Sustainable Visitor Management System for Archaeological Heritage Tourism Development – A Study in Karnataka

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ABSTRACT

Sustainability is the key concerning area for all the developmental activities around the globe. Tourism is one of the world’s largest industry contributes significantly for economic growth of the nations throughout the world. Recent growth of tourism industry is appreciable, however it possess certain issues for the conservation of archaeological and heritage resource. The growth of tourism and tourist behaviour at the destination are pressuring immensely on the tourist resources, especially on archaeological heritage resources which are greatest assets to know the past glory of a nation or region. Increased visitation and visitors activities at the destinations causes serious problems for the preservation of the archaeological resources and if it has not managed properly the future generation may not able to see these valuable remains. The study is focused on managing the visitors’ impact on archaeological heritage sites and monitor and evaluate the visitor activities through a proposed sustainable visitor management system model, which enhance the opportunity to conserve the archaeological valuable assets for the future generation without curbing the present visitors need. Study has conducted based on the primary and secondary data through various trustable data. Managing visitor activities at the destination is the major concerning area to protect heritage resources and many destinations are suffered throughout the globe and few of them lost its charm. Building positive perception and attitude is the key to sustaining the heritage tourism resources.

KEYWORDS: Sustainability, Archaeological Heritage, Visitor Management System, Visitation, Sustainable Visitor Management System Model

Introduction

Tourism is a foremost management concern for many protected areas as the presence and actions of visitors can possess major threats for archaeological heritage preservation. Therefore tourism has to be accomplished with care and well-designed site management must assess and balance the economic benefits and conservation of resources of tourism in archaeological heritage areas.

In past few decades the number of international organisations, NGOs and academics concerning and showing keen interest on the concept of sustainable
development has increased dramatically. Such efforts range from various theories focused on producing a globally accepted, conceptual framework for sustainable development to more modest attempts concentrated on specific issues. One of the specialised area of research focuses on the concept of sustainable tourism.

Sustainable tourism development encounters the desires of the present tourists and host regions while preserving and enhancing opportunity for the future it is foreseen as leading to management of all resources in such a path that social, economic and aesthetic needs can be fulfilled while maintaining cultural economically viable as well as ethically and socially equitable. It respects the universal values of archaeological heritage resources that characterizes many tourism destinations, particularly archaeological ruins and remains sites and it is based on a long term perspective.

The archaeological heritage is often vulnerable to the impacts of modern development, visitor behaviour and globalisation. In addition, the use of archaeological resources in tourism, in particular in excessive as well as the development of visitor facilities may threaten the integrity of the archaeological heritage. The unique ruins and remains may degrade because of the visitors' behaviour in the site. The lack of archaeological heritage awareness from local as well as visitors, their perception insensitivity, an improper management can lead the deterioration of physical and cultural goods. Therefore, to provide the basis for tourism development not only present, but also future generations, archaeological heritage must be protected. Considering conservation and making use of tourism development as a means of protection is a basic principle of sustainable tourism.

Sustainability concepts have influenced rich archaeological heritage and resource management thinking in main areas. Firstly it has strengthened the links between social, historical and economic factors – indicating that decisions concerning visitor’s numbers and resource management must take into account all accepts. It has also placed some emphasis on the identification of gaugeable indicators and agreed standards, but much further development is needed in the preservation, restoration and management of the archaeological heritage resources area. Sustainability –led visitor management has tended to combine elements of all the above approaches, and this is reflected in the proposed SVMS.

Relevance of the Study

The clear idea of sustainable development was first prioritised by the international union for the conservation of nature and natural resources (IUCN, 1980) in its world conservation strategy. The Brundtland commission report (1987) describes sustainable development as development that meets the desires of the current generation without compromising the ability of future generation to meet their needs (WCED, 1987). The commission further emphasised that sustainable development is not a fixed state of harmony, but rather dynamic process of change which are all in harmony and enhance both present and future potential to meet human desires and aspirations (WCED, 1987), in tourism, there are multitude of definitions for sustainable development (Butler, 1999, Page and Dowling, 2002). Growing environmental awareness and cultural sensitivity; realisation by destination regions of the precious resources they possess and their vulnerability; and the changing attitudes of developers and tour operators are the four forces of social change that are driving the search for sustainability in tourism (Prosser,
Sustainability should also be noted that development does not necessarily involve growth as it is essentially a process of realising specific social and economic goals which may call for stabilisation, increase, change of quality or even removal of existing products, firms, industries or other elements (Liu & Jones, 1996).

**Statement of Problem**

Managing archaeological heritage tourism in sustainable way however needs both a long-term perspective and vigilant consideration of the many ways in which visitors activities and archaeological environment interrelate. Conserving heritage resources in a systematic approach and a tool kit for planning integrated sustainable visitor management system in order to provide the necessary resources for minimizing the visitor impact on the heritage resources. Karnataka is treasure trove for the heritage resources with over two thousand sites and visitation by the domestic and international visitors are increasing every year which clearly pressurising the resources and there is no proper visitor management system to manage these sites in sustainable manner. The following researchable issues are identified after a thorough literature review.

1. What is the impact of tourism development on archaeological resources?
2. What types of Visitor Management Systems do exist in Archaeological heritage destinations of Karnataka?
3. Whether these visitor management systems are able to ensure sustainable archaeological tourism development?

**Objectives**

The objectives of this study are the following:-

1. To study the impact tourism development on archaeological resources.
2. To know the various types of visitor management system exist in archaeological heritage destinations of Karnataka.
3. To evaluate the visitor management system to ensure sustainable archaeological tourism development.

**Research Design and Methodology**

This research is a conceptual study based on application of secondary data analysis. The data has been collected from published statistics, reports, journals, previous studies and websites. Then it makes an assessment of the extent of social awareness, innovativeness and responsiveness of sustainable tourism for understanding the potentiality of archaeological heritage.

**Archaeological Heritage Resources of Karnataka**

Karnataka is the land of diverse and rich in heritage, Karnataka is the destination of countless stories that are narrated through its archaeological heritage sites. Any known with the state can be started with a splendid tour to understand its history, culture and ideal through its archaeological monuments.

**Hampi**

Hampi, the capital of the great Vijayanagara Empire is something very remarkable. It is situated in picturesque surroundings amidst striking and beautiful scenery depicting nature at its wildest and best. The hills has the granite out crops intervening with the meandering river and its branches, gorges, and open the plains stretching into several miles in and around Hampi. The archaeological remains and
edifices, religious canters lively and colossal images of gods and goddesses, forts and fortifications, gateways and watch towers, water tanks and pushkarinis and roads and lanes have a harmonious synchronization with the nature that give a marvellous landscape to Hampi and its environment a treat to the eyes to be seen and enjoyed.

Hirebenkal

Hirebenkal is one of the largest megalithic sites in the state. This archaeological site protected by the ASI, has approximately 400 megalithic structures that were built about 2800 years ago. There are three sided chambers, with or without port-holes, and with large stones slabs termed as capstones forming their roofs. Buried and semi-buried dolmens called cists and dolmenoid cists are sometimes found arranged in circles.

Kanaganahalli

Kanaganahalli is important Buddhist site, familiar for an ancient Buddhist Mahastupa. The architectural and sculptural art forms of the site were influenced by the Amaravati School of art. The stupa situated here is said to be the most attractive in the history of stupa architecture in southern India. However, the art-forms of Kanaganahalli are an enhanced version of the paintings of Amaravati School of Art, complete with geometrical motifs, decoration of contemporary ages and floral patterns. The portraits of Shatavahana kings and emperor Ashoka are present on the Kanagahalli Mahastupa. Apart from above mentioned sites the other well-known sites like T. Narasipura, Brahmagiri, Chandavalli, Rajankollur, and Maski etc. are the magnificent archaeological heritage sites which stands to tell their past glory.

Prospectus of Archaeological Heritage of Karnataka

Karnataka – one state many worlds known as the reservoir of archaeological heritage sites has numerous historical ruins and remains each and every corner of the state which quietly stands to retell the story of past glory of the state.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Particulars</th>
<th>No. of Protected Monuments</th>
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</thead>
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<tr>
<td>1</td>
<td>Archaeological Survey of India</td>
<td>747</td>
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<tr>
<td>2</td>
<td>Monuments of National Importance</td>
<td>507</td>
</tr>
<tr>
<td>3</td>
<td>Department of Archaeology, Museums and Heritage, Govt. of Karnataka</td>
<td>765</td>
</tr>
</tbody>
</table>

Source: A) ASI Protected monuments List  
B) Dept. of Archaeology, Museums and Heritage Govt. of Karnataka.

Karnataka has 747 ASI protected and 765 Department of Archaeology, Museums and Heritage Government Karnataka protected and 507 monuments are declared as Monuments of National Importance, in which 38% of monuments are state government protected, 37% of monuments are ASI Protected. Therefore Karnataka is having immense potentiality in Archaeological Heritage tourism.
Rapid Growth of Tourist arrivals in Archaeological heritage sites of Karnataka.

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Name of the Monuments</th>
<th>2012 Domestic</th>
<th>2013 Domestic</th>
<th>2014 Domestic</th>
<th>2012 Foreign</th>
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<tr>
<td>1</td>
<td>Gol-Gumbaz, Bijapur</td>
<td>1045718</td>
<td>2992</td>
<td>1064265</td>
<td>2978</td>
<td>1083474</td>
<td>2869</td>
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<td>933385</td>
<td>25519</td>
<td>950224</td>
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<td>3</td>
<td>World Heritage Site, Hampi</td>
<td>502014</td>
<td>38173</td>
<td>487995</td>
<td>39473</td>
<td>511533</td>
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<td>4</td>
<td>Chitradurga Fort, Chitradurga</td>
<td>376665</td>
<td>764</td>
<td>378629</td>
<td>911</td>
<td>440877</td>
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<td>5</td>
<td>Keshava Temple, Somnathpur</td>
<td>154500</td>
<td>13396</td>
<td>180490</td>
<td>12236</td>
<td>175273</td>
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<td>6</td>
<td>Tippu Palace, Bangalore</td>
<td>136769</td>
<td>6432</td>
<td>132423</td>
<td>4974</td>
<td>215357</td>
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<td>7</td>
<td>Bellary Fort, Bellary</td>
<td>7477</td>
<td>49</td>
<td>8806</td>
<td>91</td>
<td>7235</td>
<td>64</td>
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<td>8</td>
<td>Jaina Vaishna Caves at Badami</td>
<td>458785</td>
<td>7507</td>
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<td>7437</td>
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<td>9</td>
<td>Group of Monuments (WH), Pattadakal</td>
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<td>6266</td>
<td>347252</td>
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<td>10</td>
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<td>5209</td>
<td>247014</td>
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<td>11</td>
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<td>231219</td>
<td>2370</td>
<td>237486</td>
<td>2405</td>
<td>207081</td>
<td>2260</td>
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<td>12</td>
<td>Temple &amp; Sculpture Shed, Lakkundi</td>
<td>14644</td>
<td>339</td>
<td>13538</td>
<td>214</td>
<td>14382</td>
<td>309</td>
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<td><strong>4382339</strong></td>
<td><strong>109197</strong></td>
<td><strong>4472890</strong></td>
<td><strong>107713</strong></td>
<td><strong>4678942</strong></td>
<td><strong>108797</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: ASI ticketed monument Report
From last few years tourist flow increasing year by year 526.56 lakhs from 2007-08 to 636.52 lakhs in 2015 at a growth rate of 8.4%. This indicates the fastest growth in tourist inflow in Karnataka and also generate question that increasing tourist flow can also increase the pressure on the archaeological heritage resources which signifies the study of SVMS.

**Sustainable Visitor Management System for Archaeological Heritage**

Transportation systems have major influence on the archaeological sites, and also to the environment which accounts 20% to 25% of global energy consumption and carbon dioxide emissions which are going to create serious issues to the
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Archaeological ruins and remains. TMS will support and manage eco-friendly transportation system like battery cars, bicycle tours, heritage walk etc., by which vehicle emission can be avoided and it can improve local people health as well it avoids the damage on monuments.

**Accommodation Management System**

AVMS shows keen interest on environmental developments to its structure in order to reduce its impact on the heritage environment. Accommodation which follows the practices of green living and eco-friendly are highly encouraged and practices like usage of bio-toilet, eco-friendly sewage system, traditional food and beverages, native folk arts as a part of visitors recreational activities, food waste management etc.

**Attraction Management System**

Rapid growth in the visitors’ inflow adds immense pressure on physical infrastructure and risks assigning stress on the quality of the archaeological sites especially with more familiar tourist’s sites. With quality information, visitors and management can be more proactive to anticipate issues related to attraction causes by visitors. AMS will provide Proper Planning for managing attraction in sustainable way like layout of parking areas, amenities centre, interpretation center, commercial blocks for local handcrafters, visitors facilities center, ticket counter etc.

**Information Management System**

IMS will monitor and assess the visitor impact on the archaeological sites. IMS provides valuable information about the destination to the visitors like its past glory, significance of the destination traditional, cultural values, local handicrafts and performing arts more importantly it gives clear idea about the destination by providing Do’s and Don’ts of the destination through which it monitor the visitor behaviour destination friendly.

**Free Movement and Transfer System**

FMTS will assess the visitor easy movements in and around the attractions. The system will evaluate and monitors the carrying capacity of the each attraction of destination. FMTS also provides sustainable friendly transfer system especially for disabled, senior citizens, pregnant women’s and children’.

**Conclusion**

Tourism the world’s largest industry enhancing the opportunities for economic development of the nation’s throughout the globe. Past few decades tourist arrivals are significantly growing at a rapid face in India and Indian archaeological heritage sites are receiving more number of visitors and this visitation is increasing every year which creating immense pressure on archaeological heritage. Visitors’ activities at the destination possess some serious issues on preservation of archaeological resources which are great assets of the nation. These valuable assets should be preserved for future generations to know the traditional and cultural values of their region or nation without hampering the present generation needs and wants. Sustainable visitor management system is the ideal concept to preserve these valuable archaeological heritage resources for the future generations without hampering the present generation needs and wants. SVMS evaluate and monitor the visitors’ activities at the destination and it provides time to time updated information on preservation and restoration of the remains and ruins. SVMS is the proposed model covers the elements requires for destination management in
sustainable manner which conserve the valuable archaeological assets and transforming these assets to future generation.

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