etc)

However, issues remains -

- 1) Poor digital literacy among the key stakeholders.
- 2) Structural issues -
 - land
 - labour productivity
 - Women's 'poverty' in agriculture
 - Over reliance on agriculture.

3) Emerging and evolving concept.

Way forward → Extension services of
↓ greater participational of key
stakeholders
↑ Awareness
towards farmers.

Thus, AgriStack reflects the
'Teched' in agricultural domain.

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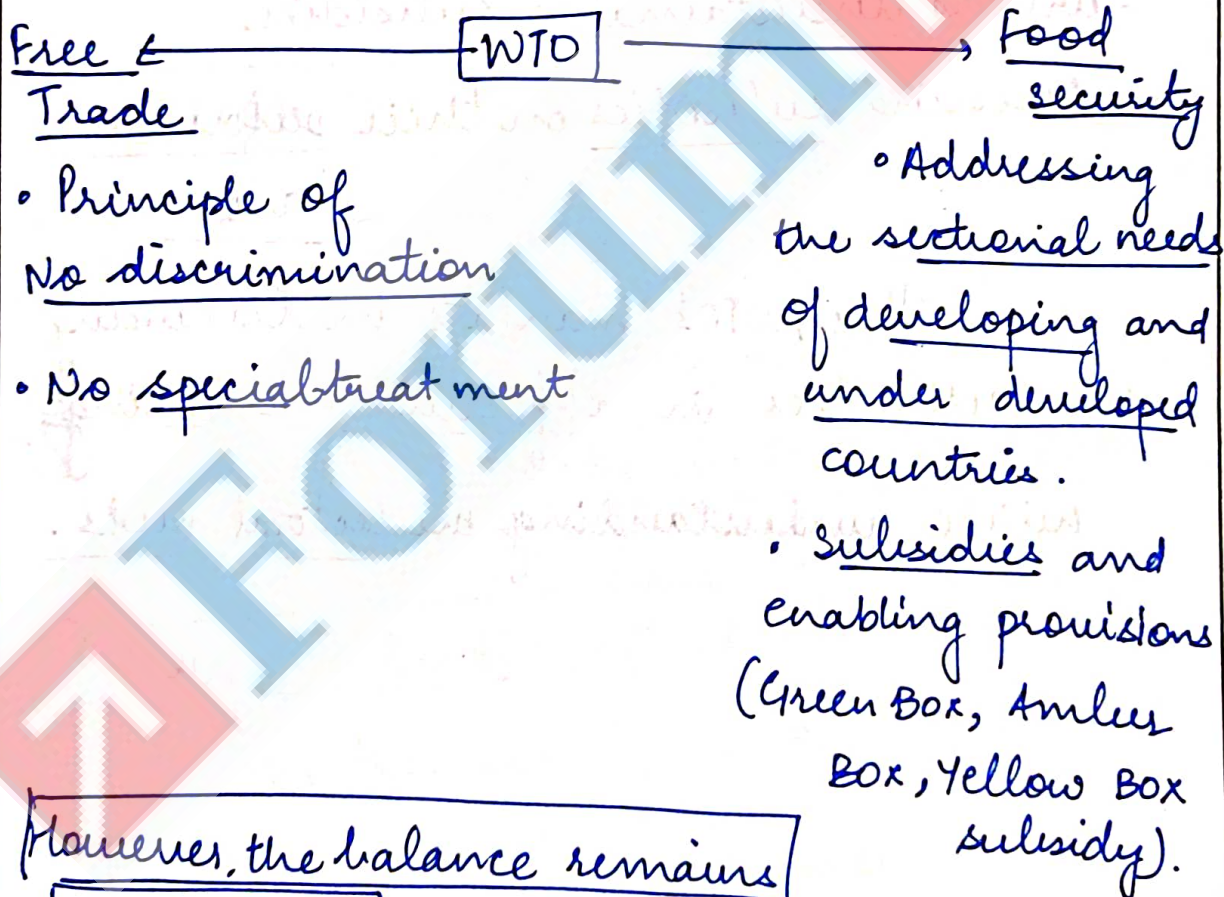
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Ans 4. The emergence of WTO was planned to realise the egalitarianism in global trade while addressing the domestic needs and poverty issues.



However, the balance remains unfulfilled -

① Definition of food security changing in response to changing dynamics and needs.

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② Emerging issues like climate change and conflicts, displacements etc.

③ Definition of subsidy under question.

Way forward -

- Curbing unsustainable subsidies.

→ Assessing subsidies on their performance basis.

Thus, WTO's mandate in balancing the both lies in effective monitoring while understanding the sectoral needs.

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Ans. Recently, Stockholm conference completed 5 decades. However, the challenges and burden sharing have changed since then which require urgent attention and coordinated solutions.

Stockholm conference → UNEP
→ UNFCCC
→ UNCBD

Gaps between targets & actions

① Climate change - Rise → Above 1.5°C as compared to pre Industrial level (IPCC)

② Threat to Biodiversity - About 30% of the biodiversity under threat (UNEP report)

③ Sea level rise → due to ocean temp rise
→ cryosphere sinking

④ Diversion of land to → Agriculture
→ Illegal deforestation

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Measures to address climate change

- ① Reducing emissions
 - ethanol ~~but~~ Blended petrol
 - FAME
 - ↳ BS-VI
 - ↳ Green Hydrogen c
- ② Nature based solutions
 - Mangroves
 - 'sponge city'
 - Traditional water structures
- ③ Afforestation
 - REDD+ Strategy
 - Bonn challenge
- ④ Private sector
 - CSR
 - ESG norms
- ⑤ Traditional knowledge
 - Conservation
 - Promotion of bamboo products
 - instead of plastics
- ⑥ Addressing desertification
 - Sahel challenge
 - Abidjan declaration (land, legacy).

Thus, Stockholm conference provided roadmap - "Only One Earth" which can be fulfilled if we act in concerted way.

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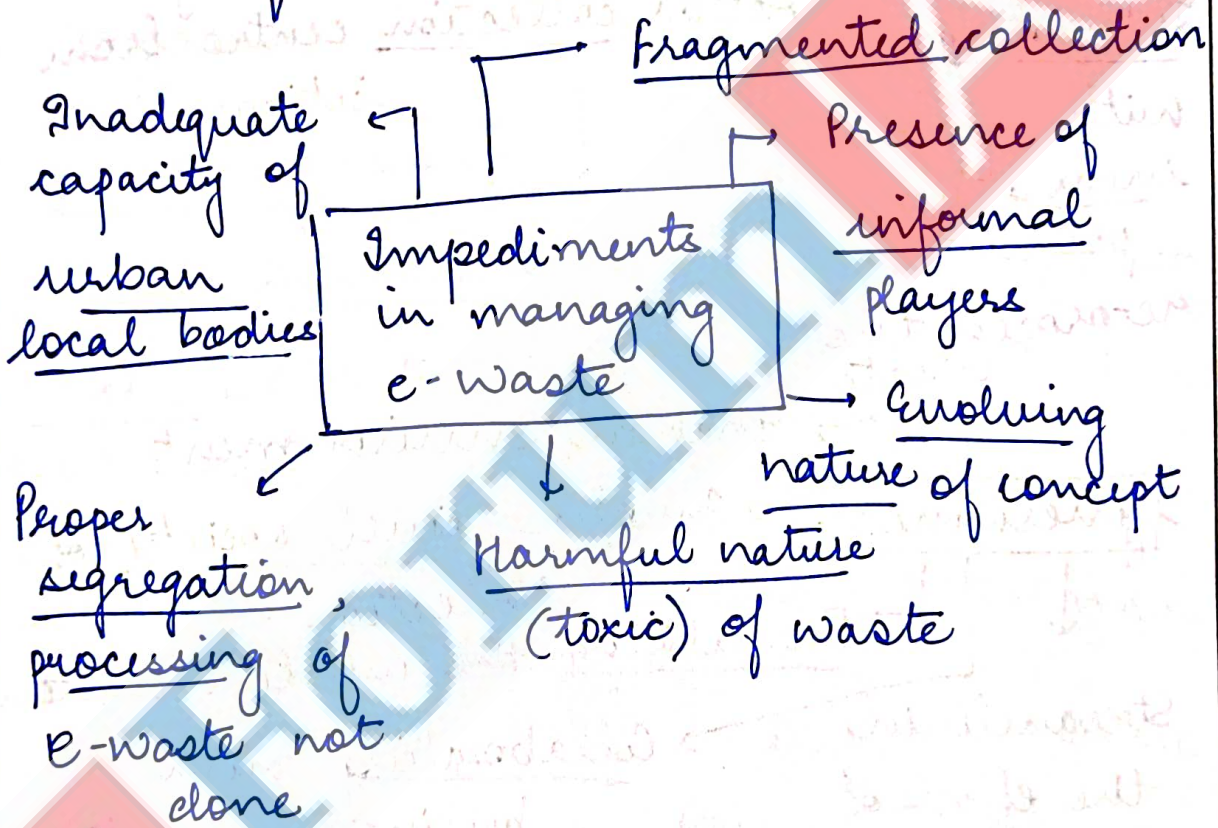
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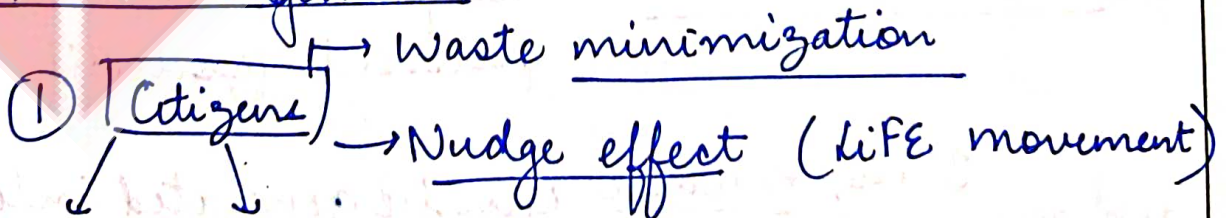
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Ans 6. As per CPCB report, India is the third largest generator of e-waste in the world after China, USA.



e-waste management -



Handling segregation at source over the waste to adequate stakeholders.

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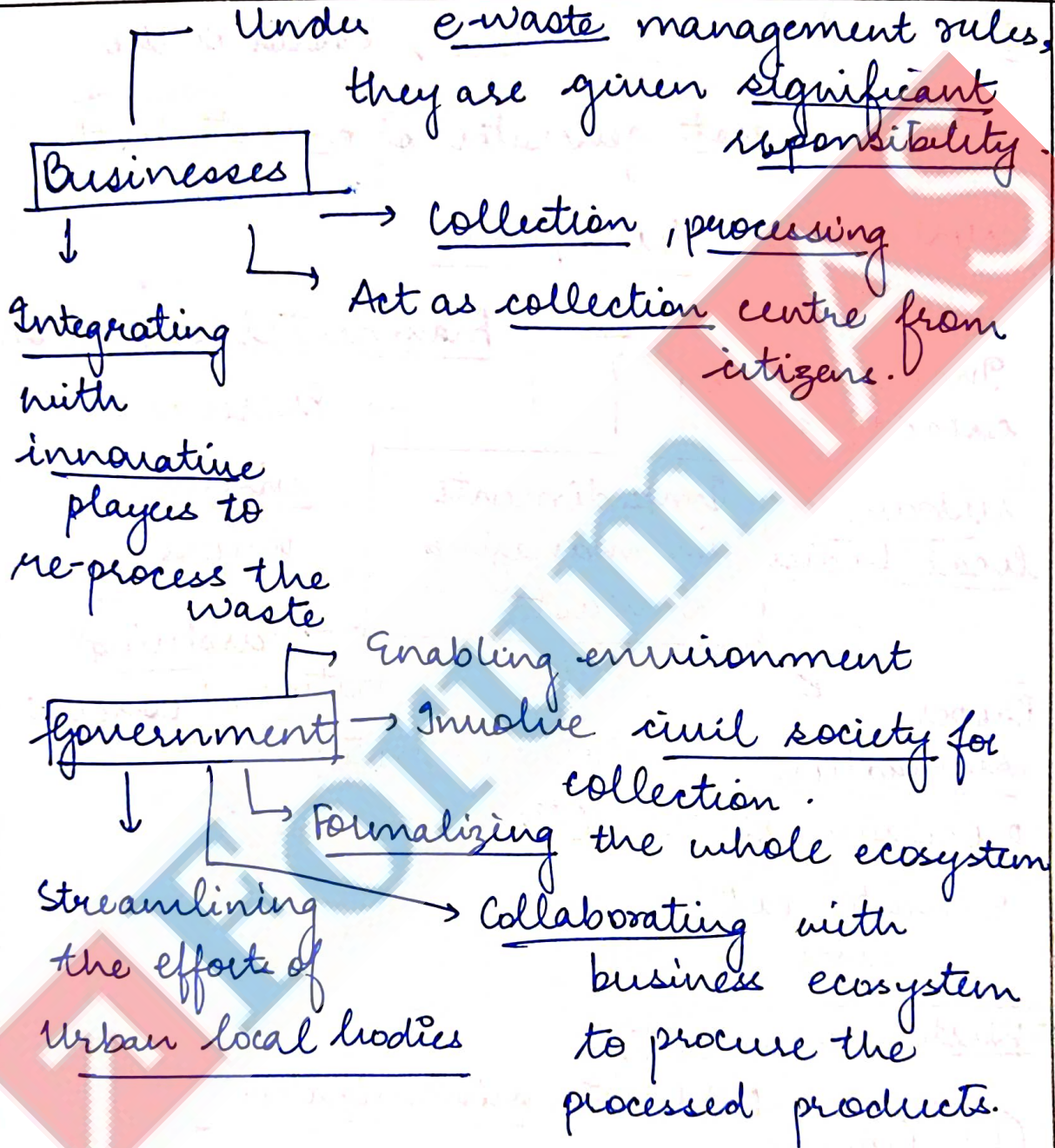
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Thus, e waste can be generated into wealth if processed and handled wisely.

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Ans 7. UNEP argued about the 'energy poverty' which can be solved if innovative processes are scalable in nature.

Nuclear fission

- ① when one heavy nuclei splits into two light nuclei.
- ② Releases great amount of energy.
- ③ generates lot of radioactive waste.
- ④ Time taking process.

Nuclear fusion

- when two light nuclei fuses into heavy nucleus.
- Requires greater amount of energy and high temperature.
- Generates less amount of waste.
- Not much time taking but highly energy intensive over shorter time span.

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→ low Carbon dioxide release

→ Clean and green energy.

→ Reduces import dependence.

→ Energy security → sustainability

→ fulfills SDG-7

→ Radioactive waste

→ Energy intensive

→ Capital intensive

→ Tribals rehabilitation and relocation
in case of their waste disposal.

→ Small nuclear reactors.

→ Balancing the challenges & opportunities

→ Alternatives (wind energy, solar energy, waste to electricity plants).

Thus, nuclear energy, though a promising form of energy is fraught with varied challenges.

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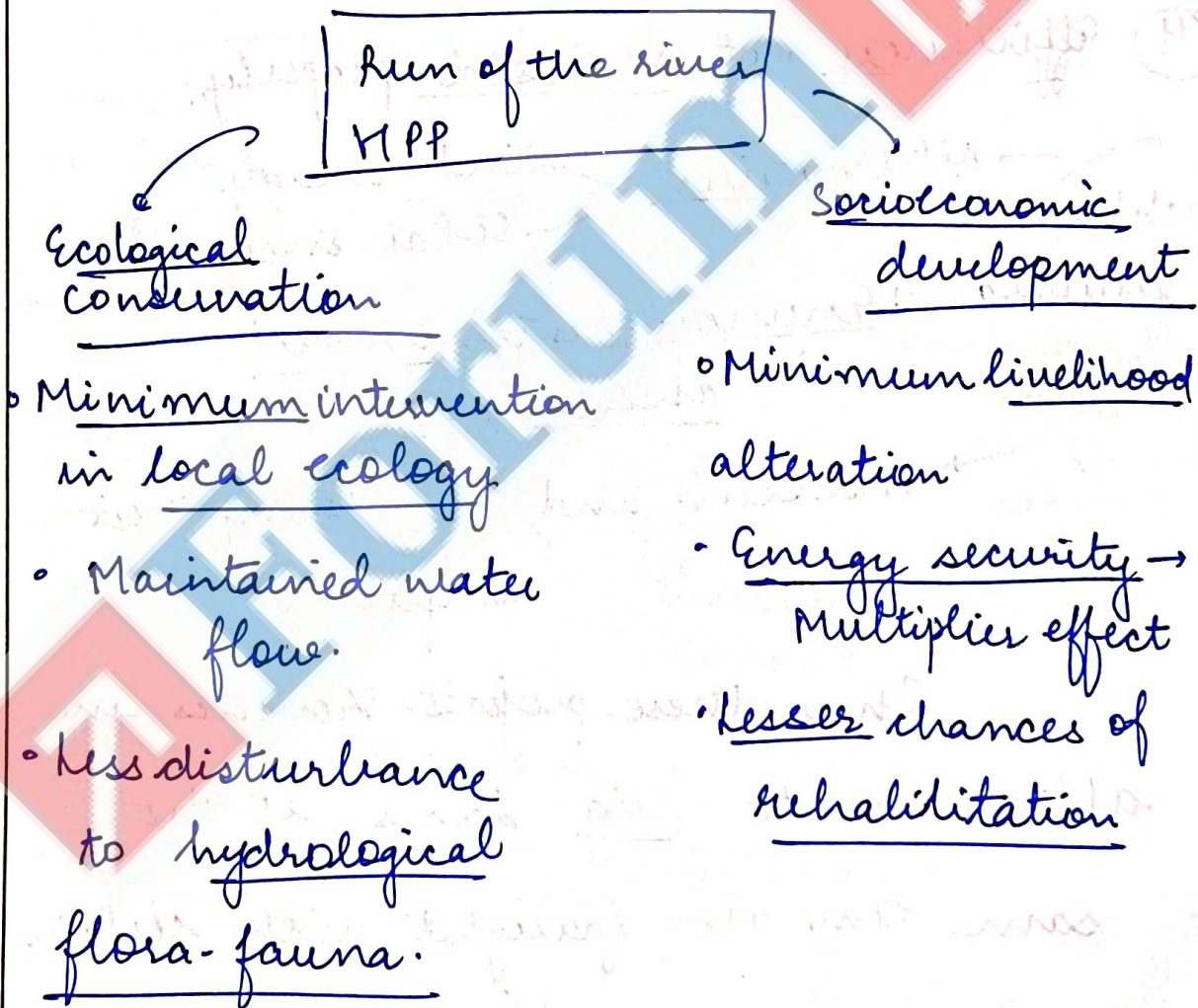
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Ans 8. Run of the river hydroelectric projects refers to those in which there is minimum intervention with natural water flow and there is energy generation.



However, several issues remain

① Not suitable for all river ecosystems

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② Cross boundary conflicts -

↳ Ex - Rattle project conflict
with Pakistan

③ Feasibility varies in terms of
water flow.

④ Efficiency not assessed properly.

Way
forward → Alternatives - wind energy
- solar energy
→ Environmental Impact
assessment

→ Assessing and monitoring their
impacts.

Thus., these projects provides an
alternative to big dams, at the
same time are fraught with certain
challenges, thus it should be addressed
scientifically.

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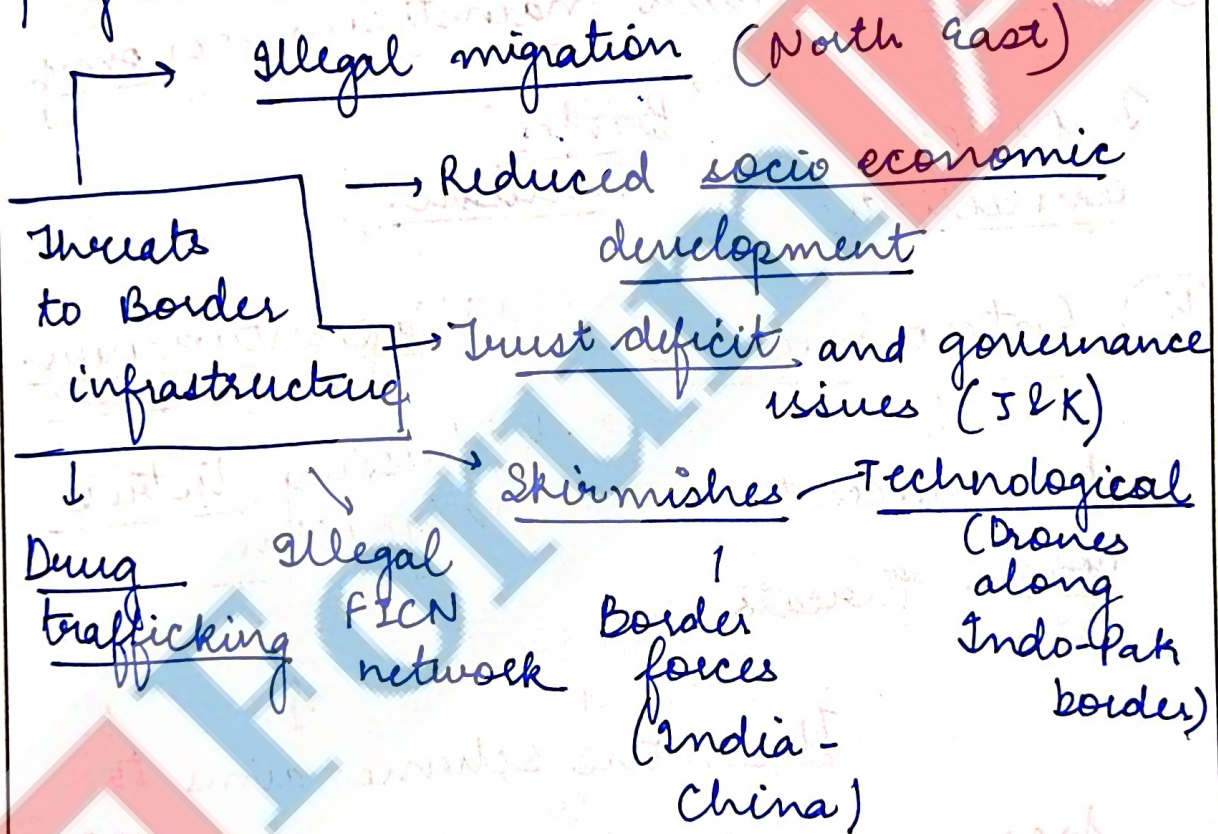
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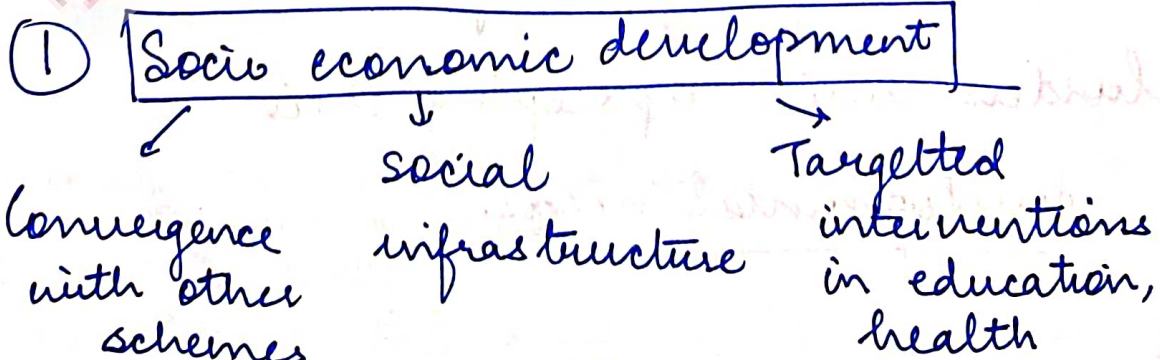
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Ans 9. People lying along the borders act as eyes and ears to the border

security management. The vibrant village program aims to make these resources robust



Vibrant village program



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② Reducing trust deficit

Improving communication

Giving key role to village communities in development

③ Integration with mainstream economy

Improved connectivity

Border Tourism

④ Entrepreneurship — Village entrepreneurship

Responders to border threats

Addressing distress migration

Thus, the scheme aims to harness the local customs and knowledge of villagers across borders while upkeeping their developmental needs.

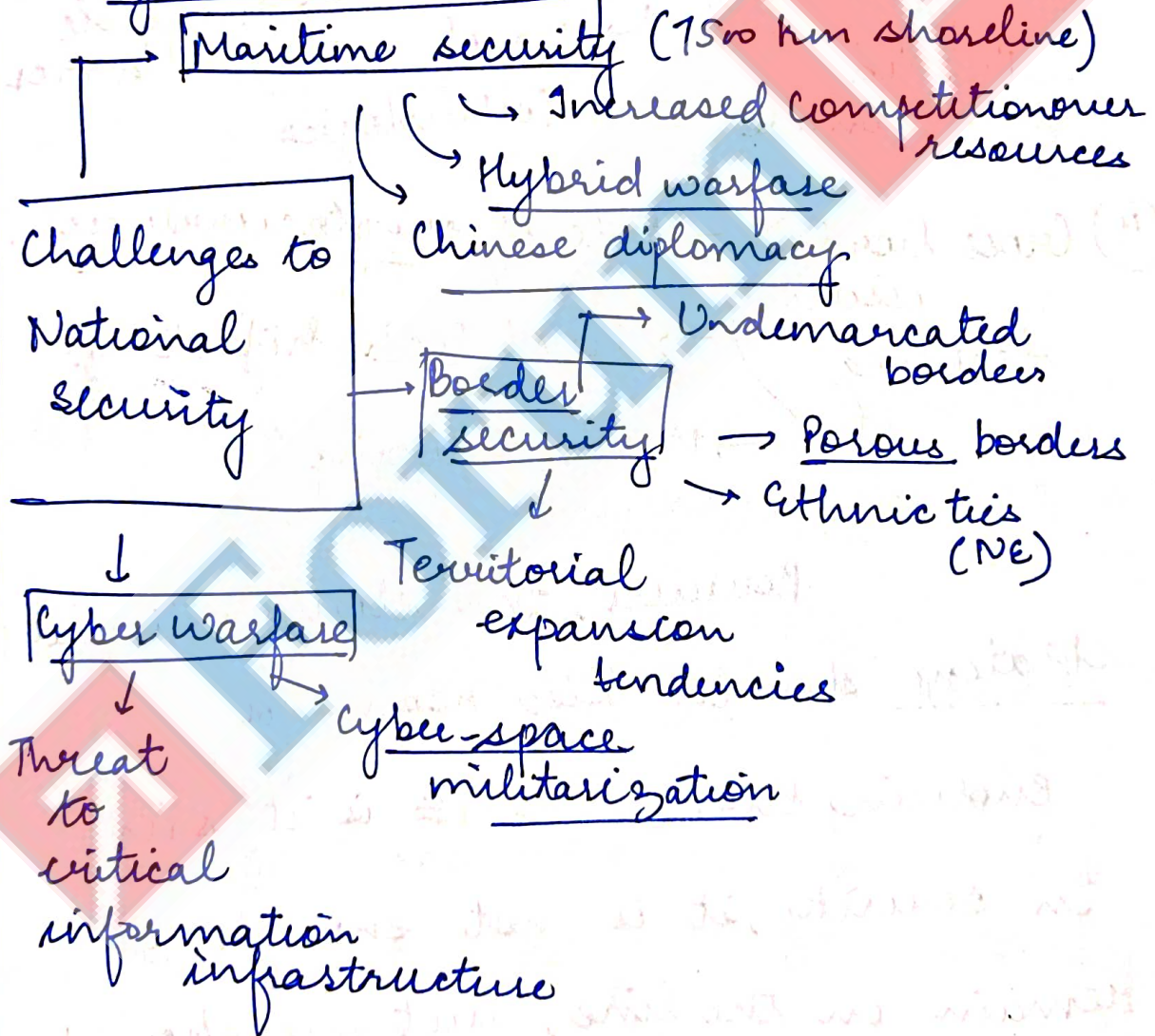
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Ans 10. India faces multifarious national security challenges owing to its strategic geographical location and inimical neighbours.



Clearly articulated National security strategy

- ① Defining role and mandates of authorities

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② Maintaining the fair balance between offensive and defensive capabilities.

③ Taking into account the changing nature of warfare
 ↙ Hybrid warfare ↘ Use of Technologies → Invisible attackers

④ Cross border issues tackling → Role of cryptocurrencies.
 → Use of Tech hijacking
 → Money trapping.

However, the clearly articulated strategy should keep room for evolving threats. As ~~it~~ is it said, In security, it is not enough to remain on the line, but one should remain ahead the curve.

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Ans 11. The recent spike in prices of vegetables and other commodities highlights the inflationary trends in Indian economy. The reasons behind these trends ranges from macroeconomic instability to international causes.

Factors influencing inflationary trends in
country

Global trends -

- ① Russia-Ukraine War → disrupted supply chains and threatening of global value chains.
- ② Post Covid economic recovery taking some time.
- ③ Protectionist measures of countries.
- ④ Rise in fuel prices due to cartelization among OPEC countries.
- ⑤ Global sea trade facing issues like disruptions, oil spills etc → Higher price of commodities.

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Domestic issues

- ① Seasonality of crops like tomatoes, onion.
- ② Climate change induced abrupt monsoons
→ Destruction of crops in Maharashtra.
- ③ Higher logistics cost (14%) further adding cost to the commodities.
- ④ Market inefficiencies leading to erosion of competitive pricing.
- ⑤ Insufficient storage capabilities → Higher price of agri commodities (Shanta Kumar committee)
- ⑥ Increase in MSP → Increased purchasing power & inflation

Institutional measures to check inflation

- ① RBI role — Inflation targeting via altering the Repo rate
— Economic growth
- ② Government's efforts — curbing exports of commodities like Basmati rice
Augmenting supply chain infrastructure — Imposing Minimum export price

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- ③ Price Monitoring centres by Ministry of Consumer affairs.
- ④ Augmenting the role of cooperatives and FPOs in procuring the commodities and selling at viable prices.
- ⑤ Diversification of trade
 - Purchasing oil from USA
 - Maintaining supply chain resilience (SCRI)

Way forward

- ① Addressing that global geopolitical tensions does not impact domestic macroeconomic stability.
- ② Diversification of resources (oil, agri commodities)
- ③ Checking hoarding of commodities via enforcing essential commodities act in true spirit
Thus, Inflation as said "forced taxation" should be curbed by adopting several legal & structural provisions.

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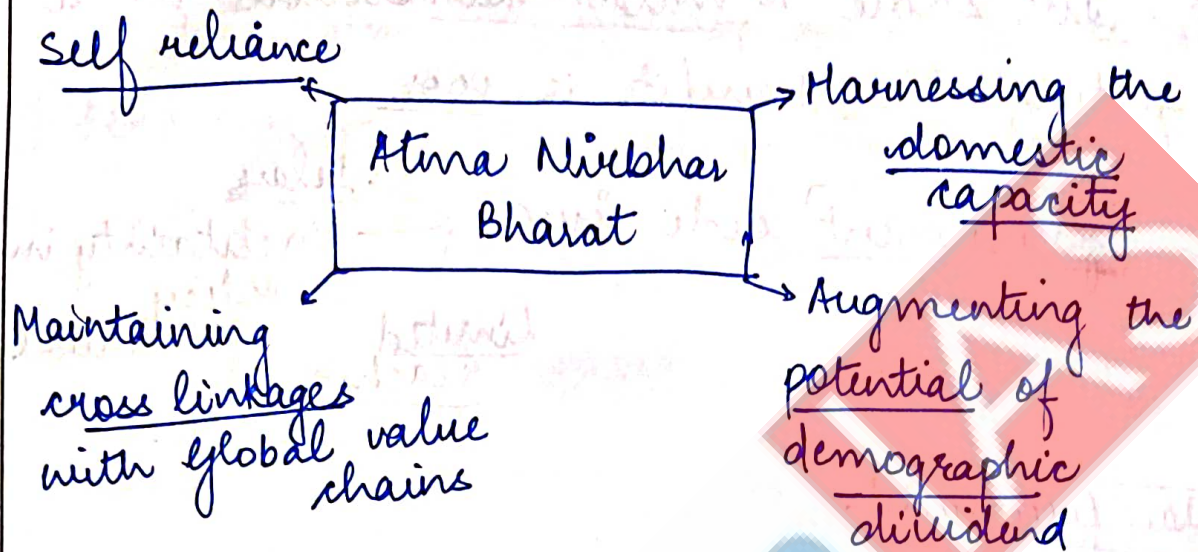
Ans 12: The launching of PLI under Atma-
Mehar Bharat mission aims to incentivise
the domestic manufacturing while providing
several enabling provisions.

Provisions under PLI scheme -

- ① Covering the emerging sectors of economy such as Textiles, automobiles, electronics etc.
- ② Provides
 - easy credit
 - single window clearance
 - Other indicators facilitating EoDB.
- ③ Aims to boost the capacity of MSMEs.
- ④ Harness the potential of indigenous manufacturers.
- ⑤ Cluster based organizations are eligible to get benefits under PLI.
- ⑥ Aims to create backward and forward linkage in manufacturing sector.

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Issues under PI scheme

- ① Addresses only sectoral parts via credit, facilitation, and ignores the structural issues like labour reforms, land flaws, etc.
- ② MSMEs at disadvantage due to stricter conditions to avail the benefits.
- ③ Geographic disparities in terms of getting the benefits under scheme.
- ④ Emerging nature of few sectors leading to confusion and thus delays in providing incentives

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5) The share of marginalised sections under getting PLI benefits is poor.

6) Government side issues ← Delay
Uncertainty in policy framework
Limited reach

Way forward -

- 1) Industry-academia linkage for better coordination
- 2) Addressing structural issues for better reforms in the overall economy structure.
- 3) Policy uncertainty should be minimized while keeping room for external shocks.

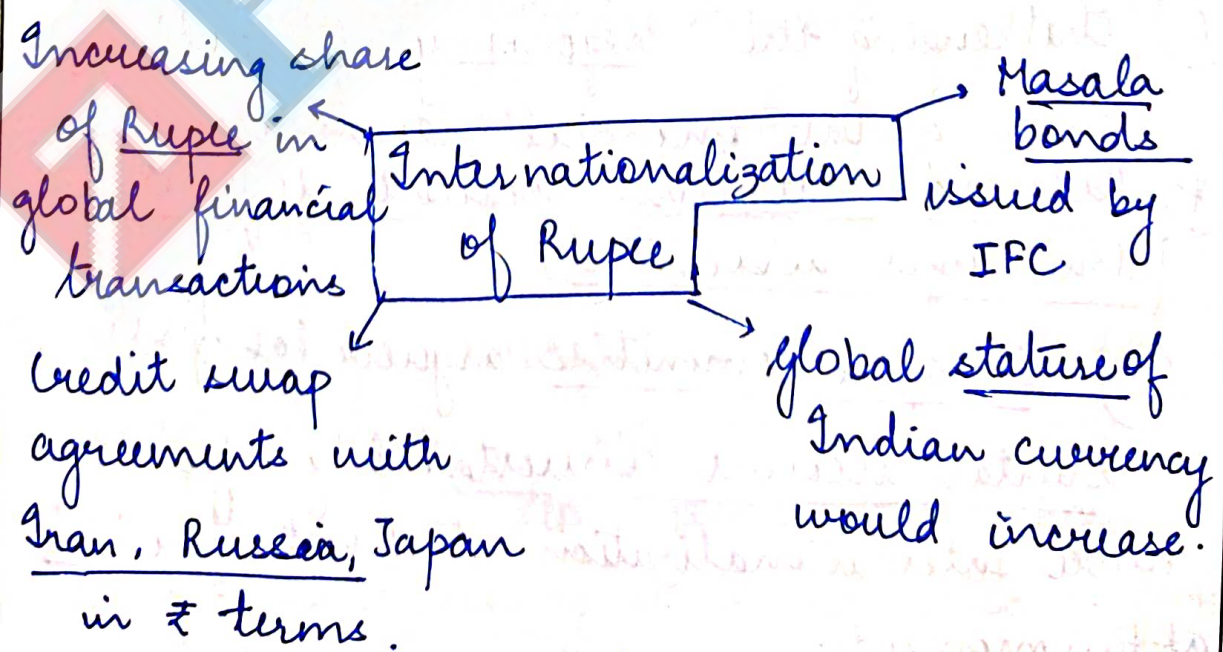
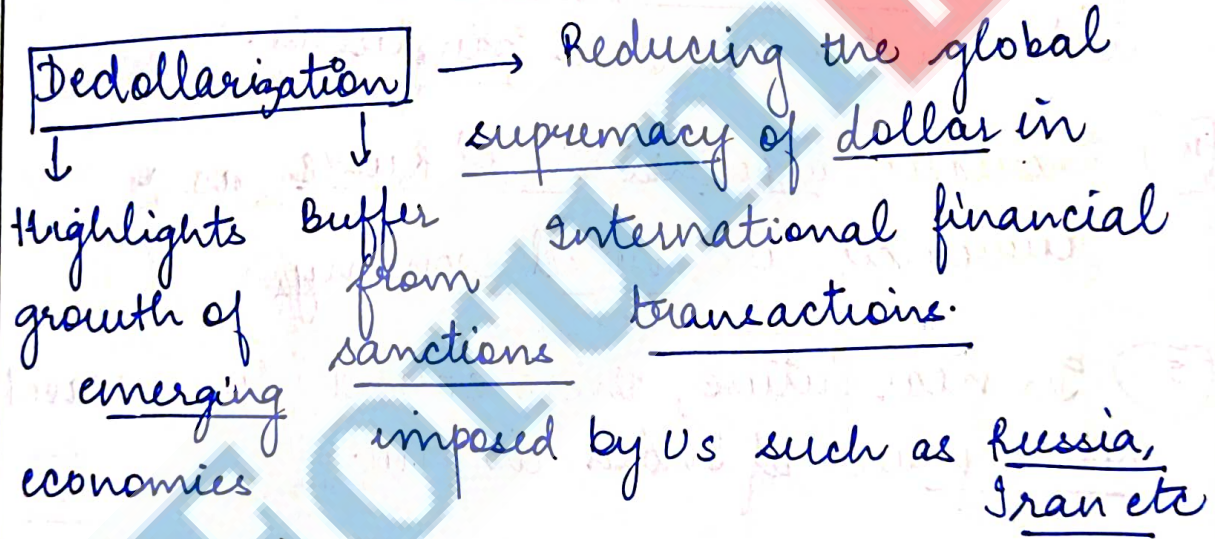
Thus, PLI can become the harbinger of economic growth along with employment generation, if challenges are addressed timely.

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Ans 13: Both Internationalization of Rupee and de-dollarization highlights the growing influence of emerging economies and inclusivity in financial architecture of the world.



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Benefits of Internationalization of Rupee -

- ① Reduced forex requirements in near future.
- ② Buffer from external financial shocks.
- ③ Greater economic engagement with countries under sanctions such as Iran, Russia.
- ④ Increased acceptability of Rupee as a currency in World economy.
- ⑤ In near future, there could be increased noting power of India in IMF.
- ⑥ Challenging the hegemony of dollar in global financial landscape.
- ⑦ Reduced current account deficit.

Challenges associated

- ① Tarapore committee argued for full capital account convertibility for Rupee internationalization but not feasible at this moment.

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- ② Competition from other emerging economies like china, Russia etc
- ③ Dollar hegemony based on stable politico-economic system.
- ④ Acceptability of rupee in global arena still a debatable issue.
- ⑤ Domestic macroeconomic challenges
 - High NPAs
 - Uncertain fiscal space.

Way forward

- ① Promoting rupee on case-to-case basis.
 - ② Internal reforms such as currency strengthening, banking reforms needed first.
 - ③ Vouching on available benefits such as credit currency swap agreements etc.
- Thus, both the concepts need long term planning and domestic reforms.

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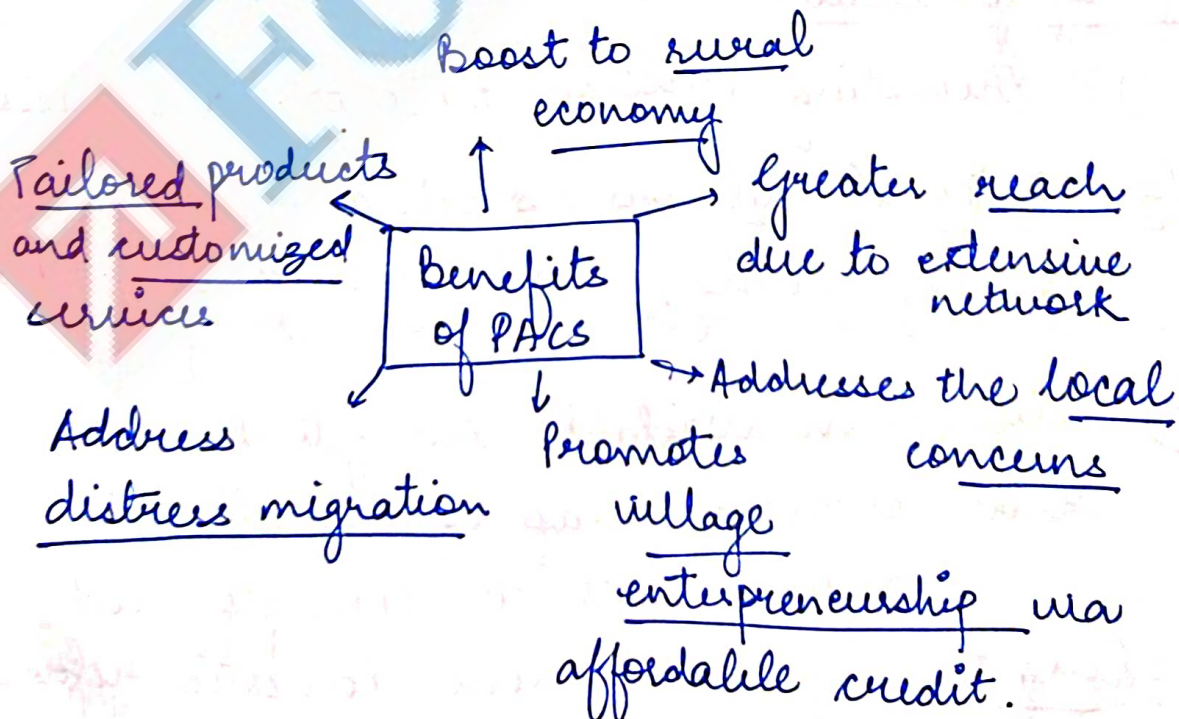
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Ans 4: The Budget 2023-24 highlighted the role of PACS in providing credit and support to rural economy while argued about the future challenges and prospects.

[PACS] - Concept:

• These are the lowest tier of financial institutions which provide credit to small, marginal farmers at an affordable rate and without any collateral (generally)



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Challenges faced by PACS

① Operational challenges:

- a) Credit history of the borrower being not available leading to mismatch in credit delivery.
- b) Issues in credit disbursement due to competition from RFBs, etc.

② Governance issues

- a) sinking balance sheet due to higher NPAs (Kerala)
- b) Dual regulation leading to role confusion

③ Technological hassles

- a) Computerization of records not being done
- b) Backward in approach affecting the service delivery.
- c) Ineffective linkage with other financial products & services.

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Measures suggested

- ① Improving their governance structure by delineating clear responsibility.
- ② Integration with other stakeholders such as
 - FPOs
 - Cooperative societies
 - SHGs
- ③ Technological upgradation for better data analysing
 - IoT
 - BDA
 - AI
- ④ Diversification of their financing mechanisms.

Thus, PACs have the potential to realise the goals of improving rural economy and small & marginal farmers if they recognise the structural issues and respond in proactive manner.

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However there are other sides also -

① Increasing horticultural production

(IT in the world)

② Diversification → Operation 'flood'

→ Yellow revolution
→ Link revolution.

③ Self sufficiency along with increase in agro exports.

1PM-PRANAM - Aims to address the soil health to boost agro productivity.

① Provides fertilizers in proportion to the soil texture and requirements.

② Aims to reduce imports dependence while boosting domestic capacity.

③ Indigenous fertilizer production.

④ Affordability under brand - "BHARAT".

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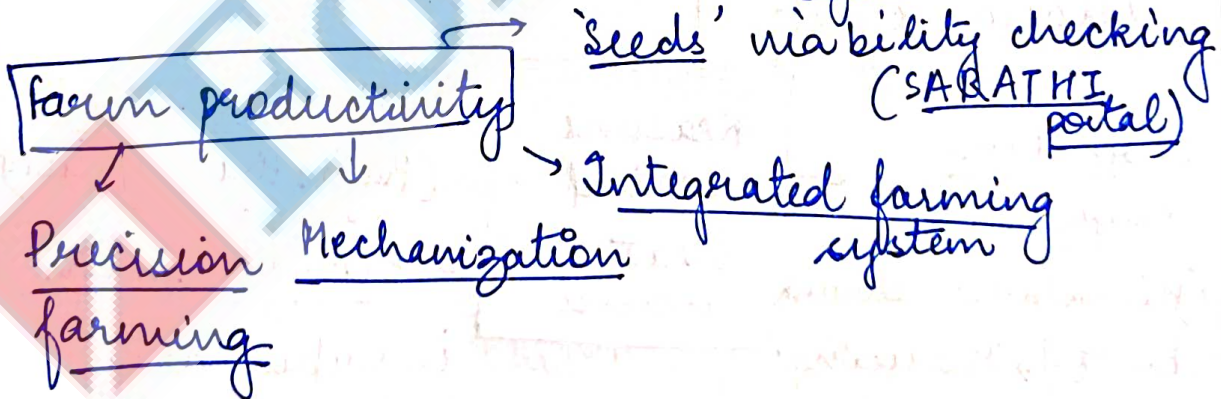
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ways to enhance soil health and farm productivity :-

- ① Proper monitoring and assessing the soil health soil health card
- ② Local, customised solutions based on soil texture and requirements.

- ③ Innovative solutions
 - ↳ Neem coated urea
 - ↳ Nano urea
 - ↳ gold urea (sulphur coated)

- ④ Maintaining soil moisture by adding organic matter.



Thus, as per Ms. Sivanirathan -
"Everything will be set right if agriculture is set right" highlights the importance of farm productivity.

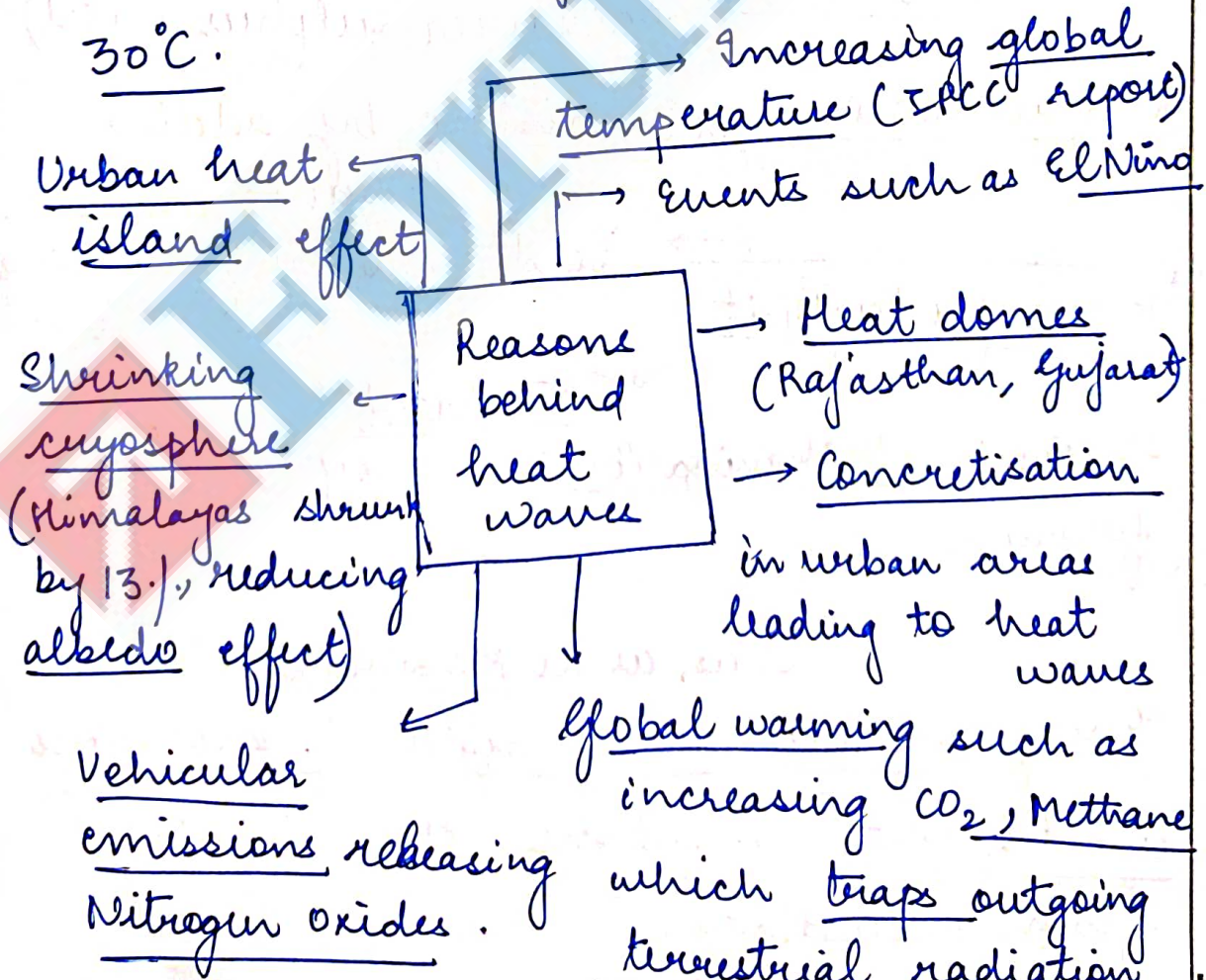
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Ans 16. As per IPCC report, July month recorded the highest temperature in most of the parts of the world highlights the 'global heating' phenomenon.

Heat waves - IMD defines heat waves when plains record mean temperature above 40°C and hilly areas records above 30°C.



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Impact of heat waves

→ On human productivity

① ILO argues low paying jobs like construction, agriculture productivity will see the dip.

② Heat waves → Increased exposure to diseases → Reduced work efficiency.

On Biodiversity

① Changing habitation patterns.

② Reduced reproductive abilities threatening their survival.

On economy → Reduced tourism potential
→ Shift in sectors of economy.

On environment → Greater demand for cooling → Positive feedback loop
↓
Increased sea surface temperature

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Measures to mitigate the impact -

① Decarbonization

↓
Agriculture → Using solar feeders, pumps
→ Using environmental friendly crops.

Industry → Just transition towards
low Carbon economy
→ Interventions such as
catalytic converters etc.

Mobility and Energy → Ethanol Blended petrol
→ FAME scheme
→ National cooling action plan
→ Green Hydrogen.

Nature based solutions → Afforestation
(Miyawaki technique)
→ Blue green infrastructure
→ fly ash utilization

Thus, heat waves can be controlled and mitigated if we adopt the coordinated efforts in multifaceted ways.

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Ans 17. The recent success of Chandrayaan-3 highlights the launching event of India's capability in space domain.

Chandrayaan-3 over Chandrayaan-2

- ① Failure analysis committee was formed to highlight the lacunae.
- ② Improved mandate → lunar temperature
→ Regolith over lunar surface
- ③ Improved Technology → CHASTE
→ LIRA
Spectrometry
- ④ Improved the designing and capabilities of lander.
- ⑤ Greater precision abilities.
- ⑥ Improved communication abilities.

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India - Artemis Accord

- ① Joint cooperation in terms of tech transfer and knowledge sharing.
- ② Reduced regulatory complexities would further give fillip to the lunar exploration.
- ③ Indigenous research along with tech transfer would boost the success ratio.
- ④ Joint success sharing in terms of information and resources from the mission.

However, there are challenges -

- ↳ Difference in mandates of both the missions.
- ↳ NASA's hegemony over space missions.

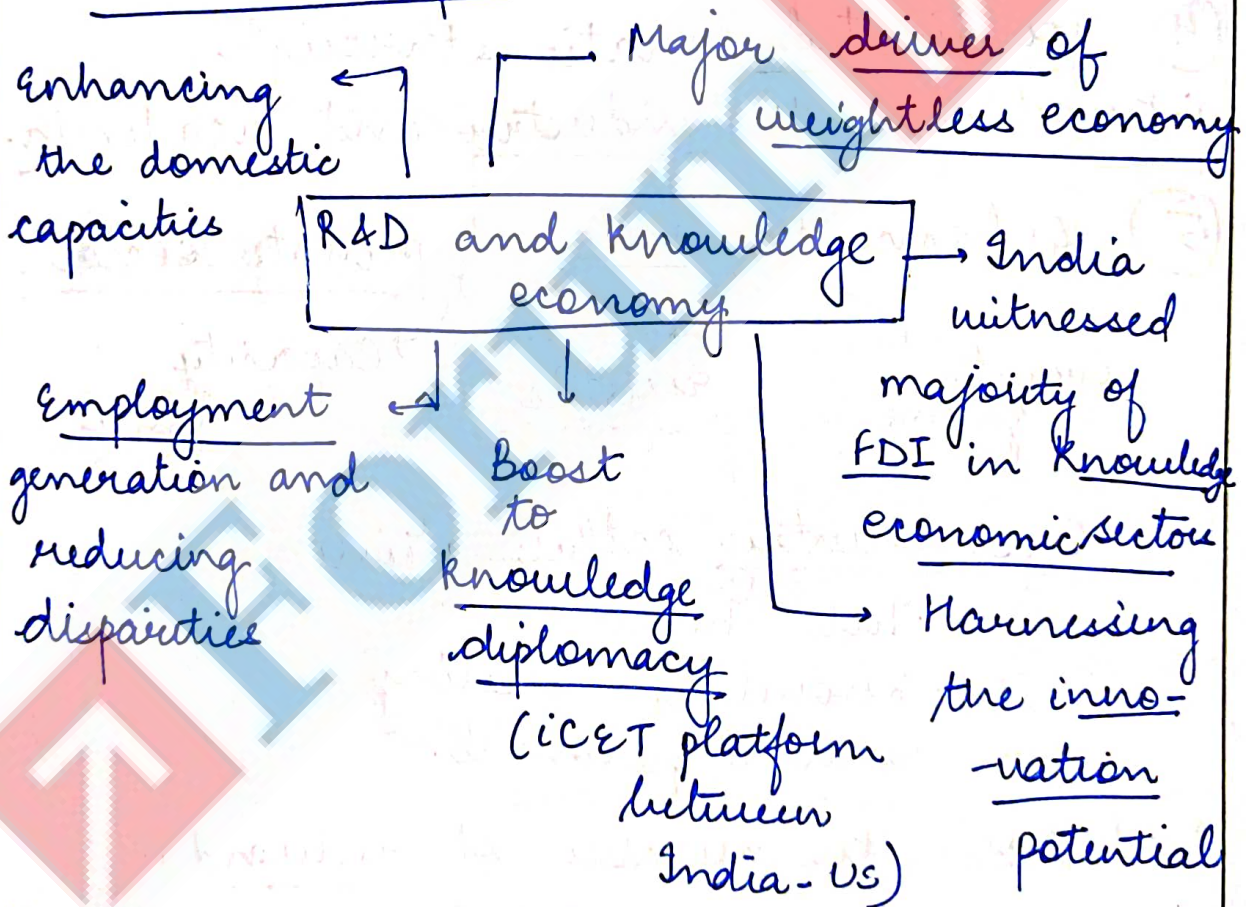
However, the recent signing of Artemis accord is known to be the significant step in space diplomacy.

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Ans 16. National Research Foundation finds its mention in New education policy, 2020 which aims to give fillip to research education via democratising the whole R&D landscape.



Role of National Research Foundation Bill

- ① Democratising the governance architecture by providing for board having varied stake holders.

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- ② Reducing regulatory complexities by easing the regulations
- ③ Maintaining synergy with changing demands and dynamic needs.
- ④ Coordinated operations through interacting with industry and academia.
- ⑤ Enhance the role of private sector.
 - Grants giving
 - expertise
 - Capacity building
- ⑥ Cross country collaborations
 - Tech know how
 - knowledge sharing
 - Sharing of personnel.
- ⑦ Reducing the number of redundant organizations by redefining or merging their mandates.
- ⑧ Advanced Tech adoption
 - AI
 - IOT
 - BDA.

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Challenges remain

- Low spending on R&D → 0.7% of GDP.
- Working of regulatory bodies in silos.
- Skill gap (4-5% of all workers are formally skilled).
- Other issues
 - Delay in patent filing
 - IPR regulations
- funding by private players not as per the demand.

Way forward

- Establishing industry - academia linkage
- Improved funding along with sectoral specific allocation
- Kamakoti committee recommendation → Approve 100% FDI in Tech arena.
- Clearly defining the role of all bodies.

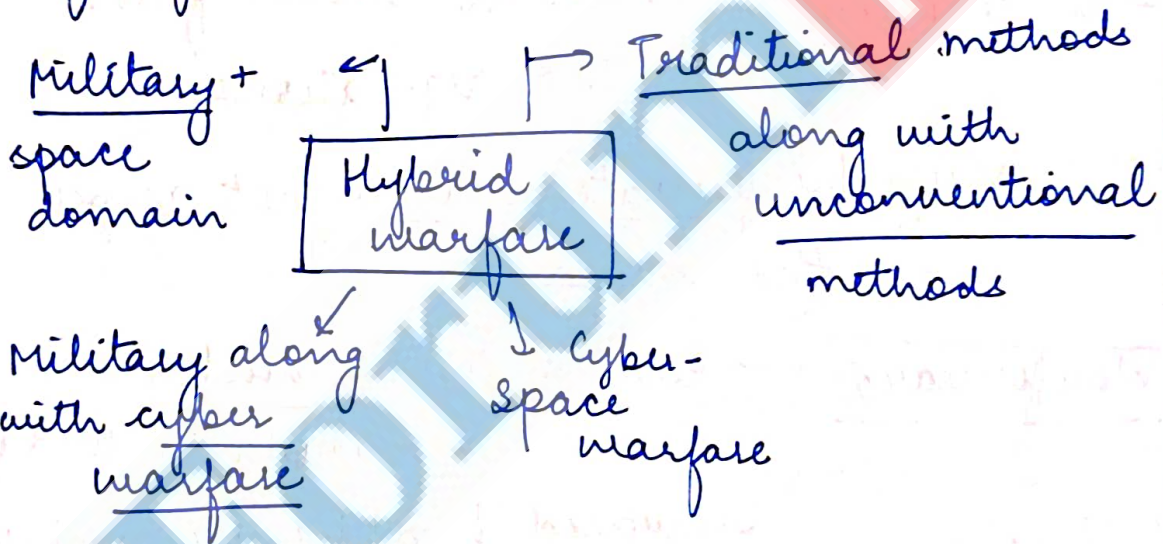
Thus, NRF Bill aims to usher in the new arena with rigour and vitality. The need of the hour is to realise the full potential by addressing structural challenges.

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Ans 19. Hybrid warfare refers to the intermixing of two or more arenas of warfare to inflict damage on the political system, disrupt socio-economic life of a nation.



Implications for India

① Threatening the critical information infrastructure.

ex. AIIMS cyber attack.

② Blurring the responsibility and timely action.

ex. Drones usage along Indo Pak border.

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- ③ Socio-economic losses
- ↳ Financial frauds (credit card frauds)
 - ↳ Data theft
 - ↳ Right to privacy violated (via Honeytrapping)
 - ↳ Violation to right to bodily autonomy (Deepfake)

- ④ Mobilization of locals becoming easier →
Hybrid militants in J&K inflicting harm on Kashmiri Pandits.

- ⑤ Lone wolf attacks → Hard to trace
→ Deep networks.

- ⑥ Unrest along the borders → North east border skirmishes
↳ illegal migration

Measures to develop comprehensive ecosystem

- ① Strengthening the domestic capabilities
↳ Redefining critical infrastructure

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- (2) Improving capacity building of Military. ~~to~~
 ↳ Gulshan Rai Committee
 ↳ digitisation ↳ Cyber forensic lab ↳ Reducing dependence on foreign services.
- (3) NATGRID → Comprehensive information
 → Integrated
 → Multi level analysis
- (4) Joint cooperation actions with like minded countries.
- (5) From Border guarding to border management — Include locals
 — Instilling trust.
- Thus, Hybrid warfare is the new and threatening reality which should be dealt with technological agility and financial interventions.

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Ans 20. According to some experts, India's security is challenged due to external threats - better called as externally aided Internal security threats.

Internal security and Neighbouring countries

① India-Afghanistan

- ↳ Drug trafficking (goldencrescent)
- ↳ Militants movements.

② India-Pakistan

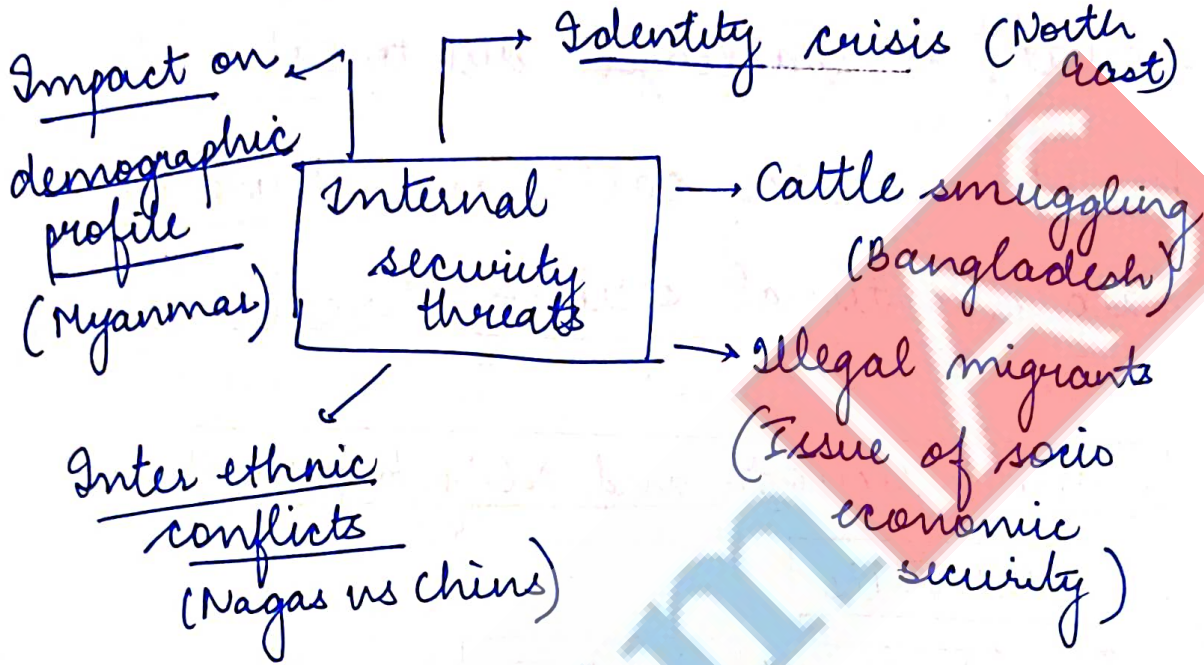
- ↳ Proxy war
- ↳ Drug trafficking (golden crescent)
- ↳ Hawala transactions
- ↳ Support to Khalistani extremists.

③ India-Myanmar

- ↳ Illegal migrants movements along free movement regime.
- ↳ Peace threatened in states of North East
→ Chin migrants in Manipur.

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Instability in India's Eastern frontier

① Political coup in Myanmar

↳ Chin refugees to Myanmar → threatening demographic profile.

② China's claim over Eastern frontier

— Threatening of peace
— Diversion of resources

③ Bangladesh — Illegal migrants

↳ FICN issues
↳ Cattle smuggling
↳ Human trafficking (West Bengal border)

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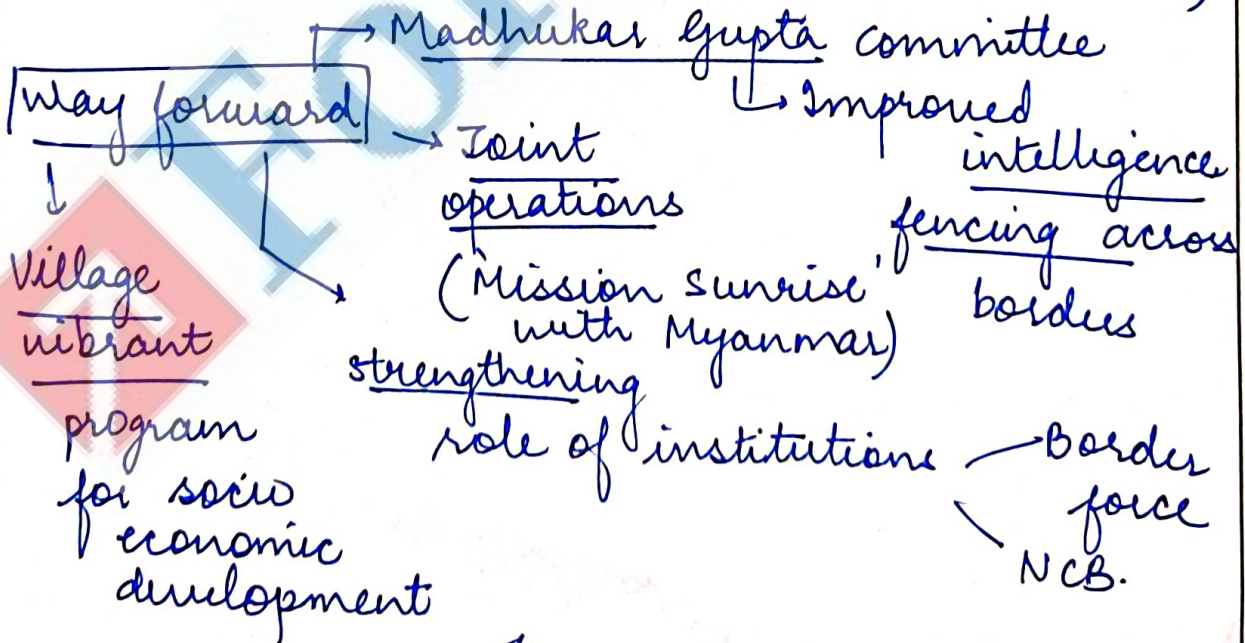
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4) Rohingya crisis → Strained relationship with Bangladesh over security issues Draining their rehabilitation of limited resources in North east.

5) Terror activities due to cross border support.
ex - NCSN, NDBF extremist activities.

6) Drug trafficking due to proximity with golden triangle. (Issue of drug menace in Mizoram, Manipur etc)



Thus, border security is vital for the internal security.