

CASE STUDY OF DESIGNING AND MAKING A COMMUNITY PARK MODEL PROJECT

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ABSTRACT

Community park is one of the most publicized built examples of sustainable community design and landscape. Parks provide space for neighbourhood residents to interact with each other and meet new people. They're also great spaces for events and for people to engage in recreational activities which allow people to develop a sense of community (Casandra, 2018). The purpose of this case study is to make this knowledge available to practitioners and researchers as well as to provide a design and make a community park project by using available potentials resources. Trincomalee Town is recognized as a region that has lot of potential sites and home to the famous sites for people to engage in recreational activities. Beach along the Trincomalee town, nearly 5.6 Acer land is available which is famous Back Bay and for leisure activities within Trincomalee District. This land is polluted and underutilized in the city limit which is the only available land for open space development. Therefore, this research was conducted in the Trincomalee at Back Bay Water Front with the objectives to assess the present situation of the area, to analysis the site suitability with identified factors, to propose strategic project and provide a detail design for a new community park project with comparison of the world sites based on the best practices to change proposed site in a better way.

***Keywords:** Leisure activities, potentials resources, recreational activities, sustainable community design and strategic project*

INTRODUCTION

Parks are perceptible reflection of the quality of life in a community which provide identity for citizens which is the major factor for the city development. The waterfront parks serve as a popular gathering spot with markets, parks, tourist boats, and ocean liners and walkway in many areas. Trincomalee Town is recognized as a region that has lot of potential sites and home to the famous temple and other historical monuments such as World best Natural

Harbour, Old Dutch Fort, Spring wells, Trincomalee War Cemetery, Vehara temple, Koneswaram Temple, Pigeon island, Nilavali Beach Hotels and Marble Beach. This area closes to the Archeological site, Historical site and Dutch bay beach in Trincomalee. Hence its essential should be preserved and there is a need to protect the cultural Heritage character of this area and also to maximum utilize the land use in more sensitive way. Beach along the Trincomalee town, 5.6 Acer land is available which is famous Back Bay and for leisure activities within Trincomalee District. This land is polluted and underutilized in the city limit which is the only available land for open space development. If this land use pattern continues as it is in future, it will reduce the city image. If we change this area into modern leisure activities, this place will be changed as a main attractive and popular market place in Trinco area and this site will attract more visitors, tourists and local residents to the fort and surrounding area including the beach belt as environmentally pleasing zone. Therefore, this research was conducted in the Trincomalee at Back Bay Water Front with the objectives to assess the present situation of the area, to analysis the site suitability with identified factors, to propose strategic project and provide a detail design for a new community park project with comparison of the world sites based on the best practices to change proposed site in a better way.

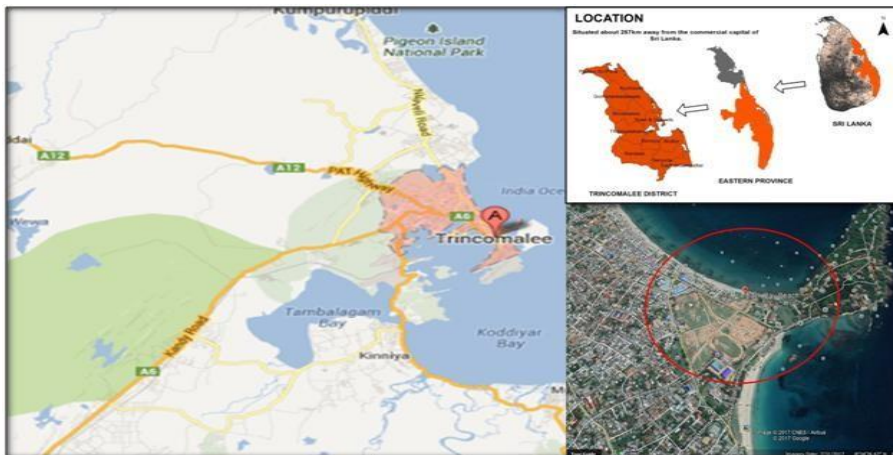


Figure 01, location of the proposed site

Source: Compiled by Authors, (2018)

The location of the site, Back Bay beach front is in in Manayavali G.N Division in Trincomalee Urban Council area in Eastern Province, Sri Lanka with the cultural Heritage background. This site is covers in North by sea, East by Archaeological site and Heritage site, south by RDA Road and West by Wholesale Fish Market. Proposed Site is shown in Figure: 01.

LITERATURE REVIEW

The findings of a major literature review are mentioned relating to parks and its benefits to a city. The review considers material from sources that include peer-reviewed literature, library and internet. Urban green spaces supply to cities with *ecosystem services* ranging from maintenance of biodiversity to the regulation of urban climate. Comparing with rural areas, differences in solar input, rainfall pattern and temperature are usual in urban areas. Solar radiation, air temperature, wind speed and relative humidity vary significantly due to the built environment in cities (Heidt, Neef, 2009). Green spaces that feature good connectivity and act as “wildlife corridors” or function as “urban forests”, can maintain viable populations of species that would otherwise disappear from built environments (Byrne, Sipe, 2010).

Community parks can reduce air *pollutants* directly when dust and smoke particles are trapped by vegetation. Research has shown that in average, 85% of air pollution in a park can be filtered (Bolund, Sven, 2010). Urban green parks serve as places of identity, memory, and belonging, enrich human life with meaning and emotions which is a key component of sustainability. (Mathivathany & Sasitharan, 2016)

There are some researchers have been done by researchers related *Economic*

Benefits of urban greeneries like Energy Savings, water management and Property Value. Plants improve air circulation, provide shade and they provide a cooling effect and help to lower air temperatures. A park of 1.2 km by 1.0 km can produce an air temperature between the park and the surrounding city that is detectable up to 4 km away (Heidt, Neef, 2009). Community parks have been viewed as an important part of **community development** rather than just as settings for recreation and leisure. Community parks have been suggested to facilitate social cohesion by creating space for social interactions (Coley, Van Herzele, Wiedemann, 2001). A study conducted in Helsinki, Finland, indicated that nearly all (97%) city residents participate in some outdoor recreation during the year. Urban green spaces serve as a near resource for relaxation; provide emotional warmth (Heidt, Neef, 2009). Urban parks can play an important role in **attracting tourists** to urban areas, e.g., by enhancing the attractiveness of cities and as harmonize to other urban attractions (Majumdar, 2004).

As per discussed above, there are many literatures on how to design the community parks and how places are used as a place to improve the beach front community park but very less research works are on in Eastern Province. Especially, quite a number of studies carried out in related eco-tourism and parks. There are no researches about Community parks analysis in Trincomalee. This is the Knowledge gap of this research.

RESEARCH METHODOLOGY

To achieve above objectives primary and secondary data were collected from variety of sources. Socio economic data, tourism potentials data were collected through field observation, structured interview, Questionnaire survey and discussion with the officers of Urban development authority, District secretariat and people who residing in the surrounding areas, tourists, commuters and report of Metro Trinco Development plan. The collected data

were analysed using basic descriptive statistical analysis. Non probability sampling method (120 samples) was used and SWOT analysis, Site Suitability analysis, Stakeholder perception analysis and Highest and best use analysis were used for the result. Demand Survey was conducted with Local public, Commuters, Vendors, Tourist and Pedestrians.

ANALYSIS

Present situation of the study area has different land use pattern like commercial use, residential, recreational use, economic use and environmental use. Part of the site is occupied by fishermen who settle during the war period for security reasons because army camp is located in the fort area and unauthorized building were constructed.

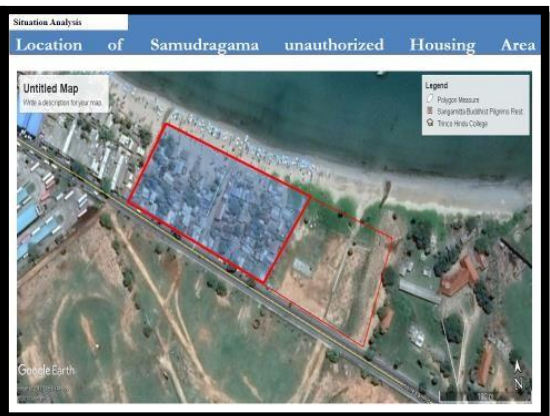
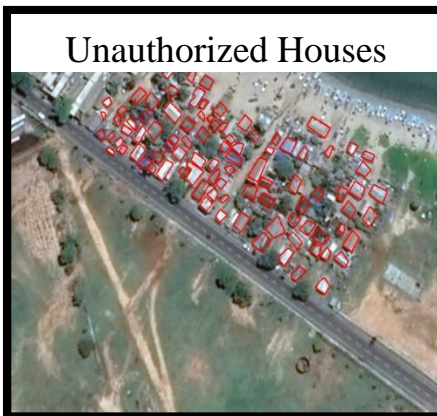


Figure 02- Present situation of the area

Source- Captures by Authors using Google image

The unauthorized housing is the relocatable aspect in the proposed area. There are 120 families should be relocated to other places which are 15 Semi – Permanent Shelter and 105 Temporary Shelter. After Tsunami new building were constructed and relocated these people at 7 km away from the site.

But they were captured again this particular location because of their employment while they have enough and suitable location for fishing activities.

Legal permissibility and physical possibility were conducted using Highest and best use analysis of Community Park. The Highest and best use analysis is shown in table 01.

Table:01, Highest and best use analysis Community Park

Legal permissibility	Physical possibility
<ul style="list-style-type: none"> ❖ Permissible uses under Metro-TrincomaleeDev.Plan one of the permitted use is under Sports & Recreational zone. ❖ 400 yard was declared as the buffer zone. ❖ Public Outdoor Recreation Space (PORS) <p>Availability of Open space = 22 He</p> <p>Public Outdoor Recreation Space</p>	<ul style="list-style-type: none"> ❖ In authors view, it has infrastructure availability with water supply, electricity and problems of having improper drainage system. ❖ This site has not any vulnerability of inundation due to the unavailability of water body in surrounding.

<p>(PORS) =1.4ha /1000*54,000 =75.6 - 22 ha Need open space = 53.6 ha</p>	<p>❖ High integration of the Koneswarakovil road give access to the site and proposed multi model transport centre also give connectivity to other area while upcoming bus terminal and loop connection.</p>
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Source: Compiled by authors, 2019

Socially Acceptable	Environment Friendly	Maximally Productive
<p>Community recreation improves human condition Provides Recreational Experiences Promotes health and wellness Increases cultural unity</p>	<p>Maintenance of natural ecosystems and site production. Parks provide vital green space</p>	<p>Revenue in 1st year= Rs 1,080,000 Recovery period= 4 years & 6 Month.</p>

Source: Urban Development Authority, Trincomalee, 2018 & Field Visits
SWOT analysis for Community Park at Back Bay Water Front area is indicating the strengths, opportunities, weaknesses and threats for the proposed area.

Table:02, SWOT Analysis of proposed site

Strengths	Weaknesses
<ul style="list-style-type: none"> ✓ - The proposed site is located very closer to the Trincomalee Town transportation hub ✓ Infrastructure availability with water supply, electricity ✓ Proposed ongoing projects ✓ Local, Regional and National Linkages ✓ Compatibles surrounding land uses – Market, Hotels, and Bus Stand Parks and play ground, integration of local resident and commercial. ✓ This area located next to the very famous fort Fredric and Dutch bay beach ✓ Land belongs to state 	<ul style="list-style-type: none"> ✓ Underutilized land use ✓ Encouragement by the unauthorized squatters ✓ Weak tourist infrastructure with important touristic opportunities
Opportunities	Threats
<ul style="list-style-type: none"> ✓ - Enhancing the Historical Core and the relation with the fort will keep character of the area ✓ Proposed site coming under the Sports and Recreational zone according to the metro-Trincomalee Development Plan (Gazette notification No:1534/8) 	<ul style="list-style-type: none"> ✓ Sea erosions ✓ Tsunami affected area ✓ Political situation in the country ✓ New development policies

<ul style="list-style-type: none"> ✓ More tourism attractions for Sea and heritage sites of Trincomalee ✓ linkages other tourist areas ✓ Development organizations' interest to develop the tourism sectors 	<ul style="list-style-type: none"> ✓ instability of the local government bodies ✓ lack of powers of the local government bodies
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Stakeholder Perception survey for the future development project provides the community park project at the proposed place which is 78% demand while 32% demand shows for Tourism Information Centre. Fisheries centre and other development show in respectively 7% and 3% demand. The detail of this Stakeholder Perception shows in figure 03.

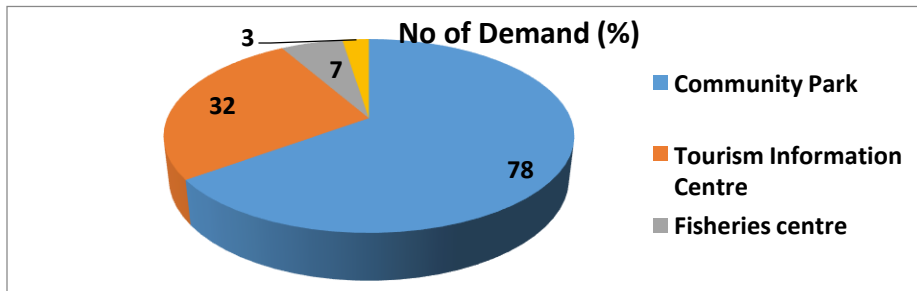


Figure: 03, Stakeholder Perception for the future development project

Source: Questionnaire survey, 2018



Figure 04- Proposed land use characters of the area
Source: Prepared by authors using Google Image, 2018

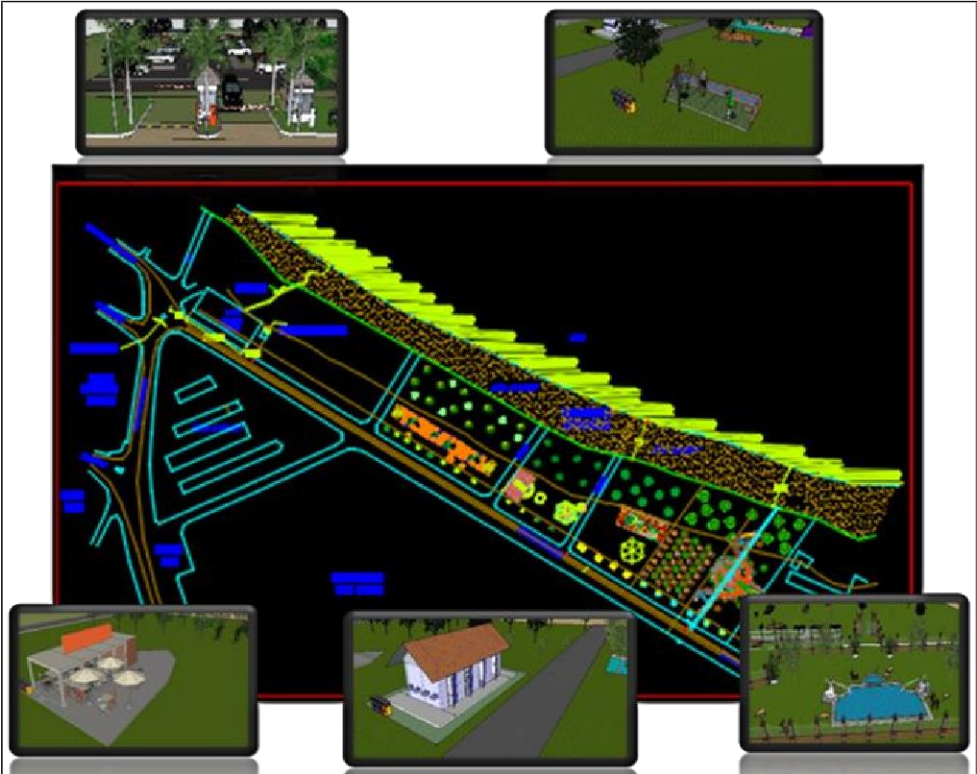


Figure 05- Proposed Detail Design of the selected area

Source- Prepared by authors using Auto Cad, 2018



Figure:06, Community Park Project

Source- Prepared by authors using Auto Cad, 2018



Figure:07, Open Restaurant with Public Toilet Facilities

Source- Prepared by authors using Auto Cad, 2018



Figure: 08, Deer Park Project at proposed location

Source- Prepared by authors using Auto Cad, 2018



Figure:09, Sitting area project with Greeneries and Children Playing Equipments

Source- Prepared by authors using Auto Cad, 2018

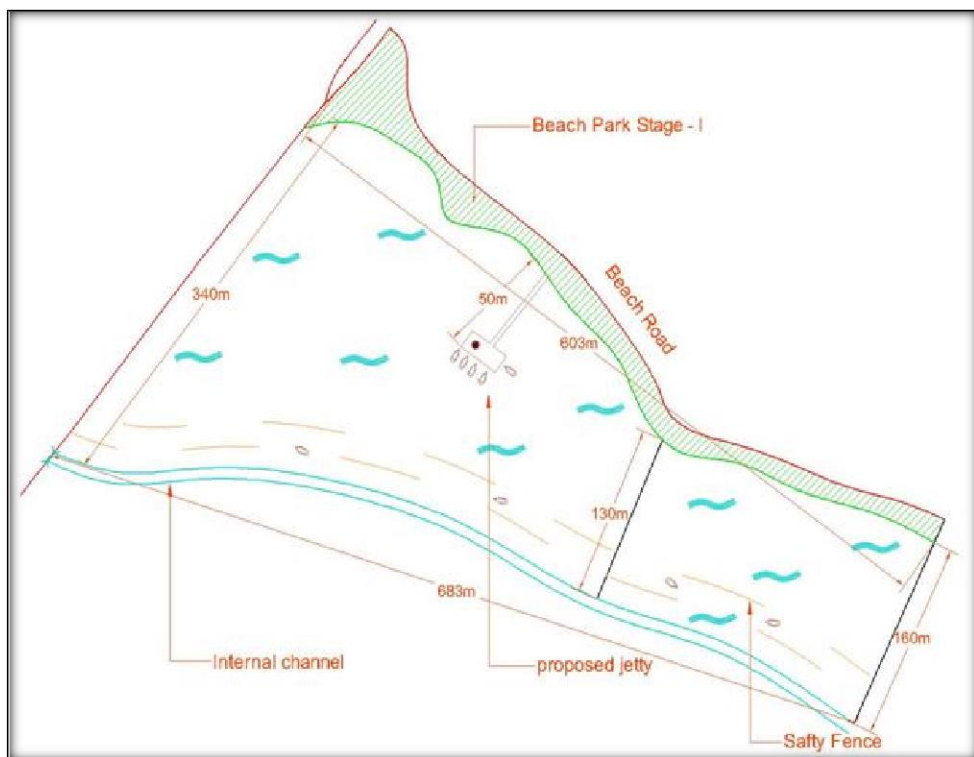


Figure:-09, Proposed Paddle Board Service Area

Source- Prepared by authors, 2018

CONCLUSION AND RECOMMENDATIONS

The finding of this research reveals that unavailability of recreational park within existing boundary which is derived with limitations of less community interaction and attraction of the people. The location of the site is very much close with cultural heritage and tourism potential site. So, upcoming proposed development projects can attract lot of people to this site. Tourist and other community people should need recreational place for their relaxing environment. The location of the site is adjoining the beach area is possible to attract the people by recreational activity. Site is a calm and quiet environment rather than the heavy traffic flow at the present and this site is located close proximity to Trincomalee town centre. The area will be urbanized by these upcoming projects. At the middle of the busiest environment people will preferred to have some relaxing and quite greenery environment. The environment side also this surrounding area has rich biological species and native animals. Through this proposal can preserve valuable assets at this area. The developing place by upcoming projects as the community recreational park will give unique identity to that place. Park facilities should be provided by the respective authorities to control incompatible uses and encroachments around the beach. Some works such as sound system, car parking, lighting, foot path, tree planting, turfing, waste collection system, common public place, food and beverage retail and shops and open gym are needs to be carried out in order to complete the balance work of development of Community Park to change the attractive functional leisure place. As a result and in consideration, the local population should be given the opportunity to have alternative sources of income. Nationwide, eco-tourism and its related services are one of the most important alternative sources of income and employment opportunities for people living near this proposed park.

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