

**URBAN CONSERVATION APPROACH TO DEVELOPMENT
PLANNING OF LOCAL AREA WITH SPECIAL REFERENCE
TO BATTICALOA MUNICIPAL COUNCIL AREA**

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ABSTRACT

An urban area is a place with a character which has developed with time. So every urbanity is a place of uniqueness which will have its own inherited properties, identity and a development potential. The conservation of such characteristics and attributes which assist to define its urban character is a specialized skill which should be acquired by development planners. Hence urban conservation in development planning of a local area has been a challenging but an important issue. Many contemporary researches are being carried out to explore conservation potentials within the parameters of prime aspects of urban development, which are economic, physical, social and environmental aspects.

In Sri Lankan context, it is revealed that the urban development plans which are being prepared for the urban areas, are not concerning the potentials of urban conservation. According to the preamble of UDA law 41 of 1978, the preparation of development plans for urban areas should consider the social, physical and economic aspects. Further study on the document reveals that it has hardly any emphasis on urban conservation.

Today historic towns are being threatened and physically degraded, damaged or even destroyed by the impact of unplanned urban development. This can be considered as a result of not realizing the urban conservation potentials. The historic core areas are being protected, but the immediate locality is developed with no consideration given to conservation. So the lack of consideration of urban character conservation is a serious problem in local town planning practice.

Accordingly, the layering proved that Bataloa streets show high association of water fronts. The relationship of built fabric and water body is shaping the cities character. The occurrences of historic buildings in streets are at 3% yet in such a street occurrence of multiple conservable buildings are at 86%. The occurrence of city blocks with conservable buildings is 21%. In such a city block multiple occurrence of such streets are at 73%. Of above 67% of such streets and buildings restricted to Turtle Island. Hence the potential of conservation is high due to condensation of such urban areas. The Dutch fort which was also recognized by public as the best land mark of Bataloa and 2nd best place to be conserved is situated in this area. But the objects such as Kalady bridge and light house are in isolation. There for individual objects also have to be recognized for conservation based local area development plan.

DECLARATION

I declare that this is own work and this dissertation does not incorporate without acknowledgment any material previously submitted for a Degree or Diploma in any Other University or institute of high learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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CHAPTER 01

1.1 Background

An urban area is a place with a character which has developed with time. So every urbanity is a place of uniqueness which will have its own inherited properties, identity and a development potential. The conservation of such characteristics and attributes which assist to define its urban character is a specialised skill which should be acquired by development planners. Hence urban conservation in development planning of a local area has been a challenging but an important issue. Many contemporary researches are being carried out to explore conservation potentials within the parameters of prime aspects of urban development, which are economic, physical, social and environmental aspects.

In Sri Lankan context, it is revealed that the urban development plans which are being prepared for the urban areas, are not concerning the potentials of urban conservation. According to the preamble of UDA law 41 of 1978, the preparation of development plans for urban areas should consider the social, physical and economic aspects. Further study on the document reveals that it has hardly any emphasis on urban conservation.

According to Charter for the conservation of historic towns and urban areas (Washington charter 1987) Adopted by ICOMOS General Assembly in Washington, DC, October 1987,

The urban areas can be found out associated with historic centers as well as natural and man-made environments. Beyond their role as historical documents, these areas embody the values of traditional urban cultures. Today many such areas are being threatened, physically degraded, damaged or even destroyed, by the impact of the unplanned urban development. Furthermore it is also threatened by industrialization which follows development. This can be considered as direct impacts of undervaluation of development potentials associated with urban conservation.

1.2. Problem Definition

Today historic towns are been threatened and physically degraded, damaged or even destroyed by the impact of unplanned urban development. This can be considered as a result of not realizing the urban conservation potentials. The historic core areas are being protected, but the immediate locality is developed with no consideration given to conservation. So the lack of consideration of urban character conservation is a serious problem in local town planning practice.

The practiced development regulations are set as and laws enforceable to all urban areas of the country excluding very few specially designated places. Yet the urban fabric of the country is so vibrant in its character and also defer due to geographical formation and features. The importance of study on urban character further expands when considering the multiplicity of urban character in within the country as described below.

- Urban character map of Trincomalee urban area (Appendix A) : the scattered built fabric resulted, restricted by mass government occupation. The buildings are laid at dense grid with positive interaction with all water bodies.
- Urban character map of Baticaloa urban area (Appendix B) : the condensed built fabric surrounded by water densificate towards the center. The building densities reduce at the water front with relatively organic street network.
- Urban character map of Mathara urban area (Appendix C) :A large urban path with a huge suburb through the land. In land water body existence at low.
- Urban character map of Kalmunai urban area (Appendix D): dense urban areas with no sprawl. Organic, narrow streets within the city blocks and multiple layer activity patterns are sustaining the needs of the inhabitants.

- Urban character map of Hambanthota urban area (Appendix E) :
Salteries, the sea and harbor dominate the urban character. A new city is developing at a grander scale.

At macro scale all above urban areas fall under urbanities situated along eastern and southern coast. Yet they have a striking variety of urban character at present. The present development trends in Sri Lanka's development promises that these areas are to be subjected to rapid growth in next decade. The existing law which and practice which does not acknowledge the identity and character of a specific urban area will soon push the above areas as well as the country in to a urban homogeneity.

1.3. Research Objective

The study intends to explore urban conservation in global arena identify the authoritative elements of urban character via literature survey and via study of urban area development projects which associate urban conservation. Then to test the social acceptability of above elements as elements, which defines the character of place via field survey in the study area in order to demonstrate a possible conservation approach to urban development planning in local areas.

1.4. Methodology And Study Process

The study is based on case study method. A local urban area is to be studied for applicable law and global theoretical knowledge (literature survey). The principals adopted from the above task are to be used as layers for the further analysis (layer method) on case study area. The identified conservation potentials from above exercise are to further proven/disprove from a public perception survey. The survey intends to use sampling method, both random sampling and selected sampling. Then to comparison will conclude with a demonstration of possibility of a conservation approach to development planning for a local area, or vise versa.

The chart explaining the flow of study process is shown in the figure 1.1 as follows.

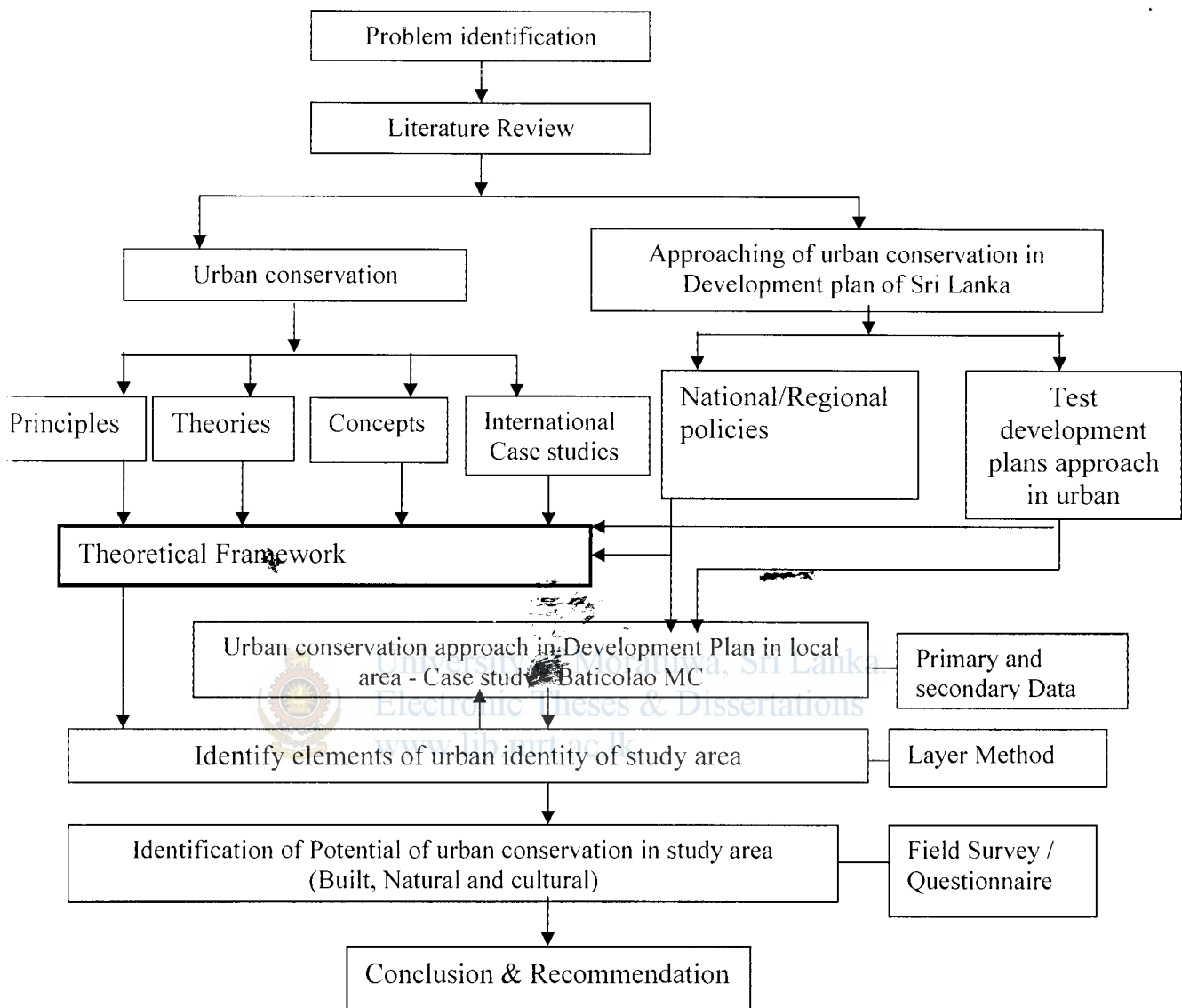


Figure 1.1 Study Process

1.5. Scope And Limitation

Urban conservation is assumed as a way of preserving urban character disregarding all socio economic rationales which are applicable for the place..urban conservation is to be categorised in to the groups of natural,manmade and cultural and analysed accordingly. study not intends to prepare development plan but to identify the ways of value and applicability of conservation of urban character in such a plan.

The theoretical framework which is organized based only on currently available literature. Under the empirical work it limits to do only reconnaissance survey only for the study area. The surveys will only be carried out in accessible areas within study area due to security reasons.



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CHAPTER 02

2.1 Introduction

This chapter expects to study the work about the conservation approach in the local and global arena in charters, principals, theories and in development plans. Furthermore, it can also be noticed that many scholars have been expressing opinions on this subject. Especially their views, definitions, concepts, principles and applications can be summarized as follows.

2.2 Urban Conservation

The urban conservation has been defined in many ways as follows

“.... imbued with a message from the past, the historic monuments of generations of generations of people remain to the present day as living witness on their age-old traditions. People are becoming more and more conscious of the unity of human values and regard ancient monuments as a common heritage. The common responsibility to safeguard them for future generations is recognized. It is our duty to hand them on in the full richness of their authenticity” ICOMOS (1992).

In searching for ways and means to revitalize the urban setting to provide for the lost psychological roots, the professionals have found refuge in the historic settings that having given the cultural needs a spiritual existence have become a cultural phenomenon. Today these setting are a key subject in intellectual forums, resulting in an increasing interest in urban conservation

Urban conservation has also been considered as a management tool in local area development plans that enhance the value of the city.

Urban Conservation as a management tool , is able to facilitate a desirable symbiosis between man and environment by respecting the cultural values of a setting. It is also

capable of managing the changes of the urban setting, thus guiding a setting according to the timely-evolution of man and his society.

Emphasizing historic, architectural or aesthetic merits of the physical fabric, these policies ignore phenomenological values of a living setting.

“Being aware of the limits of a research of this nature, the degradation of life in urban space as a result of urban conservation is defined as the problem to be focused onto. Once the contribution of the society in terms of its value system or life patterns in shaping an environmental quality of an urban space is considered, and the erosion of life is placed within the cultural needs of an eastern urban setting that used to be a theatre of” Munasingha. H (1998)

Hence it confirms with the assumptions of the study which hypothesized that conservation of urban character is pro-development oriented.

2.3 Evolution of Urban Conservation Concepts

In the evaluation of urban conservation concepts, man has considered past as heritage that protected symbols and cultural continuity. Accordingly,

“Ever since man became aware of the concept of time, symbolic remains of the past were proclaimed an inheritance. This appreciation of the past for its documentary values, by enhancing man’s knowledge of man, provided him with an orientation in time and space. Urban settings that represented a conquered nature by developing a reciprocal relationship between man and nature were also protected for symbolic values” Munasingha. H (1998)

But heritage is not just shows the past that are entities of inseparable from environment.

The concept of heritage was significantly enriched by the Italians. Petrarch, who noted that the monuments were not just representations of the past, but “... important entities

inseparable from environments in which they were placed” pioneered this new revival of the concept of heritage

This concept of cultural heritage was expanded to an international level. In this context, the first international charter was established.

“The first international charter was drafted in 1931 in Athens. This acknowledged the uniqueness in each case, and recommended regular and permanent maintenance to protect the cultural inheritance. The Athens Charter recognized the city as one element with a social, economic and political complex, emphasizing urban space as a totality”.

The Venice Charter of 1964 furthered protection of heritage globally within the present awareness of cultural heritage.

The charter defines the heritage as follows,

“ imbued with a message from the past, the historic monuments of generations of generations of people remain to the present day as living witness on their age-old traditions. People are becoming more and more conscious of the unity of human values and regard ancient monuments as a common heritage. The common responsibility to safeguard them for future generations is recognized. It is our duty to hand them on in the full richness of their authenticity”

After the above definition, heritage was referred to as conservation as follows.

The Burra Charter drafted by the Australian ICOMOS in 1977 states,

“... the aim of conservation is to retain the cultural significance of a place and must include provision for its security, its maintenance and its future”

As a result of that above consideration, The International Council on Monuments and Sites (ICOMOS) adopted the Charter for Conservation of Historic Towns and Urban Areas in 1986, identifying historic urban areas for their role as historical documents and the embodiments of values of traditional urban cultures.

The charter, emphasis to the continuity of urban settings, notes five qualities that are to be protected.

- a) urban patterns as defined by lots and streets;
- b) relationship between buildings and green and open spaces;
- c) the formal appearance, interior and exterior of buildings as defined by scale, size, construction, materials, color and decoration;
- d) the relationship between the town or urban area and its surrounding setting, both natural and man-made;
- e) the various functions that the town or the urban area has acquired over time;

These key elements of the urban form demonstrate and the expression of its image, but it is their specific compositional order, which is responsible for holding to a living society

A significant development of the concept of heritage in terms of its orientation towards values can be identified in the definition of the Draft Medium Report (1989) of UNESCO,

The entire corpus of material signs, either artistic or symbolic, handed on by the past to each culture, and therefore to the whole humankind. As a constituent part of the affirmation and enrichment of cultural identities, as legacy belonging to all humankind, the cultural heritage gives each particular place its recognizable features and is the store house of human experience Munasingha. H (1998).

This definition is a landmark, moving away from the “conventional” emphasis on the merits to enrich the heritage values.

The evolution of the concept of value in environmental ethics, animal rights, ect., is capable of preparing grounds to render a better protection that facilitates a cultural continuity.

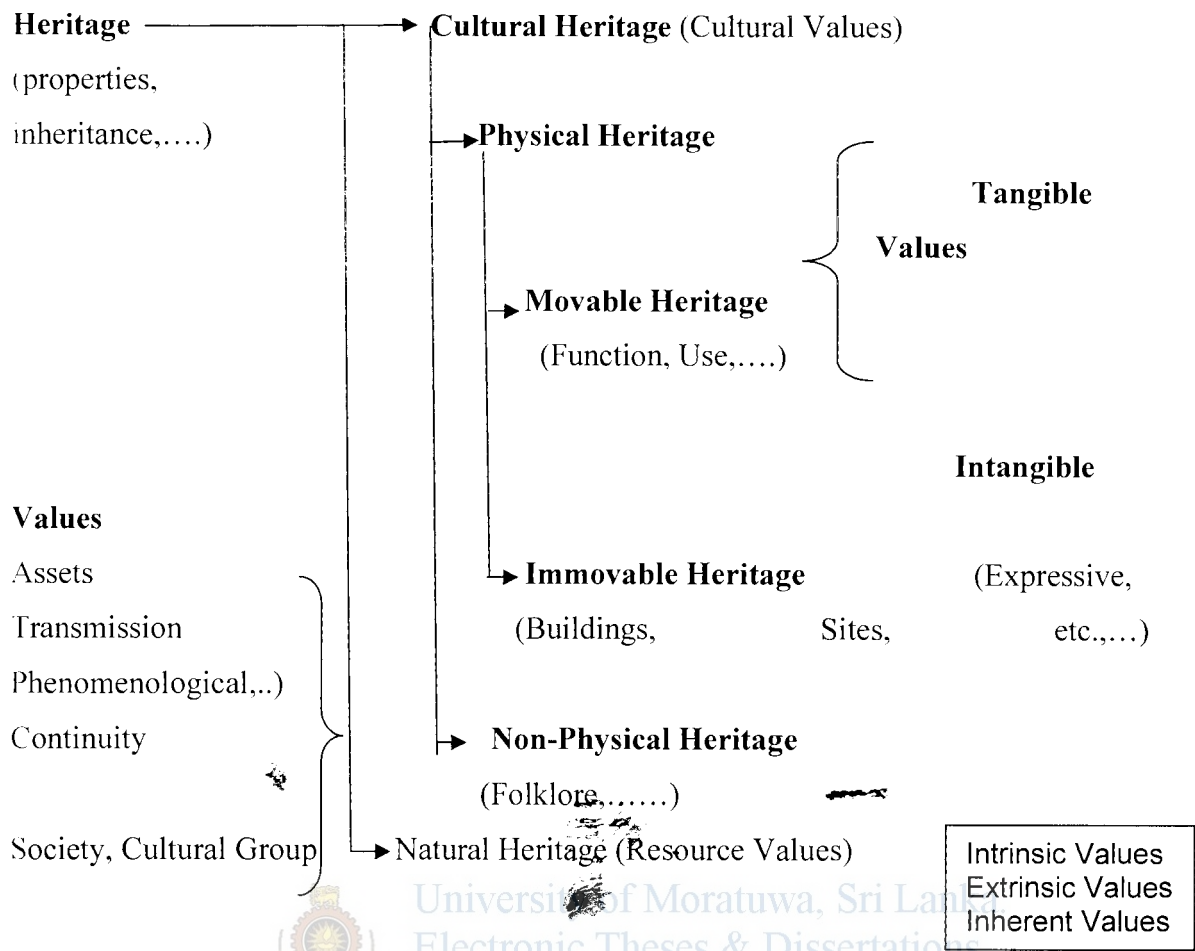
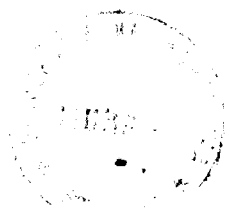


Figure 2.1 Heritage, its properties and its values
 Munasingha. H (1998) urban conservation and city life

Source:

The concept of heritage that possesses tangible and intangible values, can be divided into cultural and natural heritage, Dividing cultural heritage into physical and nonphysical, and physical heritage as movable and immovable, Here it is aimed at focusing on the immovable cultural heritage, even though man, being a product of nature, this division may give rise to contradiction

The key concepts of the society, structure and organization, makes the role heritage plays in shaping its identity detectable. Thus a proper way of protecting cultural heritage is by ascribing it with inherent values, making its a moral duty. The re-interpretation of the decree issued by the revolutionary government in France demonstrates the need to



bring in the concept of values to heritage protection, and strength of ascription of inherent values. Taylor (1986) notes,

This is the value (inherent value) we place on an object or a place (such as work of art, a historical building, a battlefield, a wonder of nature, or an archaeological site) that we believe should be preserved, not because of its usefulness or its commercial value, but simply because it has beauty, or historical importance or cultural significance. When an object or place is valued in this way, it is considered wrong to destroy or damage it, or to allow it to deteriorate through neglect. Efforts are made to preserve it in good condition and to protect it from vandalism. y a heritage, and makes it the nest of a continuous living. Munasingha. H (1998)

Since protection of urban heritage must be a part of an overall plan use and environment planning, the integrated approach has potentials to bring in justice to urban heritage and its users.

In this process of evolution, urban heritage considered as urban conservation.

Urban heritage is defined as the unique urban qualities that represent the way of life generated in the setting, and urban conservation is defined as management of that quality; not of a geographically-delimited city or a district, but their expressive qualities, aiming at protecting an urban cape as an artifact and an environmental setting. A threefold approach can be proposed to accomplish this, firstly to evaluate an urban heritage within the cultural context, secondly to develop conservation Actions, and then thirdly to ascribe the as describe the heritage with inherent values to practice urban conservation. Such an approach proclaims the particular urban qualit

Accordingly, urban conservation has its high potentials and can be incorporated in the integrated planning.

The ICOMOS Charter of 1985 deems that it is necessary to integrate urban conservation in a coherent policy of economic and social, and urban and regional development.

2.4 Urban Conservation Principles

According to the Donald Appleyard (1979) Council of Europe committee on Monuments and sites has been identified 11 principles that are can be summarized as follows.

1. The European architectural heritage consists not only in the most important monument : it also includes the groups of lesser buildings in old towns and characteristic villages in their natural or manmade settings.

For many years, only major monuments were protected and restored and then without reference to their surroundings. More recently it was realized that, if the surroundings are impaired, even those monuments can lose much of their character.

Today, it is recognized that entire groups of buildings, even if they do not include any example of outstanding merit, may have an atmosphere that gives them the quality of works of art, welding different periods and styles into a harmonious whole. Such groups should also be preserved.

The architectural heritage is an expression of history and helps us to understand the relevance of the past to contemporary life

1. The past as embodied in the architectural heritage provides the sort of environment indispensable for a balanced and complete life.

In the pace of a rapidly changing civilization, in which brilliant successes are accompanied by grave perils, people today have an instinctive feeling for the value of this heritage.

This heritage should be passed on to future generations in its authentic state and in all its variety as an essential part of the memory of the human race. Otherwise, part of man's awareness of his own continuity will be destroyed.

2. The architectural heritage is a capital of irreplaceable spiritual, cultural, social and economic value.

Each generation places a different interpretation on the past and derives new inspiration from it. This capital has

European charter of the Architectural heritage been built up over the centuries: The destruction of any part of it leaves us poorer, since nothing new that we create, however fine, will make good the loss.

Our society now has to husband its resources. Far from being a luxury, this heritage is an economic asset which can be used to save community resources.

3. The structure of historic centers and sites is conducive to a harmonious social balance.

By offering the right conditions for the development of a wide range of activities, our old towns and villages favored social integration. They can once again lend themselves to a social mix.

4. The architectural heritage has an important part to play in education.

The architectural heritage provides a wealth of material for explaining and comparing forms and styles and their applications. Today when visual appreciation and firsthand experience play a decisive role in education, it is essential to keep alive the evidence of different periods and their achievements.

The survival of this evidence will be assured only if the need to protect it is understood by the greatest number, Particularly by the younger generation who will be its future guardians.

5. This heritage is in danger.

It is threatened by ignorance, obsolescence, deterioration of every kind and neglect. Urban planning can be destructive when authorities yield too readily to economic pressures and to the demands of motor traffic. Misapplied contemporary technology and ill-considered restoration may be disastrous to old structures. Above all, land and property speculation feeds upon all errors and omissions and brings to naught the most carefully laid plans.

6. Integrated conservation averts these dangers.

Integrated conservation is achieved by the application of sensitive restoration techniques and the correct choice of appropriate functions. In the course of history the heart of towns and sometime villages have been left to deteriorate and have turned into areas of substandard housing. Their restoration must be undertaken in a spirit of social justice and should not cause the departure of the poorer inhabitants. Because of this, conservation must be one of the first considerations in all Urban and regional planning.

It should be noted that integrated conservation does not rule out the introduction of modern architecture into areas containing old buildings provided that the existing context, proportions, forms sizes and scale are fully respected and traditional materials are used.

7. Integrated conservation depends on legal, administrative financial and technical support.

Legal

Integrated conservation should make full use of all existing laws and regulations that can contribute to the protection and preservation of the architectural heritage. Where such laws and regulations are insufficient for the purpose they should be supplemented by appropriate legal instruments at national, regional and local levels.

Administrative

In order to carry out a policy of integrated conservation, properly staffed administrative services be established.

Financial

Where necessary the maintenance and restoration of the architectural heritage and individual parts thereof should encouraged by suitable forms of financial aid and incentive, including tax measures.

It is essential that the financial resources made available by public authorities for the restoration of historic centers should be a least equal to those allocated for new construction.

Technical

There are today too few architects, technicians of all kinds, specialized firms and skilled craftsmen to respond to all the needs of restoration.

It is necessary to develop training facilities and increase prospects of employment for the relevant managerial, technical and manual skills. the buildings industry should be

Conservation Experiments

Urged to adapt itself to these needs. Traditional crafts should be fostered rather than allowed to die out.

8. Integrated conservation cannot succeed without the co-operation of all.

Although the architectural heritage belongs to everyone, each of its parts is nevertheless at the mercy of any individual.

The public should be properly informed because citizens are entitled to participate in decisions affecting their environment.

Each generation has only a life interest in this heritage and is responsible for passing it on to future generations.

9. The European architectural heritage is the common property of our continent.
10. Conservation problems are not peculiar to any one country. They are common to the whole of Europe and should be dealt with in a co-ordinate manner. It lies with the council of Europe to ensure that member states pursue coherent policies in a spirit of solidarity.

Above principles have been considered again in the ICOMOS seminar in 1987 and that can indicated as follow

The principles lay down by the ICOMOS seminar held in Brazil in 1987 marks a turning point in urban conservation by identifying city as an historical entity and the physical result of a social-productive process. These principle recommend, maintenance and enhancement of reference patterns needed for the expression and consolidation of the citizenship, should be the aim of urban conservation. Considering that one of the characteristics of urban historical sites is their manifold functions, their preservation should not take place at the expense of severe use limitations, even when the allowed uses are of the kind referred to as cultural. They should be, in fast, necessarily shelter both the universes of work and of everyday life, Success of integrated conservation depends on legal, administrative, financial and technical supports and the way they are interwoven into the value system. Munasingha. H (1998)

2.5 Analytical Tools to Identify Urban Character

The conservation plans also emphasize the strength of urban morphology as a basis for urban conservation.

Urban morphology, as an analytical tool, is able to provide information on the making of an urban form and also to evaluate phenomenological values. Scrutinizing the

evolutionary pattern of an urban form within its historic-social context, through an analysis of physical components and spatial structure criteria, it can grasp the life lived in it. The urban intervention, being a historical process in itself, is benefited in terms of enhancing a continuity of an urban quality if studying of forms from this perspective is pursued.

As Butina (1987) notes morphological analysis of urban form provides data on The overall structure and its development process, thus being of immense use in the formulation of comprehensive conservation policies.

The grounds to ascribe values on each quarter through urban conservation. Papageorgious-Ventas (1983) advocates,

“through an integrated and co-existence of city quarters of different periods which retain their image and remain faithful to their structure and original concepts, a continuity of urban form can be restored; without ruling out changes, adaptation and innovations, man’s indispensable demand for ‘modernization’ could be facilitated, reinforcing identity and existence of society in urbanscape.” Papageorgious Ventas (1993)

Following aspects are noted by Papageorgious - Ventas, in the urban conservation approach development

1. Determination of the exact location and delineation of the quarters in question.
2. Typological analysis of the spatial characteristics and qualities of the urban fabric.
3. Functional interaction between the different areas of the quarter. Study of the feasibility of an incorporation of new uses suitable for the area.
4. Analysis of street images and the space of urban interaction. Visual sequence investigations.

These are the important components of a city from,

The map, on the its hand, is useful in formulating a development-oriented conservation for its potentials to identify uses, activities, and to manage new investments.

“observingthe spaces where life occurs are places agrees with linking place making and continuity of life. An urban conservation approach that enable place-making by enhancing the diverse phenomenological values of the urban space, is the one that is capable of rendering an appropriate protection to urban heritage.” Norberg-Schulz (1980),

Following figure shows the above three phenomenological values

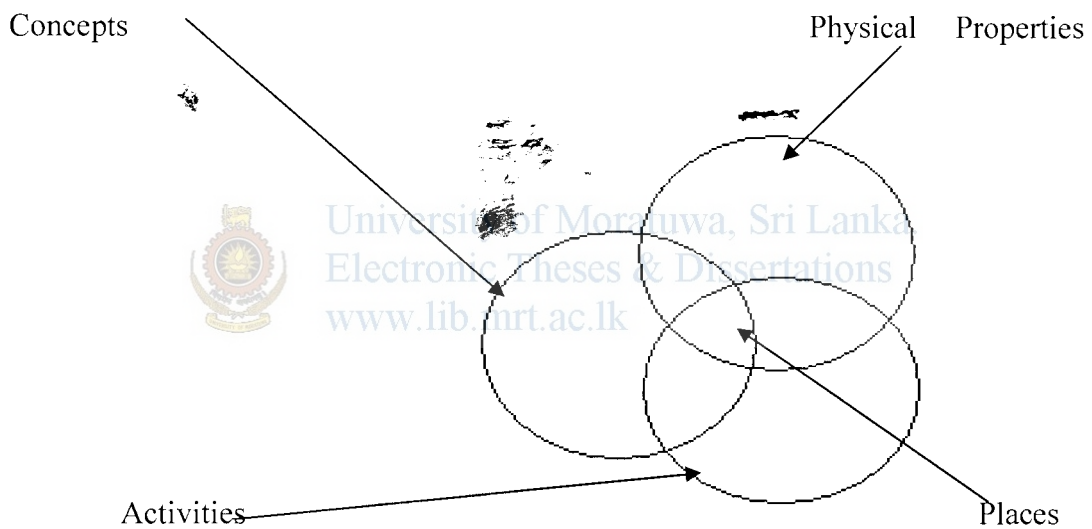


Figure 2.2 Three constituents of place

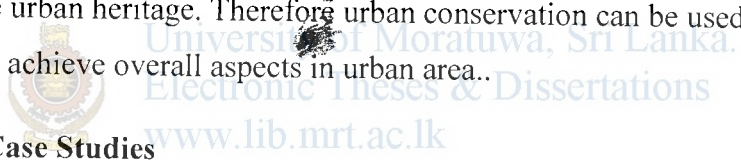
Source: Canter 1977 Three constituents of place

The recent attempts of the World Heritage Centre to formulate urban design guidelines for the historic cities acknowledge the need for a pragmatic theoretical approach based on diverse values,

In the developing world, most of the cities were either built or substantially shaped by colonialism. Incorporating them on an international trade network was also helpful in maintaining their established power. In the post-independent era, these cities have lost this economic base, becoming vulnerable to neo-colonialism. Having been owned by a social group that was often disliked for depriving the cultural aspirations of the locals, these cities can proclaimed a heritage for their acquired 'new' cultural significance.⁹⁵ Conserving urban space, rather than historic cities or districts, as a cultural setting by identifying its phenomenological values is more meaningful, but lack of sound theoretical underpinning have been a problem for the development of this type of an approach. Munasingha. H (1998)

Urban conservation should not only protect the heritage but should also improve the quality of life by opening up for fresh social life.

Accordingly, in the urban planning we should concentrate on to the economic benefits while protecting the urban heritage. Therefore urban conservation can be used as management tool to achieve overall aspects in urban area..



2.6 International Case Studies

It is important to examine the international experience regarding the urban conservation. In that context, four urban conservation practices are discussed as follows.

2.6.1 The Bologna experience

Planning and Historic Renovation in a Communist City, The renovation of the historic center of Bologna has become widely known, both in Italy and internationally, as an example of what an urban administration can do to prevent the physical decay of its historical architectural heritage, and, at the same time, create the conditions necessary to preserve the sociological characteristics of the population living in the urban center.



Planning and urban renovation in Bologna involves many aspects of the history of urbanization in postwar Italy, has had its own evolution, and is still, at the present moment, in progress.

The first master plan for the city, adopted in 1955 and approved by the government in 1958 (piano Regolatore General [PRG]), did not change these initial choices. Bologna now has a population of approximately 500,000. In 1951, it had 340,000 inhabitants. About 80,000 people live in the historic center.

The new master plan adopted in 1960 (and approved in 1965 by the central government) were intended to

1. Oppose the formation of speculative gains in the land and housing markets
2. Increase the role of public housing agencies in the shaping of development
3. Improve the housing conditions of the working classes and the low-income groups
4. Rebalance the development pattern in the metropolitan area, orienting the location of industries and preserving agricultural land
5. Project the historical heritage of the urban center. The plan specifically modified all the regulations concerning demolitions in the historic center, and in so doing it opened the way to the formation an original proposal for the urban center.

This is, in a nutshell, the essence of the Bologna plan for the historic center: an ability to function as a good (methodologically correct) restoration plan and an intention to project the interests of the working classes living in the historic center, and, in so doing, to be a program of integral conservation of the social, cultural, economic, and artistic characteristics of a city.

The conservation program proposed by the Bologna Administration is aware of this historical reality and of the nature and interests of the economic forces that are shaping the city. The analytical work developed by the Bologna administration led to three major products that represent the substance of the plan and the conservation program for the

historic center: The proposals contained in the Bologna plan certainly represent one of the most interesting innovations in Italian planning practice. Many cities, in this decade, have adopted programs and a methodology inspired by those of Bologna and has shown interesting results.

Bologna need not be a model for Venice, or for any other city; each of them has a particular structure, deriving from its history, its particular problems, and its own social and economic situation. Bologna shows simply that a coherent methodology and a democratic decision-making process can do something to save the invaluable character of the historic center. Bologna shown that the battle for a better city is not lost. Donald Appleyard (1979)

2.6.2 Baltic experience

Transformation process of the three capitals is somewhat similar. The Hanseatic league built Tallinn and Riga as port towns, and largely influenced the transformation of Vilnius through its trading activities.

Riga and Tallinn, as port cities, have better potentials to paint the picture of a free setting for the market economy than Vilnius, which depends on its identity as a multicultural city promote foreign investment.

Tallinn, considered as the best preserved Hanseatic town on the cost of Baltic sea, was first mentioned in 1154 by the Arabic geographer Al-Idrisi. The medieval city structure, street layout, squares, town walls and the esplanade along with the Town Hall, guildhalls, armory, almshouses, churches, monasteries and ancient spires create a strong urban character resulted by the Lubeck City Charter that ruled Tallinn for six centuries since 1248.

The Baltic city, as any other colonial city, was no built for the locals but for the aliens who came to rake the wealth of the periphery to the centre. The Soviets saw these cities

as potential tourist attractions, and built hotels and improved necessary services for the visitors.

The economic potentials of urban should have been made a reason for conservation. The changes of uses should be controlled within the culturally desirable levels. The continuing use of Tallinn as the port and use of its historic centre for administrative functions are being sensible approaches, but day by day the administrative and residential functions are being replaced by tourist oriented activities,

Urban conservation is a modern concept. Today, it represents an insistence on harmony, over time, between a social group and its environment, while protection of this life style is perceived as a major aspect of sustainable human development.

This conservation on heritage object, built fabric, but without much reference to traditions, functions, and crafts that evolved with those objects.

Formation of new agencies for the management of urban heritage is a healthy sign in all cities. The Vilnius Old Town Renewal Agency (OTRA) established in 1996 is a versatile organization that is able to muster public and private funds, promote public awareness and obtain public support for heritage management. The OTRA has prepared a revitalization strategy for the Vilnius Old Town in 1995-1996, and an action plan for years 2000-2005. The main tasks of OTRA are to develop and implement conservation/renewal programs.

In Riga and in Tallinn, special agencies are created within the municipalities to shoulder the responsibility of heritage protection.

The budgetary allocations for heritage protection, that are colossal within the capacity of the national economies, suggest that these municipalities have been attracted by the potential market value of heritage protection.

In Tallinn, foreign investors dictate the conservation activities as their local or foreign architects often find a way through the legislature. The ejection of the economic disable

locals severely threatens the aim of the protection of the urban heritage as a starting point of a nation-state.

Sustainable development incorporated in the planning policy in the Baltic States rests on an extreme degree of consensus, that sustainable development is more than right. Also, the environmental impact assessments and similar issues in the Baltic countries deals more with the nature and natural resources. Today, the concept is broadened with ideas of humanity, cultural heritage, and urban living being accommodated. This broadened aspect enhances its potentials to deal with the idea of sustainable city. The Policy Report on European Sustainable Cities finds the challenges of urban sustainability as, "... to meet the social and economic growth of urban residents while respecting local, regional, and global natural systems".

By bringing the values of the cultural heritage to determine the carrying capacity, development through conservation promotes such integration. Inclusion of social, cultural, economic, and environmental dimensions, while embracing equity among the urban citizens, it is possible to develop a more dynamic approach.

The Management Guidelines for the World Cultural Heritage Sites (1993,132) stresses that, "... integrated conservation implies reconciling conservation requirements and town planning activities, considering the values and interests of existing historic fabric as equal in status to other factors in the general planning process". The challenge of development through conservation is based here. We need to find instrumental conditions related to diverse body of environmental and management beyond securing a planning process. The strength of land use planning and spatial planning as basic tools to initiate such a condition is high. These tools, considering an evolved urban space as an element interacting with its context in both static and dynamic ways, could promote a regional framework. In Riga, where one could see better understanding between strategic planning and traditional spatial and cross-sector planning, heritage protection is placed to embark a socioeconomic progress. Grass root level local planning could use the 'power of place' to improve the live ability of the historic urban space. Urban design

guides and briefs, informing the prospective developers on opportunities and restrictions in a constructive way, could play an important role in practical maintenance, space utilization, links between spaces, as well as new architecture. Munasingha. H (2001)

2.6.3 Case study 1(urban development projects): post civil war development of a Farm

Conservation site development has been done in the Spotsylvania country, Virginia, its practice can be shown as follows. Figure 1 and *Figure 2*

Site to be considered blends natural resource conservation with the preservation of significant historic features site is a composite, incorporating attributes of several different farms in Spotsylvania County, Virginia, that witnessed troop movements and hosted army encampments during the civil war. Randall G. (1996)

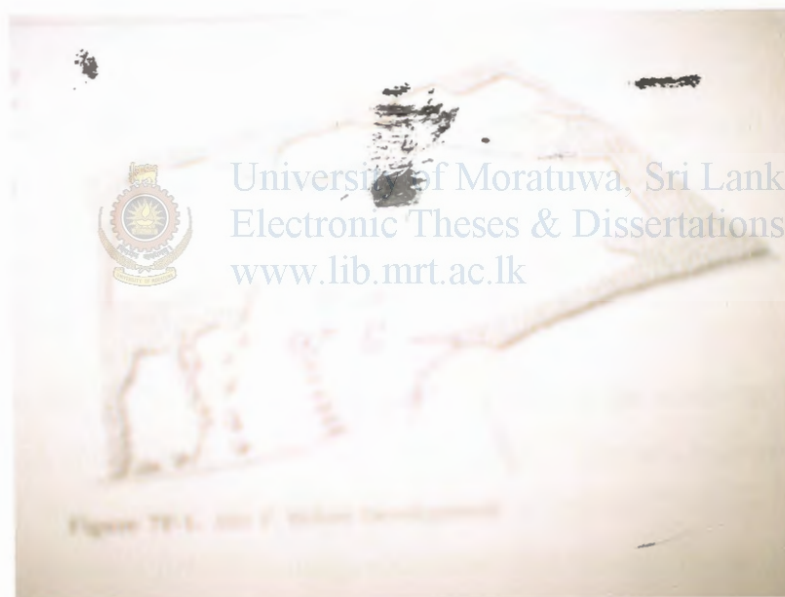


Figure2.3 Site before Development



Figure 2.4 Site with conservation design

2.6.4 Case study 2(urban development projects): redevelopment of old fields, Swamp Forest, and archaeological site of Moratuwa, Sri Lanka.

Conservation site development has been done in the North Carolina, its practice can be shown in the Figure 3 and Figure 4.

This 50 – acre site is situated along the lower reaches of the north landing river as it enters Currituck sound, part of the huge Albemarle – Pamlico estuarine system that dominates the low country of northeastern north Carolina. this extensive estuary provides vital resources for the farming, recreation, and fishing industries that form the region's economic base.[20]



Figure 2.5 Sites before Development



Figure 2.6 Site with conservation design

2.6.5 British water front development plans

The Zanzibar urban waterfront was a major element in early planning schemes introduced under the British administration. In 1923, shortly before the opening of the new port facilities, Henry Vaughan Lanchester designed several rather grand urban waterfront projects that were in fact never realized -- including a central hotel, a post and telegraph office, and shipping offices - as part of his plan intended to apply corrective changes to the fabric of Zanzibar town as a whole (Lanchester 1923; Siravo 1996, 53-5). Although enormous infrastructural improvements were made during the British period, the essential attitude of the protectorate administration towards urban planning was one of laissez-faire and piecemeal development. A later plan introduced in 1958 was concerned with road transport problems in and around the Stone Town, including a proposed seafront promenade and a road around the tip of Shangani Point (Kendall and Mill 1958, cited in Siravo 1996, 55-6).

The 1964 revolution introduced physical and socio-economic changes and the Stone Town began a steady course of decline and deterioration. The replacement of many urban owners and occupants by rural families, who did not identify with urban traditions and had neither the interest nor the means to maintain old stone houses, led to a period of neglect and collapse. An East German plan, devised in 1968, recognized the need to maintain Stone Town buildings for appropriate uses but was more concerned with the rapid transformation of Ng'ambo as population growth necessitated housing developments there. Similarly, a so-called Chinese Masterplan drawn up in 1980-2, which still forms the legal basis for urban planning in Zanzibar, proposed somewhat unrealistically that government functions be removed from the historic area and vacated buildings be converted for tourist use. In 1979, six historic structures were gazetted; in 1985, the Stone Town Conservation and Development Area (STCDA) was created as an outcome of detailed studies made in 1982-3 by the United Nations Centre for Human Settlements; and in 1988 the Stone Town was gazetted as a conservation area by the Ministry of Water, Construction, Energy, Lands and Environment. In the 1990s, there



was substantial renewed interest in the conservation of the Stone Town on the part of government and international aid organizations, and this led to the renovation and adaptive re-use of several waterfront buildings. The impetus provided by these changes led to a further detailed field survey in 1992 by the Historic Cities Support Programme of the Aga Khan Trust for Culture (Siravo 1996) as a basis for a Conservation Plan that was approved in 1994 (Zanzibar Government 1992 1994). This provides an overall planning framework for the Stone Town and, within that area, identifies the special character and development potential of several specific action areas, one of which is the historic waterfront.

Cultural constraints and development opportunities

Urban waterfront conservation involves a variety of cultural dimensions and needs that give rise to development opportunities but simultaneously constrain progress. Three contrasted dimensions are to be studied.

2.6.6 Kyoto conservation experience

The "Historic Monuments of Ancient Kyoto (Kyoto, Uji and Otsu)" were inscribed on the World Heritage List in 1994. The inscribed property is composed of seventeen historic monuments which are located in separate areas in the current administrative territories of the cities of Kyoto, Uji and Otsu. Those seventeen monuments include Buddhist temples, Shinto shrines and a castle - all of which were carefully selected to describe the rich and long history of Kyoto, a former capital of Japan for more than a millennium centuries which became the foundation of Japan's-unique culture. The core zones of all of the sites are strictly protected as historic monuments under the national Law for the Protection of Cultural Properties. To protect and control the surrounding environment of each core zone, two levels of buffer zones were set up for further protection of those sites. One is a set of zones which protect the immediate vicinity of each core zone, and the other is a single wider zone covering all of the seventeen sites and their immediate buffer zones in one area. To establish these two levels of buffer

zones, we combined the then-existing zoning control systems for the cityscape and landscape of the historical city of Kyoto which had been developed as part of the town planning policy of the Municipality of Kyoto to protect historic and natural features. This paper deals with the present state and future tasks of the town planning policy of Kyoto as a city which possesses World Heritage sites within its territory and which provides for control of its buffer zones, concentrating in particular on the control system in the developing central area.

“The city of Kyoto has been making a great effort to protect our valuable cultural environment by broadening the scope of appropriate conservation policies as part of the city planning policy. Our environmental-control program is one of the best-established programs in Japan, with control systems of various types and levels. The buffer zones for World Heritage sites were established to help make this system of protection as effective as possible. As mentioned above, the goal of the policy of the landscape control system of Kyoto is to preserve the suburban natural environment, whereas the objective in the inner city is to improve the harmonious urban environment. As a result, the historic and natural landscapes in the suburban areas have been well conserved. Our future task is to pursue both the development of the city and the creation of an environment that is harmonious with the cultural properties, giving the appropriate guidance while strictly enforcing the necessary regulations.” Yuichi Ishikawa,(Cultural Properties Preservation Section, Municipality of Kyoto, JAPAN)

2.7 Development Plan and Sustainable Development

Sustainable development is development that meets the need of the present without compromising the ability of future generations to meet their own need (World Commission on Environment and Development. 1987, p. 43)

Since the publication of government's environmental strategy in 1990 (Department of the Environment, 1990), development plans have been generally seen as having a key role in assisting the delivery of sustainable patterns of development by taking environmental considerations comprehensively and consistently into account through careful long- term planning in this way:

- environmental protection and improvement can be plan-led
- social and economic requirements of the population can met
- local regional and global natural systems and resources can be protected
- Individual planning decisions can be taken against an overall national, strategic and local framework that reflects environmental priorities. Philip Allmendinger (2006)



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The planning system regulates the development and use of in the public interest. The system as a whole and the preparation of development plans in particular, is the most effective way of reconciling the demand for development and the protection of the environment. Thus it has a key role to play in contributing to the Government's strategy for sustainable development by helping to provide for generations to meet their needs (Development of the Environment and the Welsh Office, 1992, _

Most policies and proposals in all types of plan will have environmental implications, which should be appraised as part of the plan preparation process. The outcome of that appraisal should be set out in the explanatory memorandum or reasoned justification for the policies proposed to demonstrate that environmental concerns have been fully integrated into the plan-making process.

- minimize loss of green space
- minimize loss of and damage to historic building and archaeological sites
- favors a high degree of local recycling of water permeability of the ground
- green-up the site as much as possible
- consider the wider environmental implications of materials used
- improve energy efficiency of new buildings and encouraging use of renewable sources of energy
- minimize noise and pollution arising from new development
- encourage the recycling of materials and reduce the waste stream
- minimize the use of unsuitable chemicals and ensure proper handling of hazardous materials
- assist bicycling in the borough
- Improve access and facilities for people with disabilities. Philip Allmendinger (2006)

2.8 Current Types of UK. Statutory Development Plans

According to the Philip Allmendinger (2006), there is several type of development plans that are can be summarized as follows.

Structure Plans

- Assist implementation of national and policy.
- indicate policies and proposals concerning the scale and general location new development
- provide a regional policy framework for accommodating development
- take account of current and emerging national issues
- provide a strategic framework for Local Plans and major planning applications
- are prepared by Shire Counties in English and Unitary Councils in Scotland

Local Plans

- assist implementation of national and regional policy
- assist implementation of the Structure Plan
- set out detailed policies and specific proposals for the use of land
- provide a policy framework for development control
- provide guidance for public and private sector investment
- are prepared by Districts in English and Unitary Councils in Scotland

Unitary Development Plans

- combine the purposes of Structure Plans in Part 1 (the Framework or general policies and proposals) and Local Plans in Part 2 (detailed policies and proposals)
- include Minerals and waste policies
- are prepared by London Boroughs, Metropolitan Councils in English and Unitary Councils in Wales.

2.8.1 Landscape Conservation to Local Plans

The purposes of the Parks, restated under the 1995 Environment Act, are conserve and enhance the natural beauty, wildlife and cultural heritage of the area and “to promote opportunities for the understanding and enjoyment of the special Qualities of those areas by the public”. In line with sustainable development,

Coasts have received special attention. One-third of the English and Welsh Coastline is designated as Heritage Coast by the countryside agencies.

Local Plan and part 2 of Unitary Development plan should interpret these in detail, and should set out the criteria against which application affecting sites will be judged. The surveys which local planning authorities are statutorily bound to undertake in order inform the drawings up of Development Plans should cover the natural heritage

Relevant powers specified in legislation.

- making byelaws., e.g. to control recreation on beach, and which may sometimes be necessary to secure the protection required by the Habitats Directive
- issuing Tree Preservation Orders to save valued trees or groups of trees;
- designating Local Nature Reserves;

Making access agreements or orders under the Countryside Acts to enable public access to the countryside; planning units are also often involved in footpath work alongside the highways Authorities responsible for establishing rights of way. Philip Allmendinger (2006)

Other Contributions which planning authorities may make include:

- Promoting where appropriate natural heritage conservation and enjoyment as an end for reclaimed mineral working or industrial land, or as an use for temporarily vacant land;
- leading and coordinating local nature conservation strategies (see the next section), and ensuring that the relevant parts of these are incorporated in Development Plans;
- promoting nature – friendly management of land by verges until flowers have set seed), parks (e.g. more naturalistic growth) and (e.g. nature projects in school grounds);
- promoting surveys of the natural heritage over and above the basic requirement for Development Plan making, e.g. by funding voluntary bodies to do them;
- Hosting liaison groups between the public, private and voluntary sectors. Philip Allmendinger (2006)

2.9 Summery Of The Chapter And The Outcome

ICOMOS (1992) charter can be considered as the pioneer action taken towards urban conservation. It defines urban conservation as necessity since the urban character or place is a definitive factor in modulating the culture of a specific place. Furthermore this charter recognizes urban conservation as a tool which can be used as a management tool for of cultural values of specific societies. Hence the urban conservation in planning can act to stop “erosion of life” from its hereditary value system

In ICOMAS 1986 charter five basic qualities which define urban character were pointed out which could be used for analysis in this study.

1. urban patterns as defined by lots and streets;
2. relationship between buildings and green and open spaces;
3. the formal appearance, interior and exterior of buildings as defined by scale, size, construction, materials, color and decoration;
4. the relationship between the town or urban area and its surrounding setting, both natural and man-made;
5. the various functions that the town or the urban area has acquired over time;

As discussed in chapter these were considered as key elements of urban character by many scalars too. Hence these elements are to be adopted as key elements in analyzing urban character of baticaloa.

The urban conservation principals by Donald Apleyard(1979) eleven principals which span across a spectrum of fields from architecture to legal implications. Some of the above principals lie within the scope of urban conservation. They are

Principal no 1: identification of architectural heritage of building or group of buildings.

Principal no 4:identification of economic potential of such historic built fabrics

Principals no 6 &7 : dangers caused upon such places by insensitive urban development

Principal no 9: legal, administrative , financial and technical parameters of safe guarding such fabrics.

Principal no 11:universality of the issue.

Thus, it is revealed that the impotency of urban conservation approach for the development plans in local area.

The trends of current developments in urban planning local areas give a major focus to landscape conservation too. Hence it should also consider as a tool in urban conservation. So key landscape features are also should be used as key elements which urban character.

The case studied which was explored were carefully selected on its similarities to baticaloa area and there for be used as a background in understanding potentials of baticaloa area.



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CHAPTER 03

3.1 Introduction

The previous chapter described the concepts of conservation in different angles and the attempt of the conservation while having that theoretical back ground. This chapter will describe about the design of the research. The research incorporates the outcome of previous chapter to set a guide line for further analysis. The conservation potentials extracted out using layer method is to be tested for the social acceptability in the study area by use of public perception surveys.

3.2 Research Design

The study found out elements which can model urban character of a place in chapter two, which can be used in urban conservation a approach for a integrated developmjent plan for a local area. They are as follows,

1. Monuments
2. Symbols
3. urban patterns as defined by lots and streets;
4. relationship between buildings and green and open spaces
5. the formal appearance of a building,
6. interior and exterior of buildings as defined by
 - scale
 - size
 - construction
 - materials
 - color
 - decoration
7. the relationship between the town or urban area and its surrounding setting, both natural and man-made;
8. the various functions that the town or the urban area has acquired over time;

9. the places
10. way of life generated in the setting
11. groups of buildings
12. urban morphology
13. the locations
14. quality of life
15. social and economic growth

All above elements excluding 8, 14 and 15 are directly linked with physical character of the place. In order to carry out the research, the study will adopt the layer method to dissect the physical character.

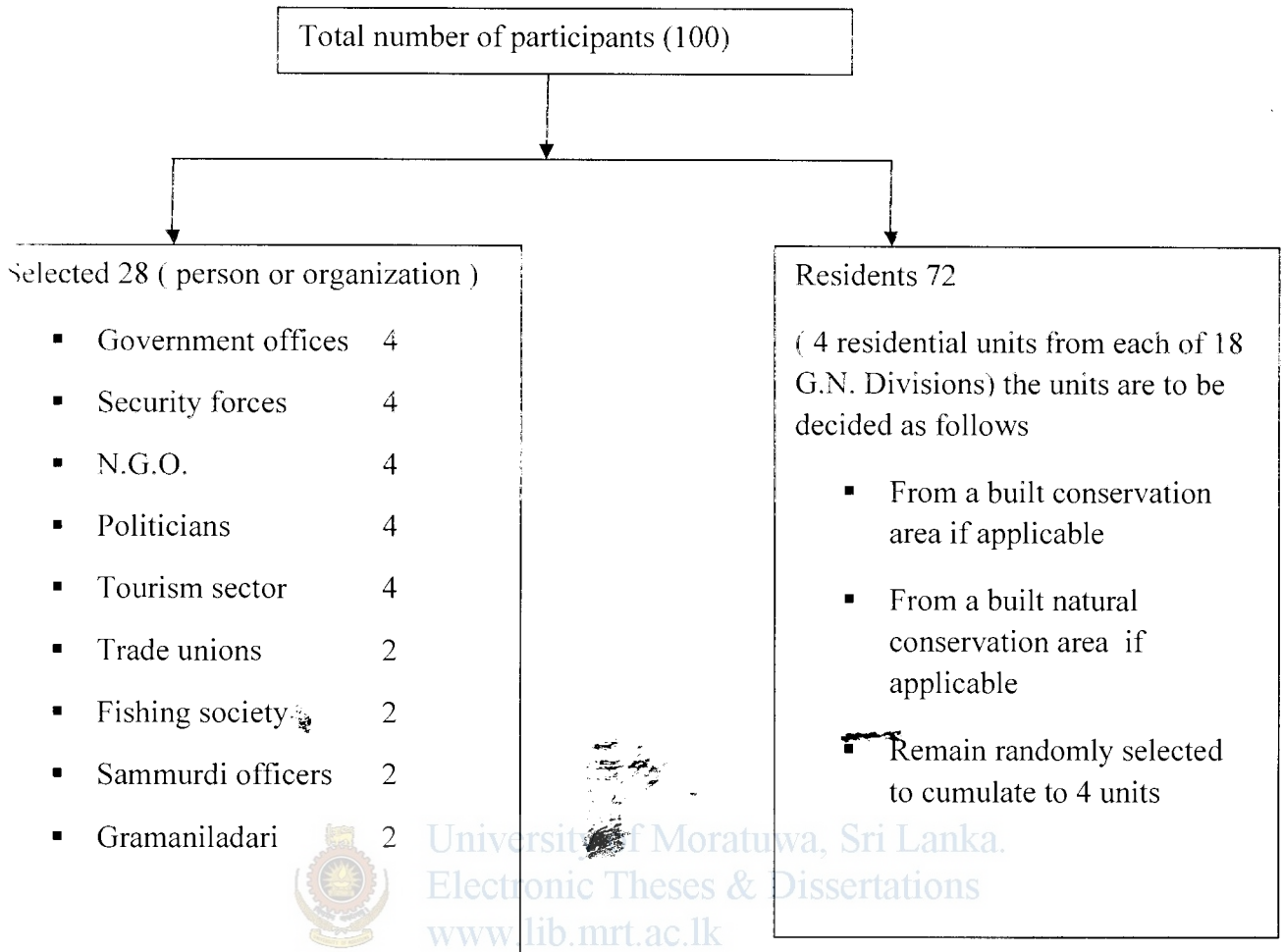
The land use plan of study area (Bataloa) is filtered using

- built up layer
- vegetation layer
- water bodies layer

,to identify heritage buildings, locations and urban fabrics

In addition to that historical information, maps, Arial photographs and historical pictures are also used as aid.

Public perception survey is used random sampling method. At least 100 people are to be used for the survey (Appendix j; questioner). At least 72 people are selected out of them and the others are from the residents of the area. Further they are to be classified as follows,



The collected data to be analyzed and s follows in order for demonstration of conservation approach to urban development planning in Baticaloa area.

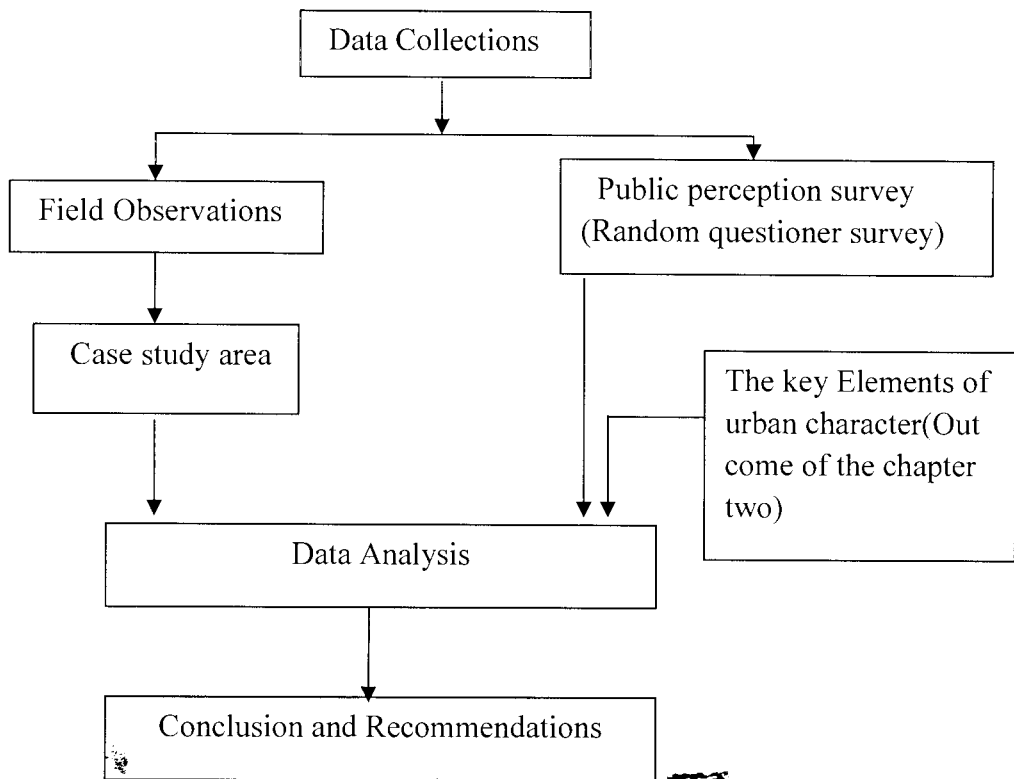


Figure 3.1 Research Design

CHAPTER 04

4.1 General Information and Background of the Study Area- Batticaloa City

4.1.1 Geographical location

Batticaloa is a city in the Eastern Province of Sri Lanka. It lies in 580824.828 M, North and 598832.632 M East in the global positioning system (G.P.S) coordinates. It has a heritage of its own. The city of Batticaloa is bounded on the North by the Eravur Pattu Pradeshiya Saba, on the East by Bay of Bengal, on the South by Kattankudy Urban Council and on the West by Batticaloa lagoon which separates the Manmunai West Divisional Secretariat division and Manmunai North Divisional Secretariat division. The Eastern side of the city is sandy and the Western side is sandy and gravel. The city is flat with the exception of Puliyantivu which is a little higher than the rest of the area. The city is between 1.20 M and 4.0 M above M.S.L. with scrub jungle and mangrove on the Northern side bordering the lagoon. The annual rainfall is from 864 mm and 3081 mm brought by the seasonal North – East monsoon and inter monsoon. The rainy season is between October and January. The temperature is recorded between 25° C and 36° C. Batticaloa Municipal Council limit coincides with the Manmunai North D.S. Division.

The city is connected to other parts of the island through two highways one starting from Batticaloa to the North and the other to the South. The train service also starts from Batticaloa and moves to the North. This city is 303 Kilometres from Colombo.

4.1.2. Baticaloa in the Context of National Development Scenario.(National Physical Planning Policies)

The National Physical Plan presents the identified potential resources possessed by Sri Lanka, the methods of utilizing them for development. These resources are:

Exclusive Economic Zone (EEZ)

- Petroleum deposits around the country
- Joining with the international air route network
- Maximum benefit from the Sea routes
- Proposed Asian Highway
- Proposed Fiber Optic network
- Availability of various skilled employees to work in foreign countries.

It is an accepted fact that, sufficient attention has not been directed so far to obtain the benefits from these resources. The workable metrologies are being identified and suggested in the National Physical Planning Policy and the Plan.

The process of acknowledging urban conservation is disregarded in the national level and it's applicable for the study area too.

The Policies and projects with are included in the National physical Plan are due to be implemented under Regional Physical Plan and Local Plans. This will guide the planned development at regional and local levels in accordance with the National Physical Planning Policy and the Plan.

There for it's of an utmost importance to signify the importance of urban conservation in local area development plan level.

PROPOSED SPATIAL STRUCTURE



Figure 4.1 proposed spatial structure plan (NPPD)

4.1.2.1 Eastern regional level

The components of the Eastern physical Plan are as follows.

- Systematically developing network of settlements
- Demarcation and protection of environmental zones
- Development of agro based industries
- Uplifting the fishing community
- Development of industries using natural resources
- Development of Trincomalee harbor

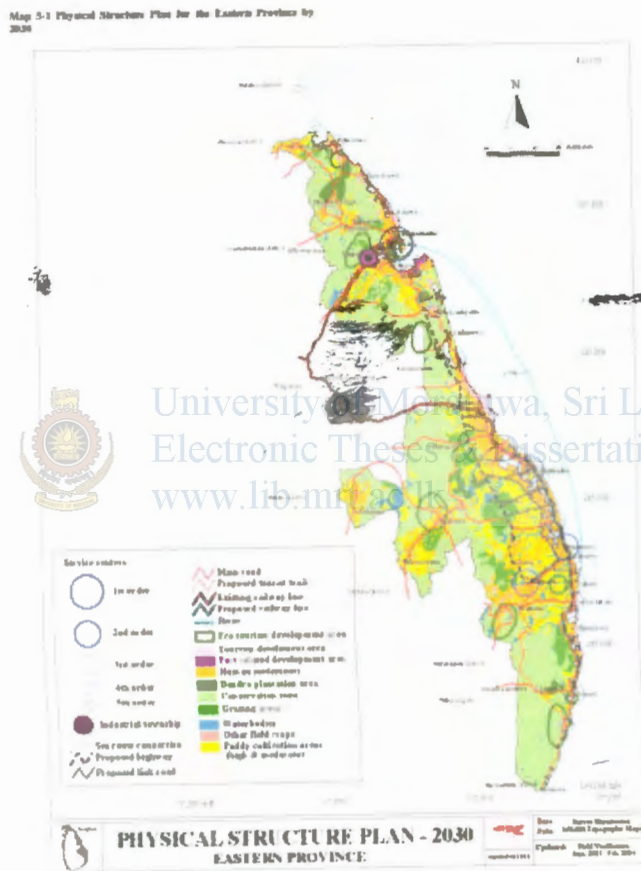


Figure 4.2 The Location of Eastern Province

4.1.2.2. Local area applicable for a development plan

Under the Urban Development Authority act no 41 of 1978, it gives the powers to prepare development plans to Local Authority level. When preparing the Development Plans it has to consider the policy guidelines which prepared under the National Physical Planning policy and Regional Structure Plan. When preparing the development plans it is considered the prime aspects of physical, social, economic and environmental achieving the integrated planning. But still no local area development plan has been done for Batticaloa.

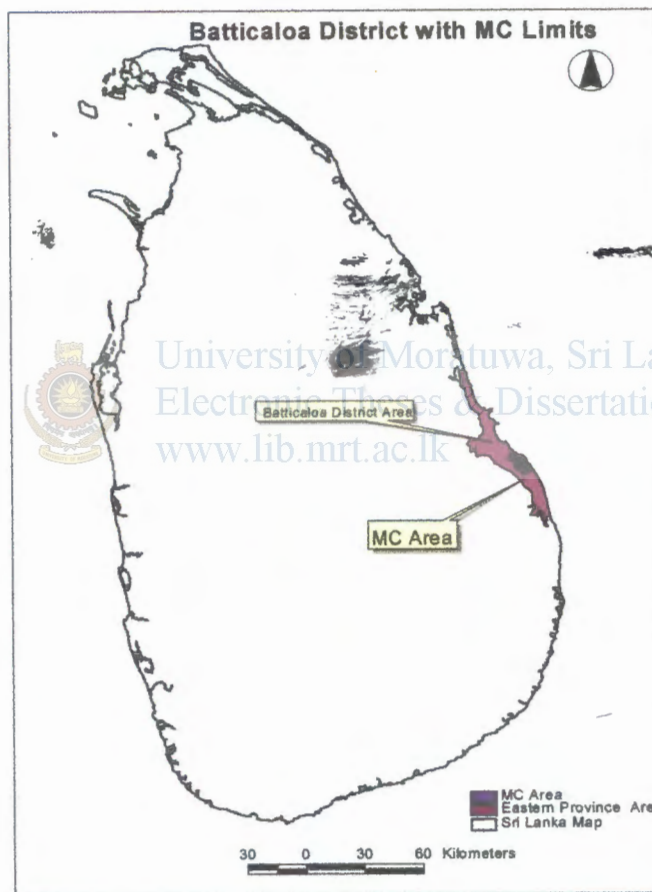


Figure 4.3 Location of Batticaloa Municipal council



4.1.3 History of city: origin and evolution

Batticaloa was under rule of Ruhunu, Polonuruwa and Kandyan Kingdom at various stages and those too till the Portuguese invaded the East coast of Ceylon (Sri Lanka) had to rule with the consent of these Kings. Before the Portuguese landed in the East of this Country, Puliyanthivu which is the heart of the city was the brick built fortress of *"PULIYAMARAN" a Governor appointed by king "SUHATHIRAN", the king who ruled the region between Verugal Ganga and Manikka Ganga. This fortress was destroyed by the Portuguese in 1622 and they built a clay fortress which was destroyed by the Dutch and who in turn built a stone fortress in 1639 which is seen in Puliyanthivu even to – day where the District Secretariat and many other Government departments are housed.

Batticaloa is with a Multi culture, Multi ethnic group. Multi cast, Multi Language, Multi religion and this is an ideal community for Sri Lanka.

History shows that Batticaloa before Christ era, was with the aborigines – the vaddas who spoke Munda Language. From South India came the races known as Thimilar, Mukkuwar and Karayar. This was under the period of Ruhunu Kingdom, Kandyan Kingdom and Polonuruwa Kingdom.

The Mukkuwar, Thimilar and Vellalar came from South India at various stages. When the Mukkuwar and Thimilar were fighting for the capture of the areas under their control, it was the Muslims who helped the Thimilar and occupied Eravur and Kattankudy. The Muslims came from Arabia for trade at various stages of occupancy by the South Indian invaders.

It was during the Cholar period, the Vellalar came to Batticaloa. Each had their own Cast and Culture.

During the period, 1622 to 1639 it was the rule of the Portugese who were Catholics. They built a Fort of clay at the same site where present Fort stands.

However during the period 1639 to 1796 it was the rule of the Dutch who were Christians. They destroyed the Fort built by the Potugese and built the present Fort which ever todate stands. During the period 1796 – 1947, the British ruled the area and they too were followers of Christ. The famous “Lady Mannings Bridge” was built by the Britishers during this period. The Governor was Hon. Mannings during the period of the construction of the bridge and that was how it came to be named “Lady Mannings Bridge”. This is the longest steel Bridge of this nature in Sri Lanka. Also the road along the lagoon from the bridge is named as “Lady Mannings Drive”. These were named “Lady Mannings” to honour the wife of the Governor Hon. Mannings.

Batticaloa was and is famous for its agricultural products and the fishing industry. Within the city, it is the fishing industry which is in high proportion and not agriculture. The agriculture lands have been taken over for buildings and hence only a fraction of the extent is now under paddy cultivation.

The ancient rulers of the East coast of Sri Lanka, the Portuguese, the Dutch and the British who ruled this country from the 16th century to the 20th century used the sand bar as their seaport. The lighthouse at sand bar gives evidence to this fact.

Aanipanthu Sri Sithivinayagar Temple, Sri Mamangeswara Temple and Kannaki Amman Temple at Thandavenveli were built during the reign of the ancient kings.

The Methodist missionaries started Batticaloa Methodist Cental College for boys in 1814 and Vincent Girls High School for girls in 1820. The Catholic Jesuits started St.Michael’s College for boys in 1874. All these schools are in the heart of the city. St. Mary’s Cathedral in Puliyantivu and the Catholic Church at Thandavenveli were built by Rev. Joseph Vaz, who came during the Portuguese era.

There is no record of the layout of roads during the ancient time. The present road layout of the city was done during the British rule. Important Departments were in the heart of the town until recent times.

Batticaloa city was managed by a local board with a few wards. This was upgraded into an Urban Council in 1933.

The Urban Council was upgraded into a Municipal Council in 1967 with the amalgamation of Manmunai North – East (Northern Portion) village council and the number of wards was increased to 19 wards.

The Municipal Council was further extended in 1988 with the amalgamation of Valaieravu Pradeshiya Saba area and the extent of the Council is 75.09 sq.Km. of which 10.83 sq.km. are lagoon and small ponds.

In the Batticaloa lagoon, the famous singing fish was discovered by Rev. Fr. Lang S.J. and Rev. Fr. Moran S.J. two American Priests, of St. Michaels College in 1954, under the Lady Manning's bridge at Kallady. The music of the singing fish is very sweet and similar to the music from a stringed musical instrument. This attracts tourists to hear the music on moon – lit nights.

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4:1.4 Demography: population growth

The population of the city is 78963 of which 40722 are females and 38241 are males. The increase in the population in the last decade is only 0.57%. This is very much less when compared to other cities in Sri Lanka.

Urbanization rate in this area is very low. The cause for the low rate is

1. There is no extreme poverty in the rural areas of the district.
2. Availability of basic needs in the rural areas of the district.

However after 1983 ethnic war people of sound financial background from uncleared areas in the district have settled down in the city.

Table 4.1 Growth of Population in Batticaloa city

Year	Families	Population
2001	19,334	78,509
2005	19,334	78,963

Source: UDA district office, Batticaloa

Table 4.2 Population by Sex and Age – 2005

	Total	Sex		Age	
		Male	Female	Under 18	Over 18
Batticaloa Municipal Council	78,963	38,241	40,722	23,491	55,472
Other areas in Batticaloa District.	466,514	229,439	237,075	197,463	269,051

Source: UDA district office, Batticaloa

Population statistics had not been done after the 1983 ethnic disturbances. Many people left Batticaloa. Many houses and properties destroyed. In fact there had been a drop in population. Many trade centres are either closed, destroyed or abandoned. Hence the income to the Municipality drastically reduced.

Table 4.3 Ethnic Population in Batticaloa – 2005

	Tamil	Muslim	Burghers	Singhalese	Others
Batticaloa Municipal Council	72,459	4,066	2,244	194	-
Other areas in Batticaloa District	327,171	138,534	448	339	22

* Source: District Planning Secretariat Batticaloa.

Table 4.4 Population by Religion – 2005

	Religion					
	Hindus	Islam	Roman Catholic	Other Christians	Buddhist	Other
Batticaloa Municipal Council	56,053	4,045	17,659	1,036	170	-
Other areas in Batticaloa District	312,149	138,534	10,146	5,388	274	23

Source: District Planning Secretariat Batticaloa.



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Table 4.5 Estimated Population by 2025

years	Estimated population
2005	78963
2010	92523
2015	107109
2020	124168
2025	148320

Source: UDA Batticaloa

4.1.5 Housing

Table 4.6 Housing type 2005

Housing type	Number
Permanent	16608
Semi permanent	2243
Temporary	1899
Total	20750

Source: UDA Batticaloa

Table 4.7 Estimated housing 2025

Year	population	Housing
2010	92523	24874
2015	107109	28487
2020	124168	33024
2025	148320	39447

Source: UDA Batticaloa

4.1.6 Economy of the city

Batticaloa city with about 79000 residents has a daily floating population of about 3000 coming to the Teaching Hospital, District Secretariat, and other departments and also for shopping and other purposes. Batticaloa city is the largest city in the district having an extent of 75.09 square Kilometers. A section of the Eastern University of Sri Lanka with and Vipulanda Music and Dance College and 06 nationally recognized Schools and 38 other Schools are in the city. The student population in the city schools is 21,428. As Batticaloa city lies in the East coast of Sri Lanka, it comprises of deep sea fishermen and lagoon fishermen amounting around 13,000. Batticaloa city in the recent past has become a tourist's centre. There are more than 25 hotels catering for the tourists among which around 5 are approved by the tourist board. There are some paddy cultivating

farmers, highland crops cultivators and live – stock breeders in the city. Branches of Bank of Ceylon, People’s Bank, Hatton National Bank, Seylan Bank and Commercial Bank of Ceylon, satisfy the financial requirements of the residents. Reputed firms and establishment also satisfy the needs of the people. Employment figures within the city limits are:-5479 are in Government Service and 572 are in non Government institutes while 1202 are in private sector.

4.2 Analysis of Urban Elements of Bataloa As Per Guide Line For The Elements Of Urban Character

The chapter two described the concepts of conservation in different angles and the attempt of the conservation while having that theoretical back ground. The chapter three described the design of the research which involving spatial analysis of Bataloa. The land use plan of study area (Bataloa) is filtered using

- built up layer- Appendix F
- vegetation layer- Appendix G
- water bodies layer – Appendix I

To identify heritage buildings, locations and urban fabrics. All maps annexed

Hence the data which were gathered in previous part of this chapter is to be analyzed in accordance with the parameters which were named as key elements which define urban character which was setup in research design chapter.

1. Monuments
2. Symbols
3. urban patterns as defined by lots and streets;
4. relationship between buildings and green and open spaces

5. the formal appearance of a building,
6. interior and exterior of buildings as defined by
 - scale
 - size
 - construction
 - materials
 - color
 - decoration
7. the relationship between the town or urban area and its surrounding setting, both natural and man-made;
8. the various functions that the town or the urban area has acquired over time;
9. the places
10. way of life generated in the setting
11. groups of buildings
12. urban morphology
13. the locations
14. quality of life
15. social and economic growth

All above elements excluding 8, 14 and 15 are directly linked with physical character of the place. In order to carry out the research, the study will adopt the layer method to dissect the physical character.

4.2.1 Monuments

Number of monuments shapes the Baticaloa urban area which gives it a good sence of orientation as well as an identity. Following are the oremior monuments in Baticaloa urban area.



Figure 4.4 Lady Manning, Steel Bridge

The famous “Lady Mannings Bridge” was built by the Britishers during this period. The Governor was Hon. Mannings during the period of the construction of the bridge and that was how it came to be named “Lady Mannings Bridge”. This is the longest steel Bridge of this nature in Sri Lanka. Also the road along the lagoon from the bridge is named as “Lady Mannings Drive”. These were named “Lady Mannings” to honour the wife of the Governor Hon. Mannings.



Figure 4.5 Dutch fort

Before the Portuguese landed in the East of this Country, Puliyanthivu which is the heart of the city was the brick built fortress of “PULIYAMARAN” a Governor appointed by king “SUHATHIRAN”, the king who ruled the region between Verugal Ganga and Manikka Ganga. This fortress was destroyed by the Portuguese in 1622 and they built a clay fortress which was destroyed by the Dutch and who inturn built a stone fortress in 1639 which is seen in Puliyantivu even to – day where the District Secretariat and many other Government department are housed.



Figure 4.6 City entrance

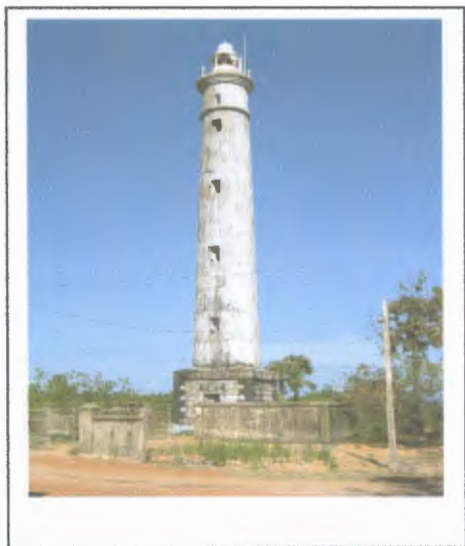


Figure 4.7 Light house



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4.2.2 Symbols

Singing fish beneath the kaladdi bridge Lagoon



Figure 4.8 Kaladdi Bridge Lagoon



4.2.3 Urban patterns as defined by lots and streets;

Wide open streets

Dual existence of helical and grid iron patterns



Figure 4.9 Definitions of the junctions



Figure 4.10 City Street lay out

4.2.4 Relationship between buildings and green and open spaces

Wide tree lined streets

Positive existence of lagoon and the sea either side of house

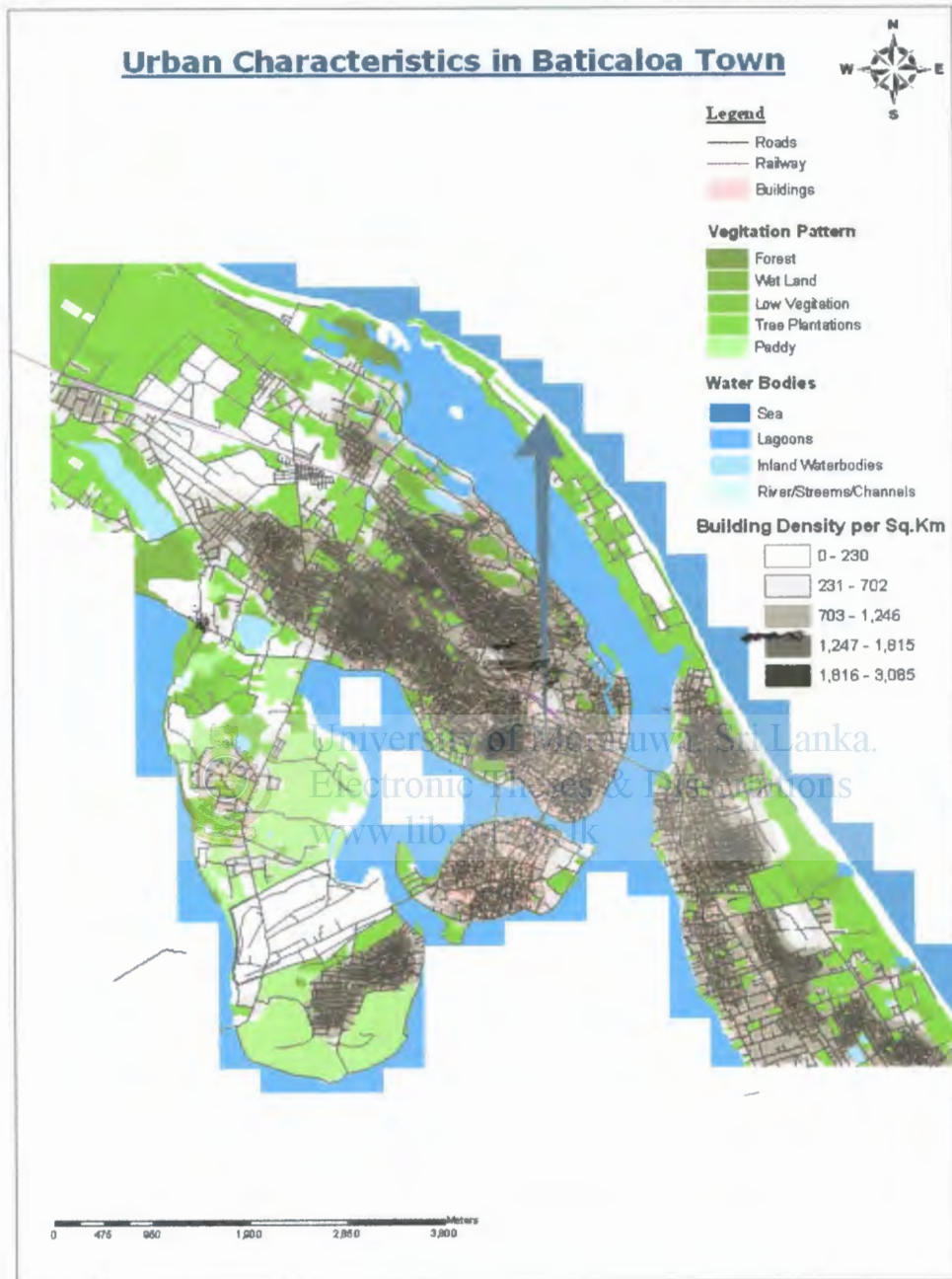


Figure 4.11 Urban Characteristics in Baticaloa town

4.2.5 The formal appearance of a buildings and groups of buildings

Interior and exterior of buildings as defined by

Scale	Size
Construction	Materials
Color	Decoration

many historic buildings still exists within baticaloa. Urban area such as, Former Municipal council office, Present Municipal council office, Methodist central college, ST Michal College, Shivananda Vidyalaya, Formerly District judge residence, Railway Station, Old Houses etc. are all heritage witch can defined as elements which decide the urban character of baticaloa.

The Methodist missionaries started Batticaloa Methodist Cental College for boys in 1814 and Vincent Girls High School for girls in 1820. The Catholic Jesuits started St.Michael's College for boys in 1874. All these schools are in the heart of the city.



Figure 4.12 colonial schools located in the city centre

4.2.6 The relationship between the town or urban area and its surrounding setting, both natural and man-made :

land use pattern Batticaloa city covers entire Manmunai North Divisional Secretariat. The entire city centre is built up area. The residential areas are spread throughout the city. The commercial places are found mainly in the city centre

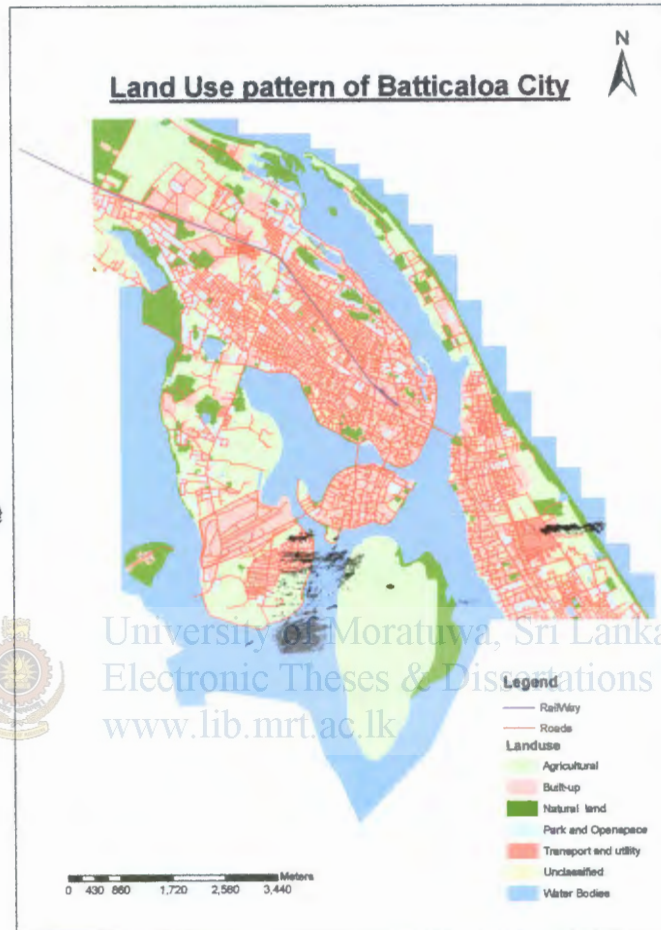


Figure 4.13 Land use Pattern of Baticaloa

As per the above table, it is revealed that very unique land use pattern is existed in the MC area of Batticaloa. It is about 40% of total land use is devoted for the natural urban conservation such as lagoon, wetland and mangrove areas. In addition to that historic buildings, streets are also devoted for the urban conservation. Accordingly it is important to consider the above aspect when formulating the urban development strategies for Baticaloa MC Area.

4.2.7 The various functions that the town or the urban area has acquired over time;

4.2.8 Materials commonly used in the area for all constructions

4.2.9 The places

The place comprises two categories namely natural and manmade. Those are described as follows.

4.2.9.1 Natural places :

According to the land use distribution of Batticaloa, it can accounted accounted 72% of total land use is devoted for the Natural urban conservations in 2008.



Figure 4.14 Lagoon

Batticaloa Lagoon

The extent of Batticaloa lagoon is about 56.8 km long along the meridian axis and it's width varies widely from 0.5Km to 1Km and maximum depth is 10 metres. About 90 percent of the lagoon is in the Batticaloa District and a small, ie the southern part of the lagoon extends to Ampara District. The deep, broad lagoon communicates with the Sea by two narrow canals; one at Palameenmadu and other at Kallar.

It is an invaluable natural resource of this city as it gives aesthetic beauty. About 1878 fishing families

depend on it for their survival. The lagoon is now an extremely sensitive area as it receives untreated waste from shrimp farms, slaughter houses, service stations, hospitals, hotels, rice mills, households, etc. The waste affects the Lagoon water in variety of ways, depending on its character. Nutrient rich waste generated from Agriculture activities and shrimp farms, causes “Eutrophication”.



Figure 4.15 Natural Vegetation

Sathurukondan marshy Land and other natural vegetation types

About 30-50 hectare of marshy land in east and west part of TrincoA-15 road and is located about 06km from the city. This marshy land has been enriched by Mangrove vegetation which is under threat. Tillai (*Excoecaria agallocha*), Kanna (*Avicennia officinalis*), Kinnai (*Sonneratia caseolaris*), Kandal (*Rizophora mucronata*), *Xylocarpus granatum*, etc are the dominated mangroves plant in this area providing a suitable habitat for migrant birds, prawns, crabs and fish.



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Figure 4.16 Navalady Beach

Navalady Beach

Batticaloa town Sand Bar (Navalady) with Kalkudah are areas where the sea intrusion seined the greatest Navalady is a sand bar located between the ocean and the lagoon close to the lagoon month, about 5km in length.

Buffalo Island



Figure 4.17 Buffalo Island

4.2.9.2 Man made places accounted as monuments and buildings



Figure 4.18 Municipal Council Baticaloa



Figure 4.19 Play Ground & Webber stadium



Figure 4.20 Railway Line & Street lines

4.2.10 Way of life generated in the setting Cultural and Religious places



Figure 4.21

Hindu Temple

Church



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Figure 4.22

Buddhist Temple

Mosque

4.2.11 **Urban morphology:** system the city is assembled together with reference to organization patterns and size and type of the matrix.

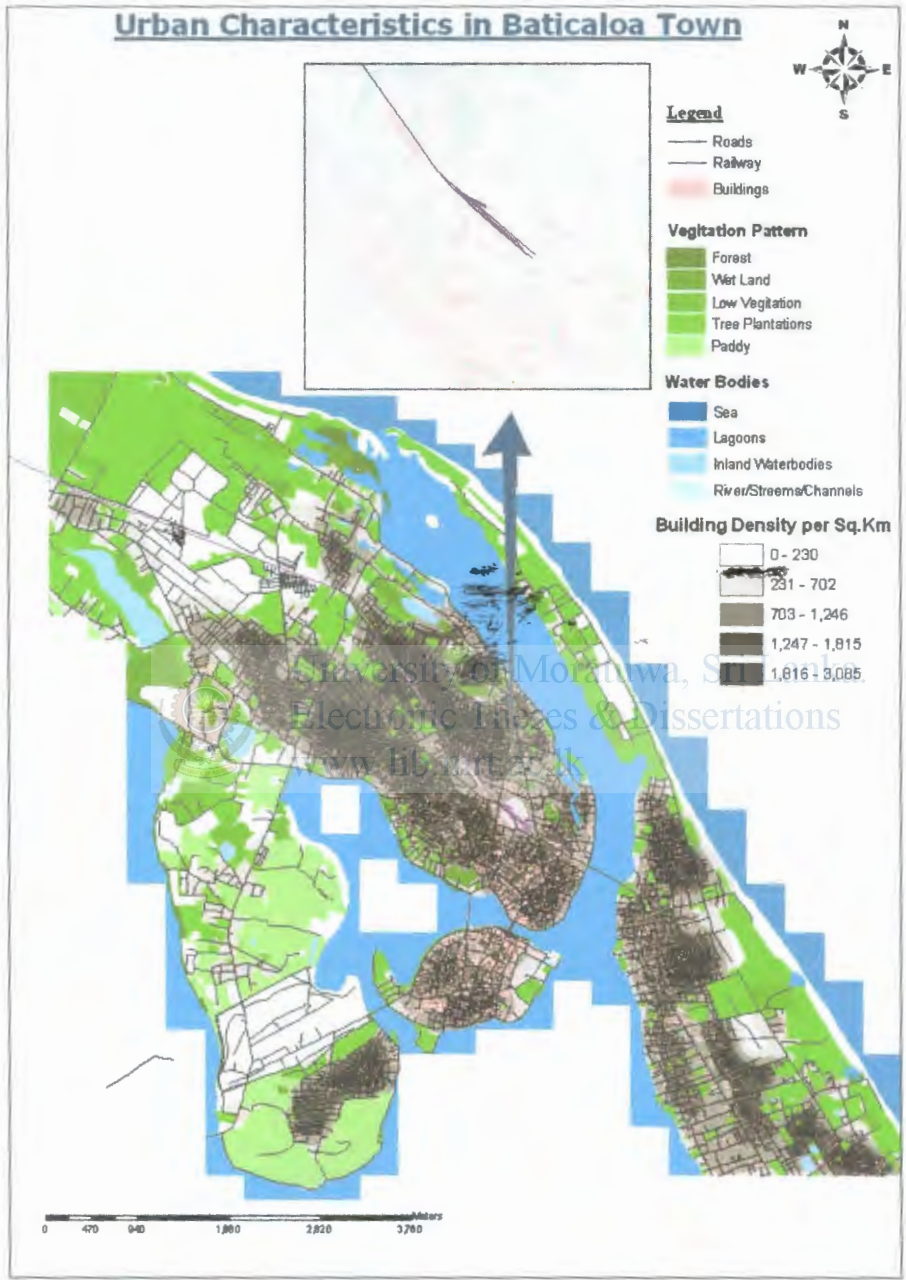


Figure 4.23 Urban characteristics

4.2.12 The locations:

The existing location of a building or a function within the urban area.



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Figure 4.24 locations of Buildings

4.2.13 Quality of life



Figure 4.25 Mode of transportation

4.2.14 Social and Economic growth



Figure 4.26 Economic activities



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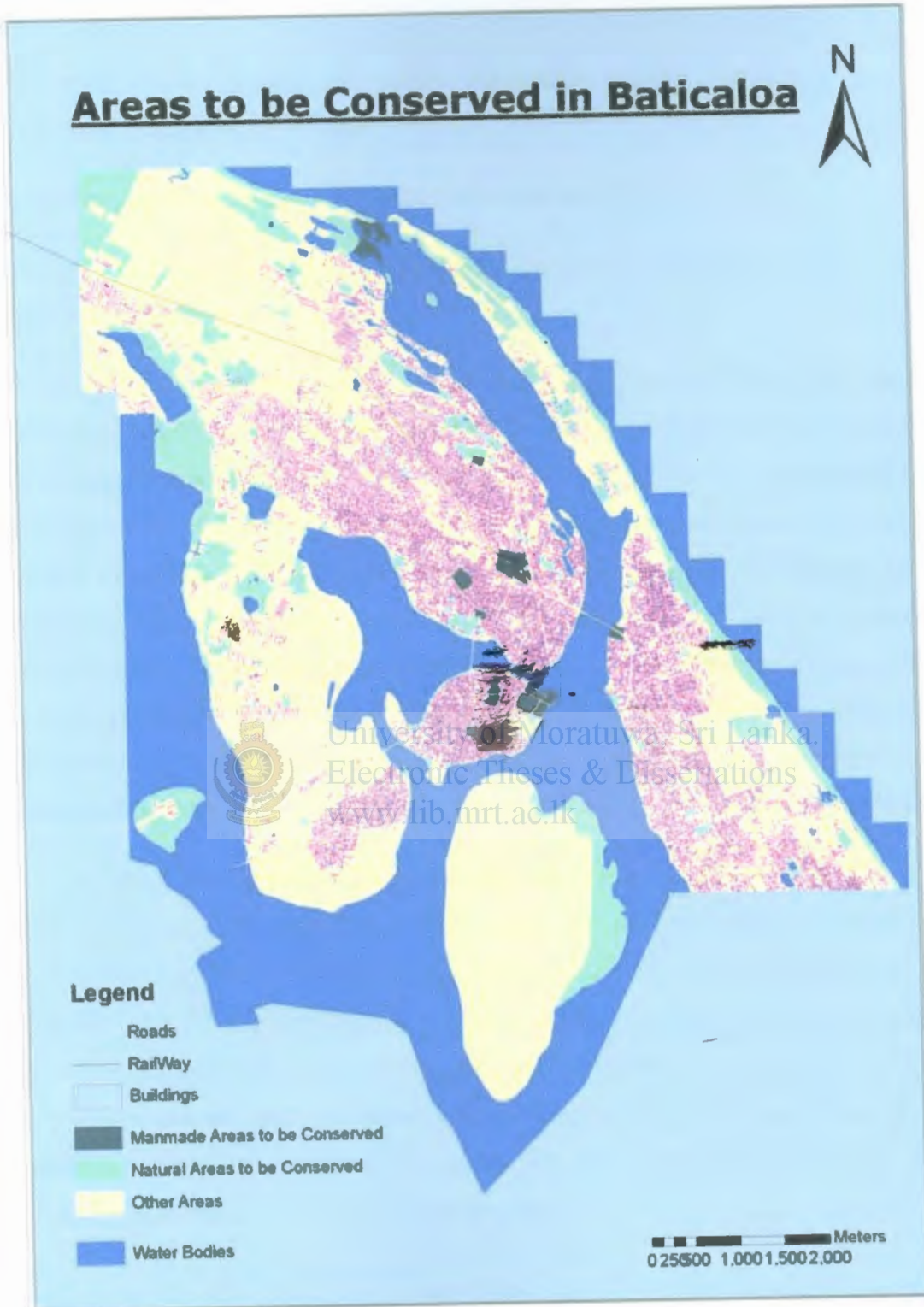


Figure 4.27 Areas to be conserved in Baticaloa city

4.3 Analysis of results on public perception survey regarding the urban conservation in Batticaloa

Questions and their perceptions can be condensed as follows.

number 1 to 4 was targeting to understand the people who participated in the survey and their background.

the present main economic activity in Batticaloa is thought of as fishing 42%, agriculture 20%, commercial and service 29% and only 9% thought of as deferent to all above. 53% of the participants predict the future of the city is based on tourism. Commercial activity is predicted by 20% and fishing is reduced 11%. Reason to visit the city is mostly for the job which was at 38% followed by 21% for shopping and 17% for study and 14% education respectively. 10% comes to city for other purposes such as leisure. This proves that city is used by the inhabitants to daily needs. Majority of participants were frequent visitors of the urbanity with 62% daily visiting with 11% at 2 to 3 days. 9% of all participants visited city weekly. So 82% of our participant were visiting the city at least a fortnight. So we can assume that they have a good understanding of the city.

91 % of participants expressed that they like to live in the city, but their reasons differ as follows, 37% were found of the society and the community,, 31% thought the environment was friendly to live in with additional 23% thought of as a peaceful place. Probably its due to the war situation existed at last decade. The 9% who never liked the city were all visitors from nearby townships. But the important factor is that none of the people express it as a beautiful place or an existing potential for scenic value. Hence its worthwhile exploring possibilities to beatify the city conserving urban fabric and by enhancing bond of built fabric to natural environment.

Although the Dutch fort is important for the conservationists the inhabitants disproved it by answering that the lagoon is the most unique feature of the city at 59%. Surprisingly the kalady bridge is preferred by 26% percent. Its not just a bridge to baticaloa people.

However 42 % of people described Dutch fort as their land mark of the city with lagoon coming for 24% with kaady bridge cumulating for 20% preferences.

Although most of the people agree that the fishing is the main activity 38% propose tourism as the best use for future in addition to the 33% who propose leisure. It can be interpreted as people opting to divert from fishing. So conservation of eco culture associated with the lagoon will not be accepted by the people unless it is valued upon. The streetscape is preferred for its relationship with the water by 76%. Hence the built fabric is not of an importance to participants.

The participants were not responsive to future built fabric and 30% expressed that they are not concerned. 19% thought of as 4 story built fabric with no one going beyond it. 18% thought that it going to remain the same for next 10 years. 80% of people thought that the street widening is not necessary. The buildings to be conserved are prioritised as follows.

1. Cultural and religious places
2. Dutch fort
3. Kalady bridge
4. Light house
5. Old schools
6. Old judges quarters
7. Clock tower
8. Railway station
9. M . C. building
10. Old houses

The important factor is the recognition of cultural and religious places as best prioritized place to be conserved. However people are aware of the conservation potentials. The houses are not preferred to be conserved by participants showing the vulnerability faced by vernacular.

The buffalo island is preferred for leisure activities by 69% and 17% for agriculture and 10% thought of as an environmentally sensitive area. Navelady beach is

preferred for leisure activities by 90%. When it comes to Sathurukandan mash 98% people think of as a environmentally sensitive area.

When it comes to city center people had deferent perceptions for the exact place of it, 37% thought as bus, 27% at railway station and 24 % thought as police station and hospital is thought of city center by 12% people. This ambiguity is caused by disorder in urban fabric and its character. There is no identity in cities elements and no character shown by built fabric as per public perception.



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CONCLUSION

Character and identity of the Baticaloa does not depend entirely on the built character or city. The existence of waterfront streets shapes the cities character and identity. This fact has been proved by public perception survey too, with participants' continuously confirming the connection of streets and lagoon.

The layering proved that Baticaloa streets show high association of water fronts. The relationship of built fabric and water body is shaping the cities character. There for a local area development plan to be implemented at this area should consider the potential opportunities created by this relationship. 13.7 % of roads are water front roads and they are distributed in all parts of the urban area. (Appendix I: Map-water front roads). The experience of british water front development project which was studied at chapter four can be considered as an example for the development plan. The local interpretation of it has to be performed for the best outcome, specially The cultural constrains of our context has to be adhered in such an effort.

The occurrences of historic buildings in streets are at 3% yet in such a street occurrence of multiple conservable buildings are at 86%. The occurrence of city blocks with conservable buildings is 21%. In such a city block multiple occurrence of such streets are at 73%. Of above 67% of such streets and buildings restricted to turtle island. Hence the potential of concentrated built fabric conservation areas are potential and this also enables free economic growth in other areas. This opportunity can be used to minimise the pressure on historic built fabric. The Dutch fort which was also recognised by public as the best land mark of Baticaloa and 2nd best place to be conserved is situated in this area

But the objects such as Kalady Bridge and light house are in isolation. There for individual objects also has to be recognised for preservation in a conservation based local area development plan. The public perception survey proved that placed upon conservation differs from contemporary classification which we derive out of literature survey. The religious places and places such as Kalady Bridge are placed


so high among public. These aspects have to be respected when a local area development plan is being prepared.

The identification of key projects in deferent scales has to think about for overall conservation aspect of the urban area. The outcome and the issues faced in planning defer widely as discussed in case studies of chapter two. The identification of such potential projects is excluded from this study since it is out of our scope , but it should be stated that such projects has to be on location potential fields such as tourism, agro industry, fisheries based on this study.

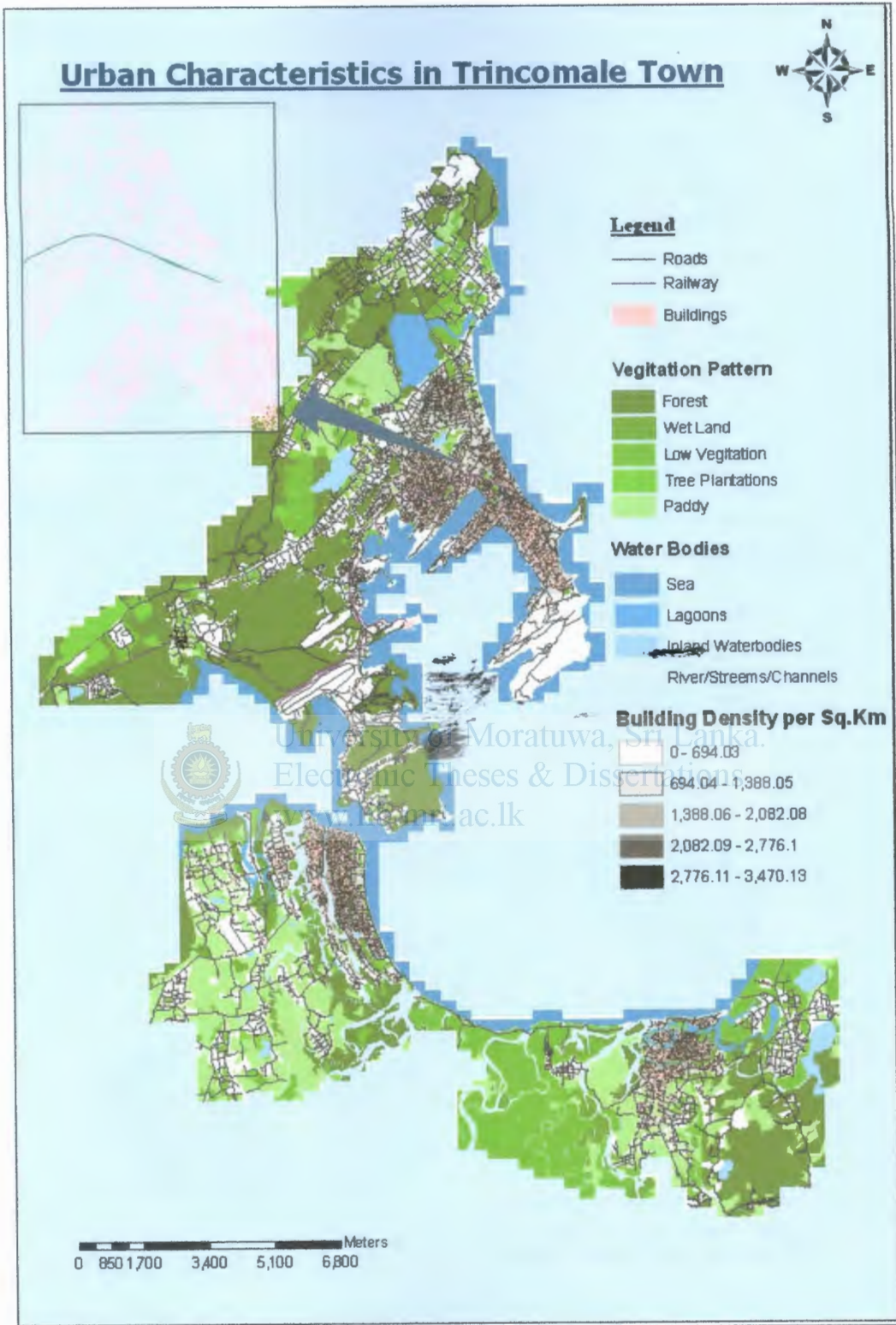


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Urban Characteristics in Kalmunai Town



Legend

- Roads
- Railway
- Buildings

Vegetation Pattern

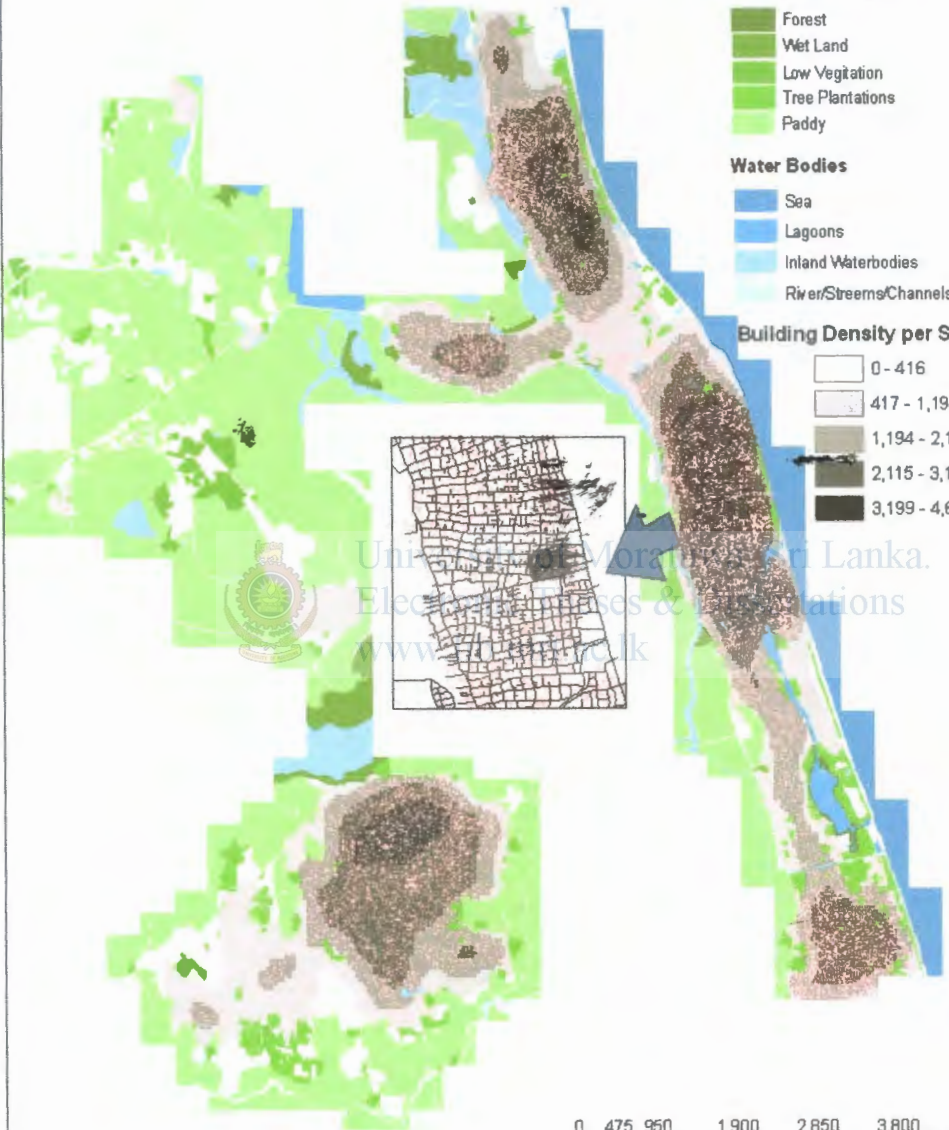
- Forest
- Wet Land
- Low Vegetation
- Tree Plantations
- Paddy

Water Bodies

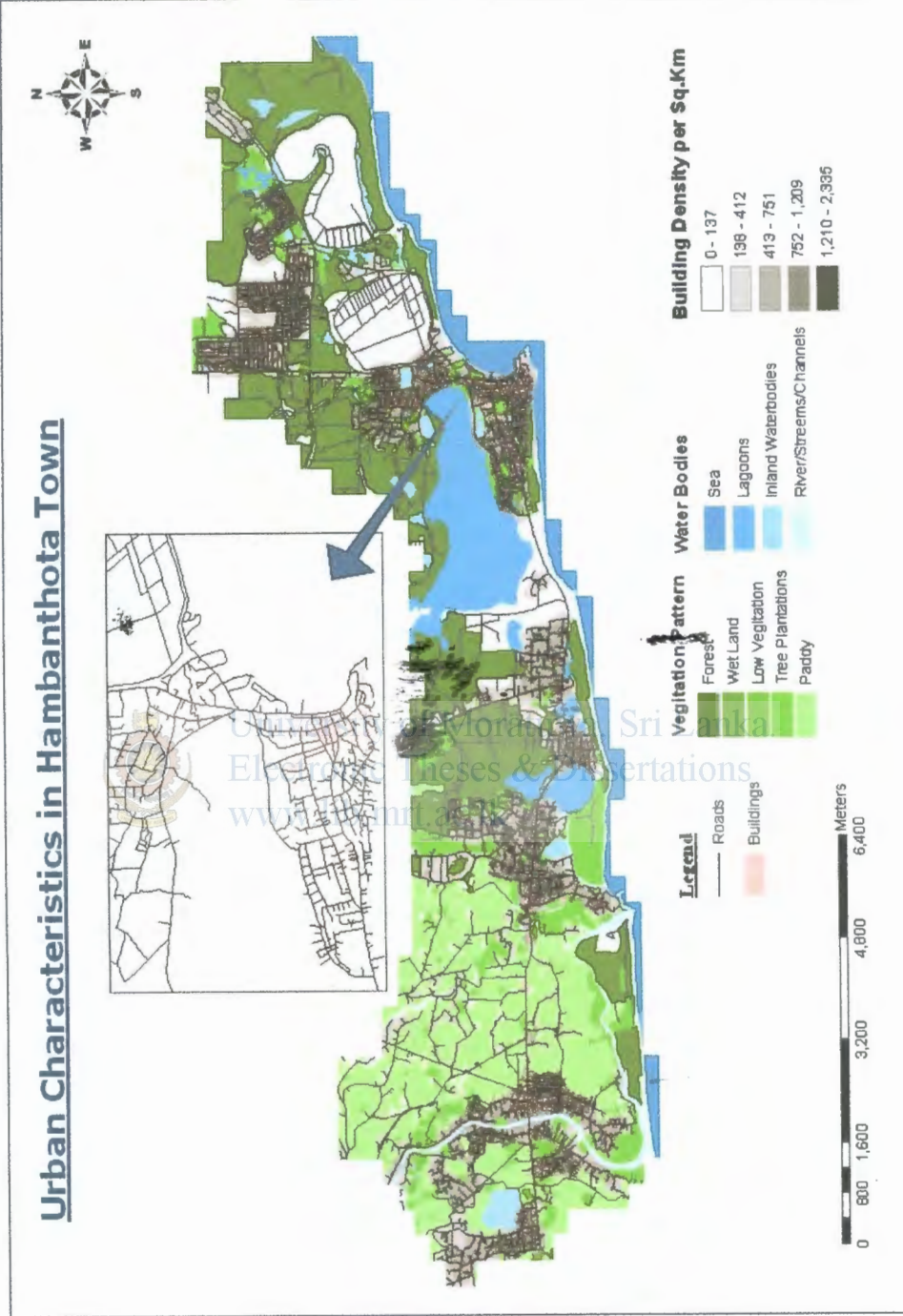
- Sea
- Lagoons
- Inland Waterbodies
- River/Streams/Channels

Building Density per Sq.Km

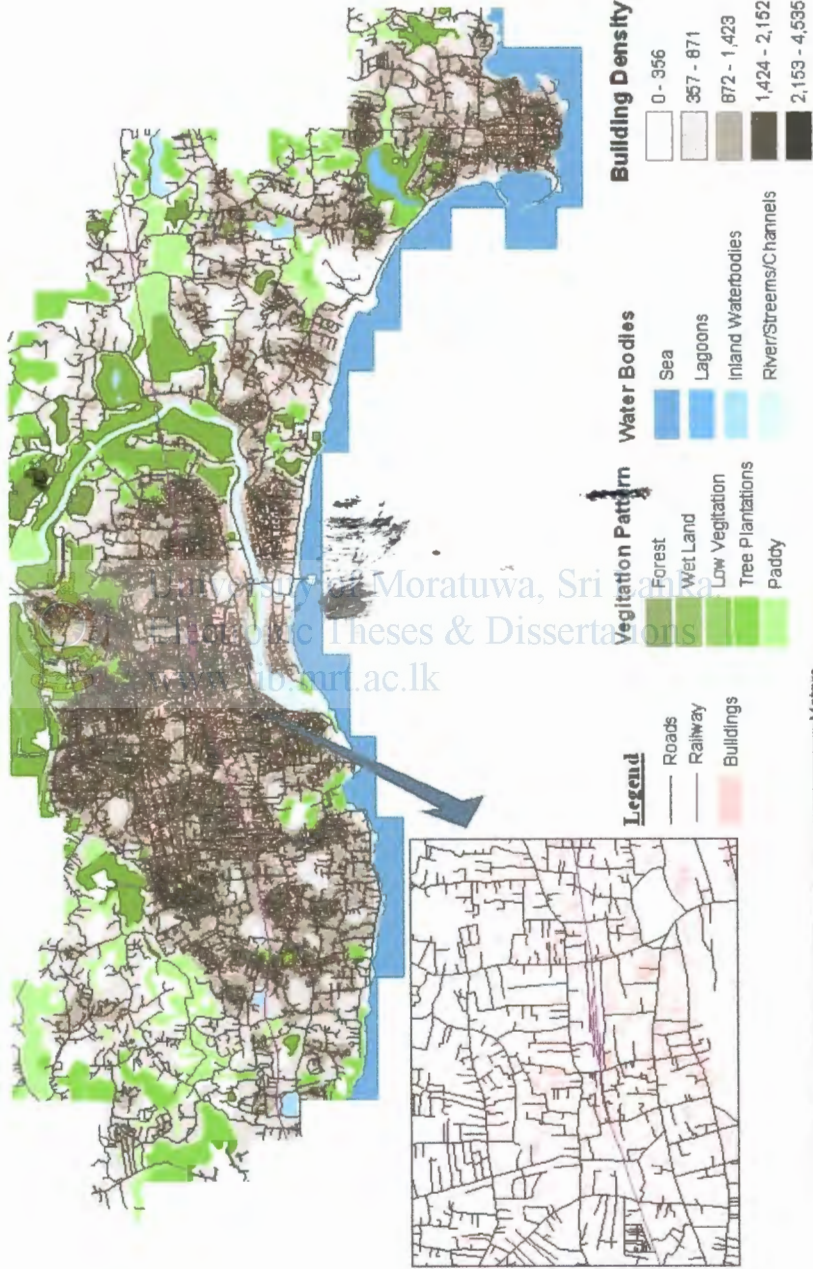
- 0 - 416
- 417 - 1,193
- 1,194 - 2,114
- 2,115 - 3,198
- 3,199 - 4,608

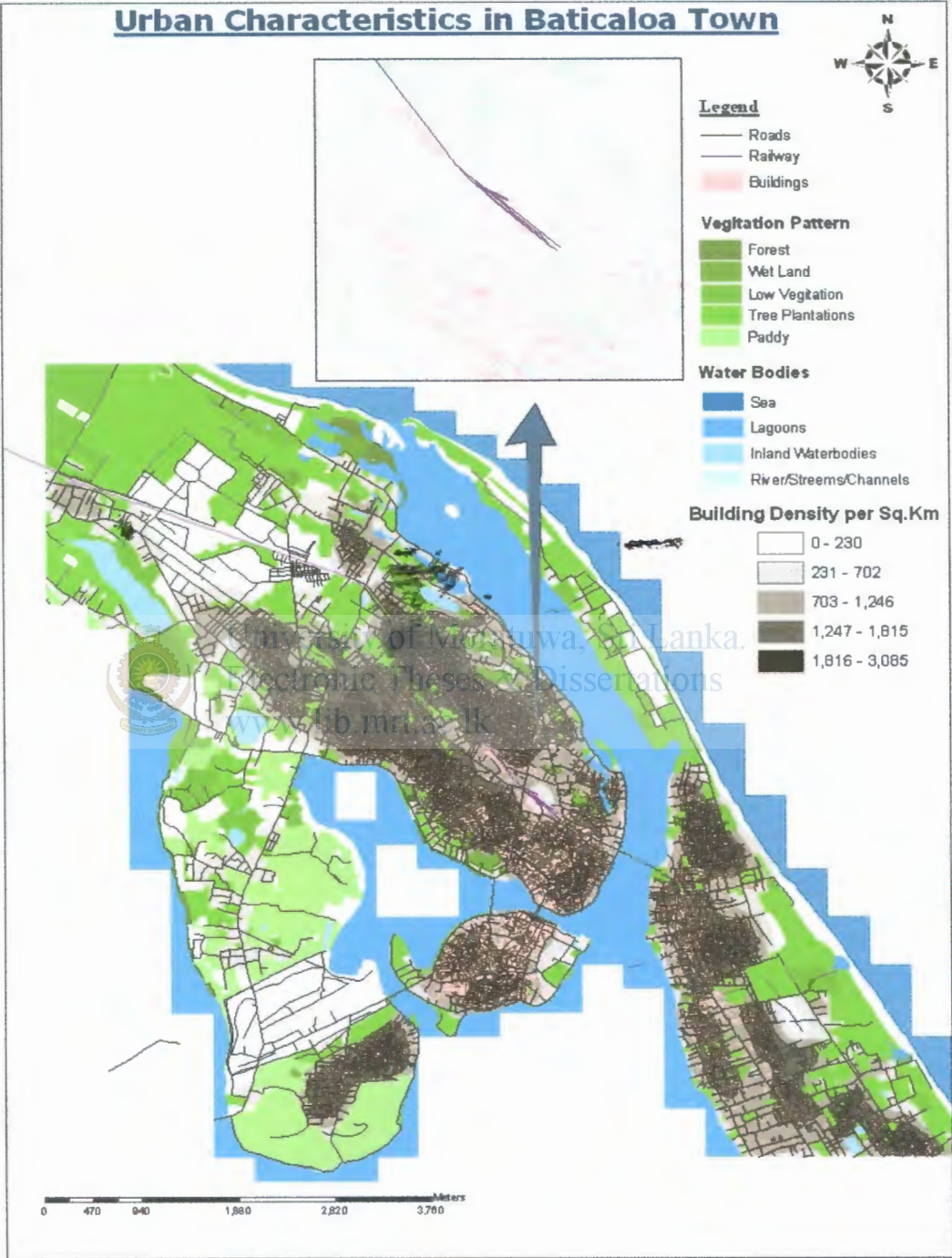


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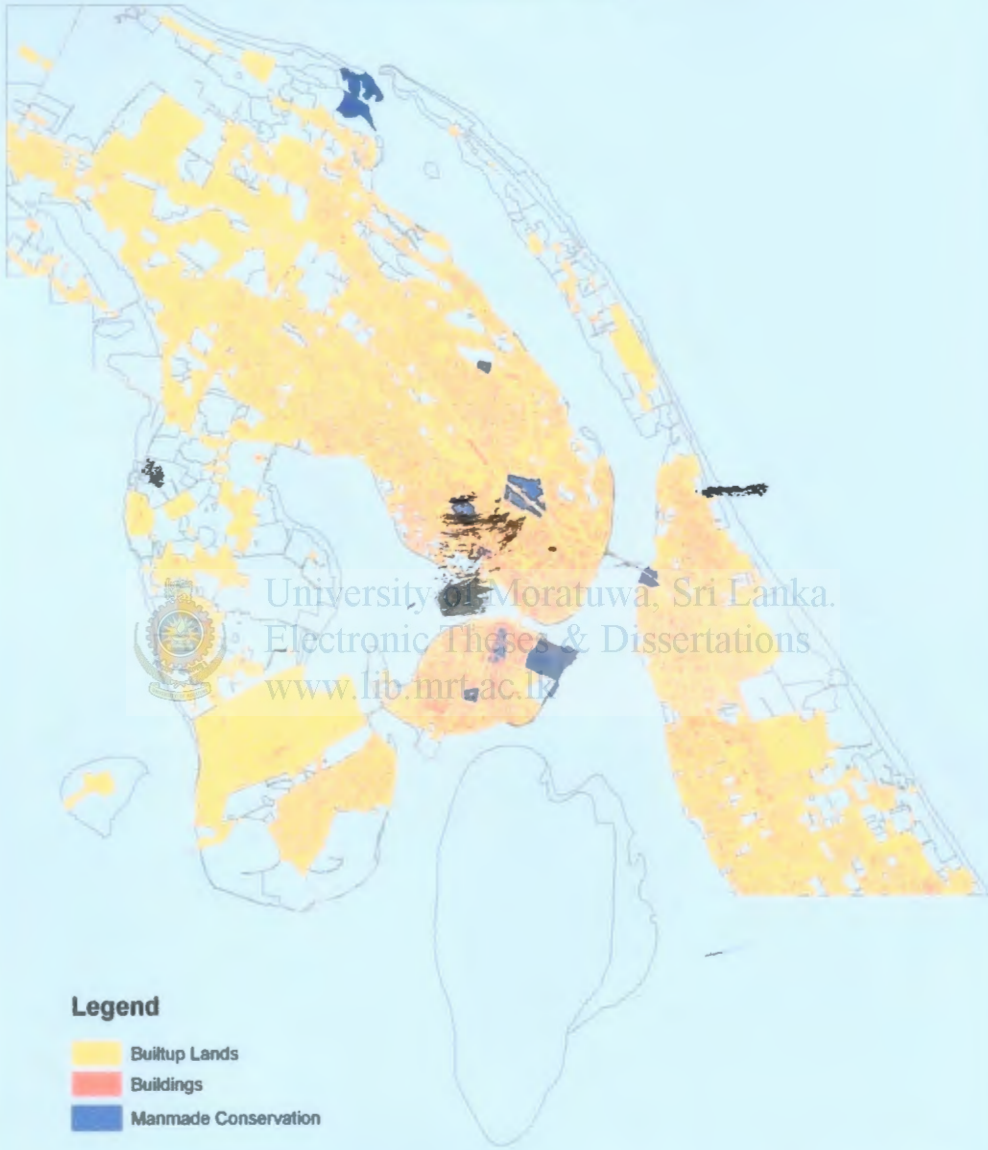
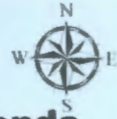


Urban Characteristics in Matara Town

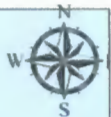




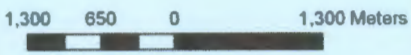
Built up Lands and Manmade Conservation Lands In Bataloa City



Natural Lands in Bataloa city



Legend
Vegetation



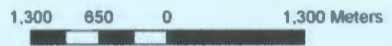
Water Bodies In Bataloa city



Water Bodies and Natural Lands fronting roads In Baticaloa city




- Legend**
- Water and Natural Lands fronting roads
85724 M 13.57% of all Roads
 - All other Roads
410392 M
 - Natural Lands
 - Water Bodies
 - Other Lands



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Public perception survey on urban conservation

- 1.0 What is the present main economic activity in Baticaloa city?.....
.....
- 2.0 What is the reason to visit the city?.....
- 3.0 How often do you visit the city.....
- 4.0 Do you like to live in this city
 If Yes why.....
 If No why.....
- 5.0 What are the unique features of the city?.....
.....
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- 6.0 What is the best land mark of the city.....
 Second land mark.....
 Third land mark.....
- 7.0 What would be the best use of lagoon be.....
.....
- 9.0 What is the best about street.....
- 10. What do you think about the main economy of the future?.....
.....

11.0 within 10 years what is the size of the majority of buildings would be.....

12.0 is the roads need to be widened?

13.0 list the buildings need to be conserved by prioritizing?.....

Kalady bridge	Light house	old houses	Clock tower	fort
New M.C.	Methodist college	Shivananda Vidyalaya	Old qtr. Judge's	market
Bus stand	ST Michal College	Railway Station	fare	Old M.C.
St Vincent girls H.C.	Prison	Religious places	Public library	Your own house

15.0 what is your idea about present city center?



16.0 what is your idea about the Buffalo island.....

17.0 what is your idea about the Sathurukandan mash.....

18.0 what is your idea about the Navalady beach.

.....
.....

Thank you