General Studies	Evaluator Code:
(GS - 3) Complete Test - 3	**Date of Assignment:**
Test Code - VR1223512	**CQ:**

NAME: CHANDRAVAHINI CHAUDHARY

Time allowed: 3 Hours

STUDENT. ID.: 1 5 9 6 3 0 5

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Submission Date: 09/08/2025

QUESTION PAPER SPECIFIC INSTRUCTIONS

Please read each of the following instructions carefully before attempting questions:

*There are **TWENTY** questions printed in **ENGLISH**. All the questions are compulsory. The number of marks carried by a question/ part is indicated against it. Word limit in questions, wherever specified, should be adhered to. Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off.*

Q No.	Marks	Q No.	Marks	Q No.	Marks
Q1	/10	Q8	/10	Q15	/15
Q2	/10	Q9	/10	Q16	/15
Q3	/10	Q10	/10	Q17	/15
Q4	/10	Q11	/15	Q18	/15
Q5	/10	Q12	/15	Q19	/15
Q6	/10	Q13	/15	Q20	/15
Q7	/10	Q14	/15	Total	/250

Instructions:–

1. **Legible Scanning:** Exercise due diligence in scanning your scripts for clear legibility
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For Student Only	
Start Time - 9:00	**End Time -** 12;05
Mode of Examination ONLINE	**Online** YES **Offline**
Receiving date -	**Dispatch date -**

Parameters		Good	Average	Needs Improvement
Conceptual Understanding				
Understanding Demand of Question				
Structure	Introduction			
	Body			
	Conclusion			
Presentation-Illustrations, flowcharts, diagrams, etc.				
Language and Handwriting				
No. of Questions Attempted				
Adherence to Word Limit: Yes/No				

Mentor's Feedback

Evaluator/Reviewer Suggestions

👍 🙂 All the Best 🙂 👍

Evaluator/Reviewer Suggestions

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Q-1 India's Industrial sector contribute 27.6% to GVA and employ about 25% of population as per Budget 2025-26.

Concept of Missing middle

| Primary Sector (Agriculture) | Industrial Sector | Service Sector (Tertiary) |

Contribution
GVA - 17.6%
Employment - 45%

GAP

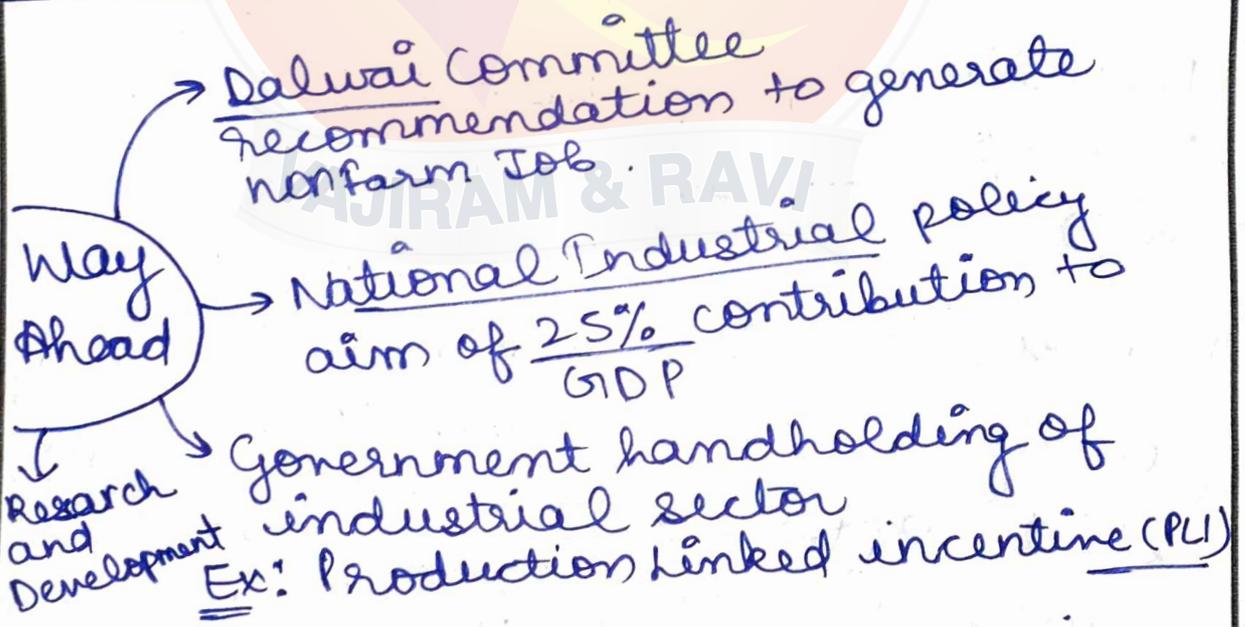GVA - 54.7%
Employment - 30%

⇓

In India, Post 1991 LPG reforms Agriculture sector directly moved to Service sector, skipping Industrial led labour intensive growth, whereas world followed holistic approach from Primary to Industry to Service Sector.

Affect on economic growth and Employment generation -

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Economic Growth	Employment Generation
1. Capital intensive growth (Services) instead of Labour intensive	1. High Unemployment rate - more than 10% youth unemployed
2. Import dependency Ex'. $85 billion trade deficit with china.	2. Disguised employment in agriculture - 45% population with little Marginal productivity
3. Slowdown in economy - ~6% growth rate in 2024-25	3. Low demand for Blue collar jobs

→ Dalwai Committee recommendation to generate nonfarm Job.

Way Ahead

→ National Industrial policy aim of $\frac{25\%}{GDP}$ contribution to GDP

↓ Research and Development

→ Government handholding of industrial sector
Ex: Production Linked incentive (PLI)

To achieve the goal of $5 trillion economy, bridging industrial gap is sin-quo-non.

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Q2 As per care-edge Rating Report, India's household saving declined for 3rd year to 18% of GDP in FY24.

Economic growth due to Investment   Safety net for future

Financial Liquidity in the market

Importance of Household Savings

Saving = Investment in economy

Causes of decline in savings -

1. High rate of Inflation - Ex: CPI rate 4.6% (2024-25) and edible oil inflation 17%.

2. Aspirational Middle Class - buying and spending on standard of living. Ex: Fast Fashion like H&N, Zara.

3. Surge in Liabilities - Ex: household financial liabilities increased to 6.2% of GDP.

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4. <u>Increased Market Risk</u> - As per
SEBI report, <u>90%</u> of future and
option traders lost money.

5. <u>Global Uncertainity</u> - supply
chain risk increasing global
prices.

Strategies to strengthen saving -

1. <u>Innovative saving plans</u> - like
mutual fund, systematic
Investment Plan (SIPs), etc.

2. <u>Government initatives</u> - like
financial inclusion through
<u>Jan Dhan Yojana</u>.

3. Inculcating <u>Behaviour</u> of
saving and raising <u>awareness</u>

4. <u>Tax incentives</u> like 80C to 80U
under Income tax Act.

For, '<u>Sabka Sath</u>, <u>Sabka Vikas</u>'
household led growth through
saving is necessary.

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Q.3 Corporate Bond market is raising __longterm finances__ by __private__ sector in financial markets.

Challenges impeding its growth

I. Structural Challenges

1. Lack of options for __Retail investor__ under ₹ 200 000

2. Poor __linkage__ with global financial markets.

3. Poor __rating__ by credit rating agencies like __Moody's__.

4. Lack of __investor's education__ and __communication__.

5. Rise of __fake information__ through social media

II. Regulatory challenges

1. Prevelance of __fraud__ and __Scam__ Ex: Ponzi scheme.

2. Issues like __Insider Trading__

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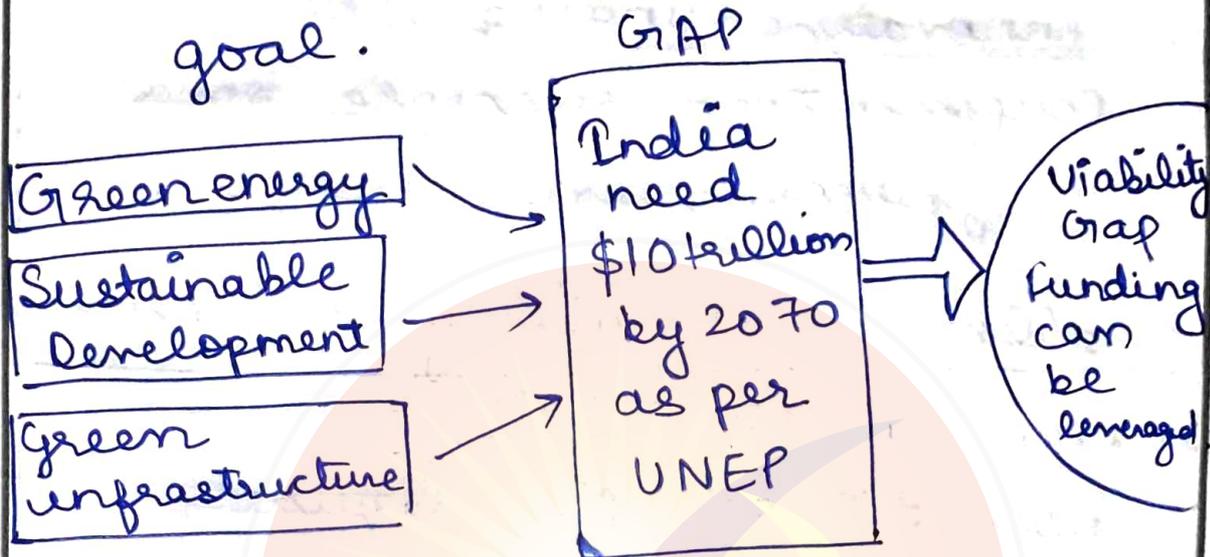के लिए

Ex: Allegation on Adani firm

3. T+1 settlement - issues of internet connectivity and global time zones.

4. Rise of finfluences and lack of regulation.

Solutions for growth in Corporate Bond Market -

1. SEBI regulation to safeguard investor's interest. Ex: Investor Education and Protection fund.

2. Easy interface of trading Ex: Zerodha and Groww App

3. Bridging Digital Divide Ex: PM GDISHA in rural areas

4. Investor awareness and inculcating habit of saving.

On the path to achieve 3rd largest economy status, Corporate bond Market will help in channelising Investment.

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Q-4 India set a goal of Net Zero by 2070 at Glasgow COP26 and established Panchamrit goal.

GAP

| Green energy |
| Sustainable Development |
| Green infrastructure |

→ India need $10 trillion by 2070 as per UNEP

→ Viability Gap funding can be leveraged

Leveraging Viability Gap funding for Renewable projects -

1. Long Gestation Period - it took years to complete projects like Nuclear energy.

2. Less Financial Viability - Ex: DISCOM Losses due to renewable energy intermitancy.

3. Handholding Private sector -

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i.e; <u>up 40%</u> Viability gap funding in eligible projects by government.

4. <u>Innovative funding</u> like Zero Coupon, Zero Principle bonds to finance green energy.

Challenges in Viability Gap funding

1. <u>Low Market Liquidity</u> - Banks have ₹ <u>3.15 trillion</u> liquidity deficit in Jan 2025.

2. <u>Strain on government resources</u> Ex: Fiscal deficit above 3%.

3. Risk of <u>Non performing Assets</u>.

4. <u>Delay</u> in returns.

→ <u>setup</u> of Viability gap fund for eligible project

(Way Ahead) → lay down <u>criteria</u> for eligible projects

→ <u>mobilizing</u> household saving.
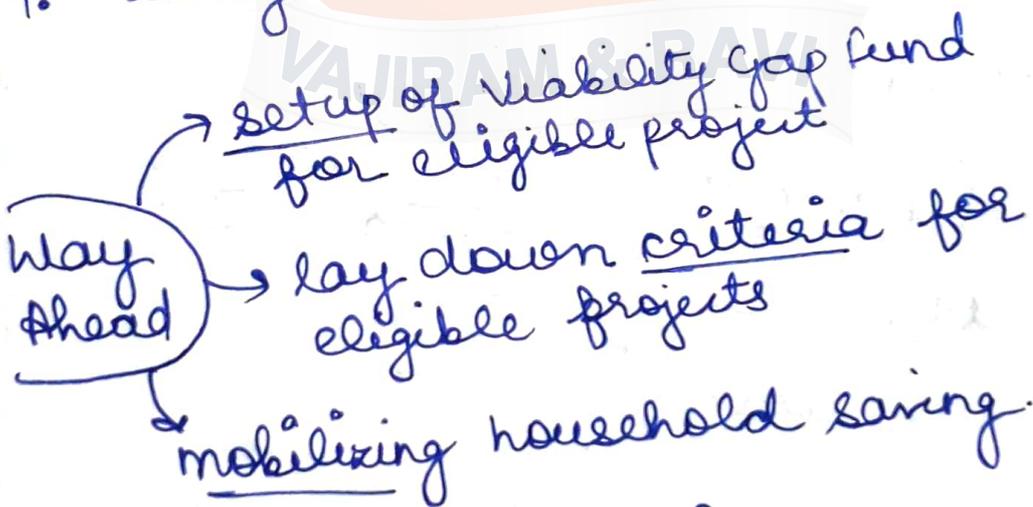
Viability gap funding can work as <u>engine</u> for <u>stalled</u> energy projects.

Q.5 India is <u>largest producer</u>, consumer and importer of pulses in the world.

Need for self - sufficiency in Pulses

1. <u>High Demand and Low supply</u> - i.e; about <u>14%</u> pulses imported.

2. <u>Skewed Production</u> toward <u>Gram (49%)</u> and <u>Mung</u> (14%)

Top 4 States in Pulses Production

3. <u>Import dependency</u> leading to increased uncertainity and decreasing <u>forex</u>. Ex: Import of Tur dal from Canada.

4. <u>Low productivity per acre</u> due to poor irrigation, low quality seeds, etc.

5. <u>Rain-fed Production</u> unlike rice and sugarcane.

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Policy Interventions in Pulses

1. <u>MSP implementation</u> - to all pulses equally like wheat and rice.

2. <u>Import duty</u> on pulses to incentivize local farmers

3. <u>Procurement</u> by N A F E D timely

Technological intervention in Pulses

1. High quality <u>hybrid seeds</u> like <u>PUSA-2090</u> for rice.

2. <u>Micro - irrigation</u> practises

3. <u>Geospatial information</u> like GIS system for smart farming.

4. Use of technology like <u>Drones</u> to spraying fertilizer, etc. Ex: initiative like <u>Drone Didi</u>.

Whole of government approach is need to be <u>Atma Nirbhar</u> in pulses by <u>2027</u>.

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Q-6 Space - based solutions refers to use of _spatial data_ through satellite, survey, etc to provide solutions to problems.

Space Based solutions in Rural areas -

1. _Agriculture_ - aiding in day to day agriculture. Ex: _WINDS_ Portal for location specific weather data.

2. _Land Planning_ - areal survey of land and planning its sustainable use. Ex: _SVAMITVA_ scheme by ministry of Panchyati Raj for Land rights.

3. _Monitoring_ - of various schemes and work. Ex: _Geotagging_ of resources in _MGNREGA_.

4. _Employment_ - like Drone Didi, etc.

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Steps to enhance outreach
and effectiveness -

1. Education and Awareness
   Ex: PMGDISHA for rural
   digital literacy.

2. Capacity building - like
   trained workforce, infrastructure

3. Accuracy in data - use of
   satellite like INSAT 3D and
   INSAT 3DR

4. Continous efforts - like
   renewable of Soil Health
   card every 3 years.

5. Use of Machine Learning and
   AI for interpreting meta
   data

Space based solutions are
new normal and will help
in good governance of rural
areas.

Q.1 As per IQAir Report, Delhi is most polluted capital city and 9 out of 10 most polluted cities are in India

Urbanisation $\longleftrightarrow$ rising PM2.5 levels

1. More than 30% of India population live in urban cities	1. Increase in need for construction, etc. Ex: 10% of NCR = pollution by construction
2. Movement to tier II and tier III for better standard of living than rural areas	2. Industralisation in periphery of cities. Ex: Gurgram, Gaziabad. — Vehicle emission contribute 60% of urban population.
3. Rising 'Middle Income' and increasing expenditure	3. Increasing consumerism and materialism Ex: 13 car on 1000 people in delhi

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Various mitigation measures and government's Initatives —

I. Short term Measures

1. Initatives like 'Odd-Even in Delhi'

2. Temprorary shut down of construction, school during severe air quality

3. Pollution towers, water sprinkling, etc.

II. Long term measures

1. National Action Plan to reduce PM2.5 and PM 10 pollution level by 40% by 2026.

2. CPCB and other bodies releasing pollution data for Tier II and Tier III cities.

3. Initiatives like E-Drive, FAME II, BS-VI Norms

Right to clean Air is fundamental right under Article 21.

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Q.8 Recently, government have introduced __amendment__ in Disaster Management Act, 2005 because India is __2nd most__ disaster prone country as per __UN__.

Structural and operational limitation in DM Act, 2005

1. __No rule__ about use of technological and spatial __data collection__.

2. __Lack statutory identification__ to NCMC (National crisis Management committee)

3. Lack of __proper implementation__ Ex: Only __35%__ Urban Local Bodies have disaster Management Plan.

4. __Diversion of funds by SDMA__ and __NDMA__ - Ex: As per CAG report, more than __50%__ disaster funds diverted by Jammu and Kashmir authority.

2025 Amendment addressing deficiencies

1. Empower State government to constitute <u>Urban Disaster Management Authority</u>

2. empower <u>NDMA</u> and <u>SDMA</u> to prepare <u>Disaster Management Plans</u>

3. Provision for undertaking <u>periodic stock</u> and <u>database</u>

4. Statutory Status of <u>NCMC</u> and <u>HLC</u> (High level committee)

5. empower State government to constitute <u>SDRF</u>.

Shortcomings	Way Ahead
① Lack of focus on Adaptation	① Resilient Infrastructure
② No entry in schedule 7 of Disaster Management	② Prevention > Preparedness > Rehabilitation > Build Back Better.
③ NO decentralisation to Panchayati Raj Institution	

<u>SENDAI</u> Framework way ahead.

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Q.9 <u>Artificial Neural Network</u> refers to machine learning technique <u>mimicking</u> the process of <u>human brain</u>.

| Input Data | → | <u>Generator</u> Trained Model create new examples | → | <u>Adversary</u> find flaws in information |

↑

Fed data again to generator
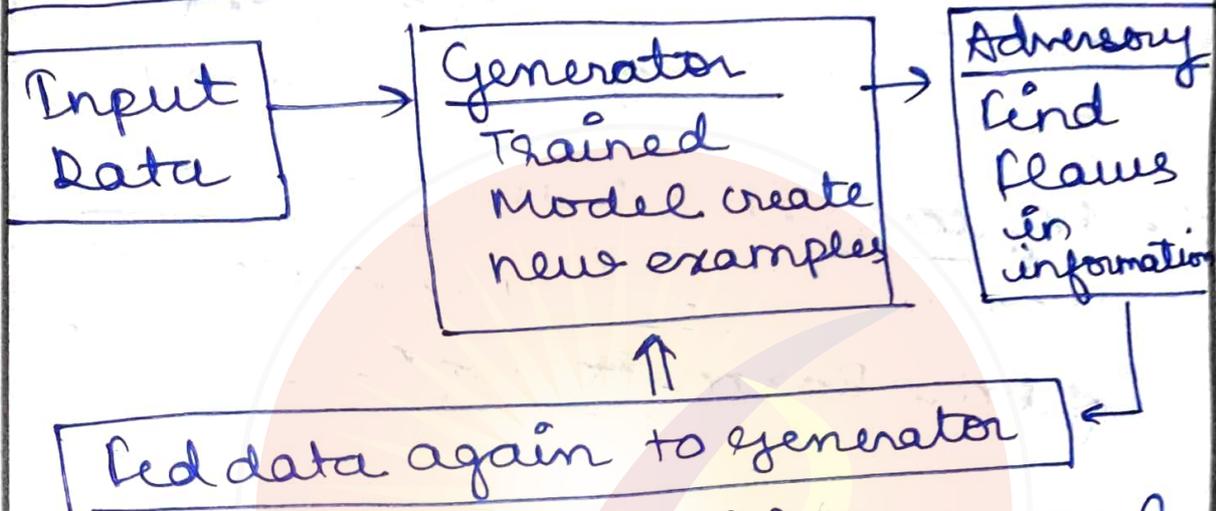
fig:- Process of Artificial Neural Network

<u>Application across various field</u> —

1. <u>Home Management</u> — from fridge to Television to cooking. Ex:- '<u>Alexa</u>' turn <u>off the lights</u>

2. <u>Health Management</u> — personalised data ,

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continous monitoring, etc.
Ex: Apple SMART watch

3. Creative and Innovation -
film making, editing, etc.
Ex: Trend of ~~gibble~~ gibhili
art.

4. Agriculture Management -
Use in smart management
from farm to fork.

Challenges

1. Privacy issue - ChatGPT
saving personal data.

2. Blackbox innovation - no
knowledge how they are
trained.

3. Superhuman Risk - which
can control all human.

Therefore, UN resolution of
'Let govern the tech, instead of
being governed' should be
way ahead.

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Q-10 In this _globalised_ world, Internal _peace_ of a nation is _interwoven_ by external dynamics.

Talibah Rule in Afganistan, 2021

Instable Government in Nepal 14 changes in 16 years

INDIA

Pakistan led terrorism Ex: 26/11

Sri Lanka economic crisis, 2023

Bangladesh Student's Protest, 2024

Myan -mar military coup
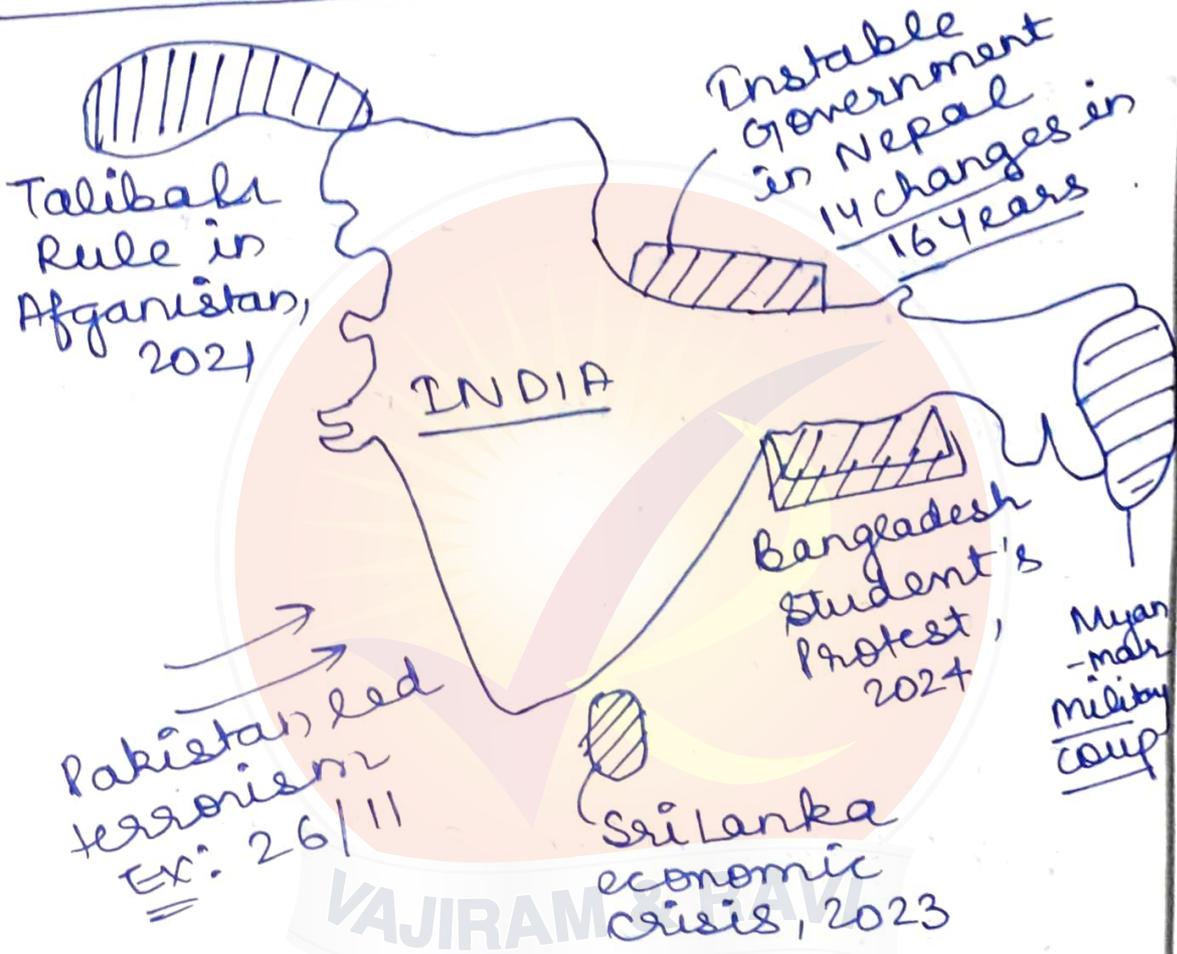
Fig: Interconnection in Neighbourhood

Internal security shaped by external and transnational dynamics -

→

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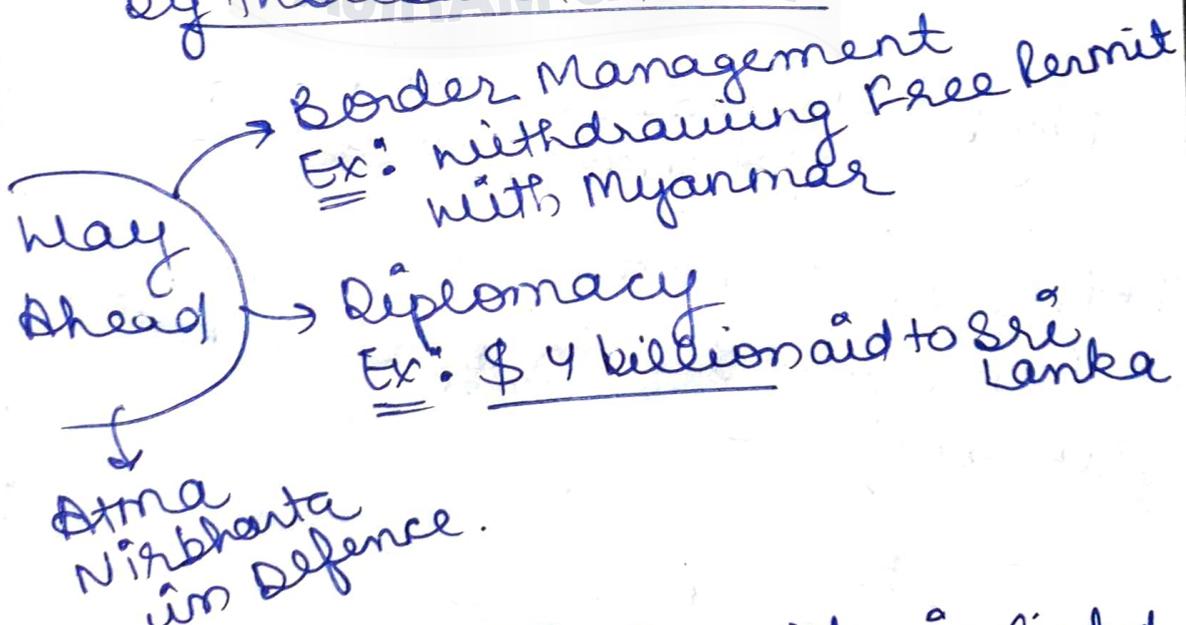use only
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1. <u>Refugee influx</u> due to instability in transnational area. Ex: <u>Chin refugee</u> more than <u>30000</u> from Myanmar.

2. <u>Sovereignty issue</u> -
   Ex: Canada issuing <u>Khalistani issue</u> for vote bank politics.

3. <u>Smuggling and transborder crime</u>
   Ex: golden triangle and golden cresent on both sides.

4. <u>Cross border terrorism</u> - Ex: Pakistan Policy of <u>Bleed India by thousand cuts</u>.

Way Ahead →

→ Border Management
   Ex: withdrawing Free Permit with Myanmar

→ Diplomacy
   Ex: $ 4 billion aid to Sri Lanka

↓

Atma Nirbharta in Defence.

Therefore, Internal security is linked to transnational dynamic.

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Q·11 As per Economic Survey 2025-26, between 2000 to 2024 average tariffs on dutiable items in India reduced from 48.9% to 17.3%.

AIM of tariff rationalization -

1. Increase Competetion - with rational tariffs on Imports Ex: 99% of smart phones manufa-ctured in India.

2. Increase efficiency and effectiveness in terms of production and consumption.

3. Enhance Standard of living - by providing multiple choices to consumer. Ex: Reduce of tariff on Harley Davidson Bike

4. Comply with WTO principles - of reducing tariffs to near zero.

5. Complying with free trade agreement -

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Ex: India - UK FTA, India reduced
tariffs on 90% of imports.

Challenges with tariff rationalisation

1. Threats to Agriculture - India
being self sufficient in food
grains, etc and its import
pose threats.
   Ex: USA compelling India
   to reduce tariff on Agriculture

2. Potential competetion to MSMEs -
most MSMEs lack branding
and big efficiency in manufacturing
   Ex: 49% MSMEs located in
   Tier II and Tier III cities.

3. Dumping of foreign goods -
   Ex: China re-routing goods to
   India through ASEAN countries

4. Loss to government Exchequer -
due to reduced tariffs
like custom duty, etc.

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5. may <u>nullify</u> gains of Atmanirbhar Bharat^due to increased imports.

<u>Solutions for Tariff Rationalisation</u>

1. <u>Safeguarding</u> vulnerable sectors like agriculture, MSME, etc.

2. <u>Handholding</u> by government <u>Ex</u>: Stand-up India, Make-in India, etc.

3. <u>Increase technology transfer</u> from foreign. <u>Ex</u>: C-295 aircraft technology from Europe.

4. <u>Competitive tariffs</u> - to leverage <u>china + 1 strategy</u> and competete with countries like Vietnam.

5. <u>Negotiations</u> with Partner countries <u>Ex</u>: India - Australia TEPA (Agreement)

for India, to be truely '<u>Atma-Nirbhar</u>', calibrated strategy on <u>tariffs</u> is required.

Q-12 Economic Survey 2025-26 suggested shift from fiscal deficit as benchmark to more comprehensive debt toGDP ratio.

Shortcomings of Fiscal Deficit targeting —

1. Narrow measure — focus only only borrowing by the government.

2. Ignore out-of Budget borrowing, therefore leading to undermine deficit.

3. Do not differentiate between type of borrowing. Ex: Green Bonds (VS) Long term fiscal financing

4. Do not account for capital expenditure by State from Centre's fund

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i.e; <u>effective capital expenditure</u>

5. <u>fail to take account of</u>
<u>uncertainity</u> — Ex: Covid 19
breached <u>fiscal deficit</u> target
of 3%.

Debt to GDP ratio a better
measure. REASONS —

1. Measure <u>ability to solvency</u>
i.e; countries ability to
pay back debt.

2. <u>Alignment with global</u>
<u>Best practices</u> — as many
advance economy target
Debt to GDP ratio.

3. enhanced <u>Transparency</u> and
<u>flexibility</u> — undertaking
more comprehensive and
long term fiscal health.

4. <u>Disclosure of off Budget</u>
<u>Borrowing</u>.

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Challenges

① FRBM Act compliance - of fiscal deficit at 3% and Debt to GDP at 30% for central government.

② Implementation challenge - balancing fiscal discipline with social public expenditure.

③ State debt burden - Ex: As per RBI report Punjab, West Bengal, Kerela high unsustainable debt.

Therefore, Prudent Approach keeping in mind the Viksit Bharat @ 2047 aim to make this shift toward debt - GDP Ratio.

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Q-13 food Processing sector is a
Sunrise industry contributing
10-12% to India's GDP.

FPI sector moving towards
formalization and efficiency —

I. Production-linked Incentive

1. Incentive driven — to scale
competitive manufacturing
by incentivising 3-6% based
on sales and investment.

2. Exports and value addition -
focus on value added products
raises export orientation.
Ex: Share processed
agricultural products
23% in exports (2024)

3. Increased Investment —
due to high compound
annual growth rate.

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II. | PM - Formalisation of micro
Food Enterprises |

1. Registration and formal
   identity — Ex: Udhyam
   Portal.

2. Increased access to credit
   from formal sector like
   banks. Ex: Fund of funds
   Scheme.

3. Hand-holding and Branding
   initiatives like 'Zero
   effect, Zero defects' for
   exports

4. Economies of scale -
   leveraging cooperation
   based on cluster development

5. Backward and forward
   linkage - creating
   two way formalisation
   channels.

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Critical assessment - Challenges

1. Uneven access to benefits
   Ex: PLI benefit organised players.

2. Working capital bottleneck
   Ex: leading to informal access to credit.

3. Food wastage - As per Dalwai comittee ₹ 90000 crore food waste.

4. Quality and certification cost
   - FSSAI compliance, testing and packaging.

   ┌─────────────────────────┐
   │ Policy Recommendations │
   └─────────────────────────┘

Convergence Platform	Capacity Building	Outcome based Monitoring
for different initiative by Centre and State	Ex: Quick e-commerce onboarding	and audit for Schemes

To double farmers Income on this Amrit Kaal, FPI are the key drivers.

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Q.14 Indian government announce MSP for <u>23 crops</u> based on <u>Swaminathan committee</u> formula.

Granting legal guarantee as MSP

I. AGREE

1. help in achieving goal of <u>doubling farmers income.</u>

2. <u>fair price</u> considering factors like <u>labour cost</u>, input cost.

3. <u>Safeguard</u> them from uncertainity of market. Ex: <u>8.4% food inflation in FY2025.</u>

4. <u>Nudge practises</u> - to shift production towards sustainable crops. Ex: High MSP = increase on Millets.

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II DISAGREE

1. <u>high fiscal cost</u> - Ex: about 8 states distribute more than ₹ 2 trillion as <u>freebies</u>.

2. Distort <u>Market equilibrium</u> of demand and <u>supply</u>

3. Opposition at <u>WTO's</u> taken as <u>Amber box</u> subsidy.

4. high <u>economic cost</u> after <u>food corporation of India</u> procurement. Ex: <u>Storage</u>, <u>Transportation</u>.
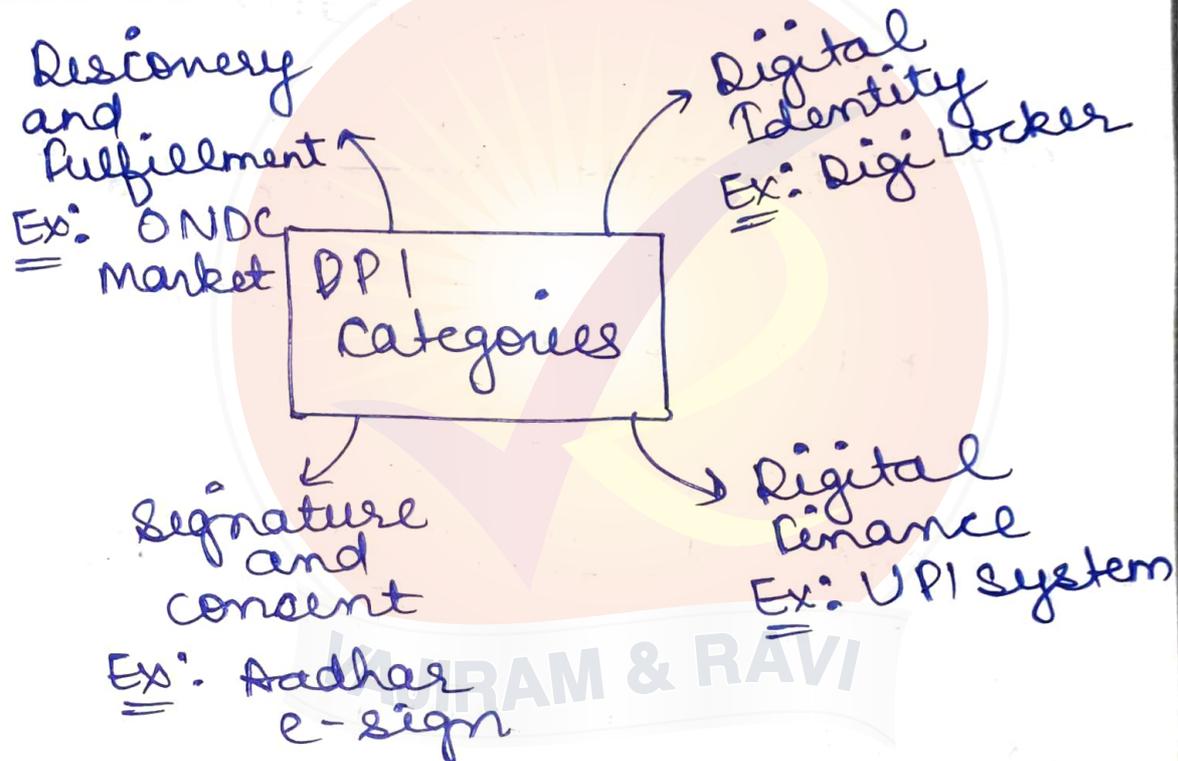
5. <u>demotivate private sector</u> to step-in.

Viable alternatives to ensure fair farmer remuneration

1. <u>Universal Income</u> - to support them. Ex: PM-KISAN ₹ 6000 payment.

2. Contract Farming - with proper safeguard to farmer's interest. Ex: In Gujarat for Lay's.

3. Innovation and Use of Technology - like WINDS portal, GeM for procurement.

4. Proper Branding and quality check. Ex: GI Tag for Basmati rice

5. Area specific crops like Pulses in Punjab instead of rice

6. Co-operative and Farmer Producer Organisation Ex: AMUL

For 'Annadata Aaya Sanrakshan', whole of government Approach is required.

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Q.15 Digital Public infrastructure (DPI) is a India - led initiative to build <u>inclusive</u>, <u>open</u>, <u>inter-operable</u> shared digital system.

Discovery
and
Fulfillment
Ex: ONDC
= Market

Digital
Identity
Ex: Digi Locker
=

| DPI Categories |

Signature
and
consent
Ex: Aadhar
= e-sign

Digital
finance
Ex: UPI System
=

Empowering developing countries to lead global climate action -

1. <u>Innovation and creativity</u> - to find solutions specific to problem. Ex: <u>Biofuels</u> due to self sufficiency in <u>foodgrain</u>

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2. Problem specific solutions

Ex: Kutthad system of farming due to sea level rise.

3. Proactive approach towards global climate action

Ex: Net zero by 2030 of Indian railways.

4. Leadership to Global South

Ex: Social Impact fund by India during G20 for DPI

5. Economical and economies of scale - in climate solutions just DPI.

6. 'Jan Bhaagidari' - like Mission Life at COP 26.

Challenges and limitations of DPI -

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1. Privacy Issues - Ex: alleged Aadhar data leak of 81 crore Indians.

2. Digital Divide - Ex: poor adoption of Internet in Africa.

3. Energy Consumption - New technology solution consume more energy. Ex: 33 times more energy use by AI/ML.

4. Cyber attacks - Ex: 129 attacks on per lakh population in 2024.

Solutions -

1. Investment on Research and Development. Ex: only 0.6% now

2. Innovation Ex: Green Bonds by Gaziabad municipaly

3. Use of technology for real time monitoring

India as "Vishwabandu" should led world on the path of DPI and sustainable development.

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Q-16 About 30% of world's landslide occur in Himalyan region and 13% of Indian Landmass is prone to Landslides.

Reasons behind the increasing vulnerability of Himalayan region –
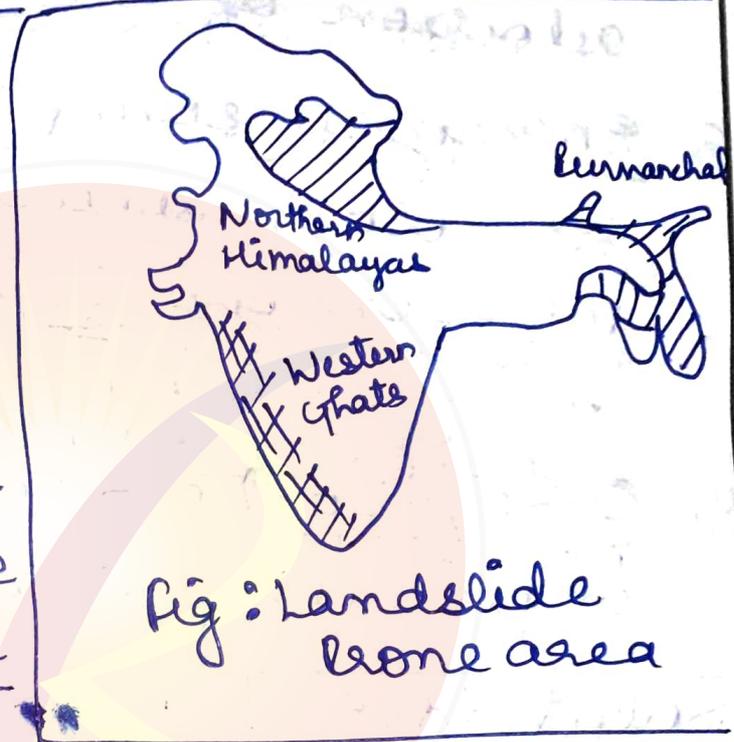

fig : Landslide prone area

1. Earthquake prone area

Ex⁼: whole Himalayan area is very High Risk zone V area

2. Plate tectonics – due to movement of Indian Plate towards Eurasian Plate

3. Climate change – Rise in

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temperature leading to melting of glaciers. Ex: GLOFs in Lhonak Lake sikkim

4. Anthropogenic causes - like deforestation, infrastructure

Ex: Char Dham Highway in Uttarkhand.

5. Atmospheric conditions - like cloud burst leading to landslide. Ex: Kedarnath landslide.

Steps taken to manage and control-

1. Prevention - by Building resilient infrastructure

Ex: Aizawl municipal corporation slope modification regulation

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2. <u>Civil engineering solutions</u>
like Terracing, geotextile,
Bunds, nailing, etc.

3. <u>NDMA guideline should
be followed</u> -

  a) Continous updating of
  landslide prone area.

  b) Complete Site specific
  studies

  c) Zonation mapping

  d) Early warning signal

  e) Awareness and preparedness

4. <u>balancing Biodiversity
and ecology with development</u>

  Ex: proper EIA under Environment
  protection act.

<u>Wayanad landslide is a signal</u>
to manage and prevent
future man-made disasters.

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Q-17 As per NFSR of 2023, about 35.47% of total geographical area of forests is prone to forest fires in India.

Causes of wildfire in forests

I. Natural causes

1. Lightining during monsoon and summer season.

2. High temperature during summer season. Ex: heatwaves.

3. extreme dryness when leafs fall

4. Poor rainfall.

II. Anthropogenic causes

1. Human negligence - flame, cigarette, electric spark.

2. Shifting cultivation
   Ex: Zhum farming in North-east

3. foul play by <u>timber Mafia</u>
   to hide under fire.

4. Climate change and rise
   in temperature.

<u>Examples</u> —

① <u>California</u>
   fires in
   USA (2024)
   Spread over
   thousands
   Of Kilometers.

② <u>Uttarkhand</u>
   <u>forest fire</u>
   every year.

fig: Forest fire prone
    area

<u>Policies and framework tackling</u>
<u>wildfire</u> —

1. <u>Vulnerability Mapping</u> — using
   Satellite data to identify
   fire prone area.

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2. State specific Policy -
Ex: 'Pirul Lao - Paise Pao'
to dry leafs to manage fires.

3. Managing wildfires - Ex: Bambi Buckets, link retardent, etc

4. Joint forest management committee - involving locals to manage fire prone areas.

5. Use of technology - like fire alert via SMS, etc.

Ways to Prevent in future

① Need for National Policy on forest fire.

② Artificial rain Ex: cloud seeding

③ Recruiting fire fighting staff

90% of forest fires are due to man-made sources, hence can be prevented and managed.

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Q-18 One health approach is a 'comprehensive concept' which take environment, animal and human health as interconnected.

Importance of one health approach:	

Environment Health   Animal Health

Human Health

One health Approach

1. Prevention and monitoring of zoonotic disease -

Which are transfered from fauna to humans. Ex: Covid 19 from Bats to mankind.

2. Sustainable Approach - by integrating other elements of Biosphere i.e; animal and environment. Ex: WHO Pandemic Preparedness fund.

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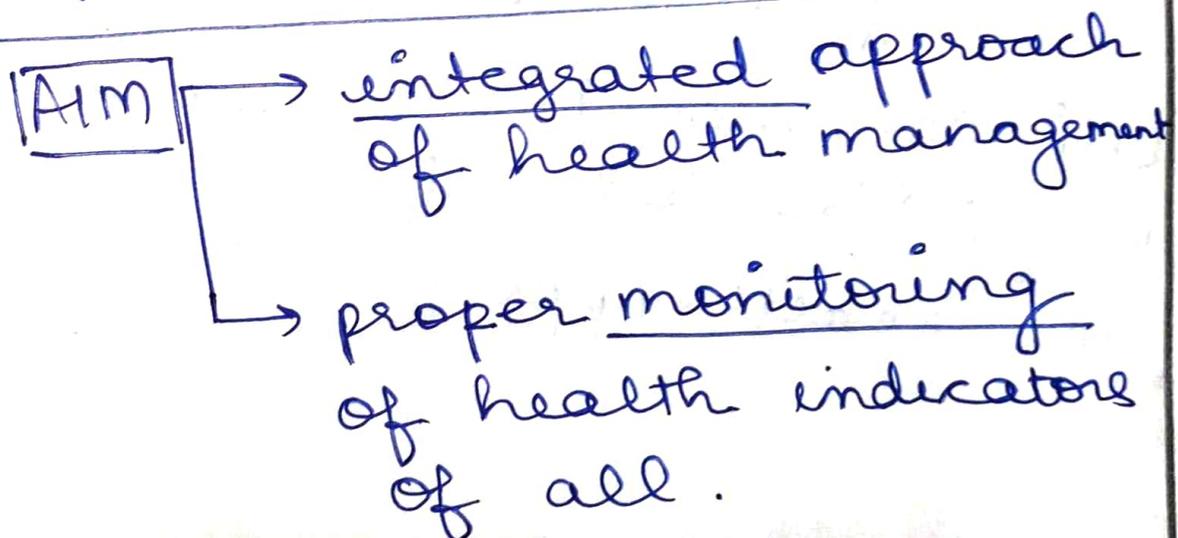use only
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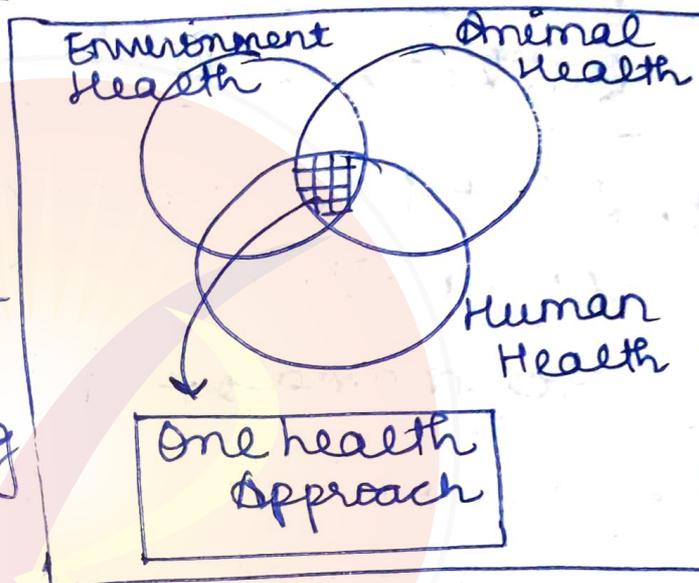
3. <u>Breaking 'SILOS' in health</u>
<u>management</u> - by viewing it
from comprehensive lense
Ex: <u>Antibiotic</u> burden from
poultry to <u>people</u>.

4. <u>future Preparedness</u> - by
examining health of all
Ex: Preparation for zika virus.

5. <u>Resilient Population of both</u>
Human and animal.
Ex: <u>Unified Genome chip</u>
for high quality indigenious
<u>cattles</u>.

<u>Biodiversity and Health Global</u>
<u>Action Plan</u> -

|AIM| → integrated approach
of health management

→ proper <u>monitoring</u>
of health indicators
of all.

→ Preparedness for future
health disasters

→ Research on vaccination
disease, etc

→ Focus on 'Health for
all' approach.

Challenges in One Health Approach -

1. Climate change - Ex: Anthrax
disease in Artic due to
thawing.

2. Unsustainable development
Ex: deforestation

3. Development (VS) Ecology debate
Ex: Shomphen tribes and
great Nicobar project.

Paris Agreement 17 SDGs should
be guiding light for
one health Approach.

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Q.19 Three new criminal laws —
Bhartiya Nyaya Sanhita,
Bharatiya Nagarik Suraksha
Sanhita, Bharatiya Sakshya
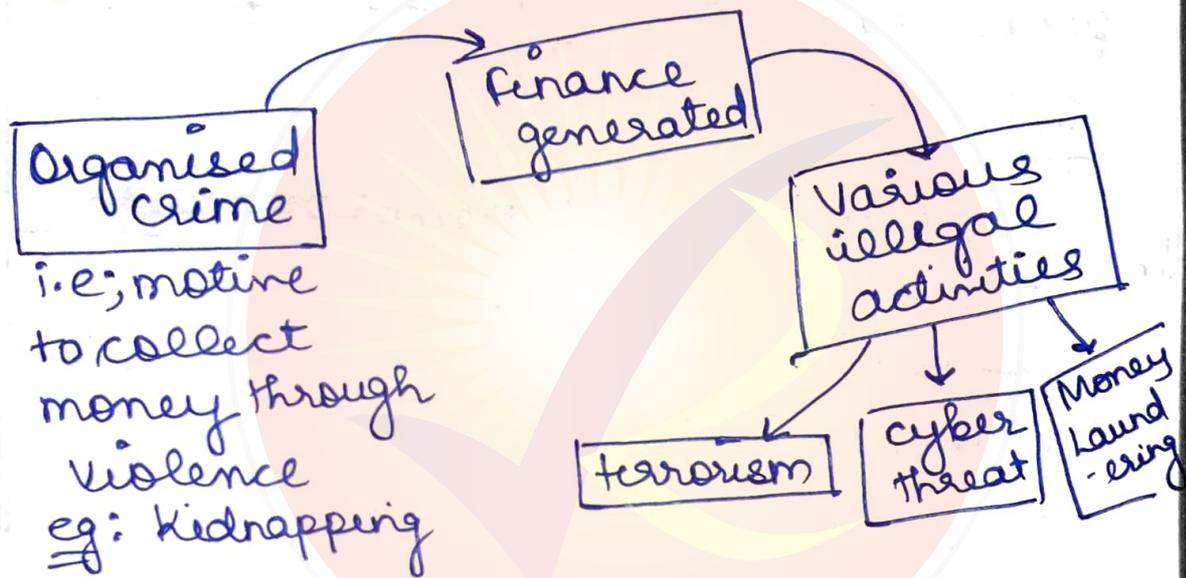Adhiniyan were brought in
place by government.

Fig: Organised Crime Cycle

Organised crime i.e; motive to collect money through violence eg: Kidnapping

Finance generated → Various illegal activities → terrorism, cyber threat, Money Laund-ering
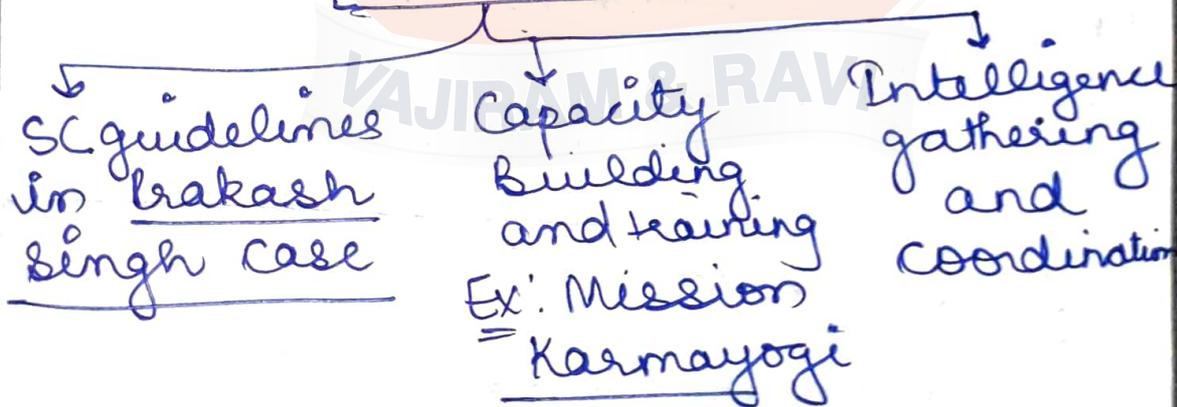
New Criminal Laws addressing
modern threats —

1. Definations — Ex: Bhartiya Nyaya
Sanhita define act of Terrorism
and organised crime which
increased objectivity.

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2. Evolving nature of Evidence -
it uphold admission of
digital evidences in court

3. Forensic Investigation - made
compulsory for crimes with
punishment of more than
7 Years.

4. Training and Development
of State Police and national
agencies in evolving crimes
Ex: cybercrimes.

5. Enhanced Punishment -
Ex: organised crime punishable
upto life Sentence and
death penalty in case of
death of innocent.

6. Reduce Burden - Ex: Petty
crimes like theft are
punishable with community
Service.

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Challenges in effective Implementation

1. Lack of capacity - vacancy in Police department, lack of digital literacy.

2. Evolving nature of crime - Ex: Use of cryptocurrency in Ransom.

3. Ambiguity in Laws - child defined as 18 Years in JJ Act whereas 16 Years in BNS.

4. Lack of Inclusivity - Women Police only 13%.

SOLUTIONS

SC guidelines in Prakash Singh case

Capacity Building and training Ex: Mission Karmayogi

Intelligence gathering and coordination

'SMART' policing (i.e; Sensitive, Modern, Alert, Reliable and Trained) to enforce new laws.

Q.20 India share a land border of about 15 000 KMs with 7 countries, sections of which remain uncontested.
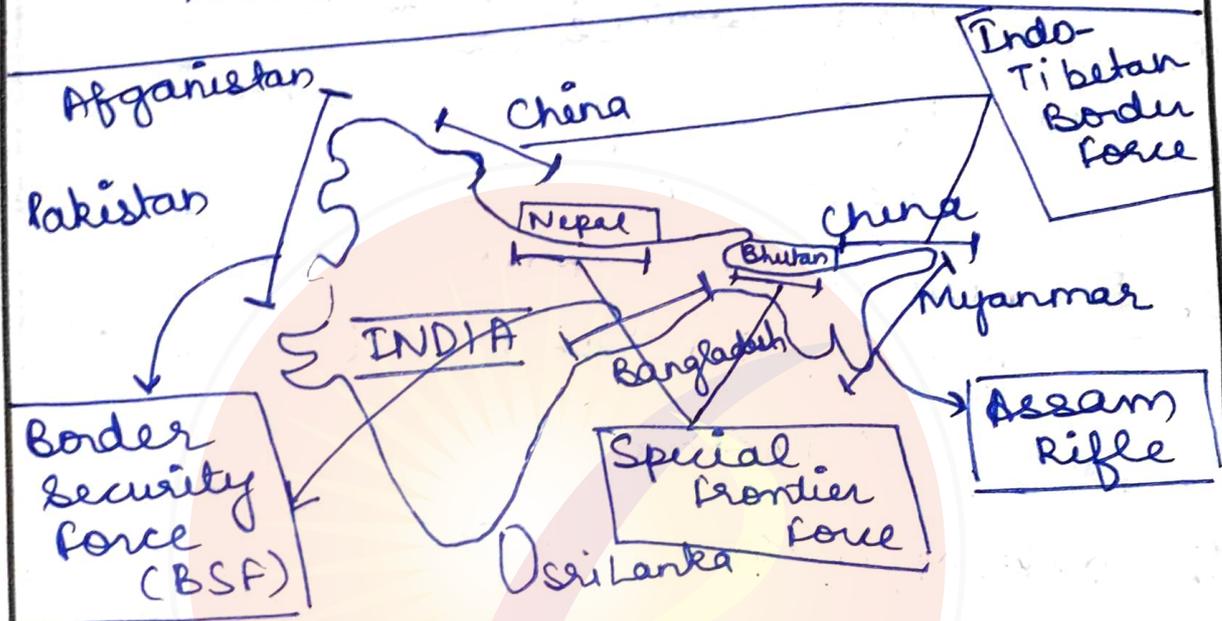

Fig: India Border Management

Integrated Border Management and infrastructure balancing security imperative —

I. Border Infrastructure

1. Increase accessibility — to high mountains & Deep forests.

Ex: Nyoma Airfield in Ladakh

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2. <u>Use of Technology</u> - for intelligence gathering, coordination, etc.
   <u>Ex</u>: <u>CIBMS</u> (Comprehensive Integrated Border Management System)

3. <u>Capacity Building</u> in terms of manforce, artiliary, etc
   <u>Ex</u>: MIRV Technology in missile system.

II. <u>Management Practises</u>

1. <u>Inclusive development</u> - with locals in border areas.
   <u>Ex</u>: <u>Vibrant Village Programme</u>

2. <u>Tourism and connectivity</u> - to reduce '<u>silos</u>' and connect civilians
   <u>Ex</u>: Bharat <u>Ranbhoomi Darshan</u>

3. <u>Education and awareness</u> to de-radicalise youth
   <u>Ex</u>: <u>Operation Pegion</u> by Kerala Government

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Challenges in Border Development

1. <u>Poor Capacity</u> – Vacancy, lack of training, etc.
   Ex: Temporary <u>Agniveer</u> recruitment.

2. <u>China – Pakistan alliance</u> on Western and eastern border.

3. <u>Lack of intelligence</u> – Ex: Pahalgam attack, 2025.

4. <u>Lack of inclusive development</u>
   Ex: Radicalisation of youth.

   → <u>Socio-economic development</u>
   Ex: Abolition of Article 370.

Way Forward → <u>Empathy with locals</u>
Ex: Operation Sadbhavana by Army

↓

<u>Defense indigenisation</u>
Ex: Brahmos missile

6 "<u>Good fences make good neighbours</u>" should be remembered in Border Management.