Part - IV

Prospects & Challenges
CHAPTER IV

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PROSPECTS & CHALLENGES

4.4.1 SUSTAINABLE TOURISM DEVELOPMENT

The concept of Sustainable Tourism Development (STD) has gained worldwide attention globally to promote tourism in a responsible way without degrading the environment, resources and culture of people. Consequently, various tourism destinations have started to redefine their existing policies and practices in long-term perspectives. However, the sustainable tourism policy along with its principles is facing practical constraints due to lack of knowledge in implementing its principles and understanding its values. Our ancestors were not aware of its principles and practices, but their life with nature was very friendly and their need from the nature was also limited. In the passage of time, human needs have got increased manifold and the corresponding demand for using the natural resources for meeting the higher needs and wants have created the cause of concern.

Similarly, tourists’ expectations are also increasing with the influence of modern life and innovative technologies. They look forward to enjoy the maximum facilities during their visits. Moreover, tourism service providers consider tourists satisfaction as the ultimate objective for achieving their economic gains by enhancing amenities further. Such acts of service providers lead to the process of development against nature by questioning the sustainability of Mahabalipuram in future.

In support to this, several studies have started highlighting the prospects and consequence of tourism development in a destination and suggested steps to mitigate its negative impact for promoting sustainable tourism in a destination. Therefore, this study
attempts to identify prospects and challenges for Sustainable Tourism Development in Mahabalipuram based on the results obtained from this research through primary and secondary data.

4.4.2 PROSPECTS FOR STD IN MAHABALIPURAM

Mahabalipuram, being one among the 45 mega tourist destinations in Tamilnadu, the need of its sustenance is essential. More importantly, tourism cannot be sustainable if there are no tourists. As per the trend of tourists’ arrival for almost two decades, Mahabalipuram is experiencing a positive growth despite a marginal fluctuation due to the unavoidable circumstances. This proves that Mahabalipuram maintains its credibility in attracting and welcoming the tourists warmly. It also made aware of the tourism service providers (hoteliers, tour operators and government), local people and the tourists on the need for conservation practices and eco-friendly behaviour in tourism destination to maintain it for future generation as well.

Environmental education is one of the vital components for sustainable tourism development. The government of Tamilnadu in collaboration with TTDC, Dept. of Fisheries, and Directorate General of Lighthouses and Light Ships (DGLL) has proposed to implement more tourism development projects like Oceanarium etc., in Mahabalipuram. The following new development projects will not only attract tourists but also educate tourists and other stakeholders about the importance of marine species and the need for conserving our mother earth by effective environmental management practices.

4.4.2.1 Underwater Cultural Heritage

The prosperity of ancient cities in the world got submerged thousands of years ago in great oceans, seas and lakes by natural disasters like Earthquakes, Tsunami etc. For the
past few decades, many ruins buried underneath sea have been rediscovered accidentally or by innovative technology. The beginning of the underwater archaeological survey of India traced back to 1981. However, the establishment of the Underwater Archaeology Wing (UAW) under the ASI in 2001 has amplified the efforts of discovering the lost monuments in the sea. The studies in the Arabian Sea and Bay of Bengal for protecting underwater cultural heritage brought many hidden facts supporting the research in Mahabalipuram. Indeed, the UNESCO’s Convention on the Protection of the Underwater Cultural Heritage in 2001 highlights the importance of global concern for managing the underwater cultural heritage.

Figure 4.4.1: Location of Submerged Shore Temples of Mahabalipuram in Sea

Source: Saxena et al., (2010)

The findings of underwater structures in Mahabalipuram could not only fill a huge gap in our history, but could provide evidence of a lost Indian civilization. If the sites are
well mapped with essential research, it can be promoted as underwater tours with eco-friendly practices to view the heritage wonders (Figure 4.4.2) in future.

Figure 4.4.2: Photograph of Sculpture in Underwater


4.4.2.2 Maritime Heritage Museum

The Maritime Heritage Museum will be a center piece of attraction in future, showcasing the maritime history of Tamilnadu from Sangam Age to 20th century AD in the ex-submarine INS Vagli. The Tamilnadu Government has started the process for setting up a Maritime Heritage Museum in Mahabalipuram. The Submarine Museum is going to be set up with twin objectives: to attract tourists and to make youth taking up a
career in the Navy. The Museum is expected to be occupying 30 acres of land very adjacent to the beach near the Shore Temple.

**Figure 4.4.3: Photograph of INS Vagli**


TTDC will implement the project on behalf of State government on Build, Own, Operate and Transfer (BOOT) model. It is proposed to have sub-sections for each type of technology such as papyrus ships, palmyrah ships, steam ships, wooden ships, steels and diesel ships, buoys communications, light houses and Plimsoll line for steel ships. It is also planned for three-dimension shows and simulators for offering a real experience to the visitors and especially children.

**4.4.2.3 World-Class Oceanarium**

The Government of Tamilnadu proposed to implement a world-class Oceanarium to boost marine tourism on a 15-acre land owned by TTDC in Mahabalipuram with technical assistance from Department of Fisheries through PPP at a cost of Rs 250 crore. This project would propagate awareness to the visitors about marine environment and
biodiversity by highlighting the marine resources in the state. The Oceanarium would be designed in a way that visitors would be able to view marine fauna such as sharks, dolphins, sea grass, seals, coral reef and other ornamental fishes etc., over the roof through acrylic glass tunnels. It would also have artificial water bodies, fish tanks, open air theatre, musical fountains, research laboratory, canteen etc. The site is located before 1 km from Mahabalipuram.

4.4.2.4 Lighthouse Tourism

In olden days, people transported their goods by sea and lighthouses act as a vital instrument for their trade and commerce. Mahabalipuram, being an ancient port, its lighthouses have heritage significances. The Old Lighthouse built during Pallava era is a protected monument and maintained by ASI, while the present lighthouse maintained by Ministry of Shipping has been fully functional since it was established in 1904. Lighthouse provides assistance for ship navigation and to identify unidentified ships from the coast. Lighthouse Tourism is emerging across the world. The Directorate General of Lighthouses and Light Ships (DGLL) proposed to introduce Lighthouse Tourism in India by identifying 15 lighthouses out of 185 lighthouses under its maintenance. Mahabalipuram lighthouse is one of the three selected lighthouses in India for pilot project to attract domestic and foreign tourists. Earlier lighthouse in Mahabalipuram was opened for visitors to have a bird’s eye view of the town in March 2011 ending the ban for more than a decade after an attack at the old Chennai Airport. However, it was renovated and inaugurated on January 2014 in the first phase of lighthouse tourism project in collaboration with the Ministry of Tourism and Ministry of Shipping. The panoramic view of the entire destination will encourage tourism service providers and tourists to be responsible towards the aesthetic beauty by living along with nature.
The introduction of these development projects will not only attract tourists but will also change the image of Mahabalipuram from a centre for sex tourism to a scientific destination with its heritage significance. Based on previous tourism experiences in Mahabalipuram, tourism service providers and local people understood the impact of tourism in it. In addition to that, residents were also aware that they could not depend only on tourism for their income.

Therefore tourism service providers and local people are more interested to transform Mahabalipuram into a sustainable tourism destination rather than tourism for economic gains. This has largely motivated them to execute energy efficient technologies, solid waste management etc. Moreover, people of Mahabalipuram have started raising
their voices, if tourism development goes against the need of hosts. This will enhance the equal access of tourism benefits including local people by their active participation.

4.4.3 CHALLENGES FOR STD IN MAHABALIPURAM

There have been several developmental studies (For example, A Study of Mamallapuram by Department of Tourism in 1976, Report on Special Tourism Development in Mamallapuram by the Directorate of Town and Country Planning in 1983, Mamallapuram New Town Development Plan by New Town Development Authority, Mamallapuram, 1989 etc.,) were conducted in Mahabalipuram to reorganize tourism activities by forming a Monument Zone covering all the monuments and restricting vehicular traffic, restricting the height of the buildings up to 7m between Buckingham Canal and the sea, conserving heritage elements and promotion of tourism by opening fresh avenues etc. However, no plan was implemented successfully due to the lack of coordination between different bodies, including ASI, Local Body, TTDC. Those studies were done on a macro level without mentioning about the future population and their location. Moreover, the growth of the town is limited by the presence of Buckingham Canal in the western side and Bay of Bengal on the eastern side.

In addition to the existing constraints, the government of Tamilnadu is looking forward for further enhancement in the Special Tourism Area of Mahabalipuram through upcoming tourism projects like Tamilnadu Maritime Heritage Museum, World-class Oceanarium, and Lighthouse Tourism in Mahabalipuram in association with numerous Departments and Ministries. All these projects require an in-depth study for integrated planning with wider cooperation from various departments like Fisheries, Archaeology, Indian Navy, TTDC etc.

Developments in coastal areas are regulated by the Coastal Regulation Zone (CRZ) notification. It provides the guidelines to be carried out for any developmental
activities within it. Conversely, it is absolutely inadequate and provided relaxation for tourism activities with various amendments. Hence, it neither protects coastal environment by restricting and regulating human activities on the coast nor streamlines development activities in the coastal areas.

Tourism depends greatly on the environmental quality of a destination but due to the irresponsible practices of its stakeholders, its sustainability is in danger. There is no environmental protection agency or a NGO to bring up the issue of environmental degradation to the National Green Tribunal. Consequently, there will be chances of more violations by resort owners in Mahabalipuram due to lack of monitoring and inefficient management mechanisms by government officials.

Studies conducted in Mahabalipuram have found that untreated waste water of more than four lakhs liters per day were let into water bodies and pollutes the surface water in addition to the over exploitation of groundwater for commercial purposes. It proves lack of actions for mitigating the depletion of ground water resources and making waste water treatment plant necessary for reducing its production by reusing the recycled water. This is the major challenge for sustainable tourism development in Mahabalipuram unless stakeholders realize their accountability.

The process of urbanization in Mahabalipuram have led to the termination of agriculture in Mahabalipuram for the past few decades and the neighbouring villages like Pooncheri, Pavalakkaara Sathiram started losing its agriculture land for resort development and other services. It highlights the need for Land use planning and management for sustaining the rural based economic development by which the outcomes from agriculture will be able to meet the requirements of local markets and reduces the transportation cost of the consumers. Therefore, sustaining the agricultural lands after the introduction of tourism plans is also a major challenge.
Similar to agriculture, fishermen engaging in fishing activities also get reduced due to their interest towards tourism based jobs, even though the quantities of fishes being caught during fishing after Tsunami 2004 are more. Although local people have moved from traditional occupations like agriculture and fishing to tourism businesses, their acquired benefits are very low due to the competition created by the entry of outsiders in tourism businesses. This may question the sustainability of livelihood in Mahabalipuram.

During the field work, the researcher observed the dead coral reefs in the coast of Mahabalipuram adjacent to the fishing boats and nets. Mechanized boats and various types of fishing nets made fishing comparatively simpler than conventional fishing practices. However, the modern fishing practices causes more impacts to the marine species like coral reefs which provide habitats for various marine organisms. In addition to the physical destruction caused by modern fishing, pollutants into the sea caused by tourism activities will also pose threats to the marine species. Therefore, managing tourism activities without threatening the marine environment is also a challenge.

**Figure 4.4.6: Parts of Dead Coral Reefs in Mahabalipuram Coast**

![Image of dead coral reefs](source: Fieldwork)
Promotion of safe and honourable tourism is one of the agenda in tourism development plans. However, prostitution and child sexual abuse are being controlled in Mahabalipuram rather completely eliminating it. There may be chances for reappearance if it is not stopped immediately and it may create several threats to the tourists in future.

The East Coast of India is vulnerable to severe flooding and erosion, associated with coastal sea level change due to frequent cyclones. Studies by various researches like Sundaresh et al., (2004), Solomon et al., (2007) and, Rajani and Kasturirangan (2013) indicate the occurrence of sea level changes and severe erosion along this coast.

Figure 4.4.7: Shoreline Variations from 1980 to 2009

Saxena et al (2010) attempted to demarcate composite hazard line for a 5 km coastal stretch along the Mahabalipuram coast Figure 4.12. It is estimated that the inundation level of a 1 in 100 year flood event would reach an elevation of 3.33 m above MSL. This extreme water level is likely to inundate a maximum distance of about 400m landward resulting in land loss and causing considerable damage to the tourism industry prevalent along this coast (Saxena et al., 2010). Managing the natural disaster and indentifying measures to tackle its impact successfully is the most difficult challenge for sustainable tourism development in Mahabalipuram.