

Impact of Houseboat Tourism—A Study on Alappuzha Region, Kerala

NeepraPremodh

Lecturer

Department of Business Administration(MBA-TTM)

Mangalore University, Mangalore, Karnataka State

Email id: neepztanya@gmail.com Mob No – 9964501630

Chinna Srinivasan

Head cum Assistant Professor,

Dept. Of Tourism and Travel Management, Mar Gregorious College of Arts and Science,
Chennai, Tamil Nadu State

Abstract

PURPOSE

The present paper focuses on the impact of house boat tourism on the lake system of Alappuzha as a result of its tremendous growth. The objectives of the study include the study on the perception of various impacts of house boat tourism in the Kuttanad region of Alappuzha. The paper also suggests a suitable sustainable tourism development model on the backwaters of Alappuzha.

RESEARCH METHODS

The study comprises of both qualitative and quantitative research methods. Exploratory and descriptive research was carried out in order to gain familiarity and deeper insights about the topic. The study is conducted in the Kuttanad region of Alleppey. A convenient sampling method has been employed as the researchers have distributed questionnaires based on the availability of the respondents. Fifty questionnaires were administered to 50 households in order to comprehend their response related to the issues of house boat activities, involvement and economic benefits. The data collected has been analysed and interpreted using simple percentile method.

RESULTS AND DISCUSSION

The key findings indicate that the Backwaters of Alleppey, have been used by local people for cooking, drinking and washing as well as for transportation, fishing and agriculture. However, the uncontrolled growth in the number of house boats have posed several impacts on the environment and its water resource. Though house boat tourism has become imperative both from social and economic considerations, deep concerns are now being expressed on the sustainability of its development in terms of environment, ecology and culture.

IMPLICATIONS

It is essential to develop a suitable model with an all-inclusive view for sustainable development of house tourism by reducing its negative impacts. The findings usually reveal that local communities' participation should be taken into consideration by the tourism policy makers in houseboat tourism development activities in order to have additional positive economic benefits. The current research proved helpful to the local communities through analysis of economic benefits derived from tourism. Further research can be conducted on the sustainable houseboat tourism development in any other destination that have exotic backwaters.

KEYWORDS

Backwaters, Houseboat tourism, Water Resources, sustainable, Local Community

Introduction

Tourism has become a popular global leisure activity. Tourism has gained significance because it has become a major activity contributing to economic development. This particular industry depends extensively on each other as well as on other businesses, government and residents of the local community. However, Community support is essential for tourism, as it is an activity that affects the entire community.

India's tourism sector is expected to grow 6.7% to reach Rs .35 trillion (USD \$ 488 billion), which accounts for 9.2% of the total economy. International tourist arrival in India is expected to reach 30.5 million by 2028. The government plans to tap into regional tourism by opening doors

for South Asian countries tourists post the pandemic crisis. It is estimated that total earnings from the tourism sector in India is targeted to reach US\$ 50 billion by 2022. (Foundations, 2021)

SAATHI (System for Assessment, Awareness & Training for Hospitality Industry) is an initiative developed by Ministry of Tourism partnered with the Quality Council of India (QCI) in October 2020. This initiative will effectively implement guidelines/SOPs issued with reference to COVID-19 for safe operations of hotels, restaurants, B&Bs and other units. (Report, 2021)

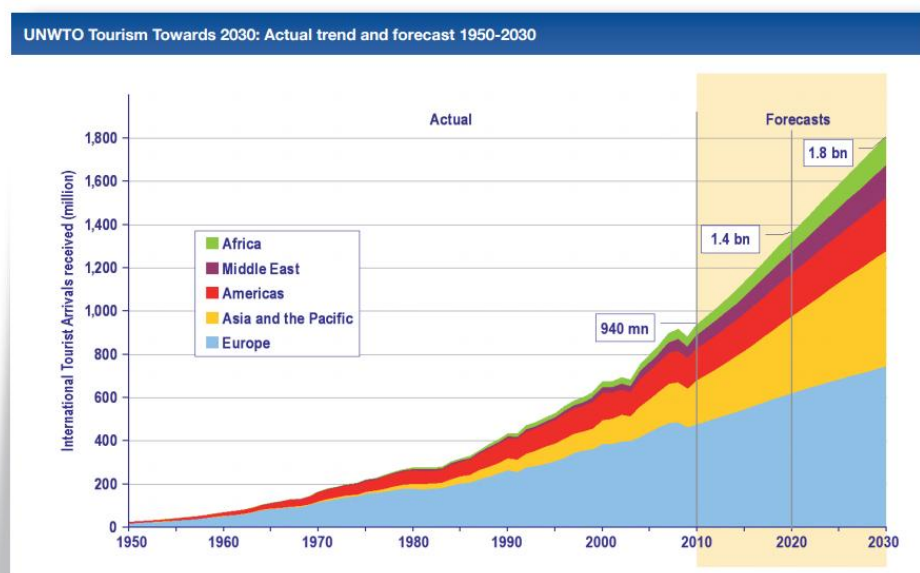
Background of the study

Kerala backwaters are one of the finest tourist places to visit. With a moderate climate and awe-inspiring beauties of these backwaters, Kerala stand as the best tourist destination all throughout the year. Alappuzha, is popularly known as 'the Venice of the East' is an excellent backwater and coastal tourist destination in India.

House boat tourism emerged as the backbone of the tourism sector of Kerala state. House boat tourism is considered to be one of the best brand of state's tourism sector by generating huge foreign exchange and employment. Although house boat tourism contributes positively to the local economy by providing large number of jobs, it has hampered the environment of the Kuttanad region of Alappuzha. (Mathen, 2012) Most of the houseboat industry is located in Alappuzha and Kumarakom because of which the study focused on Alappuzha. The uncontrolled operation of house boats have become a grave issue causing serious environmental impacts, including the accumulation of toilet waste, plastic and oil pollution in the water body. Therefore it is mandatory to develop a suitable sustainable tourism model for overcoming these major challenges. Sustainable tourism has been developed to protect the natural beauty of the environment together with the creation of economic opportunities for local communities. It becomes very vital that local community, visitors or tourists, and tourism industry in a destination must contribute to further sustainable development.

This paper focuses on the adverse effect of the house boat tourism growth in the Alappuzha on the environment system of wetland and Livelihood of the area around the lake and to find out the recommendation for the sustainable development of house boat tourism in the region.

WTO Forecast for Tourist Arrivals



(Source: World Tourism Organisation)

Statement of the problem

The effects of house tourism in Alappuzha are studied through the perceptions of residents of the region . The impacts of house boat tourism in Alappuzha such as economic impact, social and cultural impact, and environmental impact, impact of crowding and congestions, effect on drinking water, water resources and socio cultural impact are studied in detail. Both positive and negative impacts are analysed. An important adverse environmental impact of tourism development is pollution. In fact, dumping of plastic paper, food and other wastes from the house boats lead to big issues connected with land and water pollution. The direction and magnitude of sustainable tourism development on the backwaters of Alappuzha are deeply understood.

Objectives of the study

- To identify the effects of house boat tourism on the water resource.
- To examine the role of house boat tourism on the livelihood of people in the Kavalam village of Alappuzha.
- To suggest a suitable sustainable tourism development model in the backwaters of Alappuzha.

Literature Review

Houseboat Tourism in Kerala

The southern Indian state of Kerala is a popular destination for both national and international tourists. The coast of Kerala is fringed with a network of lakes, rivers and canals, which make up the idyllic backwaters. The backwaters in Kerala consist of Alappuzha, Kottayam, Trivandrum, Kollam, Kuttanad, Kozhikode, Kazaragod, Cochin and Kumarakum backwaters. A network of lakes, rivers and canals fringe the coast of Kerala. The criss-crossed, palm-fringed lakes traversed with Chinese fishing nets are very popular cruises, especially between Kollam and Alappuzha. (keralatourism.org, n.d.) According to Skipper G, the backwaters are Kerala's Unique Selling Proposition (USP). The backwaters have become important attractions though they are threatened by population growth and industrial development. (Legy C. Joseph and Dr. S. Vasanthi, 2017) Vincy M.V., Brilliant Rajan and Pradeep Kumar A. P. 17 (2012) has conducted a study on lake systems and tourism in Kerala and found that the capacity of wetlands have been reduced to provide sufficient quality of water due to degradation and loss of nutrients.

House boat tourism in Alappuzha and impacts

Alappuzha backwaters are prominent on the tourist trail as it is one of the major centers for backwater boat trips. With Arabian Sea on the west, Alappuzha, "Venice of East" has a large network of lakes, lagoons and several freshwater rivers intersections. Alappuzha has grown in importance as a backwater tourist center, attracting several thousands of foreign tourists every year who come here to enjoy the serene marine beauty of the state. (keralatourism.org, n.d.) Tourists can make a visit to the local villages to witness a completely different lifestyle of the people that they have never experienced before. Alleppey is also famous for annual Nehru Trophy Boat Race and Champakulam Moolam Boat Race. (J. Joseph, 2017). A study conducted by School of Planning and Architecture and Kerala State Pollution Control Board, in Alappuzha district reveals that houseboats in the district are "killing" Vembanad Lake, the largest wetland ecosystem in south India, by dumping huge amount of waste into it. This is also destroying the fish wealth in the lake. (Sajimon P S, 2012). Tourists' transportation, accommodation, and activities at a destination alter the environment and consume resources. While tourism has some

positive environmental impacts such as raising environmental awareness lack of good tourism planning causes many more environmental costs (Cohen, 1978).

Local community and perception

Narayana, S.V and Sivaramakrishnan, R (1996) analyzes the views of respondents in related to tourism in Puducherry and the awareness about environmental variables and their connection with tourism and also the opinions of respondents on the quality of the existing environment. The study exposes that the environmental quality with respect to tourism that encompasses various physical, governmental, social and political factors are relatively poor in India. Variable such as Demography, unawareness, rigid policies and improper implementation are accountable for such poor quality of environment. The public failed to develop environmental consciousness. Insincerity of government and public indifference are the reasons for the failure of environmental activities. The government doesn't serious efforts to build up participative campaign through leadership. Eber (1992) further useful research shows that "if tourism needs to be proved beneficial to all and sustainable in the long-run, it is necessary to ensure that natural wealth is not over-exploited and they are protected. When tourism is integrated with other activities, it should provide real benefits to the local communities wherein local people are involved in tourism planning and implementation so that cultures and people are respected.

Research Methodology

Study Area

The study is conducted in the small village of Kavalam in the Kuttanad region of Alappuzha, also known as Alleppey, The Backwaters of Alappuzha are the most popular tourist attraction in Kerala. Since Alleppey has the maximum number of houseboats in Kerala the house boats in backwaters of Alappuzha has also been selected as study area.

Research design: The research design adopted is Exploratory and Descriptive in nature

Data collection Methods

Both the secondary and primary data sources were used for the study. The primary data is collected through structured interviews by formulating some open –ended questions. House hold

survey of sample 50 has been done in the Kuttanad region of Allapuzha using a structured questionnaire..Secondary data sources provided data that have been collected, analyzed and interpreted by previous researchers in the field, journals, unpublished thesis, websites and magazines.. Hence, secondary data helped to contextualize present study in the field.

Sampling method and size

Convenience sampling method is opted for the study. Convenience sampling is a non-probability sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher. The size of the sample consisted of 50 respondents who were the local residents of the place in order to analyze the impact of house boat tourism activities on the natural and socio-cultural environment.

Scope of the study

The study area is limited to the Kuttanad regions of Alappuzha and is focused on that part of geographical region where there are large number of house boats operating. The major focus of the study was to look into the adverse impact of house boat tourism on the environment and the livelihood of the people. Also the study suggest and give insights about the various sustainable development approach to confront this issue.

Impact of Houseboat Tourism

Even though the tourism sector in the region has greater economic benefits which are employment income and foreign generations there are also negative socio environmental impact. Poorly regulated houseboat tourism is affecting water quality, ecosystems, and traditional livelihoods. Alleppey's waterways are home to majority of people. Their entire way of life is intimately connected to the backwaters, which they rely upon for fishing, drinking, bathing, cooking, and other livelihood activities, such as rice farming and toddy-tapping. Houseboat tourism is affecting the environment and ecosystem of the backwaters. The pollution from the houseboats is the sewage from toilets, oil from engines, plastic wastes and food wastes. Tremendous amount of plastic wastes are produced around the jetty points due to the inadequate waste disposal system.

Rapid increase in house boats: In recent years, houseboat numbers have mushroomed. The state tourism board, Kerala Tourism, estimates that more than 1000 houseboats currently operate on the backwaters, with the majority of these operating in Alleppey. Larger operators from other parts of India are reportedly moving in, offering 'luxury' houseboats (some even boast swimming pools), and buying up waterside property to store their boats. This is pushing out local operators. In the same period, poor, rural backwater communities have started to experience increased scarcity of drinking water and declining fishing and agricultural productivity as Alleppey's waterways become increasingly polluted.

Reduced fish wealth: There is a huge decline of the fish population in the lakes of Alleppey. Local fishermen confirm that fuel and oil pollution are affecting the quality of fish and prawn catches. The fish tastes kerosene. They are unable to sell the fish because of this kerosene. The houseboats are threatening their livelihood. The fish stock is also reducing. Many of the fishermen have taken a loan from the bank for the small fishing boat and net. Now they are unable to repay the loan because they are not getting enough catch and sale. (H & Devadas, 2014)

Effect on drinking water: Local people use the backwaters of Alleppey for cooking, drinking and washing as well. Unregulated expansion and unsustainable practices are threatening these rural communities and their environment. It is evident that bacteria are 30% higher in Houseboat jetty than in the remaining area. This is not very serious if the water is not used for drinking purpose. But it is seen that the people living around the lake are using the lake water for all household requirement because there is no adequate drinking water supply by government to the region. Even houseboat workers have admitted that they are using the lake water for the cooking purpose in the Houseboat. The problem is that main houseboat jetty in Alappuzha has only one tap which supply drinking water which is not sufficient to provide the water for hundreds of Houseboats. It is found that people living in Villages around Vembanad Lake are still using the lake water for drinking purposes due to the poor water supply

As the canal and lake waters become more polluted, locals are seeking alternative water sources where possible. However, government pipe supply is limited. Few households enjoy access to piped water, and where they do, it is erratic and inadequate. The women are responsible for collecting the water and doing the household jobs. They have to go too far, by boat, to collect drinking water. Further the local people state that they don't want to drink the lake's water

anymore. It tastes of petrol and smells bad. There is oil floating on the top, even after it is boiled. They are worried because they see the fish floating dead on the water. So they have asked for water from the city, but fail to get enough.

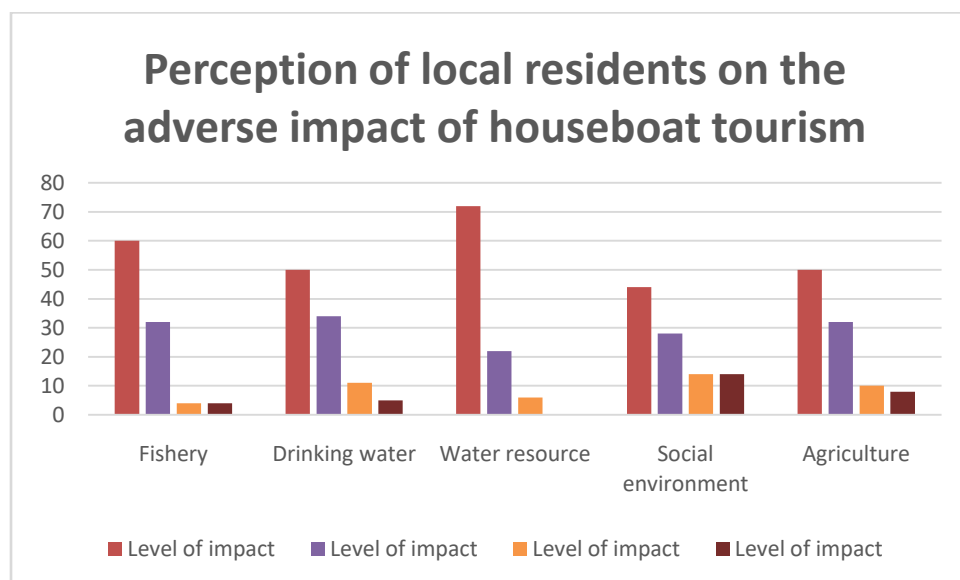
Creates water pollution:Houseboat tourism is affecting the environment and ecosystem of the lakes of Alappuzha. The pollution from the houseboats is the sewage released from toilets, oil from engines, plastic wastes and food wastes. Pollution caused by the sewage produces a number of total coliform bacteria in water. This bacteria leads to the aggravating problem of water borne disease in and around the areas of Kuttanad. According to the interview done, local residents reported that most of the people are suffering from skin diseases and jaundice due to the coliform bacteria. Many houseboats reportedly dump sewage, kitchen waste and rubbish into the backwaters. There are designated locations for waste discharge, but these are commonly ignored by houseboat operators. Houseboat engines leak petrol and other pollutants directly into waterways, while careless refueling often results in spillages. These petrochemicals dramatically disrupt the delicate aquatic ecosystems. Oil coats the gills of fish, causing their death or migration to less polluted areas. Several bird species have also dramatically declined within the last decade.(John, 2018)

Social environment:Houseboat tourism activities are affecting the privacy of livelihood of people living in the region around the lakes of Alappuzha. Enormous photography by tourists is affecting the privacy of the people whose daily life is closely linked with the backwater system. Some NGOs of the region also mentioned about the prostitution taking place in some houseboats. Such activities have bad impacts on the local residents especially the children.

Agricultural Setback: Livelihoods within the agricultural sector are also being severely hit. Paddy fields are directly irrigated by the backwater, which means that oil, sewage and rubbish from the houseboats easily flows into these agricultural units. Furthermore, farmers attribute recent incidences of ill health to prolonged contact with polluted water. A farmer reported their paddy fields are in a very bad shape due to the pollution. They are not getting agricultural workers, because they are afraid to work in the polluted paddy fields due to health concerns. He is also suffering from skin diseases because of the long contact with the contaminated water.”

Findings from the study

Variables	Level of impact			
	High	Moderate	Low	No
Fishery	60	32	4	4
Drinking water	50	34	11	5
Water resource	72	22	6	0
Social environment	44	28	14	14
Agriculture	50	32	10	8



Among 50 household survey 60% of the population were of the opinion that impact of house boat tourism on fisheries is high whereas 30% of them said that it had moderate impact on the fish production. Very few of them that is 4% of the local residents stated that impact of tourism on fisheries is low. And the rest stated that there is no impact at all. It is also found that almost 50% of the people in Kuttanad region opined that there has been a greater impact of house boat activities on drinking water of the region. 34% of them hold the view that it has a moderate impact whereas 11% of them said that tourism has less impact on drinking water. 6% of the say that there is no impact. It is observed that over 80 per cent of households living along or near the

backwaters rely on its water for daily drinking and cooking. Less than half of these residents reportedly treat the water before consuming it.

It is found that majority of people that is 72% of them strongly feel that tourism activities in the backwaters lead to water pollution. 22% have given their opinion that house boat activities caused moderate impact on the lake system. Only very few of them have the opinion that house boat tourism does not lead to considerable amount of water pollution. 44% of them report that impact of house boat tourism has a far reaching impact regarding the privacy of local people. But it is also been observed that 28% of them opined that it has a moderate and 14% of them claimed that it has relatively low impact on the local people's livelihood. The rest said that no impact been found on the livelihood of the local people. From the study 50% of them report that house boat tourism affected the agriculture of the Kuttanad region of Alappuzha. And 32% of them hold the view that it had moderate impact on the agricultural sector of the region. 10% of them report that tourism relatively has low impact on the agriculture of the area. The rest reported no impact at all.

Inferences and Discussions

Any sort of development should take place in tune with the sustainability. Depletion of water resources in tourism destinations is a shared problem that requires a collective solution. Stakeholders such as the government, District Tourism Promotion Council, NGO Self-help group, local bodies, the tourism sector, the host community and tourists have important roles to play. The consultation of all stakeholders including the host communities is of paramount significance. A sustainable tourism model can ameliorate the capacity building endeavours of the destination. A sustainable development framework should help Alappuzha as a destination to maintain its environment pristine and pollution free.

The Kerala Government must implement its fundamental duty and legal obligations to uphold, fulfill and protect the right of their citizens to water for personal, domestic and essential livelihood needs. A clear regulatory and institutional framework for the coordinated development and implementation of sustainable integrated water and tourism planning and management should be established. Tourism Department, in association with Kerala State Pollution Control Board, have to take stringent measures to see that all the houseboats will have scientific solid and

liquid waste management system. Department will also explore possibilities of introducing these systems in other tourists boats. Number of houseboats plying in the backwaters of Kerala have increased and there is an urgent need to evaluate the safety and service standards of houseboats and classifying them accordingly. This will be the first step towards sustaining this unique tourism product of Government of Kerala. The tremendous opportunities for investments towards the installation of waste management techniques to be tapped, though in a sustainable manner. The government should raise awareness issues among the tourism industry, local communities and tourists by communicating regulations and guidance. Agriculture and fishing should be protected against over-consumption and pollution of freshwater by tourism. The local bodies such as Panchayat need to be empowered to create innovation in the realm of house boat tourism in performing novel eco-friendly practices and issue licenses to house boat enterprises in tourism, and also advance the development initiatives. The NGO's and local self-help groups can guide in newer conservation paradigms. The District Tourism Promotion Council (DTPC) of Alappuzha is the leading public sector concern which may be empowered to invite tourism projects which strictly conforms to the environment impacts- stated as within its ambit and as per the norms. They also identify the potential areas; formulate campaigns at the local level; approve the projects and award them to the investors based on merit. They facilitate infrastructure development and sanctions the project. They are responsible for monitoring and evaluate the overall functioning. (Mathew, R.C., & Swain, 2017)

Tourism businesses in Alappuzha should abide by laws and regulations governing water consumption and management, including monitoring and paying for water use, even where such regulations are poorly enforced. The resorts, hotels and ayurvedic establishments must not channelize their sewage vent to the water bodies. Sewage management and effective treatment must be given due importance. Tourism businesses should be accountable to those whose water access or quality may be compromised by their activities, and support remedial processes for those who have been adversely affected. Ethical conduct of business must be thoroughly monitored. Environmental auditing is a main part of Sustainable Tourism agenda and it is needed to give prospective directions. Consultants with requisite expertise could be engaged to conduct EIA and similar studies to reveal the multi-dimensional footprints of house boat tourism in the backwaters of Alappuzha. The Visitor management strategies are to be well-designed for carrying out sustainable development of tourism on the backwater of Alappuzha.

Tourists should take care of the water resources while travelling in the house boat. They not dump plastics and other waste materials in the backwater. Local community of the destination has an important role to play in advocacy, capacity building and sensitization of governments, industry, and the wider public. Community Participation and holistic involvement along with synchronized decision making have to be a part of the sustainable tourism development approach.

The empowerment of communities will be considered to advocate for their water rights, and to effectively participate in tourism and water policy-making process and other multi-stakeholder initiatives. However, displacement of host population for tourism projects should not be permitted at any cost. Further there should be exploration of opportunities to revive or strengthen community based water management systems. The host communities can be actively engaged in environment resource conservation ventures like organic farming and water conservation. The local community must be involved in destination planning and management.

Conclusion

The backwaters of Kerala are one of the must visit tourism destinations in the world as it provides the most enchanting experience for the tourists. Kerala's houseboats (kettuvalloms), lakes and backwaters are the unique tourism products of Kerala. It generates huge foreign exchange and provides employment opportunities to the local residents. Backwaters of Alleppey, have been used by local people for cooking, drinking and washing as well as for transportation, fishing and agriculture. In order to have a true sustainable development of tourism, its development and management must cover all resources that fulfill economic, social-cultural, ecological and aesthetic needs. It alerts on the amount of waste (sewage discharge, wastes and plastic materials) which are generated from tourism houseboats causing pollution of the backwaters and slowly destroying the beauty of nature.

Houseboat tourism is booming on the backwaters of Alleppey in Kerala. While this provides economic benefits for some, the livelihoods and drinking water access for many local communities are being severely threatened. So the Kerala state authorities to reduce the water inequity & to develop and implement regulations to ensure it become sustainable. These should be developed with the participation of local communities as they are greatly affected by

houseboat tourism. It will be a shared responsibility of all the stakeholders in tourism of Alappuzha to contribute for the sustainable development of Backwater Tourism. There are also several limitations of the study. The study is restricted only to 50 sample respondents about their perceptions on the impacts of house tourism on the environment, water and the lively hood of the residents. The analysis is completely based on the opinion provided by the sample respondents and some respondents are not willing to give their time. Finally, the study is limited by the capability, exposure and knowledge of the researcher. Further research can be conducted on the sustainable development of houseboat tourism by choosing a destination which are famous for its backwaters.

References

1. D, P. H. (2017). *Backwater Tourism*. SK Publishing Company.
2. Joseph, E. K. (2017). Community-Based Waste Management for Sustainable Tourism in Backwater Regions of Kerala, India. In *Evolving Paradigms in Tourism and Hospitality in Developing Countries*. Apple Academic Press.
3. H, S. B. K., & Devadas, V. (2014). Impact of Tourism on Vembanad lake System in Alappuzha District. *International Journal of Research*, 1(5), 542–551.
4. John, R. M. (2018). A study on the houseboat tourism on water environment and fish production in Kumarakom. *International Journal of Fauna and Biological Studies*, 5(5), 39–41.
5. Joseph, J. (2017). The Economic benefits of Tourism in Alappuzha , the smallest district in Kerala . 4(10), 565–584.
6. Joseph, L. C., Scholar, P. D. P. T., Cross, H., & Autonomous, C. (n.d.). Issn : 2278-6236 a Study on Motivating Factors of the Tourists About the House Boats Services in Kumarakom , Aleppey District Issn : 2278-6236. 6(4), 127–150.
7. Mathen, D. R. (2012). Houseboats in Kerala - Constructional Features and Environmental Issues. *IOSR Journal of Environmental Science, Toxicology and Food Technology*, 1(6), 31–43. <https://doi.org/10.9790/2402-0163143>
8. Mathew, R., R.C., A., & Swain, S. . (2017). *Backwater Tourism* : (June), 113–132.
9. (n.d.). Retrieved from keralatourism.org.

10. Alphons, K. (2018, November 5). Walking the talk on tourism: India's 3rd rank in this year's World Travel & Tourism Council Report shows how far we've come. The Times Of India.
11. Foundations, I. B. (2021, May). Retrieved from IBEF.
12. Report, I. T. (2021).