
INTERRELATION OF HISTORY AND CULTURE WITH EQUITY AND SOCIAL JUSTICE: CASE OF 500-YEAR-OLD SETTLEMENT OF KUTTICHIRA

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Abstract

As cities grow and develop, their history undergoes a transformation that is often an amalgamation of a myriad of socio-political and cultural aspects. The study area, the Kuttichira settlement in Calicut, is a good example of an urban village with a remarkable history. Beginning in the 12th century, Kuttichira was a significant economic contributor to the city and a fully-fledged international trade center for Copra, coir, timber, rice, and spices. The study aims to unveil the city's history, the evolution of the settlement, and prevailing socio-cultural and political conditions for developing strategies to rejuvenate the settlement and uplift its economy and people. The Ease of Living (EOL) Index proposed by the Ministry of Housing and Urban Affairs is used as a tool to assess the quality of life and ease of living based on factors like governance, infrastructure, social aspects, economy, and sustainability. Gaps and shortcomings identified in the EOL Index calculation include inadequate infrastructure, unsustainable development, and decreasing economic capacity due to insufficient employment opportunities. The settlement is facing a downfall in its economy and social stability due to unsustainable urbanization, loss of heritage, the decline of trade, shifting of the economic zone to other urban areas, and extensive outmigration to other countries. A major reason for this downfall is the existing matrilinear system and 200-year-old land ownership laws practiced by the community, which restricts the sale and resale of their properties, causing unresolved land ownership issues. The study proposes a community-level organization to resolve the existing land ownership issues, adaptive reuse of heritage structures for their conservation, and create employment opportunities for the people within the settlement. The strategies adopted for the revival of settlement focus on heritage conservation and enable employment generation and economic development.

Keywords: Ease of Living Index; Heritage; Sustainable intervention; Adaptive reuse

Introduction

Contemporary cities experience swift urbanization, which usually occurs without proper planning and consideration for the city's socio-cultural and historical elements (Kiruthiga, 2019). As a result, many cities undergo development that overlooks the preservation of tangible and intangible historical remnants and neglects the recognition of significant locations that have shaped the city's present identity. The ungovernable intrusion of modernization in cities and lack of awareness of its heritage values further threaten the city's tangible and intangible heritage (Persson, 2004). Fast urbanizing city centers require planning intervention to conserve and protect their heritage. Any such intervention aiming to revive a city demands the analysis of its historical and cultural heritage value (Zhang, 2019). To contribute to the socio-cultural and economic development, historic sites should be repurposed and assigned new functions, giving new life into them through sustainable interventions. This approach allows these sites to gain renewed value and actively contribute to the city's overall progress. Adopting practices such as value-centered preservation of heritage sites helps address a space's contemporary and historical values (Dastgerdi, 2019). Such interventions can protect and efficiently utilize the sites as functional urban areas.

The lifetime of individual cities includes periods of fast growth, slow growth, and periods of shrinkage (Czamanski, et.al, 2018). In the process, certain city areas transition faster, losing heritage and historically important settlements. Hence, planned interventions for rejuvenating such urban spaces must be implemented by addressing economic, social, political, and environmental aspects and physical and spatial components (Oluranti, 2012). Japanese city - Kyoto and Chinese cities such as Dali, Haikou are examples demonstrating that fostering a rich historical culture within the urban environment is crucial for revitalizing cities, as it can stimulate economic development. (Zhang,

2019). In the case study of Pauni, India, it is found that traditional sites can be uplifted through integrated conservation and tourism by contributing to the economy (Parlewar & Fukukawa, 2006). Preserving history through urban revival favors the local economy and social structure, including generating more employment opportunities and increased income levels (Bowitz, 2009).

The existing conceptual framework of urban revival in India considers physical, social, economic, environmental, and cultural aspects (Preeti, 2008). It focuses on improving urban living quality, community participation, revitalization, and environmental sustainability impact assessments. An effective framework is essential to identify the issues and challenges and analyze them to improve a city's liveability and well-being of its citizen (Lee, 2009). According to the Ministry of Housing and Urban Affairs (MoUHA) of India, the 'Ease of Living Index' (EoL) is a comprehensive tool for assessing the overall quality of a city with respect to the quality of life, sustainability, economic ability, and citizen perception. Hence, employing an EoL assessment in an urban area effectively identifies and analyzes the key issues and possible solutions. 500-year-old Kuttichira was once a thriving settlement and holds historical significance, which is currently going through its declining phase. The study aims to understand the historical importance of the Kuttichira settlement and identify prevailing socio-cultural and political conditions for developing strategies to rejuvenate the settlement and uplift its economy. A field study was conducted to study the history and document-building typologies. After analyzing the history, a strength and weakness analysis of the settlement was carried out to identify the areas of improvement. In order to quantitatively assess the ease of living of the settlement and community members, an EoL Index assessment was carried out, which involved data collection for 50 indicators of 14 categories in 3 pillars, followed by a perception survey. Certain categories scored less, resulting in the overall EoL score reduction. With the target score set to a hundred, the pillars and their categories with less score were given more importance, and strategies were proposed for improving the score. The perception survey, which acts as the fourth pillar, was done on the population using a random sampling of inhabitants with a sample size of 60. This helped in identifying and correlating the quantitative and qualitative data. From the study of historical significance and EoL Index assessment, strategies were proposed to address the gaps and shortcomings and improve the overall EoL score.

Materials and Methods

The Kuttichira settlement was a Muslim settlement in the coastal region of Kozhikode, Kerala. It was a significant economic contributor to the city and a fully-fledged international trade center for Copra, coir, timber, rice, and spices. The site mostly comprises residential buildings and commercial establishments from 200 years. The historic Kuttichira Mosque, or Mishkal Mosque, is a prominent landmark in the area. The Kuttichira community is a close-knit group of people who take pride in their unique culture with a strong sense of identity. The mosques and sixty-one ancestral homes on the site are of traditional Kerala architecture with spaces designed for the use of Islamic lifestyle.

The 500-year-old settlement is facing a downfall in the economy due to social instability and unsustainable urbanization, which resulted in the decline of trade, shifting of the trading zone to other areas, and extensive migration to other countries (Gayer & Jaffrelot, 2012). The settlement urgently needs a sustainable planning intervention that could bring back the declining settlement by adding new value and preserving its historical significance. The research identified and incorporated many issues, challenges, and suggestions regarding the settlement and its built forms from historians, corporation councilors, and community members.

The primary step in the research involved collecting data from historians, books, and community members since understanding the site's historical significance was important. The historical data obtained from the study ensured that the intervention has to be oriented towards conservation as the settlement had built more than two hundred years old forms. In addition, the settlement's cultural and socio-political norms differing from the rest of the city must be addressed to resolve the existing issues and challenges regarding the properties and their ownership. Thus, the study of history helped recognize the importance of protection and preservation of settlement while carrying out any intervention to resolve the existing issues.

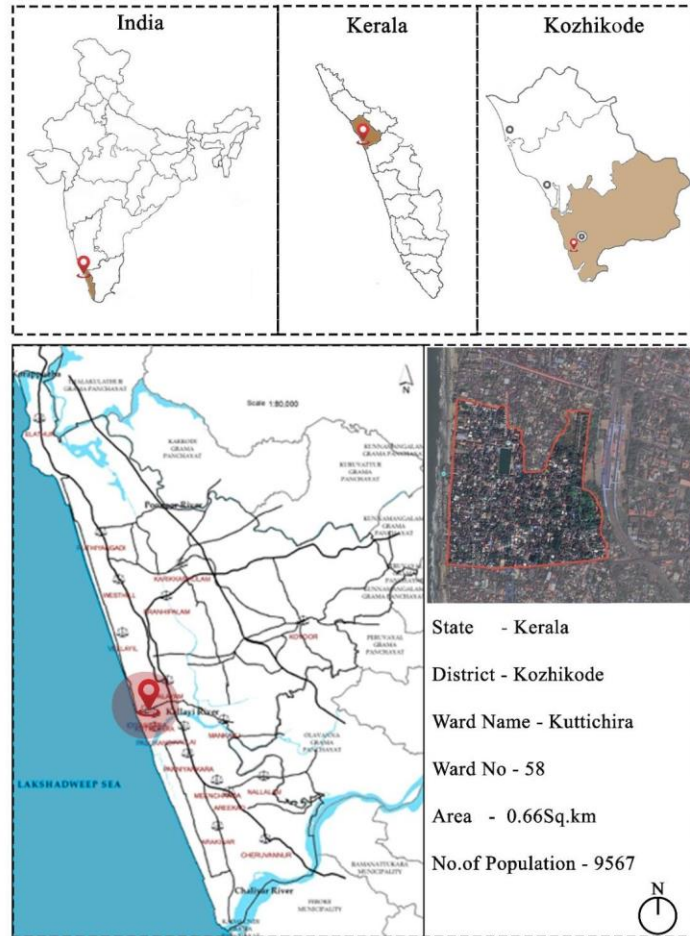
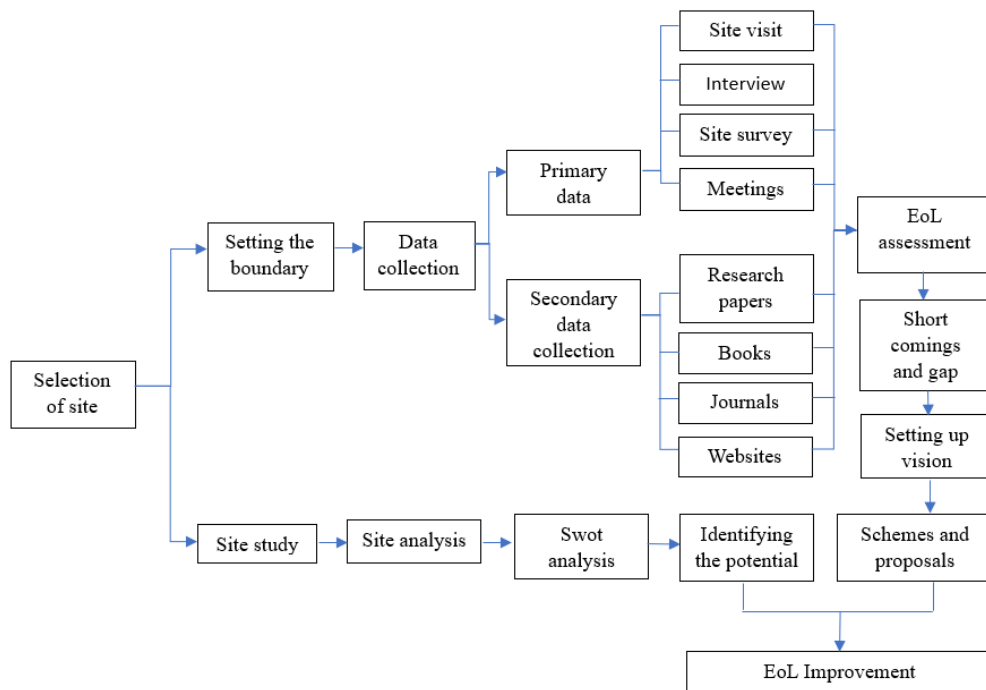


Fig.1.Location map of Kuttichira settlement



Methodology

The current scenario of the site was studied through multiple site visits, which involved mapping residences in the settlement to identify their age, condition, and function. For the quantitative assessment, the EoL Index assessment was carried out. Many Indian cities have high EoL scores ranging from 17, Rampur to 58, Pune (MoHUA, 2018). The EoL assessment carried out helps to identify the position of our study area in the list. It also helps in setting target scores to be achieved in order to improve the liveability of the area under consideration. The final EoL score obtained after the assessment shows the position of our study area in India. In order to move up in the rankings, the total EoL score has to be improved. Among the 50 indicators in 14 categories of 3 pillars, the indicators with less score are identified and addressed. Required data for each indicator was collected from authoritative sources and official documents cited in the EoL manual. The perception survey, which acts as a fourth pillar, was conducted to understand the qualitative aspects of all fifty indicators. The weightage of each pillar is shown in Table.1. The obtained data were evaluated and assessed to provide the best possible solutions through strategic intervention.

Table 1. Ease of Living Index – Pillars, indicators and weights

Pillars	Indicators	Weightage
Quality of Life	1. Education	35%
	2. Health	
	3. Housing and Shelter	
	4. Wash and SWM	
	5. Mobility	
	6. Safety & Security	
	7. Recreation	
Economic Ability	1. Level of Economic Development	15%
	2. Economic Opportunities	
	3. Gini Coefficient	
Sustainability	1. Environment	20%
	2. Green Spaces and Buildings	
	3. City Resilience	
	4. Energy Consumption	
Citizen Perception	All the above	30%

Results and Discussions

The primary study to identify the origin, evolution, and current state helped in understanding the historical significance of the settlement and the need to address its historical values. The findings from the strength and weakness analysis are considered for strategic intervention. The history study and SWOT analysis involved site visits, interviews, and documentation. The EoL assessment helped identify the study area score and areas of improvement. The pillars and its indicator with lower scores resulting in the reduction of EoL score are addressed, and strategies and policies were proposed to improve the area's pillar score and total EoL score.

Historical significance: The origin of the Kuttichira settlement resulted from historical events that took place in the evolution of Calicut City. The advent of Arabs to Kozhikode in 1330, while Zamorins ruled Calicut City paved the way for the origin of settlement. The patronage from Zamorins, and the marriage of Arab traders with the native women resulted in the interlinking of Islamic and Hindu cultures. Such families started settling in the town's western quarters, which paved the way for the Kuttichira settlement's origin (Vaisali, 2014). The Mishkal mosque, constructed in the 14th Century by Yemeni merchant Nahuda Mishkal, an amalgamation of Islamic and traditional Kerala architecture, and the Muchchunthi mosque(Fig.3), built in the 13th century with Hindu Temple architecture, is major the historically significant structures that must be preserved. The settlement consists of 200-year-old ancestral homes or 'Tharavad'(Fig.2), which are mapped to analyze their age, condition, and function to protect and preserve the cultural and built heritage. . The major land marks shown in the Fig.6 shows the area which has major economic and recreational activities. The land use (Fig.7) is majorly residential with only few areas of economic activities.



Fig.2.The traditional houses of Kuttichira settelement (Source: Author)





Fig.3. The Muchchunti Mosque



Fig.4. The Mishkal Mosque



Fig.5. The Jamaat Mosque



Fig.6. Major Landmarks of Kuttichira. (Source: author)

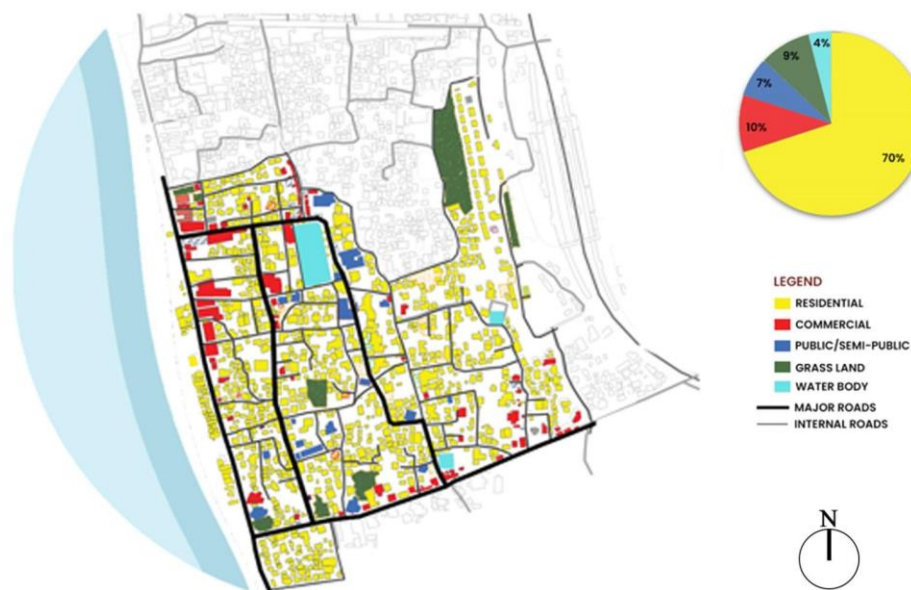
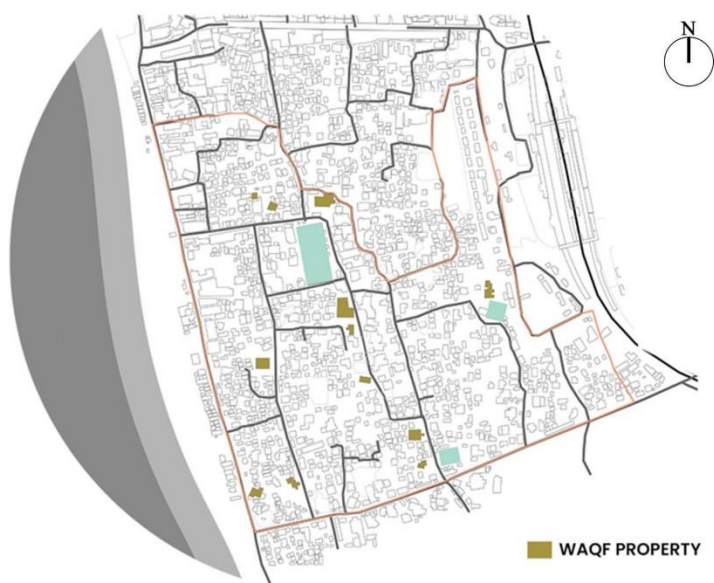


Fig.7.Landuse Map of Kuttichira.(Source: author)

Waqf properties in the settlements: The waqf legislation in India conceptualizes waqf as 'the permanent dedication by any person, of any movable or immovable property for any purpose recognized by the Muslim laws as pious, religious or charitable' (Tabsum, 2017). In the study area, property identified under waqf law will be transferred to the waqf board after the last female descendant is passed away. A few 'Tharavad' and their adjoining land parcels fall under waqf (Fig.8), which calls for the need to incorporate policies that can ensure the protection of such properties even under waqf law. This inalienable charitable property restricts the owners from selling their own property. Hence, the right to intervene in these traditional structures is vested with the waqf board, which might include demolishing historically important ancestral homes or 'Tharavad'.



Fog.8.Map showing waqf properties (Source: author)

Strength, Weakness, and Opportunity Analysis: The major strength of the site is its high heritage value, with the presence of 500-year-old Mishqal Mosque and 200-year-old Kerala traditional houses. The heritage value can be incorporated into tourism and thus act as an economic generator. The beach has a high rate of flow of domestic tourists (Samodh,2019), and hence the, local tourism can be attracted easily to the site. The opportunity to transform the settlement with a heritage value will help protect and promote the's cultural heritage of Kuttichira. The less open space (Table.2) inside the settlement acts as a barrier for the community members, especially females, to have recreational time outside their houses. Hence, the incorporation of recreational areas within the settlement is another need from the findings. Resolving existing ownership issues is inevitable since many Tharavad under such problems become dilapidated in condition.



Fig.9.Tharavad abutting streets (source: author)



Fig.10.Dilapidated Tharavad (Source: author)

Table 2. SWOT Analysis

Strength	Weakness	Opportunities	Threat
<ul style="list-style-type: none"> ▪ Prominent Location. ▪ High Heritage value. ▪ Low Crime rate. ▪ Accessible infrastructure ▪ Close proximity to the beach. 	<ul style="list-style-type: none"> ▪ High Density built form and population. ▪ Streets are not pedestrian friendly. ▪ Poor waste collection. ▪ Encroachment. ▪ Dilapidated houses. ▪ Community Participation is less. ▪ Open space is comparatively less. ▪ Land and properties with ownership issues. 	<ul style="list-style-type: none"> ▪ Utilizing existing Tharavad. ▪ Potential Site for Tourism ▪ Suitable location for restaurants and development of commercial spaces. 	<ul style="list-style-type: none"> ▪ Proximity to sea shore possessing threats of natural disasters such as tsunamis, sea level rising, and cyclones. ▪ Widening of the roads poses a threat to the existing abutting structures. ▪ The different perspectives of the local communities and those of tourists posing cultural threats.

EoL assessment and results: The three pillars and perception survey scores, as shown in Table.3 are affected by certain categories resulting in EoL score reduction. The total score obtained for the study area is 52, and the factors causing this reduction are majorly the 'quality of life' and 'economic ability'. The major intervention has to be carried out in those two pillars with specific to the indicators responsible for the reduction of EoL score.

Table 3. EoL Score Table showing categories requiring improvement

Pillars	Categories	Site Score	Target Score
Quality of Life	1. Education	65.2	72
	2. Safety & Security	90	98
	3. Recreation	5	23
Economic Ability		1.3	2.2
Sustainability		7.7	12
Citizen Perception		72	100

Table.3 shows that the pillar score of Quality of Life has to improve the scores of education, safety and security, and recreation. In the economic ability pillar, the point obtained for 'level of economic development' is causing a major reduction in the total score. Hence, the necessary intervention must be carried out to improve the scores of specified indicators. The perception survey questionnaire (Annexure III) obtained a score of 72 by adding scores of all indicators (Annexure 4), which has been improved to 100 through necessary interventions.

Quality of Life

1. Education: The score obtained for education (Table 3) has to be improved in order to reach the target score of 72. The only school contributing to the reduction of the score is Kuttichira government School since it scored less, as cited in Annexure 11. Kuttichira government school is a public school located on the site and provides primary and secondary education. The insufficient pupil-teacher ratio and lack of smart classrooms in the institute affect the education quality. Thus, uplifting the gaps is required to increase the pillar score.
Intervention: The school can be added to Prism Project (Promoting Regional Schools to International Standards Through Multiple Interventions) to equip the school with science labs, smart classrooms, playgrounds, spacious dining, and computer labs. Nadakkavu girls higher secondary school, Kozhikode, is one example that can be a model for the institution of Kuttichira settlement.
2. Safety and Security: In order to ensure maximum safety and security, the category score has to be increased to 98. Major Road parallel to Kuttichira lies along the coastal line of Kozhikode Beach, which is occupied by illegal lorry parking, creating a major eye sore(Fig.11). Thus, this area eventually ended up as a home to miscreants for drug abuse and alcohol. Kozhikode Corporation has allotted an Authorised parking spot at Vellayil, Thopayil, and Chelavoor.
Intervention: Shifting unauthorized lorry parking to their designated areas with the help of the municipality and well-lit streets can aid in the revival of dark spots in the area. Finance of such projects is to be funded by MLA fund by the Public Works Department (PWD).



Fig.11.Unauthorised Lorry parking (Source: Author)

3. Recreation: The score is very less, as shown in Table 3, since the site has limited recreation opportunities. Hence, the revival of existing ponds within the site is proposed, and green open spaces are allocated to the site.



Fig.12. Proposed Recreational areas (Source: author)

The three interventions are proposed with the aim of improving the scores to set a target by addressing the indicators of Quality of Life with fewer scores.

Economic ability: Since economic ability of the study area (Table 3) has to be improved to ensure adequate economy generation. Many factors contribute to the reduction of score in this pillar, among which the most important is the low level of ec

onomic development and limited economic opportunities. Hence the factors restricting economy generation were identified, and adequate intervention was proposed to reach the target score by utilizing the opportunities of the site. Apart from the 5% of waqf properties, the rest of the properties are owned by the residents where the ownership rights belong to more than hundreds of members of different generations. The complexity in doing the partition and disagreements among the residents have left the fate of ancestral houses in plight. Hence many of them are already dilapidated or may get dilapidated in the future if left unattended. The current economy is majorly run on foreign money. Since the community has an adherence to patriarchal culture and prejudice, which restrict the women from being involved in the economy generation, only 30% contribute to the workforce of Kuttichira. Of these, 10% are teachers, and 20% are online entrepreneurs of authentic Kuttichira food, garments, and handicrafts. These online entrepreneurs lack a platform to showcase their businesses to the real world.

Intervention: Heritage Conservation and Adaptive Reuse

The research proposes a management committee (Fig.13) that includes the personnel cited below. The management committee can function as an organization consisting of local government members and representatives from within the settlement. It will act as a decision-making body for the Kuttichira settlement and its heritage properties. The committee will resolve ownership issues while the owners receive the chance to choose the best decision from

proposed solutions. Two proposals to resolve the ownership issue and protect the ancestral houses have been proposed, providing financial benefits to the community members. The proposals are:

1. Selling the property: From the perception survey, few residents preferred selling their property to move out of the settlement. The management committee can carry out the invitation for taking up such properties by the investors upon agreeing that the Tharavad can be revived for a new use.
2. Sub-lease method: This method allows property owners to retain ownership while the investors can intervene in the structure for adaptive reuse. The ownership and maintenance of such houses will be vested with the investor, while the adaptive reuse will cater as a platform for the residents to carry out their business for the public.

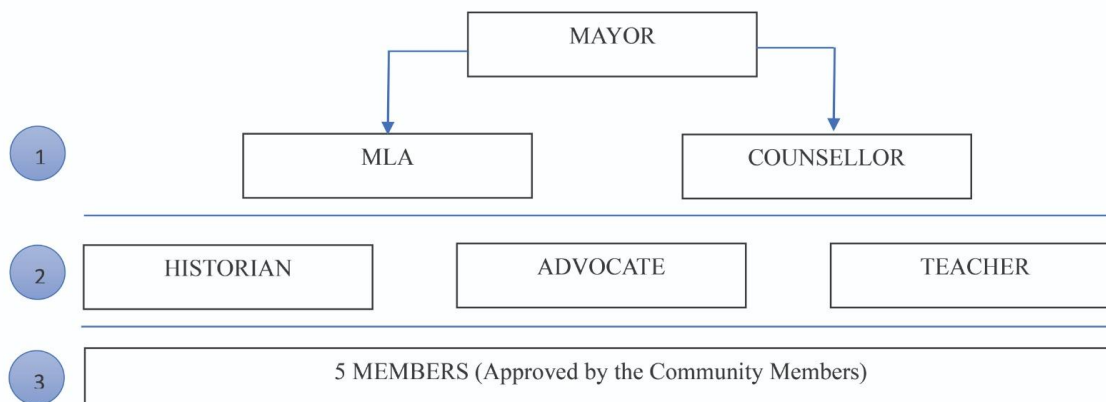


Fig.13.Proposed Management Committee (Source: author)

Such houses, along with the ones without ownership problems, can be provided with the best compatible function so that it can contribute to the revival of settlement. Adaptive reuse (Fig.14). can effectively preserve the heritage while allowing the settlement to boost its economy. The compatible use has to be identified for the structure with the help of detailed study and documentation of structures. Two approaches have been proposed for resolving existing challenges and incorporating the strategy of adaptive reuse of Tharavad. It can generate economic activities and improve the lives of community members and the settlement as a whole.

1. Traditional Malls: The Tharavad, considering their sizes, can incorporate various but limited uses under their roof. The spaces are adequate for the entrepreneurs to set up their businesses in the structure on a rental basis. Hence, they can function as small-scale traditional malls while also preserving their heritage value. This will improve the self-sufficiency of women entrepreneurs who can showcase their ability and participate in an economic generation. The authentic food and other products of Kuttichira, which already have a place in the heart of the people of Calicut, will be able to capture market value and attract customers. Hence the whole products and services of Kuttichira urban revival can be evolved and marketed into a brand. A brand name is proposed, 'ZARAB', which essentially is an amalgamation of 'Zamorins' and 'Arabs' without whom the settlement might have never been born.
2. Some of the Tharavad can act as homestays for tourists who can experience life in a traditional Kerala house.
3. A Tharavad with large rooms was identified for adapting its function to a museum where the history, culture, and related artifacts of Kuttichira can be showcased.



Fig.14.Map showing proposed interventions (Source: author)

All the adaptive use promotes tourism, which helps boost in economy and urban revival of the settlement. Through this, the 500year old history can be shared with the world, enhancing the settlement's economic ability. By increasing employment density, people's perception within the community is set to change since their suggestions to resolve and revive the settlement are incorporated in the research proposals. Thus, the four pillars of EoL assessment can be improved to reach the set target score.

Conclusion

The Kuttichira settlement upholds great historical and cultural significance and evolved as a result of the interlinking of different cultures, which is to be preserved and protected. The questionnaire survey conducted on the sample size helped identify the people's perception of quality of life, economic ability, and sustainability within the settlement. Applying the EoL Index method for assessing the pillars helped identify the gaps and shortcomings. The identified areas of improvement comprise education, health, and economic ability. The strategies adopted to address the gaps involve policy implementation at the local level, urban design to shape the physical environment, and heritage conservation through adaptive reuse. The detailed analysis of data collected on-site showed that an intervention to regain and retain the prosperity of the settlement and its cultural and heritage footprint could only be achieved by the involvement of community members and their sustainable contribution. While the strategies adopted for the revival of settlement focuses on heritage conservation, it enables employment generation and economic development. The participation of community members in conserving the heritage and monitoring allows them to gain social and financial benefits. The research method can be applied in settlements requiring economy generation and sustainable development.

Acknowledgment

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Annexure I

	INDICATOR	MAX SCORE	MIN SCORE	KUTTICHIRA SCORE	TOTAL	PILLAR SCORE
QUALITY OF LIFE(35%)	Education	90	32.1	65.2	426.8	21.3
	Health	79	18	57.2		
	Housing and Shelter	100	30	98		
	WASH & SWM	50	5	59.4		
	Safety & Security	99	0	90		
	Mobility	79	0	52		
	Recreation	56	0	5		
ECONOMIC ROBUSTNESS(15%)	Level of Economic development	99.5	1	18	8.7	1.3
	Economic Opportunities			8		
	GINI coefficient			0		
SUSTAINABILITY(20%)	Environment	78	10	61	268.0	7.7
	Green spaces & buildings	100	0	36		
	Energy consumptio	99	19	71.98		
	City Resilience	100	46	99		
CITIZEN PERCEPTION SURVEY (30%)					72.2	21.7
TOTAL SCORE						52.0

Annexure II

QUALITY OF LIFE		SUSTAINABILITY	
EDUCATION	VALUE	RECREATION	VALUE
Pupil-Teacher Ratio(primary level 1-5)	12	Availability of open space	1
Pupil-Teacher Ratio (upper primary 6-8)	30	Availability of recreation facility	1
Drop out Ratio (primary level)	0		
Drop out Ratio (upper primary level)	0		
Literacy rate	100		
Education expenditure	5.4		
Professionally trained teachers	98		
percentage of school with digital education	85		
National achievement score	0		
HEALTH	VALUE	ENVIRONMENT	VALUE
Prevalence of Water borne disease(Jatidice)	0.2	Hazardous waste generation	0
Prevalence of Vector borne disease(Malaria)	0.1	Water Quality index	7.2
House hold expenditure on health	₹ 2,400	air quality index	80
Availability of health care professionals	0.0027	Availability of green spaces	9.8
No.of hospital beds	0	households using clean fuel for cooking	100
Accredited public health facilities	0		
HOUSING AND SHELTER	VALUE	GREEN SPACES AND BUILDINGS	VALUE
Average length of electrical interruptions	0.06	Availability of green spaces	0.004
Slum population	0	Does the city have green buildings?	0
Beneficiaries under PMAY	0.02	Does the city incentivise green buildings?	0
Households with electrical connections	100		
MOBILITY	VALUE	ENERGY CONSUMPTION	VALUE
Transport related fatalities	0.02	Energy required v/s Energy supplied	0.6
Road density,foot density	0.056	Energy generated from renewable sources	30
availability of public transport	1		
SAFETY AND SECURITY	VALUE	CITY RESILIENCE	VALUE
Total Violent Crimes	0.0083	No.of death	0
Extent of crime recorded against women	0	Has the city implemented local disaster	1
Extent of crime recorded against children	0		
Extent of crime recorded against elderly	0		
WASH & SWM	VALUE		
Houses with piped water supply	100		
Amount of waste water treated	0		
Connected to sewerage network	100		
water supply to household	100		
Swachh Survekshan score	1		

Annexure III

1. Quality of Life				
1.1	EDUCATION	1	2	3
	Do you think education services in the city are affordable?			
	How would you rate the quality of education services in the city?	Poor	Fair	Good
	How accessible (in terms of distance) are education services in the city?	Poorly accessible	Fairly accessible	Easily accessible
1.2	HEALTH			
	How would you rate the affordability of health services in the city?	Not affordable at all	Moderately affordable	Extremely affordable
	How would you rate the quality of health services in the city?	Poor	Fair	Good
	How accessible (in terms of distance) are health services in the city?	Poorly accessible	Fairly accessible	Easily accessible
1.3	HOUSING AND SHELTER			
	How affordable are owned housing facilities in the city?	Not affordable at all	Moderately affordable	Extremely affordable
	How affordable are rental housing facilities in the city?	Not affordable at all	Moderately affordable	Extremely affordable
	Do you face a challenge renting a property?			
	How would you rate the availability of housing in the city?	Poor	Fair	Good
1.4	WASH AND SWM			
	How would you rate the availability of water supply in the house?	Poor	Fair	Good
	How would you rate the quality of water supplied to your house?	Poor	Fair	Good
	How would you rate the garbage collection facility in your house?	Poor	Fair	Good
	How would you rate the cleanliness of your locality?	Poor	Fair	Good
1.5	MOBILITY			
	How would you rate the availability of road facilities to pedestrians and cyclists?	Poor	Fair	Good
	How would you rate the adequacy of public transport in your city?	Poor	Fair	Good
	How would you rate the affordability of public transport?	Not affordable at all	Moderately affordable	Extremely affordable
1.6	SAFETY AND SECURITY			
	How would you rate the safety standards of the city?	Poor	Fair	Good

	How would you rate the emergency response time of the police?	Poor	Fair	Good
	How would you rate the emergency response time of the fire department?	Poor	Fair	Good
	How would you rate the emergency response time of the ambulance services?	Poor	Fair	Good
1.7	RECREATION			
	How accessible are recreational facilities (parks, theaters and complexes) in the city?	Poorly accessible	Fairly accessible	Easily accessible
2. Economic Ability				
2.1	ECONOMIC OPPORTUNITIES			
	How would you rate the availability of job opportunities in the city?	Poor	Fair	Good
	How would you rate the presence of women in your workplace?	Poor	Fair	Good
3. Sustainability				
3.1	ENVIRONMENT			
	How do you rate the air pollution in the city?	Poor	Fair	Good
	How would you rate the noise pollution in the city?	Poor	Fair	Good
	How would you rate the government efforts to address air/noise pollution?	Poor	Fair	Good
3.2	GREEN SPACES AND BUILDINGS			
	How would you rate the availability of open spaces (parks and gardens) in your locality?	Poor	Fair	Good
3.3	ENERGY CONSUMPTION			
	How would you rate the reliability of electricity supply in the home?	Poor	Fair	Good
	How affordable is the electricity supplied to your home?	Poor	Fair	Good
3.4	CITY RESILIENCE			
	How would you rate the city's resilience to disasters?	Poor	Fair	Good
	How would rate the city's response time to disasters?	Poor	Fair	Good
4. Public Services				
4.1	How would you rate the birth registration process in your municipality?	Poor	Fair	Good

4.2	How would you rate the death registration process in your municipality?	Poor	Fair	Good
4.3	How would you rate the process of obtaining building and construction permits?	Poor	Fair	Good
5.Governance				
5.1	How would you rate the community involvement efforts by your municipality?			
5.2	How approachable is the elected official from your municipality?	Not approachable	Fairly approachable	Very approachable
5.3	How satisfied are you with the grievance redressal facilities of the city?	Not satisfied	Moderately satisfied	Very satisfied
5.4	How would you rate the average response time of grievances raised?	Poor	Fair	Good
5.5	How satisfied are you with the city's efforts to disclose reports on finances and service delivery?	Not satisfied	Moderately satisfied	Very satisfied

Annexure IV

Questions
Do you think education services in the city are affordable? 82.35
How would you rate the quality of education services in the city? 79.41
How accessible (in terms of distance) are education services in the city? 88.73
How would you rate the affordability of health services in the city? 76.96
How accessible (in terms of distance) are health services in the city? 93.63
How would you rate the quality of health services in the city? 84.31
How affordable are owned housing facilities in the city? 68.63
Do you face a challenge renting a property? 52.94
How would you rate the availability of housing in the city? 61.27
How would you rate the availability of water supply in the house? 87.25
How would you rate the quality of water supplied to your house? 80.39
How would you rate the garbage collection facility in your house? 44.61
How would you rate the cleanliness of your locality? 61.76
How would you rate the availability of road facilities to pedestrians and cyclists? 55.39
How would you rate the adequacy of public transport in your city? 67.65
How would you rate the affordability of public transport? 80.88
How would you rate the safety standards of the city? 72.06
How would you rate the safety of women at public places in the city? 75.98
How would you rate the emergency response time of the fire department? 83.82
How would you rate the emergency response time of the ambulance services? 81.86
How accessible are recreational facilities (parks, theaters and complexes) in the city? 77.94
How active and involved you feel in the neighborhood? 75.49
Do you think the community is friendly and supportive? 85.29
What is your source of income? 95.10
How would you rate the availability of job opportunities in the city? 57.84
How would you rate the presence of women in your workplace? 69.12
To what extent do you agree or disagree with the cost of living, in your opinion how far below or above do you feel your household income from a level that enables a household to have a decent quality of life in the city? 65.20
How do you rate the air pollution in the city? 66.18
How would you rate the noise pollution in the city? 62.75
How would you rate the government efforts to address air/noise pollution? 53.92
How would you rate the availability of open spaces (parks and gardens) in your locality? 59.80
Has the city implemented local Disaster Reduction Strategies? (Y/N) 64.71
How would rate the city's response time to disasters? 74.51
How would you rate the reliability of electricity supply in the home? 89.22
How affordable is the electricity supplied to your home? 74.02
How would you rate the birth registration process in your municipality? 82.35
How would you rate the birth registration process in your municipality? 79.90
How would you rate the death registration process in your municipality? 79.41
How would you rate the process of obtaining building and construction permits? 61.76
How would you rate the community involvement efforts by your municipality? 65.69
How approachable is the elected official from your municipality? 69.12
How would you rate the average response time of grievances raised? 63.24
How satisfied are you with the city's efforts to disclose reports on finances and service? 58.33
How satisfied are you with the grievance redressal facilities of the city? 65.69

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