

# The Peri-Urban Interface: Local Culture As A Tool For Sustainable Development In The Context Of Kochi

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## Abstract

Peri-urban areas are territory spaces between the rural and urban area. They act as a support system that provide the resources needed for urban expansion, while converting itself into an urban waste store house. This paper describes how local culture acts as a key for sustainable development and proposes how local culture can be used as a tool for peri urban expansion of the Kochi city. Since the early nineties, Kochi has been a witness to rapid urbanization which is primarily due to exponential influx of population from different region in search of new opportunities. The city though, has not been able to expand at this pace due to the space constraints. This has led to the ecological foot print spreading over into the peri-urban areas. This trend can be seen as a threat to the local culture due to the movement towards global urbanization and practices which tends to subdue the local culture. The objective of this paper is to incorporate local culture into this peri-urban expansion to ensure sustainable development at the area in transition, in the context of Kochi city.

**Keywords:** Peri-Urbanisation, Sustainable development, Cultural Landscape

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## Introduction

United Nations Organizations has defined urbanization as the movement of people from rural to urban areas with population growth equating to urban migration. Urbanization is a population shift from rural to urban areas, "the gradual increase in the proportion of people living in urban areas", and the ways in which each society adapts to the change [1]. It is predominantly the process by which towns and cities are formed and become larger as more people begin living and working in central areas. It includes increase in the number and extent of cities. The density of population increases due to the movement of people from less economic regions to more economic areas preferably from less industrialized area to a region where more opportunities are there. It is referred to as the index of transformation to modern industrial one from traditional rural economies. Urbanization study is a vital necessity to the planners and policy makers. Thus the various factors lead the Urbanization to be probabilistic in nature rather than deterministic. Therefore, urbanization is the process of village transforming into towns and towns further developing into cities on the basis of increased modernization, economic developments, socialcultural and political changes and the government policies. The Urban Agglomeration of Kochi, comprising of the city of Kochi and the surrounding areas, is the fast developing region in the State [2]. It is necessary to guide these developments, so that sustainable development is possible and land development and infrastructure

development in a planned manner may support new economic activities and facilitate better living conditions for the people in the that transition area. Moreover, conservation and equity have to be considered. In the state of Kerala, Kochi is the most economically active region. Overspiling of activities in city, more commercialization, more people coming to live in a place causes unplanned urban sprawl which causes concerns related to land use, environment and economy.

## Aim, Purpose and Concern

### A. Aim

The paper aims at providing design strategies to ensure a sustainable development at the area of transition incorporating local culture into the peri-urban expansion. It also aims at restructuring the surrounding fabric by encouraging a high quality of living and making a compact development with a diverse mix of corridor.

### B. Area of Concern

The globalization era aims at a holistic development across any human settlement, be it urban, periphery region or rural with optimal and judicious use of available resource. Cultural globalization can be termed as a phenomenon where the daily life experiences are influenced by the diffusion of ideas and commodities thus reflecting in the cultural expression standardization [3]. There are various interpretations of the impacts of global culture. Some argue that globalization shows a trend towards homogeneity. Globalization also has an impact on religion as there is a rapid diffusion of religion around the world. Local culture has a strong influence in day to day life of an individual. Citizens are hitched to the places, and these places continue to frame the social norms and values. The focus on this paper is on improving the infrastructure and the orderly use of land and other natural resources on the belief that such a planned approach for the physical improvements shall directly contribute to the economic and social wellbeing of the people living and working in the settlement area.



Fig1: Cultural Globalization

## Theoretical Background

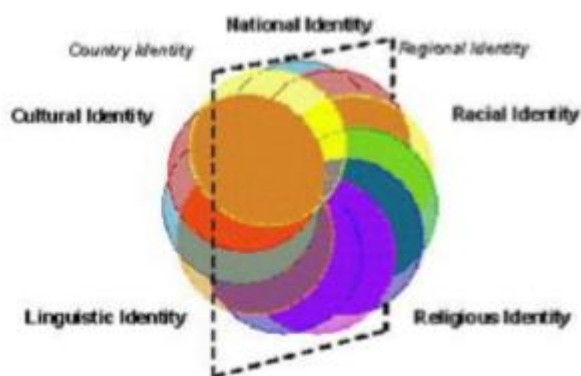
### A. What is Culture?

It can be expressed as a cumulative of way the living which was built step by step by humans through generations [4]. This can be visualized holistically by means of a deep branched tree with each branch depicting various aspects of the culture.

### B. Culture and Sustainability

The various literatures consulted, have a key focus towards how the standard of living can be maintained by overcoming present day environmental constraints. Though some literatures argue that the

'sustainability' is basically securing the society from potential future ecological disaster thus sustaining the life balanced and privileges the rich and the poor equally. Though the general acceptance of sustainable development is a holistic integration of the three goals namely, Social, Economic and Environmental, differing views have also cropped up with the stress on meeting the present needs without compromising on the needs of the future generation. In the recent past, transition which brings culture to the forefront is seen across the world. The stress on ethnic culture promotion is very predominant but the question here is where does culture fit in the holistic sustainable development.



**Fig2: Tangible and Intangible Culture**

Brundtland report showcased the current obsession development based on terrain, culture was introduced to meet the needs defined to make up holistic development both cultural and social. With the gradual evolution seen in the sustainable development since conception, artistic rudiments became more widely incorporated from its initial sideline. Though a practical definition for sustainable development has not been formalized, it has evolved into a holistic approach which encompasses the economic, socio-cultural and environmental viewpoints. Culture in the context of sustainability of cities can be thought of as people having the right to cultural sovereignty leading to culturally sustainable development which is shaped by each individual's culture, belief, values and morals and aesthetics coming together as one for holistic sustainable development of a city.

### **C. Culture and Development**

Culture and development have always appeared to be at the opposite spectrum. But the question is whether we can develop or preserve traditional culture in parallel to economic development. We could concur to this with a few good examples.

Culture and Economic Development: It could be seen that as a customer, western ethnocentrism is considered as a benchmark when thought of development crops up. This implies that any modernization in terms of development has a western flavor though there are several alternative strategies for development. In the recent past, localization which is stimulated by globalization is bringing in the local flavor of cultural exclusively to the development thus leading to a growth of development which is incorporating multi-cultural flavors and churning out a new local cultures.

This multi-cultural and multi ethnicity in society balances the presences of globalization. The point to be made or which needs to be stressed is that each region is well informed and aware to establish its own sustainability models which could incorporate capitalism, democracy, socialism or a hybrid approach where warranted. This notion of self-awareness and acceptance could be learnings from the past which strongly influence how the future must charm out.

Rather than going with a universal model which is being forcefully imposed as a single truth, the world should move forward and gain from the diversity that is brought to the world through globalization. This means capturing the local and diverse elements development model. It is observed in the recent past, developing countries argue that the different ethnicity across the various regions prefer to follow a development path that suits its society and cultural values. They prefer to build around the structure which encompasses its own social and cultural values leading to self-defined political structures. This diverse socio-economic development through localized is actually the for building strong national policies which takes care of the needs and requirements holistically rather than imposing a legacy universal development model.

### City Study And Site Analysis

Kochi is a port city on the south west coast of India and is part of the district of Ernakulum in the State of Kerala. Kochi is often called Ernakulum which refers to the mainland part of the city. Kochi is considered as the commercial and industrial capital of Kerala. In the past, the city has trade with foreign countries like China, Dutch, British, and Portuguese. In the present, port and IT parks evolving as Software hub add to this character of the city. Some of the Characteristics are,

- The economic capital of Kerala
- Most urbanized district (47.56%)
- Green Open Space - 1%of corporation area
- 1/4th of the city area covered with water bodies

#### A. Administrative Bodies

Kochi City Region-Urban local bodies

- a) Corporation of Kochi
- b) Municipalities
- c) Panchayats

#### B. Globalization in Kerala-Impact in Kochi



Fig3: Globalisation happened in Kerala in three phases

#### C. Population Growth of the City

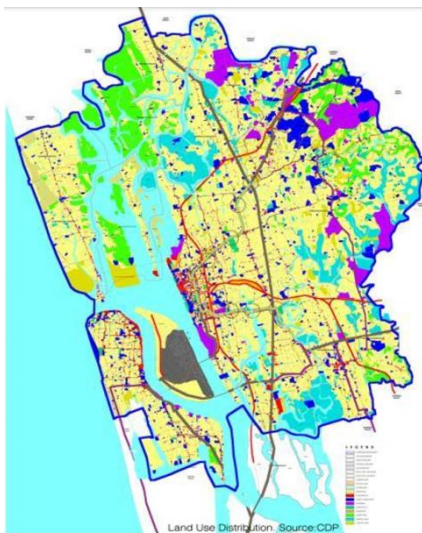
The population growth is seen to have more in the north eastern part of the city and less in the central part. It is analyzed that in the older local bodies of the city, it is witnessing a slow down while the newly added local bodies like Thrikkakara is experiencing higher rate. This is due to increase in the commercial activities of the main city area as well as the growth in residential areas in the peripheries of the city due

to the increased employment opportunities because of IT parks and SEZ. The total Population of the city is 1.3million.

#### **D. Existing Land Use**

Existing Land use in Kochi Corporation shows that the major part of the land covers other than the water bodies and agricultural patches are already developed. And most of the land use seen is Residential. The major part of the land use is comprised by residential use, while commercial activity is seen concentrated in the city core. Other uses are distributed across the city with industrial concentration on the North West area. Observed trends of the land uses are,

- Land use converting from residential to commercial or mixed use.
- Ribbon development of commercial activities is seen along the highways.
- Highway stretch developing into a new lifestyle shopping center.



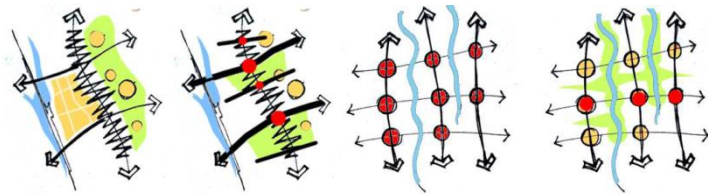
**Fig4: Existing Land Use Map**

#### **E. Existing City Structure**

The city started growing from the islands of Fort Cochin and Mattancherry and was anchored around the backwaters till recently. Still the largest market of Broadway and the existing CBD retain such locational aspects. In the last decade a number of major investment projects have been introduced in the cityscape thereby influencing the city structure. The Bypass stretch host a number of upcoming malls, Port related Projects at Vallarpadom and major IT establishments are located in Thrikkakkara. In this scenario the existing canal network is losing its importance in the city due to lack of use as well as encroachment due to building pressure.

#### **F. Issues and Potentials**

- Exclusive developments in city periphery creating non-interactive urban edges.
- Ignoring inland waterways-canals are becoming the backyard of the city.
- Developers attitude to become global.
- Strengthening the cross linkages by introduction of inclusive public spaces makes it more porous.
- Activating canals by assigning functional role to it.



**Fig5: Issues and Potentials**

### **Site Analysis, Kakkanad**

Kakkanad is a major industrial and residential region in the city of Kochi in Kerala, India. It is situated in the part of the city and houses the Cochin Special Economic Zone, Info Park, Smart City and KINFRA Export. Promotion Industrial Park. It is also the administrative headquarters of the District of Ernakulam Industry Kakkanad is home for a portion of the industrial base of Kochi. It is home for the Cochin Special Economic Zone (CSEZ). Kakkanad is also home for a Software Export Promotion Zone (SEPZ). The international submarine cable systems landing in Kochi has their nodes installed in Kakkanad. The CSEZ houses the Cognizant Technology Solutions, Williams's WRENCH Solutions, and the Sutherland Global Solutions. All these together accounts for 55% of IT exports from Kerala, thus gaining the nickname "IT Capital of Kerala" for Kakkanad.

#### **A. Land Use**

Land use pattern of place is essentially a reflection of its economic and social form and structure. As per the existing land use plan of Kakkanad area have 65.2% of residential land use, 19.32% open space, 10.6% industrial, 5% water body.

- Organic growth of the eastern side of the region because of the Info park.
- Slow transformation of the residential use to commercial in the major axis.
- Fragmented and isolated small open space underutilized.
- Hazardous Industrial use very close to the highly active residential area.
- Lack of community open spaces.

#### **B. Built Height**

The height of the buildings on the sides of the main road are higher than two story indicating the high value of land and the limited plot area. The internal areas are less developed and are predominantly residential in character indicating low rise buildings.

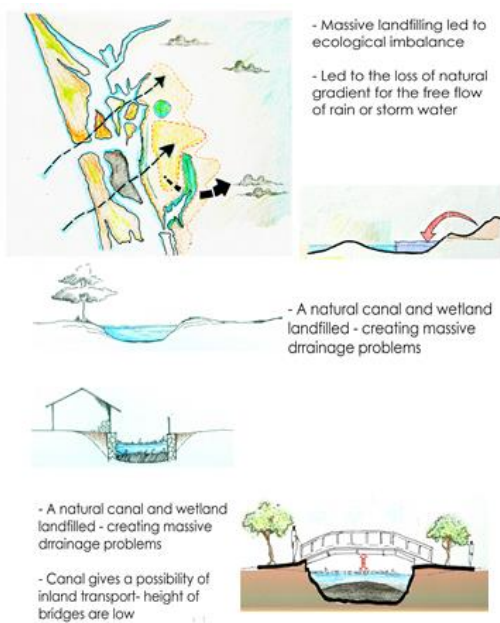


**Fig6: Existing Built Height**

#### **C. Ecology**

Small patches of hydro Morphic saline soil are encountered in the coastal tracts of Cochin. Midland have traces of blackish and laterite soil. Kochi is located in the lowland coastal region. The city is only 1m from the mean sea level, so is easily submersible in case of any natural disaster. The major issues related to ecology are:

- For extensive developmental purpose, the paddy fields and the wetlands were filled up with land at various stages, resulting in a great ecological imbalance.
- Loss of gradient in slope resulting in drainage issues and water logging in the city areas.
- There is a lack of breathing spaces in the area even though there is a huge underutilized vacant land.
- Vacant land of the industrial areas acts as a barrier to the residential area and that creates a dark and scary streets.



**Fig7: Existing streetscapes and its issues**

## Results and Conclusion

### Vision:

Culture as a resource that has to be enriched and enhances for the future sustenance of cities.

- To create a sense of belonging to the people.
- Make environment an active participant of the living system.
- Regeneration of historic areas to encourage economic investments.

### Strategies:

- Activating the canal edge by commercial activities and using the canal for waterway transportation.
- Enhancing and strengthening neighborhood level nodes.
- Community facilities along the open space associated with hydrological system.



- Inclusive public spaces at nodes to strengthen cross linkages.
- Encouraging small scale industries which work on locally available raw materials.
- Strong link to open spaces and connected by landscaped corridor, preserving historical corridor, civic centres.

## **Conclusion**

We will not be able to stop globalisation, but we can definitely come up with ways which helps us to create breathable and liveable spaces. Rapid population and growth, in the face of rural oriented, low capacity and fragmented peri urban local governments, will result in significant stresses in terms of the delivery of social and environmental services, transportation infrastructure etc. Keeping that in mind the commercial development has been organized along the major arteries and not allowing the commercial areas to grow to the residential areas. The canals in the area are rejuvenated by giving a functional role to it which attracts the people to move around there making it so lively. The waterway transportation can be made active by rejuvenating the canals and the development can be oriented towards the natural setting of the city to form a healthy interaction between human and nature. The current trend of plot amalgamation has been considered while designing to utilize the maximum potential of the land and create local identity through built form, open space structure and activities.

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