

## ENVIRONMENT IMPACT CREATED BY HOUSE BOAT CRUISE IN KERALA WITH REFERENCE TO KUMARAKOM

---

**Aju Mathew\* & Dr. B. Sathiyabama\*\***

\*Research Scholar, PG Department of Commerce and Research Centre, Marudupandiyar College, Trichy Main Road, Vallam, Thanjavur – 613403,  
Affiliated to Bharathidasan University, Tiruchirappali - 620024

\*\* Research Guide, Assistant Professor, PG Department of Commerce and Research Centre, Marudupandiyar College, Trichy Main Road, Vallam, Thanjavur – 613403,  
Affiliated to Bharathidasan University, Tiruchirappali - 620024

---

### ***Abstract***

Kumarakom is the first destination in India to Implement Responsible Tourism practices. Kerala Tourism was awarded for its path-breaking 'Responsible Tourism' project in Kumarakom, which has successfully linked the local community with the hospitality industry and government departments, thereby creating a model for empowerment and development of the people in the area while sustaining eco-friendly tourism. House boat cruise is the biggest attraction in the place. Kumarakom is the wetland and excessive human interference will affect its function and structure and also make a harm in the environment. The present study focuses on to identify the environment problems created by the house boat cruise in Kumarakom.

**Key words:** House boat cruise, Tourism, Environment problems

---

### **INTRODUCTION**

Kumarakom is a popular tourism destination located near the city of Kottayam (16 kilometres (10 mi)), in Kerala, India, famous for its backwater tourism. It is set in the backdrop of the Vembanad Lake, the largest lake in the state of Kerala. Kumarakom is the first destination in India to Implement Responsible Tourism practices. Kerala Tourism was awarded for its path-breaking 'Responsible Tourism' project in Kumarakom, which has successfully linked the local community with the hospitality industry and government departments, thereby creating a model for empowerment and development of the people in the area while sustaining eco-friendly tourism.

Kumarakom is home to a wide variety of flora and fauna. Kumarakom Bird Sanctuary is a noted bird sanctuary where many species of migratory birds visit. The Vembanad Lake, the largest backwater in Kerala, is habitat for many marine and freshwater fish species and it teems with Karimeen (Pearl spot also known as *Etroplus suratensis*) shrimp (*Metapenaeus dobsonii*) common name Poovalan chemeen. The bird sanctuary extends over 14 acres (57,000 m<sup>2</sup>), and came into existence following preservation efforts from the government. It is a major tourist attraction. Fishing, agriculture and tourism are the major economic activities.

Kumarakom's perfectly balanced tropical climate is very conducive to cultivation. The place has expanses of mangrove forests, paddy fields and coconut groves. Fruits like Banana, Mango, Jackfruit, Ambazhanga, Puli (Tamarind), Chaambenga, Peraycka (Guava), Aathaycka and Pineapple grow here. Also, cocoa and coffee, chena(yam) and chembu (colocasia), grow well and were cultivated under the coconut trees. This rich agricultural environment is mainly irrigated using interspersed waterways and canals of the Meenachil river. The smaller canals are often lined by hibiscus plants which lean partly over the canals to form a green canopy, from which hang the lovely hibiscus flowers. Tourism in Kumarakom largely revolves -around the backwaters of the Vembanad Lake. Several luxury and budget resorts lined up on the shores of the lake provide tourists with facilities for boating, yachting and fishing, with panoramic views of the lake.

Backwater tourism emerged as the backbone of the tourism sector of Kerala state which leads to the tremendous increase of Houseboats in the shore of lake. The houseboat industry is situated mostly in Allepey and Kumarakom so that the study focused on Kumarakom. The unrestricted operation of house boats is causing serious environmental impacts on the ecosystem, including the dumping of toilet waste, plastic and oil pollution in the water body. The sudden exposure of tourism put pressure on the environment. Now, the number of houseboat in Vembanad Lake is uncontrolled that decreasing the carrying capacity of boat in the lake its upset the ecology of the backwater system. The present study focuses on the effect of houseboat tourism on water environment and fish production in Kumarakom. The significance of the study is to understand adverse effect of the backwater tourism growth on Vembanad Lake and Livelihood of the area around the lake and to find out the recommendation for the sustainable development of backwater tourism in the region.

## STATEMENT OF THE PROBLEM

Houseboat is one of the main attractions in the tourist spots of Kamarakom. As the tourism industry grows the demand for the house boats are also increasing. Not only the foreign tourists but also the local tourists are now showing interest towards it. This led to the increase in the number of the house boats as well. The tremendous increase in the number of the houseboats led to the increase in the employment opportunities and tourism development but on the other hand it paved to environment problems also. The present study tries to find out the impact on environment due to house boat cruise in Kumarakom.

## OBJECTIVES OF THE STUDY

- To study the impact on environment due to house boat cruise in Kerala with special reference to Kumarakom.

## REVIEW OF LITERATURE

**Corinne Karlaganis and N. C. Narayanan , (2014)** focused on governance, in particular on the linkage between investment in tourism and the environment in Vembanad Lake, stated that the lake is under severe environmental stress due to biological (sewage), chemical (pesticides) and physical (plastic) pollutants. The methodology involves analysis of secondary environmental data and semi-structured interviews with various stakeholders. The problem of environmental degradation due to tourism is linked to boat owners' desire for short-term profit maximisation even though most of them are aware that the sustainability of the industry is linked to the environmental quality of the lake.

**Ashish Varughese , (2014)** in his study stated that A majority of the tourists were satisfied with backwater tourism and were dissatisfied with the lack of cleanliness of backwaters and hygiene factors.

**Vincy M.V., Brilliant Rajan and Pradeep Kumar A. P. (2012).** Conducted a study on backwater tourism in Kerala and found that degradation and loss have reduced the capacity of wetlands to provide sufficient amounts and quality of water. The continued degradation of wetlands, and more specifically the continued decline in water quantity and quality, will result in further impoverishment of human health especially for vulnerable people in developing countries. The waterborne pollutants (chemical and microbiological) have a major effect on human health and chemical pollutants accumulate in the food chain to the point where they harm people.

## RESEARCH METHODOLOGY

The study uses both primary and secondary data. Primary data has been collected three classes of people mainly local people, Tour operators and Tourists. A structured questionnaire was used for collecting the data. The convenience sampling techniques was used for collecting data. A total of 500 respondents were selected for the purpose of the study.

## ANALYSIS OF DATA

For the purpose of the study environment impact was divided into 2 aspects

1. Positive aspects

2. Negative aspects

**Positive aspects** are divided into 5 categories

V1. Protection of natural environment

V2. Environment and income generation

V3. Development of tourism

V4. Preservation of the old monuments and buildings

V5. Infrastructural and tourism development

**Negative aspects** are divided into 5 categories

V6. Shortage of drinking water due to pollution

V7. Water animals are affected badly

V8. Disruption of wildlife breeding cycles and behaviours

V9. Loss of natural landscape and agricultural land to tourism development

V10. Destruction of flora and fauna

**Table showing The regression Coefficients – ENVIRONMENT IMPACT**

Path	Regression Coefficient	C.R.	P	Variance explained (%)
V1	0.590	12.066	<0.001	34.8
V2	0.518	10.213	<0.001	26.9
V3	0.678	14.696	<0.001	46.0
V4	0.611	12.650	<0.001	37.3
V5	0.667	14.338	<0.001	44.5
V6	0.248	3.153	<0.001	6.1
V7	0.197	3.554	<0.001	3.9
V8	0.321	5.925	<0.001	10.3
V9	0.225	4.076	<0.001	5.1
V10	0.389	9.742	<0.001	15.3

# Primary data

All the attributes loaded except V6,V7,V8.V9,V10 has regression coefficient less than 0.4 .hence these constructs has no significant impact. The natural environment at a destination has a close relationship to the tourism industry. Often it is the environment that attracts tourists, but tourism stakeholders commonly overlook the importance of the local environment when their goal is capturing economic gains. Therefore, the deterioration of the environment should be the first sign of trouble for a host community offers a broad definition of the environment as comprising “all the natural and cultural surroundings of people”.

#### Means, SD and z value for Environment impact

Variable	N	Mean	Std. Deviation	Mean % score	CV	Z	p value
Environmental impact	500	43.18	6.88	78.51	15.94	6.263	<0.001

# Primary data

The mean percentage score for Environmental impact is 78.51% which indicate that the Environmental impact of backwater tourism is high impact and the CV indicate that this score is value is greater than 20%.

To test whether the sample information that is observed exists in the population or to verify that the Environmental impact of backwater tourism is high or medium, we formulate the hypothesis

**H<sub>0</sub>:** The perceived environmental impact of backwater tourism in Kumarakom region among the local residents is high.

**H<sub>1</sub>:** The perceived environmental impact of backwater tourism in Kumarakom region among the local residents is medium.

To test the above hypothesis one sample Z test and the result is exhibited in the table. From the table the p value is less than 0.05 which indicates that the test is significant. So it is concluded that the Environmental impact of backwater tourism is high in Kumarakom which means that more negative impacts are perceived by the residents of Kumarakom.

## **FINDINGS AND CONCLUSION**

Places blessed with natural resources like oceans, lakes, waterfalls, mountains, flora and fauna are the most preferred locations for tourism industry. When too many people visit these places may produce air, water, soil, sound pollutions to that place. Constructing hotels, restaurants, offices, other attractions to cater the needs of visitors may spoil the beauty of places and disturb natural tranquillity. Tax collected from tourists could be used for cleaning, repair, maintenance of these places. These would be beneficial for both the natives and tourists alike.

Visual proliferation by billboards and buildings may affect the natural beauty of the place. When people begin selling certain plants, animals, rocks, corals, fossils, or historical artifacts, which are the main attraction of a flora and fauna without thinking, may ruin its importance and authenticity. Thoughtless visitors, their pet animals, and overuse of natural resources may disrupt wildlife by disturbing their breeding cycles and vary their character. It is a matter of grave concern that the environment gets polluted by Backwater tourism in Kumarakom. The problems of pollution include Degeneration

**BIBLIOGRAPHY**

- Ashish Varughese,(2013) “Problems and Prospects of Backwater Tourism In Kerala With Special Reference To Alappuzha District”, Indian Journal of Marketing, Volume 43, Number 4.
- Corinne Karlagains. N.C. Narayana,(2014) “Governance Challenges in Linking Environmental Sustainability to Tourism: Where is the Houseboat Industry in Kerala”, India Headed.
- Joseph, Emilda. (2016). Environmental sustainability and tourism activities in backwaters of kerala. International Journal of Tourism & Hospitality Reviews. 3. 69. 10.18510/ijthr.2016.322.
- Mathew, Ravish & Chandran, Anu & Swain, Sampada. (2017). Backwater Tourism : RT Initiatives and Socio-Environmental Dynamics.
- Vincy M.V., Brilliant Rajan and Pradeep Kumar A.P (2012)“Water Quality Assessment of a Tropical Wetland Ecosystem with Special Reference to Backwater Tourism, Kerala, South India”, International Research Journal Of Environment Science, Vol. 1.