

Total Marks : 250

Time : 3 Hours

Candidates should attempt all questions of Group A with word limit of 300 words and any 10 questions of Group B with word limit of 250 words.

Question 1 to Question 5
20 marks each (answer in 300 words)

Question 6 to Question 18
15 marks each (answer in 250 words)

GROUP A

- Q.1** Facilitating a conducive ecosystem for private investment is essential to driving a sustainable cycle of economic growth. In this context, discuss the key challenges that hinder India's goal of achieving a \$5 trillion economy.
ଆର୍ଥିକ ଅଭିବୃଦ୍ଧିର ଏକ ସ୍ଥାୟୀ ଚକ୍ର ଚଳାଇବା ପାଇଁ ଘରୋଇ ନିବେଶ ପାଇଁ ଏକ ଅନୁକୂଳ ଇକୋସିଷ୍ଟମକୁ ସୂଚନା କରିବା ଅତ୍ୟନ୍ତ ଜରୁରୀ। ଏହି ପରିପ୍ରେକ୍ଷୀରେ, ଭାରତର \$5 ଟ୍ରିଲିୟନ ଅର୍ଥନୀତି ହାସଲ ଲକ୍ଷ୍ୟକୁ ବାଧା ଦେଉଥିବା ପ୍ରମୁଖ ଚ୍ୟାଲେଞ୍ଜଗୁଡ଼ିକ ଉପରେ ଆଲୋଚନା କରନ୍ତୁ।
- Q.2** What is meant by 'active inclusion' in the context of sustainable economic growth? Discuss the measures implemented by the government to promote active inclusion.
ସ୍ଥାୟୀ ଆର୍ଥିକ ଅଭିବୃଦ୍ଧି ପରିପ୍ରେକ୍ଷୀରେ 'ସକ୍ରିୟ ଅନ୍ତର୍ଭୁକ୍ତି' କ'ଣ ବୁଝାଏ? ସକ୍ରିୟ ଅନ୍ତର୍ଭୁକ୍ତିକୁ ପ୍ରୋତ୍ସାହିତ କରିବା ପାଇଁ ସରକାର କାର୍ଯ୍ୟକାରୀ କରିଥିବା ପଦକ୍ଷେପଗୁଡ଼ିକ ଉପରେ ଆଲୋଚନା କରନ୍ତୁ।
- Q.3** To address the growing threat of drug-resistant bacteria, researchers are investigating how a particular superbug evolves to resist an antibiotic considered the last line of defense. In this context, explain the concept of antimicrobial resistance and discuss the key factors contributing to antibiotic resistance in India.
ଔଷଧ-ପ୍ରତିରୋଧୀ ଜୀବାଣୁର ବର୍ଦ୍ଧିତ ବିପଦକୁ ସମାଧାନ କରିବା ପାଇଁ, ଗବେଷକମାନେ ଅନୁସନ୍ଧାନ କରୁଛନ୍ତି ଯେ କିପରି ଏକ ନିର୍ଦ୍ଦିଷ୍ଟ ସୁପରବଗ୍ ଶେଷ ପ୍ରତିରକ୍ଷା ରେଖା ଭାବରେ ବିକଶିତ ହୋଇ ଏକ ଆଣ୍ଟିବାୟୋଟିକ୍ ପ୍ରତିରୋଧୀ ପାଇଁ ବିକଶିତ ହୁଏ। ଏହି ପରିପ୍ରେକ୍ଷୀରେ, ଆଣ୍ଟିମାଇକ୍ରୋବାୟାଲ୍ ପ୍ରତିରୋଧର ଧାରଣା ବ୍ୟାଖ୍ୟା କରନ୍ତୁ ଏବଂ ଭାରତରେ ଆଣ୍ଟିବାୟୋଟିକ୍ ପ୍ରତିରୋଧରେ ଅବଦାନ ରଖୁଥିବା ପ୍ରମୁଖ କାରଣଗୁଡ଼ିକ ଉପରେ ଆଲୋଚନା କରନ୍ତୁ।
- Q.4** Analyze the key highlights of the Odisha Budget 2025-26, focusing on its fiscal indicators, major policy initiatives, and sectoral growth trends. Discuss its implications for economic development in the state.
ଓଡ଼ିଶା ବଜେଟ୍ 2025-26 ର ମୁଖ୍ୟ ସୂଚନାଗୁଡ଼ିକୁ ବିଶ୍ଳେଷଣ କରନ୍ତୁ, ଏହାର ଆର୍ଥିକ ସୂଚକ, ପ୍ରମୁଖ ନୀତି ପଦକ୍ଷେପ ଏବଂ କ୍ଷେତ୍ରୀୟ ଅଭିବୃଦ୍ଧି ଧାରା ଉପରେ ଧ୍ୟାନ ଦିଅନ୍ତୁ। ରାଜ୍ୟରେ ଆର୍ଥିକ ବିକାଶ ପାଇଁ ଏହାର ପ୍ରଭାବ ଆଲୋଚନା କରନ୍ତୁ।
- Q.5** Discuss Odisha's transformation in disaster management over the past two decades. What key lessons can other states and countries learn from its approach?
ଗତ ଦୁଇ ଦଶନ୍ଧି ମଧ୍ୟରେ ବିପର୍ଯ୍ୟୟ ପରିଚାଳନାରେ ଓଡ଼ିଶାର ପରିବର୍ତ୍ତନ ବିଷୟରେ ଆଲୋଚନା କରନ୍ତୁ। ଏହାର ଆଭିମୁଖ୍ୟରୁ ଅନ୍ୟ ରାଜ୍ୟ ଏବଂ ଦେଶମାନେ କ'ଣ ପ୍ରମୁଖ ଶିକ୍ଷା ପାଇପାରିବେ?

GROUP B

- Q.6 Can PM-KISAN be the game-changer in transforming India's agricultural support system and addressing rural distress?**
କ'ଣ ପ୍ରଧାନମନ୍ତ୍ରୀ-କିଷାନ ଭାରତର କୃଷି ସହାୟତା ବ୍ୟବସ୍ଥାକୁ ପରିବର୍ତ୍ତନ କରିବା ଏବଂ ଗ୍ରାମୀଣ ଦୁର୍ଦ୍ଦଶାର ସମାଧାନ କରିବାରେ ଖେଳ ପରିବର୍ତ୍ତକ ହୋଇପାରେ?
- Q.7 Recent studies on global rainforest deforestation reveal a critical situation. How can efforts be intensified to safeguard tropical forests and enhance their role in regulating Earth's climate?**
ବିଶ୍ୱ ବର୍ଷାଜଳ କ୍ଷୟ ଉପରେ ସାମ୍ପ୍ରତିକ ଅଧ୍ୟୟନ ଏକ ଜଟିଳ ପରିସ୍ଥିତି ପ୍ରକାଶ କରେ। ଉଷ୍ଣକଟିବନ୍ଧୀୟ ଜଙ୍ଗଲକୁ ସୁରକ୍ଷା ଦେବା ଏବଂ ପୃଥିବୀର ଜଳବାୟୁ ନିୟନ୍ତ୍ରଣରେ ସେମାନଙ୍କର ଭୂମିକାକୁ ବୃଦ୍ଧି କରିବା ପାଇଁ ପ୍ରୟାସକୁ କିପରି ତୀବ୍ର କରାଯାଇପାରିବ?
- Q.8 Technology serves as both an enabler and a challenge to national security. In light of this, discuss how law enforcement agencies can leverage social media to enhance national security.**
ପ୍ରଯୁକ୍ତିବିଦ୍ୟା ଜାତୀୟ ସୁରକ୍ଷା ପାଇଁ ଏକ ସମର୍ଥକ ଏବଂ ଏକ ଚ୍ୟାଲେଞ୍ଜ ଭାବରେ କାର୍ଯ୍ୟ କରେ। ଏହାକୁ ଦୃଷ୍ଟିରେ ରଖି, ଆଇନ ପ୍ରବର୍ତ୍ତନ ଏଜେନ୍ସିଗୁଡ଼ିକ ଜାତୀୟ ସୁରକ୍ଷାକୁ ବୃଦ୍ଧି କରିବା ପାଇଁ ସାମାଜିକ ଗଣମାଧ୍ୟମକୁ କିପରି ବ୍ୟବହାର କରିପାରିବେ ତାହା ଆଲୋଚନା କରନ୍ତୁ।
- Q.9 Discuss the economic significance of Odisha's ecosystem services and land commons, highlighting the challenges they face and the need for sustainable management policies.**
ଓଡ଼ିଶାର ଇକୋସିଷ୍ଟମ ସେବା ଏବଂ ଭୂମି ସାଧାରଣ କ୍ଷେତ୍ରର ଆର୍ଥିକ ଗୁରୁତ୍ୱ ବିଷୟରେ ଆଲୋଚନା କରନ୍ତୁ, ସେମାନେ ସମ୍ମୁଖୀନ ହେଉଥିବା ଚ୍ୟାଲେଞ୍ଜ ଏବଂ ସ୍ଥାୟୀ ପରିଚାଳନା ନୀତିର ଆବଶ୍ୟକତା ଉପରେ ଆଲୋଚନା କରନ୍ତୁ।
- Q.10 Agricultural growth and transformation are impossible without an active private sector that supports and drives farming, agribusiness, and agri-food value chains. Discuss.**
କୃଷି, କୃଷି ବ୍ୟବସାୟ ଏବଂ କୃଷି-ଖାଦ୍ୟ ମୂଲ୍ୟ ଶୃଙ୍ଖଳକୁ ସମର୍ଥନ ଏବଂ ଚାଳିତ କରୁଥିବା ଏକ ସକ୍ରିୟ ଘରୋଇ କ୍ଷେତ୍ର ବିନା କୃଷି ଅଭିବୃଦ୍ଧି ଏବଂ ପରିବର୍ତ୍ତନ ଅସମ୍ଭବ। ଆଲୋଚନା କରନ୍ତୁ।
- Q.11 "Intelligence reform in India can only be effective if it is integrated with police modernization, ensuring the enhancement of both technological and human capabilities of State police personnel." Discuss the challenges associated with India's intelligence framework in this context.**
"ଭାରତରେ ଗୁପ୍ତଚର ସଂସ୍କାର କେବଳ ସେତେବେଳେ ପ୍ରଭାବଶାଳୀ ହୋଇପାରିବ ଯଦି ଏହା ପୋଲିସ ଆଧୁନିକୀକରଣ ସହିତ ସମନ୍ୱିତ ହୁଏ, ରାଜ୍ୟ ପୋଲିସ କର୍ମଚାରୀଙ୍କ ପ୍ରଯୁକ୍ତିବିଦ୍ୟା ଏବଂ ମାନବ କ୍ଷମତା ଉଭୟର ବୃଦ୍ଧିକୁ ସୁନିଶ୍ଚିତ କରେ।" ଏହି ପରିପ୍ରେକ୍ଷୀରେ ଭାରତର ଗୁପ୍ତଚର ଢାଞ୍ଚା ସହିତ ଜଡ଼ିତ ଚ୍ୟାଲେଞ୍ଜଗୁଡ଼ିକ ବିଷୟରେ ଆଲୋଚନା କରନ୍ତୁ।
- Q.12 India is among the first countries to develop a comprehensive 'Cooling Action Plan' in line with the Montreal Protocol to combat ozone layer depletion. Discuss the extent to which this plan can aid in reducing both direct and indirect emissions while meeting the cooling demands across various economic sectors.**
ଓଜୋନ ସ୍ତର ହ୍ରାସକୁ ମୁକାବିଲା କରିବା ପାଇଁ ମଣ୍ଟ୍ରିଆଲ ପ୍ରୋଟୋକଲ ସହିତ ଏକ ବ୍ୟାପକ 'କୁଲିଂ ଆକ୍ସନ ପ୍ଲାନ' ବିକଶିତ କରିବାରେ ଭାରତ ପ୍ରଥମ ଦେଶମାନଙ୍କ ମଧ୍ୟରେ ଅନ୍ୟତମ। ବିଭିନ୍ନ ଆର୍ଥିକ କ୍ଷେତ୍ରରେ ଶୀତଳତା ଚାହିଦା ପୂରଣ କରିବା ସହିତ ଏହି ଯୋଜନା ପ୍ରତ୍ୟକ୍ଷ ଏବଂ ପରୋକ୍ଷ ନିର୍ଗମନକୁ ହ୍ରାସ କରିବାରେ କେତେ ସାହାଯ୍ୟ କରିପାରିବ ତାହା ଆଲୋଚନା କରନ୍ତୁ।
- Q.13 "A disaster-resilient world requires robust and resilient infrastructure." In this context, examine how the Coalition for Disaster Resilient Infrastructure (CDRI) can support India's commitment to the Sendai Framework for Disaster Risk Reduction in mitigating disaster risks.**
"ଏକ ବିପର୍ଯ୍ୟୟ-ପ୍ରତିରୋଧୀ ବିଶ୍ୱ ପାଇଁ ଦୃଢ଼ ଏବଂ ସ୍ଥିର ଭିତ୍ତିଭୂମି ଆବଶ୍ୟକ।" ଏହି ପରିପ୍ରେକ୍ଷୀରେ, ବିପର୍ଯ୍ୟୟ ପ୍ରତିରୋଧୀ ଭିତ୍ତିଭୂମି ପାଇଁ ମେଣ୍ଟ (CDRI) ବିପର୍ଯ୍ୟୟ ବିପଦ ହ୍ରାସ କରିବାରେ ସେଣ୍ଟାଲ ଫ୍ରେମୱାର୍କ ପ୍ରତି ଭାରତର ପ୍ରତିବଦ୍ଧତାକୁ କିପରି ସମର୍ଥନ କରିପାରିବ ତାହା ଯାଞ୍ଚ କରନ୍ତୁ।

- Q.14** Discuss how the key features of the Paris Call contribute to strengthening cybersecurity. Additionally, outline the measures taken by the Government of India to address cybersecurity challenges.
ପ୍ୟାରିସ୍ ଆହ୍ୱାନର ପ୍ରମୁଖ ବୈଶିଷ୍ଟ୍ୟଗୁଡ଼ିକ ସାଇବର ସୁରକ୍ଷାକୁ ସୁଦୃଢ଼ କରିବାରେ କିପରି ଅବଦାନ ରଖେ ତାହା ଆଲୋଚନା କରନ୍ତୁ। ଏହା ସହିତ, ସାଇବର ସୁରକ୍ଷା ତ୍ୟାଲେଞ୍ଜର ମୁକାବିଲା ପାଇଁ ଭାରତ ସରକାରଙ୍କ ଦ୍ୱାରା ନିଆଯାଇଥିବା ପଦକ୍ଷେପଗୁଡ଼ିକର ରୂପରେଖ ଦିଅନ୍ତୁ।
- Q.15** "It may be time for the government to consider new legislation to replace the Armed Forces Special Powers Act, 1958 (AFSPA), as it has been ineffective in both preventing human rights violations and ensuring adequate protection for soldiers who risk their lives in the defense of the nation." In this context, examine the relevance of AFSPA in addressing contemporary security challenges.
"ସରକାରଙ୍କ ପାଇଁ ସଶସ୍ତ୍ର ବାହିନୀ ସ୍ୱତନ୍ତ୍ର କ୍ଷମତା ଆଇନ, ୧୯୫୮ (AFSPA)କୁ ବଦଳାଇବା ପାଇଁ ନୂତନ ଆଇନ ବିଚାର କରିବାର ସମୟ ଆସିପାରେ, କାରଣ ଏହା ମାନବାଧିକାର ଉଲ୍ଲଙ୍ଘନକୁ ରୋକିବା ଏବଂ ଜାତିର ପ୍ରତିରକ୍ଷାରେ ନିଜ ଜୀବନକୁ ବିପଦରେ ପକାଇଥିବା ସୈନିକଙ୍କ ପାଇଁ ପର୍ଯ୍ୟାପ୍ତ ସୁରକ୍ଷା ସୁନିଶ୍ଚିତ କରିବାରେ ପ୍ରଭାବହୀନ ହୋଇଛି।" ଏହି ପରିପ୍ରେକ୍ଷୀରେ, ସମସ୍ତାମୟିକ ସୁରକ୍ଷା ତ୍ୟାଲେଞ୍ଜର ମୁକାବିଲାରେ AFSPAର ପ୍ରାସଙ୍ଗିକତା ଯାଞ୍ଚ କରନ୍ତୁ।
- Q.16** "Identify the major threat to wetlands in India. Discuss the measures taken at the national and international level in protection and conservation of wetlands in India."
"ଭାରତରେ ଆର୍ଦ୍ରଭୂମି ପ୍ରତି ପ୍ରମୁଖ ବିପଦ ଚିହ୍ନଟ କରନ୍ତୁ। ଭାରତରେ ଆର୍ଦ୍ରଭୂମିର ସୁରକ୍ଷା ଏବଂ ସଂରକ୍ଷଣରେ ଜାତୀୟ ଏବଂ ଅନ୍ତର୍ଜାତୀୟ ସ୍ତରରେ ନିଆଯାଇଥିବା ପଦକ୍ଷେପଗୁଡ଼ିକ ଆଲୋଚନା କରନ୍ତୁ।"
- Q.17** Examine the reason for increasing unemployment among Indian youths in recent years in India. Evaluate the role of state-specific initiatives, with a focus on Odisha, in tackling the issue effectively.
ଭାରତରେ ସାମ୍ପ୍ରତିକ ବର୍ଷଗୁଡ଼ିକରେ ଭାରତୀୟ ଯୁବକମାନଙ୍କ ମଧ୍ୟରେ ବେକାରୀ ବୃଦ୍ଧି ପାଇବାର କାରଣ ଯାଞ୍ଚ କରନ୍ତୁ। ଏହି ସମସ୍ୟାକୁ ପ୍ରଭାବଶାଳୀ ଭାବରେ ମୁକାବିଲା କରିବାରେ ଓଡ଼ିଶା ଉପରେ ଧ୍ୟାନ ଦେଇ ରାଜ୍ୟ-ନିର୍ଦ୍ଦିଷ୍ଟ ପଦକ୍ଷେପଗୁଡ଼ିକର ଭୂମିକା ମୂଲ୍ୟାଙ୍କନ କରନ୍ତୁ।
- Q.18** Elaborate upon the growing issue of space debris in recent times. Also discuss the significance of ISRO's recent mission in achieving the zero debris target.
ସାମ୍ପ୍ରତିକ ସମୟରେ ମହାକାଶ ଅଳିଆର ବର୍ଦ୍ଧିତ ସମସ୍ୟା ଉପରେ ବିସ୍ତୃତ ଭାବରେ ଆଲୋଚନା କରନ୍ତୁ। ଶୂନ୍ୟ ଧ୍ୱଂସାବଶେଷ ଲକ୍ଷ୍ୟ ହାସଲ କରିବାରେ ISROର ସାମ୍ପ୍ରତିକ ମିଶନର ଗୁରୁତ୍ୱ ବିଷୟରେ ମଧ୍ୟ ଆଲୋଚନା କରନ୍ତୁ।

MAINS TEST SERIES (Answer Booklet)

Roll No.	2023-088
Name	Jyotirmayee Swain.
Test No.	25
Subject :	GS-3
Date :	05/04/2025.

Question Paper Specific Instructions

- All questions are printed in **English**.
- All the questions are **compulsory**
- The number of marks carried by each question (or part) is indicated in the question paper.
- **Word limit** in questions wherever specified should be adhered to.
- Any page or portion of the Page left blank in the Answer booklet must be clearly stuck off

Q No.	Marks obtained	Q No.	Marks obtained	Q No.	Marks obtained
1	7	8	6.5	15	—
2	7.5	9	7	16	3.5
3	1	10	5.5	17	6
4	8.5	11	—	18	4
5	8	12	—	19	1
6	6.5	13	3.5	20	—
7	5	14	4		
				TOTAL	83.5

Dear Aspirant,

- ① You have very good Content and justified Content too.
 - ② Try to explore more Odisha relevant dimensions in your answer.
 - ③ Structure is good but do strictly adhere to word limit.
 - ④ You can draw diagrams, flow chart to improve presentations.
 - ⑤ Maintain neatness in your Answer
- Keep writing All the Best?
-

① For a sustainable cycle of economic growth the major role required needed also from the Private Investment along with governmental conducive policy. Intro can be improved

The Private Investment's importance for economic growth.

① It provides higher employment opportunity along with resilient infrastructure

Key Challenges Hindering India's Goal of a \$5 Trillion Economy

Regulatory Bottlenecks and Bureaucratic Hurdles

[e.g.] Land acquisition delays, GST compliance issues

② India is growing in this matter from adoption of the new economic policy -1991, as its foreign investment crossed 1.18 trillion in year 2024.

Infrastructure Deficiencies

[e.g.] Inadequate roads, power shortages

③ It hinders a positive competitive environment in local market to compete with international companies.

Access to Finance

[e.g.] High lending rates, limited angel investments

④ Private investment make the system more robust as it is money motive Profit oriented.

Skilled Labor Shortage

[e.g.] IT skill gaps, lack of technical education

⑤ It also make tie-up with various foreign companies to make more economic growth.

However, India aspire to be 5 trillion economy, but some bottle neck which block the path that are,

Inconsistent Policy Implementation

[e.g.] GST implementation, labor law reforms

① The global disruption due to war and conflict

(Eg) Israel and Hamas and Ukraine and

Political Instability and Governance Issues

[e.g.] State-level taxation issues, corruption in approvals

② The trade war between nations disrupting global trade markets.

(Eg) America's high tariff over Chinese product and China's counter-tariff policy.

Taxation and Compliance Burden

[e.g.] Tax audits, complex tax filings

③ High unskilled labour proportion in Indian economy.

Environmental and Sustainability Challenges

[e.g.] Mining sector regulations, water scarcity

④ The gap between demand required and available skills.

④ Poverty and inequality prevalence in Indian economy.

(Eg) Oxfam report, the majority 1% population having the country's wealth

Inefficient Land and Labor Markets

[e.g.] SEZ development, labor strikes

⑤ The issue of climate changes and allied issues like pollution.

(Eg) make investment in this sector more.

- ⑥ lower participation of women in workforce
is only 32% as compared to 47% global
average.

Weak Ease of Doing Business Ranking

[e.g.] Business registration delays, poor contract enforcement

Though these are the challenges but India
is trying to curb these issues with various
initiatives and policies i.e.

① Promotion of export $\leftarrow$ PLI scheme.
 $\rightarrow$ low tariff rate.

② PM Kaushal Vikas Yojana $\rightarrow$ skill development.

③ To reduce poverty and inequality $\rightarrow$ PM
Garib Kalyan Anna Yojana.

$\rightarrow$ MGNREGS $\rightarrow$ work of rural

$\rightarrow$ Deendayal Upadhyaya Urban Livelihood mission.

④ Invest in more R&D

(eg) Mission Mausam.

⑤ Robust work through 'Atmanirbhar
Bharat' $\rightarrow$ i.e. 'Make in India' and
'Make for the world'.

Apply addressed
the core demand

By working on its key bottlenecks India can be
achieved its aspiration for \$ trillion economy with
Viksit Bharat.

(2) The 'active inclusion' in the sustainable economic growth refers to the inclusion and participation of all sections of society in the economic growth and development.

Relevant Introduction

This can be seen initially motto in Budget 2025-26 i.e. 'Viksit Bharat' with

(4) key indication development i.e.

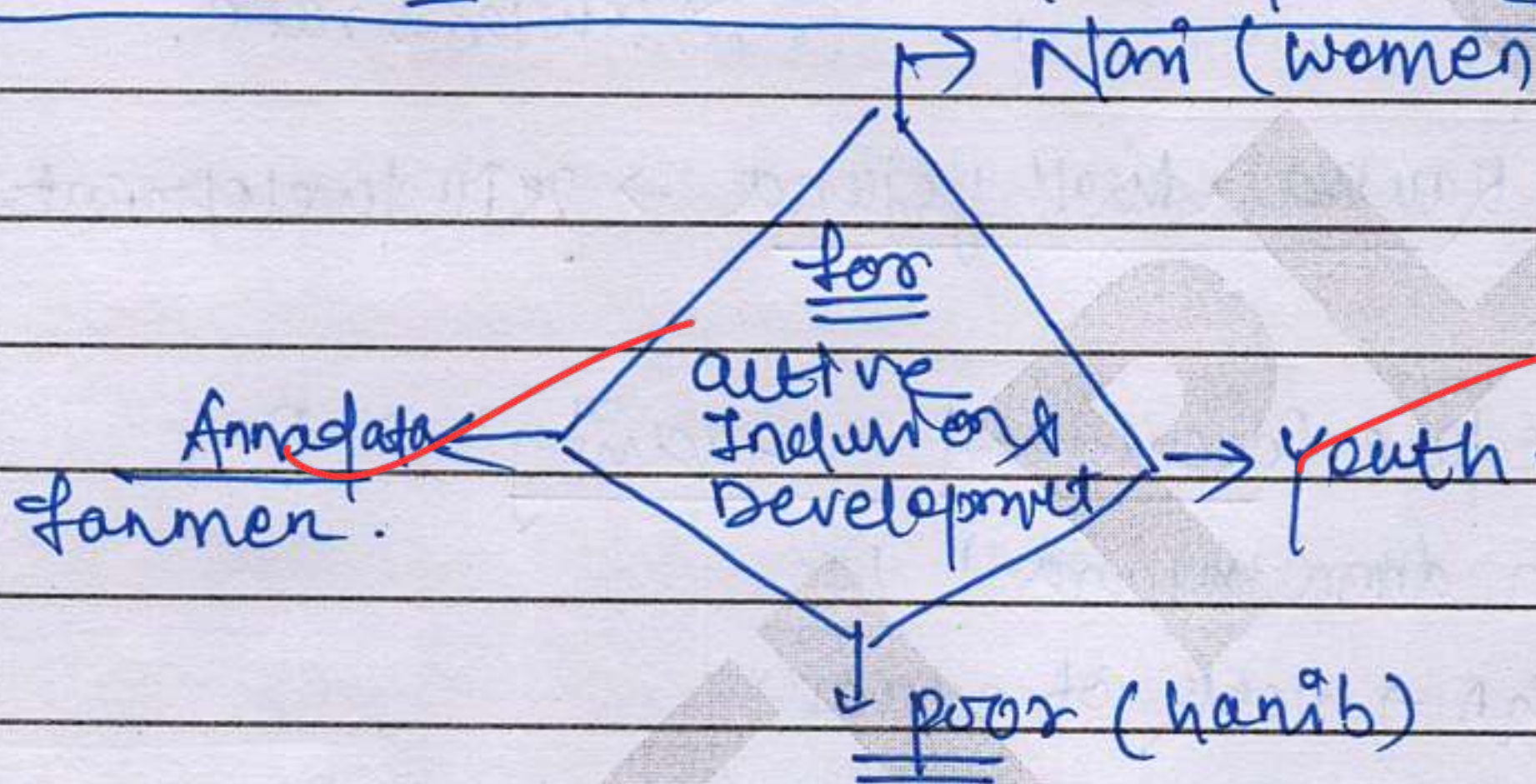


Fig = four pillar for economic growth and development with active inclusion

The major steps taken by government of India for the sustainable economic growth.

- ① Indian government has increased its investment in infrastructure development. i.e. capital outlay ratio has ↑ by 12% in 2024 from 2021 level.

② It has provide a framework in the budget - 2025-26 that for sustainable economic growth;

Financial Inclusion Initiatives

[e.g.] Jan Dhan accounts, micro-financing

To achieve 100% high level school education. Fair use of flow chart

100% inclusion of internet connectivity for robust economic growth.

Skill Development Programs

[e.g.] PMKVY, skill development centers

To atleast include 70% women in economic growth.

They key aim for sustainable economic growth

Provide affordable health care service to all.

Reservation and Affirmative Action

[e.g.] Reserved seats in universities, government jobs

Achieve zero poverty.

The farmer of India need to be made 'India' the 'food basket of world'

Social Security and Welfare Schemes

[e.g.] MGNREGA, pension schemes for the elderly

③ It also increase its investment in deregulating non-fossil industries and

Support for Women Empowerment

[e.g.] Mudra loans for women, gender-focused education

renewable sector, i.e. 7 million has achieved 457.5 GW of installation capacity of renewable energy which is almost 47% energy of India.

④ Through various policy and measures

Inclusive Agricultural Development

[e.g.] Crop insurance, low-interest loans for farmers

→ PM Kisan Vikas Yojana

→ Stand-up India

→ SHG and MGNREGS, it has required

Promoting Urban Inclusion through Affordable Housing

[e.g.] Affordable housing schemes, slum redevelopment
as compared to 6% in 2021.

↳ Economic Survey-2021-22

Education and Digital Inclusion

[e.g.] Digital literacy training, e-governance platforms

It also promotes digital economy model
and input IT of GDP into it
for better economic growth.

Disability and Elderly Inclusion

[e.g.] Disability pension, assistive technologies

⑤ Provides various incentives to farmers for
Primary sector growth

① PM Kisan Samiksha Yojana

② PM Fasal Bima Yojana

③ Rural Entrepreneurship schemes

④ e-NAM etc.

Promoting Rural and Tribal Development

[e.g.] Tribal development funds, rural entrepreneurship schemes

⑦ Empowering women to participate in
the economy

↳ mission shakti mission

→ Drone-didi etc.

Though, India has put lot of effort
to achieve sustainable

economic growth, however ~~it~~ need to be go on 8% growth rate for at least a decade for to become 'Viksit' by 2047 ,

④ Odisha Budget 2025-26 → major theme of

Odisha Budget is Viksit - Odisha, with total budget 2.9 lakh crore , Intro can be better

The main aim of Odisha's budget

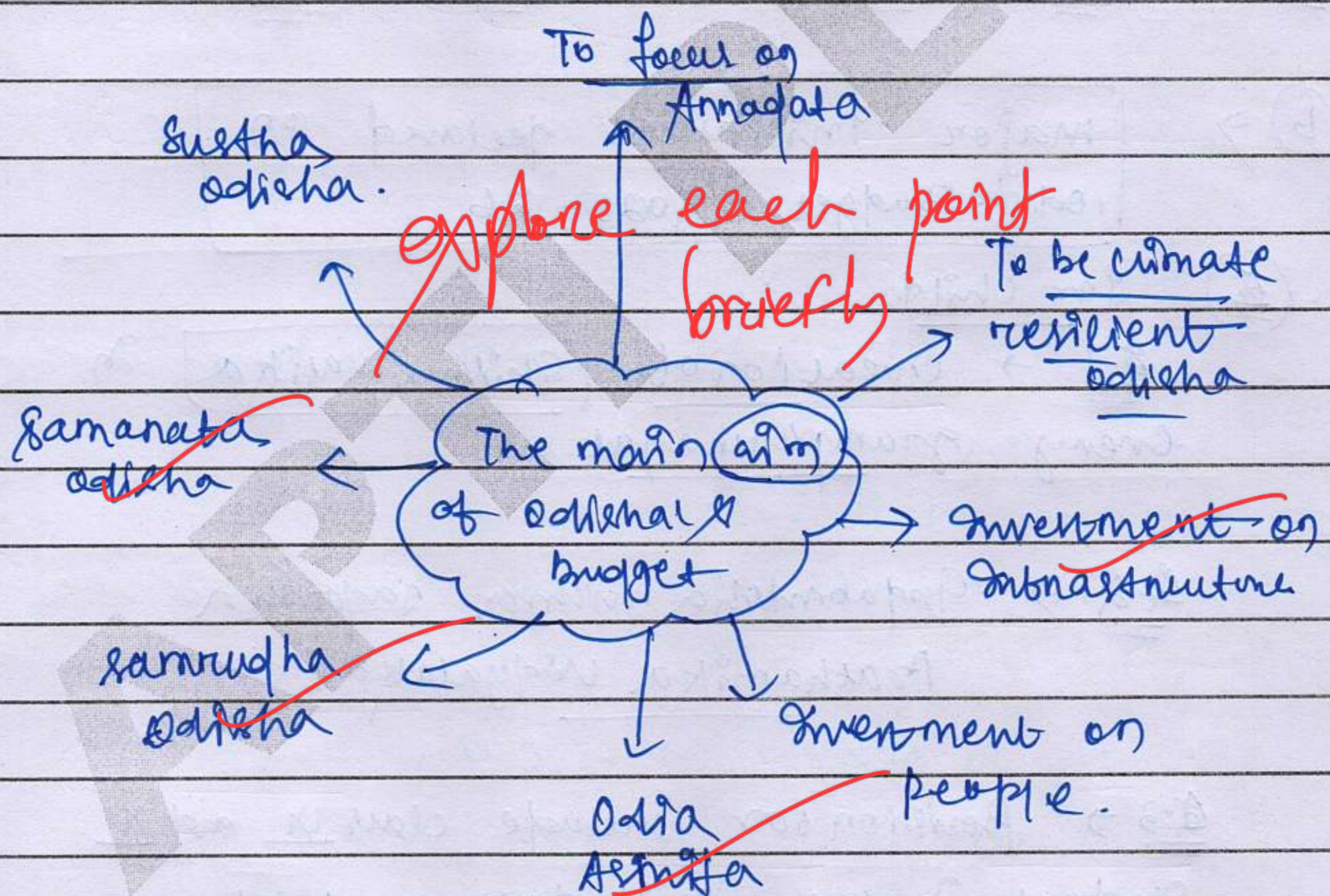


Fig - key focus of Odisha Budget 2025-26 .

(A) Key Fiscal Indicators

1.1 → It has become best fiscal state of India → got 1st rank from NITI Aayog.

Fiscal Indicators:

1.2 → Growth rate stood at 7.2% as compared to national avg. 6.4%.
Programme Expenditure: ₹1,70,000 crore (58.62% of the total budget), indicating a focus on developmental programs.

1.3 → The fiscal deficit is 3.4% under the FRBM limit 3.5%.

Capital Outlay: ₹65,012 crore (6.11% of GSDP), the highest proportion among major Indian states, highlighting significant investment in infrastructure.

1.4 → with fiscal surplus 2.9% of GDP.

(B) → Major initiatives declared on Odisha Budget - 2025-26.
Revenue Surplus: Projected at 3% of GSDP, ensuring fiscal responsibility.

(C) For Child

2.1 → creation of Shiksha Vatikas in every grampanchayat.
Fiscal Deficit: Estimated at 3.2% of GSDP, slightly above the previous year's 3.1%, reflecting ongoing fiscal consolidation efforts.

2.2 → Gopabandha muktas saporena Prathamika Uchchayalaya.

2.3 → Provision for include class IX and X student in the mid-day meal scheme.

2.4 → Provide one extra egg and 3 nutritional rich laddoo's to the children.

② For women

2.1 → PM Matru Vandana yojana

Agriculture and Rural Development: 12K for girl child fertility
10K for boy child

Samrudha Krushak Yojana: ₹6,000 crore allocated to enhance farmers' income.

CM Kisan Yojana: ₹2,020 crore for direct financial support to farmers.

2.2 → Subhadra Shakti mela every year.

Shree Anna Abhiyan: ₹600 crore to promote millet cultivation.

③ For farmer

Antyodaya Gruha Yojana: ₹2,603 crore for constructing 75,000 houses for the underprivileged.

Samrudha Krushak yojana

C) for wholesome development

3.2 Focus Construction of canal and Irrigation
benefits.

Infrastructure Development:

④ For Infrastructure

Mukhya Mantri Sadak Yojana: ₹3,470 crore for rural road improvements.

4.1, The allocation of 6.1% of GSDP

Mukhyamantri Sahari Vikas Yojana: ₹1,100 crore for urban infrastructure project

4.2 on infrastructure development project

Atal Bus Stand Scheme: ₹1,266 crore for developing 133 bus stands.

⑤ Rural economy

Put 7.8% of GSDP on rural economic
development with focus on

'migration' must be a option not a decision

(C) Sectional growth trends

Odisha's economy major ~~get~~ incentives from

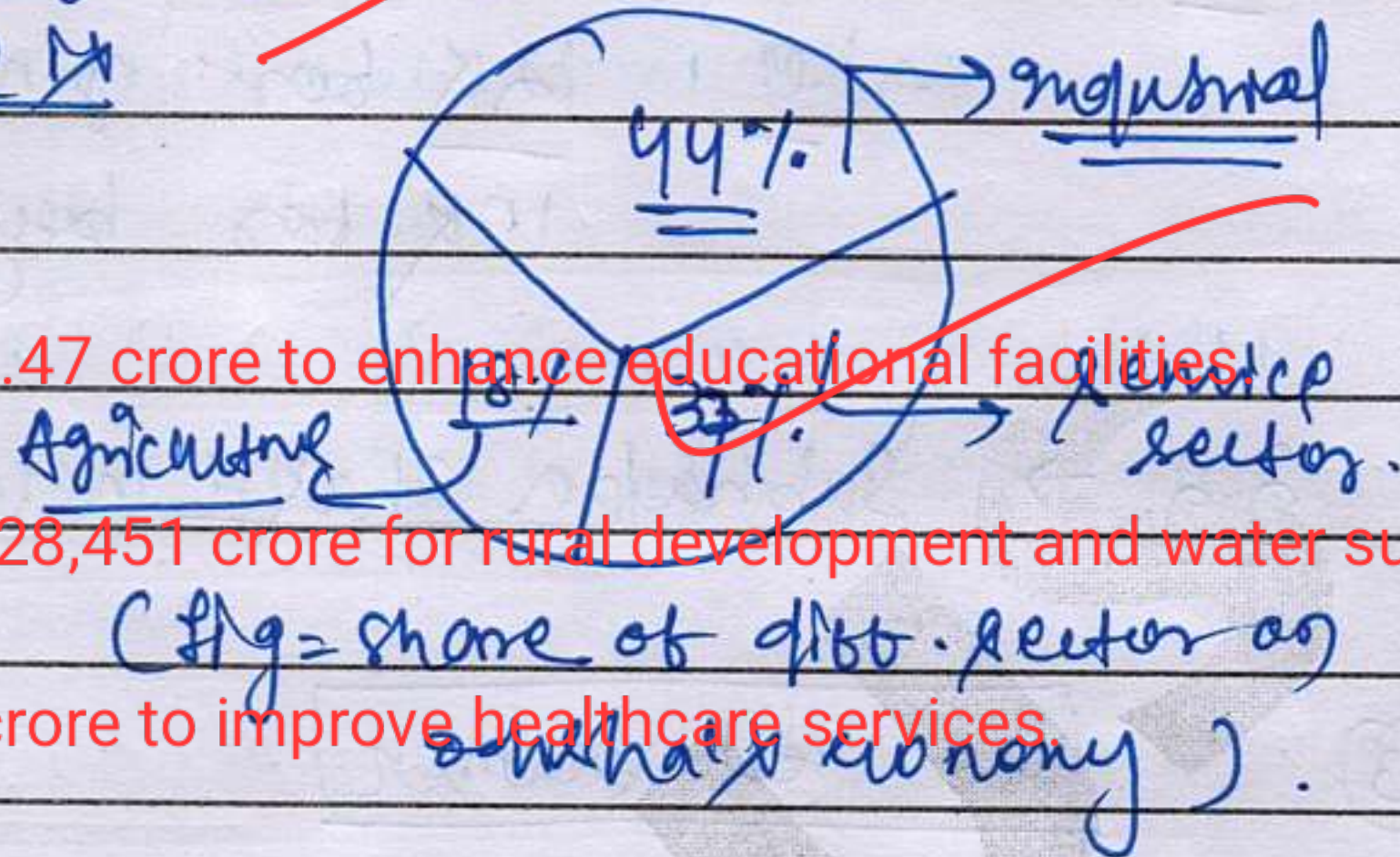
(3) sectoral share

Social Sector:

School and Mass Education: ₹31,185.47 crore to enhance educational facilities

Panchayati Raj and Drinking Water: ₹28,451 crore for rural development and water supply.

Health and Family Welfare: ₹22,741 crore to improve healthcare services.



→ The share of service sector

↑ in the rate

of 10% in comparison of national 7.2%

However some implication for economic development in the state.

New Initiatives:

(1) 37% of the money goes to the administrative expenditure in the state.

Shree Jagannath Darshan Yojana: ₹30 crore to facilitate pilgrimages to Puri's temple.

Subhadra Suraksha Yojana: ₹153 crore for enhancing security measures.

(2) The state is majorly prone to disaster

Bakul Bana Unnayana: ₹50 crore for forest development.

like cyclone, flood, thunderstorm (Account for 50% of India) but only the

Cold Storage Policy: ₹60 crore to support agricultural storage infrastructure.

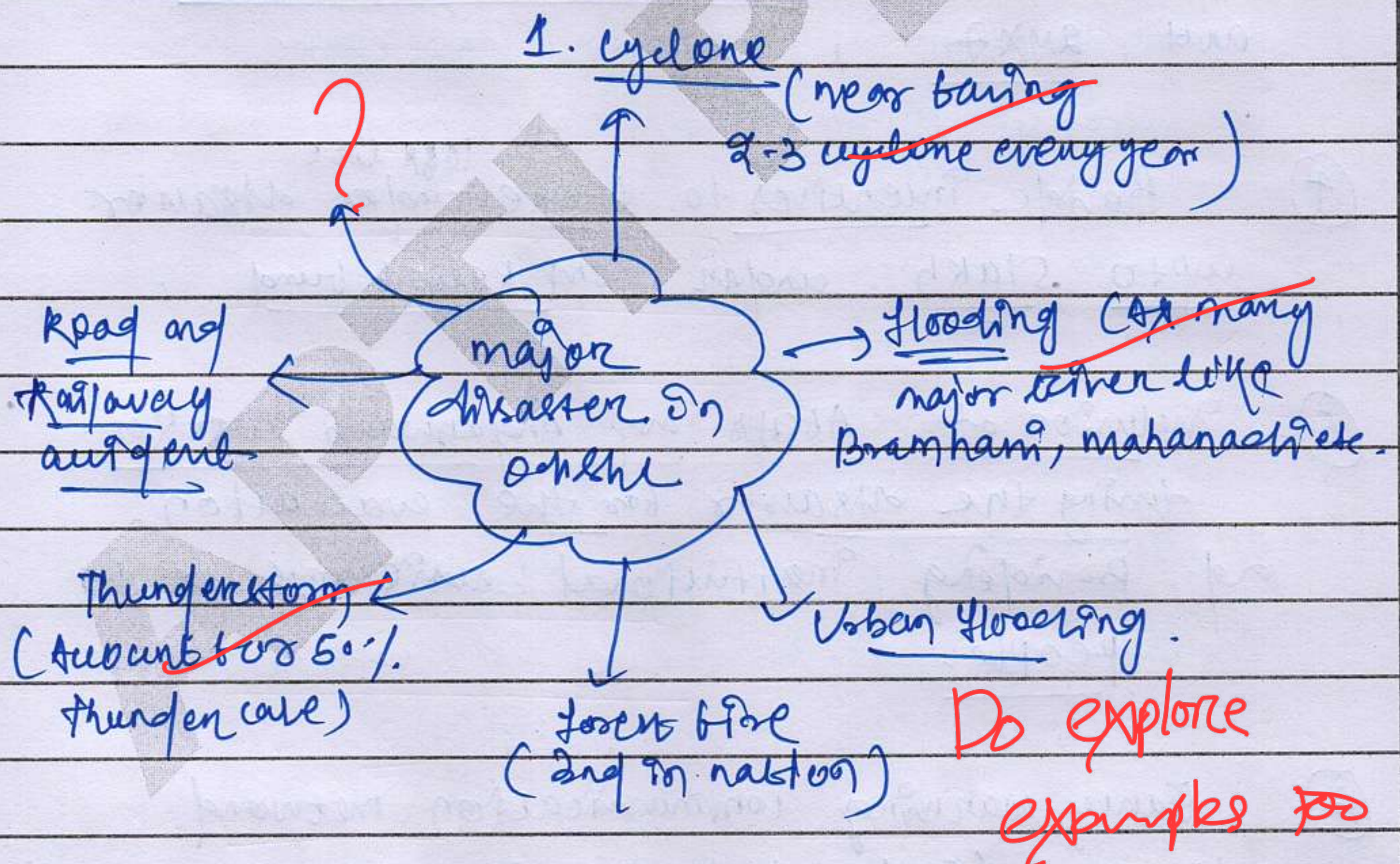
budgetary allocation of 1%.

(3) 49% of the population depends on agricultural activity.

only 18% contribution to GDP.

Conclusion ^{is} Thus, by tackling these bottlenecks fine ~~of~~ ~~Odisha~~ can be achieved ~~500 billion~~ 500 billion economy by year 2036. (in first year it will mark its 100th anniversary).

(5) Odisha placed in Eastern part of India with bordering Bay of Bengal having 574.7 km border line, being land of diversity it has many disasters however by resilience approach it able to overcome all that.



It is the Odisha's major disaster.

Odisha's transformation in disaster management over past two decades

① It is the 1st state which create state disaster management authority, 2000
much before national disaster management
act, 2005

Formation of the Odisha State Disaster Management Authority (OSDMA)

[e.g.] OSDMA's role, coordination between agencies

② cyclone prone center - > over 9000 cyclone
multi-hazard centers in coastal districts.

Improved Early Warning Systems

[e.g.] IMD collaboration, mobile-based alerts

③ state's own 'state disaster relief bank',
act 2017

Community Participation and Awareness Programs

[e.g.] Volunteer training, community preparedness

④ Provide incentives to those who take
up to 5 lakh under CM Relief fund.

Coastal Protection and Infrastructure Development

[e.g.] Cyclone shelters, flood barriers

⑤ Inclusion of AASHA and Anganwadi worker.
during the disaster for the evacuation
and providing institutional assistance to
people.

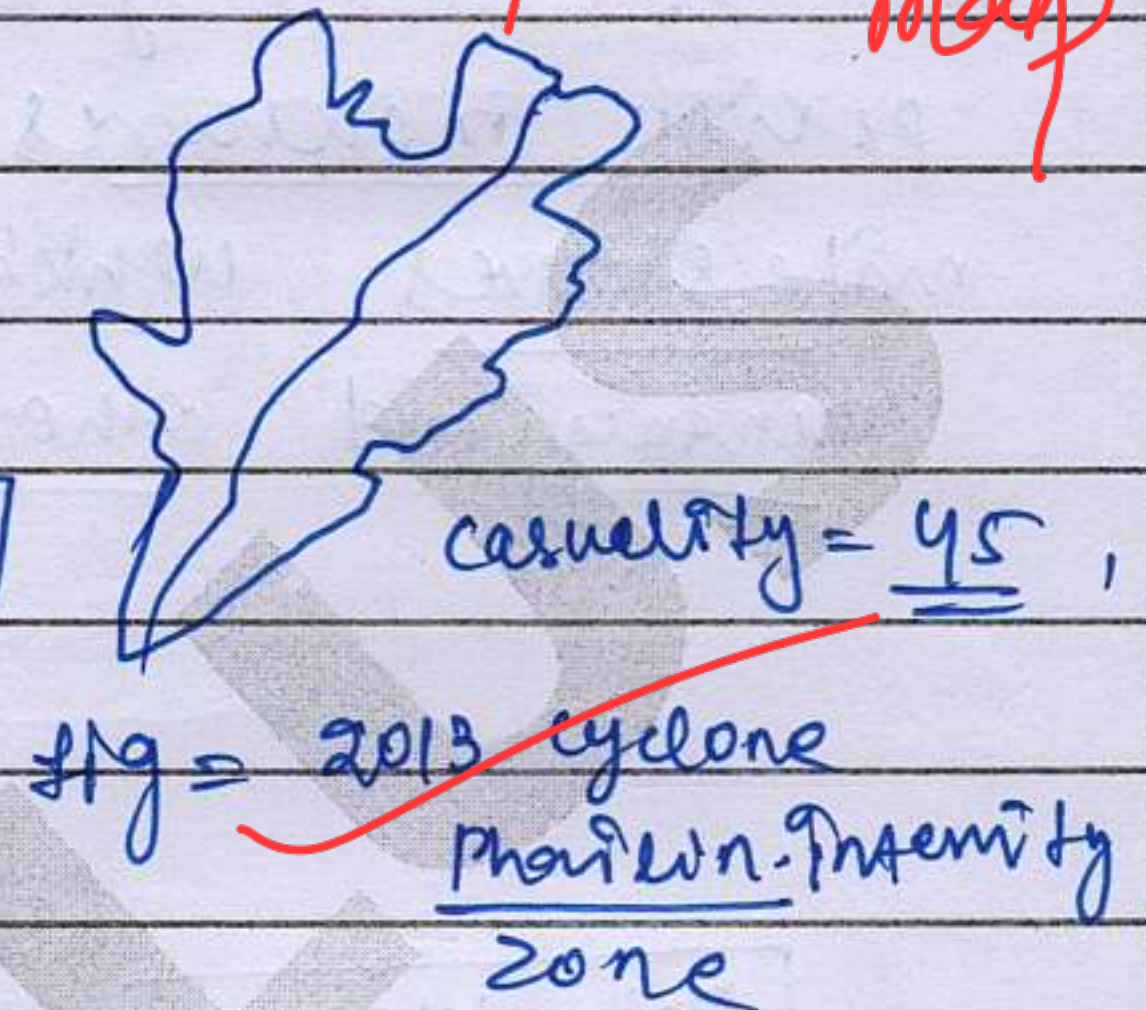
Integrated Disaster Management Planning

[e.g.] Multi-hazard planning, resilience strategies

⑥ Early warning communication network
through 'Radar technology' with collaboration
with IMD.

By taking all these ~~steps~~ adisha able to achieved some mile stone through which other ~~state's~~ can learn that one;

Well depicted map



Importance of Strong Institutional Frameworks
[e.g.] OSDMA model, institutional coordination

Community-based Preparedness

[e.g.] Village-level preparedness, local disaster management teams

② For this to get recognition from UN?
1st UN habitaton award - 2019

Early Warning and Communication Systems

[e.g.] Mobile alerts, satellite data use

③ It has also follow the robust policy of 'zero casualty' during ~~the~~ the mitigation of ~~disasters~~

Infrastructure Resilience

[e.g.] Cyclone-resistant shelters, flood-resistant infrastructure

Cross border and Regional Cooperation

[e.g.] Regional cooperation with Bangladesh, joint training exercises

④ It has also strengthening its coastal region with 'Mangroves' under 'MISHTI' Programme for the disaster resilient,

Integration of Technology and Innovation

[e.g.] GIS for flood mapping, drone surveys for damage assessment

⑤ Announcement to plant 1.50,000 Palm tree in coastal region to mitigate thunderstorm

Do write
Concise
of introduction
Thus can be said though the nation
due to various socio-economic difficulties
known as a poor state till the beginning
of 21st century but due to its various
policy measures it has achieved many
milestones which will be a guiding light for
country and other state.

⑥
16.5
[PM-KISAN] → i.e., Pradhanmantri Kisan
Samman Nidhi a welfare initiative
launched by the central government for
wholesome development of agricultural
sector and farmers.

App Introduction

[Key Initiatives under PM-KISAN]

- ① Providing 6000 direct income support to farmers
for the better cash flow used in agriculture
Direct Income Support to Farmers
[e.g.] ₹6,000 per year, improved cash flow
- ② Provision for hybridisation of agriculture
sector.
Reduction of Loan Dependency
[e.g.] Reduced debt burden, financial autonomy
- ③ Aim for the diversification of crops.

④ Key-aim to guide farmer during ~~cropping identification~~ and inclusion of ~~banking~~ into ~~new~~ marketing system,
Promoting Financial Inclusion
[e.g.] Jan Dhan accounts, increased bank linkage

⑤ PM-KISAN also encourage farmers to use ~~advanced technology~~ with various guidelines,
Encouraging Government Accountability
[e.g.] DBT (Direct Benefit Transfer) reduced corruption
~~like - prone.~~

⑥ It also one of ~~the~~ Bowl to ~~make state~~ double the farmers' income by various additional methods.

Supporting Sustainable Agricultural Practices
[e.g.] Eco-friendly practices, investment in modern inputs

⑦ It empower the farmers to use fertilizers with adequate irrigation facility through PM-KISAN.

⑧ ~~That~~, It also empower farmer for the extensive agricultural pattern.

Thus it can be a transforming initiative which will help to grow agricultural sector and rural economy;

① PM-KISAN, helps to increase the farmers income, so that it help to increase the living standard of farmer.

Challenges and Limitations of PM-KISAN

Exclusion of Landless and Tenant Farmers
[e.g.] Tenant farmers, landless laborers

Insufficient Amount to Address Structural Problems
[e.g.] Low income, inadequate capital

fair use of flow chart

② Provide adequate opportunity to diversifying the crops which will help the industrial sector to establish food processing industries in rural areas.

③ As food processing industries are labour intensive industries will help in providing employment.

Increased Government Expenditure
[e.g.] Fiscal deficit, long-term viability

④ Thus overall helps in the rural economic growth.

Conclusion is fine
Thus, PM KISAN a agricultural initiative which not only to boost production and economic growth of farmer but as well as will help in the overall economic growth.

- ⑤ ⑦ Rainforest are the best carbon sequestration site of the environment which not only help to provide a clean environment but also helps to maintain biodiversity.
- good Intro

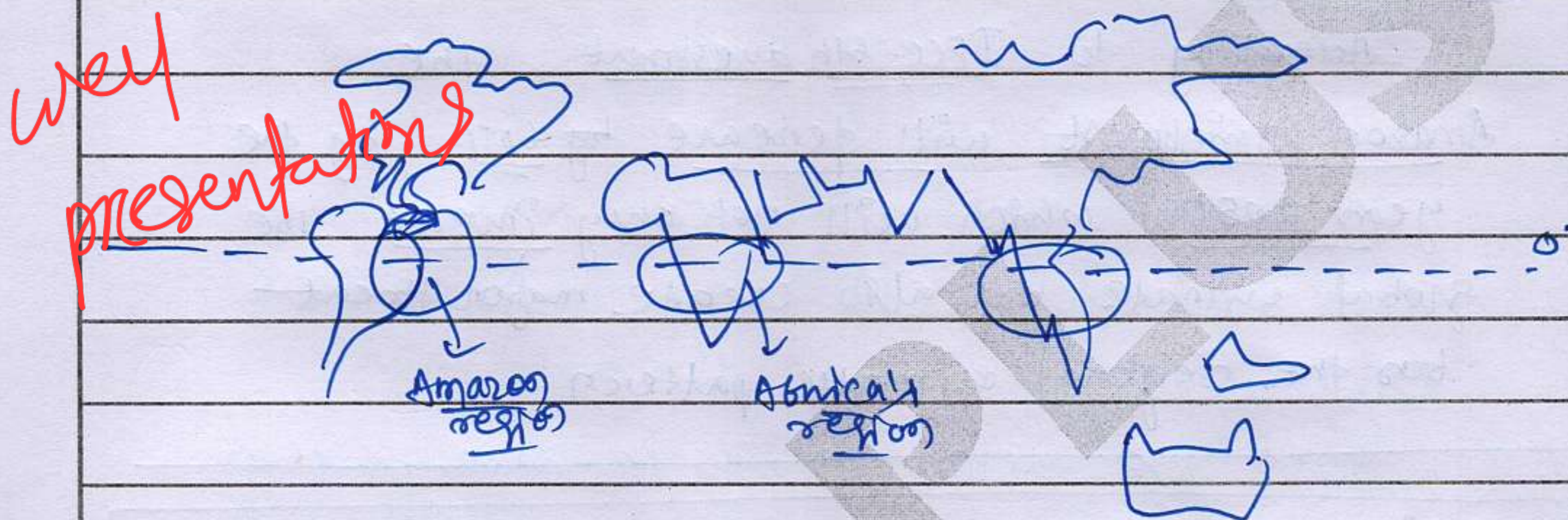


Fig = the tropical major rainforest region of world.

Importance of rainforest

- ① Rich in biodiversity and substance of

Stronger Enforcement of Deforestation Laws

[e.g.] Brazil's "Forest Code," Indonesia's logging bans

- (Eg) Amazon largest ecosystem in terms of rainforest.

Promotion of Sustainable Agriculture and Agroforestry

[e.g.] Shade-grown coffee, agroforestry models

helps to maintain global food chain, as majority of food and livelihood items are from the

region ,

Expansion of Protected Areas and Forest Reserves

[e.g.] Amazon's indigenous reserves, Congo Basin reserves

③ High medicinal values, as many medicinal plants are here and helps in economic development.

Enhancement of Community-Based Conservation Programs

[e.g.] Community Forest Management in India, Indigenous-led conservation in the Amazon

Case study -

According to IPEC-6th assessment, the Amazon rainforest will decrease by 60% by the year 2050.

Climate Financing for Forest Conservation

[e.g.] REDD+ program, carbon offset projects

not only impact the global climate but also create major threat for the regional climate pattern.

Major efforts to safeguard tropical forests and enhance their contribution in regulating Earth's climate.

International Collaboration on Forest Conservation

[e.g.] COP decisions, REDD+ agreements

① Strong global and enough global mechanism to restoration of forest.

like Africa's green belt project.

European Union's green belt project.

Promotion of Sustainable Supply Chains

[e.g.] Roundtable on Sustainable Palm Oil (RSPO), Forest Stewardship Council (FSC)

② High penalty on encroachment upon forest land areas.

Forest Restoration and Reforestation Initiatives

[e.g.] Bonn Challenge, India's Green India Mission

③ Need to change life-style pattern i.e. High consumption towards restoration.

The steps already taken 3

Scientific Research and Technology Deployment

[e.g.] Global Forest Watch, space-based forest monitoring

- ① ~~Global mangrove plantation~~
- ② ~~Global alliance for mangrove plantation~~
- ③ ~~Various grouping and bodies like, UNEP, COP, etc.~~

The global ecosystem is the major ecosystem of earth's 'bio-geochemical cycle' which not only help to sustain life but also maintain balance thus, need of the hour to restore it for to achieve sustainable development ecosystem.

⑧ Technology

can be a equipment, fence which helps to make the life style easy not only for individual but also towards economic growth.

Apt Intro

Technology serves as both enabler and a challenger to national security

Technology as a enabler in national security

① Helps to identify culprit early.

Real-Time Intelligence Gathering

[e.g.] Monitoring extremist content, tracking suspicious behavior

② Helps to keep eye on every and each movement of threat to nation

(Eg) Through drone's in border region.

Early Warning and Crisis Management

[e.g.] Twitter feeds during emergencies, Instagram for live updates

(Eg) Technology helps to identify the critical infrastructure of the country.

(Eg) Through AI technology.

Counter-Terrorism and Radicalization Prevention

[e.g.] Tracking extremist forums, monitoring radical YouTube videos

(4) It helps to easy sharing of data and solutions.

(Eg) Data sharing between Indian and American's government.

Public Engagement and Communication

[e.g.] Facebook alerts for missing persons, Twitter for public safety updates

(5) It enables the nation to be safe in terms of security purpose.

(Eg) - Soldiers at a nation through technology know

Collaboration with Private Tech Companies

[e.g.] Collaboration with Facebook on terrorism-related content, Google on data encryption

However It has also put challenges

(1) India facing major issue like cyber bullying, cyber crime. ↑ due to the decentralization of technology.

Privacy Concerns and Legal Frameworks

[e.g.] GDPR in Europe, Fourth Amendment concerns in the U.S.

(Eg) According to WEF, It will manage to reduce the cyber threat its GDP may ↑ by 10%.

② It vulnerable the common people of the country.

(Eg) The technological threat 'Digital assault'

Risk of Misinformation and Fake News

[e.g.] Disinformation campaigns, fake news during elections
made 120 million cash loss in India during period of 2024.

③ The cyber crime attack on critical infrastructure of country.

Cybersecurity Risks

[e.g.] Hacking social media accounts, phishing attacks

(Eg) Kudankulam Power Plant cyber intrusion.

Delhi-ALLMS data threaten - 2021.

④ The cyber nation easily known the strategy of nation government due to poor cyber security management in the country.

Ethical Dilemmas and Overreach

[e.g.] Profiling minorities, surveillance of political dissent.

(Eg) Pakistan's gulf war attack.

However, the law enforcement agency can leverage social media to enhance national security.

The Speed and Volume of Data

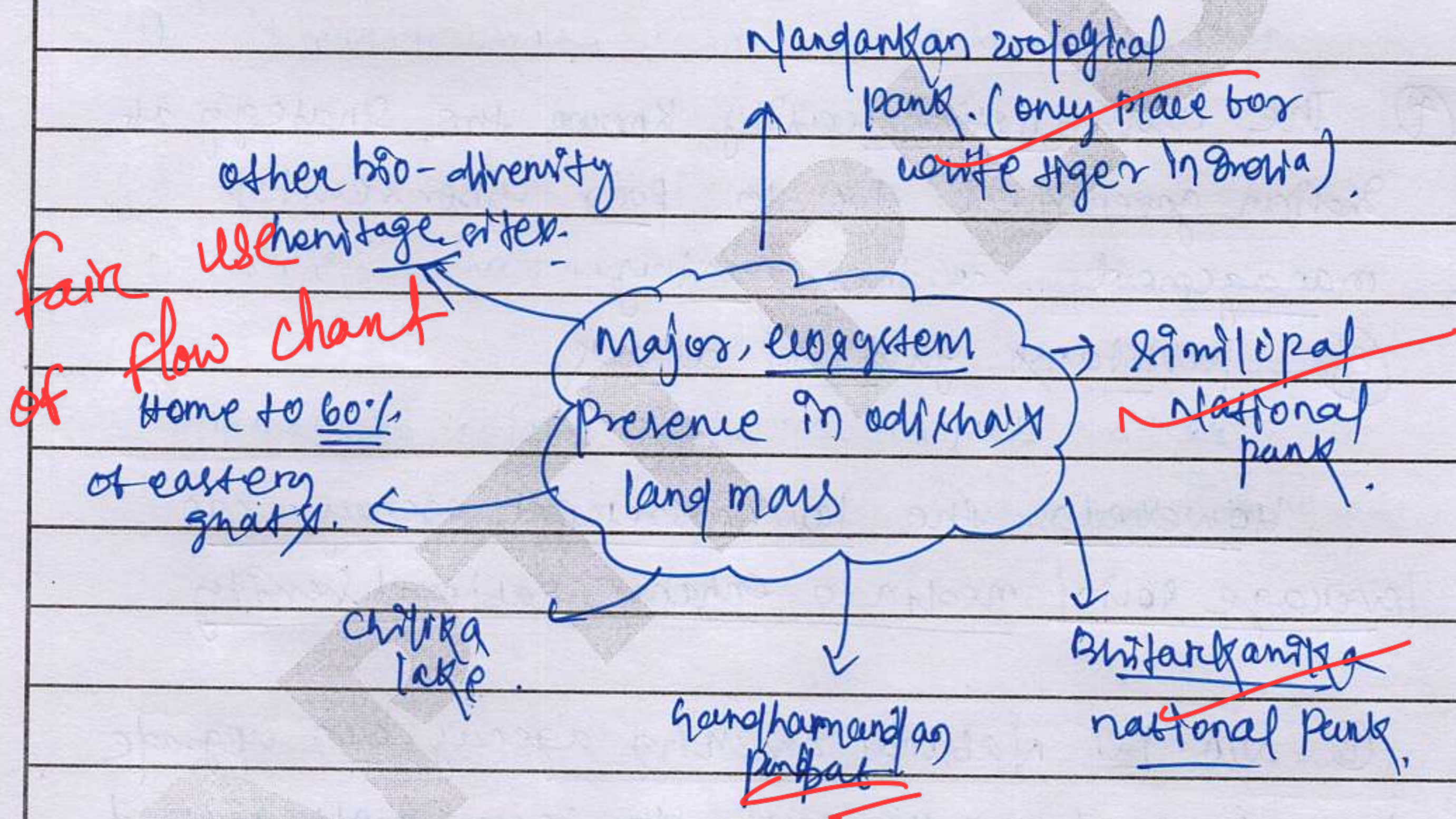
[e.g.] Big data challenges, AI tools for social media analysis

① NIA - National intelligence agency can upgrade technology helps the nation to be vulnerable in hand of cyber threat.

② Spreading awareness campaign in the social media sites with various advertisement and privacy measures.

Thus, As we are in the digital era, the threat of technology will increase in our battle so need of the hour for better structural and institutional policy measures.

⑨
⑦ Odisha is rich in ecosystem with having various natl forests, national parks, wetlands, conservation sites etc. Can be better



The economic significance of ecosystems of Odisha and land commons

① It provide huge livelihood opportunity to tribal people.

As many of region are dominated in tribal
Agricultural Productivity and Livelihoods
[e.g.] Coastal aquaculture, rice farming in floodplains

② Huge employment opportunity to rural community.
→ As they collect forest produce from the
Water Resources and Irrigation
[e.g.] Mahanadi river basin, floodplain irrigation

③ To empower the tourism sector, which ultimately
helps in economic activities.
Fishing and Marine Resources
[e.g.] Chilika Lake fisheries, marine fish exports
almost 12% employment opportunity.

Forests for Livelihoods and Non-Timber Forest Products (NTFPs)
[e.g.] Sal, bamboo, honey, medicinal plants
④ Helps in maintaining biodiversity, the ultimate
growth of economy.

Tourism and Eco-Tourism
[e.g.] Wildlife tourism, bird-watching at Chilika
of high production.

The challenges they faced

① Deforestation and Habitat Degradation
[e.g.] Mining in tribal areas, loss of forest cover
the heatwave days leads to forest fire,
and economic loss.

Pollution and Climate Change
[e.g.] Industrial effluents in rivers, cyclone frequency increase

② Pollution → the Ocean Pollution due to plastic
and oil spillage.

③ Low rainfall → hinder in growth of crop

Overexploitation of Land Commons

[e.g.] Land encroachment, unsustainable grazing

④ The encroachment due to developmental

Loss of Biodiversity

[e.g.] Decline in fish stocks, loss of migratory birds

⑤ 'Niyangiri' majanay threatened from

Weak Enforcement of Land and Resource Rights

[e.g.] Forest land encroachment, conflicts over NTFP collection

Sustainable measures

① Governmental policies needed to strengthen GIA

Integrated Ecosystem Management Plans

[e.g.] Integrated coastal zone management, community forestry

② High Participation of local leaders and youth to

Community-Based Resource Management

[e.g.] Joint Forest Management (JFM), community-run fisheries in Chilika

Thus, the economic activity of odisha also depends upon ecological sector which

provide adequate employment opportunity to rural livelihood and helps in sustaining

ecosystem.

Conclusion
is fine

10

5.5

Agriculture growth and transformation are the crucial sectors for the holistic development of the country, so there need to be robust private participation which not only will to boost the production but also will help in economic development. ~~Not Intro~~

The Role of Private sector in drives farming, agribusiness and agri-food value chains

Investment in Agricultural Infrastructure

[e.g.] Reliance Fresh cold storage, Adani Agri Logistics

- ① It can help in input cost management through providing HYV seeds to farmers.
- ② → Maharashtra's potato cultivation based majorly on private sector incentives.

Technology and Innovation

[e.g.] Drone technology, satellite-based weather forecasting

- ① help in better crop management and policy strategy.
- ② help to empower farmers for exploring global market.

Research and Development (R&D) in Agronomy

[e.g.] Monsanto's GM seeds, Syngenta's crop protection chemicals

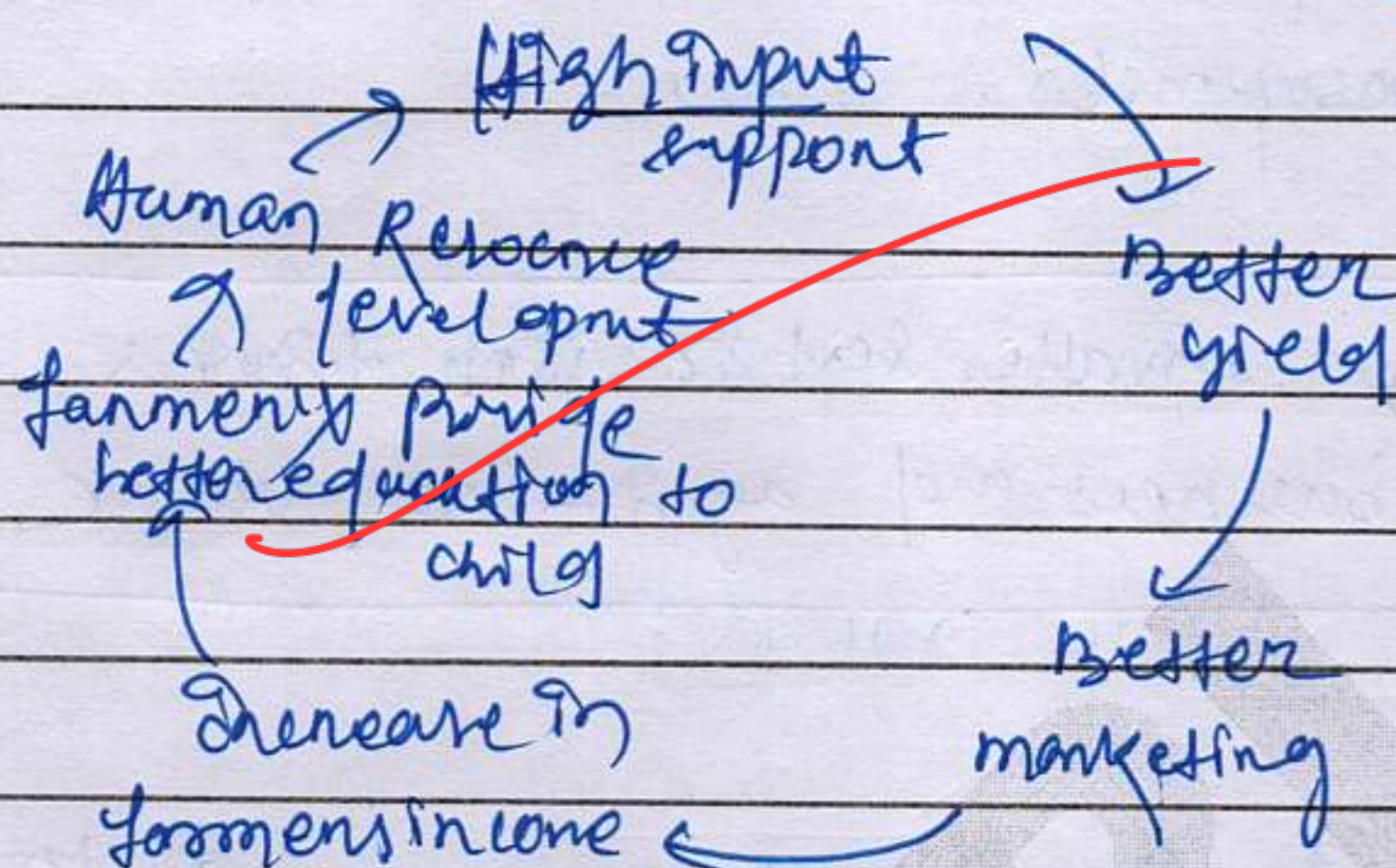
- ① will create a better supply chain management i.e. from identification of seed till the providing service to the farmer.

- ④ It will helps to generate better income for farmers which helps help in better living standard of farmer.

Market Linkages and Value Chain Development

[e.g.] E-commerce platforms like BigBasket or Ninjacart, farmer producer organizations (FPOs)

- ⑤ It create a spin-off effect i.e.



well depicted
flow chart

However, Government has also provide various measures for private investment in agriculture sector;

- ① 100% FDI parity in agricultural and food processing sector.

Creating a Supportive Regulatory Environment

[e.g.] Ease of doing business in agribusiness, agricultural investment zones

- ② Single window clearance mechanism in private investment.

Public-Private Partnerships (PPP)

[e.g.] PPP in rural infrastructure, private investments in irrigation projects

- ③ To boost agri income, government indulge in PLI scheme which not only helps in

better production but also will help to support

Access to Credit and Insurance for Farmers

[e.g.] PM Kisan Credit Card, Pradhan Mantri Fasal Bima Yojana (PMFBY)

Indian aim for the farmers through Private

Focus on Farmer Producer Organizations (FPOs)

[e.g.] Government support for FPO formation, partnerships with agribusinesses

for the promoting exports.

Encouraging Sustainable Agricultural Practices

[e.g.] Subsidies for organic farming, tax incentives for green technologies

Private for establishment of robust supply chain management.

Thus, by Proper Inclusion of Private Sector into Indian agricultural market, it will help for both increasing farmers livelihood with economic growth.

(18)
(h) Space Debris → It refers to the unwanted waste which are circulate in space made by the various space agencies through various missions. fair Intro

The growing issue of space debris in recent times

ie, The mismanagement due to the various countries lead to create many space debris.
Accumulation and Risks to Space Missions
[e.g.] Debris collisions in LEO, damage to satellites and space stations

② It is not only harmful for the space but also create major threat for the earth's environment.

Impact on Future Space Exploration
③ It can also create many hazardous effect, [e.g.] Threats to moon missions, interference with Mars exploration probes
to the debris get collide with any other useful satellites that are in orbit.

Increase in Satellite Launches
④ It is harmful for the future launching and [e.g.] Starlink satellite launches, increase in small satellite deployments
future experiments.

Thus, the global agencies and as well as ISRO has taken many steps to curb it ie,

Challenges in Tracking Space Debris

[e.g.] Lack of tracking systems for small debris, increased risks of untracked debris collisions
① ISRO has made a significant declaration to be space debris free by 2020.

Environmental Impact
② Also made many collaboration with international agency to work upon it.
[e.g.] Re-entry of space debris into Earth's atmosphere, risk of debris on Earth's surface

③ It use sustainable space craft methodology to make space cleaner and debris free

However, need of the hour for more collaboration and co-operation on global level. Need Improvement

⑦
⑥ India being a human resource pool country with 60% of population in the age sphere of 15-65, make it 'demographic dividend' country, however the increasing unemployment create a major threat.

Relevant
Intro

The major reasons behind unemployment in Indian youths -

① Lack of technological skills as per the requirement.
Mismatch Between Education and Market Requirements
[e.g.] Graduates lacking employable skills, limited industry-specific training in India.

② The increasing rate of poverty make them more unemployment in country.
Growth of the Informal Sector
[e.g.] Casual labor in agriculture, informal retail jobs

③ The increasing rate of 'inflation' and limited availability of quality jobs, also lead to unemployment.
Limited Availability of Quality Jobs
[e.g.] Short-term contract work, underemployment in low-wage sectors

④ i.e. The climate change make more vulnerable to this situation.
As the coastal region are submerging the coastal community majority get unemployed.

However, it has needed to a many
extent, by

- ① The unemployment rate is at 3.2%
down from 6% from 2021 level.
by Economic Survey - 24.

Structural Changes in the Economy

[e.g.] Decline in agricultural jobs, migration of youth to urban areas with no skills

- ② Various schemes and initiatives have
been employed to
→ PM Kaushal Vikas Yojana
→ vocational education.

Slow Pace of Job Creation

[e.g.] Automation reducing manufacturing jobs, slow growth in labor-intensive sectors

- ③ Promotion of startups and MSMEs
sector help to create more employment.

- ④ Investment in green industries will
The recent budget highlighted the
food processing industries will help to
generate glorious jobs by 2030,

- ⑤ The schemes like the Agri-vet-net-work
will help more employment.

Unique state specific scheme

Odisha government :-

Skill Development Initiatives: Odisha Skill Development Authority (OSDA)

[e.g.] Skill development in IT and electronics, vocational training programs in rural areas

~~Vocational training through IT~~

(2) MUKTA scheme to reduce the

Pradhan Mantri Kaushal Vikas Yojana (PMKVY) in Odisha

[e.g.] Skill training for youth in rural Odisha, certification programs for specific trades

West Bengal :-

In align with PM Kaushal Vikas Yojana

Odisha Livelihoods Mission (OLM)

[e.g.] Promotion of rural entrepreneurship, tribal youth livelihood programs

learning

Conclusion is here
Employment is a major enabler in the economic growth. So need to curb it for better sustainable economy.

(16)

365

Wetlands are the major ecosystem of the country, which not only provide environmental benefit to country but also helps to boost economical significance. good stand

India have now 8th wetlands in the country.

Major threat faced by Wetlands

① Pollution of the wetlands due to the high wetlands are face the major threat in balancing ecosystem.

Encroachment and Land Reclamation

[e.g.] Reclamation of wetland areas for urbanization, illegal farming on wetland land

② The various developmental activities in the wetland regions.

Pollution from Industrial and Domestic Waste

[e.g.] Sewage contamination in urban wetlands, industrial discharge in lakes

③ Climate change and global warming make vulnerable to it.

Invasive Species

[e.g.] Water hyacinth in the Chilika Lake, invasive fish species in wetlands

④ The regulation on the ecosystem lead to the threat for flora and fauna of that region.

Climate Change

[e.g.] Reduced water levels in Keoladeo National Park, shifts in migratory patterns of birds

Unsustainable Agriculture and Fishing Practices

[e.g.] Overfishing in the Sambhar Salt Lake, use of pesticides near wetlands

Nationally → Protection through Environment Protection act 1986.

National Wetland Conservation Programme (NWCP)

[e.g.] Restoration of Loktak Lake, Protection of Chilika Lake

→ Declaration of wetland as nationally of importance place.

Globally → celebrating wetland day on February-2

② Global wetland disturbance etc.

The wetlands are the major ecological zones which will help to maintain the global ecosystem.

⑤ APEDA, Sanitary boards made during the north-east insurgency during mid of the

③ Anti-microbial resistance → which helps in to increase the stability of the medicines and act as a key indicator for spread come.

Overuse and Misuse of Antibiotics

[e.g.] Antibiotics for cold/flu, unregulated drug sales

The key factor contributing to antibiotic resistance in India.

Inadequate Infection Control in Healthcare Settings

[e.g.] Contaminated medical equipment, overcrowded hospitals

① The government has provide various incentives to the increase the infection control.

② there are helpful in preventing disease like cancer, and other deadly diseases.

Lack of Proper Surveillance and Data

[e.g.] Lack of AMR databases, limited research funding

thus need of the government for better R&D and budget allocation on this.

13

30.5

Disaster-resilient Infrastructure refers to strengthening of infrastructure which are effective and sustainable in the management of the disaster.

India aligns with the Sendai Framework with its own disaster Risk Reduction Strategy.

Supporting the Goals of the Sendai Framework

- i. Understanding disaster risk
ii. Strengthening disaster risk governance
iii. Investing in disaster risk reduction for resilience
iv. Enhancing disaster preparedness for effective response

eg) IMD Prediction of natural disaster like cyclone,

1 Strengthening Disaster Risk Governance

[e.g.] Public-private partnerships in resilient infrastructure, collaborative policy design

2) Providing support to nationally accredited body for more better service delivery.

2 Understanding and Assessing Disaster Risk

[e.g.] Risk mapping tools, vulnerability assessments for infrastructure

3) Training and assessment time to time for better results.

3 Investing in Disaster Risk Reduction

[e.g.] Funding for resilient infrastructure projects, insurance mechanisms for infrastructure

4) Funding various projects in disaster prone region.

eg) Establishing cyclone-prone center

4 Enhancing Disaster Preparedness

[e.g.] Seismic retrofitting, flood-resistant infrastructure

⑤ inclusion of global model to better result in prevention of the disaster

Capacity Building and Knowledge Sharing

[e.g.] Training workshops, research publications on resilient infrastructure

⑥ ~~more~~ Allow for the more research and development to strengthen the resilient infrastructure

Creating Standards and Guidelines for Resilient Infrastructure

[e.g.] Guidelines for flood-resistant buildings, earthquake-resilient infrastructure

India is participating in robust manner to strengthen its disaster management as being the land of diversity, the various major steps include National disaster management act 2005, amendment, which include various new provisions like climate change is a disaster.

⑭ Cyber security → when there is threaten from the technological side which is majorly for the

⑮ Cyber security → According to IMF India being the most disasterous country in South Asia in the cyber security threats.

good start

The major key features of the Paris call

Commitment to International Cooperation

[e.g.] International cybersecurity treaties, cross-border threat intelligence sharing

① Promotion of Good Cybersecurity Practices
[e.g.] ISO 27001 standards, secure coding practices
It helps in create a global opinion regarding the cyber security.

② Support for Digital Security in Critical Infrastructure
[e.g.] Cybersecurity frameworks for energy grids, secure healthcare data management
It major focus on the strengthening collaboration with the nation to preserve the cyber security.

③ Development of Trustworthy Technology
[e.g.] Secure software development practices, end-to-end encryption standards
A global chain creation where all data can be share related to cyber security threat.

④ Enhancing Public Awareness and Capacity Building
[e.g.] Cybersecurity certification programs, training for cybersecurity professionals
Also emphasizes on the creation of single-web portal for risk management.

Measures taken by Governments of India to address the cyber security.

① India's pm highlighted the importance of the UN forum by the in the recent time
National Cyber Security Policy 2013
[e.g.] Cybersecurity awareness programs, frameworks for secure infrastructure
the major threat to the

→ security of maritime,
→ space and
Formation of CERT-In (Indian Computer Emergency Response Team)
[e.g.] Incident response protocols, cybersecurity alerts and advisories
→ cyber threat

② The IT-Act - 2008 also work to Prevent cyber threats in India.
Personal Data Protection Bill
[e.g.] Data protection compliance frameworks, right to data privacy

③ CERT-IN → The national Platform which also work to prevent the threat.

④ Branding awareness campaign ~~and~~ through the social media websites and

National Critical Information Infrastructure Protection Centre (NCIIPC)
[e.g.] Security audits for critical infrastructure, cyber risk assessments

Case study

good use of Case study According to data released by Ministry of IT, that India lost around 120 million due to cybersecurity issue in year - 2024 majority due to the digital Anarchy phenomenon.

⑤ The National cyber security bill has also - 2023 introduced in Indian Parliament.

Conclusion is fine the cybersecurity a major global threat in this era need for better regional and global co-operation.

(GS PAPER III: FULL SYLLABUS)

GROUP A

Q.1 Answer

APPROACH:

Introduction: Define a conducive investment ecosystem and its role in economic growth.

Body: Discuss key challenges—policy uncertainty, infrastructure gaps, regulatory hurdles, financial constraints, and global economic factors. Provide relevant examples and data.

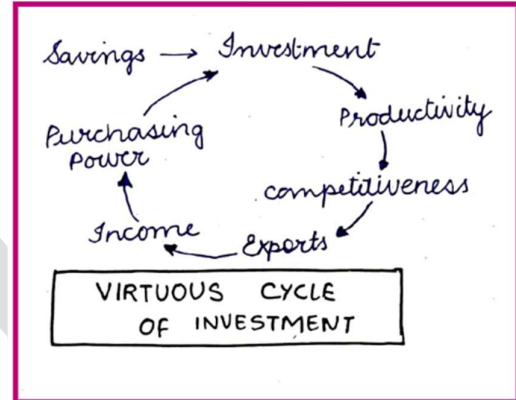
Conclusion: Suggest reforms to enhance investment, ensuring sustainable economic growth.

Introduction:

Economic Survey 2018-19 has advocated “Investment” and especially private investment to be the key driver of a virtuous cycle of productivity, jobs, export, demand and savings to realise the goal of \$5 trillion economies by 2024-25.

As per Economic Survey 2017-18, India’s Investment slowdown of 6-7% from 2005-07 to 2017-18 is largely driven by a slowdown in private investment. Therefore, it is crucial in reviving private investment as can be seen from the examples of China (45% investment rate), Japan (1950-70), the Asian tigers, etc.

Body:



This virtuous cycle will be a catalyst for India to achieve an annual real growth rate of 8% to make India the world’s 3rd largest economy worth **\$5 trillion by 2024-25**. Therefore, the government has taken several steps like **Make in India, Startup India, etc, to boost investment**.

However, there are several obstacles in the way of achieving a \$5 trillion economy led by private investment:-

Issue	Details
Twin Balance Sheet Problem	Though reducing, the rate of Non-Performing Assets (NPAs) is still high (9.3%), affecting the lending capacity of banks and the demand for loans from corporates, particularly in sectors like power and telecom.
Liquidity Crisis	The IL&FS crisis led to a liquidity crunch in the financial market, reducing fund availability for investment.
Low Rate of Investment & Growth Slowdown	Investment rate is at 29%, which needs to rise to 36% (as per NITI Aayog) to achieve the \$5 trillion economy goal.
Poor Ease of Doing Business	India ranks low (163rd) in contract enforcement, dampening investor confidence.
Agricultural Distress	High variability and low productivity in agriculture reduce the purchasing power of the majority of India's population.
Late Converger Stall	Economic Survey warns of challenges like rising protectionism, structural transformation issues, poor education & skill development, and climate change effects on agriculture.

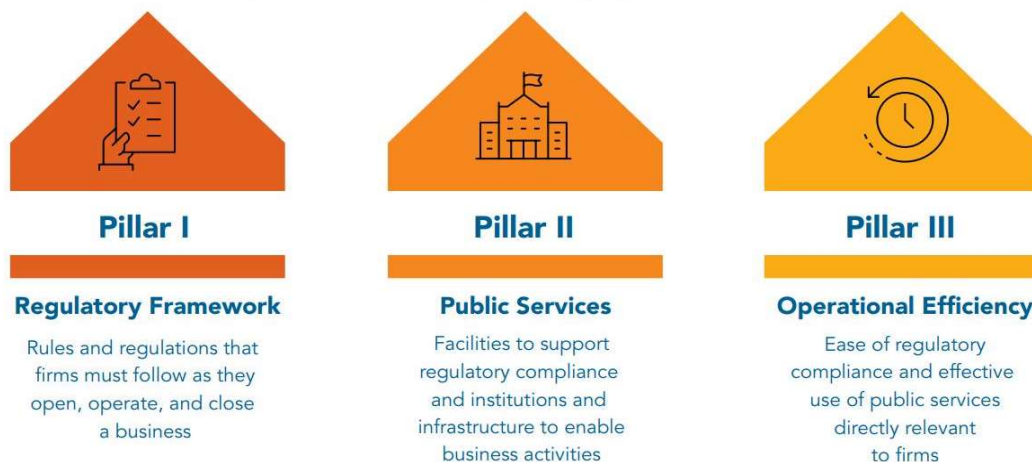
Energy Dependence	India imports over 80% of its oil and 50% of its natural gas, making it vulnerable to currency fluctuations and geopolitical risks.
Second-Generation Reforms	Slow reforms in land, labor, and skilling reduce investor confidence.

B-READY topics correspond to various stages of the life cycle of a firm and examine three cross-cutting themes



Source: B-READY project.

B-READY pillars define the scope of the project



These obstacles, along with global slowdown risk, low rate of exports (1.7% for goods) etc., need to be resolved at the earliest to reignite the “Animal spirit” of private investment in the economy.

Conclusion:

Focusing on resolving NPAs, MSMEs slowdown, and liquidity crisis should be the top agenda of the government. Along with these, taking holistic steps on the sectoral problem of Agriculture, manufacturing and services should be the priority. Recent steps like project Sashakt, KISAN scheme, Foreign trade policy, improvement in Ease of Doing Business ranking, etc. are steps in the right direction.

Q.2 Answer

APPROACH:

Introduction: Define ‘active inclusion’ in the context of sustainable economic growth and its significance in ensuring equal opportunities for all.

Body: Explain key aspects of active inclusion, such as social protection, inclusive labor markets, and equal access to resources. Discuss government measures like MGNREGA, Skill India, and social welfare schemes.

Conclusion: Highlight the role of active inclusion in fostering economic growth, reducing inequalities, and achieving sustainable development.

Introduction:

Active inclusion refers to both the 'pace' and 'pattern' of growth. Active inclusion is that which increases capabilities and allows more people to contribute to and participate in the benefits of growth. Pure economic growth can lead to inequality as a long-term cost, while active inclusion seeks to ensure that benefits are distributed 'equitably' among all sections.

Active inclusion empowers by increasing rewards to work, thus creating conditions for the many to contribute to and participate in the growth process. Expenditure on agricultural productivity, health and education, employment and MSME credit will all aid active inclusion.

Body:

Core components of active inclusion:

- Adequate income support to the employed, quality employment generation, inclusive labour markets.
- Access to essential services such as housing, education, finance, health, social security, etc.
- Removal of gender, caste, communal barriers.

Steps taken by the Government and their role in Active Inclusion:

Category	Schemes/Initiatives	Objective
Employment and Labour Welfare	Parampargat Krishi Yojana	Promotion of organic farming, integrated farming, and livestock to double farmers' income.
	PM KISAN	Input support to farmers for agricultural growth.
	Make in India, Start Up India, MSME promotion	Creation of quality jobs in the manufacturing sector, reducing underemployment in agriculture and allied sectors.
	PM Shram Yogi Mandhan Yojana	Social security for unorganised and small-scale workers.
	Coastal Employment Zones (CEZs) under SAGARMALA	Promoting large-scale production for exports, overcoming the limitations of SEZs.
Access to Services	PMAY (Rural and Urban)	Providing affordable housing.
	Article 21A	Free and compulsory primary education.
	Ayushman Bharat, Mission Indradhanush	Health initiatives including vaccination, institutional deliveries, and healthcare services.
	ICDS, MDMS	Nutritional support through Integrated Child Development Services (ICDS) and Mid-Day Meal Scheme (MDMS).
	JAM Trinity, Stand Up India, MUDRA loans, SIDBI, NABARD	Financial inclusion and credit access for rural development.
	Employee State Insurance	Social security initiatives.

	Corporation, Atal Pension Yojana	
Bridging Gaps	Beti Bachao Beti Padhao (BBBP)	Empowerment and education of the girl child.
	Maternity Benefits Amendment Act	Enhancing maternity benefits for working women.
	Sensitization of police and administration	Addressing communal and caste-related issues.
	Black Money Act, Fugitive Economic Offenders Act	Tackling economic inequality and financial fraud.

Conclusion:

Inclusion is essential for sustainable growth but only active inclusion is sustainable. Since India still reels under inequality, poverty, health and other challenges, the government must fulfil its duties under Article 38, 41, 42, 43 of Directive Principles by better implementation of the above programmes.

Q.3 Answer

APPROACH:

Introduction: Define antimicrobial resistance (AMR) and its implications for public health.

Body: Explain the mechanisms of AMR development and key factors contributing to antibiotic resistance in India, such as overuse, self-medication, and lack of sanitation. Provide examples.

Conclusion: Emphasize the need for stringent policies, awareness, and research to combat AMR.

Introduction:

Antibiotics are drugs that treat infections caused by bacteria. When certain bacteria are no longer eliminated by previously curable antibiotics, and thus become resistant to the effect of those drugs, it is known as '**Antibiotic Resistance**'. Antibiotic resistance is a naturally occurring phenomenon that can be slowed, but not stopped. Over time, bacteria adapt to the drugs that are designed to kill them and change to ensure their survival. For example, in the case of **Methicillin-Resistant Staphylococcus aureus (MRSA)**, the bacterium, *S. aureus*, is no longer killed by the antibiotic, methicillin.

"**Superbugs**" is a term used to describe strains of bacteria that are resistant to the majority of antibiotics commonly used today.

Body:

Antimicrobial Resistance in India:

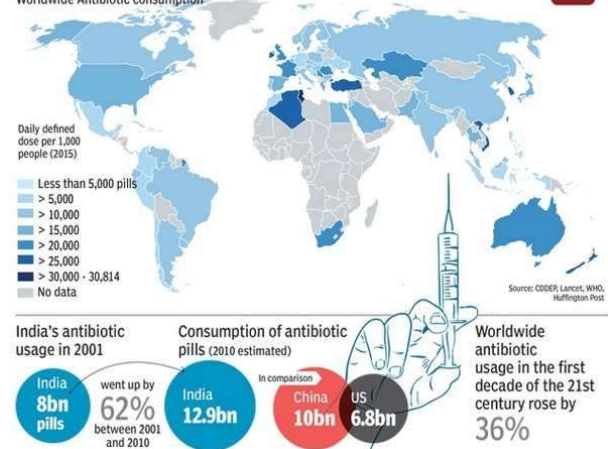
"The Scoping Report on Antimicrobial Resistance in India" prepared by DBT shows India has some of the highest antibiotic resistance rates, particularly the Carbapenem class of antibiotics, one of the last-resort antibiotics to treat serious bacterial infections in humans, and resistance to them among various gram-negative bacteria was extremely high.

In India, 60,000 newborns die each year of Antibiotic-Resistant Neonatal Infections. The report also shows the highest prevalence of MDR-TB in India across the world.

Factors Responsible in India:

INDIA HIGH ON ANTIBIOTIC USAGE

Worldwide Antibiotic consumption



UN Adhoc Interagency Coordination Group (IACG) on Antimicrobial Resistance Report listed out various reasons for spread of AMR in Indian setting:

Category	Issues
Misuse of Antibiotics	Overuse, misuse, and abuse of antibiotics like Colistin due to self-medication and incomplete courses.
Hospital Acquired Infections	High prevalence of infections such as MRSA (Methicillin-resistant <i>Staphylococcus aureus</i>).
Agricultural & Livestock Misuse	Poor hygiene in poultry farms driven by profit motives, leading to excessive antibiotic use. Overuse of fungicides, leading to <i>Candida auris</i> becoming a superbug.
Cultural Factors	Negligence of hygiene during mass gatherings like Kumbh Mela. Increased non-vegetarian consumption for protein requirements.
Regulatory Issues	Lack of regulations to control antibiotic overuse and faulty medical practices such as pharmaceutical waste disposal.

Way forward:

- **Strengthening surveillance, regulatory frameworks, professional education and oversight of antimicrobial prescription and use, and increasing awareness among all stakeholders are also significant.**
- **India's medical societies in 2012 adopted the Chennai Declaration, a set of national recommendations to promote antibiotics.**
- **Taking the learnings forward from the implementation of the National Policy on containment of AMR and subsequent the National Action Plan on AMR 2017-21 should be implemented with letter and spirit.**
- **India's Red Line campaign** – which demands that prescription-only antibiotics be marked with a red line, to discourage the over-the-counter sale of antibiotics– is a step forward.

Conclusion:

The National Health Policy, 2017 also terms antimicrobial resistance as one of the key healthcare issues and prioritises development of guidelines regarding antibiotic use, limiting over-the-counter use of antibiotics and restricting the use of antibiotics as growth promoters in livestock.

Q.4 Answer

APPROACH:

Introduction: Provide an overview of the Odisha Budget 2025-26, highlighting its fiscal objectives and overall economic vision.

Body: Analyze key fiscal indicators, major policy initiatives, and sectoral allocations. Discuss trends in infrastructure, social welfare, and industrial growth with relevant examples.

Conclusion: Assess its potential impact on Odisha's economic development, fiscal sustainability, and long-term growth prospects.

Introduction:

The Odisha Budget 2025-26, presented by Chief Minister Mohan Charan Majhi, projects a GSDP of ₹10.63 lakh crore with a 12% growth rate. The budget focuses on rural development, infrastructure, and fiscal discipline while maintaining a revenue surplus and managing a fiscal deficit of 3.2% of GSDP.

Body:

Fiscal Indicators

Indicator	Value
Revenue Surplus	₹31,800 crore (3% of GSDP)
Fiscal Deficit	₹34,200 crore (3.2% of GSDP)
Expenditure	₹2,66,800 crore (9% increase from 2024-25 RE)
Receipts (excluding borrowings)	₹2,32,600 crore (8% increase)

Major Policy Initiatives

Scheme Name	Allocation	Purpose
Antyodaya Gruha Yojana	₹7,550 crore (over three years)	Housing for the poor
Mukhya Mantri Sadak Yojana	₹3,470 crore	Rural road connectivity
Mukhyamantri Sahari Bikas Yojana	₹1,100 crore	Urban infrastructure development
MLALAD Scheme	Increased from ₹3 crore to ₹5 crore per constituency	Local area development by MLAs

Sectoral Growth Trends

Sector	Growth Rate (2024-25)	Growth Rate (2023-24)
Agriculture	3.8%	7.6%
Manufacturing	6.6%	8.7%
Services	10% (highest contribution to GSDP at 37%)	-

Per Capita GSDP

Region	Estimated Per Capita GSDP
State	₹2,03,085
India	₹2,30,195

Major Policy Initiatives

- **Antyodaya Gruha Yojana:**
 - Aims to provide concrete houses to poor families affected by poverty, disasters, and displacement.
 - ₹7,550 crore allocated over three years, with ₹2,603 crore for 75,000 houses in 2025-26.
- **Rural and Urban Infrastructure Development:**
 - **Mukhya Mantri Sadak Yojana:** ₹3,470 crore allocated to improve rural roads and connectivity.

- **Mukhyamantri Sahari Bikas Yojana:** ₹1,100 crore for civic amenities in cities.
- ₹200 crore for developing 322 hectares in Bhubaneswar for IT, research, and service sectors.
- **Legislative Area Development:**
 - **MLALAD Scheme:** Annual allocation per constituency increased from ₹3 crore to ₹5 crore, with a total allocation of ₹735 crore.

Category	2023-24	2024-25 (Projected)	Remarks
GSDP Growth Rate	-	7.2%	Higher than India's 6.4%
Sector-wise Growth			
Agriculture	7.6%	3.8%	Decline indicates challenges
Manufacturing	8.7%	6.6%	Industrial slowdown
Services	11.5%	10%	Fastest-growing sector
Sectoral Contribution to GSDP			
Agriculture	-	28%	Significant share
Manufacturing	-	35%	Strong industrial base
Services	-	37%	Largest contributor
Per Capita GSDP	-	₹2,03,085	Lower than India's ₹2,30,195

Implications for Economic Development

1. Fiscal Stability and Growth:

- A revenue surplus of **3% of GSDP** ensures financial stability.
- Increased capital outlay (**17% growth**) will drive infrastructure-led growth.

2. Infrastructure and Employment Generation:

- Rural and urban connectivity projects will enhance trade and employment opportunities.
- Investments in IT and research sectors in Bhubaneswar will boost skilled employment.

3. Social and Economic Equity:

- The **Antyodaya Gruha Yojana** addresses housing needs for vulnerable populations.
- The enhanced **MLALAD** scheme empowers local governance for region-specific development.

4. Challenges and Concerns:

- Declining growth in **agriculture and manufacturing** sectors may impact overall economic momentum.
- The **fiscal deficit at 3.2% of GSDP** remains within limits but requires efficient debt management.
- Lower **per capita income** than the national average indicates the need for more inclusive growth policies.

Conclusion:

The Odisha Budget 2025-26 emphasizes balanced economic growth with significant investments in infrastructure, housing, and rural development. While the revenue surplus and fiscal prudence indicate financial stability, the slowdown in agriculture and manufacturing poses challenges. Strategic policy implementation will be crucial for sustaining long-term economic growth and improving living standards in the state.

Q.5 Answer

APPROACH:

Introduction: Highlight Odisha's vulnerability to natural disasters and the need for an effective disaster management system.

Body: Discuss key initiatives like early warning systems, community preparedness, cyclone shelters, and policy improvements. Provide examples from Cyclone 1999 to present.

Conclusion: Emphasize Odisha's success in minimizing disaster impact and the key lessons for other regions in resilience and preparedness.

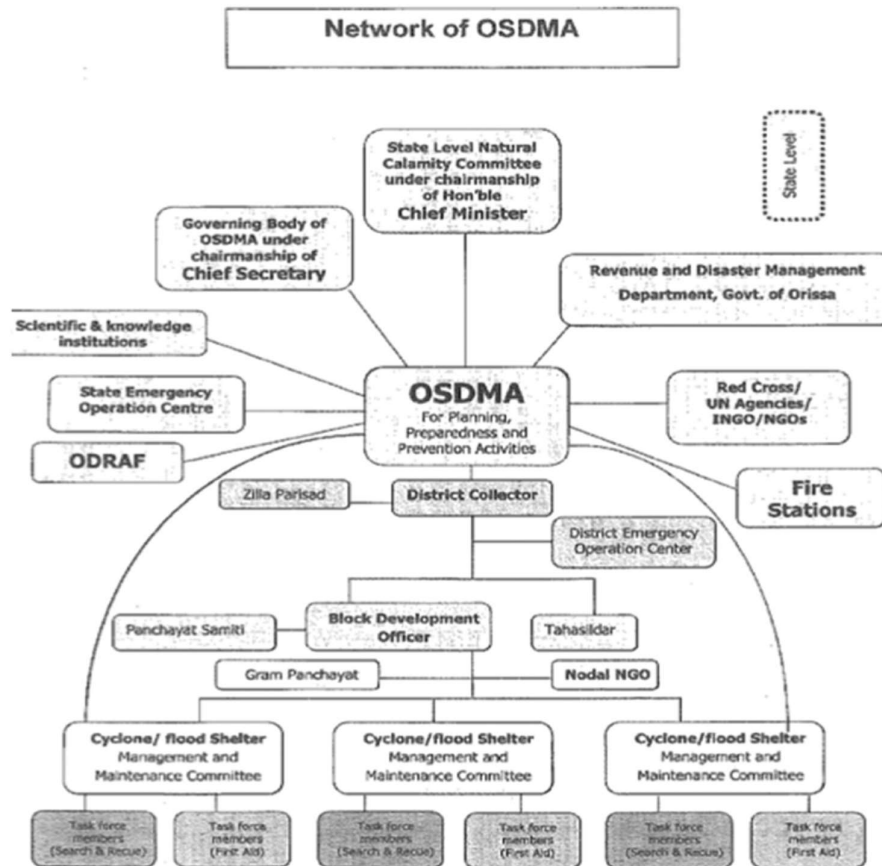
Introduction:

Odisha has undergone a remarkable transformation in disaster management since the devastating Super Cyclone of 1999. With a goal of 'zero-human casualties,' the state has developed a robust disaster preparedness framework, making it a global model in disaster resilience.

Body:

Key Aspects of Odisha's Disaster Management Approach

Key Aspect	Details
Institutional Framework	Odisha was the first Indian state to establish a disaster management authority (OSDMA) in 1999, before the NDMA was set up in 2005.
Community-Centric Approach	Local communities, self-help groups, and trained volunteers play a central role in disaster preparedness, risk reduction, and relief.
Early Warning Systems	Odisha has a last-mile early warning system with sirens, watchtowers, and mass messaging across 1,200 coastal villages.
Disaster-Resilient Infrastructure	Over 800 multipurpose cyclone shelters, evacuation roads, and embankments have been built to mitigate cyclone impact.
International Collaboration	Partnerships with global organizations like the World Bank have strengthened Odisha's disaster management capacity.



Lessons for Other States and Countries

- **Proactive Planning:** Investing in disaster resilience before calamities strike reduces loss of life and economic damage.
- **Community Involvement:** Engaging local communities enhances disaster response and builds long-term resilience.
- **Infrastructure Development:** Constructing resilient infrastructure minimizes the impact of disasters.
- **Technology and Innovation:** Advanced early warning systems and real-time data can significantly improve preparedness and response.
- **Adaptability:** Disaster management should be dynamic, evolving with emerging climate risks and challenges.

Conclusion:

Odisha's experience highlights that disaster preparedness must be a developmental priority. With climate change intensifying natural calamities, governments worldwide must adopt a proactive, community-driven, and technology-integrated approach to disaster management.

GROUP B

Q.6 Answer

APPROACH:

Introduction: Define PM-KISAN and its objectives in providing direct income support to farmers.

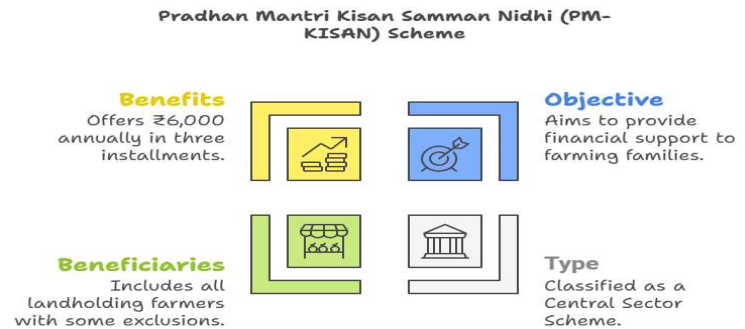
Body: Discuss its impact on rural livelihoods, financial inclusion, and agricultural investment. Address challenges like beneficiary exclusions and implementation hurdles. Compare with other agrarian support schemes.

Conclusion: Evaluate its potential as a transformative policy and suggest improvements for maximizing its effectiveness.

Introduction:

Rural India, primarily being agricultural, is handicapped by issues of lower incomes, falling productivity, farmer suicides etc, whose manifestation can be directly witnessed through agitations all around like- Farmer rallies in Delhi, Silent marches in Mumbai. Apart from this, issues of migration, caste and gender barriers impact the rural distress landscape.

PM-KISAN is a structured income support scheme for small and marginal farmers owning less than 2 hectares of land. There are about 12.50 crore small and marginal farmer families in India. It is a direct cash transfer scheme providing Rs. 6,000 per annum, in three equal installments of Rs. 2,000 each.



Body:

PM KISAN can help alleviate the distress:

- Potential of greater efficiency in enabling poor households to directly purchase the required goods and services, as well as enhance their market choices.
- Utilization of income support to buy necessary inputs. E.g. Seeds, fertilizers, etc.
- Can act as a social security support during distress times. According to data from the All India Financial Inclusion Survey (NAFIS) released by NABARD, average savings per household in rural areas is only Rs 9650.
- It can reach about most of the farmer families compared to loan waivers that can benefit a maximum of 30 per cent of the peasantry, and the higher MSP policy which can benefit a maximum of 10-15 per cent of the peasantry.
- Help reduce agricultural indebtedness.
- Enhance rural consumption.

Limitations of PM KISAN:

Issue	Details
Inadequate Financial Support	PM-KISAN's Rs. 2,000 every four months is insufficient to relieve financial stress for small and marginal farmers, providing only Rs. 17 per day per household.
No Link to Land Size	The cash transfer is uniform and not based on the size of the farmer's land, leading to possible discrepancies.
Exclusion of Tenant	Tenant farmers and agricultural laborers, who are among the most

Farmers & Agricultural Laborers	vulnerable, are left out of the scheme.
Incomplete Tenancy Records & Lack of Digitization	Many states (e.g., Jharkhand, Bihar, Gujarat, Tamil Nadu) lack digitized land records, making it difficult to identify beneficiaries.
Not a Substitute for Agricultural Reforms	PM-KISAN should complement, not replace, reforms in Agri-marketing and agricultural investments to enhance productivity and sustainability.
Doesn't Address Core Agricultural Issues	The scheme does not tackle key concerns like land productivity, underemployment, income diversification, storage, and wastage, making it insufficient as a standalone solution.

Steps needed– Need to manage:

- **Production Risks:** Irrigation coverage expansion, cheaper inputs, Zero Budget Natural Farming, soil management.
- **Weather & Disaster Related Risks,** crop insurance under PM Fasal Bima Yojana needs to be farmer friendly. Farmers must also be appraised by the Agri-Meteorological Advisory Service.
- **Price Risks:** MSP awareness beyond rice and wheat, contract farming. Move towards livestock, fisheries and integrated farming.
- **Credit Risks:** More access to formal credit, financial cum digital literacy and Awareness generation in the required field.
- **Market Risks:** Promotion of e-NAM, exposure to commodities market, long term contracts on pre-determined prices, etc.

Conclusion:

Policy Risks –

- Implement model APLM Act, reduce scope of Essential Commodities Act to situations of natural calamities. Encourage R&D and start-ups in the field of Agriculture as a Service (AaaS).
- Promote MSMEs to reduce underemployment in agriculture and migration.

Q.7 Answer

APPROACH:

Introduction: Highlight the critical role of tropical rainforests in regulating Earth's climate and the alarming deforestation trends.

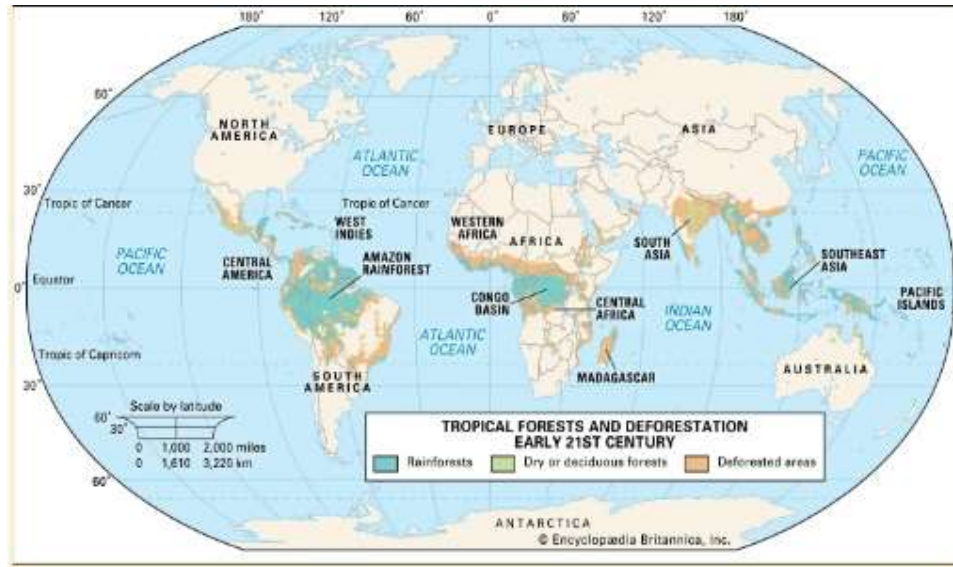
Body: Discuss conservation efforts, policy measures, sustainable practices, and global cooperation. Provide examples like the Amazon Fund and REDD+ initiatives.

Conclusion: Emphasize the urgency of intensified actions and the need for global commitment to preserving rainforests.

Introduction:

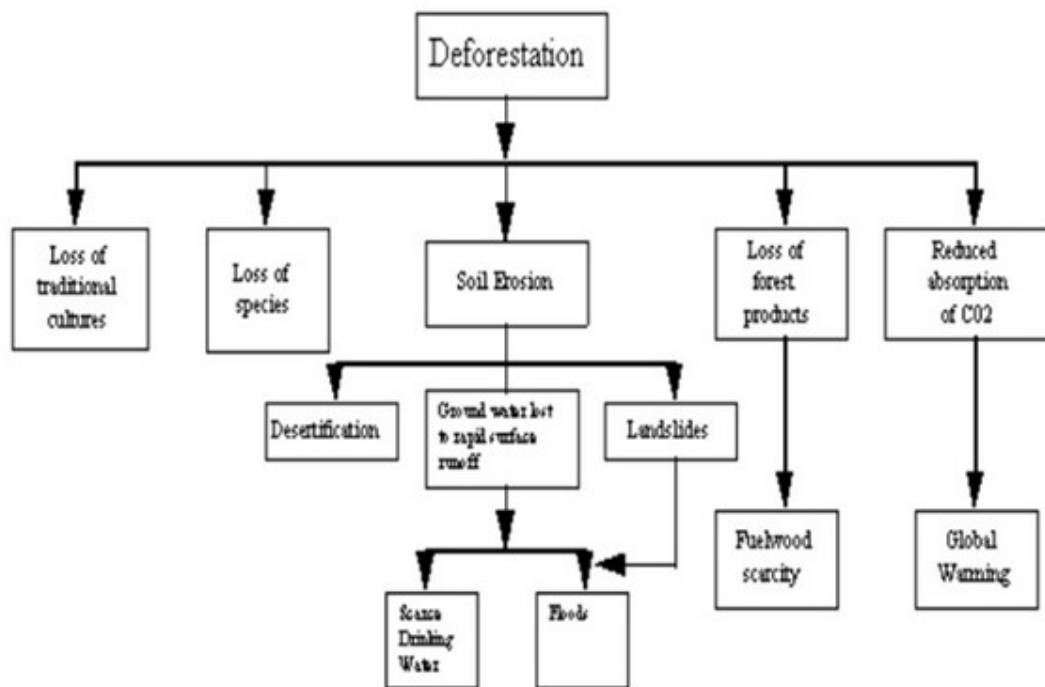
Rainforests are closed-canopy forests growing within 28 degrees north or south of the equator, characterized by high levels of rainfall (200 cm), and high species diversity. Such forests are in Asia, Australia, Africa, America, and Central America, Mexico and on many of the Pacific Islands. They play a major role in carbon sequestration and thus regulation of temperature.

The FAO's State of the World's Forests (SOFO) 2024 report, highlights the importance of innovation in the forest sector to address global challenges, including climate change, and emphasizes the need for technological, social, policy, institutional, and financial innovations.



Body:

Causes of Deforestation:



Cause	Details	Examples
Agricultural Expansion	Primary reason for deforestation, especially for subsistence-based agriculture and plantations.	Africa (Gulf of Guinea Coast, Congo Basin) Indonesia and Malaysia (Plantation Agriculture)
Developmental Activities	Deforestation due to urbanization, infrastructure expansion, hydroelectric projects, and mining.	Brazil: Balbina HEP submerged 24,000 km ² of

		rainforest
Lapses in Government Policies	Lack of enforcement of regulations leading to forest degradation due to agriculture and logging.	80% of forest degradation in Indonesia and Brazil
Climate Change & Forest Fires	Increased frequency of forest fires due to climate change and El-Niño events.	Amazon Rainforest (Brazil) Indonesia (1997 El-Niño event)

Stepping Up Efforts to Protect the World's Tropical Forests:

The international community and the state, along with communities, are trying to save the rainforest through various programs such as REDD and REDD-Plus (Focus areas of these programmes are sustainable management of the rainforest). Various SDGs like SDG 2 (Food Security), 13 (Climate Action), 15 (Life on land) are related to saving rainforests. Yet, there are many miles to go-

- **Social Forestry:** By giving ownership and management rights to the local population, the rainforest can be saved, as the forest provides a livelihood to the local populace. In Guatemala, the community-owned forest enterprise is managing 4.2 lakh Ha of forest successfully.
- **Use of technology:** It can provide real-time monitoring of rainforest and can help in the successful implementation of government policies.
- **Teaching about the importance of the environment** and how they can help to save rainforests.
- Restoring damaged ecosystem by planting trees on land where forests have been cut down.
- Encourage people to live in a way that does not hurt the environment.
- Establishing parks to protect rainforests and wildlife.
- Supporting companies that operate in a way that minimizes damage to the environment.

Conclusion:

The **International Tropical Timber Organization (ITTO) under the UN**, which promotes the sustainable management and conservation of tropical rainforests, is a pioneer in this regard, and it should make a consensus on sustainable use of its resource. Sustainable managing the rainforests and creating sustainable supply chains require a balancing act. The role of tropical rainforests is undisputed in mitigating the effect of global warming; there is a need to boost the mitigation strategy to save the tropical rainforests.

Q.8 Answer

APPROACH:

Introduction: Define social media's role in modern communication and its impact on national security.

Body: Discuss how law enforcement agencies can utilize social media for intelligence gathering, crisis management, misinformation control, and public engagement. Provide relevant examples.

Conclusion: Highlight the importance of responsible usage and technological advancements in strengthening national security.

Introduction:

India's National Security landscape is threatened with various external challenges such as stressed and susceptible borders, terrorism as well as internal challenges such as left-wing extremism and separatist movements.

21st century technological advancements have been a double-edged sword for national security purposes, as on one hand technology has become the yardstick of defence prowess of the country, e.g. Nuclear Triad and on the other hand, it has become the softest target to destabilize any country, e.g. Communication Networks.



Body:

Aspect	Role of Technology in National Security	Challenges Posed by Technology	Use of Social Media for National Security
Threat Response	Helps counter evolving threats like ASAT missiles.	Terrorists using satellite phones and VoIP (e.g., Mumbai attack).	Identifying flashpoints of disturbances and gauging public mood.
Border Security	Faster and securer infrastructure, e.g., CIBMS.	Increased arms race (nuclear, space militarization, etc.).	Engaging citizens for secure communities (e.g., Twitter Samvad).
Surveillance	High-risk zone monitoring via SWATHI Radar, UAVs.	Use of social media for radicalization (e.g., ISIS activities).	Fact-checking fake news, rumors, and misinformation.
Critical Infrastructure Protection	Systems like CMS securing communication networks.	Cyberattacks on national databases (India 2nd most attacked).	Preparing SOPs and emergency communication.
Intelligence Gathering	Actionable, interoperable intelligence via NATGRID.	Organized crime using sophisticated hacking methods.	Operation Chakravayuh for de-radicalization of youth.
Military	Nano-tech in LCA Tejas making it lighter and	Risks of emerging arms race and global	Building actionable intelligence through public

Advancements	stronger.	militarization.	data analysis.
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Conclusion:

For safeguarding and effectively utilizing social media and cyber space revising National Cyber Security Policy, Institutionalizing National Social Media Policy are the urgent steps to tackle distinct social media challenges. Also creating awareness, empowering agencies- technically, legally and financially, implementing National Security Strategy Doctrine effectively to capitalize upon upcoming technological advancements is the step forward.

Q.9 Answer

APPROACH:

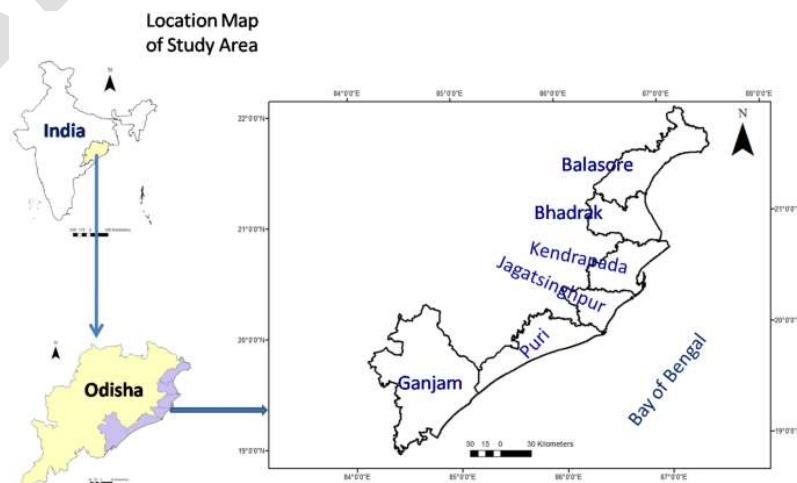
Introduction: Define Odisha's ecosystem services and land commons, emphasizing their economic importance in livelihoods, agriculture, and industry.

Body: Discuss key ecosystem services like fisheries, forestry, and water resources, their contribution to the economy, and the challenges such as deforestation, climate change, and overexploitation. Provide examples.

Conclusion: Emphasize the need for sustainable management policies to balance economic benefits with environmental conservation.

Introduction:

Odisha's ecosystem services and land commons, including forests, pastures, and uncultivated lands, contribute significantly to its economy, with an estimated annual value of ₹36,890 crore (\$5 billion). These resources provide crucial livelihood support, regulate climate, and maintain biodiversity. However, they face severe threats such as land degradation, overuse, and encroachments, necessitating sustainable management policies.



Body:

Economic Significance and Challenges

- **Economic Contribution:** The state's economy relies heavily on natural resources, with key services such as food, water, raw materials, and climate regulation valued at over ₹60,000 per hectare per annum. These resources also support agriculture and rural livelihoods.
- **Challenges:** Unsustainable exploitation, land degradation, biodiversity loss, soil erosion, and water shortages threaten these ecosystem services. Additionally, Odisha's vulnerability to climate change exacerbates these risks.

Need for Sustainable Management

- **Policy Integration:** Recognizing the economic value of ecosystem services in policymaking is crucial for their protection.
- **Legal and Institutional Reforms:** Strengthening land governance, preventing encroachments, and promoting sustainable land use practices.
- **Community-Based Management:** Engaging local communities in conservation efforts to ensure the long-term sustainability of land commons.

Conclusion:

Odisha's ecosystem services are vital for its economy and environmental stability. Addressing threats through sustainable policies, institutional reforms, and community participation is essential to safeguard these resources for future generations.

Q.10 Answer

APPROACH:

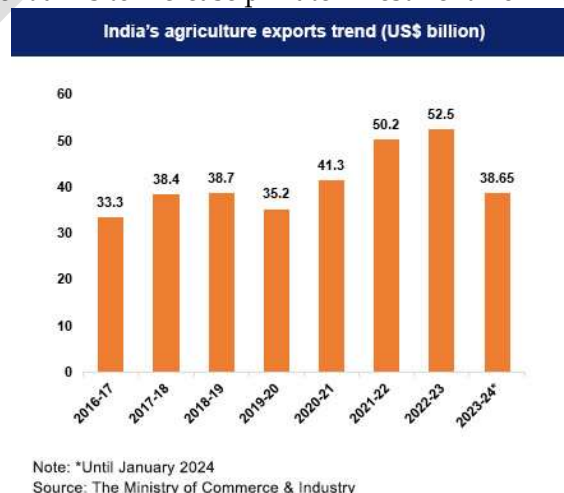
Introduction: Define the role of the private sector in agricultural growth and transformation, emphasizing its significance in modern agribusiness and value chains.

Body: Explain how private sector involvement enhances productivity, infrastructure, and market linkages. Discuss challenges such as regulatory constraints and smallholder inclusion. Provide examples of successful private interventions in agribusiness.

Conclusion: Highlight the need for policy support and public-private partnerships to ensure sustainable agricultural transformation.

Introduction:

To elevate farmers from their current distress, enhancing private investment in the agriculture sector is very crucial and the government aims to increase private investment from 13 % to around 30 %.



Body:

Sector	Investment	Role
Public Sector	Investment is falling as a large proportion goes into subsidies for fertilizers, irrigation, and other agricultural inputs rather than actual investment. Mostly from the government side.	Frames/provides legislation, policy guidelines, support pricing, and subsidies. Provides inputs like fertilizer and energy at concessional rates.
Private Sector	Investment has declined due to excessive government regulations and control over the sector. Mostly from individual farmers; corporate sector investment occurs mostly after the harvest.	Ensures superior service delivery to the end consumer. Maximizes service at an affordable price.

Role of the Private Sector In



Sector	Private Sector Involvement
Agriculture	Supports new technology adoption requiring high skill and capital-intensive methods like Precision Agriculture, Polyhouse cropping, and self-propelled sprayers.
Farming	Private sector engages in contract farming; e.g., PepsiCo's Frito Lay division collaborates with agronomists and service providers to assist smallholder farmers in potato production and direct procurement.
Agri-food Value Chain	Companies like Reliance Fresh directly partner with farmers for fresh fruits and vegetables, improving farmer livelihoods, enhancing produce quality, reducing wastage, and minimizing intermediaries.
Allied Activities	
Livestock	Companies like DeLaval provide dairy solutions to improve production, animal welfare,

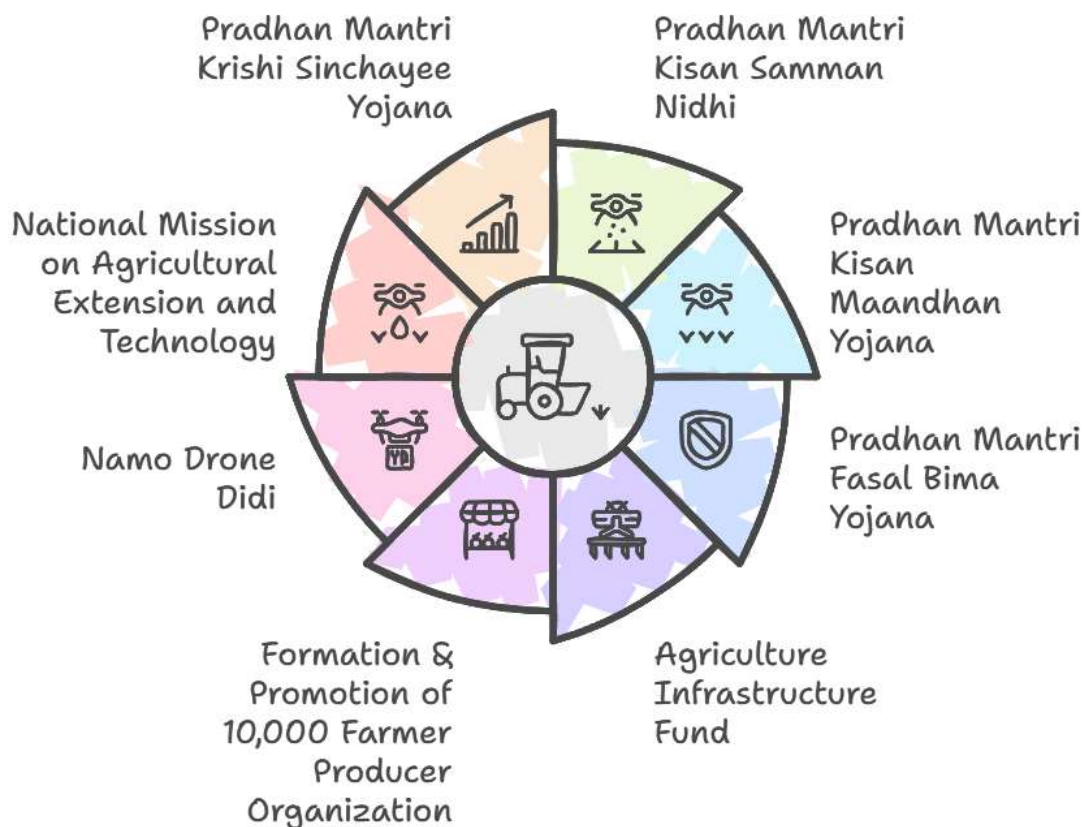
	and quality of life.
Fisheries	Innovations in cost-effective services; e.g., Signode India Ltd developed Modified Atmospheric Packaging for dry fish in Kerala, increasing shelf life and export potential.

Challenges for the Private Sector in Serving and Driving Agriculture

- Land lease Policy: Weak land rights led to tenure insecurity that ultimately results in reduced land productivity because of poor land management.
- Land Fragmentation: It has inhibited the ability of the farmers to invest in new technologies, making the private sector unviable for small farmers as the average farm size in India is 1.5 hectares (NITI Aayog report)
- Contract Farming: The fear of exploitation by the big corporate houses, which is shedding farmers' way from making a contract with them, like PepsiCo India Holdings sued farmers for illegally growing and selling a potato variety registered in the company's name.
- Agriculture markets are very much fragmented in India, with each farmer confined to a single mandi in many products in many states and making it impossible for the private sector to contact each farmer individually.

Way forward:

Key Agricultural Initiatives



- Land Leasing: Implementation of a model (agricultural) land leasing act proposed by the NITI Aayog to simplify the leasing of farmland to boost private sector morale.
- Contract farming: SFAC speedy implementation of the Model law on contract farming announced in the budget 2017-18, and encouraging the Small Farmers Agri-Business consortium would encourage private sector participation.
- Government initiative: Enacting a liberal APMC law, scaling up digital technologies, encouraging private players to set up mandis, warehouses, cold storage, and Mega food parks should be the priorities.

Conclusion:

NITI Aayog has indeed launched several initiatives and reports in 2025, including a "Fiscal Health Index 2025" and a policy report on "Expanding Quality Higher Education through States and State Public Universities," focusing on improving fiscal health and higher education quality.

Q.11 Answer

APPROACH:

Introduction: Define India's intelligence framework and its role in national security.

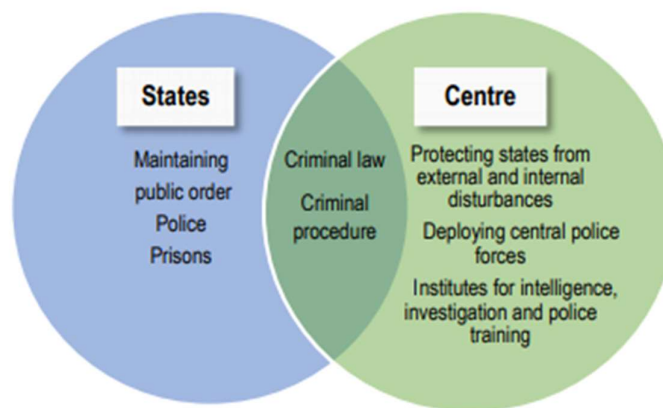
Body: Discuss challenges like outdated technology, lack of coordination, inadequate training, and insufficient integration with police modernization. Provide relevant examples.

Conclusion: Emphasize the need for a holistic reform approach, integrating intelligence and police modernization for enhanced security.

Introduction:

Intelligence reforms without the police reforms are pointless because the local policemen develop the strategic intelligence given by the central agencies which needs enough cognitive and analytical skill to process the intelligence. Thus there is a need for comprehensive and not piecemeal reforms.

Figure 1: Responsibilities of centre and states with regard to police

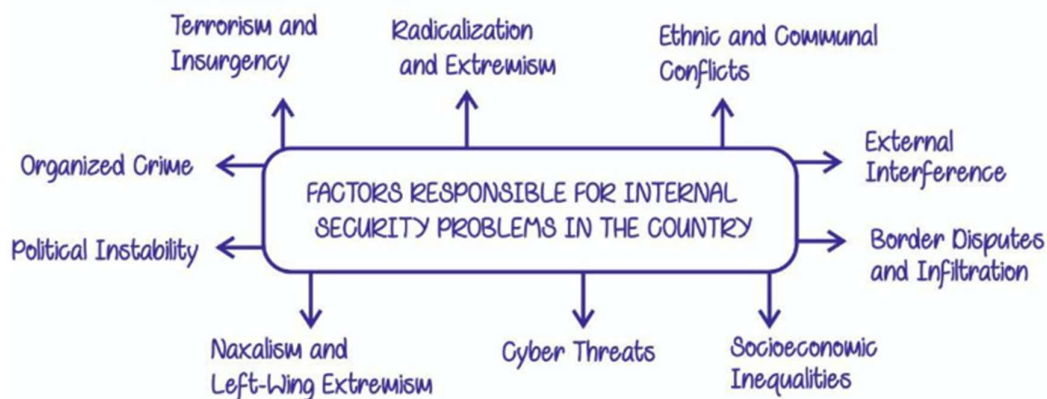


Body:

Category	Key Initiatives
Police Modernization	- Establish open and separate direct recruitment mechanisms for intelligence agencies through UPSC. - Outsource specialized needs of national security management rather than relying only on police personnel. - Use the Modernization of Police Forces Scheme to address deficiencies in state police infrastructure. - Improve forensic laboratories, equipment, training infrastructure,

	communication systems, and police mobility.
Technological Up-gradation	- Enhance in-house technical research and development capabilities. - Upgrade offensive and defensive capabilities in cyber warfare. - Empower Indian Police with IT and Criminal Intelligence through NCRB. - Build a National Resource Centre for IT solutions for police organizations. - Upgrade crime analysis technology. - Provide IT and Fingerprint Science training for police capacity building.
Capacity Building of State Police Personnel	- Familiarize police personnel with electronic evidence gathering processes. - Ensure knowledge of rules and regulations for data access and intermediary liability. - Appoint a National Intelligence Director to improve interagency coordination and eliminate duplications. - Introduce legislation in Parliament to define the charters, functions, and duties of intelligence organizations. - Separate investigation duties from law-and-order responsibilities (e.g., NIA).

Deficiencies in Intelligence framework in India



Issue	Details
Inefficient Coordination	After the Kargil intrusion (1999), the Intelligence Bureau (IB) created a Multi-Agency Centre (MAC) that receives intelligence mainly from Central agencies.

	However, in 2011, state special branches contributed only 11% of inputs.
Lack of Dedicated Intelligence Cadre	Intelligence agencies rely on police officers rather than language experts, scientists, IT professionals, or cyber specialists, affecting efficiency.
No Unified Intelligence Authority	Agencies like NATGRID, IB, MAC, and CCTNS exist, but there is no single authority to coordinate them, leading to slow responses during crises like the 26/11 attack.
Lack of Checks and Balances	The intelligence system lacks oversight, and political interference (e.g., CBI politicization) reduces efficiency.
No Legislative Backing	Most intelligence agencies operate through executive orders without clear oversight. For example, CBI and RAW report to the PMO, DRI to the Finance Ministry, and Military Intelligence to the Defense Ministry.

Conclusion:

Given the immense contemporary security challenges India is confronting, as it emerges as a global power, a paradigm shift is needed to modernize intelligence work in a holistic manner, which may require radical changes in the existing intelligence culture with short term, medium term and long term objectives clearly identified.

Q.12 Answer

APPROACH:

Introduction: Define the India Cooling Action Plan (ICAP) and its objectives in addressing cooling demands while reducing emissions.

Body: Explain how ICAP mitigates direct emissions through energy-efficient cooling technologies and indirect emissions via sustainable policies. Discuss its impact across sectors like residential, commercial, transport, and agriculture. Provide examples of initiatives under ICAP.

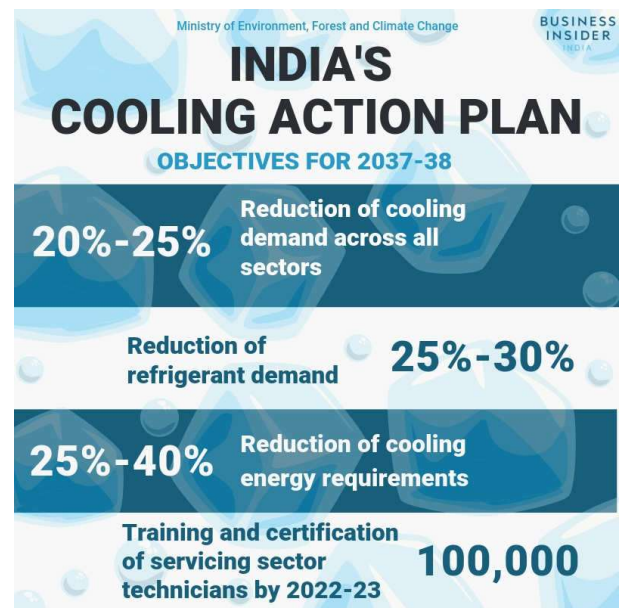
Conclusion: Highlight ICAP's significance in balancing economic growth with environmental sustainability and its role in meeting India's climate commitments.

Introduction:

India, as a part of the Montreal protocol and the landmark Kigali Amendment, is one of the first countries to devise a cooling action plan in an attempt to phase out ozone depleting substances. India Cooling Action Plan (ICAP), led by the Ministry of Environment, Forests and Climate Change (MOEFCC), provides a 20-year perspective (2017-18 to 2037-38) to address the cooling requirements across sectors and ways and means to provide access to sustainable cooling for all. With people around the world living through the fourth hottest year on record in 2018, the need for cooling solutions is more urgent than ever. India's cooling demand is projected to grow by 8 times in the next 20 years.

Targets and Framework of ICAP:

- Assessment of cooling requirements across



sectors in the next 20 years and the associated refrigerant demand and energy use.

- Map the technologies available to cater to the cooling requirement, including passive interventions, refrigerant-based technologies, and alternative technologies such as not-in-kind technologies.
- Suggest interventions in each sector for sustainable cooling and thermal comfort for all.
- Focus on skilling of RAC service technicians.
- Develop an R&D innovation ecosystem for indigenous development of alternative technologies.

Body:

ICAP's Role In Reducing Direct Emissions

Direct emissions are due to the release of refrigerant. They can occur during normal operation or because of leaks from pipes and components:

- Reduction of cooling demand across sectors by 20% to 25 % by year 2037-38.
- Reduction of refrigerant demand by 25% to 30% by year 2037-38.
- Reduction of cooling energy requirements by 25% to 40% by year 2037-38.

ICAP's Role in Reducing Indirect Emissions

Indirect emissions are due to energy consumption and contribute 2/3 of the total emissions:

- Promotion of passively-cooled building design with natural and mechanical ventilation.
- Adoption of adaptive thermal comfort standards to specify pre-setting of temperatures of air conditioning equipment for commercial built spaces.
- India will also seek to support the development and deployment of low-GWP refrigerant alternatives.

Socio-economic Benefits Accrued by ICAP:

- Thermal comfort for all – provision for cooling for EWS and LIG housing.
- Skilled workforce for better livelihoods and environmental protection.
- Make in India – domestic manufacturing of air-conditioning and related cooling equipment.
- Cooling is also linked to human health and productivity. Linkages of cooling with Sustainable Development Goals (SDGs) are well acknowledged.
- The cross-sectoral nature of cooling and its use in development of the economy makes provision for cooling an important developmental necessity.

ICAP and Impact of Cooling Different Sectors:

Sector	Planned Measures	Expected Impact
Household	Improving efficiency of ACs and fans through better servicing and adoption of adaptive thermal practices.	30% reduction in cooling energy requirements; 20% TR reduction by 2037-38.
Construction	Implementation of building energy codes, thermal comfort standards, eco-labeling of cooling products, and energy-efficient housing designs.	Reduced cooling load in buildings, increased energy efficiency.
Agriculture	Development of robust cold-chain infrastructure to reduce post-harvest losses.	Increased refrigeration use; potential rise in carbon footprint.
Transport AC	Encouraging public transport, hybrid, and electric vehicles to reduce dependency on air-conditioned passenger cars.	Lower energy consumption in transportation cooling.

Limitations of ICAP:

- The CAP does not take into consideration the needs of 90% of the Indian population and is skewedly focused on 10% of the population.
- The NCAP has not indicated the benchmark for thermal comfort that needs to guide energy efficiency measures for all users of active as well as passive cooling.
- Its actual intent seems to be "myopically" focused on the market for personal air conditioners, ignoring the fact that demand for cooling is driven by people and not by the sale of air conditioners.
- Implementation of the guidelines needs a framework that has not been drawn out.

Conclusion:

ICAP must be based on the fact that about 60 per cent of current space cooling energy consumption is by top 10 per cent of the population, this is only way ahead to give thermal comfort for all. India needs thermal comfort defined to guide interventions for energy efficiency in buildings and there is also a need to estimate cooling demand based on thermal comfort definition and not on sales of ACs. Implementation roadmap should be drawn out considering different sectors and their different requirements.

Q.13 Answer

APPROACH:

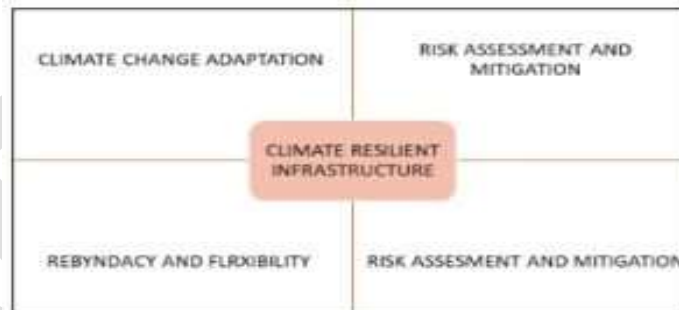
Introduction: Define CDRI and its objectives in enhancing disaster-resilient infrastructure.

Body: Explain how CDRI aligns with India's commitment to the Sendai Framework through capacity building, risk assessment, technological collaboration, and policy support. Provide relevant examples.

Conclusion: Highlight CDRI's role in strengthening India's disaster preparedness and promoting global resilience.

Introduction:

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 those disasters push up to 24 million people in a year into poverty.** So by ensuring that all new investments in infrastructure are made in a risk-sensitive way, a significant reduction in economic losses from disasters can be realised.



Body:

Disaster Resilient Infrastructure creates a Disaster Resilient World:

When infrastructure fails, disaster follows. So the countries need to look beyond immediate relief and rehabilitation and focus on "build back better" after a natural catastrophe besides reducing infrastructural losses, disaster-resilient infrastructure will also help achieve targets on reduction in mortality, number of affected people, and economic losses due to disasters.

For example, post-disaster damage analysis, after the 1995 Great Hanshin-Awaji Earthquake in Hyogo Prefecture, Japan, it was found that buildings constructed to the 1971 standard performed far better than those built to an earlier standard; and those of the 1981 standard performed best of all, with only a very small share suffering collapse. It demonstrated the effectiveness of Japan's seismic design standards and continuous improvement there of.

International agreements - reiterating benefits of investing in resilient infrastructure:

The Sendai Framework for Disaster Risk Reduction: It identifies investing in Disaster Risk Reduction (DRR) for resilience and building back better in reconstruction as priorities for action towards reducing disaster risk.

Sustainable Development Goals: Goal 9 recognises disaster-resilient infrastructure as a crucial driver of economic growth and development.

Sendai Framework for Disaster Risk Reduction (SFDRR) and Coalition for Disaster Resilient Infrastructure (CDRI)

The Sendai Framework for Disaster Risk Reduction (SFDRR) highlighted the role of improved disaster resilience, including that of infrastructure, as a cornerstone for sustainable development. While inaugurating the Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR, New Delhi), the Prime Minister of India announced that India would work with partner countries and key stakeholders in launching a “Coalition for Disaster Resilient Infrastructure (CDRI)”.



To garner inputs from the wider base of global stakeholders, the Government of India (GOI) in collaboration with the United Nations Office for Disaster Risk Reduction (UNISDR) hosted the International Workshop on Disaster Resilient Infrastructure in New Delhi, India from 15-16 January 2018.

Aspect	India's Commitment & Challenges	Role of CDRI & Global Learning
Understanding Disaster Risk	India needs to enhance early warning systems and risk reduction efforts.	Learning from global best practices to improve mitigation.
Disaster Risk Governance	Strengthening policies and institutions for better disaster management.	CDRI supports policy frameworks for disaster resilience.
Investment in Risk Reduction	Balancing economic growth with disaster-resilient infrastructure.	CDRI provides funding and technology for resilient infrastructure.
Early Warning & Preparedness	India needs better early warning systems and post-disaster recovery strategies.	Japan's expertise can help in early detection and rehabilitation.
Building Back Better	Challenges in protecting property and infrastructure from extreme weather.	Learning from countries with strong disaster mitigation policies.

International Collaboration	India can benefit from partnerships for disaster risk reduction.	CDRI facilitates global cooperation in disaster resilience.
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India's initiative for **Coalition for Disaster Resilient Infrastructure** will help in the development of appropriate infrastructure to face natural calamities, for both the least developed and developing countries. CDRI will act as a synergy between Disaster Risk Reduction, Sustainability Goals and Climate Accord providing for sustainable and inclusive growth.

Conclusion:

Japan's unique path to improved building safety can be emulated by Indian policymakers to build its infrastructure disaster resilient, by initiating steps like:

- Legal framework, for uniform national building standards(under the Building Standard law).
- Building Code- Recognized as a minimum standard.
- Quality Assurance Mechanism.
- Role of local governments in building quality assurance, for carrying out building confirmation, structural review, inspection, and so.

Q.14 Answer

APPROACH:

Introduction: Define the Paris Call and its objectives in strengthening cybersecurity.

Body: Explain its key features, including multi-stakeholder collaboration, cyber resilience, and protection of critical infrastructure. Discuss India's cybersecurity measures like policy frameworks, CERT-In, and data protection initiatives.

Conclusion: Emphasize the importance of international cooperation and national efforts in tackling cybersecurity threats.

Introduction:

Recently, the UNESCO Internet Governance Forum (IGF) meeting convened in Paris, "The Paris Call for Trust and Security in Cyberspace" was commenced, aiming at developing common principles for securing cyberspace.

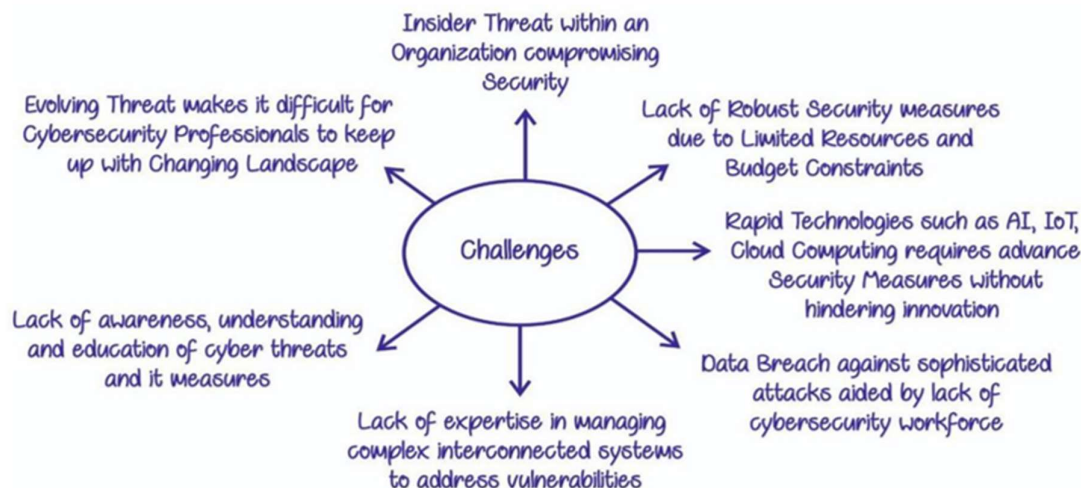
The goals mentioned in the Paris Call and the principles adopted, represent a consensus of priorities between states, corporations and civil society. Paris call gives a fresh momentum to the issue of creating globally acceptable cybersecurity norms by mounting support from multiple stakeholders. Important points are as follows.

Body:

Category	Key Points
Inclusive Regulatory Process	Recognize the responsibilities of the private sector in improving trust, security, and stability in cyberspace. Adopt a strong multi-stakeholder approach to enhance collaboration among the government, private sector, and civil society to combat cyber criminality.
International Law	Encourage better coordination in regulating cyberspace and the use of ICT in line with the principles of the U.N. Charter and international humanitarian law. Focus on maintaining international peace and security.
State Sovereignty	Promote the exclusive role of sovereign states in hostile cyber activities. Advocate for measures preventing interference with elections.

Protection of Citizens	Safeguard individuals and critical infrastructure from harm. Ensure protection against any invasion.
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Challenges in the domain of cybersecurity:



- Ransomware: It spreads a virus that latches onto customer and business information that can only be removed if one meets the cybercriminal's egregious demands. Ransomware attacks are one of the areas where cybercrime is growing rapidly.
- Rapidly growing digital footprint: Use of Internet services is growing rapidly, but users don't have much knowledge of threats and protection systems, even professional people become victims of cyber bullying, phishing, online bank frauds, etc.
- Cryptocurrency: Cryptocurrencies in major economies are unregulated, Ransomware attacks, Hawala transactions, Terror funding, Money laundering, etc., are possible through payment via cryptocurrencies.
- Data piracy and commercial use of user data: For better targeted advertisements with the help of data mining, MNCs are selling user data. It poses a serious threat to cybersecurity and privacy of individuals.
- Cyber warfare: Modern warfare is changing, with internet attacks economies can be crippled along with critical infrastructures, along with this misleading information warfare is spreading.

Steps taken by the government to tackle challenges in the domain of cybersecurity:

- India's stance has gradually shifted to a multi-stakeholderism from a multilateralism approach.
- Requirement of data localization (storing of data within the country) and server management is being advocated.
- National Cyber Security Policy, 2013: The Policy is aimed at building a secure and resilient cyberspace for citizens, businesses and the Government.
- Computer Emergency Response Team (CERT-in) launched 'Cyber Swachhta Kendra' (Botnet Cleaning and Malware Analysis Centre) a new desktop and mobile security solution.
- Development of Public Private Partnerships is an important strategy under the National Cyber Security Policy 2013. For ex., antivirus company Quick Heal is providing a free bot removal tool.

- Sectoral and state CERTs: CCERTs on power and finance sectors have been launched by the Indian government. State CERTs are also on the way.

Conclusion:

Looking forward to becoming a secure cyber ecosystem, India has joined hands with several developed countries like the United States, Singapore, Japan, etc. These agreements will help India to deal with the challenge of sophisticated cyber threats. Encouraging cybersecurity in the country, the government of India has offered a fund of 5 crores to companies that work for the research and revolution of cybersecurity.

Q.15 Answer

APPROACH:

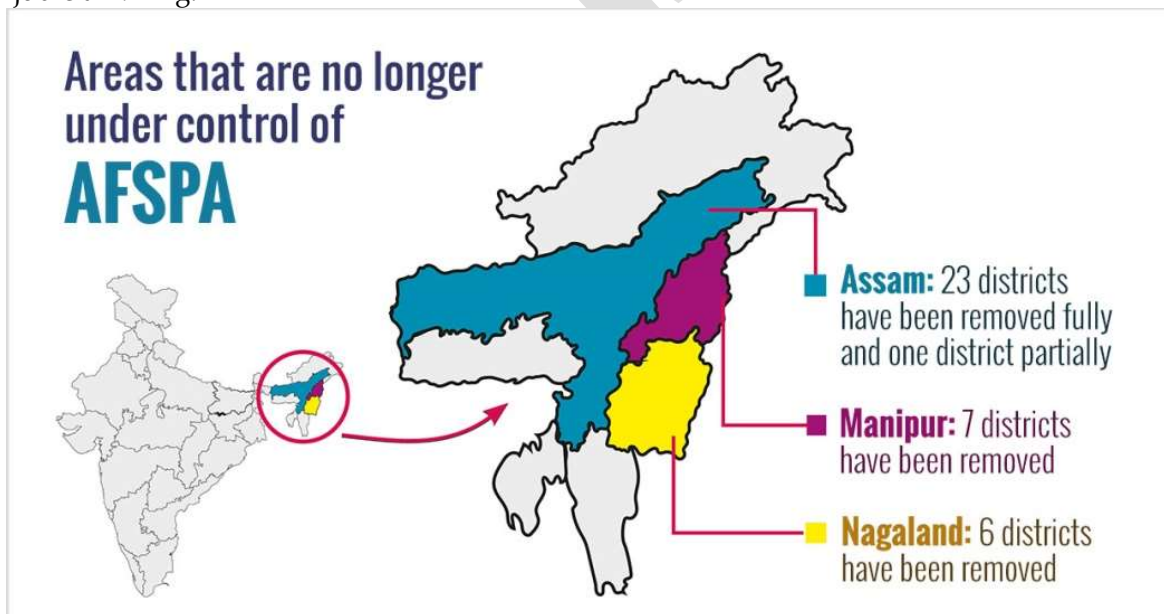
Introduction: Define AFSPA and its objectives in ensuring national security and maintaining public order.

Body: Analyze its effectiveness in addressing security challenges, concerns over human rights violations, judicial scrutiny, and the need for reforms or alternatives. Provide relevant examples.

Conclusion: Evaluate whether AFSPA remains relevant or requires replacement with a more balanced legal framework ensuring both security and human rights.

Introduction:

AFSPA gives armed forces power to maintain public order in “disturbed areas”. But over the years, there have been allegations of army excesses from residents of Manipur and Jammu and Kashmir. Supreme Court (July 2016), based on a PIL by the Extra-judicial Execution Victim Families Association, Manipur, held that excessive force cannot be used on people even in insurgency-hit areas while hearing a petition on extra-judicial killing.



Body:

Arguments in Support of AFSPA	Arguments in Favor of Repeal of AFSPA
Safeguards from legal harassment for soldiers.	Failed to protect human rights: Critics argue that AFSPA leads to human rights violations.
Operational requirement in disturbed areas.	Section 4: Allows armed forces to shoot to kill or destroy property on mere suspicion.

Repeal may demoralize armed forces, and militants may motivate locals to file lawsuits against the army.	Sanction for excessive use of force: Criticized for enabling soldiers to act with impunity.
Necessary to maintain law and order, otherwise, situations may spiral out of control.	Violation of Human Rights & Article 21 (Right to Life) of the Indian Constitution.
Success in reducing militancy in conflict-prone regions.	Section 6: Prohibits prosecution without the sanction of the central government, leading to lack of accountability.

Failed to protect our soldiers

Supreme Court has ruled that armed personnel would face criminal prosecution if found using excessive force even in areas where AFSPA is in force. Important observations:

- Indefinite deployment of armed forces in the name of restoring normalcy under AFSPA “would mock at our democratic process”, apart from symbolizing a failure of the civil administration and the armed forces.
- There is no concept of absolute immunity from trial by a criminal court.
- These observations of the Supreme Court completely dilute any protection offered under the AFSPA.
 - Soldiers can be dragged to criminal courts.
 - Today, numerous decades-old cases are being opened, and more and more retired officers and men are being called for investigations.

Conclusion:

We must, therefore, ponder whether the AFSPA is currently serving any useful purpose. In areas where AFSPA is in force, the population is completely against it. On the other hand, the fact that hundreds of officers and men have moved the Supreme Court shows that they are not fully confident that the AFSPA can actually protect them from legal harassment. A new legislation that strengthens both respect for human rights as well as protection to our soldiers is thus required.

Q.16 Answer

APPROACH:

Introduction: Define wetlands and their ecological significance.

Body: Identify major threats—urbanization, pollution, encroachment, climate change. Discuss national efforts (Wetlands (Conservation and Management) Rules, Ramsar sites) and international initiatives (Ramsar Convention).

Conclusion: Suggest policy reforms, stricter enforcement, and community participation for sustainable wetland conservation.

Introduction:

Wetlands are areas with standing or flowing water (Marshes, lakes, bogs, and swamps), either permanent or seasonal.

Ecological Importance	- Biodiversity reservoirs (support birds, fish, and plant life) - Water conservation (recharge groundwater, control floods) - Climate change mitigation (carbon sinks) - Support fisheries and local economies
Ramsar	The Ramsar Convention is an international treaty signed on February 2, 1971 in Ramsar,

Convention	Iran, dedicated to the conservation and sustainable use of wetlands globally. This day is now celebrated annually as World Wetlands Day.
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Body:

Major Threats to Wetlands in India

Wetlands in India face several threats that endanger their ecological balance and sustainability. The primary threats include:

- **Encroachment and Urbanization:** Rapid urban expansion and infrastructural development lead to the loss of wetland areas.
- **Pollution:** Industrial discharge, agricultural runoff, and untreated sewage severely degrade water quality.
- **Climate Change:** Rising temperatures and erratic rainfall patterns affect wetland hydrology and biodiversity.
- **Over-extraction of Resources:** Excessive fishing, groundwater extraction, and deforestation around wetlands disrupt ecological stability.
- **Invasive Species:** Introduction of non-native species disrupts the natural biodiversity of wetlands.
- **Agricultural Expansion:** Conversion of wetlands into agricultural lands reduces their ability to act as water regulators.

Measures for Protection and Conservation

To address these threats, various national and international initiatives have been undertaken:

National Level Measures

- **National Wetland Conservation Programme (NWCP) (1986):** This initiative aimed to identify and conserve significant wetlands across the country.
- **National Plan for Conservation of Aquatic Ecosystems (NPCA) (2015):** It merged the NWCP and National Lake Conservation Plan to ensure a holistic approach to wetland protection.
- **Identification of Over 2,200 Wetlands for Conservation:** The Ministry of Environment, Forest and Climate Change has recognized critical wetlands requiring protection.
- **State-Specific Conservation Efforts:** States like Gujarat, Andhra Pradesh, Uttar Pradesh, and West Bengal have undertaken specific measures to conserve their extensive wetland areas.

- **Legal Frameworks:** The Wetlands (Conservation and Management) Rules, 2017, regulate activities in wetlands and promote their sustainable use.

International Level Measures

- **Ramsar Convention on Wetlands (1971):** An international treaty for the conservation and sustainable use of wetlands.
- **Ramsar Site Designation:** India is home to **89 Ramsar sites**, with **Tamil Nadu** hosting the most (**20 sites**) followed by **Uttar Pradesh (10 sites)**.
 - The 2023-24 bird census by the Punjab government revealed a significant decline in migratory birds across the province's wetlands.
- **Global Conservation Partnerships:** Organizations such as the International Union for Conservation of Nature (IUCN) and the World-Wide Fund for Nature (WWF) support India's wetland conservation efforts.
- **Migratory Bird Protection:** Initiatives such as the Central Asian Flyway and East Asian-Australasian Flyway ensure the conservation of migratory species dependent on Indian wetlands.

Conclusion

Wetlands play a crucial role in maintaining ecological balance, supporting biodiversity, and sustaining livelihoods. However, they are under severe threat due to human activities and climate change. India has taken significant steps at both national and international levels to conserve these vital ecosystems. Strengthening policy frameworks, community participation, and global cooperation will be essential in ensuring the long-term sustainability of wetlands in India.

Q.17 Answer

APPROACH:

Introduction: Define unemployment and its impact on youth.

Body: Analyze causes—skill gap, automation, jobless growth, pandemic effects. Discuss Odisha's initiatives like "Skilled in Odisha," MSME promotion, and startup policies. Provide data-driven insights.

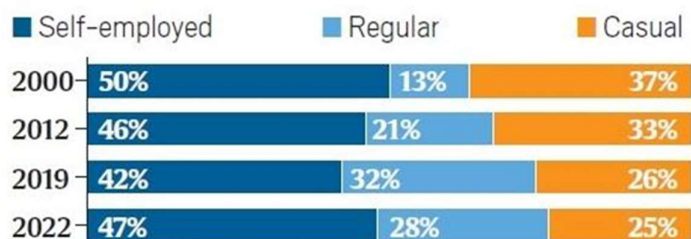
Conclusion: Recommend policy reforms, education-industry alignment, and investment in emerging sectors for sustainable employment.

Introduction:

The India Employment Report 2024, jointly published by the Institute for Human Development (IHD) and the **International Labour Organisation (ILO)**, presents critical insights into the Indian labour market. While it highlights some positive trends, such as improvements in job quality and a transition from agriculture to non-farm employment, it also underscores persistent challenges, particularly rising unemployment among educated youth.

Addressing these concerns requires a nuanced approach, including state-specific initiatives. This essay examines the reasons behind increasing unemployment among Indian youth and evaluates the effectiveness of Odisha's policies in mitigating this issue.

STATUS OF EMPLOYMENT OF YOUTHS



Source: IHD-ILO India Employment Report 2024

Body:

Causes	Explanation
Skills Mismatch and Education Disparities	There is a gap between the skills acquired by graduates and the demands of industries, leading to difficulty in finding suitable employment.
Structural Dependence on Agriculture	Despite a shift towards non-farm employment, agriculture still employs nearly half of India's workforce, limiting opportunities in industrial sectors.
High Youth Unemployment and NEET Population	In 2022, 28% of youth were neither in employment, education, nor training (NEET), with female youth being more affected.
Informality and Job Insecurity	Over 90% of jobs in India are informal, resulting in job insecurity, low wages, and lack of social protections.
Gender Disparities	Women's workforce participation remains low due to social norms, lack of skill training, and prevalence of low-paying informal jobs.

Role of Odisha in Tackling Youth Unemployment

Odisha's recent employment trends, as outlined in the Periodic Labour Force Survey (PLFS) 2023-24, reflect both progress and challenges in addressing youth unemployment. The state's initiatives have led to a decline in overall youth unemployment, though urban joblessness remains a concern.

- **Decline in Youth Unemployment:** Odisha's youth unemployment rate has fallen from 13.8% in 2022-23 to 11.1% in 2023-24. In rural areas, the rate dropped significantly from 12.7% to 9.3%.
- **Labour Force Participation Rate (LFPR) and Worker Population Ratio (WPR):** Odisha's LFPR increased from 63% to 67.1% in rural areas and from 51.5% to 53.2% in urban areas. The state's WPR stands at 62.9%, higher than several other states like Kerala, Karnataka, West Bengal, and Telangana.
- **Challenges in Urban Employment:** While rural unemployment decreased, urban unemployment rose slightly from 21.8% to 22.9%, indicating the need for targeted urban employment policies.
- **Sectoral Dependence on Agriculture:** More than 48.5% of Odisha's workforce remains engaged in agriculture. While this sustains employment levels, it highlights the need for diversification into industrial and service sectors.

Policy Recommendations:

- **Enhancing Employment-Intensive Growth:** Encouraging labour-based manufacturing and expanding employment opportunities in services and agriculture can create more jobs for young people.
- **Bridging the Skills Gap:** Odisha can focus on skill development programs aligned with industry demands to reduce the education-employment mismatch.
- **Formalizing Employment:** Strengthening labour laws and social security measures can help transition workers from informal to formal employment.
- **Targeted Urban Employment Policies:** Addressing urban unemployment requires investment in infrastructure, MSMEs, and the gig economy to generate sustainable jobs.
- **Promoting Women's Employment:** Special policies focusing on women's workforce participation, skill-building, and access to financial resources can enhance gender inclusion in employment.

Conclusion:

The India Employment Report 2024 provides a comprehensive view of both progress and challenges in India's labour market. Despite positive trends, youth unemployment remains a pressing issue due to skill mismatches, informality, and structural dependence on agriculture.

Odisha's targeted policies have yielded positive results in reducing rural unemployment, yet urban joblessness persists as a concern. A combination of skill development, employment-intensive growth, and policy reforms can help India, and Odisha in particular, tackle youth unemployment effectively and ensure inclusive and sustainable economic growth.

Q.18 Answer

APPROACH:

Introduction: Define space debris and its impact on satellite operations and space sustainability.

Body: Discuss rising debris concerns, risks to space assets, and global mitigation efforts. Highlight ISRO's PSLV-C58/XPoSat mission, POEM-3's role, and debris reduction strategies.

Conclusion: Emphasize ISRO's contribution to sustainable space exploration and the need for global collaboration on debris management.

Introduction:

With the rapid expansion of satellite deployments and space missions, the issue of space debris has become a pressing global concern. Space debris consists of defunct satellites, spent rocket stages, and fragments from collisions or disintegrations, posing significant risks to operational satellites and spacecraft. As the number of satellites in Low Earth Orbit (LEO) continues to grow, the chances of collisions and the creation of additional debris increase, necessitating proactive measures for mitigation.

Body:

ISRO's Innovative Approach to Space Debris Mitigation

The Indian Space Research Organisation (ISRO) has been at the forefront of addressing space debris concerns through its recent **PSLV-C58/XPoSat mission**. This mission incorporated groundbreaking strategies to minimize debris generation while ensuring effective space operations.

Key Features of PSLV-C58/XPoSat Mission	Details
PSLV Experimental Orbital Module-3 (POEM-3)	The fourth stage of the PSLV was repurposed into POEM-3, transforming it into an experimental orbital station. This allowed for additional scientific research and technology demonstrations, maximizing the utility of spent rocket stages.
De-orbiting Strategy	After deploying all satellites, the fourth stage was deliberately lowered from 650 km to 350 km. The reduced altitude increased atmospheric drag, ensuring a faster re-entry and burn-up, preventing long-term debris accumulation.
Passivation of the Stage	ISRO expelled all remaining fuel from the stage to eliminate explosion risks. This crucial step prevented fragmentation, which is a primary cause of debris multiplication.
Benefits of ISRO's Zero Debris Approach	Details
Minimal Debris Generation	By utilizing POEM-3 and passivating the fourth stage before controlled de-orbiting, ISRO ensured near-zero debris in Earth's orbit.
Reduced Risk to Space	Removing defunct rocket stages minimizes collision risks, protecting

Assets	valuable satellites and space infrastructure.
Environmental Responsibility	The spent stage re-entered Earth's atmosphere, burning up completely without leaving harmful fragments in orbit.

POEM-3: Advancements in Sustainable Space Exploration

ISRO's **POEM-3** served as an innovative and cost-effective orbital platform for scientific experiments and technology demonstrations. Developed by the **Vikram Sarabhai Space Centre (VSSC)**, POEM-3 leveraged the fourth stage of PSLV as a space lab, demonstrating India's commitment to sustainable space missions.

Global Significance of ISRO's Efforts

ISRO's successful deployment and disposal of POEM-3 align with global efforts to promote responsible space exploration. The mission demonstrated India's capability to manage space debris efficiently and contribute to international best practices in space sustainability.

Addressing the Growing Challenge:

- **Mitigating Risks of Space Debris:** By incorporating controlled de-orbiting and passivation, ISRO is leading by example in debris reduction.
- **Supporting International Guidelines:** ISRO's efforts align with the Inter-Agency Space Debris Coordination Committee (IADC) and UN-endorsed debris mitigation protocols.
- **Advancing Technological Innovation:** Through POEM-3 and similar missions, ISRO is pioneering reusable and sustainable space technology.

Conclusion

The PSLV-C58/XPoSat mission represents a landmark achievement in space debris mitigation, reinforcing ISRO's commitment to sustainable space exploration. By developing innovative strategies like POEM-3, ISRO has set a precedent for responsible space mission planning, aligning with global efforts to achieve a **zero debris target**. As space activities continue to grow, such proactive measures are crucial in ensuring a safer and more sustainable orbital environment for future generations.