

UNDP / UN-Habitat - Sustainable Cities Programme (SCP)
Sustainable Colombo Core Area Project (SCCP II)

CITY PROFILE

Negambo Municipal Council

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- UN-Habitat (SCP)
 - Government of Sri Lanka (Western Provincial Council)
 - Negambo Municipal Council
 - SEVANATHA – Urban Resource Centre (Local Partner Institution)

Introduction

This city profile was prepared as part of the requirement of the Sustainable (Sri Lankan) Cities Programme (SCCP II) which is being implemented in the Colombo urban area during the time period of 2001 – 2002 involving eight urban local authorities (i.e. Colombo Municipal Council, Sri Jayawardenapura Kotte Municipal Council, Dehiwala Mt. Lavinia Municipal Council, Moratuwa Municipal Council, Negambo Municipal Council, Kolonnawa Urban Council, Wattala Mabile Urban Council and Panadura Urban Council). The primary purpose of preparation of a city profile is to understand the current status of environmental resources in the city, the development activities and the nature of interaction between these two factors. It is neither scientific investigation nor a high profile technical report but it is a simple document, which tries to highlight the current problems relating to city development in the concerned area. It also emphasizes on a participatory decision making process to solve the identified problems in the city. This city profile can be further updated and improved continuously whereby the local authority staff would be able to improve their skills in preparing documents such as these, which are essential for decision making at city level and influencing the policy making authorities above them. In this context, this city profile may be considered as a first step towards developing a proper database for Negambo town supporting towards better management of its future development activities.

1.1 Introduction to the Town

Historical Background

In the world map drawn by Tolamy, the Greek Mathematician who lived during the period from 1127 to 161 A.D., Negambo has been referred to as 'Parasodes' lagoon, which indicates the very long historical existence of Negambo. The old Negambo town and the area within the Dutch Fort is an archeological conservation area was known as 'Kotakampu' during the Dutch period. Negambo is one of the few towns of Sri Lanka, where religious influence of the Portuguese, Dutch and the British has been felt very strongly as manifested in many churches and religious symbols found within the City. Nearly 80% of Negambo's population are Catholics and Christian, which can be attributed to the fact that it was under the domination of foreign powers for over four centuries.

Negambo was declared a Municipal Council in January 1949 and subsequently its administrative area was expanded in 1987 with the addition of Kochchikade Town Council area and Katana Village Council area. At present, the Negambo Municipal Council Area covers an area of 30.84 sq.km land area.

1.2 Location of the Town

The Negambo town is located in the administrative district of Gampaha, which is one of the three administrative districts of Western Province of Sri Lanka. It is a coastal town developed around the Lagoon of Negambo located about 32 km away from Colombo on the northern direction. The Colombo International Airport is located just 06 km away from Negambo. Negambo is also directly connected to other district town centres such as Puttalam, Kurunegala, Gampaha and Ja-Ela etc. thus making it an active commercial and a service centre for a large catchment area. According to the Colombo Regional Structure Plan prepared by the Urban Development Authority (UDA) in 1999, the Negambo town has been identified as one of the five second order towns in Colombo Urban Region.

1.3 Relative Locational Importance

According to the above mentioned Negambo Town Development Plan, the importance of Negambo has been attributed to:

- i. Its capacity as a major commercial and service centre to cater to the city population as well as the population of its catchment area.
- ii. Its importance as one of the major tourist attraction in Sri Lanka.
- iii. As a major fishery harbour of Sri Lanka
- iv. As a sub-regional growth centre of Colombo

1.4 Population

According to the census of population of 2001, the Negambo Municipal Area has a population of 121,933 people of whom 60,657 were male (49.7%) while 61,276 were female (50.3%).

The population density of the town varies very widely. According to the estimates of the Development Plan UDA, the average population density of Negambo was 72 persons per ha. In 1997. However, in areas where fishing communities and low income housing are located the ward level density increases up to 190 persons per ha. The lowest population density was recorded in the city centre where commercial and public sector service activities are located. Understanding the pattern of population density is an important factor in terms of provision of infrastructure services and undertaking development activities in the town.

In terms of racial composition, the Negambo has 82.2% Sinhalese, 7.7% Tamils, 9.7% Muslims and Burghers 0.4%, thus representing almost all the categories of racial groups who live in Sri Lanka.

The religious composition shows a majority (77.9%) being the Christians and Catholics while Buddhists, Hindus and Muslims representing less than 10% each. The presence of a large percentage of Christians and Catholic in Negambo is a unique situation to Negambo particularly due to the influence of European Colonial rulers who have controlled the coastal towns of Sri Lanka for more than four centuries.

1.5 Housing

A major share (62.5%) of the existing land use in the city is being devoted for residential usage. This reveals residential activities dominates the city landscape. According to the UDA's development plan, there were about 26,610 households in Negambo who were residing in 22,444 housing units. This implies that there was a housing shortage of about 4166 units. There was no statistics available on conditions of the housing stock. However, it can be reasonably estimated that about 30% to 40% of the housing stock may be of falling into the category of urban poor housing (since about that much of households receive Samurdhi assistance) in the city.

1.6 Water Supply

Water supply and distribution in the town is handled by the National Water Supply and Drainage Board. The pipe borne water is available only for about 27.8% of the city's 22,444 housing units. About 15% of the houses use public stand posts while the balance uses tube wells and shallow wells to meet their water needs. In most of the areas within the municipality the pipe borne water supply was limited for 12 to 16 hours per day. Low water pressure was recorded several other parts of the city. Hence, the overall picture was that the current water supply system does not meet the water demand of the city population.

1.7 Sanitation / Availability of Toilets

The Negambo city does not have a sewerage network to sever the needs of the city population. Hence, people use septic tanks and sealed pits for connecting their toilets. It was estimated that there were about 98.4% water sealed toilets available in the city while 1.6% use pit latrines. For the convenience of the public, the municipality is maintaining 11 public toilet units (07 old and 04 new toilets) within the town area. However, lack of a proper sewerage network within the town may contribute to many health & environmental problems particularly due to pollution of ground water as well as surface water bodies.

1.8 Solid Waste Disposal

Negambo Municipal Council area generates over 80 tons of solid waste per day. There are 22,936 waste generating points comprising of 21,030 households, 761 hotels, restaurants and bakeries, 09 markets, 30 industries, 21 Govt. institutions, 01 public hospital and 08 private hospitals and 1076 other miscellaneous activity centers.

Presently solid waste is disposed to a site at Ovitiyawatta, which could be termed as a wetland. It has the vegetation characteristics of a wetland and is a water retention area, which gets flooded during the rainy season. The land is a private property and the owner has made available the site to the Municipal Council for the disposal of solid waste. The owner has already made use of a part of the garbage filled site for low-income housing after the site was covered with a layer of gravel on the garbage filled land. There was a part of the filled site that has been blocked out for sale for housing.

This is a practice that could bring about disastrous consequences to the area by the reduction of wetland areas which constitutes important part of the city's eco-system as well as by the reduction of the water retention capacity during heavy rains, increasing the possibilities of flooding effects. Despite public awareness and protests against these practices, they still continue, as the local authority has no other alternative in regard to the disposal of solid waste.

There has been proposals for introduction of an incinerator to incinerate the city's garbage as the last alternative as it is difficult to find environmentally acceptable sites for the disposal of solid waste. However, cost effective local area based small scale solutions would be more beneficial than high cost large scale solutions to the city's garbage problem.

1.9 Problem of Sewage Disposal

Sewage disposal is a major problem in Negambo town due to the high water table in most parts of the area where septic tanks do not function properly. The municipal council has therefore resorted to frequent emptying and disposal of septic tank in trenching grounds at Blakewatta, Kurana., which has resulted in many public protests from the residents of the area. However, there was no any appropriate solution reached to solve the problem of sewerage disposal in the town.

1.10 Drainage

Due to the fact that most parts of Negambo town is situated below the mean sea level, the surface drainage is poor and the consequent water stagnation take place. The main drainage system covers the area of Dehimalwatta, Greens road, Main Street, and the Rajapakse Broadway and the provision has been made for the flow of water to the lagoon. A plan for improving the drainage system of Negambo has been formulated by the Sri Lanka Land Reclamation and Development Corporation which is presently under implementation under the Urban Development and Low-income Housing Project (UDLIHP), funded by the ADB.

1.11 Health & Sanitation

In Negambo, due to the problems of poor drainage, improper solid waste disposal etc. the condition of public health of the population, particularly those who are living in shanty settlements, in low-lying areas have deteriorated and the incidence of water borne diseases, Dengue fever etc is comparatively high. The public health authorities have to pay serious attention to improve the environmental conditions in such areas. It is observed that programs have been undertaken by the municipality with the assistance of community organizations to educate the public in regard to public health and environmental protection practices. There were also programs which have been launched through the participation of school children to educate them on preventive health practices and on neighbourhood environmental improvement.

Negambo has a base hospital which provides health services to the people of Negambo as well as to the neighboring towns such as Giriulla, Miniwangoda, Chillaw and Puttalam and its immediate surrounding. It provides specialized services such as surgery, dental clinics, children and maternity clinics, ICU., blood bank, eye surgery etc. The Base hospital has 15 wards, with a bed capacity of 340. There are 88 doctors, 10 specialists, and about 180 nurses and attendants. The OPD presently caters to about 675 patients daily. After the completion of the new hospital building it is proposed to upgrade same to the level of a National hospital.

Negambo also has a maternity home at Thaladena and a central dispensary at Kochchikade. There are also five private hospitals, 40 dispensaries, 6 consultation centers and 6 Aurvedic centers within Negambo. These medical centres are located through out the city catering to the needs of city population.

2.1 Nature of Urban Development

Land use Pattern of Negambo Municipal Council

| Land use | Negambo (Ha.) | Kochchikade (Ha.) | Total | % |
|----------------------|----------------|-------------------|----------------|---------------|
| Residential | 710.00 | 709.5 | 1419.5 | 62.5 |
| Commercial | 39.52 | 31.5 | 71.02 | 3.11 |
| Public | 51.43 | 21.3 | 72.73 | 3.18 |
| Open areas | 58.65 | 13.3 | 71.95 | 3.15 |
| Cemeteries | 4.53 | 2.2 | 6.73 | 0.29 |
| Religious | 12.70 | 4.5 | 17.20 | 0.25 |
| Industries | 4.73 | 8.3 | 13.03 | 0.57 |
| Marshy land | 9.27 | 15.8 | 25.07 | 1.10 |
| Mangroves | 24.87 | - | 24.87 | 1.09 |
| Coconut | 16.32 | 163.76 | 180.08 | 7.88 |
| Hotels | 6.39 | 11.9 | 18.29 | 0.80 |
| Roads | 165.67 | 116.0 | 281.67 | 12.33 |
| Paddy | 12.63 | 11.7 | 24.33 | 1.06 |
| Parks & play grounds | 13.09 | 11.4 | 24.49 | 1.07 |
| Mixed crops | - | 10.7 | 10.7 | 0.47 |
| Beaches | 5.17 | 2.1 | 7.27 | 0.32 |
| Water bodies | 4.28 | 11.4 | 15.68 | 0.69 |
| Total | 1139.25 | 1145.36 | 2284.61 | 100.00 |

Source: Land use survey, UDA, 1998.

The comparatively high residential use (62.5% of total land use) could be observed in the present land use pattern which could be attributed to the fact that the urban area has a developed based on a road network covering most of the areas and there are areas of semi urban character which have been subsequently added to the Municipal limits. Commercial activities constitutes only about 3% of the land area while industries accounts for about 1% of the land area. Thus, the residential use has become the prominent land use pattern of the town. Therefore, catering to the needs of large majority of residential population has become significant the priority of the municipal council. However, in order to promote the economic potential of the town, other important development sector such as fisheries, tourism, and environmental construction retail and wholesale trade etc. must be promoted by providing the required infrastructure.

2.2 Problems of Existing Land Use Pattern and Problems Anticipated in the future Development

Unauthorized constructions in environmentally sensitive conservation areas could be seen as a major problem in the present land use pattern of the Negambo area. Ribbon development of commercial and residential activities along road corridors, encroaching into the street line in many cases has resulted in congestion of roads, particularly in the central area of Negambo where there is no adequate parking facilities for vehicles. There is also a disparity in urban densities between the central area and the periphery which has a more agricultural outlook which affect the provision of infrastructure into such areas.

If the present unplanned land use pattern continues, it is most likely that most of the environmentally sensitive areas such as sandy beaches and marshy lands as well as mangrove areas together with their habitats will be lost. The clearing of coconut cultivation land indiscriminately, particularly in the peripheral areas for housing and other development is not desirable and planning intervention is urgently required to arrest the present trends and to guide the development according to a well conceived plan.

3.1 Main Environmental Features of the Town

Negambo has many environmentally significant areas such as its attractive beaches, the lagoon, mangroves, marshes the old Dutch Canal etc. The eco-systems which have come into existence over the years is now being threatened due to over exploitation and misuse of these resources and habitats. The lagoon environment has to be sustainable if it is to be used as a resource to supply crabs, prawns and other varieties of fresh water fish that could provide a good income for the fishing communities in the area. However, the present practice of encroachment of the marshy areas for human habitation has resulted in serious threats to this eco-system affecting its long term sustainability. It requires awareness creating among the communities in the area including the school children to understand the relationship and inter dependency between natural habitats and the human habitats.

The following problems have been identified by the Urban Development Authority in regard to the present environmental conditions of Negambo Town.

- Pollution of the beach and the lagoon due to the emission of engine oil from fishing boats which affect the aquatic and the marine life.
- Filling of marshy areas threatening the eco-system and reducing the retention capacity of the area for flood water resulting in the inundation of the surrounding areas.
- Pollution of the lagoon and emanation of unpleasant smell due to the dumping of garbage and the discharge of raw sewage into the lagoon.

3.2 Present Usage of Environmental Resources and Relationship between Development and the Eco-system

There are about 25 hectares of mangrove areas and 25 hectares of marshy lands in Negambo municipal area including Kochchikade. The land use map of Negambo indicates the detailed extents of land under mangroves and marshes. The land under these environmentally sensitive areas are grossly misused and their extents are dwindling at an alarming rate due to reclamation, unauthorized encroachments and dumping of solid waste. This has resulted in a serious threat to the sustainability of the eco-system. The unplanned urban growth purely governed by the market forces lead to the acceleration of this trend.

The erosion of the beaches is another serious problem which results in the loss of land area including man made structures. According to the Department of Coast Conservation, the main contributory factor to this situation is the construction of vertical walls and buildings within the beach area without leaving adequate reservation to the vegetation line. Ceylon Tourist Board with some foreign assistance has prepared a plan for the coastal belt of Negambo to deal with this problem and improve the infrastructure and the environment of Negambo beach.

3.3 The Nature of any Conflicts between Environmental Resources and Development

The conflicts between the environmental resources and development have been highlighted in the previous sections. Most of these conflicts have arisen due to lack of understanding of the environmental implications of the use of natural resources for development activities of various proportions and types. It is essential that environmental resources could be utilized without causing damage to their existence. It requires a

proper understanding of the factors which contribute to its sustainability. For example tourism related facilities could be developed in an environmentally friendly manner improving the conditions of the environmental resources while benefiting the tourist industry. Human habitats could co-exist with natural habitats if their true inter dependence is understood and respected. However, due to unplanned expansion of urban activities within the city is continue to destroy the city's environmental resources thereby creating problems to human life and the eco-system.

3.4 Natural Disasters

Occurrence of floods particularly during the south west monsoons is a regular occurrence in the coastal belt of Negambo. While the temporary houses in the beach gets completely washed away, permanent structures are damaged requiring state assistance for their rehabilitation and reconstruction. In addition, the inundation of flood waters for long periods results in the outbreak of water-borne diseases such as Diarrhea. The stagnation water also results in the breeding of mosquitoes and the spread of diseases such as Dengue fever. However, this aspect seem to have not been studied in detail. Though, no much attempt is made to prevent such disaster situation, the people and government organization do engage in post disaster rehabilitation activities.

4.1 Particulars Relating to the Management of the Environment

The allocation of Rs.78 million for the year 2001 from the District Development Fund and Rs..500,000 for a solid waste disposal project is significant from the point of view of the improvement of the environment.

The following are the most significant projects that are being implemented for the improvement of Negambo city.

- Surface drainage improvement project funded by the ADB under the Urban Development and Low-income Housing Project (UDLIHP).
- Construction of some blocks of public toilets.
- Beach Park at Ettukala
- Site and Services Project at Monakkogama.
- Development of the road from Kurana to Browns Beach Hotel, Lewis Place and Poruthota Road.
- Development of the bus stand
- Protected anchorage area for fishing boats.
- New secretariat building with the town hall for the Municipality

It has to be mentioned that the Council has given priority for the establishment of a solid waste recycling facility and a sewerage treatment plant in its future development program.

5.1 Conclusions

The main environmental systems of the urban area and their significance for the for the present and future sustainable development

The main environmental systems of Negambo can be summarized as follows:-

- Mangrove areas of the lagoon and its surroundings together with its aquatic and marine life.
- The long strip of beach constituting a tourist resort as well as a fishing Settlement.
- Low-lying marshy lands which are subject to flooding during the rainy Season..
- Low density housing and mixed agricultural areas towards the interior

5.2. Major Environmental Problems Experienced at Present

Dwindling of the mangrove areas

Negambo Lagoon which is 32 sq. km in extent consists of border areas which are subject to inter-tidal action, with a strip of about 100 meters covered with mangrove vegetation associated with its aquatic and marine life. On the eastern shore, most of the mangroves have disappeared, due to human intervention and natural reasons. The total area of mangroves in the lagoon has been estimated as 350 Hectares by a study carried out by Dr. Samarakoon and Van Zon. The area is rapidly depleting as settlements in the island in the entrance to the lagoon is still continuing. Industries and housing development take place along the eastern shore line. It has been estimated that the extent of mangrove areas in the lagoon has reduced by nearly 30 hectares during the past few years.

Depletion of the beach due to erosion

The sustainability of the beach is seriously threatened due to erosion caused by wave action which is being aggravated due to the construction of vertical walls and structures such as hotels on the beach. The Department of Coast Conservation is constructing groins to protect the beach but it has not been very effective. Therefore presently the Department is planning to introduce a sand nourishment scheme for the protection of the beach. It was also observed that there is a conflict between the traditional fishing communities and hoteliers in regard to the utilization of the beach. A plan has been prepared by the Ceylon Tourist Board to improve the beach environment and it is presumed that the conflict between the fishing communities and the hoteliers could be resolved when the plan is fully implemented in the future.

Depletion of the low-lying areas and the reduction of flood retention capacity

It was observed that filling of low-lying areas is continuing both by private individuals and public sector institutions. It was observed that private individuals offer their low-lying lands to the Municipal council to dump solid waste and these sites are subsequently converted to housing sites for low-income groups and for other construction activities. There were also instances of unauthorized filling of canal banks by individual owners as well as by squatters who construct temporary houses in low lying lands.

Sub-division of coconut lands and other agricultural areas for housing and related activities

The sub-division and sale of coconut lands and areas of agricultural lands take place at an increasing rate due to the high demand for such uses arising out of the Free Trade Zone and other development activities in the region. This is not a desirable trend from the point of view of the ecological balance of the area. Further more such developments are taking place without adequate infrastructure and service facilities for the development activities which would contribute to environmental pollution, health and sanitation problems of the people in such areas.

5.2 Strategies to Overcome the Identified Problems

Short-term measures

- Strict development controls should be exercised in regard to the reclamation of low lying areas and wetlands.
- Citizen awareness programs be initiated to create civic consciousness against filling of wetlands, dumping of garbage into water bodies and low-lying lands and degradation of the living environment of the city.
- Community organizations be established which could work with Grama Niladharis and field level officials of the municipality to prevent environmentally unfriendly practices. Each G.N. Division be considered as a monitoring unit for the purpose of such environmental surveillance.
- Environmental awareness programs be introduced among school children who could carry the message to their parents to prevent them from engaging in environmentally unfriendly practices.
- Active participation of existing community based organizations and NGOs be solicited to promote the city environmental conditions.

Long term measures

- Long term development plan for Negambo should be formulated with highest priority given to environmental protection and conservation.
- The proposed drainage master plan for Negambo should be fully implemented and it should be integrated with a long-term land use plan for Negambo.
- In view of the non-availability of suitable solid waste disposal sites within the M.C. area a solid waste management strategy consisting of alternatives such as reducing waste generation, household level waste disposal alternatives as well as local area based solutions with community participation should be formulated.
- Priority should be given for the restoration of the Hamilton Canal and careful utilization of its potential for transportation and recreation purposes.
- The proposed Tourism Master Plan should be fully implemented with stringent controls introduced to prevent building development and other constructions beyond the high water mark and with adequate reservation to the vegetation line.
- Buildings and places of archeological and historical importance should be conserved and be utilized for promotion of the tourism industry.

- Pipe borne water supply be provided to areas which are presently depending on ground water as the ground water is polluted and may cause health problems to the city population.
- A sustainable programme should be introduced for protecting & promoting the beach environment involving the hoteliers, the citizen groups and other well wishes under the guidance of the municipality. This would help attracting more tourists which ultimately benefit the city's economy.