

UPSC Mains 2020 GS - 3 Analysis & Discussion

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GS 3

Economy = 100 Marks 4x10 + 4x15 Marks

Security Issues = 50 Marks 2x10 + 2x15 Marks

Environment & Disaster Management = 50 Marks 2x10 + 2x15 Marks

Science & Technology = 50 Marks 2x10 + 2x15 Marks



Economy Part

1. Explain intra-generational and Inter-generational issues of equity from the prospective of inclusive growth and sustainable development. (Answer in 150 words) 10 Marks.

Intra-generational is easy and often discussed.

Talk of various exclusions like Social, Economic, Regional, Financial, Digital, Environmental.

Inter-generational requires slight innovation on the spot: Can also use the ideas of FRBM as well as SDGs.

Discussed throughout the content (PcM, Mains Crash Course, Youtube Economy Mentorship videos, Mains Tests)

Mains Crash Course 2020:

- 17. Inclusive Growth has been an agenda ever since India achieved Independence. It continues to be an ever-elusive one. Do you agree? Discuss.
- 18. While explaining the concept of Financial Inclusion, discuss why is it necessary for a developing country like India? Also, highlight how the concept of financial inclusion is fast becoming Digital Financial Inclusion.



2. Define potential GDP and explain its determinants. What are the factors that have been inhibiting India from realizing its potential GDP? (Answer in 150 words) 10 Marks.

Potential GDP might seem daunting but it's not.

Like a lot of other topics, we prepare for it during Prelims.

(Premix 7th May, 2020, Q5 is entirely about it)



- The output gap is an economic measure of the difference between the actual output of an economy and its potential output.
- Potential output is the maximum amount of goods and services an economy can turn out when it is most efficient—that is, at full capacity.
- Often, potential output is referred to as the production capacity of the economy.
- Just as GDP can rise or fall, the output gap can go in two directions: positive and negative. Neither
- A positive output gap occurs when actual output is more than full-capacity output.
- This happens when demand is very high and, to meet that demand, factories and workers operate far above their most efficient capacity.
- A negative output gap occurs when actual output is less than what an economy could produce at full capacity.
- A negative gap means that there is spare capacity, or slack, in the economy due to weak demand.
- An output gap suggests that an economy is running at an inefficient rate—either overworking or underworking its resources.

Talk about what is Potential GDP, the use of output gap as an idea in policy making, what all ails the Indian GDP (thousands of points here).

Don't forget to add way-ahead.

Discussed in PcM, Youtube 15-Din Mains-In, MAD, Mains Tests.

Mains-2020 Crash Course:

What is growth recession & why should the government worry about it? (15 marks)

Youtube:

https://youtu.be/W6acELL2OPI?list=PLYSuG-KZy7JB54b7JZaylSOqF4COcYwkc

Q. Discuss the various impediments that our GDP is witnessing in its path of the growth.

https://youtu.be/e8mvNax5jTs?list=PLYSuG-KZy7JB54b7JZaylSOqF4COcYwkc

While discussing how India can become a \$5 Trillion Economy by 2024-25, also discuss the associated concerns.





3. What are the main constraints in transport and marketing of agriculture produced in India? (Answer in 150 words) 10 Marks.

Slightly on the predictable lines and awaited for so long.



Don't forget to write way ahead.



Discussed in PcM, Youtube Economy for Mains Questions, Economy Mentorship Lectures, MAD, Mains Crash Course, Mains Tests.



4. What are the challenges and opportunities of food processing sector in country? How can income of the farmers be substantially increased by encouraging food processing? (Answer in 150 words) 10 Marks.

Can't be more straight forward.

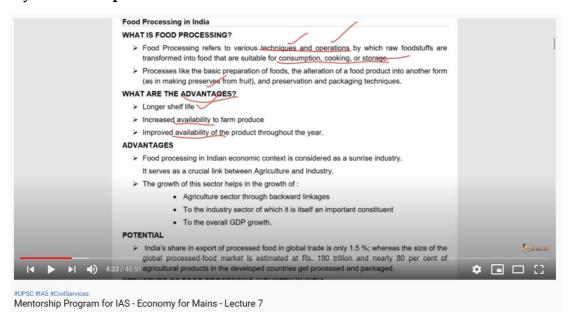
Discussed in PcM, Youtube Economy for Mains Questions, Economy Mentorship Lectures, MAD, Mains Crash Course, Mains Tests.

Mains-2020 FLT-7:

16) Discuss the status of Food Processing Sector in India? Also critically discuss the role of PM Formalization of Micro Food Processing Enterprises (PM FME) scheme in this regard.

(15 Marks, 250 words)

Economy Mentorship Videos - Lecture 7:

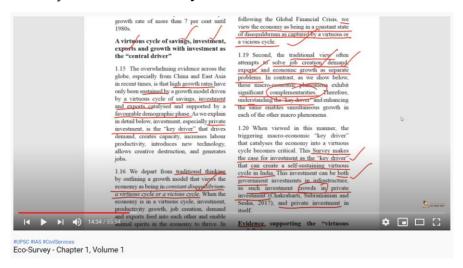




5. Explain the meaning of investment in an economy in terms of capital formation. Discuss the factors to be considered while designing a concession agreement between a public entity and a private entity. (Answer in 250 words) 15 Marks.

Importance of Saving – Investment – Capital Formation hypothesis.

Discussed extensively in our **Eco-Survey Lecture**:



Also, extensively taken up as a Complete lecture in PcM:

Various Ideas and Perspectives on Investment Models

Idea of JM Keynes:

- Saving and investment are not usually done by the same persons
- The desire to save does not necessarily generate investment.
- If savers attempt to save a larger share of their income than before (thereby consuming less) and if this is not matched by an equal increase in the desire of others to invest, total spending will decline.
- A natural reaction on the part of business will be to cut back on production, thereby reducing incomes earned in production.
- The final effect may be a cumulative movement downward as total demand becomes insufficient to employ all of the labour force.

This situation had not been the case historically for developed economies until the early

Idea of Joseph A. Schumpeter:

Unlike most Keynesian or pre-Keynesian theorists, Schumpeter laid primary stress on the role of the entrepreneur, or businessman.

It was the quality of his performance that determined whether capital would grow rapidly or slowly and whether this growth would involve innovation and change

Harrod-Domar Model of Investment:

In this model of growth, the rate of growth of supply is equal to the rate of growth of capital stock. Through investment this capital stock is augmented.

The rate of growth of demand depends upon the rate of growth of investment or, more correctly, upon the rate of growth of non-consumption expenditures.

Thus, investment affects both demand and supply.

There are many good reasons for which most of the planning models that exist today are based on the Harrod-Domar model.

For most developing economies, which are usually capital-constrained, the supply-side issue of creating adequate productive capacity is of dominating concern

Q. "While India used to be the shining star of PPP (Public-Private Partnership) projects, it is now a case study of how not to manage PPP". Discuss.



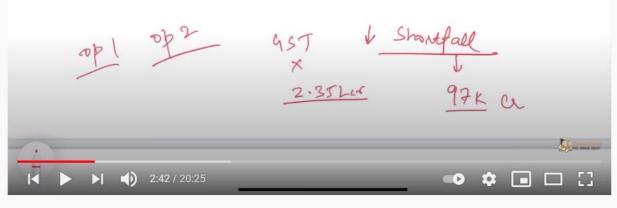
6. Explain the rationale behind the Goods and Services Tax (Compensation to States) Act of 2017. How has COVID - 19 impacted the GST compensation fund and created new federal tensions? (Answer in 250 words) 15 Marks.

Discussed as the Central government has set up a special borrowing window for the states and union territories who choose Option-1 to borrow the amount of shortfall arising out of GST implementation.

We discussed this extensively alongwith the implications in

Economy PreCure - 10th December, 2020:

- This corpus in turn is funded through a compensation cess that is levied on so-called 'demerit' goods.
- The computation of the shortfall is spelt out in Section 7 of the GST (Compensation to States) Act, 2017 — is done annually by projecting a revenue assumption based on 14% compounded growth from the base year's (2015-2016) revenue and calculating the difference between that figure and the actual GST collections in that year.
- For the 2020-21 fiscal year, the revenue shortfall has been anticipated at ₹3 lakh crore, with the Compensation Fund expected to have only about ₹65,000 crore through cess accruals and balance to pay the compensation to the States.



#UPSC #IAS #CivilServices

PreCure Economy - Economy Current Affairs - 10th December 2020 || UPSC

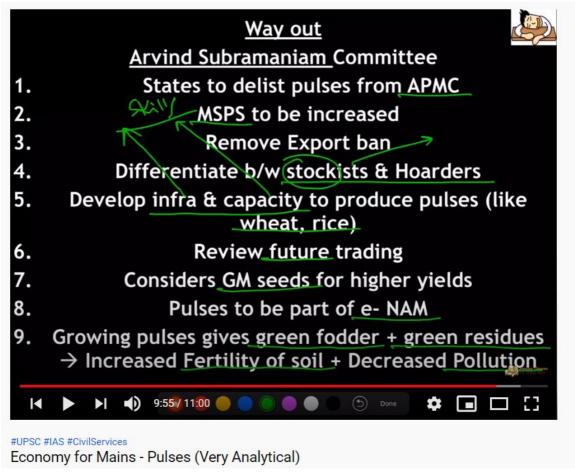


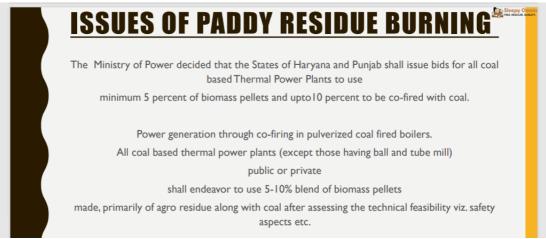
7. What are the major factors responsible for making rice-wheat system a success? In spite of this success how has this system become bane in India. (Answer in 250 words) 15 Marks.

First part requires innovation.

For example, you can alternatively think why we don't see excess of Pulses (for example) in the market like we see Rice and Wheat.

The very first question in **Economy: Mains Question** series discusses this.



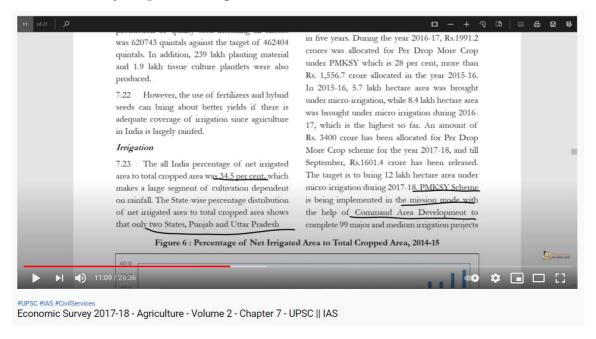




8. Suggest measures to improve water storage and irrigation system to make its judicious use under depleting scenario. (Answer in 250 words) 15 Marks.

Start with some data on irrigation.

Given in Eco-Survey Chpater on Agriculture.



Then move on with the issues.

And schemes to address them. (covered in PcM-Economy and PcM-Agriculture)





Science Part

1. What do you understand by nanotechnology and how is it helping in health sector? (Answer in 150 words) 10 Marks.

Definition of Nanotechnology

Add: Nanopharmaceuticals, Regenerative medicine, Biosensors, Drug Delivery (Smart Drugs).

Indian context — Nanomedicine/Bio-nanotechnology

Dilemmas associated with it

Conclusion

Discussed in Prelims Crash Course and PcM.

PcM Lecture on NanoTechnology:



Nanotechnology

Nanotechnology is science, engineering, and technology conducted at the nanoscale, which is about 1 to 100 nanometers. Nanoscience and nanotechnology are the study and application of extremely small things and can be used across all the other science fields, such as chemistry, biology, physics, materials science, and engineering.

Applications

- 1. Proponents of nanotechnology say it will revolutionise farming and global food systems, with applications being explored that could cut waste, make food safer and help create super crops that escape the controversial label of genetically modified organisms
- 2. It could help to overcome poor yields, malnutrition and opposition to genetically modified organisms all of which are still large challenges in the global South
- 3. New products containing nanoparticles are also being explored to make biodegradable packaging, improving shelf life and prevent food poisoning and waste
 - √ For example, nano sensors in food packaging could tell if food was exposed to sunlight and therefore degraded in quality
- 4. Some scientists are planning to use nanotechnology to improve nutrition. Studies are being conducted on nano emulsions to improve the bioactivity of foods ingested with them and can tackle malnutrition



2. How is science interwoven deeply with our lives? What are the striking changes in agriculture triggered off by the science-based technology? (Answer in 150 words) 10 Marks.

Interlinking is very important. Agriculture already mentioned in the question itself (our first clue)

Examples are important in this answer:

Accessibility: DigiLocker

Education: SWAYAM, MOOCs

Political participation: Media

Disaster management: Early warning systems

Discussed in Mains-2020 Crash Course:

Instead of debating over the recent legislations related with the farms, a lot could be achieved by focusing on technology, which in turn can help in improving productivity and income of the agriculture sector. Critically discuss.

Q. "In order to scale operations, ensuring their adaptation and replicability across India, a vibrant 'phygital' ecosystem needs to be mooted." What is a phygital ecosystem. Explain using relevant examples.

In PcM Batch, Lecture on Agriculture 17.1:

USING SPACE TECHNOLOGY FOR AGRI

Various programmes/areas, such as -

- Forecasting Agricultural Output using Space Agro-meteorology and Land-based Observations (FASAL) project
- Coordinated programame on Horticulture Assessment and Management using geoiNformatics (CHAMAN) project
 - National Agricultural Drought Assessment and Monitoring System (NADAMS)
- Rice-Fallow Area Mapping and intensification, geo tagging of infrastructure and assets created under Rashtriya Krishi Vikas Yojana
 - Crop Insurance
 - KISAN [C(K)rop Insurance using Space technology And geoiNformatcs] project during October 2015.

(The project envisaged use of high-resolution remote sensing data for optimum crop cutting experiment planning and improving yield estimation.)

- Agro meteorological advisories through m-kisan portal (https://m-kisan.gov.in)



3. COVID - 19 pandemic has caused unprecedented devastation worldwide. However, technological arrangements are being availed readily to win over the crises. Give an account of how Technology was sought to aid management of the pandemic. (Answer in 250 words) 15 Marks.

Explain devastation caused by COVID-19

How technology minimised it.

Information dissemination and management.

Reduced physical interactions: Video conferencing through Zoom meetings

Bill Payments

DBTs

These questions from our UPSC 2020 Mains FLT-7 might have helped:

6) It is believed that timely investments in Digital India initiative helped the Indian economy tide over the pandemic with relatively ease? Do you agree? Critically discuss.

(10 Marks, 150 words)

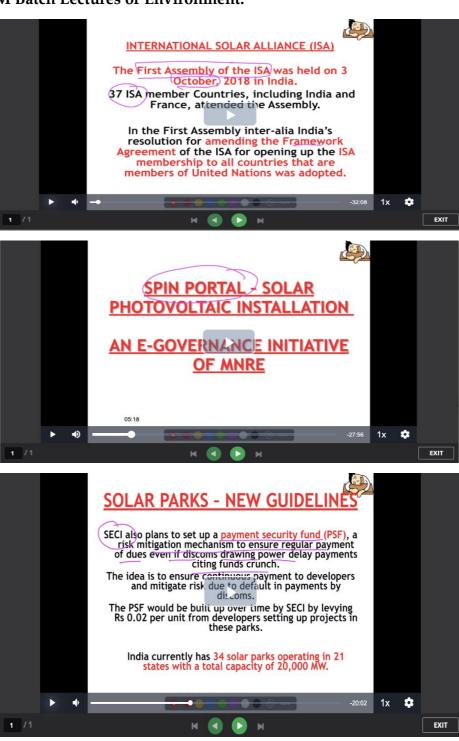
17) The pandemic has clearly accelerated the arrival of the future. In this context discuss how justified would it be to promote manufacturing sector in India? (15 Marks, 250 words)



4. Describe the benefits of deriving electric energy from sunlight in contrast to the conventional energy generation. What are the initiatives offered by our Government for this purpose? (Answer in 250 words) 15 Marks.

Regularly in news. Discussed in a number of videos.

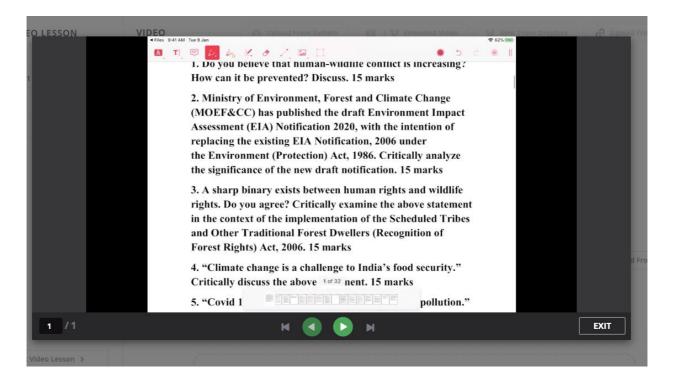
From the PcM Batch Lectures of Environment:





Environment & Disaster Management

1. How does the draft Environment Impact Assessment (EIA) Notification, 2020 differ from the existing EIA Notification, 2006? (Answer in 150 words) 10 Marks.



Key Changes and Concerned Issues

1. Post-Facto Approval

Clearances for projects can be awarded even if they have started construction or have been running phase without securing environmental clearances.

Under the notification, the projects which are operating without any prior Environmental Clearance will have the right to seek approval from the MOEF's Expert Appraisal Committee as long as it is permissible by law and it follows all the environmental norms.

Issue

This also means that any environmental damage caused by the project is likely to be waived off as the violations get legitimized. As the only remedy would be to impose a fine or punishment, but that would not reverse the detrimental consequences on the environment.

It is in derogation of the fundamental principles of environmental jurisprudence and violation of the



2. What are the silent features of Jal Shakti Abhiyan launched by the Government of India for water conservation and water security? (Answer in 150 words) 10 Marks.

Discussed extensively in 7th January, 2020 Premix.



Focused on Jal Sanchay,

the Jal Shakti Abhiyan (JSA) is a time-bound, mission-mode water conservation campaign.

The JSA will run in two Phases:

Phase 1 from 1st July to 15th September 2019 for all States and Union Territories.

Phase 2 from 1st October to 30th November 2019 for States and UTs receiving the retreating monsoon (Andhra Pradesh, Karnataka, Puducherry and Tamil Nadu).

During the campaign, officers, groundwater experts and scientists from the Government of India worked together with state and district officials in India's most water-stressed districts for water conservation and water resource management by focusing on accelerated implementation of five target intervention.

The JSA aims at making water conservation a Jan Andolan through asset creation and extensive communication.

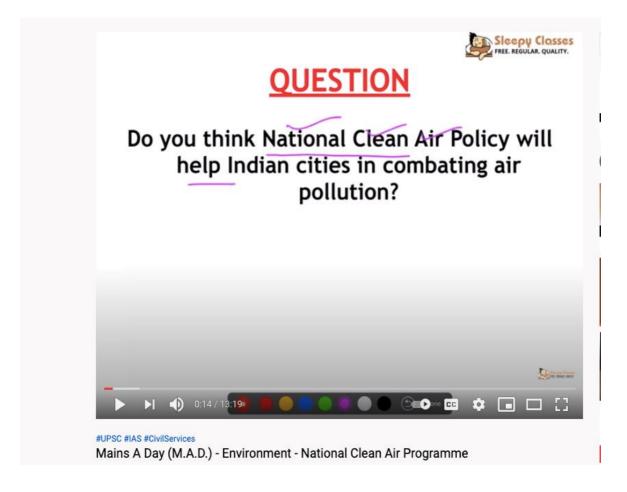




3. What are the key features of the National Clean Air Programme (NCAP) initiated by the Government of India? (Answer in 250 words) 15 Marks.

UPSC's habit of asking from within the last few years' important topics is alive and kicking.

We discussed this extensively for last year's Mains. That's why we always encourage our students to DO GO THROUGH the MAD and other Mains Related videos of last year as well (they are very doable and have helped students in the past to write holistic answers).





4. Discuss the recent measures initiated in disaster management by the Government of India departing from the earlier reactive approach. (Answer in 250 words) 15 Marks.

Conventional topic requiring analysis, so we discussed these extensively in our Mains Crash Course (2020) as well as in MAD videos.

Indian is still focussing on managing natural disasters rather than on improving resilience. Elaborate, 15 marks

Introduction

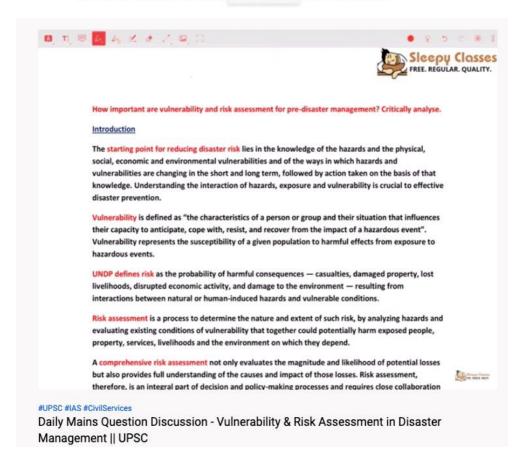
India is prone to various disasters. About 70% of its coastal areas are prone to tsunamis and cyclones, about 60% of its landmass is vulnerable to earthquakes, and 12% of its land to floods.

Yet, risk management is still in its infancy.

Examples

 In the case of Kerala, in 2003, the Home Ministry had proposed the formation of specialist teams to manage disasters using four battalions from the Central Industrial Security Force and Indo Tibetan Border Police. Kerala was required 'to identify a State-level training institution' for the purpose. The project has been forgotten.

It has been the same responsed forming ter the Ockhi disaster when the m and funding.





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Discuss the role of disaster resilience in disaster may

Introduction

Disaster risk management has always been a high priority in India, but climate change is making the problem all the more urgent and challenging. Disaster risk reduction means identifying the underlying hazards and vulnerabilities, natural or anthropogenic, and taking necessary measures to prevent the creation of disaster from the beginning. In India, the World Bank had estimated that the economic losses due to disasters during the late nineties and early years of this century were close to 2% of the GDP.

India has built capabilities and infrastructure for disaster management over the years. But climate change has raised the bar for risk management much higher, leaving vast gaps in disaster risk management. This calls attention to the urgency of increasing smart investments in climate mitigation and disaster resilience.

What can be achieved by raising the bar of disaster resilience?

- According to Sendai framework, every \$1 spent in disaster risk reduction leads to gain of \$7.
- Resilience building has high payoffs. Most notably, early warning systems and more robust evacuations of populations living in the paths of disasters like cyclones etc. have reduced death tolls over the years.
- 3) This level of investment provides a window of opportunity to ensure that all new infrastructure is made resilient to withstand future shocks, including those brought by a changing climate. Disasters in heavily populated urban areas can lead to high numbers of human casualties. It is sobering to note that unsafe infrastructure which collapses in an earthquake or tsunami kills more people than any other type of natural hazard, such as a tornado or a storm. Economic losses from disasters that damage infrastructure can reach huge proportions. The World Bank estimates that annual disaster losses are already close to \$520 billion and that disasters push up to 24 million people a year into poverty.
- 4) Advances in ground-based networks of radars, but increasingly also on satellite data, are key to nearly continuous observation of global weather. As satellites provide information for wide geographic areas, including oceans, improvements in forecasting



Security Issues

1. Discuss different types of cyber crimes and measured required to be taken to fight the menace. (Answer in 150 words) 10 Marks.

Conventional, expected question. Discussed in our PcM Batch:



Ques. Discuss the various threats faced by cyber space in India and discuss various measures to address them?

STRUCTURE

- INTRODUCTION
- WHAT IS CYBER SECURITY
- > INDIA AND CYBER SECURITY
- RECENT INCIDENTS
- CYBER THREATS TO INDIA
- MEASURES TO ADDRESS CYBER SECURITY
- WAY FORWARD

POINTS TO BE INCLUDED (AS PER THE STRUCTURE)

Introduction:

Cyber security is the security of information and its communicating channels as applied to computing devices such as computers and smartphones, as well as computer networks such as private and public networks, including the internet as a whole. Cyber security is a complex issue that cuts across multiple domains and calls for multi-dimensional, multi-layered initiatives and responses and hence, has proved a challenge for governments all around the world.

What are cyberthreats?

Also, extensively discussed in **Security Issues Mentorship Videos**:







Also, add contemporary take on it, discussed in our Mains-2020 Security Issues Sectional Test:

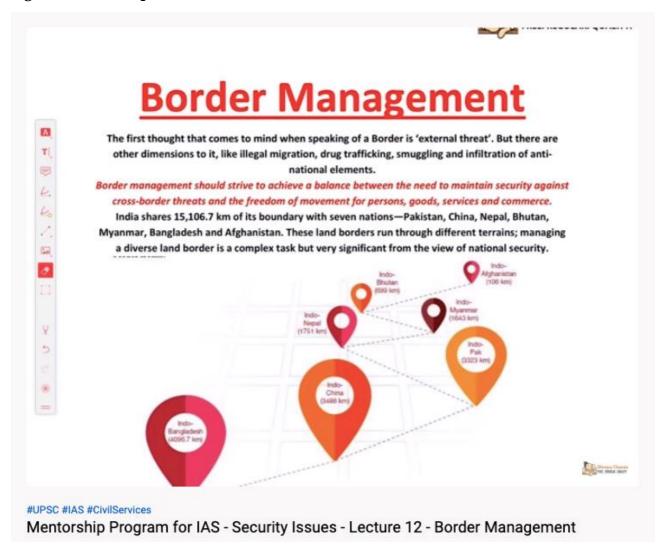
6. The sudden outbreak of COVID-19 has led to increased use of digital platforms as primary modes of communication as well as transaction and consequently, increased cyberattacks.

Discuss the various cybersecurity measures that should be taken to prevent these cyber attacks.



2. For effective border area management, discuss the step required to be taken to deny local support to militants and also suggest ways to manage favourable perception among locals. (Answer in 150 words) 10 Marks.

Again, Mentorship Lectures to our rescue:



www.YouTube.com/SleepyClasses www.SleepyClasses.com



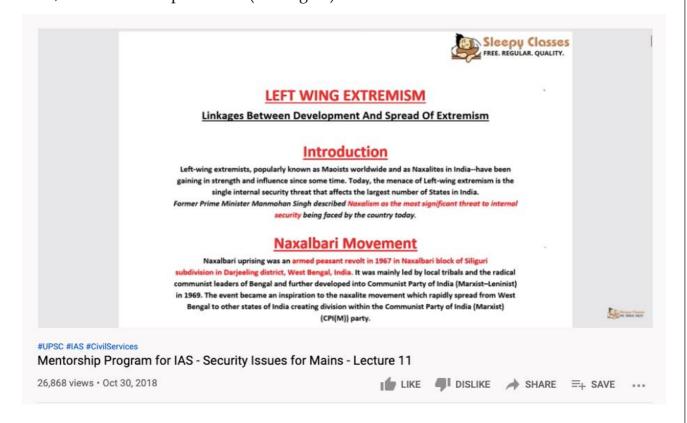
3. What are the determinants of left-wing extremism in Eastern part of India? What strategy should Government of India, civil administration and security forces to adopt to counter the threat in the affected areas? (Answer in 250 words) 15 Marks.

Conventional and expected topic, that's why it had to be asked in our FLTs.

FLT-11 (2020)

12) Despite taking numerous efforts to combat Left Wing Extremism, the government largely remains unsuccessful. Analyse the reasons. (15 Marks, 250 words)

Also, Hail Mentorship Lectures (once again):





4. Analyze internal security threats and transborder crimes along Myanmar, Bangladesh and Pakistan borders including Line of Control (LoC). Also discuss the role played by various security forces in this regard. (Answer in 250 words) 15 Marks.

Conventional, expected question.

Discussed in our PcM Batch:



Ques. Is Border management only confined to preventing Cross Border Terrorism? What are the measures taken by India to improve Border Management?

STRUCTURE:

- > WHAT IS BORDER MANAGEMENT
- > DIFFERENT FACETS OF BORDER MANAGEMENT
- > STEPS TAKEN BY INDIA TO IMROVE BORDER MANAGEMENT
- WAY FORWARD
- CONCLUSION

POINTS TO BE INCLUDED (AS PER THE STURTCURE)

WHAT IS BORDER MANAGEMENT?

National and international coordination and cooperation among all the relevant authorities and agencies involved in border security and trade facilitation to establish effective, efficient and coordinated border management, in order to reach the objective of open, but well controlled and secure borders

DIFFERENT FACETS OF BORDER MANAGEMENT

- Terrorism
- Illegal migration
- > Fake Currency
- Smuggling of arms and ammunition
- Drug smuggling
- Left-wing extremism
- > Money Laundering Business
- > Armed succession struggle (Separatist)
- > Human trafficking
- > Unaccounted money from other countries to sponsor religious activities
- Flaring up of Communal tension

Can also be answered using the very extensive lecture on **Border Management in Mentorship Lectures** as well as inputs given in various test questions on 'Golden Crescent' and the 'Golden Triangle', etc.