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VIZHINJAM SEAPORT PROJECT

This article covers "Daily Current Affairs" and the topic details "Vizhinjam Seaport Project:". This topic has relevance in the Economy section of the UPSC CSE exam.

For Prelims: About the Vizhinjam Seaport Project?

For Mains:

GS 3: Economy Strategic Significance? Importance of Establishing a Deepwater Container Transshipment Port in India?

Why in the news?

The impending achievement of the first ship docking at the under-construction Vizhinjam International Seaport in Kerala, India's first deepwater container transshipment terminal, will signify a momentous milestone in the project's progression.

About the Vizhinjam Seaport Project:

- The Vizhinjam International Transhipment Deepwater Multipurpose Seaport is an ambitious endeavor undertaken by the Government of Kerala. This project is strategically positioned near **Thiruvananthapuram**, **Kerala**, along the southern coast of India, offering convenient access to international shipping routes. Its primary purpose is to serve the transshipment and gateway container business, including provisions for a cruise terminal, a liquid bulk berth, and facilities for additional terminals.
- A transshipment deepwater seaport is equipped to accommodate substantial vessels engaged in the transportation of cargo between different locations. It features a deep water channel and a spacious berth area for the efficient loading and unloading of goods. Furthermore, such ports facilitate the seamless transfer of cargo between different ships while within the port premises.

Public Private Partnership Development:

• The port's development is currently in progress through a **Public Private Partnership** with Adani Ports Private Limited. The partnership is structured as a design, build, finance, operate, and transfer **(DBFOT)** arrangement.

Strategic Significance:

• The Vizhinjam International Seaport is **strategically located to compete with global transshipment hubs like Colombo, Singapore, and Dubai**. This positioning aims to reduce the cost of container movement to and from foreign destinations. The port's natural depth, exceeding 18 meters and expandable to 20 meters, is a critical feature as it allows the accommodation of large vessels and mother ships with substantial cargo capacities.

Project Progress and Potential:

- In its initial phase, the port is set to handle one million twenty-foot equivalent units (TEUs), with the potential for expansion to 6.2 million TEUs. The project is expected to generate around 5,000 direct job opportunities and stimulate the development of an industrial corridor and cruise tourism.
- The Vizhinjam International Seaport Project has faced delays over the years, attributed to factors such as natural disasters, protests, and logistical challenges. The current timeline anticipates the operational readiness of the first phase by December 2024.



Importance of Establishing a Deepwater Container Transshipment Port in India:

- Addressing Ultra-Large Container Ships: India currently boasts 12 major ports; however, it lacks the requisite landside mega-port and terminal infrastructure to handle ultra-large container vessels effectively.
- **Transshipment Cargo Leakage:** A significant issue is that approximately 75% of India's transshipment cargo is processed at foreign ports, primarily in locations like Colombo, Singapore, and Klang. In the fiscal year 2021-22, India's total transshipment cargo volume reached around 4.6

million twenty-foot equivalent units (TEUs), with a substantial portion, approximately 4.2 million TEUs, managed at ports beyond Indian borders.

- Additional Benefits: Transforming a port into a transshipment hub carries a multitude of advantages, including foreign exchange savings, increased foreign direct investment (FDI), heightened economic activity at other Indian ports, the development of interconnected logistics infrastructure, job creation, enhanced operational and logistics efficiency, and amplified revenue generation. Furthermore, it encourages the growth of complementary businesses such as ship services, logistics, and bunkering.
- Attracting Traffic and Revenue: A deepwater container transshipment port has the potential to attract a significant portion of the container transshipment traffic currently redirected to locations like Colombo, Singapore, and Dubai. This shift can lead to substantial economic and strategic gains for India.

Source:

Explainer: Vizhinjam port in Kerala and its potential in India's maritime trade (msn.com)

Q.1 Consider the following statements about Vizhinjam Seaport Project:

- 1. Vizhinjam International Seaport is India's First deepwater container transshipment terminal.
- 2. It is Being built by the Private sector without any Government stake.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

ANSWER: A

Q.2 Consider the following statements about Vizhinjam Seaport Project:

- 1. It is being developed in karnataka as an adjunct to Mangalore port.
- 2. It is being developed through Public Private Partnership (PPP).

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

ANSWER: B

Q.3 Evaluate the significance of seaports as key drivers of India's economic growth and international trade. Analyze the measures required to transform Indian seaports into competitive global trade gateways while ensuring sustainability and connectivity.

Rishabh

AI IN THE MILITARY

This article covers "Daily Current Affairs" and the topic details "AI in the Military". This topic has relevance in the "Security" section of the UPSC CSE exam.

For Prelims:

AI in the Military

For Mains:

GS3: Security AI's role in the Military and challenges associated with it

WHY IN THE NEWS?

The Indian military has commenced the deployment of AI-driven surveillance systems along its border regions with Pakistan and China.

ARTIFICIAL INTELLIGENCE (AI)

- Artificial Intelligence (AI) is a branch of computer science dedicated to tackling cognitive challenges typically associated with human intelligence, such as learning, problem-solving, and pattern recognition.
- This emerging technology empowers machines to perceive, understand, and interact with their environment by simulating human capabilities.

AI'S ROLE IN THE MILITARY

The versatile nature of AI allows for its application in both civilian and military domains, providing mutual benefits. Countries recognise AI as a force multiplier in military operations in the following sectors:

• Enhancing Surveillance

- AI with geospatial analysis extracts vital intelligence from devices like radars and automatic identification systems, detecting illegal or suspicious activities.
- The Indian army has deployed 140 AI-based surveillance systems, including high-res cameras, sensors, UAV feed, and radar feed.
- AI in Weaponry
 - Using AI-driven drones and robots for border patrols extends the scope of surveillance and diminishes the necessity for human involvement in perilous scenarios.
- Cybersecurity in Digital Warfare
 - Cyberspace is now recognised as the fourth theatre of warfare, alongside land, sea, and air.
 - AI-driven machine learning safeguards regions from compromised networks by accurately classifying normal and intrusive activities.
- AI in Autonomous Systems
 - AI-powered computer vision programs, like those in self-driving cars like Tesla, navigate autonomous unmanned aerial vehicles (UAVs) in conflicts, such as the Nagorno-Karabakh situation in Azerbaijan.

Personalised Soldier Recommendations

- In the United States, algorithms that customise user watchlists on streaming platforms are set to become part of the armed forces' cognitive tools, advising soldiers in communication-restricted or resource-constrained settings.
- Logistics and Supply Chain Management:
 - AI can be readily deployed in logistics and supply chain management, which lies at the core of a well-equipped military.

• Facial Recognition and Language Translation:

• The Indian Army has used AI for facial recognition, language translation (Mandarin to English), remotely operated weapon stations, robotic mine detectors, and intrusion detection systems.



CHALLENGES LINKED TO THE ADOPTION OF AI TECHNOLOGY IN THE MILITARY:

- **Autonomous Weapons:** AI-powered autonomous weapons could decide when and whom to engage in combat. This raises ethical concerns about the lack of human control over lethal force.
- **Data Security:** AI systems are reliant on vast amounts of data. Protecting sensitive military data from cyberattacks and unauthorised access is a significant challenge.

- **Bias and Discrimination:** AI algorithms can inherit biases in the data they are trained on, potentially leading to discriminatory actions domestically and in international conflicts.
- **Malfunctions and Errors:** AI systems can malfunction or make mistakes like all technology. In the military context, such errors can have severe consequences.
- **Escalation Risks:** AI can speed up decision-making processes, potentially escalating conflicts more rapidly than human decision-makers can respond.
- **Erosion of Human Decision-Making:** Over-reliance on AI could erode the essential role of human judgment in complex military operations.

RECOMMENDATIONS

- Further research and analysis in each area of AI application within the military.
- **Collaboration** with international organizations to establish **ethical guidelines and norms for AI in warfare.**
- The **development of AI training programs** for military personnel to ensure efficient and responsible AI integration.

AI's role in modern military operations is multifaceted, offering advantages in surveillance, cybersecurity, and decision support. However, ethical challenges and international norms must be carefully considered. This concept note aims to foster a comprehensive understanding of AI's impact on military affairs and the responsible and effective use of AI technology in the defence sector.

Sources:

Why the Indian Army is embracing AI | Explained News – The Indian Express

Q1. Consider the following:

- 1. Surveillance
- 2. Cybersecurity
- 3. Logistics and Supply Chain Management
- 4. Language Translation

How many of the aforementioned are applications of Artificial Intelligence in the Military?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All Four

Answer: (d)

Q2. Discuss the evolving role of Artificial Intelligence (AI) in modern military operations, highlighting its applications and strategic implications.

Gaurav