

Assessment of Sociable Spaces in the Central Areas of Jaffna Town – An Urban Spatial Planning Perspective

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Abstract - Jaffna town is urbanizing rapidly as response to the growing economy of the region. Space demand for social interaction also increases in par with the demand for other uses. Urban Sociable spaces that refer to the publicly owned and managed outdoor spaces such as streets, parks, green open spaces, playgrounds, water bodies, facilitate social interaction and characterize the image and identify of a city. Jaffna town is unable to cater the needs in terms of sociable urban spaces, though there are different types of spaces available. This research aims to improve the quality of those spaces in order to cater the needs of urban communities. This research has been undertaken based on field survey of those spaces, observation of people who use those spaces, interview of potential beneficiaries, and planning professionals who design those spaces. Questionnaire survey of commuters and inhabitants was conducted to assess the needs to be enhanced in those spaces. The study shows that the people lack the habit of spending their time in sociable spaces though there are needs in the subconscious mind for recreational needs. The available spaces also polluted due to waste water discharge and solid waste disposal and not having necessary infrastructure facilities to attracting people and provide them safer and comfortable space. There are no clear land use zoning regulations to prohibit unauthorized developments and encroachments. Planning authorities also are not having ideas to incorporate the sociable aspect of development in the town areas. There are challenges to create sociable space within the town Centre since the level of saturated built environment. A strategic urban regeneration plan must incorporate provisions for improvement of environment, facilities and amenities of Fort promenade, Pullukulam, AriyaKulam, VannaanKulam and Subramaniumpark. Extensive awareness among the professionals and officers of planning and development also important to trigger the ideas from the grass root level.

Keywords - Green parks, Urban Sociable Space, Vibrant public space

1. INTRODUCTION

Jaffna town and its surroundings are being transformed into urban built up areas rapidly and becoming congested places where there are no spaces and facilities created for

the interaction of people who live, work and on the move in those areas [1]. This type of phenomena is taking place due to unplanned urbanization process. Jaffna town requires space for social interaction such as meeting people, exhibiting culture and identities, sharing experiences and ideas. Social interactions in the community provides mental and physical health benefits [2]. Most of the lands in Jaffna town are intensively utilized for various profitable commercial and business activities [1]. The space for social interaction do not seem profitable not only in Jaffna but in most of the cities in developing countries [3]. This perception is different in developed countries. The sociable urban space play a very important functional roles in the urban environment. If the public open spaces in urban areas are functioning properly, it will attract more people and benefit them in various ways [2]. This research tries to assess the existing usages and find strategies to improve those available spaces useful for the urban community of Jaffna town. Lack of physical activity among general population leads to degrading health in the communities [4]. Researchers conducted in mega cities show that the sociable spaces have correlation with mental and physical wellbeing of the communities [4]. Lack of sociable space in urban areas constraints the social interactions (Jane Jacob, 1961). Poor social interaction creates unfriendly and disharmonious societies [2]. Jaffna town also is not having adequate space for social interactions [1]. It is obvious that the lack of sociable space in Jaffna may lead to the emergence of unhealthy community.

Convivial space in Jaffna town areas can act as a social glue and platform for socialization. The convivial spaces creates social attachment which is a heart of the sense of community which is not visible in most of the cities [2]. The sense of community will enrich the values and cohesiveness of the society. Such social network will safeguard the wellbeing of the community in a better way than any other artificial way of safeguarding them.

There are potential areas which are suitable for creating as sociable spaces and recreational space. Few of them are currently used for interaction and recreational purposes to a certain degree. There are hundreds of spaces spread in different parts of the town but for this study five prominent sites have been selected for the purpose of improving as sociable spaces. The publicly owned outdoor spaces in Jaffna

town area are Beach Park, Fort Promenade, Pullukulam, Subramaniam Park, VannaanKulam, AriyaKulam, outdoor court yard and Street spaces in the central area of the town. It is observed that the people rarely visit available few recreational sites in Jaffna due to lack of interest and stressful life styles. At the moment, the beach park, SubramaniamPark and part of Old Park are used for recreational activities. Fort also is one of the enclosed space which is used by visitors from the south not much by local people. Planning authorities are also not showing much interest in designing public spaces that could attract more people. The conventional methods of urban planning practiced by planning institutions is inefficient in creating people friendly urban space which is called sociable space which requires paradigm shift in its approach [5].

2. RESEARCH OBJECTIVES

- To identify the sociable space in centre of Jaffna town area
- To assess the existing conditions of the identified spaces
- To identify strategies to transform those sites into sociable spaces

3. RESEARCH METHODOLOGY

Different aspects of the public spaces were assessed to find out the possible usages for recreational and interactions. Condition of the spaces, such as spaciousness, cleanliness, locational suitability, greenness, surrounding activities were collected from field surveys as primary data. Data on public perception about the spaces in different locations and potential future uses as public spaces were collected through questionnaire survey. Land use and land cover data were collected from satellite images. Public spaces were demarcated from high resolution satellite images.

Data Collection and Analysis

Data on condition of exiting spaces were collected through field visits in Jaffna town. There are parks, water bodies, heritage sites, commercial areas, beach belts, religious sites within the centre of the town and municipal council areas. PannaiBeach park, Fort Promenade, Pullukulam, SubramaniamPark, VannaanKulam, AriyaKulam, areas were identified as important potential public spaces in Jaffna town and those spaces were demarcated on maps using satellite image. Land use, land cover and areas of each site were derived from digitizing high resolution satellite images.

Commuter and residential populations were surveyed using 100 questionnaires to capture the perception about the potential sites, the facilities they prefer in those areas for better use and how they want to see those places in the future. 60% of the questionnaires were used to survey the residential population and 40% for commuter population. Higher weight was given to residential population because the town spaces are used mostly by residents most of the time. Judgmental sampling method was adopted to select the people for questionnaire survey. Selection of different types of people with diverse social and economic background were considered to get diverse ideas and opinions. Commuters for questionnaire survey were selected from centre of the town area and residential population from the surroundings of potential public sites. The survey output has more reliability because of the selection of the sample population for the survey. Out of those interview, 45% live within Jaffna town areas, 39% live within Jaffna district and 6% live in other provinces. Nearly 46 % of those interviewed work in the town area and 18% of them are students studying in the schools within the town centre.

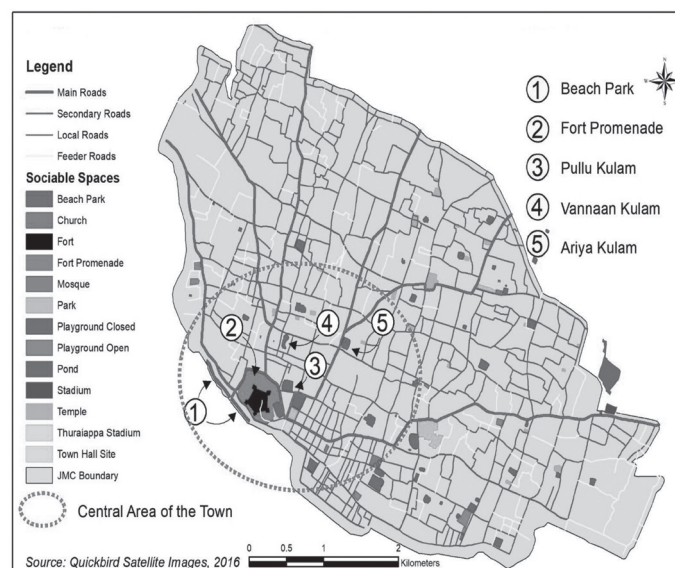


Figure 1: Public Open Spaces in Jaffna Town Area

The perception about the public spaces and the way the people want them to be developed were analyzed based on the questionnaire data collected about the potential sites. Descriptive analysis techniques were applied to analyze the qualitative data. SPSS version 22 software was used to summarize and tabulate the questionnaire data. Land use land cover, physical conditions, environmental conditions, surrounding existing development, settlement development, land availability, water quality, waste disposal, water disposal were analyzed based on the primary data

collected from the site visit. ArcMap 10.4 version was used to extract data on open space from satellite imagery.

Descriptive analysis techniques were applied for the assessment and analysis of sociable space. This research mainly is based on the qualitative aspects of the public space that are suitable for social interactions.

4. FINDINGS OF THE STUDY

The analysis shows that the commuters and inhabitants of Jaffna town lack the awareness of the importance of sociable space for interaction. Indirect responses show that people prefer open space. There are very few sociable spaces in Jaffna town but they are not in a conditions for the use of public interaction due to various factors.

Almost all who were interviewed replied that they want public open spaces in various parts of the town area which shows 100% desirability for sociable space. 99% of the people want neighborhood parks. Currently, 24% of them are visiting Subramaniam Park and 27% are visiting Beach Park. If look at the frequency of visit to these parks, 34% of them visit once a week and 52% visit once a month. If looked at the purpose why people want open space, 40% said they want for relaxation, 34% said they want for enjoyment and 12% said they want for social interactions. When asked about their likeness on different open spaces in the town, 55% of them preferred Fort Promenade and 34% Beach park and rest preferred Subramaniam park. The reason for the preference on Fort Promenade was heritage values in the background and larger open areas and it is enjoyable to them.

Out of those responded, 93% said the Pannai Beach park must have conducive environment which refers cleanliness and green environment, 94% of them said Beach park must have basic amenities like drinking water, public toilet facilities and 85% said there must be facilities such as walking and cycling paths and resting benches for active physical activities in the beach park.

When people responded about the Fort Promenade, 90% said there must facilities as walking and cycling path for active physical engagement around the promenade. Looked at the response regarding PulluKulam, 89% of them said the pond should have conducive environment, 84% said there must be basic facilities and 88% said there must be facilities for active physical engagement. On average, 34% of the people suggested that the open spaces must have basic amenities and 34% suggested the space must have facilities for active physical engagement such as walking, cycling and exercising.

Streets and Pedestrian Facilities

There are main roads in the town that have more movement of traffic and people such as, Hospital road, Power House road, Standley road, Kasthuriyaar road, KKS road, Palaly road which do only have space for vehicles but not having space and facilities for free movement and interaction of public. Streets with wider pedestrian walking spaces are important to create very vibrant urban centre but in Jaffna town the width of the roads are narrower and does not have shoulders. Most part of the drains along the road are open, not flowing with stagnated waste water and in dilapidated condition. People feel uncomfortable and unsafety in walking and moving on those roads. Hence the streets in Jaffna town do not facilitate the social interactions.



Figure 2: Kasthuriyaar Road - Streets without Walking Space in the Central Areas of Jaffna Town

Source: Field Survey, March 2018

Linear Beach Park at Pannai

The beach park extends for 7 acres in area along the coastal side of the Fort, is being used substantially. The beach park has little facilities and space enough for lesser number of people. There are walking spaces of nearly 400 meters with shady trees and benches. Recently there is a boating facilities created which also attracts inhabitants and commuters. The width of the walking space is inadequate if more people access this park. The linear park does not have the safety and security conditions due to absence of street lights and security



Figure 5: Beach Park - Pannai, Jaffna Town
Source: Field Survey, March 2018

posts. This beach park has a negative natural condition that this park is bordering with the shallow lagoon that brings undesirable odor which people always feel uncomfortable. Another issues with respect to the beach park is the sewerage outlet of Jaffna teaching hospital empties into the Pannai Sea which create very bad odor always.



Figure 3:
Hospital Road - Streets without Walking Space in the Central Areas of Jaffna Town
Source: Field Survey, March 2018



Figure 4: Beach Park - Pannai, Jaffna Town
Source: Field Survey, March 2018

Fort Promenade

Fort Promenade surrounding the Fort consists of 39.5 acres of open green space suitable for socialization and recreation. Most of the space of the Promenade are not used for social needs or recreational purposes. Part of the promenade is used for parking of long distance buses and another part is used for drivers training. Both uses are temporary and rest of the spaces are not utilized. The promenade space is in the very centre of the town which can create landscape identity and image of the city. The space does not have any facilities for walking, cycling, or any other social interactions. This space occasionally is used for public gathering of political and other important events in a year. This space does not have adequate storm water drainage system, part of the space tend to inundate annually.

Subramaniam Park

Subramaniam park though it is designated as park in 3.7 acres in the centre of the town adjoining the main street, its usage is not satisfactory. Though it is having trees and green environment, it is not attracting much people due to its closed condition and congestion of plants. There are few facilities for children to play and benches for resting. The park is congested with undergrowth of plants and trees posing safety and security issues. The access time to the park during the day also restricted and fully closed at night. During night time the area seems dead due to the absence of pedestrian.



Figure 6: Fort Promenade, Jaffna Town
Source: Field Survey, March 2018

PulluKulam



Figure 8: Pullu Kulam, Jaffna Town

Source: Field Survey, March 2018

Pullukulam is a pond covering 4.18 acres, a water body, in the centre of the town which is a potential area for recreation and social interaction. The water body can act as a cooling body to control the heat island effects of the town and part of the natural drainage system to control inundation and recharge ground water. The pond has been silted and has lost its water holding capacity. It is not used for social interaction or recreational activities due to its polluted environmental condition. The pond is polluted and spreads bad odor due to its pollution. People tend to dispose solid waste, waste water.



Figure 9: Pullu Kulam, Jaffna Town

Source: Field Survey, March 2018

Even few establishments dispose sewage into the pond where municipality also has not taken any actions to restrict those activities. The pond does not have facilities for walking or cycling and other basic amenities. The polluted water in the pond leads to the pollution of ground water in the surroundings. Part of the pond has been encroached and reclaimed for various development by private sector.

VannaanKulam

VannaanKulam which covers 2 acres, is located in the central commercial areas of the town enclosed by four main roads, Old Post Office road, Power House Road, Kasthuriyaar road, Standley Road. Part of the pond has been reclaimed by private developers and a part by Municipal Council to construct Municipal Council Complex. Though, the pond is located at very strategic place to be used as recreational water

body, the pond is not in any social use except for waste and waste water disposal. The part of the pond and edges are lost by now by unauthorized reclamation and construction. The accessibility to the pond also is not existing on two sides, Kasthooriyaar road and Hospital road due to the unplanned development. The pond is spreading bad odor due to the polluted conditions. The pond tends to inundate during a lower intense rain because it has been silted by storm water. The site does not have any space or facilities to make it sociable. This pond also functions as part of the natural drainage system in the area.

AriyaKulam which extends for 2.8 acres in the central area adjoining the main intersection of Palaly and Stanley roads, has great potential to serve as a water based recreational site since its edges are bordering with the two main roads. At present it is not used so due to its pollution. There are shady trees on the edges of the pond bordering the roads.

Most tourist from the Southern Sri Lanka used to rest adjoining the pond due to its location near the Nagavihara, a Buddhist historical site, and open water body. The pond is highly polluted due to runoff from the surrounding areas and waste disposal. The pond looks greenish due to algae and floating lot of plastic materials.

5. CONCLUSION AND RECOMMENDATIONS

Conclusion

The study has found the condition of the sites and the possible measures to be undertaken transform them into sociable spaces. Main issues with respect to public streets are that almost all the streets are narrower in Jaffna town and not having space for people to walk or meet others or rest. In most of the roads, people use road space for walking and talking to others. This causes inconvenience to vehicle drivers, traffic congestions and risk of accidents. Main issues identified with respect to water based sites such as, AriyaKulam, VannaanKulam, PulluKulam, are pollution and encroachment of the edges of the water body and unavailability of facilities for physical activity and resting. These sites are lacking of basic amenities. Beach linear park has facilities for physical activity and resting for certain stretch of the coastal belt but negatively affected by undesirable odor. Since the park is located in the corner of the town it is little remote for public in other parts of the town. The Fort promenade is the superior site among others and the landscape and conditions also relatively better. The area also relative larger that can accommodate diverse recreational activities. The promenade site also require facilities for physical activities and basic amenities and connectivity with other areas of the city.

Proposed Measures to Improve the Street Fabric

Allocation of adequate space to facilitate the mobility of people on foot are important to create sociable urban space. All roads must be having on both sides of minimum of 1.5 meters of walking space and 1.5 meters of cycling space with pedestrian crossing at required locations. The walking spaces that connects the hospital, bus stand, fort promenade and the town centre must be wider than others because these places attract more pedestrian traffic. There must be resting places with benches in few locations close to the bus stand and hospital. The pedestrian walking space must be barrier free to facilitate the mobility of elders and disabled people.

Proposed Measures to Improve the Linear Park

The length of the beach park must be extended to cover the entire stretch of Jaffna town coastal belt with adequate facilities for walking, cycling, resting and eating. Land reclamation is required along the coastal belt to minimize the undesirable odor due to the shallowness of the lagoon. The boating facilities need to be provided in different places to attract and engage the public in recreational mode. The waste water disposal at Pannai Beach from the hospital must be prohibited immediately and existing waste water treatment system must be augmented to minimize the pollution into the lagoon. The solid waste disposal at Kallundaai lagoon must be ceased and integrated waste management system needs to be introduced for Jaffna town.

Proposed Measures to Improve Fort Promenade

Landscape plan must be prepared and implemented for fort promenade area to preserve storm water and green environment with facilities for social interactions. Continuous walking, cycling spaces with other basic amenities such as drinking water, public toilets, bins for waste disposal and parking need to be provided at suitable locations. The promenade must be connected with beach park, Subramaniam Park, Pullukulam and the commercial areas of the town via Muniappar road and KKS road.

Integrated storm water drainage system must be planned and implemented to reduce the inundation impacts. Small cafeteria and restaurants at appropriate locations will help the people staying in the areas for substantially longer time. Planting of exotic trees and grasses will help to preserve the green environment thus maintaining the microclimatic conditions.

Proposed Measures to improve Subramaniam Park

The fence of the park must be removed and there should be a free access to the park from all sides. All undergrowth must be removed and tall trees should remain. The access roads must

be equipped with adequate lights and pedestrian walking and cycling space need to be provided with required width and conditions. The park must be connected with fort promenade and the town centre by walking and cycling spaces. There must be a public toilet in the vicinity of the park. Other basic amenities such as drinking water, storm water disposal and solid waste disposal must be provided to the park.

Proposed Measures to Improve the PulluKulam

There must be number of activities planned and implemented to improve the situation of the pond to use as sociable and recreational space. The pond must be de-silted in order to remove all the polluted deposits in the pond. All pollution sources from the surrounding land uses must be stopped and alternative plans must be implemented for those waste water from houses and other establishments. There must be a landscape plan to transform the area suitable for socialization which must incorporate walking and cycling space with other basic amenities such as public toilets in suitable locations. The pond must be connected with the fort promenade, Subramaniam Park, Hospital and the town centre with walking and cycling spaces. There must be a buffer zone to be created around the pond to protect the water body from encroachments.

The pond is to be developed as part of the Cultural Centre development next to the library. Under that project, it is proposed to have a floating stage with other public viewing galleries on one side of the pond. This will fulfil the partial requirements to make this space as sociable.

Proposed Measures to Improve the VannanKulam

Main tasks to make the Vannankulam into a sociable space is due to remove silt and clean it. All waste water inlets must be diverted to a waste water drains. In integrated waste management plan must be implemented to avoid waste disposal into the pond. Access to the pond and space for recreation need to be created by removing encroachments and unauthorized constructions on the edge of the pond. Integrated drainage system for the entire region must be prepared to control the flood in most part of the town. Drinking water, public toilet, walking space around the pond resting facilities with shady trees around the pond are important features to be created.

In conclusion, people, professionals, planners and administrators in local authorities do not give priority to create and use the space for social interaction due to ignorance about the importance of public open spaces. Hence, it is hardly found any well designed parks or sociable space in

Jaffna town except Beach Park and part of Old park. Now all concerned people have begun to realize the importance of sociable space for social wellbeing and by now it is easier to design and implement such as space with necessary facilities and amenities. There are challenges with respect to creating walking space along the streets in the town since most buildings have been constructed on the edge of the narrower roads but converting those narrow roads into one way roads and allocate space for pedestrian uses and parking. Since most of the local drains are connected to the pond, the runoff will bring washed off materials as pollution. It is essential to construct slit traps in all inlets and create an integrated storm water management system in the town. Buffer zone needs to be created around the ponds to create space for various social activity and protect the encroachment.

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