Reimagining Andaman and Nicobar Islands

This editorial is based on "[Making Andaman and Nicobar a maritime bastion is long overdue. Environmental concerns must be addressed](#)" which was published in The Indian Express on 26/06/2024. The article brings into picture the strategic importance of the Andaman & Nicobar Islands for India's maritime security and economic development while highlighting the urgent need to address environmental and anthropological concerns surrounding the proposed infrastructure projects.

For Prelims: [Andaman and Nicobar Islands](#), [Indian Ocean region](#), [Holistic Development of Great Nicobar Island](#), [Malacca Strait,](#) [Exclusive Economic Zone](#), [Andaman and Nicobar Command](#), Galathea Bay, Port Blair Smart City Project

For Mains: Significance of Andaman and Nicobar Islands for India, Major Challenges Related to Andaman and Nicobar Islands.

The [Andaman and Nicobar Islands](#) are strategically important for India's security in the [Indian Ocean region.](#) The archipelago needs to be developed for defense purposes and to improve its economic potential. This development should prioritize the islands' unique ecology and the well-being of the indigenous tribes.

A proposed mega-project, the "[Holistic Development of Great Nicobar Island](#)", has sparked debate. Environmentalists fear it **could devastate the island's unique ecology and harm the Shompen tribe**. Doubts also exist regarding the project's economic viability due to the island's remoteness. Therefore, holistic development plans are needed that prioritize both progress and environmental and social well-being of Andaman and Nicobar Islands.

What is the Significance of Andaman and Nicobar Islands for India?

- **Guardian of the East:** The islands are situated about **1,300 km southeast of the Indian mainland**, providing India with a crucial forward presence in the Bay of Bengal and the Andaman Sea.
  - This location allows India to monitor and potentially **control key maritime chokepoints, particularly the** [Malacca Strait.](#)
    - Their location enables India to monitor naval activities, shipping traffic, and potential security threats in the region, enhancing its maritime domain awareness.
- **Projection of Naval Power:** The islands act as **India's first line of defense against potential threats from the east.**
  - They provide a base for projecting naval power into the eastern Indian Ocean and the western Pacific, crucial in the context of **China's growing naval presence in the region** (like in [Hambantota Port, Sri Lanka).](#)
- **Economic Zone Extension**: The islands significantly **extend India's** [Exclusive Economic Zone](#)

(EEZ) and continental shelf under [UNCLOS](#), providing access to vast marine resources and undersea minerals.

- **Home to Indigenous Tribes**: The A&N Islands are home to indigenous tribes like the **Shompen,** who have inhabited these islands for millennia.
    - Their unique culture and way of life are integral to the islands' identity and must be safeguarded.
- **Tri-Service Command**: The [Andaman and Nicobar Command (ANC),](#) established in 2001, is currently India's only tri-service theater command.
    - It serves as a model for integrated operations and could be crucial in any future conflicts in the region.
- **Tourism Paradise:** The **pristine beaches,** [coral reefs,](#) **and unique wildlife of the islands** offer immense potential for eco-tourism. This can generate revenue, create jobs, and boost the overall Indian economy.
- **Potential Hub for Maritime Trade**: The ongoing development of **Galathea Bay in Great Nicobar Island** as a transhipment port could transform the islands into a significant hub for international maritime trade, **rivaling ports like Singapore.**

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What are the Major Challenges Related to Andaman and Nicobar Islands?

- **Environmental Conservation vs. Development:** The islands are home to unique ecosystems and biodiversity.
  - Balancing the need for strategic and economic development with environmental protection is a significant challenge.
  - For instance, the development of the **Galathea Bay transhipment port has raised concerns about its impact on** leatherback turtle **nesting sites.**
- **Threat to Indigenous Tribes:** Preserving the culture and rights of indigenous tribes like the **Jarawas, Onges, and Sentinelese** while pursuing development is complex.
  - Critics argue that the islands' development often conflicts with laws protecting these tribes, such as the **Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation of 1956.**
- **Infrastructure Development Hurdles:** The islands' remote location, difficult terrain, and **frequent seismic activity** pose significant challenges to infrastructure development.
  - This includes issues like sourcing materials, finding skilled labor, and ensuring infrastructure resilience against natural disasters.
- **Climate Change and Rising Sea Levels**: As **low-lying islands**, they are particularly vulnerable to climate change impacts.
  - Rising sea levels threaten both infrastructure and indigenous communities, necessitating long-term adaptive strategies.
- **Surveillance Network Gaps**: Despite the islands' strategic location, there are significant gaps in the surveillance network.
  - The vast maritime expanse (**spanning 780 km north to south)** requires a sophisticated network **of radar stations, UAVs, and maritime patrol aircraft,** which is currently inadequate.
  - This leaves vulnerabilities in monitoring critical chokepoints like the Six Degree Channel.

What are the Major Indian Government's Initiatives Related to Andaman and Nicobar Islands?

- **Holistic Development of Great Nicobar Island**
- Submarine cable connectivity to Andaman & Nicobar Islands (CANI)
- Port Blair Smart City Project

What Strategies Can Ensure Balanced Development in the Andaman and Nicobar Islands?

- **Indigenous Knowledge Integration Center:** Establish a center that combines traditional knowledge of indigenous tribes with modern science.
  - This could lead to breakthroughs in fields like **herbal medicine, sustainable forestry, and climate-resilient agriculture,** while also preserving and celebrating indigenous cultures.
- **Maritime Startup Incubator:** Create a specialized incubator for startups focusing on maritime technologies, ocean conservation, and **sustainable island development.**
  - This could attract talent and investment, fostering innovation in areas like marine robotics, ocean cleanup technologies, and sustainable fishing methods.
- **Diplomatic and Cultural Exchange Archipelago:** Designate certain islands as international zones for diplomatic and cultural exchanges.
  - Creating a **unique "island-hopping" summit format** for regional cooperation, combining high-level meetings with immersive cultural experiences.
- **Blockchain-Based Resource Management**: Implement a blockchain-based system for managing the islands' resources, from fishing quotas to land use.
  - This could ensure **transparent, efficient, and sustainable resource allocation** while providing a model for other island nations.
- **Autonomous Maritime Defense Network:** Developing a network of autonomous underwater and surface vehicles for defense and surveillance. This could enhance security without a large

human footprint and serve as a **model for AI-driven maritime defense systems.**
- **Tribal Heritage Guardians:** Launching a "**Cultural Sanctuary Zones"** where tribes can live undisturbed
  - Developing "**Buffer Zones"** with strictly regulated eco-tourism to generate income while minimizing contact
  - Creating a "**Tribal Heritage Fund"** from development revenues to support indigenous welfare
  - Implementing a **"Tribal Consent Protocol"** for any projects near indigenous territories.
- **Circular Economy for Waste Management:** Implementing a circular economy approach to waste management in Andaman and Nicobar Islands, where waste becomes a resource for new products.
  - This could involve establishing composting facilities to **convert organic waste into fertilizer, upcycling plastic waste into building materials,** and exploring innovative bioconversion technologies to turn waste into biofuels.
- **Sustainable Gastronomy Initiative**:Promoting "**ocean-to-table"** in the lines of "farm to table" approach to food in the islands.
  - This initiative can not only enhance the tourism experience but also**promote sustainable food practices and support local livelihoods.**
- **Underwater Research and Innovation Hub:** Transform the islands into a world-class marine science and technology center.
  - Establishing **underwater research stations and laboratories to study deep-sea ecosystems,** develop **blue biotechnology,** and pioneer sustainable aquaculture techniques.
  - This could attract international collaboration and position India as a leader in ocean sciences.
- **Renewable Energy Testbed:** Leverage the islands' unique geography to create a testbed for cutting-edge renewable energy technologies.
  - Experiment with **tidal energy, offshore wind farms, and marine solar panels.** could not only make the islands energy self-sufficient but also **export clean energy to mainland India** and neighboring countries.
- **Eco-Tourism Space Launch Site:** Develop a commercial space launch facility that doubles as an ecotourism destination.
  - The **equatorial location is ideal for satellite launches,** while the facility could offer tourists a chance to witness launches, participate in space science workshops, and enjoy the islands' natural beauty.

Drishti Mains Question:

Discuss the strategic importance of the Andaman and Nicobar Islands in India's maritime security framework. Additionally, evaluate the challenges and opportunities in balancing economic development with environmental conservation in the region

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UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q1. **Which one of the following pairs of islands is separated from each other by the 'Ten Degree Channel'? (2014)**

(a) Andaman and Nicobar

(b) Nicobar and Sumatra

(c) Maldives and Lakshadweep

(d) Sumatra and Java

Ans: (a)

Q2. **Which of the following have coral reefs? (2014)**

1. Andaman and Nicobar Islands
2. Gulf of Kachchh
3. Gulf of Mannar
4. Sunderbans

Select the correct answer using the code given below:

(a) 1, 2 and 3 only

(b) 2 and 4 only

(c) 1 and 3 only

(d) 1, 2, 3 and 4

Ans: (a)

Q3. In which one of the following places is the Shompen tribe found? (2009)

(a) Nilgiri Hills

(b) Nicobar Islands

(c) Spiti Valley

(d) Lakshadweep Islands

Ans: (b)