



# CHROME IAS

*Giving Wings To Your Dreams !!!*

## GENERAL STUDIES MAINS EXAMINATION TEST SERIES: 2019 (COMPREHENSIVE)

NAME OF CANDIDATE		Vishal Narwade	
E-MAIL ID		MOBILE NO.	
REGISTRATION NO.		DATE: 21/07/19	
TIME ALLOWED: 3 HOURS	CODE : 1914	PAPER : CT-3 GS 3	MAX MARKS : 250
INDEX TABLE		INSTRUCTIONS	
Q.NO.	MARKS OBTAINED	MAX MARKS	<ol style="list-style-type: none"> <li>1. Do furnish the appropriate details in the answer sheet (viz. Name, E-mail, Roll No., Mobile No.).</li> <li>2. There are TWENTY questions printed in ENGLISH only. First 10 questions carry 10 marks each while next 10 question (i.e. 11-20) carry 15 marks each. All questions are compulsory.</li> <li>3. 10 mark question to be written in 150 Words.</li> <li>4. 15 mark questions to be written in 250 Words.</li> <li>5. Any page or portion of the page left blank in the Question-Cum- Answer Booklet must be clearly struck off.</li> <li>6. Content of answers is more important than its length.</li> </ol>
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TOTAL MARKS:			

START TIME:

END TIME:

MODE OF EXAMINATION : ONLINE  OFFLINE

REMARKS:

93

CHROME IAS  
 25 JUL 2019  
 SCAN

PARAMETERS	5	4	3	2	1
Structure/Organization					
Language					
Presentation					
Context					
Content					

CHROMIUM LAB  
 1000 1000  
 1000

Handwritten notes: *family with the help of moisture, & chemicals*

Handwritten notes: *form rise - volatile prices of crops, high interest rates for credit, high I/P cost*

1. Zero Based Natural Farming (ZBNF), seems to be a promising solution for agrarian and the environmental crisis. Discuss.

Handwritten note: *I/P cost ↓*

ZBNF is novel concept given by Subhash Palekar, for agricultural distress.

Handwritten notes: *ZBNF ↓ drastically cuts I/P cost, reduces reliance of loans → this can end the debt cycle*

Agrarian & environmental crisis	How ZBNF offers solution
- drought	- moisture conservation - Even successful farming in low water times
- Soil health deteriorated	Integrated management of soil, land & water resources
- Agri not profitable, uncertain	persistent, income generation
- To expand agriculture we need to tear forests	Agro-forestry is integral part of it. [let trees grow as forest grows on themselves]

ZBNF is highly relevant to achieve balance between development vs environment debate. When farmer

suicides is increasing across India, Subhash Patil has implemented ZBNF in states of AP, ~~Karnataka~~ <sup>Karnataka</sup>, Telangana, in some parts of Maharashtra - which are semi-arid; Results show that agricultural productivity has sustained.

Thus if when we have  $\frac{2}{3}$  of agriculture - rainfed, ZBNF assures climate-smart agriculture

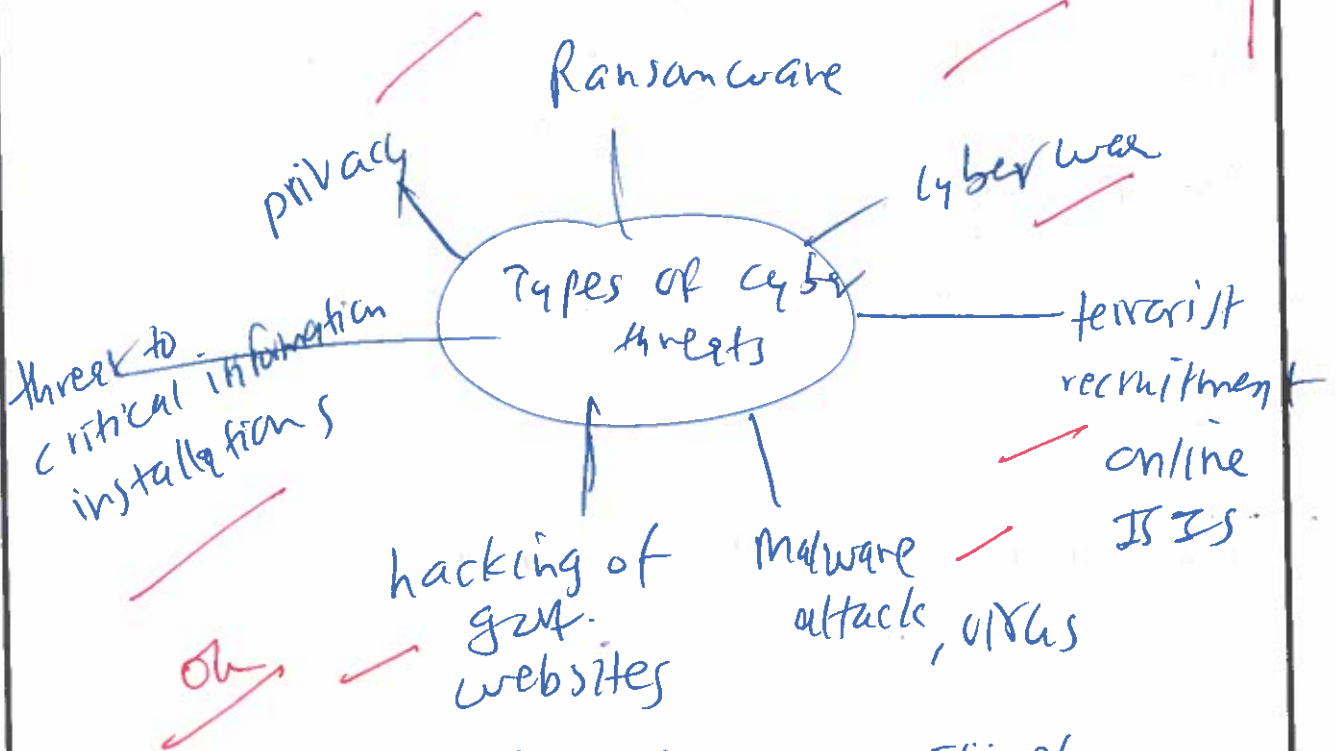
(B)

2. Discuss the various types of cyber-threats that India faces and the implications of cyber security challenges on the ambitious Digital India program.

As per CERT-IN data, cyber crimes & threats are increasing year by year

Year	Incidents
2014	44,000
2015	49,000
2016	50,000
2017	53,600

not good for Digital India



India has been positively implementing National cyber security policy since 2013.



Ambition of Digital India program

How cyber security challenges have impacts

Knowledge-led economy

Business will not feel confident online

Digital Empowerment of citizens ✓

privacy of individual compromised

Infrastructure as utility of services to deliver public services ✓

Benefits of public services will not reach intended

e-Governance

decrease participation in governance

We need urgent active Digital Army to be created skilled-offensive & defensive to protect India's interest. Include all stakeholders.

Card for Jmi.

36

financial frauds & less of Aadhar numbers  
of Aadhar numbers

Can act as a detour for the people

to these digital platforms like digital literacy

Don't give much attention to what?

3. India needs robust energy architecture in the wake of recent fluctuations in the global oil prices. In this light, what should be the major components of India's new energy architecture?

Energy security is lifeline of today's energy-intensive socio-economic development of India. Already, during Gulf war in the past we have witnessed how dependence on outside <sup>world</sup> creates problem.

Recent fluctuations in oil prices hamper our import budget & thus cascading effect on overall planned developmental initiatives. Thus need energy-architecture to stabilise oil/energy economics. Also recent sanctions on Iran & imposition of lifting & imposing always create dilemma for India to import oil. When India going to be energy hungry as most-populous by 2028, need comprehensive policy architecture reflecting all stakeholders, efficiency use of energy, etc.

Components of India's new energy architecture →

→ Diversify energy-basket → reduce dependence on oil & coal.

→ Rationalise energy - use subsidies eg. electricity

→ Improve Renewable energy share - solar, wind

- Harness new energy → ocean thermal difference energy, geo-thermal energy, wave energy,

- Use advance technology like piezoelectric effect - pressure-based energy

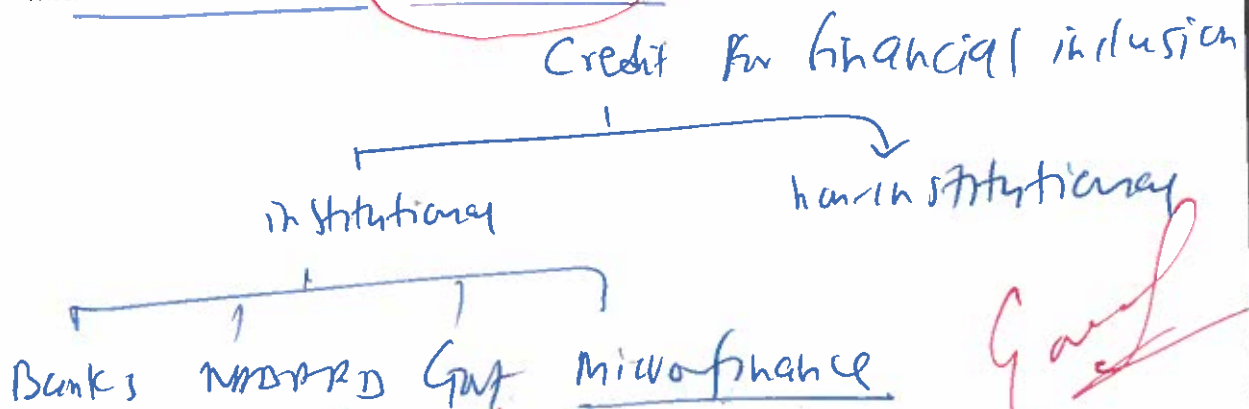
- Energy use efficiency should be part of it

- Compulsory energy audit by independent third party.

Future was going to be for energy demand. To avoid, future issues, we need to step up our efforts of increasing renewable energy share - which is our potential availability.



4. What do you understand by the term Microfinance? Critically analyse the contributions of microfinance institutions to rural development of India.



*Good*

Micro-finance refers to the credit facilities offered by specified ~~by~~ organisations like microfinance institutions, <sup>where</sup> credit amount is ~~smaller~~ small. Also, beneficiaries are generally

small-marginal farmers, weaker sections, etc. Original intention of emergence of micro-finance institutions was to reach out to rural areas - those excluded from till now institutional credit.

Contributions

- MFIs = Micro-finance institutions have positively contributed to emergence of

Don't mix  
with  
India's  
disorganized

So many JHG groups in rural India.

- It has led to women empowerment as maximum benefits in shg are women
- Their dependence on moneylenders have decreased as MFI gave credit - <sup>thus</sup> reduced exploitation of poor.
- maximum benefits in 4 southern states - rural dev.
- RBI positively regulated MFIs how
- Also, for reducing poverty by 15% in 7 yrs, MFIs have contribution.

separate point as a reference  
min. rural dev.

On other hand, MFIs lend at very high rate - as high as 24%. This <sup>the irony is</sup> discourages rural credit. Also, before RBI regulation, there had been malfunctioning.  
Ironically, study shows MFIs moving more towards urban areas. There is no monitoring that credit taken is used for intended purpose.

Rural development definitely need restructured, better regulated MFIs.

Q.6

Q would hold over  
cont. at  
keep it up

5. Despite abundant rainfall, the irrigation coverage in the North East Region remains less than the national average. Comment.

Irrigation is necessity in both times - abundance & scarcity of rainfall, because India gets monsoon only for 4 months of year that too with breaks.

Despite N-E India receives more rainfall (around 2000mm) more than (1100mm) national average, irrigation coverage is less. At national level, we have 48% land irrigated.

There has been less implementation of irrigation projects by state governments as it is state subject. Also, in central budget though N-E region gets exclusive funding, but within N-E region, fund utilisation is skewed, maximum in Assam only. Due to scattered population & agriculture fields, making irrigation economically viable is challenge.

↳ Geographical terrain is  
↳ As compared to other hill regions of India  
↳ NE region has high hills & deep valleys  
↳ NE region has high hills & deep valleys



To put pressure on governments for irrigation facilities, no active pressure groups or vibrant civil society.

Due to abundant rainfall, very low priority for irrigation = misplaced conception.

- Also, farmers still not much practice intensive farming as compared to national average. Thus intensive-crops need more irrigation. — hot case in North-east India.

(9) - Early start advantage to rest of India — Command area Development programme, Accelerated Irrigation project → takes national average better than N/E India.

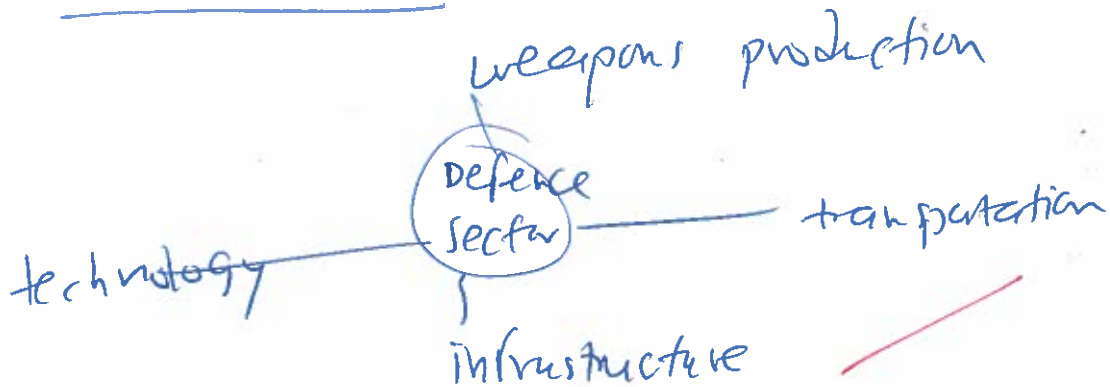
Also, Green Revolution bypassed N-E India. Future, a sustainable agriculture India needs assured irrigation in N-E.

[Climate change is very uncertain]

→ ability?

More irrigation techniques.

6. Critically examine the challenges that private sector faces in defence sector. What needs to be done by the government in this regard?



Challenges faced by private sector

- Domestic Foreign
- No level-playing field as maximum space to public sector
- FDI still just allowed to 49-74% in limited sectors of defence
- Still Regulatory approval & clearances are cumbersome
- Trust deficit by govt.
- Limits on investment & no certainty / predictability of policies.



Government needs to <sup>do</sup> be done -

↳ Act as facilitator, promoter, along with Regulation ✓

↳ Make in India - Implement fully & equally to defence sector, as we have huge import bill. ✓

↳ Ensure level-playing field by policy changes ✓

↳ Share global best practices of other successful countries participating private sector in defence sector ✓

↳ tax incentives ✓

↳ Ease of doing business ✓

we definitely need safeguards as profit-oriented private sector may compromise quality in defence sector which will endanger safety of all.

7. What are the various threats posed to India's national security by prevalence of organized crimes including cross-border drug trafficking? Discuss some strategies to curb this threat.



As UN convention on organised crime,

threats -

- ↳ Organised crime increasingly linked to terrorism eg. Mumbai Blast 1993
- ↳ Parallel economy - economic security of the
- ↳ Social disharmony - why?   
 why to loged / conduct on   
 Country of stable.
- ↳ Aid - internal security threats - financing of N-E insurgents by drug mafia of Golden triangle in S-E Asia
- ↳ Fuels Arms dr struggle - Punjab Arms drug case - 1995.

→ Youth loss of demographic dividend → turn to liability.

- Cross-border drug-trafficking in Punjab  
drug-addicts will involve more in crimes  
strategies

① Inter-state police coordination

② Better bilateral platforms like -

BSF & Bangladesh Guard force to ensure  
[not illegal migrants with drugs]

③ Technology use to surprise borders

④ Enact & implement acts like - MACOCA,

⑤ Capacity-building of enforcement agencies

⑥ Learn from Colombia - open for talk to  
solve extremism - organised crime link

We need global approach  
to deal with increasingly global  
nature of organised crimes.

framing

on

informatic gathering & sharing

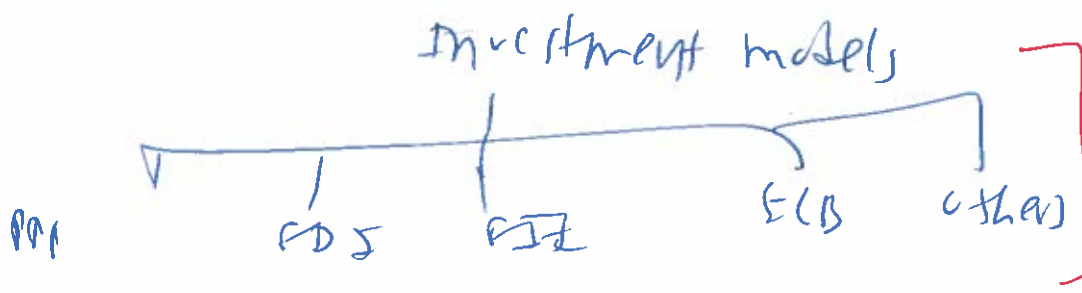
To add

→ UN Convention on Transnational organized crime

came into force in 2003, a global prevention strategy was not merged.

Non extradition treaties required

8. What is the difference between FDI and FII? Why is FDI considered more beneficial form of foreign investment for the economy as a whole?



Neatness reqd.

FDI	FII
companies, organisational invest	institutional investors
long-term	short term
Stable	Hot money
Bring with other benefits technology transfer, skills	mostly capital only
Better to regulated	P-N Aes issue
Globalisation benefits to all	

Improve the present action

4



From above differences, it is also clear that FDI is more beneficial than FII in many ways.

FDI helps to bring long-term structural changes in Indian economy. India was 3rd largest gainer of FDI in recent past as it helps to build infrastructure - need of

*diversify the portfolio*  
*critical driver of eco. growth, ↑ employment*  
 India. Also to learn from recent technologies. HRD, integration into global economy

We need to have stable foreign-investment regime, post-1997 to regulate effectively issues like P. Notes' negative impacts.



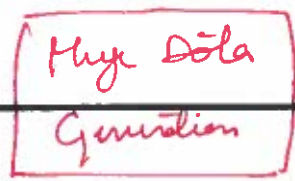
9. Define the term "Big Data". Suggest ways in which government can use big data to improve service delivery?

Big data refers to information-intensive useful inputs mined by specialists which have multiple uses in many areas of economy & governance.

Studying preferences, trends - with regard to human behaviour.

How it helps government -

- Better detailed information of beneficiaries of public services
- do away with leakages
- Improved transparency & accountability
- Informed decision-making by public servants
- improve efficiency of public service delivery
- Reach to unreached.



Big Data

Systematic Analysis

Separates usable data from unusable data.

Policy Formulation  
Policy Imp.  
Challenges  
Tracking  
Citizen Satisfaction & Feedback

- Finding alternative more effective ways of delivering services

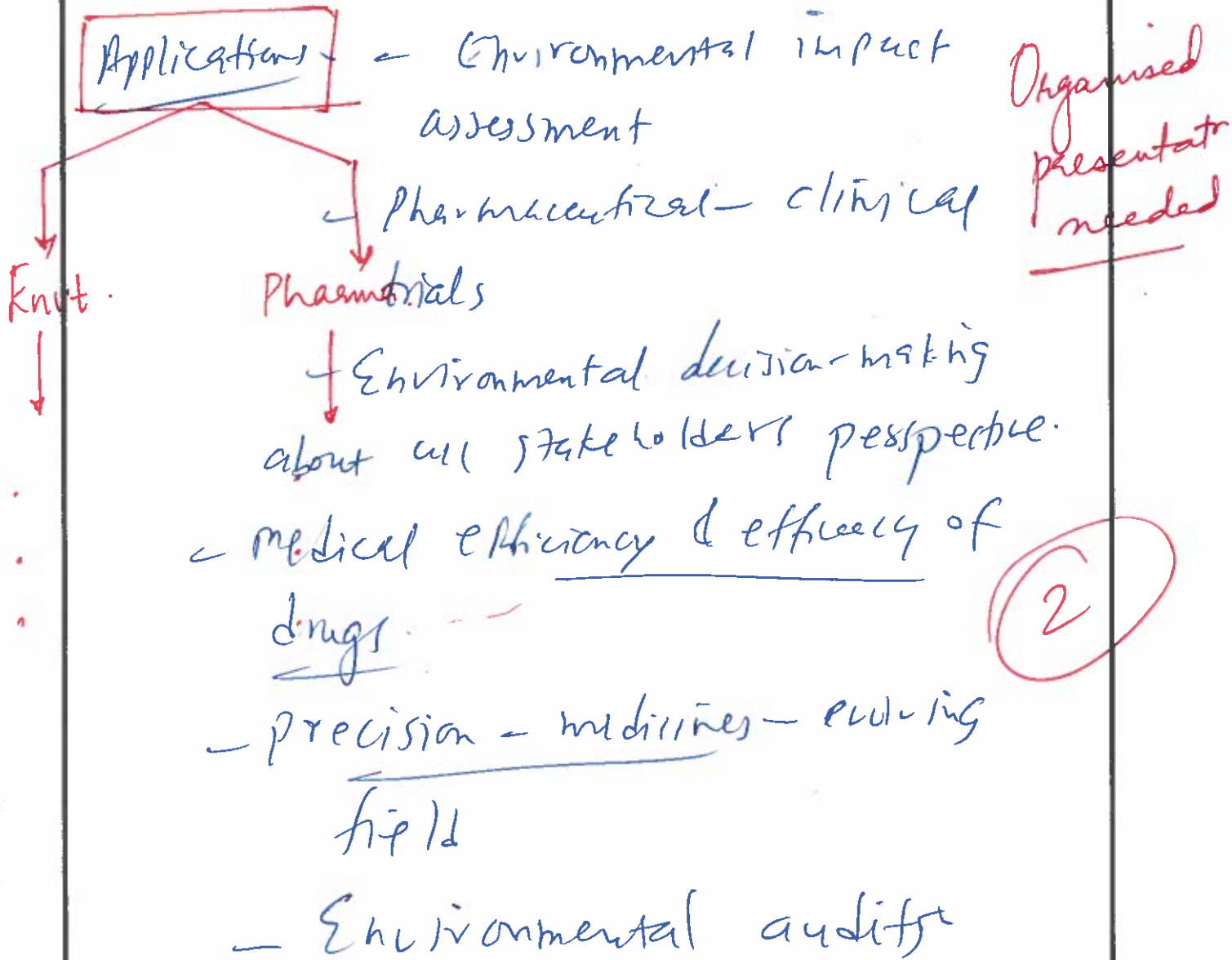
- ultimately, economic good Governance that includes precision-based, objectively delivering services, and thus achieve goal of inclusive growth

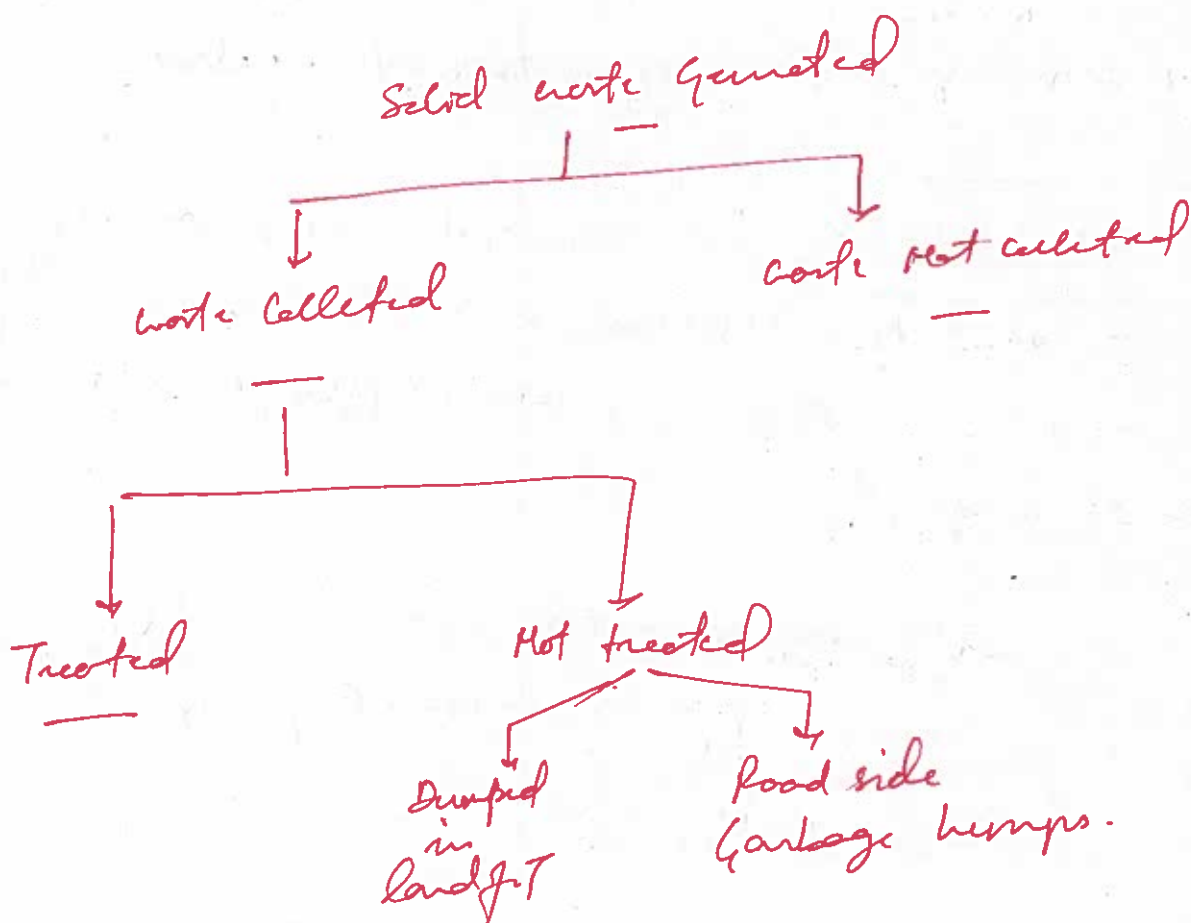
(12) In governance, we should strive to use maximum - the benefits of recent scientific developments like Big Data - But need skill upgradation of public servants

Refer your Reference  
HETI Myo  
Parvathy

10. What do you understand by 3-D Printing? Write down the applications of 3D printing technology in the environmental and pharmaceutical field.

3-D printing is recent technological development. - helps having 3-Dimensional perspective of reality.



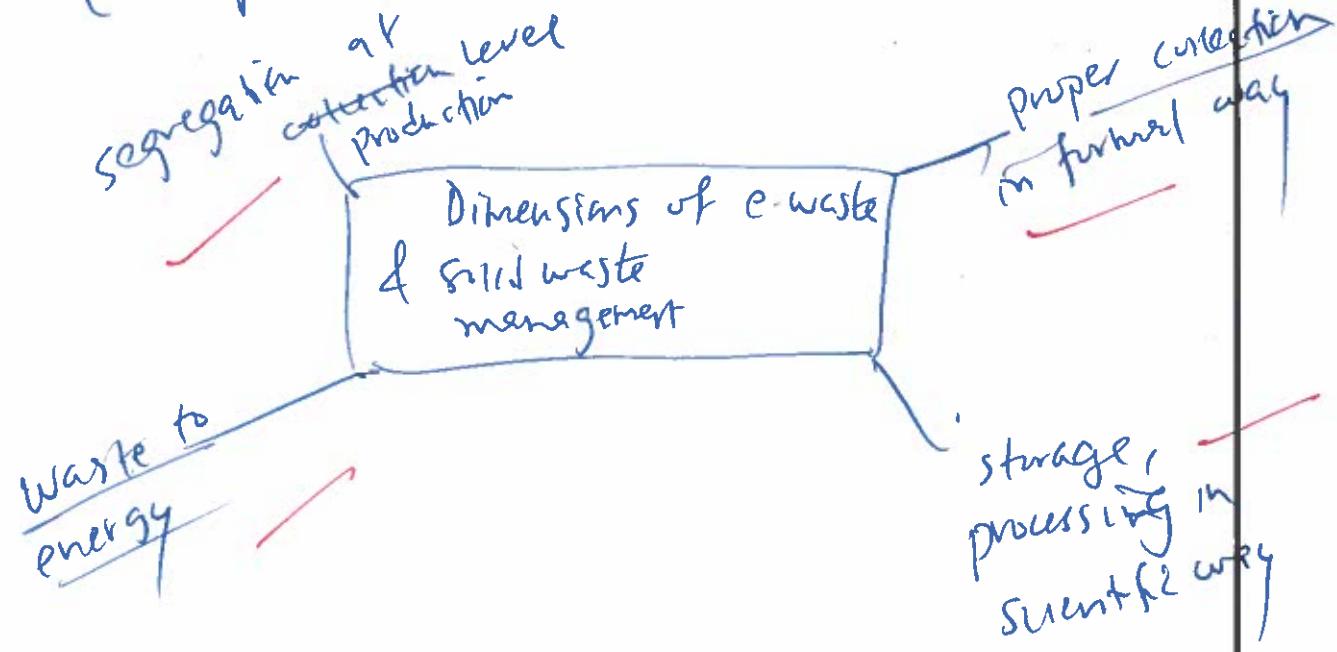


Per-capita generation in India by 1-1.5% per year in India

11. Improper Solid Waste Management is the time-bomb ticking over Indian cities. Discuss in the light of rules issued by the government regarding Solid Waste Management and e-waste Management.

Urbanisation is a necessary evil as it brings with it <sup>its</sup> negative fallouts. One such important aspect is solid wastes that are being generated by cities across India. And, with increasing use of ICT in all fields of life, there is increasing menace of e-waste that includes cadmium, mercury & other metal containing electronic appliances that are use & dump.

960 million tonnes of solid waste annually in India. Municipal, industrial & agricultural wastes.



Improper solid & e-waste management is the time-bomb ticking over Indian cities as



it demands quick response on waste facting from all stakeholders. In this regard, governments have come up with Rules for solid-waste management & e-waste management in 2016.

↳ As India already have 31% urbanized population (census) & going to increase e-waste generation, needs urgent steps

- As Rules said - there should be Extended producer responsibility to deal waste management in scientific way. This is because producer will buy-back at predetermined price of treat waste

- India going to be most populous nation by 2028: UN - rules laid down are at appropriate time that there should also be citizens' responsibility to reduce, reuse & recycle solid waste being created.

- Rules have rightly added rural areas under ambit as increased penetration of technologies in rural areas have been contributing to e-waste production.

Separate handling required

No doubt rules are progressive in nature and are in line with international practices, but

- At present, we need to increase processing capacity of solid waste; at processing plants Rules addressed this

what they don't seem to address in ?

- Rules should also have specifically addressed use of technology in dealing with solid waste management. eg. Ahmedabad Municipal Corporation treating 100 million tonnes/day solid waste using sludge-hygenization technology.

- Also, to finance, rules would have mobilised CSR; to field of waste management.

- Considering health impacts, environmental degradation, lost opportunity in creating energy from waste, we need to implement Rules on urgent basis.

organization can be focused  
visibly

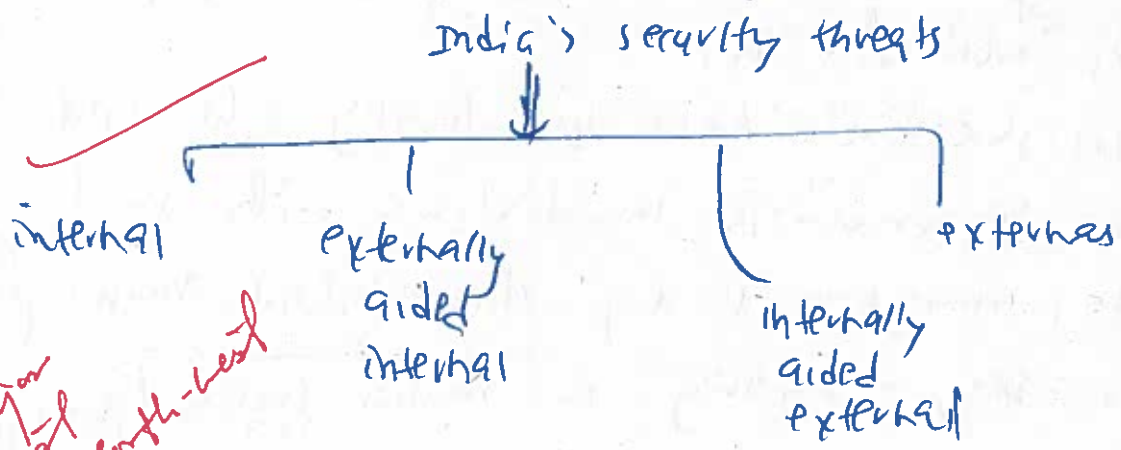
28

To success in this approach, stakeholders all concerned need to come together to fight against menace of waste management.

You can improve your conclusions

*Encourages  
Concentration on  
Contingent  
Threats*

12. Maritime security has remained a neglected domain in India's security apparatus. What are the various challenges posed by it? Also, discuss the components of India's maritime security strategy.



*India's major threat from North-west*

Over the years of evolution of strategy, maritime security remain neglected as our perception of threat was from land, air, on basis of previous major threats we faced.

- like, After Mumbai terror attack, 2008 we got revitalised our maritime security doctrine. There was coastal security scheme earlier, but it was not implemented properly. Negligence is also evident from fact that there was no coordinating agency to deal with overall maritime security threats. there was no dedicated fund, institutions, legal & technology for maritime security.

*Leave suitable space*



*work on  
penetration  
vulnerability*

Challenges posed by it →

↳ Vulnerability of coastal installations like nuclear power plants, space stations, etc. these are critical infrastructures

↳ sea was used as no means to enter & then carry out land-based attacks like Mumbai Blast, 2019, terror attack of wof

→ Illegal migration via sea/ especially coastal <sup>areas as</sup> we have 7500 km <sup>majorly 7</sup> which remain <sup>unguarded.</sup>

→ Challenges for security of our island territories - Andaman & Nicobar and Lakshadweep. eg- due to negligence, it is found that many illegal migrants, anti-national elements have hideout in uninhabited islands of India

→ threat to our maritime trade, piracy  
- Also, a instability in our maritime neighbour countries easily enter into India.

*China's rapid  
modernization & rising  
Pearls' power a serious  
threat in the wake  
of neglect of our  
maritime security.*

90-1. 7. India's trade by volume in seaborne

China's strategic vulnerability on the str. of Malacca

Components of India's maritime security strategy -

Subsiding maritime competitiveness

improvement of infrastructure

enhancing operational capability manpower development

Coastal security = Coast guard

Island security

Security SLOC

illegal fishing

piracy like threats

check by sea-route terrorism



Accordingly, Coast guard, (E-ET), Navy in high seas, & marine police in territorial waters have been given responsibility. Coastal security scheme has been revamped post-2008.

We can no more neglect maritime security if we want to gain the benefits of blue-revolution of Blue economy.

6.5

Standing Committee on Defence (2012-18)  
Categorically mentions that adequate support to navy for modernization is required.



13. By freeing production from its dependence on labour, automation may turn out to be more disruptive than the previous episodes of Industrial Revolution. Highlight the prospects and challenges that India will face in light of the Fourth Industrial Revolution (IR 4.0). What should be the policy response in India?

India at present have highest rate of unemployment (6.1%) and we need to create 1-1.2 cr jobs nearly each year. We are already witnessing less-job growth in India. We ideally <sup>are</sup> in dire need of labor-intensive industrial development.

But, as automation in form of Artificial intelligence or otherwise <sup>it</sup> will turn out to be disruptive for labor markets resulting in economic crisis, social tensions, etc.

Fourth industrial Revolution is fusion of technologies <sup>that have</sup> evolved till now. As compared to earlier revolutions based on steam engine, electronic, Information technology, fourth will have more impacts across globe of India.

Prospects →

- Benefiting from advanced technologies
- Better efficiency of production for businesses
- Cost-effective products for labors
- Better life or leisure, choices more for person
- More linkage with globalised markets & thus benefits on both demand & supply side
- Governments will have to deliver more with accountability, e-participation of netizens in governance
- Better quality of services, timely response

Challenges -

- ↳ Economic inequality will rise as beneficiaries will be innovators, scientists, businessmen
- ↳ Gap between high-skill/high pay & low-skill/low pay will increase.
- + skill-sets will get outdated soon, demanding continuous upgradation & India has only 2-3% worker received formal training - (Skill India Report)

- e-literacy very low in India
- Already, only around 30% population have Digital Internet access. So ~~there~~ ~~is~~ ~~a~~ ~~gap~~ ~~will~~ ~~increase~~ → Digital exclusion

- Policy Response - Reorient S & T policy with labor policy, skill India mission
- Utmost priority to <sup>developing</sup> skill sets of India
  - Need to have comprehensive Employment policy reflecting such developments
  - Concurred all stakeholders' view in Policy-making & implementation.
  - Speed up make-in India, Digital India.

We should gradually accept fourth industrial revolution, considering our domestic concerns protecting national interests in this globalised world.

14. The widespread use of social networking sites comes with considerable security implications. Discuss some major security threats and the measures to counter them.

2 3

Social media - the Parliament of netizens with all its positive aspects - socialisation of governance, boosting public accountability, fast spread of information, it has negative side also. Internet penetration is already increasing with reaching 30% of population. Connect?

Widespread use

Use for positive

- communication
- knowledge sharing
- people road by IAS in manipur via fb
- e-commerce
- e-governance

Use for negative

- rumours
- misinformation
- online bullying
- frauds, cheating
- addiction
- online games lead to death



Major security threats from social networking sites →

↳ Instant spread of rumours, misinformation  
eg. N-E people exodus in 2012 caused law & order issue

↳ Hate campaign circulated - Muzaffargarh riots in 2013

↳ Online radicalisation, recruitment & propaganda by terrorist organisations like ISIS → had social media wing

↳ Distant - planning, communication & execution of anti-national activities by extremist groups eg. Pulwama terror

Site found use of virtual SIMS  
- Anonymity creates problems to trace  
- Cyber bullying, stalking of women

Measures to counter →

→ Regulation is key to filter security concerns, because it needs technical expertise.

- Awareness among netizen users - ~~Des~~ of DONTs while using social media ⇒ called as cyber hygiene by Paris 9/11
- Implement cyber security policy, 2013 in full spirit
- Capacity-building of cyber police & establish more cyber-police stations
- After IT-GEA repealed, ~~bring~~ new legal backing
- Coordination among ~~organisation~~ - CERT-IN, NCC, etc
- Reduce dependence on imports of electronic equipments why?
- All stakeholders share information - PPP.

Social media is a double-edged sword. Future belongs to it. Thus we need comprehensive ~~preparedness~~ to gain maximum as a nation in all fronts.

15. Despite its great need and importance, organ donation is miniscule in India. What do you understand by organ transplantation? Discuss the challenges and measures to increase the organ donation rate in India.

Organ donation is considered as very of high value as it helps to better life of others after one's life also.

Need & importance -

- lakhs of people die in India due to organ malfunctioning - kidney, liver, etc.
  - Disabilities of eye, for example can be corrected by eye donation
  - Medical ethics prescribe for it & our policies also support it as it is moral activity.
  - Increasing instances of non-communicable diseases in India - heart attack, kidney failure
  - loss of bread-winner impacts whole family.
- despite this need, - organ donation is miniscule due to -
- Religious reason - It is not considered good
  - Lack of awareness about importance of this noble act

→ still less penetration of health facilities as organ needs to be taken out within times.

Organ transplantation → means by replacing one's mal-functioning organ or which is absent, by someone else's organ. This involves matching of some characteristics of donor & receiver - like blood group, etc. ~~it~~ involves transplantation of <sup>some</sup> non-human organs into human body also.

Challenges → to increase organ donation :-

- (1) How to reduce religious misconceptions
- (2) To increase health facilities to quickly collect & store organs in good facilities
- (3) Improve awareness
- (4) to ensure that organ donation does not add to immoral trafficking of human for organ trade.

R&D,  
Technology



④ How to incentivise people to donate organ via policy measures.

Measures to be taken →

① Mobilise local level workers - ASHA, ANM to create awareness.

② Highlight case-studies that giving eye to others does not lead to blindness in next birth → influential social person

③ Persuasion techniques.

④ Role modelling

⑤ Leading by example - eg Sarpanch

in village gives form of organ donation - it will motivate others

⑥ legal & policy reforms for this

⑦ Learn from other global best practices

In this scientific world of 21st century, organ donations need attention on - health, moral, economic grounds.

6.5'

ok.

16. In the context of Food-Processing Industry, discuss:

- a) The Objectives of Food Processing.
- b) Growth drivers for food processing Industry.
- c) Its impact on rural economy.

Food-processing is sunrise industry in India with lot of potential.

a) Objectives → to reduce food wastage by increasing shelf life

- to add nutritional value to food
- to add to exports, ∴ foreign exchange

7 [demand of urbanisation, markets due to changing lifestyle

- Add to doubling farmers' income

- Diversification of employment opportunities

- women empowerment

- Backward & forward linkages <sup>to be</sup> strengthened.

b) quality & safety of food by improving packing, grading of food products (FSSAI)

(b) Growth Drivers -

→ India - Food surplus - can provide raw material for food processing industry.

~~framing~~ → Most population by 2028 acc to UN - thus domestic demand

→ Urbanisation increasing & lifestyle change, food habits - more demand for processed food

→ increased purchasing power of people

→ Conducive government policy - Mega food parks (42), cold chain infrastructure

under make in India investment has increased by 9-1-6 in this sector

→ Favourable investment climate = At

World Food Summit - India ranked as favourite destination. Thus private sector participation has increased

→ 100% FDI allowed

→ e-commerce FDI allowed in food processing production

### (c) Impacts on rural economy -

→ Employment to ~~3rd~~ 5.3 lakhs (SAMPADA scheme)

→ Reduction of post-harvest losses which are at present of ~~90,000~~ Cr Rs.

→ increase in farmer income

*framing* → Rural women Economic Empowerment of *rural women*

→ Rural economy witnessed presence of international players like Britannia, Parle, &

→ creation of infrastructure.

→ inclusive growth.

Food processing really has potential to address agricultural & rural distress in India. We are on right way & need <sup>to</sup> speed up our implementation.



17. What are the various generations of Bio fuels? Why are the previous generation bio fuels seen as a threat to food security? How do 3rd and 4th generation bio fuels manage to address those problems?

Energy basket of country has kept expanding according to demand & evolution of alternative means of energy security. Recent to this list is bio-fuels.

The generations of bio-fuels refer to time-wise development of biofuel sector based on changing source/input to generate bio-fuel.

1st generation biofuel - used food plants as source to generate fuel eg sugarcane

2nd generation biofuel - used non-food plants as source eg. Jatropha plants

But these two were seen as threat to food security because -  
 → In 1st generation, there was direct divergence of food plants to create

? food plants & thus reducing availability of them for consumption.

In 2nd generation biofuel, though it was non-food plants, but land is a scarce resource & to cultivate Jatropha like trees consumed land & thus reducing cultivable area for ~~food crops~~. Thus hampering food security of India.

This is especially relevant when we have guaranteed 67% population right to food under MNSA Act. And our population & ~~that~~ <sup>food</sup> demand <sup>is</sup> going to increase by end of this century. Thus neither we can afford diverting food crops nor diverting land for non-food crops.

Additionally, 1.95 cr go hungry in India daily & more than 20% population is BPL that needs nutritional security along with food security.

How 3rd & 4th generation address these problems —

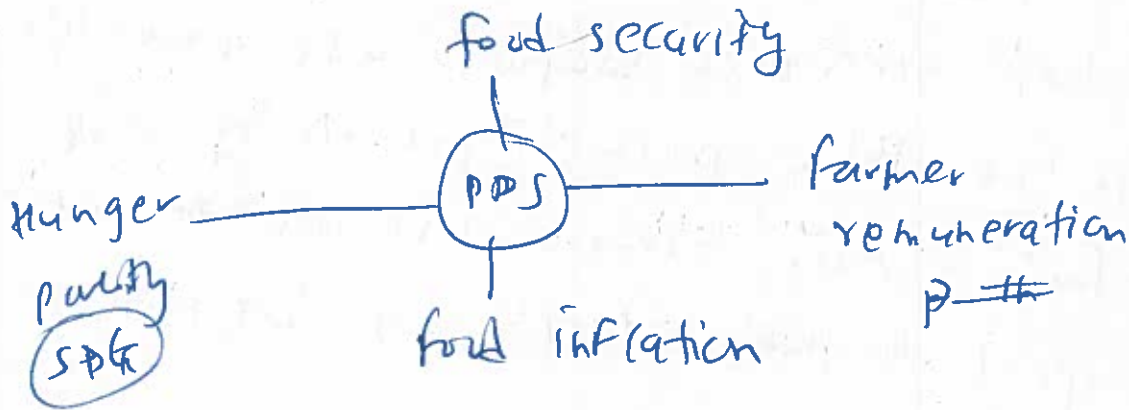
↳ these generation biofuels use innovative ways like Blue-green algae to generate bio-fuels. Also, tissue culture, use to get bio-aspect to produce fuel. This does not hamper food security.

Government is rightly aiming for 10% ethanol blending that will help us to get clean fuel & reduce our dependency on oil imports for energy. Thus, bio fuel production needs to

speed up but ~~not at~~ Energy Good security ~~is~~ should not come at the cost of food security.

7

18. "The Aadhar-enabled PDS has created new barriers and glitches undermining the promise of efficient, error-free, and transparent service-delivery." Critically Examine.



Guided by social-welfare approach, PDS is being implemented since independence. To improve efficiency, over the years, we have carried out PDS reforms — TPDS (1992) to Aadhar-enabled PDS now leading to Revamping of PDS.

How Aadhar-enabled PDS has created new barriers →  
 → making Aadhar mandatory has led to denial of PDS benefits to those whose Aadhar was not linked to ration card. Ultimately leading to starvation death in



Jharkhand.

→ Promise of error-free <sup>service delivery</sup> failed because Point of sale machines did not work all times.

- Still end-to-end computerization of fair price shops not done (85.6% completed) →

This is pre-condition to get ~~benefits~~ associated with Aadhar.

→ Internet facilities still not penetrated all villages & also (no working consistently well)?

→ Awareness generation should have been done earlier. Imposing Aadhar mandating will be efficient from government perspective but not from beneficiary perspective.

New barrier

\* How Aadhar-enabled POS does not undermine promise of efficient, transparent service delivers

→ Aadhar leads to higher accountability

6.5

of Fair price shop owners to deliver PDS benefits timely-

- There is Annaitaranga portal - centralised monitoring over PDS
- Also, Aadhar - being unique ID eliminates ghost-ration cards, thus improving efficiency of PDS
- Aadhar - lays down platform for one-nation-one Ration card
- Transparency is increased as everything is online.

While implementing Aadhar, there may be errors. That's why role of human in using technology is important.  
Technology cannot replace manpower. When out of 1 Rs, ~~only~~ 46.7% leakeges are there in PDS (Shanta Kumar committee), we definitely need Aadhar for PDS.

19. Explain the role of Agricultural extension in enhancing agricultural productivity and profitability. Also enlist the focus areas of National Mission on Agricultural Extension & Technology.

Technology Missions have always been important to India's development since 7th FYP, in all spheres including Agriculture; to harness benefits of technology revolution of recent times.

Role of Agriculture extension → *Diversification of farm produce*  
→ It leads to taking recent technological developments to farmers, adding up efficient use of resources eg. Soil Health

cards  
→ e-technology in aid of farmers to generate awareness among farmers & thus facilitate informed decision  
→ Productivity is increased as right, timely & relevant inputs which are most

suitable to that agro-climatic zone of  
cost-effective

- SMS based weather information reduces  
income loss due to uncertain monsoon & adds to  
profitability
- Irrigation intensity & crop intensity increases,  
thus farmers can take more than two crops a  
year due to extension services benefit.

★ National Mission on Agricultural Extension  
& Technology has 4 submissions which  
reflect its focus -

① Seed & plant material improvement -

to give high-yielding seeds, suitable to  
land demand & local cropping pattern. Also  
traditional seeds store in scientific way.

eg. seed village scheme in Keral

② Plant Quarantine - to make disease-  
free plants & reduce expenditure on plants ?



pest-attack, etc.

(c) Agriculture mechanisation → As agriculture labour cost involved is high & also we have very low agri productivity as compared to China, Japan, mechanisation is need of our ~~hand~~.

(d) Agri. extension & technology → Lab to farm - generating awareness among farmers about recent technologies & help them to adopt them in agricultural practices.

In era of globalisation, to be competitive, ~~Indian~~ agriculture sector needs technology intervention to ultimately achieve our goal of doubling farmers income by 2022 by improving productivity & profitability.

20. Despite several efforts, the Maoist violence in India is far from diminished. Discuss various security measures taken to deal with this issue and evaluate their success. Also suggest what more can be done to deal with this problem.

Maoist violence is reflected in many states of India; from Naxalbari to now in urban areas also. It is most important internal security threat to India as by former pm of India.

Various security measures taken -

↳ Security Related Expenditure scheme - to upgrade infrastructure in Maoist-affected districts

→ Deployment of CAPF, CRPF especially state-governments like A.P. taken step of forming special force - greyhounds

- Chhattisgarh formed Bastarige Battalions, Salwa Sudam in past.

- Modernisation of police-stations in Maoist-affected areas.

- forming women - exclusive force to deal with women Maoists

- Cooperation with neighbouring nations.

Underline  
such references

Success - As data from, maximalist Division of Ministry of Home Affairs  
↳ ~~the~~

↳ Now,  Maoism is only limited to 31 districts of India

→ Deaths of civilians has reduced

- As compared to peak time of 2010 CRPF  
↳ jawans death, now very less mortality of security personnel

- Success of Greyhound force in AP has almost  
↳ eliminated  Maoism from there

- Bihar also witnessed drastic decline  
eg. Sandesh block, Asadwar project in Jehanabad - successful

- West Bengal - successfully implemented  
↳ Rehabilitation of surrender policy

↳ Number of incidents <sup>of</sup> ? have reduced by  
more than half. <sup>↑</sup>

But all above success cannot  
be attributed only to security initiatives  
Don't also - developmental aspects.

But despite these efforts, Maoists are there in Dandakaranya, ~~Chandchiroli~~ of Maharashtra & expanding to urban areas.

Additional <sup>efforts</sup> need to be done Efforts needed.

- ↳ Coordinated approach of all state police as tri-junction theory helps Maoists
- motivated police personnel should be deployed
- ~~do~~ Replicate greyhound model
- Deepening the democracy - panchayat elections.
- Use DAV - to monitor movements
- Recruit & rendered in police as they better know terrain.

Maoism is symptom of problem.

We need to address governance & development deficit. Why Maoism does not occur in IT parks of Gurgaon, Markets of Gujarat.