

GS Test-31A/21B/31B(AS)/12C/5E

FIAS – 2018 – GS31A/21B/31B(AS)/12C/5E

# ForumIAS

ACADEMY

## GENERAL STUDIES

Name Of Candidate	Sumit Kumar Paul		
Email Id.	[REDACTED]	Roll No.	[REDACTED]
Mobile No.	[REDACTED]	Date:	21 <sup>st</sup> July 2018

Time Allowed: Three Hours

Maximum Marks: 250

INDEX TABLE			INSTRUCTION
Q. No.	Max. Marks	Marks Obtained	
1			<p>1. Do furnish the appropriate details in the answer sheet (viz. Name, Email, Roll No, Mobile).</p> <p>2. There are TWENTY questions printed in ENGLISH.</p> <p>3. All questions are compulsory.</p> <p>4. The number of marks carried by a question/part is indicated against it.</p> <p>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.</p> <p>6. Word limit in questions, if specified, should be adhered to.</p> <p>7. Any page or portion of the page left blank in the Question-Cum Answer Booklet must be clearly Struck off.</p>
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<b>Total Marks:</b>			
<b>Remarks:</b>			Start Time  2:00 PM
			End Time  5:00 PM
			Mode Of Examination : Online <input type="checkbox"/> Offline <input checked="" type="checkbox"/>
			ECN CODE:
			Evaluation Date:

<b>Parameters</b>	<b>Excellent</b>	<b>Very Good</b>	<b>Good</b>	<b>Average</b>	<b>Poor</b>	<b>Very Poor</b>
Language						
Structure						
Presentation						
Innovation						
Handwriting						
Content						
Attempt						

ADDITIONAL COMMENTS



Q.1) 'Integrated development and management of fisheries' would not only ensure food and nutritional security but also would help transform the rural socio-economic landscape.' Discuss. (10 Marks, 150 Words)

Fisheries can be found in different sources and therefore they hold capacity to develop that area along with providing nutritional security to local populace.

Fisheries found in :

- (1) Mainly Coastal India
- (2) Inland water : Rivers, Ponds
- (3) special fishing like Arunachal's Apatani tribe practicing fishing in paddy fields.
- (4) private fish farming (Recent budget boost for Aquafarming)

An Integrated development and management would ensure:

- (1) A robust supply chain
- (2) Fresh Fish reaches Consumer.
- (3) Will augment Farmer's income.
- (4) Fish ponds would provide local employment

(5) It will also boost nutrition, especially in poor people. For that quantity and Supply chain must be improved.

(6) Inland fishing Can be developed.

(7) Example of Bengal, where people have higher nutritional security

Way forward:

→ Dedicated Infrastructure fund for developing fishing as a start up.

→ Using Gramen haats for quick sell along with better price discovery.

→ linking with ICDS and Mid day meal scheme to boost nutrition in children.

Feedback( For OFFICE use only )

Structure	
Question Interpretation	
Content	
<b>Total</b>	





**Q.2)** Discuss the prospects and problems of 'DNA Based Technology (Use and Regulation) Bill, 2018'. (10 Marks, 150 Words)

DNA based technology bill 2018 aims to generate a rule based mechanism with respect to DNA Profiling and its usage in the country.

Prospects of Bill :

- (1) will create a machinery to regulate rules for DNA sample collection.
- (2) It will be used for identification of missing people.
- (3) As of now, the bill does not have provision to use Captured DNA profiles for criminal matching.

Problems of Bill :

- (1) Few Criticising that it violates right to Privacy under Article 21 (Justice puttaswami case)
- (2) Can be misused to track people, especially enemies of political parties.

(3) Though current bill is not to be used for Criminal Investigation, but in future who knows - what changes it might bring.

Way forward:

(1) The bill is a progressive step and needs further deliberation.

(2) After Parliamentary deliberation, a Sexual offender registry can be created and DNIA Link can be tracked.

(3) Following Practise like California model of tracking sexual offenders based on DNA results.

(4) Improving data protection in the long run,

Feedback (For OFFICE use only)

Structure	
Question Interpretation	
Content	
<b>Total</b>	



**Q.3)** India's climate action plan is a "vision for transformation" and reaffirms the need to focus on financial mobilization, technological collaboration and policy push to achieve the goals. Discuss in light of India's 'Intended Nationally Determined Contributions'.

(10 Marks, 150 Words)

India's INDCs at Paris climate :

- (1) Reduce emission intensity of GDP by 35% by 2030.
- (2) Non-fossil fuel based electricity contribution to be 40% by 2030.
- (3) Create additional forest stock to absorb 2.5 to <sup>1.44</sup> 3.14bn of CO<sub>2</sub>.

India's climate Action plan : vision for transformation

- (1) NAPCC (National Action plan on climate change) <sup>2008</sup> came much earlier than Paris climate and had transformative vision.
- (2) Focus on areas like Solar energy, wind energy and biomass.
- (3) We set up International solar alliance.
- (4) As of now, renewable energy is booming and poised for growth.

However, there is need for financial mobilization, technological collaboration

and policy push to achieve these goals.

Financial Mobilization	Technological Collaborations	Policy Push
<ul style="list-style-type: none"> <li>→ Using <u>Global climate fund</u>'s 100 billion dollar fund.</li> <li>→ Needed for carrying out <u>mitigation</u> and <u>adaptation</u> means</li> <li>→ As per India's INDC submission, more than <u>5 trillion</u> USD needed to implement these plans</li> </ul>	<ul style="list-style-type: none"> <li>→ Developed countries to share their technology under Paris climate deal.</li> <li>→ Needed in areas like <u>offshore wind</u>, <u>grid parity</u>, <u>storage</u> of electricity.</li> <li>→ New ideas of Methanol economy and Hydrogen fuel economy</li> </ul>	<ul style="list-style-type: none"> <li>→ National biofuel policy</li> <li>→ National Electrical mobility mission.</li> <li>→ Further policy boost for:                             <ol style="list-style-type: none"> <li>(1) offshore wind</li> <li>(2) Biomass (CO2BAR schemes)</li> <li>(3) Afforestation</li> </ol> </li> </ul>

Thus, India will need substantial support: both at home and from developed countries to realize its INDCs.

Feedback (For OFFICE use only)

Structure	
Question Interpretation	
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Q.4) 'In absence of innovations, the productivity of agriculture has remained stagnant in India'. Discuss e-technology related interventions taken so far to make farming remunerative. (10 Marks, 150 Words)

According to Indian Council of Agriculture research (ICAR), Agriculture R&D is less than 1.5% of total Agriculture GVA. This affects the quality of Agriculture.

Why innovation is must for doubling farmer income.

- (1) To reduce input cost on fertilizer, pesticides.
- (2) Make more resilient hybrid seeds.
- (3) To boost Agriculture yield.

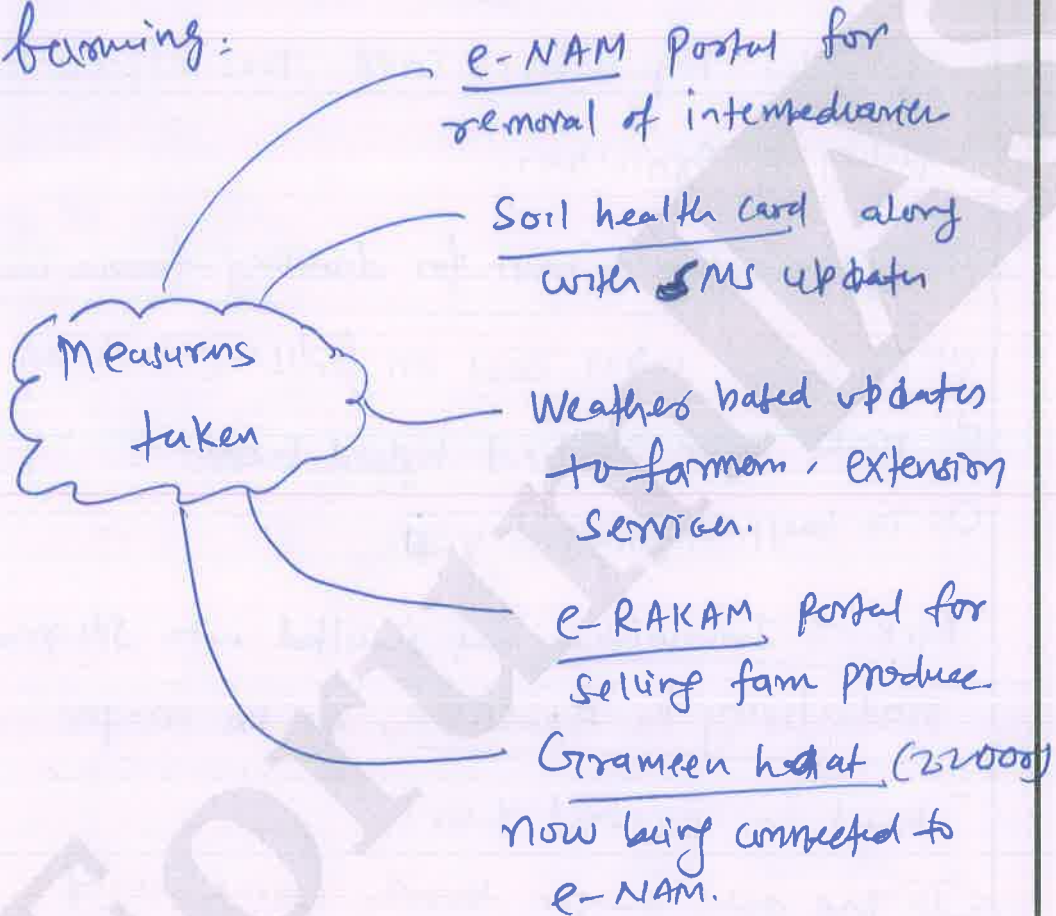
Lack of Innovation has resulted into stagnant productivity in Agriculture, as no major boost in recent year.

- ① The only major boost came during green revolution era.
- ② The episodic boost came by introduction of GM Cotton though along with some unintended consequences.

Therefore there is a need

to boost innovation in Agriculture using Agriculture university and ICAR Institute.

E-Technology Initiatives taken to boost becoming:



These would have significant impact in doubling farmers' income.

Feedback (For OFFICE use only)

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**Q.5)** It is said that strong protection of intellectual property rights leads to development through the promotion of innovation. But does 'New IPR Policy 2016' ensure the same in India. Analyse with suitable arguments. (10 Marks, 150 Words)

Intellectual property rights provide protection of ownership to original creator of a patent, trade secret or new idea. This helps in promoting innovation by creating a robust and reliable innovation ecosystem.

New IPR Policy and the new ecosystem of Innovation.

- (1) National IPR Policy - 2016 has six major components like creating skilled workforce, creation and generation of new ideas etc. At the same time it has measures to protect the new ideas and patents.
- (2) IPR Policy creates an institutionalized mechanism to promote IPR protection.
- (3) New policy is compliant with WTO's

TRIPS guidelines.

↳ At the same time, It considers the Special Socio-economic Conditions of the country and hence does not support evergreening of certain vital medicines.

This way New IPR Policy has created an institutionalized IPR protection system keeping our country's special needs in mind.

Feedback (For OFFICE use only)

Structure	
Question Interpretation	
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<b>Total</b>	





Q.6) Discussing the need for 'National Electric Mobility Mission Project' analyse why electric vehicles have not taken off in India and suggest potential solutions. (10 Marks, 150 Words)

## National Electric mobility mission project (NEMMP)

aims to promote electric and hybrid vehicles in the country. Recently government decided that it will not force automakers to compulsorily move towards electric mobility and rather would follow it as a guideline.

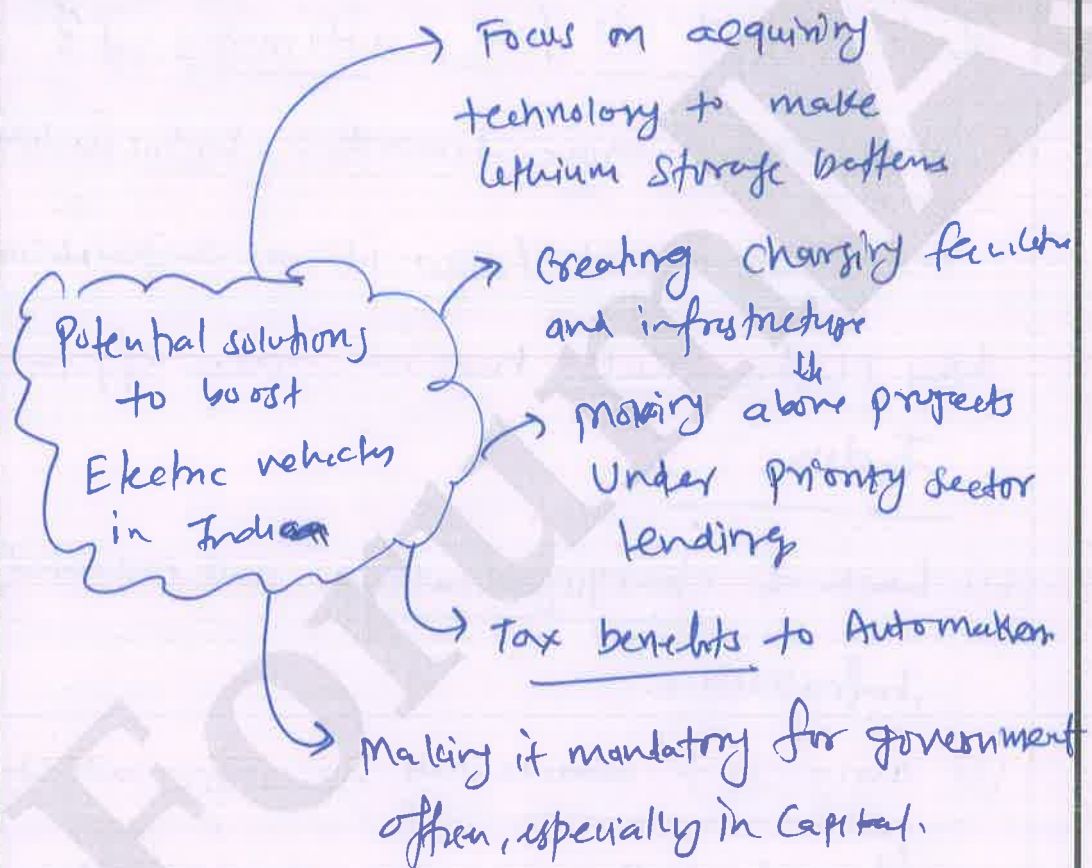
Why Electric vehicles have not taken off in India? :

- (1) Lack of charging stations and associated infrastructure.
- (2) only 31% urbanization, electric mobility is much easier in urban areas than rural area in lack of infrastructure.
- (3) lack of storage capacity and needed technology ~~to make lithium batteries~~

(4) Lack of Lithium, which is needed for making storage batteries.

(5) Civic awareness is underdeveloped with respect to E-vehicles.

(6) High cost of E-vehicles.



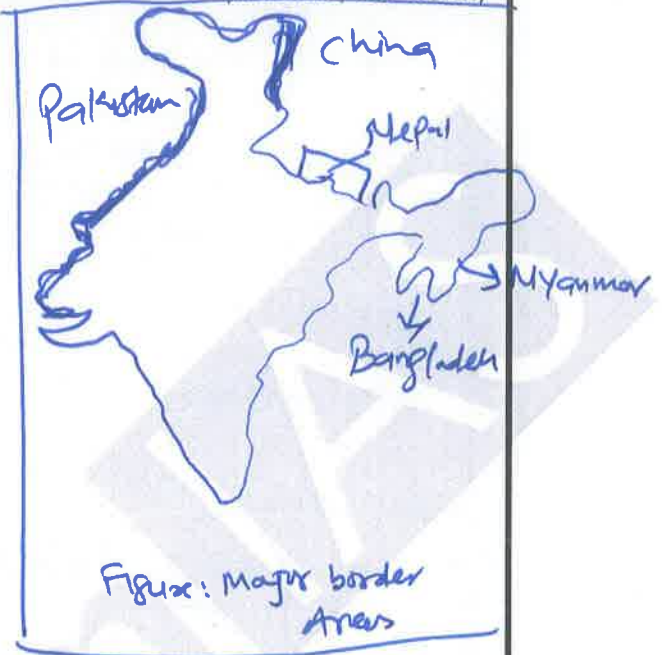
Feedback (For OFFICE use only)

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Question Interpretation	
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Q.7) Technical solutions are necessary to augment and complement the traditional methods of border management. Critically discuss. (10 Marks, 150 Words)

Border management refers to range of activities: from surveillance, routine patrolling, preventing transgression, preventing drug trafficking to community involvement in ensuring border security.



Technical solutions are needed to augment and complement border management:

- (1) on Pakistan - India border, there are many spots which are difficult to be manned. Laser based technology to be used to prevent infiltration.
- (2) using Drones for military surveillance.

β) Using satellite data to get idea about troops movement on other side.

Example: CARTOSAT used during Surgical Strike in Pakistan.



Way forward:

- ① Comprehensive border management Policy based on technology upgradation
- ② Integrated management, involving inputs from all stakeholders.

These would ensure that traditional method of border security "boot on the ground" is properly augmented and supplemented.

Feedback (For OFFICE use only)

Structure	
Question Interpretation	
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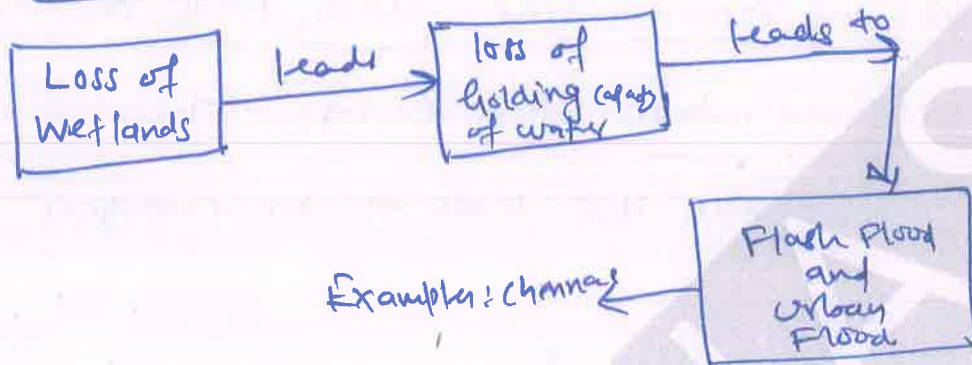
Q.8) The unsustainable use of wetland resources is a combined result of information, market and policy intervention failures. Comment. Also, explain how this is pushing us towards an unperceived ecological crisis.  
(10 Marks, 150 Words)

Wetland resources like lakes, ponds, marshylands etc are important for ecology. Their unsustainable use leads to an ecological crisis.

Factors responsible for unsustainable use of wetland:

Information failure	Market failure	Policy Intervention Failure.
<ul style="list-style-type: none"> <li>→ Unplanned building made, while information not disseminated to public; during the process <u>many lakes and wetlands</u> destroyed. Ex: Bangalore.</li> <li>→ Lack of <u>civic</u> <u>Urgent</u> in people on <u>ecological crisis</u>.</li> </ul>	<ul style="list-style-type: none"> <li>→ Market values quick return and hence business fill up wetlands to expand their business.</li> <li>→ Corporate Social Responsibility (CSR) followed only in words, not in spirit</li> </ul>	<ul style="list-style-type: none"> <li>→ Proper Environmental Impact Assessment (EIA) not carried out.</li> <li>→ Inadequate background check.</li> <li>→ lack of <u>Accountability</u> in PWD/Municipalities with respect to <u>wetland Resources</u></li> </ul>

How this is pushing us towards an unperceived ecological crisis:



It also creates imbalance, as it leads to more warming; unplanned urbanization has disaster vulnerability.

Therefore, wetland resources must be protected through adequate policy reforms and through Civic awareness.

Feedback (For OFFICE use only)

Structure	
Question Interpretation	
Content	
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**Q.9)** "Passenger boat accidents are showing increasing trends across India leading to loss of life of scores of people". Examining the causes, discuss measures to prevent such boat accidents. (10 Marks, 150 Words)

Passenger boat accidents like Patna boat accidents show risk of unregulated transportation in inland waters.

Causes of passenger boat incidents:

- (1) Unlike Road and Railways, Inland waterways are picking up recently; there is lack of proper regulatory mechanism.
- (2) Continued use of old and tattered boats without any safety checks.
- (3) Overloading of boats
- (4) Even if boat capsizes happen, the response mechanism is slow and poorly co-ordinated; leads to loss of life.

## Measures to prevent boat incidents:

- (1) A regulator must be set up which will do regular audit and safety check of boats.
- (2) Boats older than 5 years to be banned.
- (3) Overloading must be prevented with Penal punishment.
- (4) Training of boatman and Certification for post-accident response.
- (5) Collaboration b/w SDRF, State Police and Inland water transportation Authorities to be improved.
- (6) on line of Gujarat Ro-Ro Service, the entire process can be made online; will increase awareness and safety.

Feedback (For OFFICE use only)

Structure	
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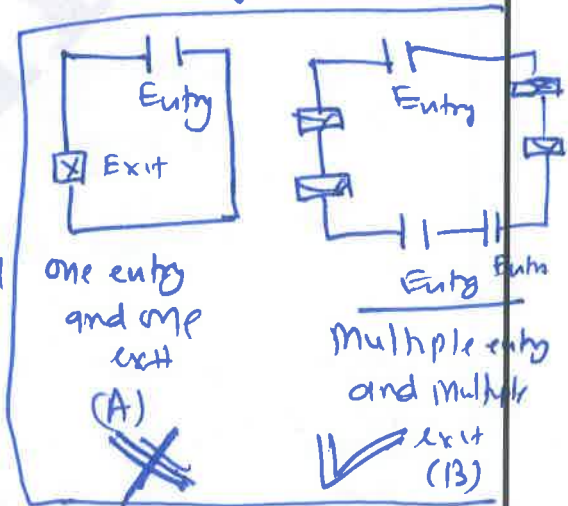
**Q.10)** "A little mismanagement holds potential to turn celebrations awry. The most common fellers include stampedes and fire". Examine. How can an integrated and structured planning help mitigate and prevent crowd disasters? (10 Marks, 150 Words)

Crowd disaster are result of mismanagement which spans across very little time. Incidents like Elphinstone crowd stampede and in past Banaras crowd stampede underline the need of better crowd management.

Effect of poor mismanagement

① No focus on exit points; it works as a pressurized vessel when all try to exit through one single exit

② we should have multiple entry and exit and same must be highlighted otherwise in stampede people forget roads.



③ The sources of fire must be given special attention, must be in isolated area to avoid fire incidents.

Therefore an integrated and Structured planning is needed.

(A) Structured planning: As shown in figure we must have type B (multiple entry/exit with information/guideline) arrangement instead of type A arrangement

(B) Integrate planning:

(1) Co-ordination b/w different machineries

(2) Post-disaster workout, especially rescue and relief measures

(3) Controlling crowd, especially summer monsoon.

(4) Traffic management during crowd.

These measures would ensure stampede does not occur and even in worst case we have a robust response plan.

Feedback (For OFFICE use only)

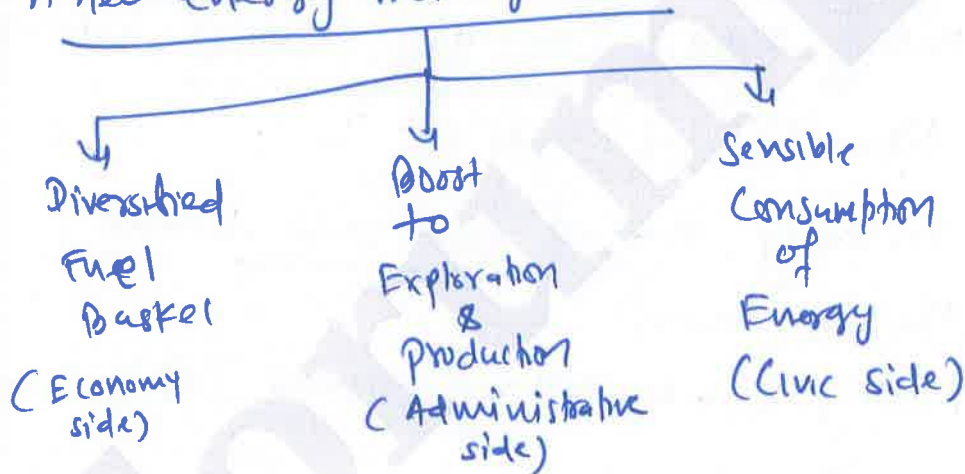
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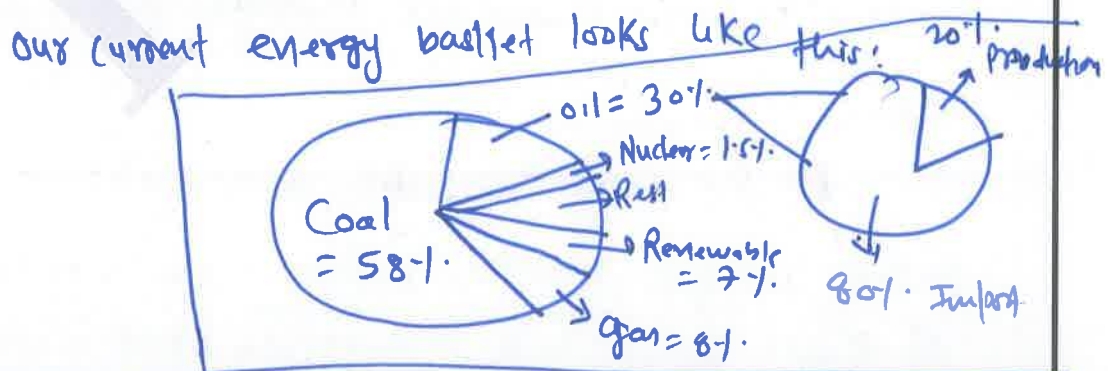
**Q.11)** "In India, a move towards a diversified fuel basket, together with a focus on efficient exploration and consumption of energy resources, is needed." Discuss with suitable arguments. (15 Marks, 250 Words)

Energy security is important aspect of India's economy today. It has implication on our current account deficit as well as on our climate. A move towards a better energy management is hence imperative:

A new energy management



(A) Diversified Fuel Basket :





- 1) It is highly dependent on Fossil fuels, mainly Coal, natural gas and crude oil.
- 2) For crude oil, 80% of our supply is imported. Rise in oil prices had an impact on our current Account deficit and fiscal deficit.
- 3) share of Renewable is still low (~7%)  
⇓  
What shift is needed.
  - (1) Making India a more gas economy, reducing dependence on crude oil.
  - (2) Increasing share of solar, wind, Biomass, Nuclear energy.
  - (3) Moving towards Methanol economy (NITI Aayog)
  - (4) use of Electric vehicles.
  - (5) other potential sources like Hydrogen fuel based system.

At the same time, we must also ensure that this transition happens over a period of time. Hence better exploration & prodn is needed.



- (b) Efficient Exploration & production: — use of HELP policy
- Inviting foreign players in oil and gas Exploration.
  - Boosting coal production

(These are keeping our National Energy Policy-2017 in view that we do need coal for certain time, at the same time domestic oil & gas production must be increased → Target of reducing oil Import by 10% by 2022)

(c) Sensible Consumption of Energy:

- (1) Civic Sense related
- (2) Switch off light when not needed.
- (3) Government mulling over a proposal to fix AC temperature to 26°C.

Such measures would ensure that our energy management is cost effective, self reliant and sustainable in long run.

Feedback( For OFFICE use only )

Structure	
Question Interpretation	
Content	
<b>Total</b>	



**Q.12)** India has been constantly suffering from low tax to GDP ratio. Discussing the reasons for a low tax to GDP ratio in India, suggest some measures to ameliorate the problem. Also, examine the benefits of healthy tax to GDP ratio. (15 Marks, 250 Words)

India's current tax to GDP ratio is 16.6%. Which is much below the OECD average of 34%. This must be changed for a healthy economy in long run.

Reasons for low tax to GDP Ratio :

(1) low per capita

Income of our population. (According to Economic survey it is 110,000 ₹ while

tax threshold is 2.5 lakh ₹)

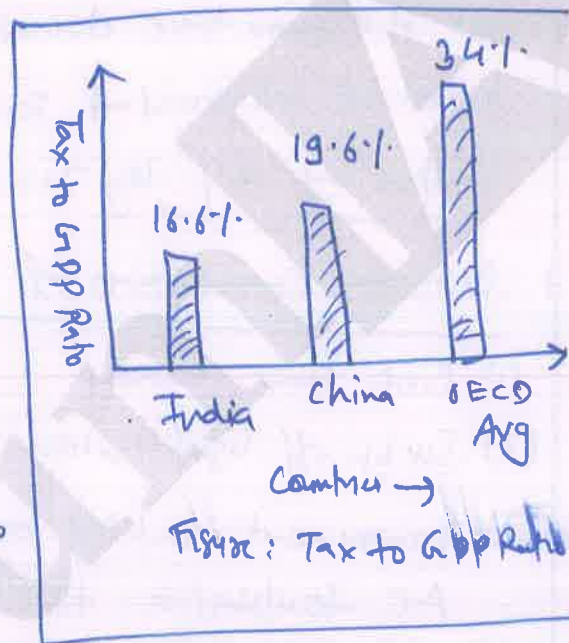
(2) High poverty : 300 million still poor

(3) Tax Evasion : Illegal ways to avoid tax

(4) Tax Avoidance : legal ways to avoid tax (loopholes)

(5) Tax disputes : Cairn, Vodafone Case

(6) lower tax base : only 5.5% of our earning





Population pays taxes. Only 7 out of 100 voters pay tax.

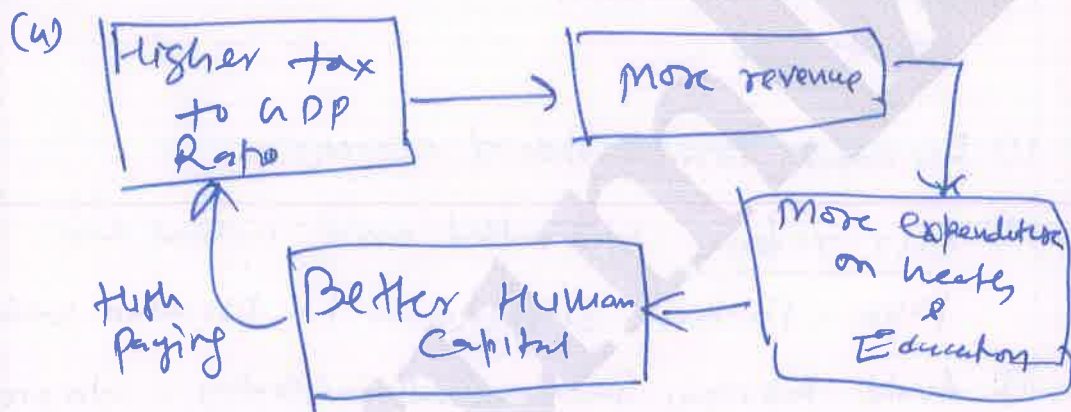
- (A) High Informalization of Economy.
- (B) Agriculture being outside tax system ends up fostering some high earning individuals and protects them from taxation.

Measures to Ameliorate the problem and Empower tax to GDP :

- (1) Increased formalization of economy
- (2) GST reforms had added more indirect tax payee. Further simplification in procedure needed.
- (3) Avoid populism in tax administration; do not increase tax threshold in future until compelling reasons are there.
- (4) Make clear rules to minimize tax avoidance.
- (5) Curbs on black money; use of Enforcement Directorate and Economic Intelligence Unit
- (6) Project Insight to track tax irregularities
- (7) Tax high earning farmers (Double taxation avoidance Agreement)
- (8) Measures like revision of DTAA Agreement

Benefits of Healthy tax to GDP Ratio :

- (1) As survey mentions, taxation is economic glue b/w citizen and state. A higher tax to GDP ratio indicates better state-citizen relation.
- (2) More revenue realization would help in improving social expenditure.
- (3) will put a curb on Black money.



Higher tax to GDP ratio can act as a virtuous cycle in long run.

Feedback (For OFFICE use only)

Structure	
Question Interpretation	
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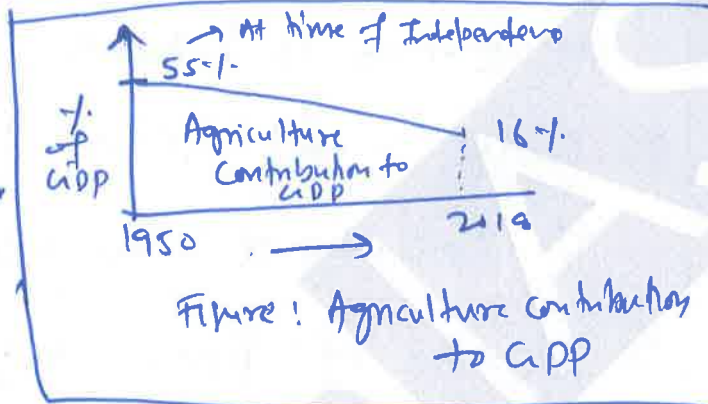
**Q.13)** The government, nevertheless of declining share of agriculture in GDP is seen to be bearing the double fiscal burden of farm sector subsidies and loan waiver. Discuss. Is there a need for rationalization of farm-sector subsidies? Justify. (15 Marks, 250 words)

share of Agriculture in GDP is currently 16%.  
Compared to 58% of services and 26% of Industry.

However, Agriculture is important for livelihood

(47% still dependent)

and food security. Therefore government must ensure its growth.



### The issue of Double Fiscal burden

#### Farm sector subsidies

- ① Power Subsidy / Irrigation Subsidy
- ② MSP Subsidy
- ③ Fertilizer Subsidy
- ③ Interest Subvention Scheme
- ④ Farm credit at low interest rate.

#### Farm loan waiver

- Maharashtra, U.P., and now Karnataka
- Punjab did the same
- More of populism based.
- However in few cases, it reduces

This dual burden has an adverse impact on Centre and State finances.

- (1) It can increase current account deficit as fertilizer is imported.
- (2) States might breach FRBM target of containing revenue deficit of 3%.
- (3) In case of power subsidy, it might have an adverse impact on climate  $\rightarrow$  high groundwater depletion.

So, what is the way forward?

### Rationalization of Farm-Subsidy

Is there a need?

- (1) Fertilizer subsidy has skewed N:P:K ratio of 1:4:8.4 while it should be 1:2:4. It affects land productivity.

- (2) Power and Irrigation subsidy had led to excessive groundwater depletion in Punjab/Karnataka

(3) MSP subsidy has acted as Cereal-centric, Thus Crop cultivation is not diversifying.

In wake of these issues and with aim to double farmer's income, following must be done:

- (1) MSP to be used to correct Crop pattern; make Indian Agriculture diversified by diversification and higher MSPs for pulses.
- (2) Move from Cost based Subsidy to income based subsidy. In later subsidy money to be paid according to land unit size. Example: Telangana
- (3) Wean off power/irrigation subsidy gradually.

These measures would ensure subsidies do not make Indian Agriculture a victim of its own policies.

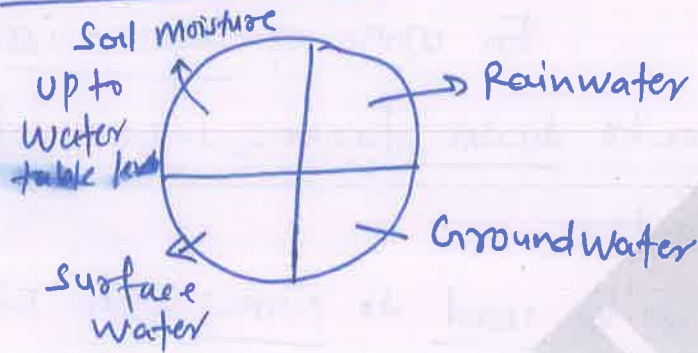
Feedback( For OFFICE use only )

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<b>Total</b>	



**Q.14)** Irrigation in Indian agricultural sector though being a national challenge, however, requires a 'region-specific spatially differentiated' approach. Stating the relevance of 'four water concept' examine the issue with suitable examples. (15 Marks, 250 Words)

The four water concept refers to



This can be used to remove anomalies in Irrigation system of India.

(A) current Irrigation pattern

↳ Out of 141 million hectare of net sown area, around 70 million are irrigated. It makes only 50%. In terms of gross cropped area it is further low, only 35%.

↳ Such high dependency on rainfed irrigation, unpredictability of monsoon and different drainage system across the country demands a region-specific and spatially differentiated



irrigation approach.

(B) The New Approach : using Four water

Concept.

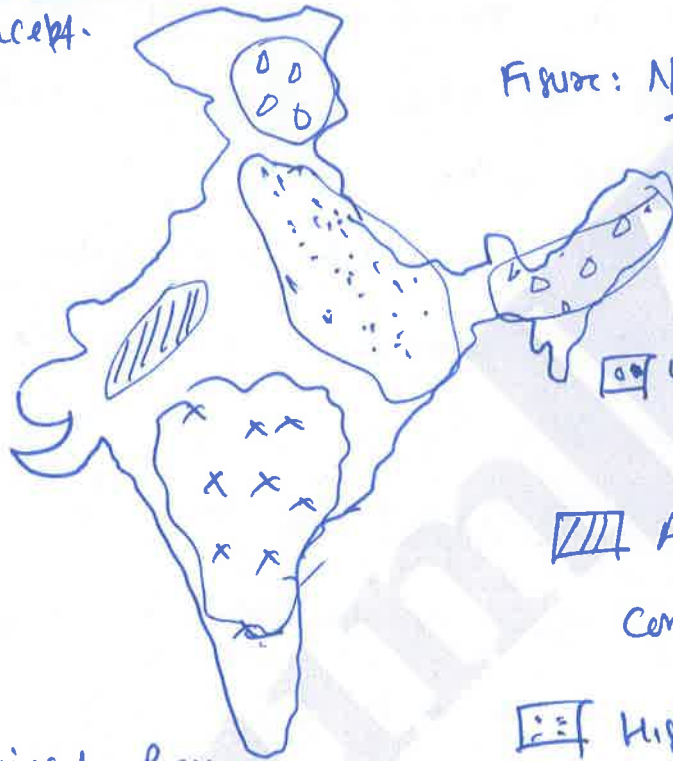


Figure: New Approach to Agriculture

oo Use Soil Moisture in hilly region

▨ Arid Region  
↓  
Conserve Rain water

⋮ High surface Run off  
↓

Conserve surface water, use other water for Interlinking of river project

Regions like Punjab and Haryana

must focus on Controlling ground water depletion

xx = Peninsular Region, low in surface water, Rocky earth surface; focus on rainwater preservation, Rain water harvesting, linking of Himalayan rivers with peninsular rivers (utilising the excessive surface water of Himalayan Region)

Some of the Key takeaways from this approach is :

- (1) Utilising rainwater especially in semi-arid regions like Marathwada, Sauashtra, Andhra regions like Western Rajasthan and in Peninsular India.
- (2) Focus on Groundwater replenishment using rainwater, especially in Punjab, Haryana and Western UP.
- (3) Use of MNREGA to create farm ponds.
- (4) Policy measures to move towards basin based management of river, to avoid river disputes and use irrigation water on per demand.

These would ensure that Indian Agriculture becomes sustainable in long run.

Feedback (For OFFICE use only)

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Question Interpretation	
Content	
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Q.15) PDS can play a pivotal role in bringing convergence and making India's two important missions—food and nutrition security—successful. Elucidate with examples.

(15 Marks, 250 Words)

Public Distribution System (PDS) is India's flagship food security scheme which provides a fixed amount of food quantity every month to eligible beneficiaries.

After the enactment of National Food Security Act (NFSA - 2013), PDS is now covering 67% of our population. This can bring not only food security but also nutritional security.

To do that, there is a need of convergence of various schemes working for food and nutrition security like:

- Mid day meal scheme
- Integrated Child Development Scheme.
- Janani Suraksha Yojana.
- Private/Civil Society Contribution like Askhya Baba Foundation
- Anganwadi / ANM etc.

These projects and machineries can be used through PDS to bring food and nutritional security.

(1) PDS outlets (PDS shops) to provide fortified cereals rich in iron and vitamins.

↳ This will ensure children get nutritious food at home too.

↳ procurement of MPM cereals can be routed through PDS to avoid administrative expenses.

(2) Already states like chhattisgarh have shown successful running of PDS scheme, while states like Bihar and UP under-perform. According to National Family Health Survey (NFHS) these states rank high in wasting, underweight and



Starved children. PDS can be used to alleviate the problem.

(3) Under the 115 Aspirational district program, PDS can become Administrative machines to improve food and nutritional security.

Therefore, a reform and re-orientation would require to make PDS administrative weapon to lead to a Kaposhan Mukh India.

Feedback( For OFFICE use only )

Structure	
Question Interpretation	
Content	
<b>Total</b>	



**Q.16)** There is Dichotomy between food price rise and diminishing returns to farmers due to challenges of agricultural marketing and logistics. Substantiate, along with suggesting measures to correct the observed imbalance. (15 Marks, 250 Words)

Recently in budget 2018, government declared to raise MSP pricing of Agricultural products by 1.5 times of their cost of production. Many have contended that this might lead to food inflation and ultimately might hurt farmers.

The current situation:

- (1) Government is working on doubling the farmers income by 2022 and this measure is seen as part of it.
- (2) However, a sudden rise in MSP would have many effects:
  - Government will have to procure cereals at high cost. No private logistics to procure.
  - It will further increase cost of maintenance. No private sector involvement.

- Government will have to sell Cereals at higher Central Issue pricing (CIP) in market or might have to further subsidize.
- It might hurt our export competitiveness
- Higher food prices might lead to developed countries selling their farm Cereals at much lower price in country.
- There might be a protest from common people in case of sudden escalation in food prices.

Thus, there are certainly few downsides of raising MSP price by a big margin. This can be countered in the long run by following certain measures:

- (1) Government must subsidize the CIP

initially to protect market from food inflation.

(2) Improve Agricultural marketing using e-NAM portal. and forward and backward linkage

(3) MSP procurement can be made market based (Bhannantar Bhugtan Yojana)

(4) Food processing Industry, Mega food parks, Cold chains and SAMPADA scheme can help in adding value to farmers income.

An efficient market mechanism along with logistic support would transmit the benefits, at the same time would ensure food price rise does not happen.

Feedback (For OFFICE use only)

Structure	
Question Interpretation	
Content	
<b>Total</b>	





Q.17) "There is a need to fill the critical infrastructure gaps in the supply chain from farm to consumer." In this light analyse how 'PM Kisan SAMPADA Yojana' will help in plugging critical infrastructure gaps. (20 Marks, 250 Words)

To achieve Doubling farmer income (DFI) goals, it is important to get better price realization through value addition in farm products. Food processing brings Agriculture from farm to Consumer and in the process helps farmer in getting better price.

However, there are certain critical infrastructure gap that exist in this supply chain.

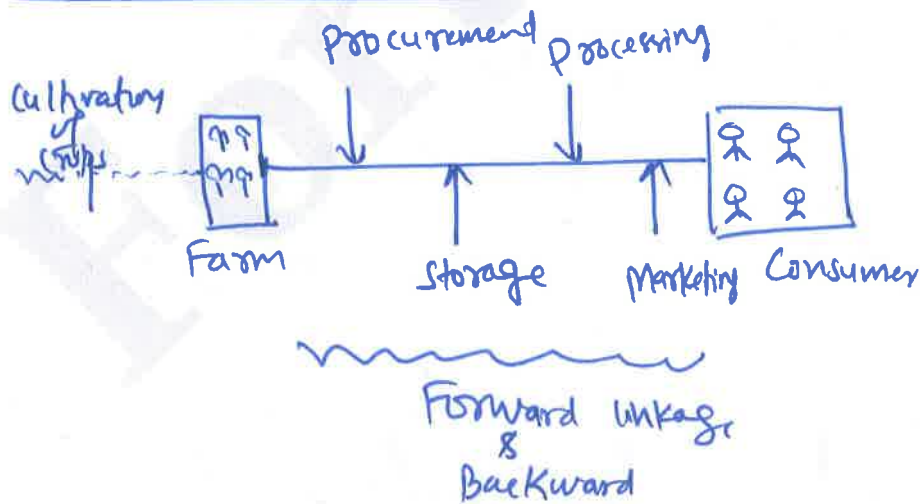


Figure: Supply chain from farm to consumer

Major Challenges exist in :

- Procurement
- Storage, lack of cold chain facility
- processing of products
- Marketing, branding.

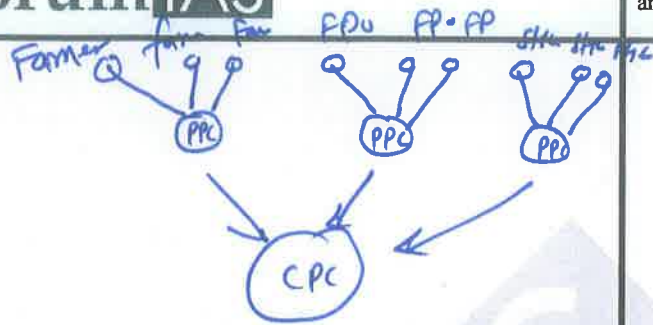
As of now, only 10% of our fruits and vegetables are being processed while developed countries average is 60%. Here SAMPADA scheme can help.

SAMPADA is flagship scheme of Ministry of food processing.

(1) It's components like Mega food parks will help in processing part as well as marketing part.

(2) Focus on Cold chain storage will improve storage and reduce post harvest loss.

(3) Boost to FPO (Farmer producer organization)



Thus SAMPADA acts as infrastructure model, marketing model and

CPC = Central Processing Centre  
PPC = Primary Processing Centre

also covers output like boost to FPOs and SHGs. This filling of critical gaps would result in a more robust supply chain from farm to consumers -

Feedback ( For OFFICE use only )

Structure	
Question Interpretation	
Content	
<b>Total</b>	



**Q.18)** Despite the shift in manufacturing and services sector to the new emerging economies, certain immobility has been observed in R&D sector. Do you agree? Support with suitable arguments. Also, suggest some measures for India to become a leader from net consumer to net producer of knowledge and ideas. (15 Marks, 250 Words)

The statement underlines the phenomena of inadequate growth in R&D Sector despite increasing contribution from manufacturing and service sector. Emerging economies like India, Philippines, Indonesia can be studied to evaluate the question statement.

Case of India :

our current GDP Sectoral Contribution looks like this:

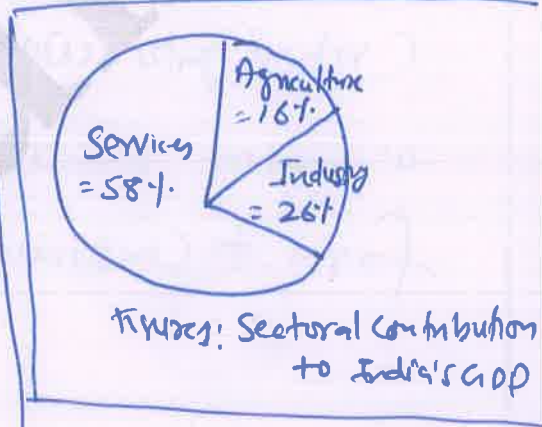
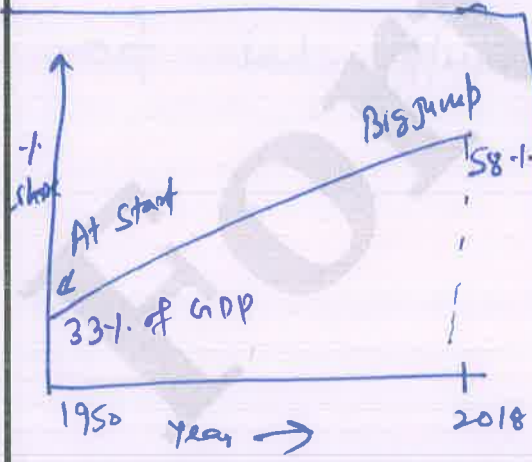


Figure 2: Services Sector performance



- In contrast, India's spending on R&D remains less than 1% of GDP.
  - No big companies like Google, Facebook has come up in India or other emerging economies.
  - The nature of research is also not of high quality.
  - No of PhDs and patents filing are low.
  - No of universities in top 200 university ranking are very low.
  - We feature very last in Innovation Index.
- Other emerging countries like Indonesia, Turkey also represent similar stories. Phillipines has mainly become a BPO Service provider.

In essence, the emerging countries have not been able to mobilize their R&D Sector.

What measures should India take to become net producer of Knowledge and Economy?

- (1) Improve the quality of research in Universities.

- (2) Set up top 10 universities which will focus on Research & innovation (NITI Aayog 3 year term Agenda reforms)
- (3) Increase GDP spending on R&D
- (4) Set up Foreign universities in India.
- (5) Involvement of NRI in R&D based on Tarun Khanna Committee recommendation.
- (6) Use of rigorous pre-check to avoid plagiarism in research paper.

As NITI mentions Innovative ecosystem as one of the 5th growth enablers, we must use all measures to boost quality of research and become net producer of knowledge.

Feedback (For OFFICE use only)

Structure	
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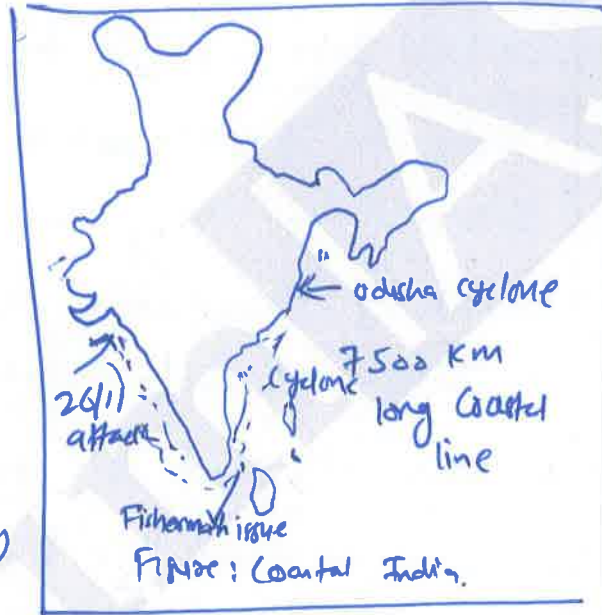


**Q.19)** Explaining India's enduring coastal vulnerabilities, discuss what are "critical gaps" in the coastal security architecture of India and how are they being plugged for improved near-seas security. (15 Marks, 250 Words)

India has a Coastline of 7500km which makes Coastal Security an important part of National Security.

Major Components of Coastal Vulnerabilities:

- (1) Vulnerable to Cyclones (Odisha)
- (2) Fisherman issue (Sri Lanka - Tamil Nadu)
- (3) Piracy
- (4) Terror attacks through Coastal entry (26/11 attack)
- (5) EEZ Sovereignty Issue (Italian Marine Issue)
- (6) Geopolitics (Increasing Chinese presence in Indian ocean region)



Coastal security Architecture: refers to institutional and mechanisms involved in Coastal security.

Various stakeholders are: Coastal State Police, Indian Navy, Coastal guard, local politics (especially on Issue of Fisherman), Indian meteorological department.

"Critical gaps" in Coastal security architecture refers to failures which exacerbate Coastal vulnerabilities. They are as following:

- (1) lack of Coordination b/w Coastal guards, Indian Navy and Coastal State Police
- (2) Who will guard the territorial war and who will guard the EEZ → leads to confusion.
- (3) Inadequate patrolling, leading to cases like terrorists entering country.
- (4) Lack of inter-state Coordination
- (5) lack of intelligence sharing
- (6) Coastal Communities not adequately involved in Coastal security architecture.

To plug these vulnerabilities following must be done:



- (1) An Integrated Coastal Command to improve inter-agency coordination.
- (2) Use of India's maritime security policy 2015 for better monitoring of Indian Coasts.
- (3) Involvement of Coastal Communities in Security.
- (4) Sagarmala, Inland water system to be used for logistics supply and augmenting our defence capability.
- (5) Moving towards a Coastal blue water economy to prevent clashes like Fisherman issue.
- (6) Better preparations on disaster front using NPMP-2016 guidelines (based on Accountability matrix).

These measures would fill the critical gaps and make our Coasts more secure and safe.

Feedback (For OFFICE use only.)

Structure	
Question Interpretation	
Content	
<b>Total</b>	



**Q.20)** How far do you think that the 'Draft National Forest Policy of India 2018' satisfies India's contemporary needs and is different from the previous policy of 1988? Explain with suitable examples. (15 Marks, 250 Words)

Draft National Forest Policy (NFFP-2018) has been released in wake of findings of India Forest Report - 2018. This makes this policy more relevant to analyze India's contemporary needs in forest governance.

Contemporary situation of India's forest:

- (1) As per India forest report - 2018, 24% of ~~our~~ our land is under forest coverage.
- (2) In few states in north east, decline in forest area shown.

Special needs from forest angle:

- (1) India's INDC (Intended Nationally determined Contribution) at Paris climate.
  - ↳ Creating 2.5 to 3 lakh ton of CO<sub>2</sub> Sink (Forestation can help here)
  - ↳ Reducing emission intensity of GDP by 35%. (Again forestation can help)
- (2) Forest based Industry.

How Draft NFP-2018 satisfies these needs:

- (1) Involvement of PPP in afforestation on barren lands and other less productive areas.
- (2) Boost to "urban greens" (this will reduce emission intensity and make cities more habitable)
- (3) Promotion to Forestry based Industry
  - ↳ ~~It~~ It creates two bodies: National Forest Management Committee (NFMCC) and National Forestry Board (NFB) to provide guidelines on afforestation and utilisation of forest resources.
- (4) Use of CAMPA fund for afforestation.

How NFP-2018 is different from 1988 Forest Policy:

- (1) 1988 Policy did not give attention to private players in afforestation drive.
- (2) 1988 Policy did not have mechanisms to engage with Gram Sabhas, there was

no forest rights Act then (it came in 2006).

(3) Focus on urban greens was missing in 1988 policy.

(4) Utilisation of Agro-resources/forestry-resources were not clearly laid down in 1988 policy.

All these aspects have been covered in 2010 policy. There are certain criticisms also like it violates spirit of forest rights Act which need to be further deliberated. The policy must become our principle tool to improve our forest governance and ensure forest rights at the same time.

Feedback (For OFFICE use only)

Structure	
Question Interpretation	
Content	
<b>Total</b>	



## Mentor Feedback Questions

- 1 .....
- 2 .....
- 3 .....
- 4 .....
- 5 .....

## Test Goal

- 1 .....
- 2 .....
- 3 .....

## Outcomes

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