

# Mains WARATHON2023

INTERNAL SECURITY & DISASTER MANAGEMENT



Drishti IAS, 641, Mukherjee Nagar, Opp. Signature View Apartment, New Delhi Drishti IAS, 21
Pusa Road, Karol Bagh
New Delhi

Drishti IAS, Tashkent Marg, Civil Lines, Prayagraj, Uttar Pradesh Drishti IAS, Tonk Road, Vasundhra Colony, Jaipur, Rajasthan

e-mail: help@groupdrishti.in, Website: www.drishtiias.com Contact: 8010440440, WhatsApp: 9311406442  Keeping in view of India's internal security, analyse the impact of cross-border cyber-attacks. Also, discuss defensive measures against these sophisticated attacks. (150 Words)

# Approach:

- Introduce with what does cyber-attack mean.
- > Analyse the impact of cross-border cyber-attacks.
- Discuss defensive measures against these sophisticated cyber attacks.
- Suggest a way forward.

# Introduction

A cyber-attack is a type of attack that targets computer systems, infrastructures, networks, or personal computer devices using various methods at hands. Depending on the context, cyberattacks can be part of cyberwarfare or cyberterrorism. A cyber-attack can be employed by sovereign states, individuals, groups, society, or organisations, and it may originate from an anonymous source.

# **Body**

The term 'cross-border' implies a movement or an activity across a border between the two countries. Impact of cross-border cyber-attacks include:

- > Debilitating impact on Critical Information Infrastructure (power plants, nuclear plants, telecommunications etc.).
- > It can be used as spyware to get sensitive information.
- > Terrorists may use social media to plan and execute terror attacks and for virulent propaganda to incite hatred and violence.

The defensive measures undertaken to counter cross-border cyber-attacks are:

- Coordination with different agencies at the national level.
- > The government needs to issue alerts and advisories regarding the latest cyber threats and countermeasures on a regular basis.
- ➤ The Information Technology Act, 2000 has deterrent provisions to deal with cyber-attacks.
- National Critical Information Infrastructure Protection Centre (NCIIPC) has been established to deal with cyber security issues.
- The National Cyber Coordination Centre (NCCC)

- has been set up for timely sharing of information with individual entities.
- Cyber Swachhta Kendra (Botnet Cleaning and Malware Analysis Centre) has been launched for detection of malicious programs and provide free tools to remove the same.
- The Technology Development Board and Data Security Council of India (DSCI) have jointly decided to promote cyber security start-ups in India.

#### **Conclusion**

The need of the hour is to produce a futuristic National Cyber-Security Policy which allocates adequate resources and addresses the concerns of the stakeholders.

2. What are suicide drones? How are they changing traditional warfare? (150 words)

# Approach:

- > Define briefly about suicide drones.
- Give examples of suicide drone in present time.
- Discuss how it is changing warfare.
- Conclude accordingly.

#### Introduction:

Suicide drones are single-use weapons that fly into their targets and detonate on impact, they are capable of circling above a target and waiting for the perfect moment to strike with incredible precision.

# **Body:**

Israel, U.S.A, South Korea and China are some of the leading producers of this type of drones. Recently, these suicide drones were used by various countries like Azerbaijan had used small Turkish-made drones against the Armenian military, Ukraine and Russia used them against each other.

- Significance of suicide drones in changing traditional warfare:
  - O Cover Long Range:
    - Like cruise missiles, suicide drones can hit targets hundreds of kilometers away, but cruise missiles are expensive, and suicide drones are a cheaper, yet precise,
  - Portable: It is easy to handle and designed to be carried in a backpack, assisting small infantry units.
  - Better Camouflage: It has the capability of going

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- past traditional defenses to strike its targets.
- Advance electronics: It's difficult to detect on radar, and they can even be programmed to hit targets without human intervention, based on facial recognition.

#### **Conclusion:**

Given the rapid development of capabilities, steadily dropping cost, and wide proliferation, it is all but certain that drones will be used in all future conflicts and will be leveraged even by least developed countries or non-state actors as a tool to achieve their objectives.

 With the rise of maritime territorial disputes and rising tension across the world, there is renowned focus on maritime security by India. Discuss the challenges faced by India in achieving maritime security. (150 words)

# Approach:

- Introduce your answer by briefly describing maritime security and discuss recent examples of maritime territorial disputes.
- Discuss challenges faced by India in achieving maritime security.
- Discuss measures needed to be taken by India to ensure its maritime security.
- Conclude suitably.

#### Introduction:

- Maritime security could be classified as the issues in the maritime domain comprising national security, marine environment, economic development, and human security.
- Besides the world's oceans, it also deals with regional seas, territorial waters, rivers and ports.
- ➤ Further, maritime power plays a vital role in ensuring geopolitical stability and progression of geoeconomics, and India's geography makes a compelling case for maritime expansion and strategic ties.

# **Body:**

- The recent examples of maritime disputes are as follows:
  - China's imaginary nine dash line and creating sand island in the international waters of south China sea.
  - O Russia's aggression in Crimea region and sea of Azov.
  - o Iran's threats to blockade Persian Gulf.

- o Issue in Indian ocean:
  - Rising belligerence of Chinese navy in Indian ocean region.
  - Threat to sea lanes of communications by state and non-state actors.
  - Threat of Piracy and trafficking.
- Challenges faced by India in achieving maritime security:
  - O Climate Change and Water Pollution: Climate change is always a problem to maritime security, it may make challenges to the proper working of machines and unpredictable situations in the security, unclear aims are making problems in naval systems.
    - The water pollution affecting the life mechanisms in the ocean will seriously affect the fisherman and other coastal problems at the seashore.
  - Safe Passage of Merchant ship: Either international conflict or civil war can present risk to ships or crew, this risk will depend on the nature of the conflict.
  - Cyber-attacks: Ships are increasingly using relay digitization, integration and automation, which calls cyber risk management on board with the help of information technology (IT) and operational technology (OT).
  - Offshore facilities including Oil rig: Extraction of the oils in international waters and the facilities which carrying to the ships and the protection of that ship and its facilities.
  - China's increasing influences in the region: China is always trying to increase its power in the world with different types of policies and investments, which is also providing military and economic cooperation with its affiliated countries making some security problems to Indian security like:
    - 'One Belt One Road initiative (OBOR) and 'String of pearls policy' are the strategic policy of China, which also has powerful ideas of the development of trade and other cunning policy of power upgrading against India.
    - Further, the string of pearls policy describes China as a plan to make creating military ports in nations like Sri Lanka, Pakistan, Myanmar its challenge towards maritime security of India.
- Measures needed to be taken by India to ensure its maritime security:

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- Creating Awareness: Creating awareness among civil population like fishing community for reporting strange incidents in oceans.
- Technology: Importing and implementing most modern technology for predicting and preventing enemy attacks in oceans.
- Further, there is need for India to further enhance its capabilities like:
  - Operational Logistics
  - Self-Reliance and Indigenization
  - Updated technologies

# **Conclusion:**

There is an age-old saying that goes by "who rules the seas rules the world". It holds true even to this day. Though India is definitely not competing to dominate the world with military might, it is of prime importance to ensure regional stability and security. This would best be achieved by ensuring the dominance of the Indian Ocean region and simultaneously working with other global partners to ensure freedom of navigation in the Indian and Pacific oceans.

4. Deepfakes present an opportunity to the cybercriminal and a challenge to everyone else. Discuss (250 words)

# **Approach**

- Start your answer by briefly explaining deep fake technology.
- > Discuss its challenges of deepfake technology.
- Suggest some measures to overcome challenges of deepfake technology.
- Conclude accordingly.

#### Introduction

- Deepfake technology is a method for manipulating videos, images, audios utilizing powerful computers and deep learning.
- ➤ It is used to generate fake news and commit financial fraud among other wrong doings.

➤ It overlays a digital composite over an already-existing video, picture, or audio; cybercriminals use Artificial Intelligence technology.

# **Body**

Deepfake technology is now being used for nefarious purposes like scams and hoaxes, celebrity pornography, election manipulation, social engineering, automated disinformation attacks, identity theft and financial fraud etc.

# > Challenges of Deepfake Technology:

# O Cyber Crime:

- The potential use of deepfakes is in phishing campaigns, as it would make them more difficult for the individual to detect as a scam.
- For example, in social media phishing, a faked video of a celebrity could be used to extort money from unwitting victims.

#### Fabricated Media:

- Deep Fake technology makes it possible to fabricate media like swap faces, lip-syncing, and puppeteers, mostly without consent and bring threat to psychology, security, political stability, and business disruption.
- Deepfake technology has been used to impersonate notable personalities like former U.S. Presidents Barack Obama and Donald Trump, India's Prime Minister Narendra Modi, etc.

# O New Front of Warfare:

- A deepfake could act as a powerful tool by a nation-state to undermine public safety and create uncertainty and chaos in the target country.
- Nation-state actors with geopolitical aspirations, ideological believers, violent extremists, and economically motivated enterprises can manipulate media narratives using deepfakes.
- It can be used by insurgent groups and terrorist organisations, to represent their adversaries as making inflammatory speeches or engaging in provocative actions to stir up anti-state sentiments among people.

# Undermining Democracy:

 A deepfake can also aid in altering the democratic discourse and undermine trust in institutions and impair diplomacy.

Note:



 False information about institutions, public policy, and politicians powered by a deepfake can be exploited to spin the story and manipulate belief.

# Disrupting Electioneering:

- A deepfake of a political candidate can sabotage their image and reputation. A well-executed one, a few days before polling, of a political candidate spewing out racial epithets or indulging in an unethical act can damage their campaign.
- A high-quality deepfake can inject compelling false information that can cast a shadow of illegitimacy over the voting process and election results.
- Leaders can also use them to increase populism and consolidate power.
- Deepfakes can become a very effective tool to sow the seeds of polarization, amplifying division in society, and suppressing dissent.
- Measures to Overcome Challenges of Deepfake Technology:
  - Enhancing Media Literacy: Media literacy for consumers and journalists is the most effective tool to combat disinformation and deep fakes.
    - Improving media literacy is a precursor to addressing the challenges presented by deepfakes.
    - Media literacy efforts must be enhanced to cultivate a discerning public.
    - As consumers of media, they must have the ability to decipher, understand, translate, and use the information.
    - Even a short intervention with media understanding, learning the motivations and context, can lessen the damage.
  - Need for Regulation: Meaningful regulations with a collaborative discussion with the technology industry, civil society, and policymakers can facilitate disincentivizing the creation and distribution of malicious deep fakes.
    - Technological Interventions: There is also a need for easy-to-use and accessible technology solutions to detect deep fakes, authenticate media, and amplify authoritative sources.
  - Behavioural Change: On the part of society, to counter the menace of deep fakes, there is a need to take the responsibility to be a critical consumer

of media on the Internet, think and pause before sharing on social media, and be part of the solution to this infodemic.

#### **Conclusion**

- As media consumers, we must be able to decipher, understand, translate, and use the information we encounter.
- > The best method to deal with this problem is with technical solutions supported by artificial intelligence that can recognize and block deep fakes.
- Prior to resolving the issues associated with deep fakes, media literacy has to be improved.
- There is a need to create cyber arm, which would work on to tackle these types of new and emerging threats.
- There is also a need for easy-to-use and accessible technology solutions to detect deep fakes, authenticate media, and amplify authoritative sources.
- On the part of society, to counter the menace of deep fakes, there is a need to take the responsibility to be a critical consumer of media on the Internet, think and pause before sharing on social media, and be part of the solution.
  - 5. Analyze the challenges faced by India in maintaining internal security in the current scenario.

(250 words)

# **Approach**

- Start your answer by describing present scenario of internal security in India.
- Discuss challenges faced and the measures taken by the government to address these challenges.
- Conclude accordingly.

# Introduction

Internal security is a critical issue for any country, and India is no exception. In recent years, India has faced a number of challenges in maintaining internal security, including terrorism, cybercrime, and insurgency.

#### **Body**

- > Internal security challenges faced by India:
  - O Terrorism:
    - Terrorism is a major security concern for India, as it has been the target of numerous terrorist attacks in recent years. These attacks have been

■ The most notable of these attacks include the 2008 Mumbai attacks, in which ten terrorists targeted various locations in the city, killing 164 people and injuring over 300.

# O Cybercrime:

- Cybercrime is another major security concern for India, as it has become increasingly vulnerable to cyber-attacks in recent years. These attacks have been carried out by a variety of actors, including hackers, cybercriminals, and statesponsored groups.
  - The most notable of these attacks include the 2017 WannaCry ransomware attack, in which computers in India were among those affected by the malware.

# o Insurgency:

- Insurgency is a major security concern for India, as it has been the target of numerous separatist movements in recent years. These movements have been carried out by a variety of groups, including ethnic and religious minorities.
  - The most notable of these movements include the Naxalite insurgency, which has been active in the country since the 1960s.

#### O Border security:

 India has a large and porous border with several neighboring countries, which can be used to smuggle weapons, illegal drugs, and other contraband into the country.

# Illegal Immigration:

- India also faces a large influx of illegal immigrants from neighboring countries, which poses a security threat and puts pressure on the country's resources.
- Measures taken by government to tackle these challenges:

# O Combat Terrorism:

 The establishment of the National Counter Terrorism Centre (NCTC) in 2011. It is responsible for coordinating the efforts of various government agencies to combat terrorism, and has been credited with improving the country's ability to respond to terrorist attacks.

#### Tackling cybercrime:

 The establishment of the Indian Computer Emergency Response Team (CERT-In) in 2004.
 CERT-In is responsible for coordinating the efforts of various government agencies to combat cybercrime, and has been credited with improving the country's ability to respond to cyber-attacks.

# o Insurgency:

- The Indian government has taken a number of measures to address the threat of insurgency, including the use of military force against separatist groups. The government also maintains a strong intelligence network to gather information and prevent attacks.
  - The government has also launched various development initiatives in the North-East, aimed at reducing poverty and unemployment, which are often cited as root causes of insurgency in the region.

# Tackling Left-wing extremism:

- Government has adopted a multi-pronged approach to tackle the problem of Left-Wing Extremism, by launching a security-oriented approach, and development-oriented approach, and a rights-based approach.
  - The government has also established a special task force to improve coordination between various agencies involved in tackling the problem of Left-Wing Extremism.

# Conclusion

- There is a need for a more comprehensive and effective strategy to improve internal security in the country like:
  - Strengthening border security to prevent infiltration by terrorists and illegal arms and drug trafficking.
  - Enhancing intelligence gathering and sharing capabilities to detect and prevent terrorist attacks.
  - 6. Discuss the factors giving rise to recurring internal security threats in Northeast India? (150 words)

# Approach:

- > Start your answer with a brief introduction of challenges to internal security in Northeast India with reference to recent context.
- Discuss the factors contributing to these challenges.

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> Conclude with way forward approach.

# Introduction:

Northeast India, comprising of eight states, has been grappling with internal security challenges for several decades. The region has witnessed a range of issues, including insurgency, ethnic conflicts, economic marginalization, and cross-border infiltration.

Recent events of **ethnic violence in Manipur between Kukis, Nagas and Meities** have once again brought the issue in light.

# **Body:**

In this context, the factors contributing to internal security challenges in Northeast India are discussed below.

- Historical Factors:
  - The region has been a melting pot of various tribes, kingdoms, and empires over the centuries. The complex interplay of historical factors, such as colonization, border disputes, and demographic changes, has contributed to internal security challenges in the region.
  - The imposition of the Inner Line Permit (ILP) system by the British has also led to ethnic tensions and conflicts.

# **Ethnic Diversity:**

- The Northeast It is home to around 40 million people including 213 of the 635 tribal groups listed by the Anthropological Survey of India. These tribes have distinct culture and languages.
- The ethnic diversity has led to the formation of numerous insurgent groups representing the interests of their respective communities. These groups have been involved in armed struggle against the state, leading to violence, displacement, and human rights violations.
  - For instance, ULFA in Assam, NSCN in Nagaland are few of the insurgent groups active in Northeast region.

# > Border Issues:

- Northeast India shares borders with several countries, including China, Bangladesh, Bhutan, and Myanmar. The porous borders have made it vulnerable to cross-border infiltration and smuggling of arms, drugs, and contraband.
- O NE region is geographically located adjacent

to opium producing region of **Golden triangle** (Myanmar, Thailand, Laos)

 The border disputes with neighbouring countries have also led to tensions and conflicts, particularly with China and Bangladesh.

# > Economic Marginalization:

- Northeast India is considered as one of the economically backward regions in India. The region has a low per capita income, inadequate infrastructure, and limited job opportunities.
- The economic marginalization has led to youth unemployment and poverty, making them vulnerable to recruitment by insurgent groups.

# > Natural Resource Exploitation:

- Northeast India is endowed with rich natural resources, including oil, gas, coal, and minerals.
   The exploitation of these resources has led to environmental degradation and displacement of local communities.
- The displacement has led to resentment among the local communities and has provided a fertile ground for the growth of insurgent groups.

# > Isolation and Relative Deprivation:

- The Northeast region's distance from New Delhi and limited representation in the Lok Sabha have resulted in a reduced voice of the people being heard in the corridors of power.
- This has led to increased disillusionment in the dialogue process and has made the use of violence more appealing, making insurgency a more attractive option.

# > External State and Non-state Actors:

- o The insurgencies in the NEI have been supported by erstwhile East Pakistan in the late 1950s; and in early 1960s, in the form of training of personnel of Naga Army and giving them weapons.
- Later, China also provided weapons and support to insurgents and Maoists.

# Way forward:

- The Armed Forces Special Powers Act (AFSPA) should be gradually lifted from areas showing improved situation.
  - Continued Efforts by Civil Society: Notwithstanding the progress in peace talks, efforts by the civil society for rapprochement with the insurgent organisations

- must continue. This enables a respectable way out for the insurgent leaders and leads to a win-win situation for all the stakeholders.
- Clear demarcation of borders between states should be there to avoid conflicts between different ethnic groups of these states.
- o For example. Assam-Meghalaya and Assam-Arunachal Pradesh boundary agreement.
- > Strengthening Security on Borders to avoid infiltration, money laundering, arms trafficking.

A holistic approach is required to address these issues, including political dialogue, economic development, and environmental sustainability. **Three pronged strategy of Defense, Dialogue and Development** is key for peace and security of North East region.

6. Discuss the linkages between development and extremism in India. How can the government address the root causes of violent movements that challenge the internal security of the country? Illustrate your answer with suitable examples.

(250 words)

# Approach:

- Introduction: Introduce by defining the terms development and extremism and giving a brief overview of the different forms of extremism.
- ➤ **Body:** Discuss the linkages between development and extremism and also discuss how the root causes of such violent movements can be addressed.
- > **Conclusion:** Summarize the main points and give your opinion.

# Introduction:

Development and extremism are interlinked in a complex manner. Development refers to the improvement of people's social and economic well-being, while extremism refers to the use of violence or radical means to achieve political or ideological goals. In India, there are various forms of extremism, such as left-wing extremism (LWE), religious extremism, ethnic extremism and secessionist movements. These pose a serious challenge to the internal security of the country.

#### **Body:**

# **Linkages between Development and Extremism:**

 Socioeconomic disparities: Developmental challenges create fertile ground for extremist

- ideologies to take root. Marginalized sections of society may become susceptible to radicalization.
- Regional disparities: Regional imbalances in development exacerbate the problem. Neglected areas become breeding grounds for extremist activities. Unequal distribution of resources and lack of inclusive development contribute to alienation and resentment.
- Identity-based conflicts: Diverse society is characterized by various religious, ethnic, and linguistic identities. If these identities are not adequately recognized and accommodated in the developmental process, it can fuel tensions and lead to extremist movements.
- ➤ Lack of social cohesion: Developmental initiatives alone may not counter extremism if social cohesion is lacking. Prejudices, discrimination, and communal tensions undermine efforts to build a united society. It is crucial to promote inclusive development that fosters social integration and addresses the grievances of marginalized communities.

# Measures to address the Root Causes of Violent Movements:

- Political dialogue: The government can engage in political dialogue with extremist groups willing to renounce violence. Other stakeholders such as civil society organizations, media, and academia can facilitate dialogue and build trust. The government can address political grievances and demands of extremist groups within the framework of democracy and federalism.
- Socio-economic development: The government can pursue inclusive and equitable development that reaches out to marginalized sections. Development benefits should be distributed fairly. The government can create opportunities for livelihoods, education, health, empowerment, and participation for those affected by or involved in extremism.
- Security measures: The government can strengthen the security apparatus to prevent and combat extremism. Coordination and cooperation among different security agencies should be enhanced. Intelligence gathering and sharing mechanisms should be improved. The government should ensure respect for human rights and rule of law while dealing with extremists.
- Social integration: The government can promote social integration among different groups and communities. Communal harmony and tolerance can be fostered through dialogue, education, and cultural exchange. Civil society organizations, media, and academia

can create awareness, sensitization, and solidarity among people.

Some examples of how development and extremism are linked in India are:

- LWE or Naxalism: LWE is a far-left extremist ideology that originated in Naxalbari, West Bengal in 1967. LWE spread to other parts of eastern India where tribals, dalits, and landless laborers felt exploited and neglected. LWE affects development by creating instability and insecurity. The government has adopted security and developmental measures to deal with LWE.
- Insurgency in Northeast India: Insurgency is a secessionist movement that seeks autonomy or independence based on ethnic identity. Insurgency emerged in Northeast India due to various factors such as historical legacy, cultural diversity, and economic backwardness. Insurgency challenges internal security by engaging in armed conflict with security forces. Insurgency affects development by creating instability and insecurity.
- Religious Extremism: Religious extremism is a radical ideology that justifies violence or intolerance. It affects development by creating instability and insecurity. The government has adopted security, legal, and social measures to deal with it.

#### **Conclusion:**

The linkages between development and extremism in India are undeniable. Socioeconomic disparities, identity-based conflicts, and lack of social cohesion contribute to extremism. The government must prioritize inclusive development, strengthen governance, engage communities, promote education and awareness, and strengthen the security apparatus to address these challenges and effectively address the root causes of violent movements.

7. What is the role of civil society and local communities in countering radicalization and violent extremism? Discuss the challenges and opportunities in engaging with them for internal security. (250 words)

# Approach:

Introduction: Define radicalization and violent extremism, and their impact on internal security and brief role of Civil Society Organisations (CSOs) in countering them.

- Body: Discuss how CSOs can be crucial in countering such menaces and what are the challenges and opportunities related to the engagement with the CSOs
- Conclusion: Conclude with a way forward approach

#### Introduction:

Radicalization is the process of adopting extremist views and engaging in violent actions against the state or society. Violent extremism is the use of violence or threat of violence to achieve political, ideological, or religious goals. Both radicalization and violent extremism pose a serious threat to internal security as they undermine the democratic values, social harmony, and national integrity of the country.

The role of civil society and local communities in countering radicalization and violent extremism is crucial for promoting internal security. Their engagement offers unique opportunities to address the root causes of radicalization, build resilience, and foster social cohesion.

# Body:

Civil society and local communities play a vital role in countering radicalization by:

- Providing alternative narratives and positive role models to counter extremist propaganda and recruitment by using various platforms, such as media, education, arts, sports, etc., to promote peace, tolerance, and diversity among different groups and sectors of society.
  - They can also highlight the voices and stories of victims and survivors of violent extremism to create empathy and awareness.
- Addressing root causes of radicalization includes advocating for social justice, inclusive development, and good governance. CSOs can provide basic services, livelihood opportunities, and empowerment programs to vulnerable groups to enhance their resilience and sense of belonging.
- CSOs can promote social cohesion, tolerance, dialogue, and non-violence among diverse communities by facilitating interfaith, intercultural, and intergenerational dialogues. They can also mobilize grassroots support for peacebuilding initiatives and conflict resolution mechanisms.
- CSOs can empower vulnerable groups to participate in decision-making and peacebuilding by enhancing their capacities and leadership skills, creating networks

- Providing psychosocial support, rehabilitation, and reintegration services to former extremists and their families.
- CSOs can provide counselling, mentoring, education, vocational training, and more to help individuals renounce violence and reintegrate into society. They can also collaborate with the government and other stakeholders to protect human rights.

However, engaging with civil society and local communities for internal security also faces some challenges and opportunities, such as:

# > Challenges:

- Lack of trust, coordination, and communication between government and civil society
- Insufficient funding, capacity, and protection for civil society actors
- Legal and political constraints
- Risk of stigmatization or backlash from extremist groups or communities.

# > Opportunities:

- Enhancing the legitimacy, effectiveness, and sustainability of Preventing and Countering Violent Extremism (P/CVE) efforts
- Leveraging the local knowledge, networks, and influence of civil society actors
- Fostering a whole-of-society approach that involves multiple stakeholders
- Creating platforms for dialogue, collaboration, and learning among different actors.

# **Conclusion:**

Civil society and local communities are crucial in countering radicalization and violent extremism. They require support and recognition from the government and other stakeholders. Strengthening their engagement requires regular consultations, adequate funding, capacity building, protection, enabling legal and political environment, multi-stakeholder partnerships, and recognizing contributions.

 India is faced with several internal security challenges, such as Naxalism, terrorism, and insurgency. Discuss the root causes of these challenges and discuss the measures taken by the government to address them. (250 words)

# **Approach**

- > Start your answer by briefly discussing the causes of internal security in India.
- Discuss various measures taken by the government to address internal security challenges.
- Conclude by providing innovative and practical measures in way forward.

#### Introduction

- India is one of the largest and most diverse democracies in the world, with a population of about 1.5 billion people belonging to various ethnic, religious, and linguistic groups.
  - Despite its democratic credentials, India has been facing several internal security challenges for several decades, ranging from Naxalism to terrorism and insurgency.

# **Body**

- Root Causes of Internal Security Challenges in India:
  - The internal security challenges faced by India have their roots in various socio-economic, political, and historical factors, including poverty, inequality, religious and cultural differences, and political instability.
  - These factors have contributed to the growth and sustenance of various extremist and militant groups, such as the Naxalites, Islamic fundamentalists, and secessionist groups. The following are some of the major root causes of these challenges:
    - Poverty and Inequality:
      - Poverty and inequality are major drivers of internal security challenges in India. The country has one of the highest poverty rates in the world, with a large proportion of the population living below the poverty line.
  - This has created a sense of hopelessness and desperation among the people, leading to the rise of extremist and militant groups that promise to address their grievances.
    - Religious and Cultural Differences:
      - India is a diverse country with a multi-ethnic, multi-religious, and multi-cultural society.
  - However, this diversity has also led to tensions and conflicts between different communities.
  - o This has provided fertile ground for the growth of

extremist and militant groups that exploit these fault lines for their own purposes.

- Political Instability:
  - India has a long history of political instability, with frequent changes in government and coalition politics.
- This has led to a lack of continuity in policies and programs, which has undermined the country's stability and security.
  - Moreover, the political system is often perceived as corrupt and inefficient, which has eroded people's trust in the government.
- Measures Taken by the Government to Address Internal Security Challenges:
  - O Naxalism:
    - The government has implemented various measures to tackle this challenge, including the deployment of security forces, socioeconomic development programs, and political negotiations.
      - The government launched the Integrated Action Plan (IAP) in 2010 to address the socio-economic grievances of the people in the Naxal-affected areas.
  - The IAP focuses on providing basic amenities, such as roads, electricity, and water supply, to the people in these areas.
    - The government has also initiated several schemes to improve the livelihoods of the people, such as the National Rural Livelihood Mission and the Mahatma Gandhi National Rural Employment Guarantee Act.
  - O Terrorism:
    - Terrorism is another major internal security challenge facing India, particularly in the form of cross-border terrorism from Pakistan.
      - The government has sought to isolate Pakistan diplomatically and has put pressure on it to dismantle the terrorist infrastructure operating from its soil. India has also strengthened its border security by fencing the border and deploying more troops.
      - The government has also carried out targeted military operations against terrorist groups operating in Jammu and Kashmir.
  - o Insurgency:

- Insurgency is another internal security challenge facing India, particularly in the Northeastern states and Jammu and Kashmir.
  - The government has taken several measures to address this challenge, including political negotiations and socio-economic development programs.
  - The government has initiated several schemes to improve the socio-economic conditions of the people in the Northeastern states, such as the Northeastern Council and the Ministry of Development of Northeastern Region.

# **Conclusion**

India is facing several internal security challenges that threaten its stability, security, and development. The Indian government has implemented various measures to address these challenges, here are some practical measures that can be taken:

- > For Naxalism:
- Involve civil society and local communities in peacebuilding and conflict resolution.
- Strengthen local governance and decentralize decisionmaking and resource allocation.
- > For Terrorism:
  - Enhance cyber security and resilience to prevent cyberattacks and data breaches.
  - Foster regional and global cooperation to combat cross-border terrorism.
- > For Insurgency:
  - Implement confidence-building measures and dialogue with all stakeholders to address grievances and aspirations.
  - Promote cultural diversity and pluralism.

# **Disaster Management**

9. What is the role of vulnerability assessment in defining disaster impacts and how can it be used to identify the threat to vulnerable communities? (150 words)

#### **Approach**

- Start your answer by briefly explaining vulnerability assessment and its need.
- > Discuss its impact in defining disaster and identifying

threat to vulnerable communities.

Conclude accordingly.

# Introduction

- Vulnerability assessment is a process that assesses the susceptibility of a community or region to the impacts of hazards, such as natural disasters. It helps identify which communities are most at risk and why, so that appropriate measures can be taken to reduce their vulnerability. The assessment typically includes an analysis of physical, social, economic, and environmental factors that contribute to vulnerability.
- ➤ In India, the country is prone to a variety of hazards, including floods, earthquakes, and cyclones, which can have devastating impacts on communities.
- To effectively prepare for and respond to these disasters, it is essential to understand the potential impacts and the communities that are most at risk. Therefore, vulnerability assessment is a critical tool in identifying these risks and can play a vital role in defining disaster impacts in India.

# **Body**

- Impact of vulnerability assessments in defining disaster:
  - Prioritization of resources: Vulnerability assessment plays a crucial role in defining disaster impacts in India by identifying the communities that are most at risk.
    - It allows for the prioritization of resources and efforts to prepare for and respond to disasters, ensuring that the most vulnerable communities receive the necessary support.
  - Help in Preparing and responding to disasters: In India, vulnerability assessment has been used to identify the potential impacts of floods, earthquakes, and cyclones.
    - The Indian government has implemented a number of vulnerability assessment programs, such as the National Cyclone Risk Mitigation
       Project and the National Cyclone Risk Mitigation
       Project II, to identify the most vulnerable communities and to prioritize resources and efforts to prepare for and respond to disasters.
- Vulnerability assessments can be used to identify the threat to vulnerable communities by analyzing the following factors:

- Physical factors: The physical characteristics of a community, such as the type of housing, infrastructure, and the location of critical facilities, can increase or decrease vulnerability to hazards.
- Social factors: The social characteristics of a community, such as population density, age structure, and socio-economic status, can affect the ability of individuals and communities to prepare for and respond to hazards.
- Economic factors: Economic factors, such as poverty, unemployment, and dependence on a single industry, can affect the ability of a community to recover from a disaster.
- Environmental factors: Environmental factors, such as land use, natural resources, and the presence of hazardous materials, can increase the vulnerability of a community to hazards.
  - For example, a vulnerability assessment in a coastal community may identify that the main threat is from sea-level rise and storm surges, while a vulnerability assessment in an urban community may identify the main threat as a lack of emergency shelters.

# Conclusion

Vulnerability assessment plays a critical role in defining disaster impacts in India by identifying the communities that are most at risk. It allows for the prioritization of resources and efforts to prepare for and respond to disasters, ensuring that the most vulnerable communities receive the necessary support.

 Natural disasters such as floods, cyclones, and earthquakes are becoming increasingly frequent and severe in India. In this context, discuss the challenges faced by the country in managing such disasters. (250 words)

# **Approach**

- Start your answer by briefly introducing effects of natural disasters in India.
- Discuss challenges faced by India in managing natural disasters and suggest measures to overcome them.
- Conclude accordingly.

# Introduction

Natural disasters are events that cause widespread destruction, disruption, and distress to human lives,

**O**drishti

**livelihoods, and ecosystems.** They are often triggered by natural phenomena such as earthquakes, floods, cyclones, droughts, landslides, avalanches, etc., that are beyond human control.

 However, human activities such as deforestation, urbanization, climate change, etc., can also increase the vulnerability and exposure of people and places to natural hazards.

# **Body**

- Background:
  - o India is one of the most disaster-prone countries in the world, due to its diverse geography, climate, and population. According to the National Disaster Management Authority (NDMA), India is vulnerable to 30 different types of natural disasters, of which 12 are classified as major disasters.
    - India has witnessed several devastating natural disasters in its history, such as the 2004 Indian Ocean tsunami, the 2001 Gujarat earthquake, the 2013 Uttarakhand flash floods, the 2018 Kerala floods, etc., that have claimed thousands of lives and caused huge economic losses.
- Managing natural disasters is a complex and challenging task that requires effective coordination and cooperation among various stakeholders at different levels. Some of the major challenges faced by India in managing natural disasters are:
  - Lack of preparedness and early warning systems:
     India lacks adequate preparedness and early warning systems to deal with natural disasters.
    - Many disaster-prone areas do not have proper disaster management plans, risk assessments, contingency plans, evacuation plans, that can help in reducing the impact of disasters.
    - Moreover, many people do not have access to timely and accurate information and alerts about impending disasters, which can help them in taking preventive and protective measures.
  - Inadequate response and relief operations: India faces difficulties in providing prompt and effective response and relief operations to the affected people and areas during and after natural disasters.
    - There are gaps in the availability and accessibility of resources such as personnel, equipment, vehicles, communication systems, medical facilities, that are needed for rescue and relief

operations.

- Moreover, there are issues of coordination and accountability among various agencies and organizations involved in disaster response and relief.
- Poor recovery and rehabilitation measures: India faces challenges in ensuring long-term recovery and rehabilitation of the affected people and areas after natural disasters.
  - There are delays and deficiencies in the provision of financial assistance, compensation, insurance, livelihood support, housing reconstruction, infrastructure restoration, that are essential for restoring normalcy and resilience.
  - Moreover, there are problems of corruption, mismanagement, and lack of transparency in the utilization of funds and resources allocated for disaster recovery and rehabilitation.
- Lack of awareness and participation: India faces a lack of awareness and participation among the public and communities in disaster management.
  - Many people do not have adequate knowledge and skills about disaster risk reduction, mitigation, preparedness, response, and recovery.
  - Moreover, many people do not participate in disaster management activities such as drills, mock exercises, volunteering, that can enhance their capacity and confidence to cope with disasters.
- To overcome these challenges, India needs to adopt a holistic and proactive approach to disaster management that involves the following measures:
  - Strengthening the institutional and legal framework for disaster management at national, state, and local levels.
  - Enhancing the scientific and technological capabilities for disaster risk assessment, early warning, monitoring and forecasting.
  - Developing and implementing comprehensive and integrated disaster management plans, policies, and programs for prevention, mitigation, preparedness, response, relief, recovery, and rehabilitation.
  - Improving the coordination and collaboration among various stakeholders such as government agencies, non-governmental organizations, private sector, media, academia, etc, in disaster

management.

- Building the capacity and awareness of the public and communities in disaster management through education, training, and awareness campaigns.
- Promoting the participation and empowerment of the vulnerable groups such as women, children, elderly, disabled, in disaster management.
- Incorporating the principles of sustainability, equity, and inclusiveness in disaster management.

# **Conclusion**

- India is vulnerable to various natural disasters that cause huge losses of life and property. India faces several challenges in managing such disasters and further needs to adopt a comprehensive and proactive approach to disaster management that involves enhancing the institutional and legal mechanisms.
  - Further, Coalition for Disaster Resilient Infrastructure (CDRI) is a crucial step towards instilling resilience and sustainability into our infrastructure amidst turbulent times, as it will help in striding towards building a disaster-resilient future.
- 11. Forest fires have become a recurring environmental issue with severe implications. Along with the causes and consequences of forest fires, discuss the measures to mitigate the effect of such natural disasters. (150 words)

# Approach:

- Start your answer with defining forest fires and their causes
- In body section, mention the consequences of them and measures to mitigate
- Conclude with way froward

#### Introduction:

Forest fires are a recurring environmental issue with severe implications. Recently, Goa has witnessed forest fires. The ISFR 2021 estimates that more than 36% of the country's forest cover is prone to frequent forest fires, 6% is 'very highly' fire-prone, and almost 4% is 'extremely' prone. They can cause widespread damage to property, infrastructure, and ecosystems. They can also release harmful pollutants into the atmosphere and pose a risk to human health and safety.

# Causes of Forest Fire:

- Natural: Lightning is the most prominent cause which set trees on fire. Spontaneous combustion of dry vegetation and volcanic activities also cause forest fires.
- Man-Made: Fire is caused when a source of fire like naked flame, cigarette or bidi, electric spark or any source of ignition encounters inflammable material.

# **Body:**

# The consequences of forest fires can be devastating. They can cause:

- Property damage: Forest fires can destroy homes, businesses, and other structures.
- Infrastructure damage: Forest fires can damage roads, bridges, and other infrastructure.
- Ecosystem damage: Wildfires damage the habitat of animals, causing them to wander in cities increase human- wildlife conflicts. Also, many die in the fires, unable to escape.
- Air pollution: Forest fires can release harmful pollutants into the atmosphere, such as smoke and ash. These pollutants can cause respiratory problems and can even be deadly.
- Human health risks: Smoke and poisonous gas emissions can result in significant health issues in humans.

# **Measures to Mitigate Forest Fires:**

- Avoid Open Burning: To mitigate the effect of forest fires, it is important to prevent them from happening in the first place. This can be done by avoiding open burning on windy or dry days, properly discarding cigarettes and maintaining electrical power lines more diligently.
  - When open burning is necessary for waste disposal, it must be done by qualified companies who meet all safety requirements.
- Create Fire Breaks: Fire breaks are areas where vegetation has been removed, creating a gap that can slow or stop the spread of a fire.
- ➤ Monitor and Manage Forests: Monitoring forests and managing them appropriately can help prevent fires from starting or spreading.
- > Early Detection and Rapid Response: Early detection of a forest fire is critical for effective mitigation.
  - The Forest Survey of India (FSI) is using satellite imaging technology (like MODIS) to analyse forest



fire affected areas and boost prevention.

- Fuel Management: Reducing the accumulation of dead trees, dry vegetation, and other combustible materials through activities such as thinning and selective logging.
- Firewise Practices: Safe practices must be adopted in areas near forests viz. factories, coal mines, oil stores, chemical plants and even in household kitchens.
- Practice Controlled Burning: Controlled burning involves setting small fires in a controlled environment.
- ➤ Educate Campers: Visitors and Campers should also be educated on forest fires so they can minimize the risk of unwanted situations.

#### **Conclusion:**

Forest fires have severe implications caused by natural or human factors. Their consequences include loss of biodiversity, air pollution, soil erosion, and climate change. Prevention measures and effective firefighting are crucial, as well as reforestation and sustainable forest management practices. Addressing climate change is also important in mitigating their long-term impacts.

12. What are the primary causes contributing to train accidents in India? Highlighting the expert committee's recommendations propose effective measures that can be implemented to address these causes and enhance the safety and reliability of India's railway network. (250 words)

#### Approach:

- > Introduction: Briefly introduce the answer by giving recent incidents of train accidents in India
- Body: Mention the primary causes of accidents and way forward measures citing various committee's recommendations.
- > **Conclusion:** Summarize the key points and conclude with a forward-looking approach

#### Introduction:

Train accidents are a major concern for India's railway network, which is one of the largest and busiest in the world. According to data from the Ministry of Railways, there were more than 1,000 train accidents in India between 2009 and 2019, resulting in 1,800 deaths. A recent accident in Odisha where three train collided claimed lives of more than 275 people.

# **Body:**

# Some of the primary causes contributing to train accidents in India are:

- Human errors: Failures on the part of the railway crew, such as negligence, shortcuts, and disregard for safety rules and procedures, are the primary cause of train accidents in India. For example, in 2016, a train derailment near Kanpur killed 150 people due to negligence by the loco-pilot (train operator) who overshot a signal.
- Unmanned level crossings: Unmanned level crossings (UMLCs) are places where railway tracks cross roads without any barriers or signals to regulate traffic. UMLCs continue to be one of the leading causes of rail accident fatalities. In 2018-19, UMLCs accounted for 16% of all train accidents.
- Signaling failures: Signaling failures can lead to trains running on the wrong track, colliding with other trains or stationary objects, or overshooting stations. For instance, in 2021, a signal failure caused a train collision near Mathura that killed around 25 people.
- Infrastructural defects: Train accidents can also be caused by defects in the tracks, bridges, overhead wires, or rolling stock (coaches and wagons) that compromise the safety and reliability of the railway network. Infrastructure defects can result from poor maintenance, ageing, vandalism, sabotage, or natural disasters. For example, in 2017, a train derailment near Muzaffarnagar killed 23 people due to a crack in the track.
- To address these causes and enhance the safety and reliability of India's railway network, some of the recommendations made by various committees are:
  - O Kakodkar Committee (2012):
    - Creating a statutory Railway Safety Authority
    - Setting up a non-lapsable Rashtriya Rail Sanraksha Kosh (RRSK) of Rs. 1 lakh crores over five years for safety works
    - Eliminating unmanned level crossings
    - Adopting advanced technologies for track maintenance and inspection
    - Improving rolling stock design and quality
    - Improving human resource development and management
    - Ensuring independent accident investigation
  - Bibek Debroy committee (2014):

- Delegating more powers to the zonal and divisional levels
- Allowing private entry and competition in rail services
- Rationalizing passenger fares and freight charges
- Creating a holding company for all railway PSUs
- Separating railway budget from general budget
- Outsourcing non-core activities
- Creating a Railway Infrastructure Authority of India
- Vinod Rai Committee (2015):
  - Establishing an independent Railway Safety Authority with statutory powers to oversee and regulate safety matters.
  - Setting up a Railway Accident Investigation Board to conduct independent and impartial inquiries into accidents.
  - Creating a separate Railway Infrastructure Company to own and maintain railway assets

- such as tracks, bridges, signaling systems, etc.
- Introducing a performance-linked incentive scheme for railway employees based on key performance indicators.
- Implementing zero-based budgeting and accrual accounting systems to improve financial management and transparency.
- Leveraging information technology and data analytics to improve decision making and service delivery.

# **Conclusion:**

Addressing train accidents in India requires a multifaceted approach including improving human resources, upgrading infrastructure, investing in modern rolling stock, implementing advanced safety technologies, and establishing robust safety management systems. By doing so, India can enhance the safety and reliability of its railway network, reducing the occurrence of train accidents and ensuring the well-being of passengers and railway personnel.



