

# A Geo Spatial Analysis for Identifying the Potential of Tourism Development in Jaffna District

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**Abstract-** Tourism is a growing sector in the world Nowadays, GIS is widely recognized as a valuable decision support system that enables the Determination of suitable locations for tourism based on a group of criteria. Thus, this study was undertaken with the main objective is to identify the tourist potential in the Jaffna peninsula. The suitability model composite of Criteria's are commercial areas, infrastructures, roads, Existing tourist places, accommodations and recreational areas. First, a weighted multi-criteria analysis is performed to spatially integrate the first six conditions in a weighted manner by using GIS suitability model. The designed weights have been selected. As per the conclusion of the study, on the basics of the objectives and criterias, the Nallur and pannai beach area found to be with most suitable for tourism development. Other places are found to be with low suitable for tourism development. Though, based on last criteria, Pannai is identified to develop the tourist potential.

**Index Terms-** GIS, suitability analysis, tourism land use, Jaffna district

## I. INTRODUCTION

Tourism is one of the most exciting and progressive industries in Sri Lanka. Part of the visitor economy, tourism is also business and it impacts on almost every other industry. Tourist arrivals to Sri Lanka rose by 16 percent in November compared with the same month in 2015 with India and China remaining the leading markets, statistics from the Sri Lanka Tourism Development Authority. The term 'tourism industries' is the internationally accepted UNWTO/OECD definition of twelve standard industrial classification of the sector of the economy that provide products/services consumed by visitors. Tourist is the common denominator that covers all the forms of tourism defined above for the same range of purposes.

The entire North is blessed with natural beauty, a source for tourist attraction. Foremost of the attractions is the fascinating town of Jaffna, with its absorbing mixture of colonial charm and vibrant Tamil culture, while the Jaffna Peninsula and surrounding islands offer a string of remote temples, Hindu and Buddhist alike, beaches and more off-beat attractions. Sri Lanka tourism plans to develop tourist locations in the peninsula on a massive tourist project designed to the north.

The geographic information system applied to tourism management is the preferred platform of tourism information. The technical advances in computer sciences and techniques, geography got new powerful tools and methods to capture, handle, manipulate, and analyze huge amounts of data. These "organized collection of computer hardware, software, geographic data, and personnel design to efficiently capture, information" is called geographic information systems (GIS) (ESRI Environmental Systems Research Institute, 1990). With its capabilities for business mapping, geospatial analysis and its contribution to decision support GIS seems to be a very useful tool for the geography of tourism. To what extent the capabilities of geospatial analysis can contribute to tourism potential research will be investigated in Jaffna peninsula.

## II. OBJECTIVES

### 2.1 General Objective

The main objective of the study is to identify the tourist potential for development in Jaffna peninsula using Geospatial analysis Technology.

### 2.2 Specific Objectives

To identify the existing ecological and anthropogenic resources in the study area.

To identify the current situation of tourism in the study area.

To identify the awareness of the people engaged in tourism industry

To reveal the strategic plans to increase the regional development of the study area in future.

To propose suitable suggestions for development of tourism in Jaffna District.

### III. STUDY AREA

The Area represents physical, social, environment aspects. Jaffna District is one of the 25 administrative districts of Sri Lanka. Jaffna District is located in the far north of Sri Lanka in the Northern Province and occupies most of the Jaffna Peninsula. It has an area of 1,025 square kilometers (396 sq mi). It is divided into four areas geographically, Thenmarachchi, Vadamarachchi, and Valigamam and Jaffna islands. Jaffna District is divided into 15 Divisional Secretary's Division and 435 Grama Niladhari Divisions. Jaffna has enormous potential for development, tourism and hotel industry in the Northern Province of Sri Lanka. There are several tourist attractions. The following map is show the research area.

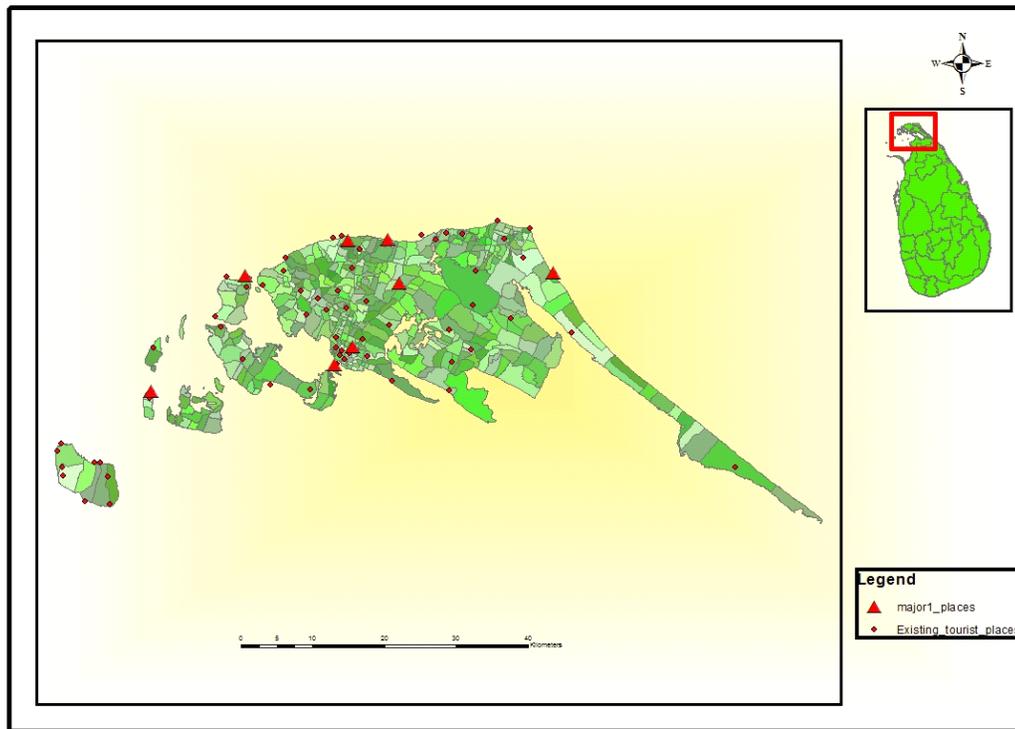


Figure 3.1 Study area  
 Source: by author

### IV. METHODOLOGY

Information was gathered through primary and secondary data. Information was gathered through visit to existing tourist areas, Field observation (Service provider, People engaged with tourism, Expert Opinion Survey). Secondary data was collected from Tourism Report, DSD Report.

Table 4.1. Data obtained from various authorities

Data type	Data format	Data Source	Scale
Land use map	Soft copy	Survey Department	1:50,000
District map, roads map, commercial areas map, accommodation, recreational map,	Soft copy	Jaffna Kacheri	1:50,000
Existing tourist places map	Soft copy	Survey Department	1:50,000

Tourism Report, DSD Report	Hard copy	Jaffna kacheri, Jaffna DSD Division	
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Source: by author

Through this research analysis is the identification of existing tourism for improving the tourist industry in Jaffna district. Descriptive research type and suitability and multicriteria analysis were used for the results by using Arc GIS. Non probability samplings were used and samples were selected for the data processing. The data processing has been performed in several stages in order to acquired up-to-data spatial datasets and non spatial datasets regarding the study area. In the first step and recent Land use maps has been obtained, and then identify the existing tourist places through the Arc GIS 10 .3 software. Secondly, a field campaign has been organized to collect field data about land use types for the recognized existing tourist places field work (GPS survey and discuss with tourist experts). Integrating such attribute data into the study area shape files enables the categorizing of available land uses in Jaffna peninsula. A total of eight major existing tourist places have been identified for the urban boundaries of Jaffna peninsula that find the existing place to develop.

Multi-criteria site suitability analysis is performed to identify appropriate spatial locations based on a group of criteria or constraints. In this study seven criteria and factors have been designed to construct a tourist infrastructure' suitability model. These conditions aim to: Identify safe locations and easy to access the facilities, fulfill spatial homogenous distribution over the city, reduce construction' costs by allocating sites close to an existing road, being in a flat or small slope area, and currently being empty parcels, Select appropriate locations with areas fit tourist infrastructures.

Accordingly, these the multicriteria composite of Criteria's are commercial areas, infrastructures, roads, Existing tourist places, accommodations and recreational areas.

- Within 3000m away from accommodations.
- Within 3000m away from recreational areas.
- Within 3000m away from commercial areas.
- Within 3000meters away from an existing tourist places.
- Away from an existing road by no more than 2000 meters.
- Within 3000m away from infrastructures.
- The area of the proposed site is larger than 1000 square meters and preferred be a beach site.

Lastly, a weighted multi-criteria analysis is performed to spatially integrate the first six conditions in a weighted manner by using GIS. The designed weights have been selected to be: a weight of 1to 4 for all conditions. The last criteria have been performed separately after the site suitability model is obtained through field visit, in order to define appropriate sites. The weight has been obtained from tourist experts through field survey.

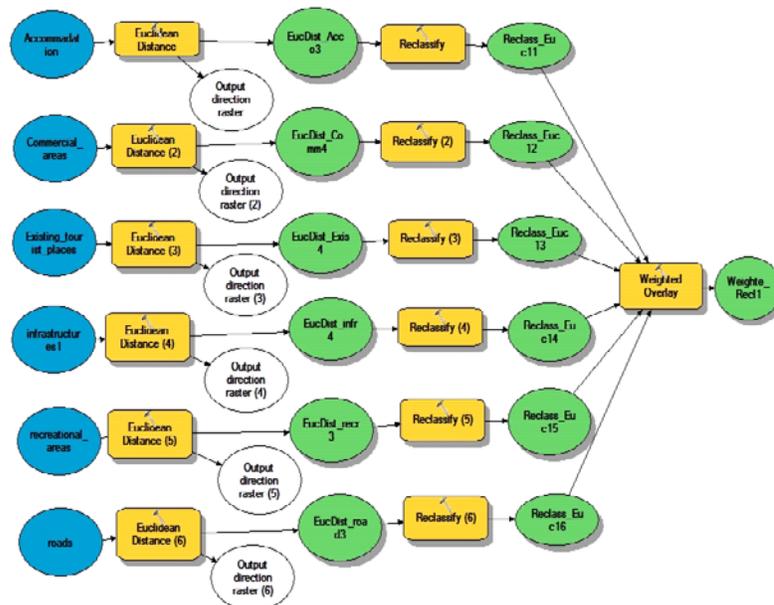


Figure 4.1. Analysis method of suitability model  
 Source: by author

Results and analysis Firstly, the Arc GIS spatial analysis tools have been applied for each criterion individually. Thus, six distinct suitability models have been obtained, one for each specified constraint. The spatial results of each attained model have been divided into four categories: more suitability, suitability, moderate and low. The suitability analysis model is given below. These are indicated by colors order to red, orange, light green and green.

## V. FINDINGS

Tourists started pouring in to the country after the end of civil war. Now, Major infrastructure development projects are undergoing in the country. The Government identified tourism as a fast emerging potential growth sector in the economy in terms of foreign exchange earnings, employment creation, infrastructure development and regional development. Tourism can bring higher living standard in a country if well managed to serve the interest of the nation.

### *5.1. Current situation of the tourism in study area.*

Jaffna has already become a popular destination for tourists. Jaffna has 32 tourist destinations. The Old Dutch Fort of Jaffna, Nallur Kovil, Nagadeepa temple, Keerimalai springs and the Jaffna public library are some of the key tourist attractions in the Jaffna district. Over 500 people visit Jaffna daily from various parts of the country with the dawn of peace. With the opening of the A-9 road for the public, the number of tourists visiting Jaffna has increased rapidly. The climate, lagoon and variety of flora and fauna of Jaffna is very good for the tourism industry. Though, during this periods Jaffna has seven tourist places that are famous destinations.

Jaffna has already become a popular destination for tourists. Jaffna has 32 tourist destinations. The Old Dutch Fort of Jaffna, Nallur Kovil, Nagadeepa temple, Keerimalai springs and the Jaffna public library are some of the key tourist attractions in the Jaffna district. Thirty years ago most of the Jaffna people left the country due to the uncertainty in the country and now they are returning to the island. Today instead of the brain drain; brain gain rate has increased. With the beginning of a new era with peace and stability it is vital that the business community recognize the possibilities and re-build the country's economy. Jaffna has enormous potential for development in the North. Jaffna is a resource land, which was untouched for the past three decades and it is vital to adopt the concept of being green since it is timely to have a sustained tourism in the country. There is immense potential for tourism and hotel industry in the Northern Province. Over 500 people visit Jaffna daily from various parts of the country with the dawn of peace. With the opening of the A-9 road for the public, the number of tourists visiting Jaffna has increased rapidly. The entire North is blessed with natural beauty, a source for tourist attraction.

Sri Lanka Tourism plans to develop tourist locations in the peninsula on a massive tourist project designed to the North. The climate of Jaffna is very good for the tourism industry. Climate of Jaffna is dry and tropical as it lies within ten degrees of the equator. Humidity in the air and land-sea breezes makes the temperature conditions more equable on the sea board. The weather conditions in Jaffna are marked by extremes temperatures as it falls in the Dry Zone. The highest temperatures are recorded during the months of April - May and August - September, when the sun is directly overhead. December - January are the coolest period. Many tourists are coming in these periods. Jaffna is home to beautiful Hindu temples. There are Buddhist temples in Jaffna but most were destroyed by the civil war. The Old Dutch Fort still stands well preserved within is an old Church. Another illustration of Dutch architecture is the King's House. No visit to Jaffna is complete without tasting the delicious Jaffna mango, reputed for its sweetness. About 3 kms away is the majestic Nallur Kandaswamy Temple, home to the largest religious Festival in Jaffna.

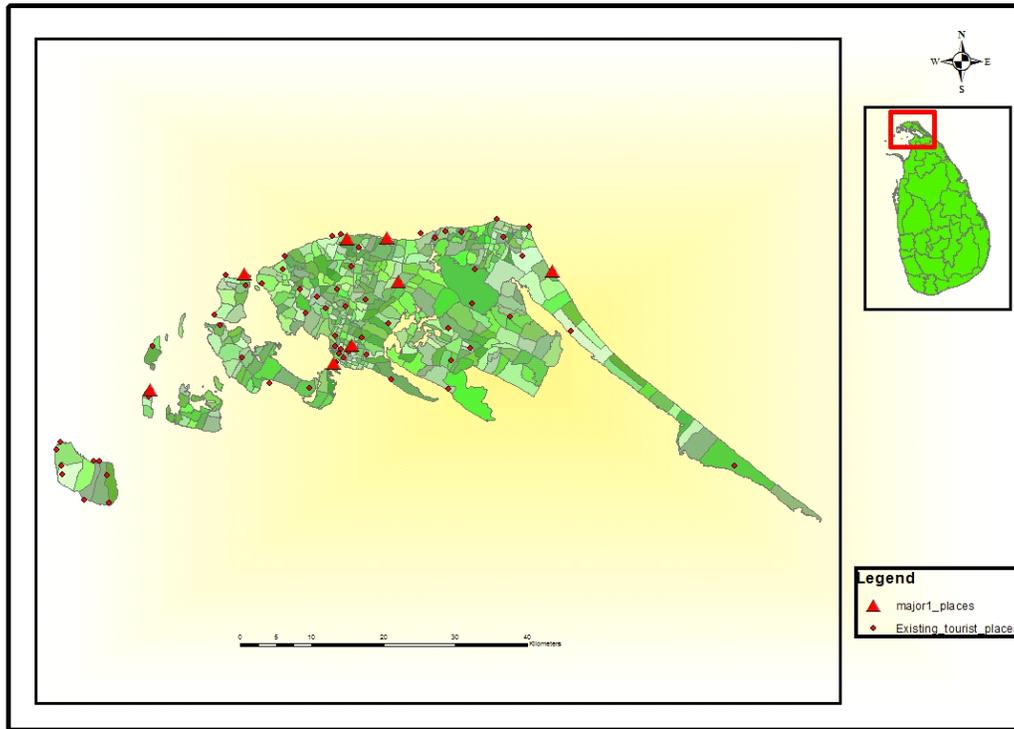


Figure 5.1. Tourist Destination in Jaffna Peninsula

Source: by author

The above figure (5.1) has shown that distribution of existing tourist places in Jaffna district. Seven major places were selected through the field survey and expert discussion for the study. There are Nallur, Nillawarai well, Manatkadu beach, Casurina beach, Thalsawena resort, Nainathivu, and Mathagal beach. Within the Jaffna district which area has more suitable criteria together. that will be suitable area for tourism development. Figure.5.1 has shown in the Major Tourist Places in the Jaffna district given below.

According to the above places figure (5.2), Jaffna district is a semi-urban area which includes Jaffna city, the capital of northern Sri Lanka. This area is becoming important as a potential center for population growth and economic development for the north region of Sri Lanka.

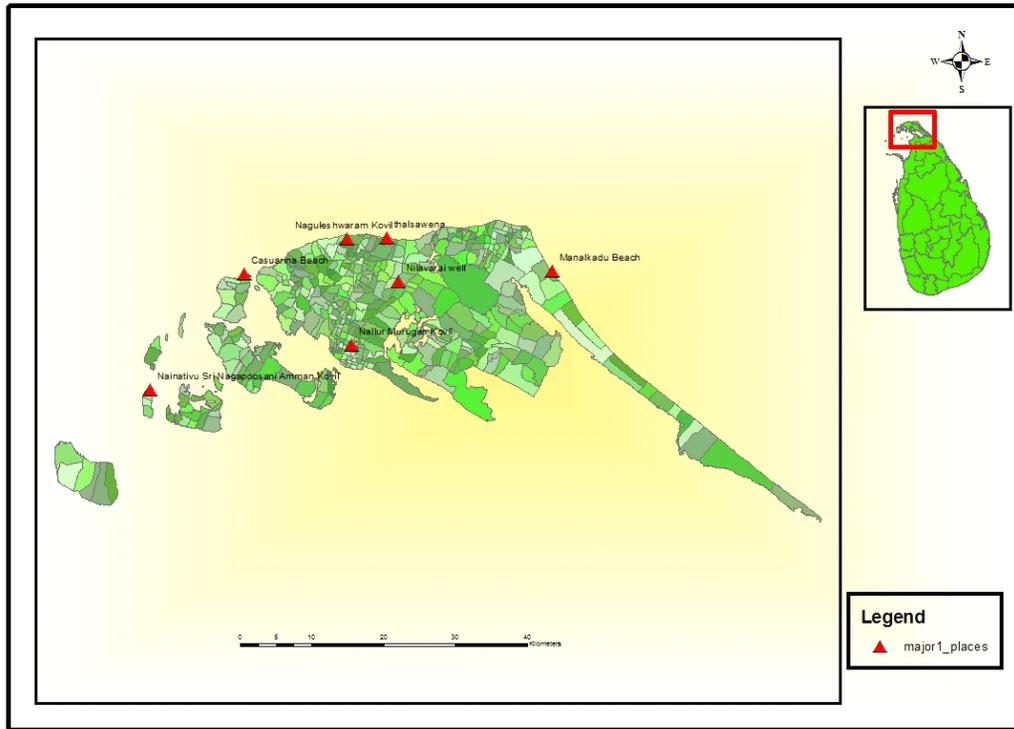


Figure 5.2. The Major Tourist Places in Jaffna Peninsula.

### 5.2 Existing ecological and anthropogenic resources in the

This study identifies the following factors as indicators of suitability within the land systems of Jaffna District landscape/naturalness, wildlife, topography, accessibility and community characteristics. The evaluation for tourism sites was conducted based on the seven chosen criteria namely: accommodation, recreational places, infrastructures, commercial areas, proximity to existing tourist sites, distance from roads, beach and more space. The factors and criteria set up were chosen according to experience, experts' opinions and information from various sources. Knowledge acquisition has been accomplished through discussions with experts of related fields of study, surveying of authenticated literatures and analysis of historical data. Proximity to cultural sites factor was classified by Euclidean analysis according to the nearby cultural sites. Distance from roads factor depends on the transport condition by access types and distance from the road types.

The related factors and criteria as seen in figure 5.3 were created and kept as GIS layers. Land used/cover factor was classified and reclassified from 2007 land use map according to bio-physical, cultural characteristics of tourism potential resources. In this study, accommodation, existing tourist places, roads, infrastructures area (shops, tailoring, police stations etc.) accommodations, commercial areas (banks) and recreational areas (parks, library, cinema), are ranked more suitable, suitable, moderate, and low.

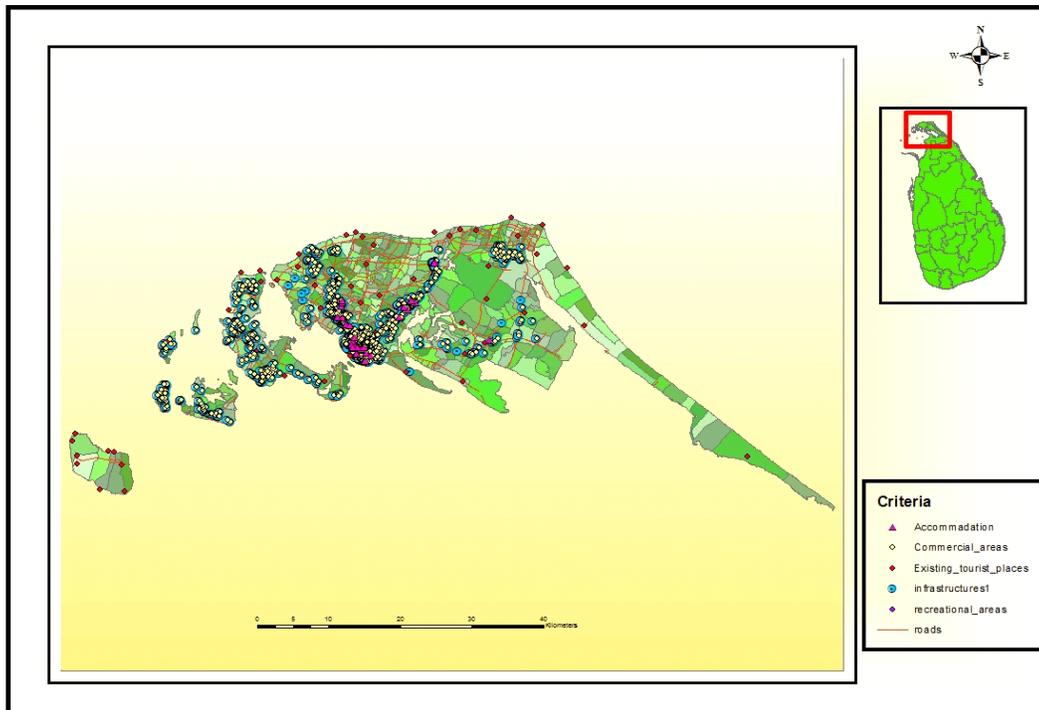


Figure 5.3. Factors and criteria in land suitability analysis for Tourism Development  
Source: by author

### 5.2.1 Existing Tourist Place

This site has potential to grow into major tourist center provide with good infrastructure, thus it has a high rank (Figure 5.4). Existing heritage and cultural centers are important tourist attraction. They could be ancient cultural relic site or architectural remains. They hold value for tourist as they are an interesting object. Tourists are fascinated to see and learn information about new and unique cultural heritage. Such sites are favorable for tourism development so, very important factor is to these sites.

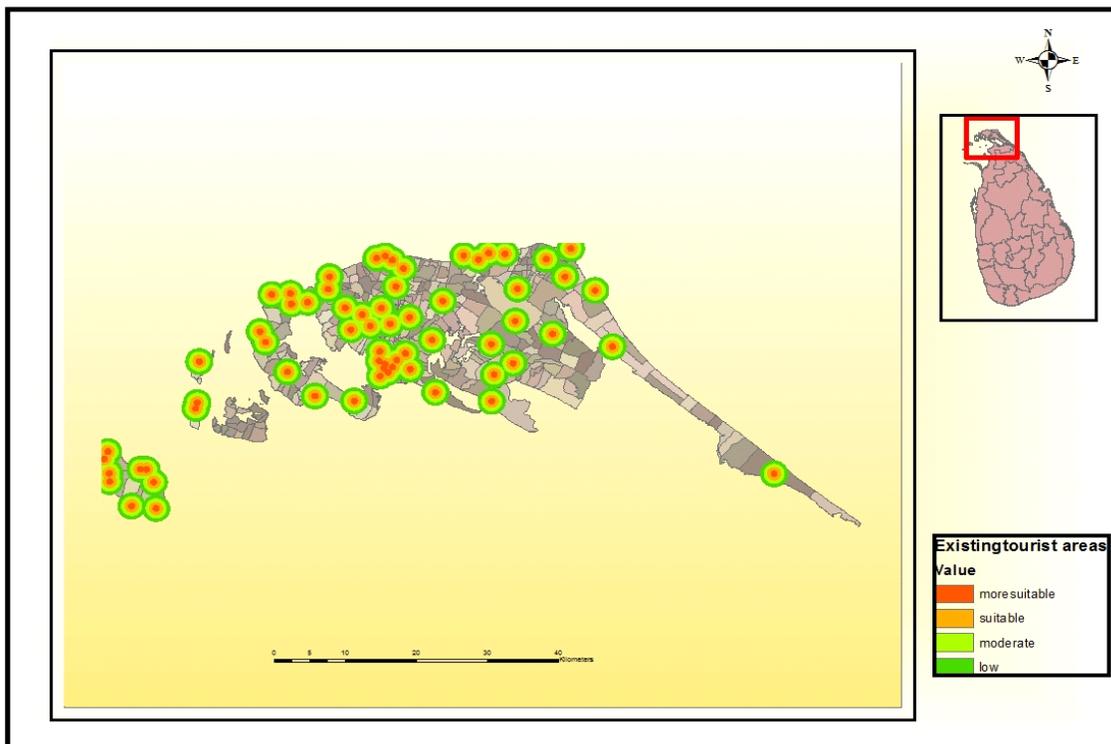


Figure 5.4. Spatial patterns of existing tourist areas in Jaffna peninsula

Source: by author

Figure 5.4 shows the spatial distribution of Existing Tourist Spots. Thus, Pannai Beach, Nallur areas are found to be with high spatial distribution and Manatkadu, Casuarina Beach, Mathagal Beach areas with low special distribution. When considering the importance of Existing Tourist Spots in Tourism Development, as such lot of places are close by, it will be easier to attract tourists.

### 5.2.2 Commercial Areas

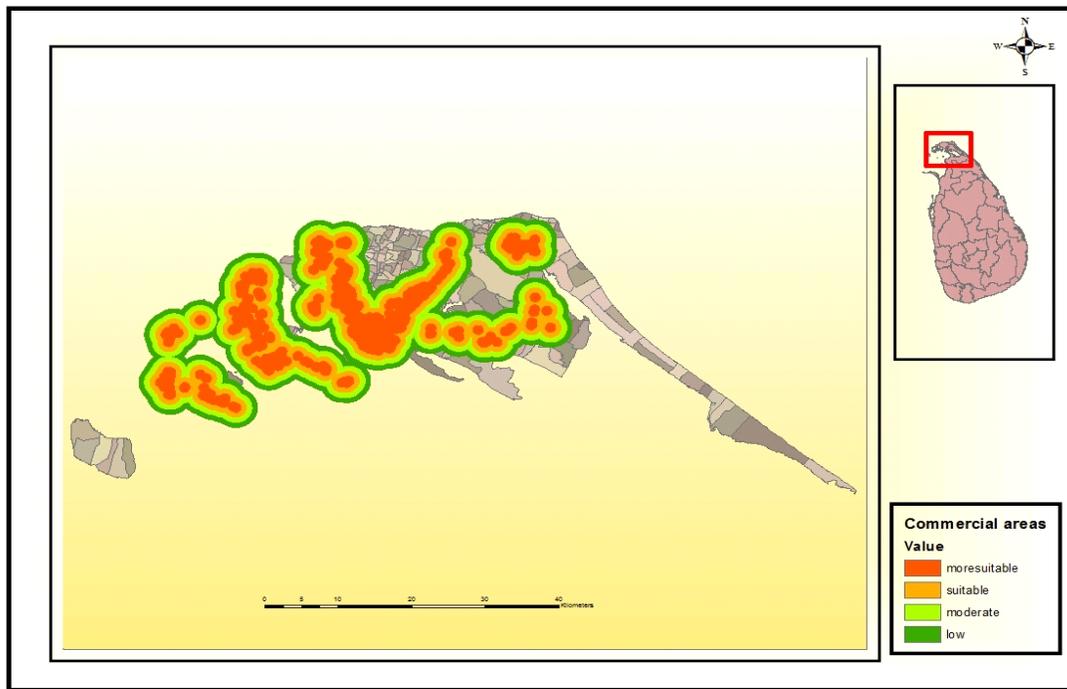


Figure 5.5. Commercial areas in Jaffna peninsula

Source: by author

Urban center have already developed infrastructures and services which are required for setting up tourism sector. It can be further enhanced by creating few recreational areas to attract tourist. The distribution of Commercial Areas shown in Figure 5.5 holds a great

Importance in determining the tourist spots and developing them. Thus, viewing through figure 5.5, Pannai, Nallur, Nilavarai and Nainatheevu are respectively with lot of commercial places and Manatkadu, Naguleswaram and Thalsevana with less distribution of commercial spots.

### 5.2.3 Recreational area

This includes already existing facilities which acts as a catalyst for tourism development and expansion. It includes basic facilities like accommodation (cinema theatres, resorts and parks), tour and travel services, recreational spot and other tourist attraction which will pull more tourists into the area. Area wise distribution of the recreational areas is shown in Figure 5.6. In this, the distribution of places such as Parks, Cinemas Stadiums is shown. Viewing in this way, the importance of the distribution of these is found to be an important factor encouraging the developing Tourist areas. Hence, it could be seen that there are more recreational areas near places such as Pannai and Nallur.

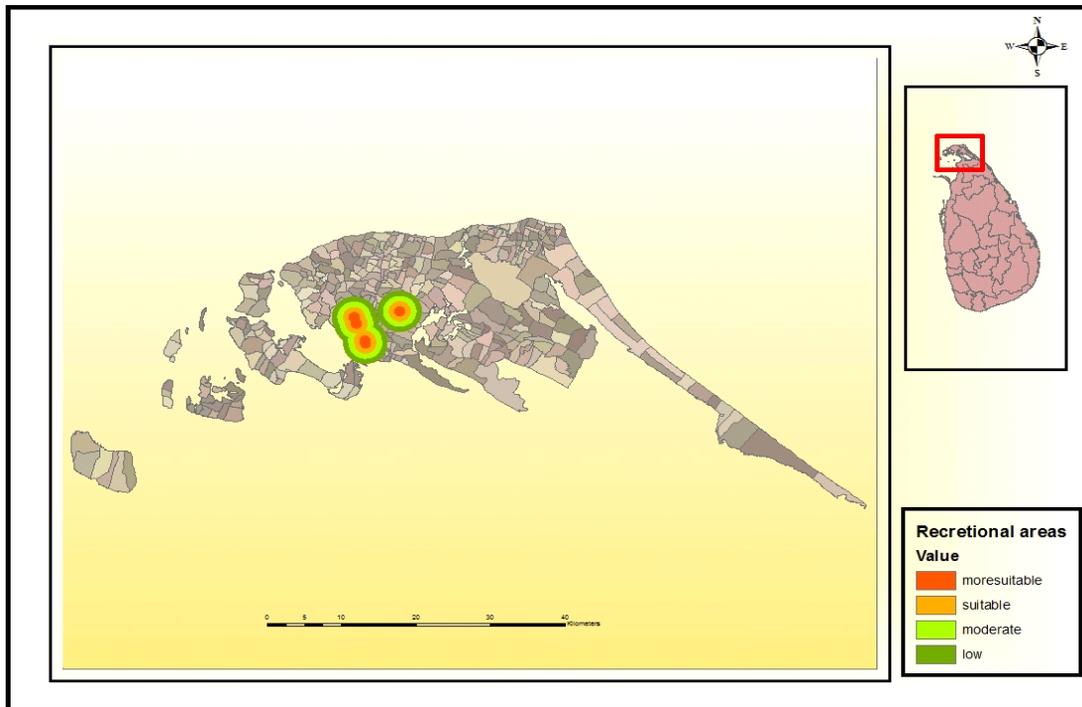


Figure 5.6 Spatial patterns of recreational areas in Jaffna district  
Source: by author

#### 5.2.4 Road

Road network connects from major tourist transit to the interior parts of the region. It provides facility for easy and faster movement. Road is the basic prerequisite is to tourism. This is only possible by travelling from one place to another through road, rail, and air. Three means of transports are use for measuring tourism suitability here. Figure 5.7 Shows the Spatial distribution of Roads. When viewing through this Figure Pannai and Nallur areas are found to be, with roads longer than 2,000 meters. other places are with less than 200 Kms. roads (within 2,000 Ms.)

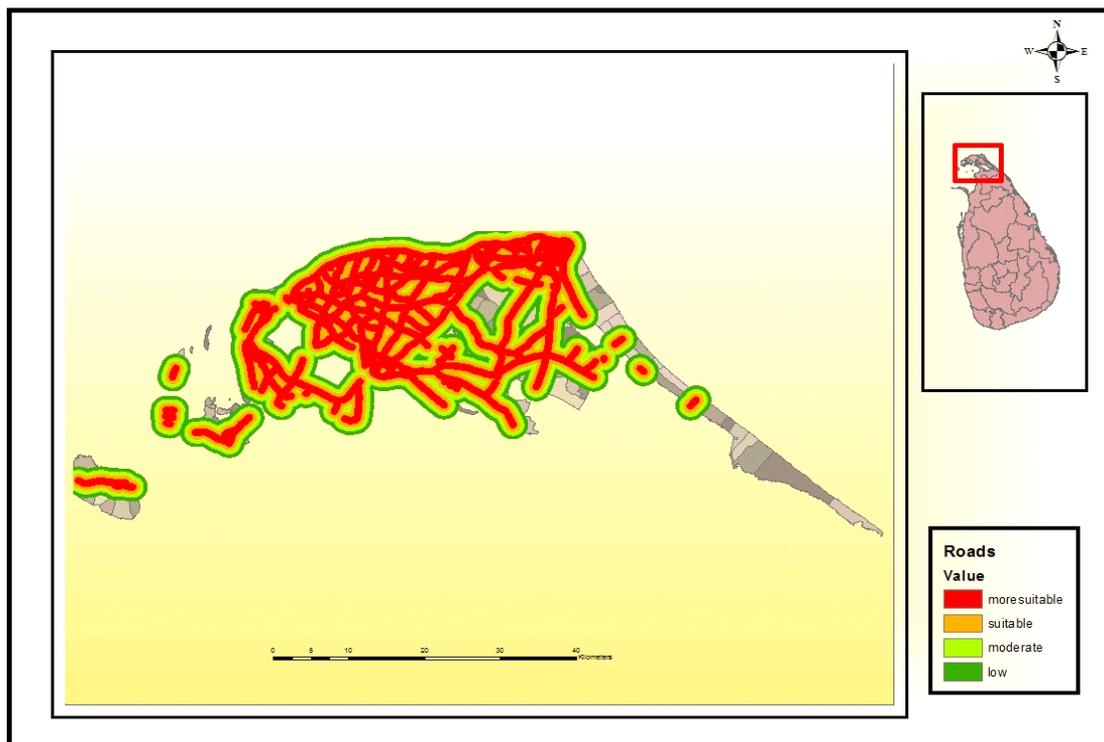


Figure 5.7. Spatial patterns of roads in Jaffna district  
Source: by author

### 5.2.5 Infrastructure Facilities

Tourism infrastructure can be regarded as the physical elements that are designed and erected to cater for visitors. Tourism infrastructure includes ancillary and complementary facilities, equipment, systems, processes, and resources necessary for the functioning of every tourist destination. This primarily includes roads, railways, airports, and the like, which make a tourist destination accessible for tourists. In addition, infrastructure includes health care systems, services, and public services. Building on infrastructure, superstructure includes building facilities, which exist only because of tourism activities. Their main purpose is accommodation and meeting the needs and desires of tourists, in the form of hotels, campsites, restaurants, sports facilities, and the like (Popescu, 2011). The spatial pattern of the Infra structure facilities is shown in Figure 5.8. When observing through this, Manatkadu, Naguleswaram and Thalsevana are found to be without Infra structure facilities within 3,000 meters

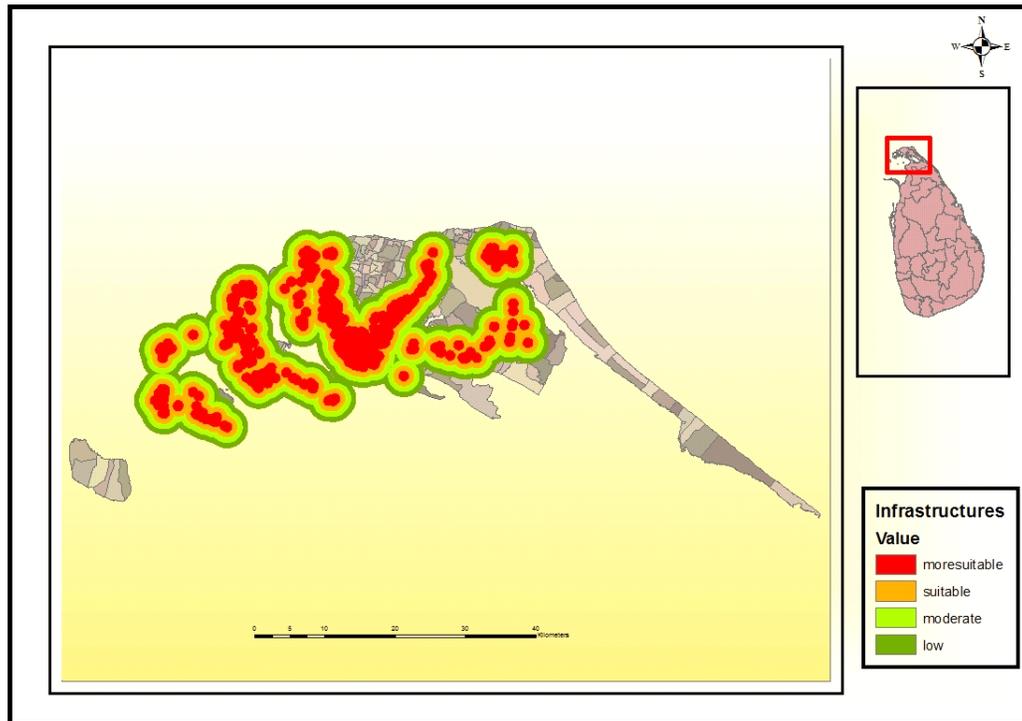


Figure 5.8. Spatial patterns of Infrastructures in Jaffna District  
Source: by author

### 5.2.6 Accommodations

People like to spend good times with family and friend while at the same time exploring various tourist places across the globe. As result the tourism industry across the globe has seen an unprecedented growth which in turn has also resulted in tremendous growth in the hotel and accommodation facilities. Comfortable hotels and accommodation facilities play a very important role in popularizing any tourist destination. If a person, who is quite far away from home, gets to enjoy the sea facilities and comforts as he enjoys at his home, then he is bound to become attached to the place. So accommodation facilities were taken as one of the criteria for this tourism development in Jaffna peninsula.

The figure 5.9 has shown in the spatial patterns of accommodation in the Jaffna peninsula. So accommodation facilities were taken as one of the criteria for this tourism development in Jaffna peninsula. Figure 5.9 shows the spatial pattern of Accommodations. Here, the Accommodations are found to be the very encouraging factor in developing a Tourist spot. When examining Figure 5.9, it could be observed that Pannai and Nilavarai are found to be areas with accommodation facilities and others are found to be areas without accommodations within 3,000 Meters.

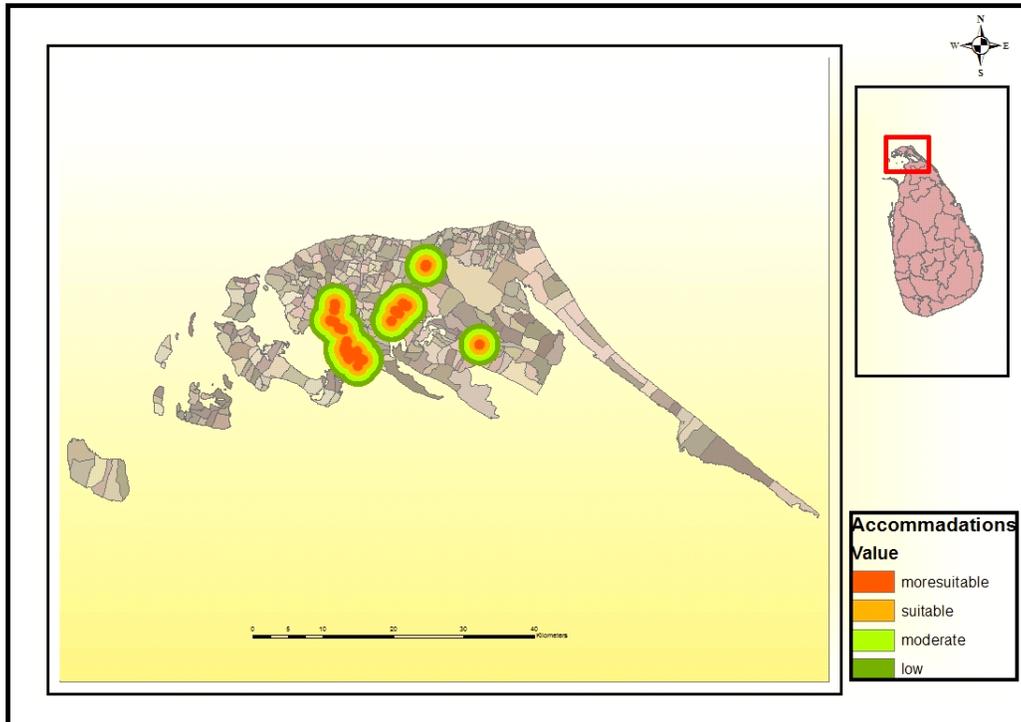


Figure 5.9. Spatial patterns of accommodations in Jaffna district  
Source: by author

#### 5.2.7 Outcome of Suitability Map for Tourism Development

The final suitability map (Figure – 5.10) has been displayed in a gradation of red to green. The red patches represent the most suitable locations for tourism development while the green patches denote the least. The most suitable areas are the ones which have got an aggregate score close to four. Open spaces can be developed into tourist area with the condition that it is proximity to existing tourist hub.



Figure 5.10. Suitability area for tourism development in Jaffna district

Source: by author

The above figure- 5.10 has shown suitability area for tourism development in the Jaffna district among the eight study places (existing tourist places). Regarding this research seven criteria were taken to find the suitability area. There are accommodations, infrastructures, roads, commercial areas, recreational area existing tourist places and beach site, space preferred.

Different rates for the classes under each parameter and weights for the parameters were assigned simultaneously to take final decisions on suitable rates and weights, which produced better results. The pair wise comparisons of all the parameters were taken as the inputs while the relative weights and rates of the parameters and sub classes for the outputs.

Table 5.1. Weighted overlay method for Suitability by using GIS

Criteria	% influence	Field	Scale value
Roads	25%	value	
		1	4
		2	3
		3	2
		4	1
Accommodations	20%	value	
		1	4
		2	3
		3	2
		4	1
Existing tourist places	20%	value	
		1	4
		2	3
		3	2
		4	1
Infrastructure areas	15%	value	
		1	4
		2	3
		3	2
		4	1
Recreational areas	15%	value	
		1	4
		2	3
		3	2
		4	1
Commercial areas	5%	value	
		1	4
		2	3
		3	2
		4	1

Source: by author

The Above Table 5.1 shows about weighted overlay. Here, road influenced by 25% out of 100% among six criteria's. It is the high value. Because road is the very important access to define the potential than others. Through this table second influenced criteria are Existing tourist places and accommodations. These are influenced by 20% out of 100%. Then infrastructures and recreational areas are influenced by 15% Out of 100%. Finally, commercial areas are influenced by 5%. It is the least value than others. These values obtained from tourist experts with discussion through field survey. Confides, identified the potential for tourism in Jaffna district by GIS suitability model. There are pannai beach and Nallur (figure 5.10).though the last criteria which is not influence in GIS that is influenced pannai

beach for potential tourism as it has beach with more than 1000skm space. So pannai is very suitable for tourism potential in Jaffna peninsula to development and get more income with sustainable.

This study identifies the following factors as indicators of suitability for tourism potential in Jaffna Peninsula. The evaluation for Tourism sites was conducted based on the seven chosen criteria namely: Road, accommodation, Existing tourist places, infrastructures, commercial, recreational, space and beach. (Table 5.2) The factors and criteria set up were chosen according to experience, experts' opinions and information from various sources. Knowledge acquisition has been accomplished through discussions with experts of related fields of study, surveying of authenticated literatures and analysis of historical data.

Table 5.2 Factors and Criteria for potential tourism

			More suitable	Suitable	Moderate	Low
Road	<2000	m	0-500	500-1000	1000-1500	1500-2000
Existing tourist Places	<2000	m	0-500	500-1000	1000-1500	1500-2000
Accommodation	<3000	m	0-750	750-1500	1500-2250	2250-3000
Infrastructures	Factors with priority order.	Criteria	Unit	Factor Suitability Rating	1500-2250	2250-3000
Recreational	<3000	m	0-750	750-1500	1500-2250	2250-3000
Commercial	<3000	m	0-750	750-1500	1500-2250	2250-3000
Space	>1000	Sq.km	More than			
beach	Preferred within 2km					

Source: by author

The tourist place need to be accessible to people if it is not fairly accessible, there will be low patronage (Ouiambo, 2001). Closeness to recreation sites infrastructures and Existing tourist places enhances the tourism potential.3000m is recommended so that other activities at the recreation sites may attract tourists (Meija,et al.2000).commercial area recommended that the tourist area is within 3km .because tourist needs to commercial activities often. Streams are very important tourist attraction .so it is recommended that the tourist site preferred to be at a walking distance.

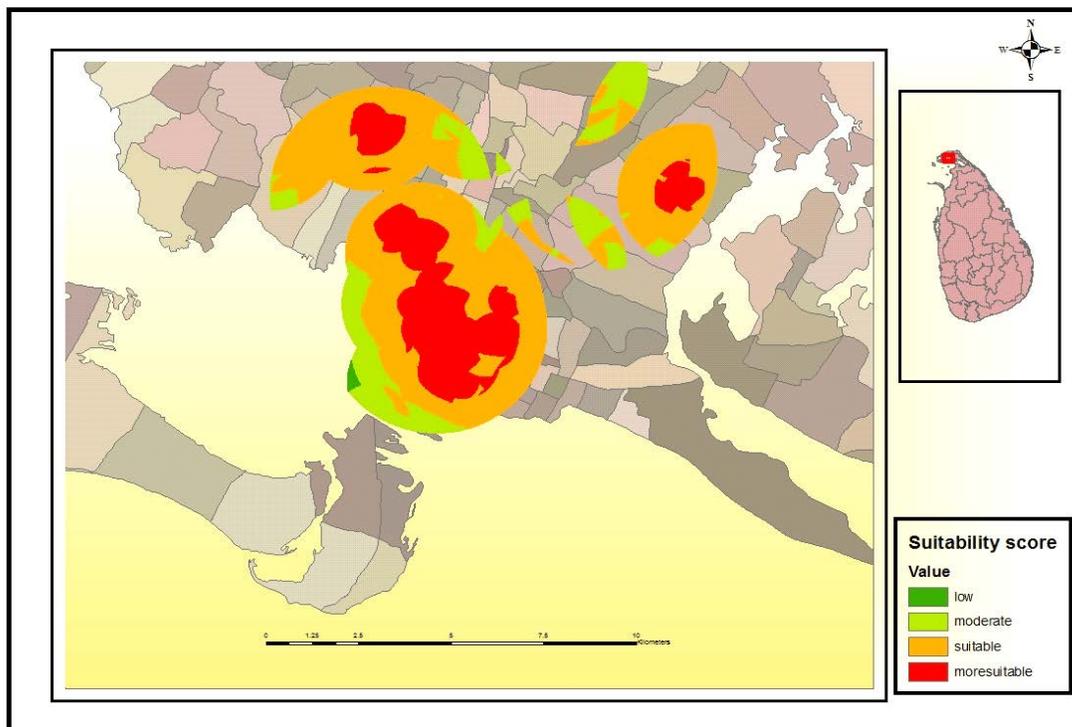


Figure 5.11. Suitability areas for tourism development

Source: by author

The above figure 5.11 has shown in the more suitability areas are pannai beach and Nallur temple. Though, pannai beach area needs to develop than Nallur temple in the Jaffna district. Because, Pannai beach has more space with stream. so, it is very possible to develop the tourist attraction and it is much closer to Jaffna fort and public library and Regarding this research it has more suitable criteria than other existing places and there are many tourists come in the current situation. In addition, Jaffna has no recreational area with streams like pannai. So that pannai beach must to develop with more facilities.

The setting up of hotels and restaurants will increase income and business opportunities for the self-employed, small and medium enterprises and farmers. It is important to enrich the tourism industry will directly and indirectly help many other economic activities to achieve a higher growth rate. The key potential areas are identified for tourism industry.

## VI. CONCLUSION

Suitability area for Tourism Development has shown in Figure 5.11. As per this the Pannai area and Nallur temple are found to be with more suitable. though based on the last criteria pannai beach is more suitable than nallur and other area for tourist development in the Jaffna District. The absence of existing tourist spots is a setback. This area could be seen in Figure 5.11.

The pannai beach is located in the Jaffna town area and next to the fort. The fort was built by the Dutch. Jaffna pannai-kayts road is next to kannadai and is located in Northern Province, Sri Lanka. Jaffna pannai- kayts road has a length of 15.81kms. The pannai beach is identified the tourist place with fort as it is closed to the fort area.

On the basis of the criteria adopted for this study, areas such as, Casuarina Beach, Naguleswaram, Manalkadu, Nilawarai well, Thal Sevana, and Nainatheevu are found to be with unsuitable areas to develop tourism because they are already famous in tourism and no need to develop than Pannai area. Pannai beach is already in existence and found to be having the said criteria; it could be identified as an area with likelihood for further development. Thus, as it is found to contain accommodations, road facilities, existing places, recreational areas and commercial areas, it is found to be an appropriate place to attract tourists, with likelihood for further development. Other areas do not satisfy the criteria adhered, and as the cost to develop them will be very high, they are found to be areas with less likelihood for development.

The result of the overlay and select by theme analysis shows the possible area of locating tourist sites in the Jaffna district based on the selection criteria. Tourism is a highly complex activity, and thus requires tools that aid in effective decision making to come to terms with the competing economic, social, and environmental demands of sustainable development. Applications of GIS in tourism and recreation planning illustrate that GIS is a strong and effective tool that can aid in tourism planning and decision-making (*Pareta, 2010*)<sup>14</sup>. The power of GIS lies not only in the ability to visualize spatial relationships, but also beyond the space to a holistic view of the world with its many interconnected components and complex relationships. The most suitable tourism site is identified according to the analysis are within the Jaffna district. There are urban centres with possibility to grow into tourism centres. The remaining places are low suitability scale due to lack of chosen criteria.

Accessibility is a prerequisite for tourism development. Good road network connectivity with proximity to railways station or airport showed strong tourist potential site, this coupled with nearness to scenic beauty depict a high suitability. Major tourist attraction such as heritage site, coastal beaches and water bodies or lake showed strong red color depicting high suitability. This can be correlated to the fact that heritage sites and other high ranking features are translated into suitable tourism site.

Hence, the tourism zones that can be identified for tourism site are (in order of hierarchy based on the proportion of suitable areas in that zone) Panay beach is identified as the most suitable site for tourism development. It has maximum red patches which are translated from the existing characteristic such as proximity to Jaffna town, good transport network and existing two popular heritage site located within the town. There are Jaffna public library and Jaffna fort. It is located along kayts road that is used to go Nainathivu nagapoosani Amman temple and naga viharai. so that many people used in the road. These are Supports tourism expansion for future. It can draw advantage from the fact that it is close to the coast and accelerate tourism activities from the town to other surrounding areas.

Coastal stretches are very attractive site for tourism development. Beach recreation and water based activities can be developed in these sites. To ensure environmental sustainability low development strategies are to be adopted. In addition pannai beach have more suitability criteria, but it need to more facilities to develop as it is beach site. Such as parking facility, boating, growing attractive trees, developing the jogging areas, establishing the cultural sites for example Palmyra products and increasing the fishing activities to attract the tourism development.

## VII. RECOMMENDATIONS

As demonstrated by figure 5.11, Pannai Beach is found to be appropriate for Tourism related development. It is also found to be satisfying the criteria adhered for this study. As there is a beach in existence, it is found to be with likelihood for development. This had been identified as an important Tourist centre as, the Public library, stadium, Subramanium Park, Jetwing hotel, Cargils Square and the Dutch fort located in close proximity to it. The location of it on the route to Nainatheevu, the largest pilgrimage location in Jaffna is a special future.

When we consider probable development activities that could be undertaken at Pannai through extension of Boating, jogging area, trapping fish with nets, dog training, habitat improvement, Parking facilities and arrangement of shopping complex which sell articles

made from Palmyra leaves, which will represent tradition of Jaffna, the Tourism sector could be developed and it will an opportunity to reap high earnings.

The setting up of hotels and restaurants will increase income and business opportunities for the self-employed, small and medium enterprises and farmers. It is important to enrich the tourism industry will directly and indirectly help many other economic activities to achieve a higher growth rate. The key potential areas are identified for tourism industry.

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