



अण्डमान तथा निकोबार प्रशासन
Andaman and Nicobar Administration
पर्यटन निदेशालय
Directorate of Tourism

Sri Vijaya Puram, dated 22nd May, 2025

Comprehensive Beach Management Plan for Radhanagar Beach,
Swaraj Dweep

A Comprehensive Beach Management Plan for Radhanagar Beach, Swaraj Dweep, designed to enhance sustainability, visitor experience, and environmental protection through stakeholder consultation i.e. Tour and Travel Operators Association, Hotelier Association, Restaurant Association, Vendors, NGO/ Civil Society, Forest, Gram Panchayat and other concerned govt. department.

1. Activity Zoning Plan

To ensure safety, environmental protection, and optimal visitor experience, the beach area will be divided into specific zones:

- Stakeholders, consultation meeting with workshop.
- **Recreational Zone:** Designated for sunbathing, swimming, and relaxation. Lifeguards will monitor this area during operational hours.
- **Eco-sensitive Zone:** Areas with coral reefs, turtle nesting sites, or mangroves will be protected with restricted access and informative signage.
- **Vendor Zone:** A designated area near the parking lot for local vendors, ensuring organized commerce without encroaching on the beach.

- **Emergency and Service Access:** Clearly marked pathways for emergency vehicles and maintenance services.

Steps Taken/to be taken:

- a) A Safety and Risk Assessment of Radhanagar Beach was undertaken in January 2024 with support from the National Centre for Sustainable Coastal Management (NCSCM), Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India.
- b) As part of this assessment, different zones along the beach were identified and demarcated based on safety criteria and the level of associated risks. Following the recommendations of the report, **Safe Zones** and **Risk Zones** have been clearly marked on-site using ring buoys to define boundaries and guide visitors.
- c) The NCSCM also conducted a study on the beach's **eco-sensitive flora and fauna**. During the period of observation, no sightings were recorded of certain potentially harmful marine organisms, including **Porpita sp. (Blue Button Jellyfish)**, **Physalia sp. (Portuguese Man-of-War)**, and **Velella sp. (By-the-Wind Sailor)**, in the surface waters.
- d) This assessment contributes to better beach management by promoting public safety while also protecting the local coastal ecosystem.

2. Sanitation Facilities: The Blue Flag Program mandates beaches to achieve sustainable waste management practices in an around the beach vicinity. Radhanagar Beach, known for its natural beauty and Blue Flag certification, offers clean and well-maintained sanitation facilities for visitors. Public toilets, changing rooms, and waste bins are available near the beach entrance, ensuring hygiene and convenience. Regular cleaning, proper waste disposal, and eco-friendly systems help keep the area clean and safe for all. These facilities reflect the beach's commitment to sustainable and responsible tourism.

Aspirational Toilet Blocks

- **Location:** Near the parking area to serve incoming and outgoing visitors.
- **Design Features:**
 - Gender-inclusive and accessible facilities.
 - Solar-powered lighting and ventilation.
 - Water-saving fixtures and hand washing stations.
 - Real-time occupancy indicators to manage usage during peak times.

Steps Taken/to be taken:

- I. Radhanagar Beach is equipped with **two blocks of toilets**, each containing **nine toilets**, with separate facilities for **ladies and gents**. In addition, there are **eight changing room-cum-shower units** available—**four for ladies and four for gents**.
- II. The responsibility for the **maintenance and upkeep** of these facilities lies with the **Gram Panchayat, Shyam Nagar**, Swaraj Dweep. The maintenance costs are covered through the **collection of user fees** from tourists:
 - **Rs. 10** for each use of the toilets
 - **Rs. 20** for each use of the changing room-cum-shower facilities
- III. To ensure cleanliness and hygiene, the Panchayat has deployed **five sanitation workers**, who are responsible for cleaning and maintaining the facilities throughout the day.

Septic and Grey water Management

- **Septic System:** Installation of bio-digesters to treat waste on-site, reducing environmental impact.
- **Grey Water Recycling:** Treatment of grey water for reuse in landscaping and toilet flushing.
- **Solid Waste Management Plan:** Segregation of waste, proper disposal, re-cycling, composting and documentation.

- **Monitoring:** Regular inspection and maintenance schedules to ensure system efficiency.

Steps Taken/to be taken:

- a) For managing the Faecal Sludge and slurry of the toilets, septic tanks have been constructed and cleaned on periodical basis by the Panchayat. Black water flows to the soakpit constructed in the back-side of the toilet blocks. For Grey water management, STP has been put up in place which recycles the water for re-use for secondary purposes such as gardening of the area adjacent to the beach. Operation and maintenance of STP is being carried out regularly by Panchayat. Andaman Public Works Department is assigned the responsibility of ensuring repairs, if required, on regular intervals.
- b) For Management of Solid waste, Panchayat has put up signages and notices for appealing the tourists “Not to litter or throw waste” and to “use dustbins”. For collection of waste, Panchayat has put in place dustbins at the beach and in the adjoining areas in Parking as well as in front of vending shops. Waste is collected by Panchayat officials on daily basis during morning hours and transported to the solid waste clusters for further segregation and further processing. Panchayat has also assigned suitable number of supervisory staff for monitoring of waste management process.
- c) As per the provision of the applicable plastic waste management rule, 2019 Competent Authority has notified and declared the Radhanagar Beach as “No Plastic Zone”, “No Campaign/ No Dumping Zone” and “No Driving Zone” for the designated beach area and the peripheral areas. This enable the Beach Management Committee appropriate legal support to enforce the provision of rules in the notified area and take / act for monitoring and effective compliance in order to conserve the beach environment. Violation of such orders are punishable under the legal provision.

3. Drinking Water Supply

- **Water Stations:** Installation of safe drinking water facilities at strategic locations.
- **Maintenance:** Daily checks to ensure cleanliness and functionality.
- **Awareness:** Signage encouraging visitors to use refillable bottles to reduce plastic waste.

Steps Taken/to be taken:

- a) The **Gram Panchayat** has set up **two water ATMs/dispensers**, each with a capacity of **500 litres**, along the beach to provide free drinking water to tourists and visitors. The **Panchayat** is responsible for the regular maintenance of these dispensers. By offering free access to drinking water, the initiative reduces the need for bottled water, thus encouraging a **reduction in plastic waste**.
- b) Additionally, the **Andaman & Nicobar Administration** has imposed a ban on **single-use plastic items** and **plastic bottles under 2 litres**, further supporting efforts to curb plastic pollution and protect the beach environment.

4. Traffic and Vending Area Plans

Over the two decades Swaraj Dweep has been witnessing gradual increase in the tourist inflow from all across the world. This in turn has seen a steep increase in the number of commercial vehicles and the same can be seen in the beach parking area for the best part of year. The successful tourism activity has improved the economic condition of local population thus increasing the purchase power of local. This has resulted in the locals owning many personal motor vehicle there by adding to the traffic woes. This has necessitated formulation of a proper and efficient Traffic Management Plan and it has been of high importance, more so now as the Radhanagar Beach has become one of the best and most frequented beach in the world.

The time of visit to the beach is strictly regulated between sunrise and sunset. The beach is visited by day tourist who come in the morning and leave by the afternoon to return to Swaraj Dweep as well as tourist who stays overnight in the resorts and the hotels.

Traffic Management is perhaps the single biggest management challenge on the site specially in peak times which can be classified as the months from September to April and some festivals days i.e. Durga Puja, Christmas, New Year and Subhash Mela etc.

Public access is regulated through main gate with security guard and therefore vehicle are not allowed to enter the beach area as adequate parking space has been provided by the road side leading to the beach.

a. Traffic Management

- **Types of Vehicles:** Majority of the types of vehicles approaching the beach i.e. two wheelers operating under rent a Motor Cycle License, Bicycles, Three Wheeler Auto Rickshaw, Public Transport, Personal Vehicles such as cars and two wheelers and Electric Vehicles.
- **Imported factors while managing traffic:** Vehicle access to beach area, tourist access via public transport vehicle, access to emergency vehicles such as Ambulance, Police, Fire etc., facilities to disabled people, safe access to pedestrians, speed controlling near beach area and parking facilities.
- **Vehicle access to Radhangar Beach:** Most vehicle come via Swaraj Dweep jetty to entrance side of Radhangar Beach. Distance from Swaraj Dweep Jetty to Radhanagar Beach is just 12 km. People after landing at Swaraj Dweep go to Radhangar Beach either after checking into the hotels or directly to the beach. Mode of transport mostly pre-booked or public transport buses or self-driven hired two wheelers.
- **Parking:** Tourism Department provided land near the parking area and constructed parking place to extend the existing parking area to

accommodate peak-season traffic, with separate zones for cars, two-wheelers, and buses.

- **Shuttle Services:** Introduction of electric shuttle carts from parking to the beach to reduce vehicular movement near the shore.
 - **Signage:** Clear directional signs to manage traffic flow and pedestrian safety.
- I. Radhanagar Beach is equipped with a well-organized **parking area** of appx 2200 sqmtrs for visitors, and ensuring convenient safe parking for tourists and vehicles.
 - II. Clear and informative **signage** is strategically placed throughout the beach and parking areas to guide visitors. These signs provide essential information, including parking rules, directions, and environmental guidelines to promote responsible tourism and ensure smooth operations. Parking and Traffic Management is being carried out by A&N Police.

b. Vending Zones

Radhanagar Beach, nestled on the picturesque Swaraj Dweep in the Andaman and Nicobar Islands, is not only renowned for its pristine white sands and blue waters but also for its thoughtfully curated Vending Zone a vibrant hub that blends local livelihood with sustainable tourism.

Located just a short walk from the main beach access point, the Vending Zone serves as a designated area for local vendors to offer a range of products i.e. fruit, juices, and food serves to tourists in an organized and eco-friendly manner. Developed under the guidelines of sustainable tourism and local economic empowerment, the zone ensures that tourism-related commerce does not interfere with the beach's natural beauty or cleanliness.

- **Designated Areas:** Structured stalls for vendors in the vendor zone, ensuring compliance with hygiene and waste disposal norms of the

Panchayat. Regular collection of waste from the vending area and it is transported to the designated clusters.

- **Licensing:** Mandatory registration and training for vendors on sustainable practices is carried out by the licensing authority i.e. Food Safety Department. Regular inspection is carried out by the Administration to check the hygienic and food serve to the tourists.

Presently 10 shops are running which are made up of eco-friendly material. These vendors are engaged in selling of local handicrafts and artificial jewelry. Gram Panchayat, Shyam Nagar collects rent on monthly basis from the vendors.

5. Creek Waste Management

- **Waste Disposal Prevention:**
 - Installation of barriers and nets at strategic points to prevent waste from entering the creek.
 - Regular patrols to monitor and prevent illegal dumping.
- **Monitoring:**
 - Monthly water quality testing to assess the health of the creek ecosystem.
 - Community reporting systems for quick response to pollution incidents.

6. Bio Diversity Management and Education

The Blue Flag Promotes sustainable development in fresh water and marine area. It challenges local authorities and beach operators to achieve high standards in the four categories viz water quality and environmental management, environmental education and safety. Over the years the Blue Flag has become a highly respected and recognized eco-label working to bring whether the tourism and environmental sectors at locals, regional and national level. Radhanagar is one of the most attractive marine tourist destinations in the A&N Islands.

- **Coral Reef and Turtle Nesting Monitoring:** Swaraj Dweep, part of the ecologically rich Andaman and Nicobar Islands, is home to vibrant coral reefs and critical nesting sites for endangered sea turtles, including the Olive Ridley, Green, and Hawksbill turtles. To protect these fragile marine ecosystems, continuous coral reef and turtle nesting monitoring initiatives are undertaken by local authorities, marine biologists, and conservation organizations.
- **Native vegetation conservation:** Swaraj Dweep is home to rich native vegetation, including tropical rainforests, coastal plants, and mangrove ecosystems. These plant communities are vital for maintaining the island's ecological balance, preventing soil erosion, supporting wildlife habitats, and protecting against climate impacts like cyclones and sea-level rise.

To safeguard this natural heritage, Native Vegetation Conservation efforts focus on:

- Protecting endemic plant species from invasive species and human encroachment
- Promoting natural regeneration in degraded areas
- Restricting unauthorized deforestation or land conversion
- Raising awareness among locals and tourists about the ecological value of native flora
- **Environmental education and visitors engagement:** Radhanagar Beach at Swaraj Dweep, environmental education plays a vital role in promoting sustainable tourism and conservation. Through guided nature walks, informational signage, regular beach clean-up drives with the stakeholders and interactive sessions, visitors are encouraged to learn about the island's unique ecosystems, including its coral reefs, turtle

nesting sites, and native forests. Local authorities and eco-tourism stakeholders actively engage tourists by:

- Providing awareness on responsible travel practices
- Highlighting conservation efforts such as reef protection and wildlife monitoring.
- Encouraging participation in eco-friendly activities, like waste segregation and plastic-free travel

These initiatives not only enrich the visitor experience but also foster a deeper connection with nature, ensuring that every tourist becomes a steward of the environment.

Forest Department conducts educational programs on regular basis for Tourists as well as personnel deployed at the beach. Through these lectures, visitors are being made aware about the fragile ecology and marine flora and fauna. Program also covers subjects such as life saving techniques and first aid.

7. Life Safety and Accessibility Design

- Regular training of lifeguards and mock drills, first aid facilities
- Inspection of safety equipment's and evacuation/emergency plans
- Visitors code of conduct, CCTV monitoring, Public Announcement systems, Information Centre
- Universal Accessibility design for disabled
- Amphibious wheelchair and safe swimming zone management.
- Regular water quality monitoring of creek and swimming zone area.

8. Integration with Other Infrastructure Projects: Infrastructure development at Radhanagar Beach is carefully planned to support tourism while preserving its natural beauty. Projects such as walkways, seating areas, sanitation blocks, and the organized vending zone are seamlessly integrated to enhance visitor experience without disturbing the environment. These developments are aligned with eco-tourism principles and work together to

maintain the beach's Blue Flag status, promote sustainability, and support local livelihoods. For the future development the following points need to be taken care.

- **Collaboration:**

- Ensure that proposed development of ANIIDCO, adhere to environmental and sustainability guidelines.

- **Sustainability:**

- Incorporate renewable energy sources, such as solar panels.
- Use eco-friendly materials for infrastructure development.

9. Monitoring and Evaluation

- **Regular Audits:** Regular assessments of facilities, waste management systems, and environmental impact.
- **Feedback Mechanisms:** Installation of QR codes for visitor feedback to inform continuous improvement.
- **Reporting:** Half yearly reports shared with stakeholders, including local authorities and community representatives.

This comprehensive plan aims to enhance the visitor experience at Radhanagar Beach, Swaraj Dweep while preserving its natural beauty and ecological integrity. Implementing these measures will ensure that the beach remains a sustainable and enjoyable destination for years to come.
