

**UNDP / UN-HABITAT SPONSORED
SUSTAINABLE CITIES PROGRAMME**

**URBAN GOVERNANCE
SUPPORT PROJECT**

CITY PROFILE

GALLE



**Ministry of
Urban Development & Water Supply**

UN-Habitat Sustainable Cities Programme – Sri Lanka

CITY PROFILE

Galle Municipal Council

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1.0 Introduction

The Sustainable (Sri Lanka) Cities Programme (SSLCP) began in 1999 with the objective of building up the capacities of Urban Local Authorities (ULAs) in the country towards good urban governance and management, which in turn is expected to improve the quality of life in our cities.

The most noteworthy aspect of a Sustainable Cities Programme (SCP) is the involvement of all stakeholders of the city in urban decision making, the key to sustainable urban development. This participatory approach to solving the many urban issues is designed to be carried out under four phases of activity namely,

- Phase 1 - Organization and stakeholder mobilization.
- Phase 2 - Identification and prioritization of issues with stakeholder involvement.
- Phase 3 - Formulation of strategies and implementation mechanisms.
- Phase 4 - Follow up, consolidation and institutionalization

A primary need for setting in motion the SCP programme as given above is the preparation of a City Profile, a document containing vital information for the 'City Consultation' or the Participatory process whereby such information can be interpreted by all stakeholders including the less affluent and marginalized sections of the citizenry. It is envisaged that by following such a process the many issues impeding the delivery of better urban services by the Galle Municipal Council (GMC) can be identified and resolved through a strategy of stakeholder commitment, the absence of which has generally made the development of this city very difficult.

This City Profile for Galle has been prepared on the basis of available documents interviews and consultations with officers at the GMC, other public officials and some stakeholders in the city.

While a City profile under the SCP programme is expected to be an accurate documentations of available information, on the city, the City Profile prepared for Galle has gone a step further by recording some urban planning issues and inherent deficiencies identified in the past, but not resolved to date. This may well have been due to the absence of the above mentioned participatory approach to urban decision making, leading to haphazard and / or under development. However, the City of Galle has the potential for change and can be developed into a beautiful port city, and it is hoped that this City Profile would be the corner stone to achieving this objective through the Sustainable Sri Lanka Cities Programme.

2.0 Historical Overview

Historians identify Galle with the ancient port of Kaleh, stating that it was the only natural harbour in the South of the Island, and a busy trading centre. It was a meeting place for Arab and Chinese merchants for the exchange of silk and other goods for local produce, especially spices. The existence of a Muslim population in and around the town lends colour to this identification as much as the terms China gardens China town or Cheena Koratuwa suggest a Chinese quarter.

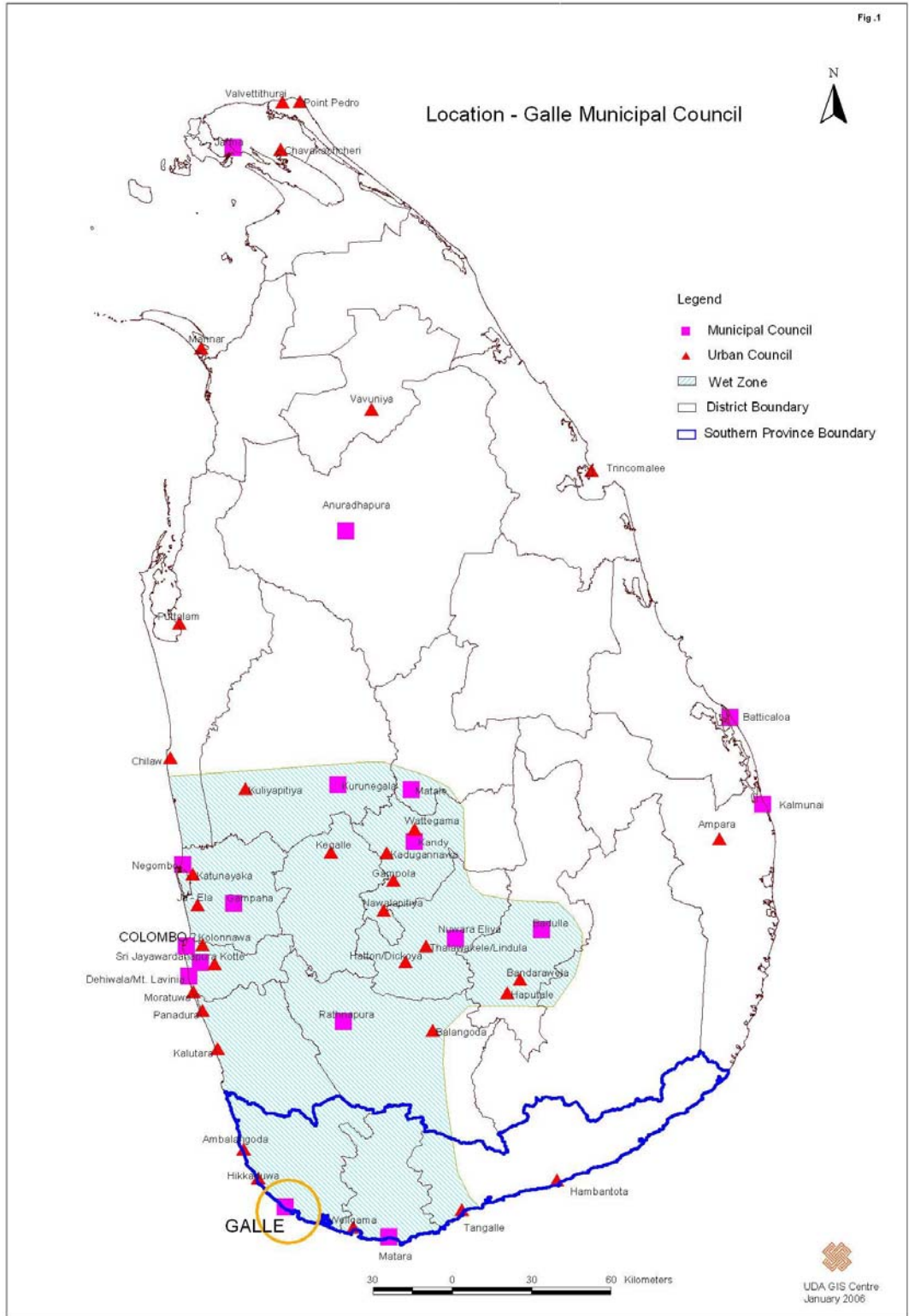
The city gained importance from the harbour, and after colonization by the Portuguese and Dutch, it was fortified, as evident from the Dutch Fort existing even today. Later, during the early nineteenth century, Galle was the premier port in the Island and a flourishing trading centre whose chief exports were curio, salt fish, coir rope, coconut oil, citronella oil, copra, plumbago and even Arrack which was much in demand in India. Coal and grain were the chief imports. It is stated that around twenty shipping lines used to call at the port of Galle up to 1885. When the breakwater and the construction of the Colombo harbour was completed Galle lost its position as the premier port of the Island. However, with the later development of the outlying areas, the City of Galle with a population of around 40,000 in 1921 became an important rail and a regional market centre, which has now grown to the present day District and Provincial capital with a population of 90,934 in 2001. Even so, such growth has been very slow compared to other provincial capitals, mainly due to the neglect of the Southern region since Independence in 1945.

2.1 Geographical Location

The City of Galle is located at Latitude 6.01⁰ N and Longitude 80.13E in the Wet Zone, which is the most urbanized region in Sri Lanka (Fig 1). It is the largest town in the Southern Province and is twice the size of Matara. It functions as the District and Provincial capital of the Southern Region. Located 115 kilometres from Colombo it is easily accessible by both road and rail. The town services the hinterland of the District through a number of urban growth centres linked by a road system as shown in Fig. 2.

2.2 Basic Data

Urban designation	:	Municipal Council
Extent	:	1742.4 Hectares
Population 1971	:	71,266
Density 1971	:	41 persons / Hectare
Population 1981	:	76,863
Density 1981	:	44 persons / Hectare
Population 1991	:	84,608
Density 1991	:	48
Population 2001	:	90,934
Density 2001	:	52 persons / Hectare
Estimated population 2011	:	96,836



Regional Setting _ Galle MC Area

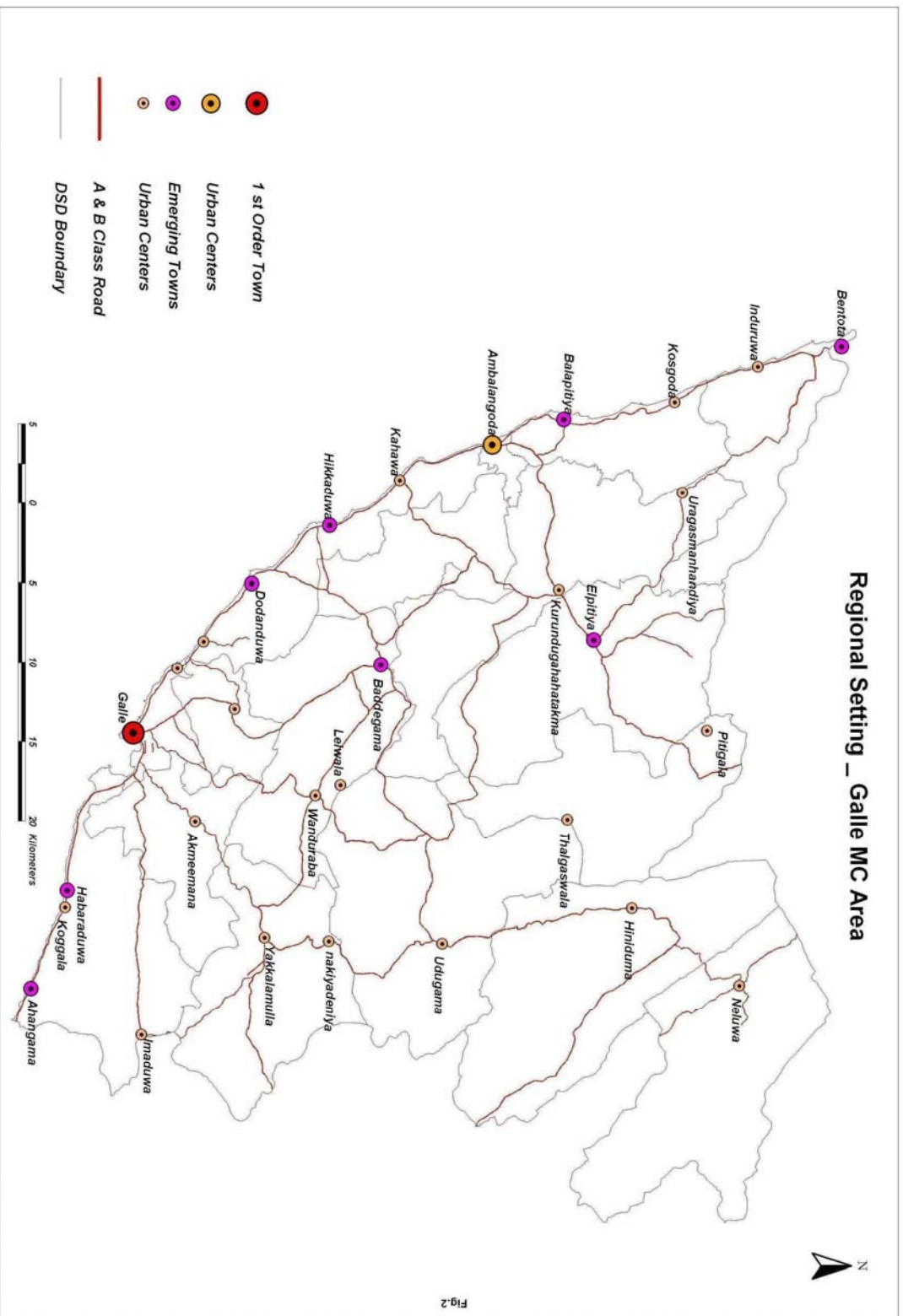


Fig.2

Average Annual Growth Rate

	1971 - 1981	:	0.78%
*	1981 - 1991	:	0.95%
	1991 - 2001	:	0.72%
*	2001 - 2011	:	0.62%

2.3 Physical Aspects

Galle town lies in the South West coastal plain, and except for a few hillocks, most of the land is flat. The Area is formed by two shallow ridges extending North South and sloping towards the East and West. Some parts of the central area are almost at mean sea level.

Soils are sandy along the coastal strip and inland they are chiefly Red Yellow Podsoils and Laterites. To the North West of the town one of the country's main rivers, the Gin Ganga flows out to sea at Gintota. It is the main source of water supply to the town. At the Eastern end, a major stream the Moragoda Ela runs across the town and discharges at Magalle. There are also a few other water bodies, the largest being Mahamodera Lake fed by Bope Ela (see Fig. 3). A satellite image of the Fort, Harbour and Central Business District (CBD) is given in Fig. 5.

The town, as it lies in the West Zone receives an average annual rainfall of 2000 mm mainly during the South West Monsoon period (May to August). The driest period is between January to March. Day temperatures range from 28^oC to 31^oC and night temperatures 24^oC to 26^oC. The Relative Humidity is around 80 to 88 percent.

2.4 Administrative Boundaries

The Galle Municipal Council area covers an extent of 1742.4 hectares, and consists of 15 wards, whose locations and areas are shown in Fig. 4. The 15 wards are composed of 43 Grama Niladari Divisions, out of the 50 which forms the Galle Divisional Secretaries Division called 'Four Gravets'. The 43 G N Divisions constituting the wards with the population in each is given in Annex-I.

3.0 Regional Aspects

Galle is the centre of administration of the Southern Province as well as the District. The regional sub offices of government Departments are located here, eg. Departments of Irrigation, Agriculture, Education, Health etc. and also of sectoral Infrastructure Agencies such as National Water Supply and Drainage Board, Road Development Authority and Electricity Board. The higher order social facilities are also centered here and catering to the whole region. eg. Teaching Hospitals at Mahamodara and Karapitiya. The town also functions as the main service centre to its hinterland as well as other regional economic activities, such as agriculture, fisheries, tourism, handicraft industries etc.

In the hierarchy of the principal towns in the Southern Region Galle M.C. with a population of 90,934 is the first order centre followed by Matara U.C. (42,766), Weligama U.C. (21,783), Ambalangoda U.C. (19,720), Hambantota U.C. (11,213) and Tangalle U.C. (10,458). Fig. 2.

4.0 Population

The population size of a town is a key indicator to its position in the urban hierarchy, and its importance as a growth centre for development.

This is particularly applicable to Sri Lanka, where there is an absence of a sharp urban rural dichotomy, and where most service facilities are available to the vast majority of residents in rural areas, in the small towns and emerging urban centres linked by good road systems. See Fig 2.

Most cities in other South Asian Countries experience burgeoning populations due to heavy immigration resulting in the growth of slums and shanties and other social problems.

In this context, our Municipalities which are free from urban issues of such magnitude and containing manageable populations should be able to deliver better urban services, but this does not happen due to bad governance, institutional weaknesses and the prevailing inefficient urban management system.

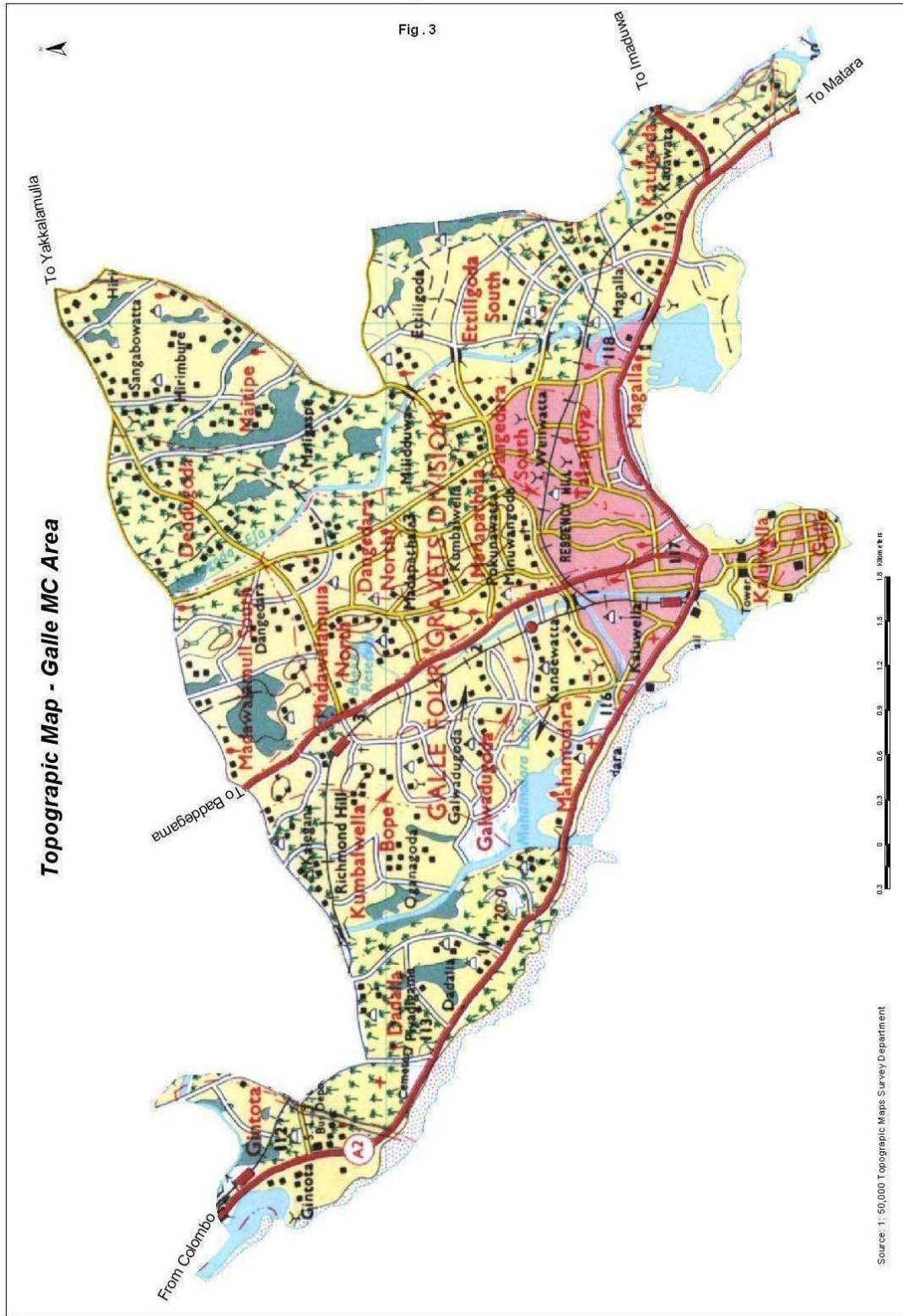
All Municipalities in the country, except for four in Colombo Metropolitan Region (Western Province) are District Capitals, and as such contain all the higher order social facilities for serving the district population. Considering this common factor and ranking the Municipalities according to their population size (2001 census), Galle M.C. ranks 2nd next to Kandy M.C. among the Municipalities outside the Western Province. Jaffna M.C., which had a population of over 100,000 even in 1981 has been excluded as the 2001 census did not cover the Jaffna District. (Table 01 below).

Table 01**Hierarchy of MCs according to Population**

Municipality	Population 2001	District Population	Rank Size
Kandy	110,049	1,272,463	1
Galle	90,934	990,539	2
Ratnapura	46,309	1,008,164	4
Badulla	40,920	774,555	6
Matale	36,352	442,427	7
Kurunegala	28,337	1,452,369	8
Nuwara Eliya	25,049	700,083	9
Anuradhapura	56,632	746,466	3
Batticaloa	NA	NA	--
Jaffna	NA	NA	--
Matara	42,756	761,236	5

Fig. 3

Topographic Map - Galle MC Area



Source: 1: 50,000 Topographic Maps Survey Department

Fig. 4

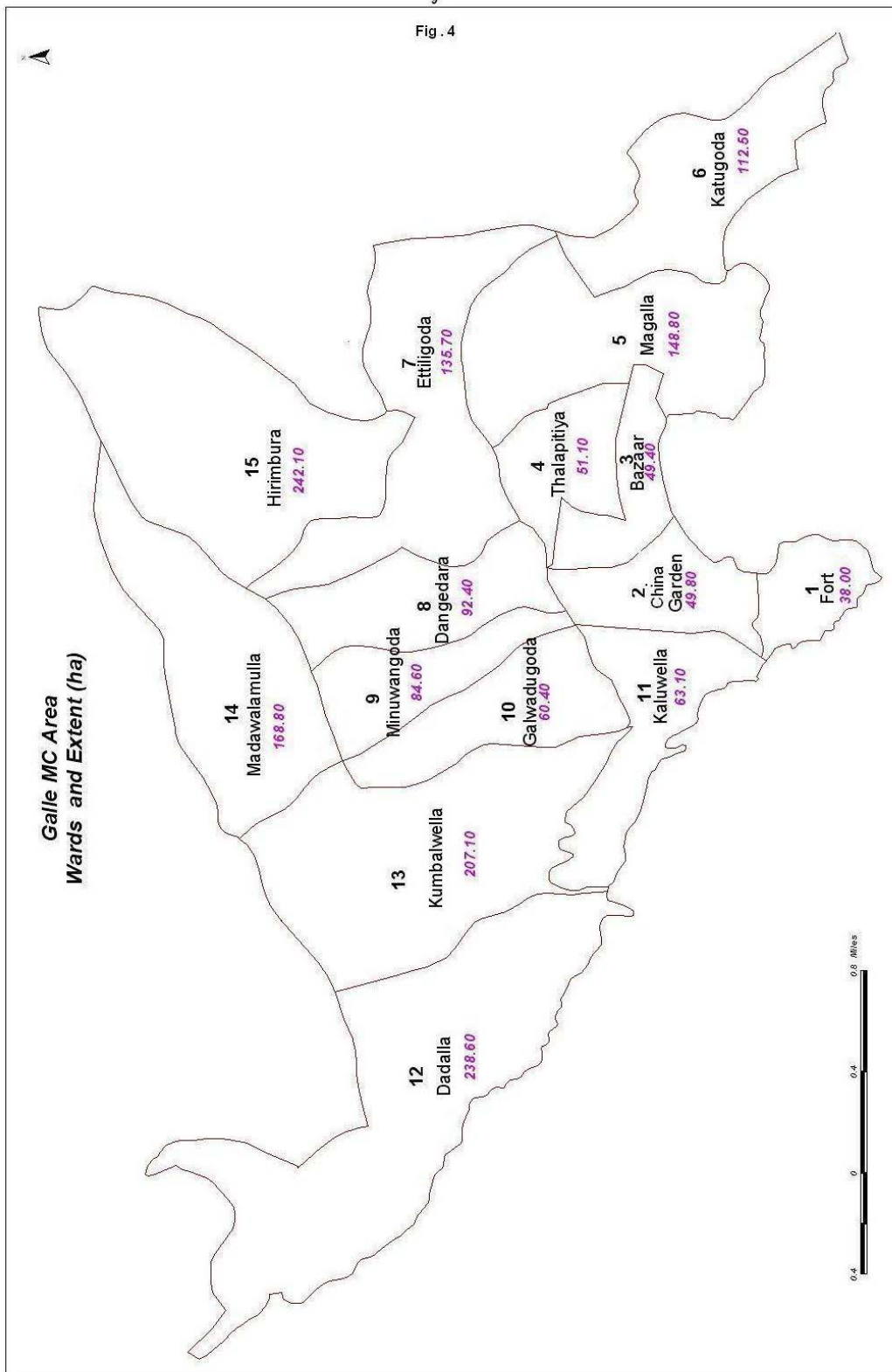


Fig. 5



Galle Fort, Harbour & Environs

Scale, 1:8000

4.1 Population Growth

Galle was declared a Municipality by the Colonial Government in 1876. The census that followed 5 years later, in 1881 recorded the town's population as 31,473. At the 1971 census i.e. after a period of 90 years the population has more than doubled (71266) at an overall growth rate of 1.4%, despite low and negative growth rates that prevailed from 1891 to 1931. See Table 02. The above increase was due to the high growth rates 1.2 to 2.0 between 1931 and 1971. After 1971 the general trend was a declining rate of growth and at the 2001 census the population was 90,934. The population by ethnicity and religion is given in Tables 03 and 04.

Table 02

Population Growth – Galle M.C. 1881 – 2001

Census Year	Population	Annual Growth Rate (%)
1881	31,743	--
1891	33,590	0.58
1901	37,165	1.06
1911	39,960	0.75
1921	39,073	-0.22
1931	38,424	-0.17
1946	49,009	1.84
1953	55,848	1.99
1963	65,236	1.68
1971	71,266	1.16
1981	76,863	0.78
1991	84,608	0.95
2001	90,934	0.75

Source : Dept. of Census and Statistics

Table 03 - Population by Ethnicity - Galle M.C.

Ethnicity	1981		2001	
	Population	%	Population	%
Sinhalese	72,637	94.5	66,114	72.70
Sri Lankan Tamil	694	0.9	989	1.09
Indian Tamil	1,072	1.4	255	0.28
Sri Lankan Moor	2,452	3.2*	23,234	25.55
Burgher	--	--	170	0.19
Malay	--	--	58	0.06
Sri Lankan Chetty	--	--	35	0.04
Others	8	0.01	79	0.09
Total	76,863	100.0	90,934	100.0

Source : Dept. of Census and Statistics

Table 04 - Population by Religious Groups

Religion	1981		2001	
	Population	%	Population	%
Buddhist	72,405	94.2	65,136	71.63
Hindu	1,457	1.9	1,123	1.23
Islam	2,453	3.2	23,547	25.90
Roman Catholic	309	0.4	890	0.98
Other Christian	154	0.2	208	0.23
Others	85	0.1	30	0.03
Total	76,863	100.0	90,934	100.0

Source : Dept. of Census and Statistics

A significant change is observed in the Sri Lanka Moor population which was 2452 (3.2%) in 1981 rising to 23,234 (25.55%) in 2001.

The population growth in more detail and Ward wise from 1971 to 2001 is given Table 05.

The population in Ward 1 (Fort) and Ward 2 (China Garden) has reduced appreciably during 1981 and 2001 at negative growth rates 1.6 to 2.9 percent per annum (Table 05). This is due to the change in use of properties from residential to commercial. However in Ward 3 (Bazaar) which is also part of the town centre the population has been increasing since 1981 at growth rates between 1.3 to 2.0 percent. This is due to sub division of properties for housing development in an area with better infrastructure, and the proximity to other facilities.

* At the City Consultation held in Galle in November 2006, the elected members of the Council stated that this figure is incorrect and that the electoral registers have indicated higher figures.

In Ward 8 (Dangedera) and Ward 9 (Minuwangoda) the population has reduced during 1981 and 2001, which could be due to unavailability of buildable land (area contains low-lying land) and the existence of environmentally sensitive lands in Ward 9 (Beeke reservoir and conservation forest around it).

Table 05
Population Growth 1971 - 2001

Ward No.	Name	Extent (Ha.)	Pop. 1971	Pop. 1981	AAGR 71-81 (%)	Pop. 1991	AAGR 81-91	Pop. 2001	AAGR 91-2001
1	Fort	38.0	2866	2703	-0.6	2326	-1.5	1993	-1.6
2	China Gardens	49.8	4159	4317	0.4	3362	-2.5	2514	-2.9
3	Bazaar	49.4	3082	3500	1.3	4275	2.0	4934	1.4
4	Thalapitiya	51.1	5810	5965	0.3	6930	1.5	7274	0.5
5	Magalla	148.8	6060	6590	0.8	6656	0.1	6713	0.1
6	Katugoda	112.5	4500	5109	1.3	5760	1.2	6339	1.0
7	Ettiligoda	135.7	4264	4932	1.5	6657	3.0	8355	2.3
8	Dangedera	92.4	5133	5380	0.5	5117	-0.5	4899	-0.5
9	Minuwangoda	84.6	3753	3844	0.2	3054	-2.3	2405	-2.4
10	Galwadugoda	60.4	4321	4705	0.9	5466	1.5	5970	0.9
11	Kaluwella	63.1	5072	6267	2.1	6254	-0.02	6221	-0.05
12	Dadalla	238.6	6910	7007	0.1	7979	1.3	8977	1.2
13	Kumbalwella	207.1	7163	7643	0.7	8447	1.0	9277	0.92
14	Madawalamulla	168.8	4143	4708	1.3	5750	2.0	6636	1.5
15	Hirimbura	242.1	4030	4193	0.4	6575	4.5	8427	3.5
	Total	1742.4	71266	76863	0.8	84608	0.95	90934	0.72

Note : 1971 & 1981 - Population - Census 1971 & 1981
1991 - Population estimated on growth trend
2001 - Population census of 2001

It is also observed that Wards in the periphery of the towns are fast growing at annual growth rates between 1.2 to 3.5 percent, eg: Ward 15, Hirimbura (3.5), Ward 7, Ettiligoda (2.3), Ward 12, Dadella (1.2) and Ward 14, Madawalamulla (1.5). Some of the surrounding areas in the towns are also urbanising at growth rates of 1.5 to 2.0 percent. Low land prices and the availability of land with good access are attracting people to these comparatively low density areas (see Fig. 6 and Fig. 7).

The integration of these incipient suburbs with the extension of the Municipal Area of Authority is discussed in more detail in Section 12.0 "Concept for a Structure Plan".

Fig. 6

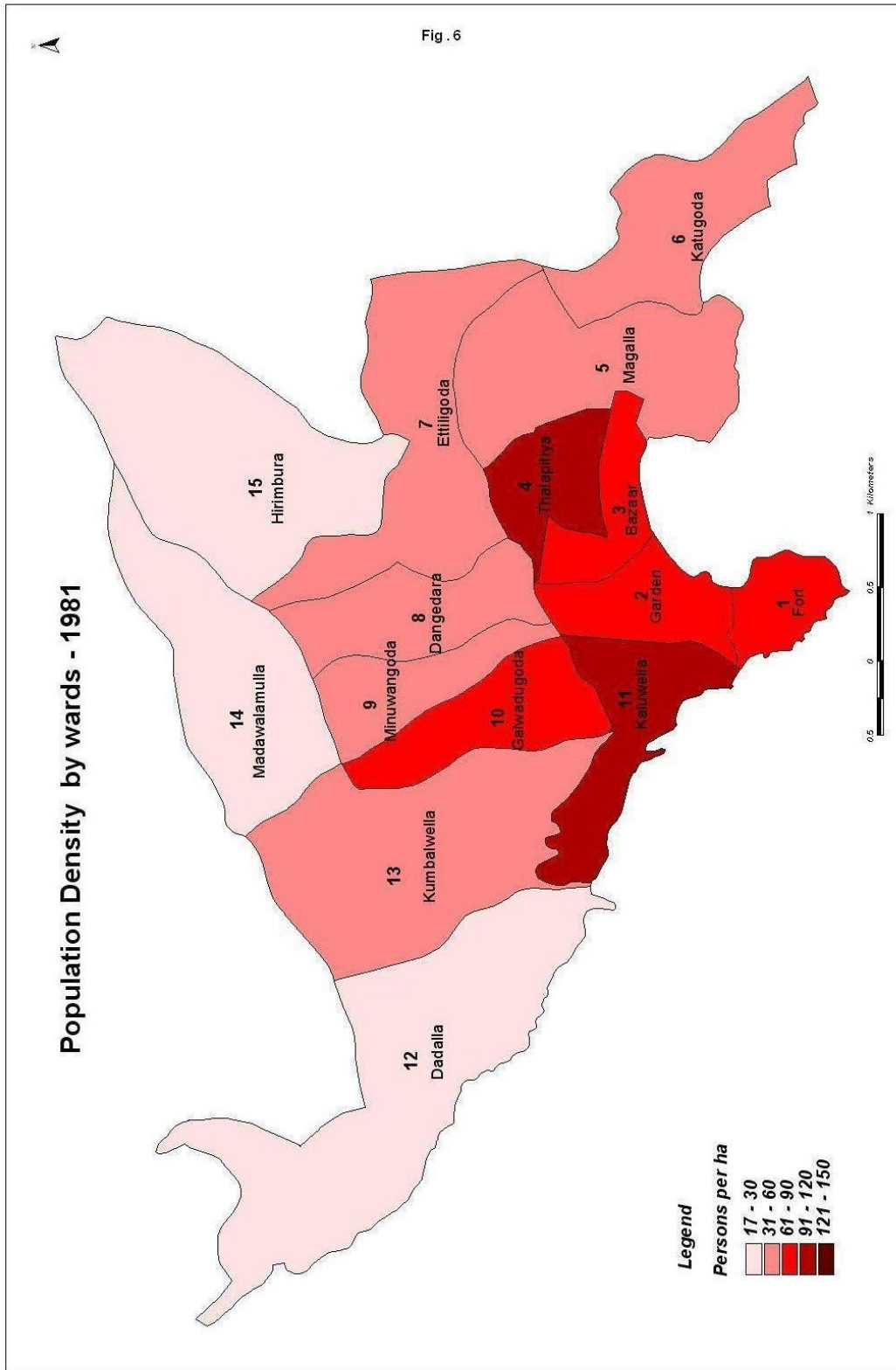
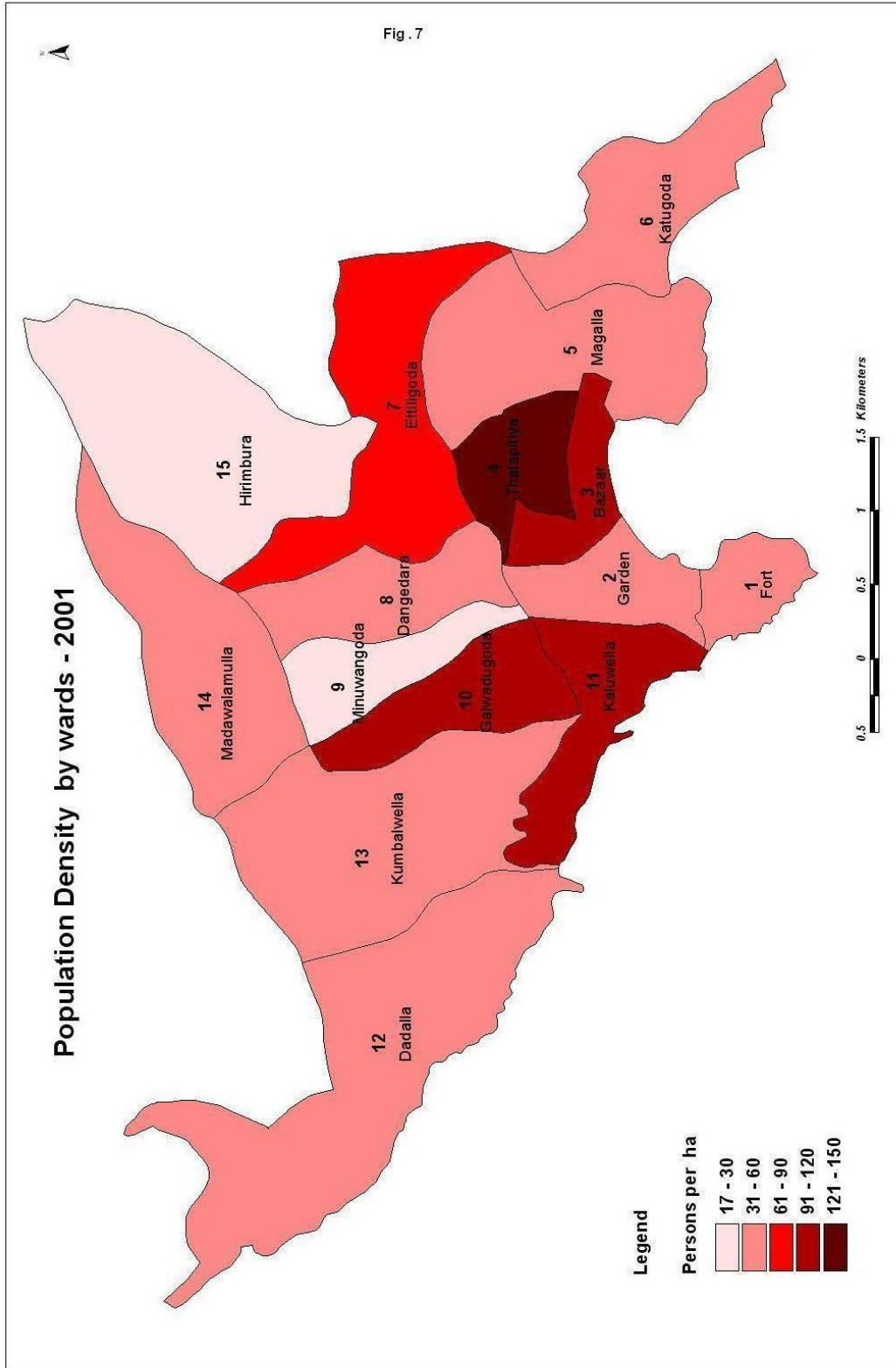


Fig. 7



4.2 Population Densities

The gross population density in the town was 44 persons per hectare in 1981. It increased to 52 persons per hectare in 2001 (Table 6). High population densities are observed in Wards 3, 4, 10 and 11 i.e. Bazaar (100) Talapitiya (142), Galwadugoda (99) and Kaluwella (98). These wards had comparatively high population densities even in 1981, as they were better residential areas and in close proximity to leading schools, medical and other facilities. Table 6 and Fig. 6 and Fig. 7.

Wards 12, 14, and 15 namely Dadalla, Madawalamulla and Hirimbura had lower densities of 17 to 29 per hectare in 1981, which increased to around 39 per hectare in 2001 (Table 6). This is due to the availability of less expensive land for housing to accommodate the spill over population (the young age group) from the densely populated wards mentioned above, as well as in migration from areas outside the town.

Another significant feature observed is the decrease in the densities between 1981 and 2001 in wards comprising the town centre i.e. Fort (71 to 52), China Gardens (87 to 50) and Minuwangoda (45 to 28) indicating a change in residential use of land to meet the demand for commercial, institutional and other uses. Also, Ward 4, Talapitiya continued to be the most densely populated ward with 114 persons per hectare in 1971 increasing to 142 persons per hectare in 2001.

Table 06
Population Density by Wards

Ward No.	Extent (Ha.)	Name	Density Persons / Hectare			
			1971	1981	1991	2001
1	38.0	Fort	75	71	61	52
2	49.8	China Gardens	84	87	68	50
3	49.4	Bazaar	62	71	86	100
4	51.1	Thalapitiya	114	117	136	142
5	148.8	Magalla	41	44	45	45
6	112.5	Katugoda	40	45	51	56
7	135.7	Ettiligoda	31	36	49	62
8	92.4	Dangedera	56	58	55	53
9	84.6	Minuwangoda	44	45	36	28
10	60.4	Galwadugoda	72	78	90	99
11	63.1	Kaluwella	80	99	99	98
12	238.6	Dadalla	29	29	33	38
13	207.1	Kumbalwella	34	37	41	45
14	168.8	Madawalamulla	24	28	34	39
15	242.1	Hirimbura	17	17	27	35
Total	1742.4	Galle M.C.	41	44	48	52

4.3 Population Projections

A reliable estimate of the future population size of an urban place is required for planning its development. The future land needs for housing and the supporting infrastructure could be assessed only on this basis.

Low, medium and high population projections for Galle Town are shown in Table 07. The low projection assumes that the present growth trend which is characteristic of the District would continue during the next decade. However, if the envisaged development plans for the Southern Region, especially the Southern expressway are effected during this time, then the population is likely to grow at medium to high growth rates. Galle Town would then have a population size between 100,000 to 115,000 and reach the position of a large town (over 100,000 population) in the urban hierarchy of the country.

Table 07
Population Projections

Year	Low	AAGR	Medium	AAGR	High	AAGR
* 2001	90,934	0.72	--	--	--	--
2005	93,300	0.65	94,350	0.92	94,350	0.92
2010	96,300	0.62	99,900	1.15	103,650	1.88
2015	99,300	0.60	106,900	1.35	115,700	2.2

* Population at Census year 2001

4.4 Shelter

The number of housing units in Galle Municipal Area was 10,957 in 1981 and 13,447 units in 1991, an addition of 2490 units (22.7%) at an average rate of 2.3% per year during the 10 years period.

In 2001 the number of units increased to 17,304 with the addition of 3857 units (28.7%) at the rate of 2.9% per year. This is an indication of a steady improvement in the housing sector. This is also reflected in Table 08, where the household size of 7.0 in 1981 dropped to 5.2 in 2001, when the population had increased by 18.3 percent. According to the National Housing Development Authority, the total number of units in 2001 were 17,570 (Table 09) which includes temporary and other types of housing (shanties etc.) amounting 1540 units (8.4%). Almost all this housing have been completely washed away, being part of the number (2083) affected by the Tsunami disaster in 2004.

The housing units by wards are given in Table 08. It is seen that in 2001 the number of units have almost doubled in Ward 3, Bazaar and Ward 7, Ettiligoda reducing the occupancy rate from about 7 to around 5 in 2001. Ward 10, Galwadugoda also shows

a substantial increase in the housing units during this period. Ward 1 (Fort) shows a marginal increase of 17 units, while in Ward 2 (China Gardens) there is a reduction

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from 628 units in 1981 to 431 units in 2001, accompanied by a decrease in the population in these areas, so that a household size of 6.9 persons per unit has reduced to 5.8 persons,

which also indicates that there has been conversion of houses to other uses, such as commercial, shops, hotels etc. In Ward 9 (Minuwangoda) a reduction of 31 units is seen along with a reduction in the population making the household size come down from 7.0 in 1981 to 4.6 in 2001. There has been an out migration from this area, where there is scarcity of buildable land and poor infrastructure. Ward 11 (Kaluwella) remains crowded with a occupancy rate of 9.4 per unit in 1981, and in 2001 7.7 which shows inadequate housing facilities for the people living there. The table also shows a substantial growth in housing in the peripheral wards, eg: Ward 12 (Dadella) 714 units, Ward 13 (Kumbalwella) 748 units, Ward 14 (Madawalamulla) 637, Ward 15 (Hirimtura) 738, where the number of units have almost doubled since 1991 and the occupancy rate dropping from around 6 per unit to 4.6 to 4.8 per unit. These are the areas to which people are migrating from the Central Business District in the town along with migrants from outside to the less populated wards, a trend that should be encouraged by providing better infrastructure. This would allow the release of high value land in the town centre for investment in activities promoting, the economic growth of the city especially in connection with the Tourism and Fisheries sectors and Port related activities.

As explained in Section 4.3, the population in the city of Galle in year 2015 is expected to reach 100,000 to 115,000 at a high growth rate. Assuming a household size of 4.5 persons per unit, the housing needs for a population of 110,000 would be 24,400 units approximately. With the present housing stock being 17,300 units there would be a short fall of 7100 new units which have to be provided during the period 2001 to 2015 i.e. within a period of 14 years from 2001. This is an increase of 41% of the present housing stock.

The above estimates assume that the 2083 units affected by the Tsunami in December 2005 would be reconstructed and some repaired by the end of 2006.

Table 08
Housing Units by Wards 1981 and 2001

Ward No.	Ward	Extent Ha.	Housing Units 1981	Housing Units 2001	Units per Ha. 1981	Units per Ha. 2001	H.H. Size 1981	H.H. Size 2001
1	Fort	38.0	349	366	9	10	7.7	5.4
2	China Garden	49.8	628	431	13	9	6.9	5.8
3	Bazaar	49.4	476	968	10	20	7.4	5.1
4	Talapitiya	51.1	810	1143	16	22	7.4	6.4
5	Magalle	148.8	935	1284	6	9	7.0	5.2
6	Katugoda	112.5	323	1237	3	11	15.8	5.1
7	Ettiligoda	135.7	792	1625	6	12	6.2	5.1
8	Dangedera	92.4	824	1016	9	11	6.5	4.8
9	Minuwangoda	84.6	553	522	7	6	7.0	4.6
10	Galwadugoda	60.4	671	1135	11	19	7.0	5.2
11	Kaluwella	63.1	664	808	10	13	9.4	7.7
12	Dadella	238.6	1251	1965	5	8	5.6	4.6
13	Kumbalwella	207.1	1179	1927	6	9	6.5	4.8
14	Madawalamulla	168.8	776	1413	5	8	6.1	4.7
15	Hirimbura	242.1	726	1464	3	6	5.8	5.8
	Total	1742.4	10957	17304	6	10	7.0	5.2

H.H. - Household size

Source : Compiled from Census Data 1981 and 2001

Table 09
Housing Units in Galle M.C. (2001)

Type	Units	Percent
Permanent	13,360	76.2
Semi Permanent	2,670	15.2
Temporary	1,490	8.4
Others	50	0.2
Total	17,570	100.0

Source : National Housing Development Authority

5.0 Socio-Economic Indicators

The City of Galle functions as the main service centre to its hinterland. Hence its economy is dependent primarily in regional growth of the plantation sector in the District. Locally, Fisheries and Tourism are the other main sectors that provide revenue generating opportunities within the city. Although Galle is a port city, the contribution of port operations to the city economy is comparatively limited, as it is confined to unloading of rice, flour and fertilizer, and clinker / gypsum for the cement factory. However the development of the port for accommodating larger vessels would enable shipment of produce from the region and bring immense economic benefits to the city.

5.1 Economic Base

As aforementioned the income generated by all the services needed for the plantations inland (Tea, rubber, coconut, cinnamon, spices etc.) as well as by the sale of goods and services for the resident population form the main economic base of the town. Most of the above produce except tea moves out to be processed elsewhere, mainly in Colombo. If the total production is processed within the District, Galle Town would gain much socio-economic benefits from such agro industrial development.

The provision of goods and services to a large resident population (over 90,000) as well as a floating population in the town (Galle being the District and Provincial Capital) also form part of the town's economy.

Apart from the Ruhunu Cement Factory and the Gintota Plywood Factory (not presently in operation) no other major industries are located in the town. The Export Processing Zone (EPZ) at Koggala 15 km away, depends on Galle for the higher order services needed for its worker population. The Fisheries industry in Galle operates through the Fisheries Harbour Corporation and the Fisheries Co-operative Societies in Magalle, Katugoda and Gintota. The Galle Fisheries Harbour close to the port provides anchorage to a large number of fishing craft, even from outside areas. Fish production (purchase and sales) amount to over 30,000 kilogrammes being purchased at source to be transported out, and about 25,000 kgs being sold locally through outlets in the city and areas outside the division; during the peak period July – August each year. Ice production by the Fisheries Harbour Corporation is a supporting industry. Yet there is the need for better equipped cold rooms for fish storage.

The Tsunami that affected Galle on 26th December 2004 have destroyed a very large part of the above infrastructure in the Fisheries Industry. However, it is heartening to note that a rehabilitation and reconstruction programme in under way, with the provision of more modern facilities, which augurs well for the industry, and consequently the growth in the city economy.

Economic benefits derived by servicing the Tourist industry (the Hotel trade and the local handicraft industry i.e. curios, lace making, jewellery, ebony work and wood carving, coir products etc have also been badly affected by the Tsunami). Rehabilitation of this sector, and the restoration of the livelihoods of these crafts people should be expedited along with the ongoing reconstruction work.

5.2 Trade and Commerce

Galle functions as the main financial centre in the Southern Province. There are 10 leading Banks, 15 Finance companies and around 37 commercial and lending institutions which includes 13 pawning centres located in the city.

Trade and commercial activities are very brisk every day of the week except on Sundays and statutory holidays. Wholesale trade is mainly centred around the storage and distribution of plantation produce (Tea, copra, rubber, tobacco, spices etc.) and fertilizer, animal feed, petroleum products, motor spares, asbestos and PVC products. Wholesale trade in many consumer items needed for the District such as food items, paper and stationery, textiles, ceramic and glassware etc also takes place.

Around 2,900 outlets in the city are engaged in the wholesale and retail trade for supplying the consumer and service needs of the people in the city and the district population. An income of over Rupees 5 Million has been received by the Galle Municipal Council (GMC) in 2005 in the issue of Licences to the Trade, Commerce, Services and in dust establishments in the city.

Around 287 small to medium scale industries are located in different parts of the city, ranging from foundries, timber mills, oil mills, metal works, aluminium fabrication to the manufacture of gold and silver jewellery and cutting and polishing of gems. See Annex-2 for details.

5.3 Property Taxes

According to the Budget Report for 2005 of the GMC the number of properties in the assessment register total 29,539 categorised as follows:-

Housing	16,924
Commercial Establishment	3,601
Govt. Property & Others	9,014

Total	29,539
	=====

The property rates are set at 10% to 20% of the Annual Value which depends on the type and use of the property. The M.C. collects a sum of Rs. 24,225,000/- annually from property rates.

5.4 Building Applications

As the construction of buildings in a Local Authority (LA) Area requires LA's authorisation, it is possible to infer from the number of building applications made during a period of time, the state of development of the Local Authority Area. This presumes that an increase in investment in construction activity is a reflection of an improved economy in a city. Tables 10 and 11 show the number of building applications approved by the GMC and constructed during the periods 1988 to 1991 and 2002 to 2005, a decade later.

Table 10
Building Applications Approved (1988 to 1991)

Year	Total Number	Residential	Others	P.C. of Total	
				Residential	Others
1988	309	284	25	91.9	8.1
1989	394	364	30	92.2	7.8
1990	405	367	38	90.6	9.4
1991	380	302	78	79.5	20.5
Total	1488	1317	171	88.5	11.5

Source : Galle Municipal Council

Table 11
Building Applications Approved (2002 to 2005)

Year	Total Number	Residential	Others	P.C. of Total	
				Residential	Others
2002	345	294	51	85.2	14.8
2003	388	329	59	84.8	15.2
2004	417	353	64	84.6	15.4
2005	414	363	51	87.7	12.3
Total	1564	1339	225	85.6	14.4

Source : Galle Municipal Council

In the above Tables, other buildings represent Commercial, Industrial and Institutional types, and it was found that commercial buildings form 84 to 86 percent of other buildings.

Inferences:

1. Residential development has been high, over 90% of all construction up to 1990. Since then it has reduced to 85% in 2002. This is due to the fact that the period up to 1990 experienced an increase in the population at higher growth rates along with in migration to the city, and latterly up to 2005 much conversion of residential building to commercial uses have taken place.
2. Construction of other buildings (Commercial, Industrial and Institutional) has been high 14% to 15% during 2002 – 2005 compared to 6% to 8% during 1988 to 1991. The change to higher growth in this sector of the construction industry is evident from the significant change from 9.4% to 20.5 in 1990/91 of such buildings constructed. (Table 10).

The character of the Galle City Centre is changing and expanding from mixed development to a Central Business District (CBD) of wholly Commercial / Institutional. As such, this trend should be facilitated by releasing residential land for commercial and other uses, which can only be done by extending the city limits and providing infrastructure in the peripheral areas for housing development.

5.5 Poverty Elements

According to Household income and expenditure surveys carried out by the Census Department in the Galle District the following figures have been recorded for the periods indicated.

<u>Period</u>	<u>Percentage of poor Households</u>
1990/1991	30%
1995/1996	32%
2002	26%

It is thus evident that since 1996 there has been a decrease of around 6% in the percentage of poor households in Galle District up to year 2002 during a 12 year period.

See Annex 8 for more details on the above.

6.0 Infrastructure Assessment

The state of the physical infrastructure in the city is generally poor, as such their levels should be augmented and improved to meet the increasing demand. This is very urgent, especially in the context of the Town being a tourist destination and its status as a District and Provincial Capital. Population growth has been on a declining trend since 1991, an indication of out migration from some parts of the city centre due to poor infrastructure and partly due to the conversion of many residential buildings to unplanned commercial and other uses. The levels of available infrastructure such as water supply, drainage and electricity have discouraged the development of high rise apartments even in ideal locations, which if effected could optimise the residential use of land, and thereby increase the housing stock within the city.

An assessment of the Infrastructure under the different sectors is as follows:

6.1 Water Supply

The water supply to the Galle M.C. is obtained from three sources, the rain fed reservoir at Hiyare and the other is Gin Ganga (river) intake. Both sources feed the 1.0 million gallon (4550 M³) reservoir at Beeke.

The National Water Supply & Drainage Board maintains the head works on the Ginga at Wakwella and provides the bulk supply to the U.L.A. Approximately 90% of the population in the town is provided with pipe borne water.

Table 12 shows the distribution of the water supply connections within the town.

Table 12
Water Connections in Galle M.C.

Use	Connection	Percentage
Residential	13,500	90
Commercial and Institutional	1,050	07
Others	450	03
Total	15,000	100

Source : National Water Supply & Drainage Board, Galle

Issues

A major issue is the inadequacy of a 24 hour water supply to a most parts of the town outside the central area. This is attributed to the provision of water to a population of around 12,000 outside the city limits in the Akmeemana and Habaraduwa Pradeshiya Sabha areas. The ground water, containing an excess of fluoride and iron is unpalatable and not fit for drinking.

There is no uninterrupted supply of water to the peripheral areas of the town i.e. outside the Central Business District. In the above circumstances, along with the increasing population and any envisaged plans for city development, increasing the capacity of the Gin Ganga Pumping Station, as well as augmenting the distribution system are very necessary.

6.2 Sanitation

In the absence of a Sewerage System, almost all households (80%) use water sealed latrines and around 10% pit latrines, most of which are found among the low-income settlements. Due to the increase in densities of the resident population, the ground water is polluted. Well water is not generally used for drinking due to its unpalatable taste fortunately for the community. Houses in low-lying lands experience failure of the sanitary system due to rise in the water table resulting in poor soakage of the effluent. Low-income settlements close to canals and waterways discharge waste water directly into these water bodies and pollute them.

6.3 Solid Waste Management

The accumulation of Solid Waste in most urban centres, especially in the bigger towns has reached alarming proportions. The City of Galle is no exception, and is in a crisis situation today with a huge quantity of solid waste (40 – 45 tons) having to be disposed of daily. Although disposal through land filling was carried out some time ago, it is not practiced now and open dumping is taking place, in environmentally sensitive areas due to non-availability of new dumping sites. Whatever the reasons be, it is regrettable to note the absolute lack of concern by the Municipality for the City's prime resource, the seacoast being polluted by dumping garbage on it. The photographs on pages 26 to 29 bear testimony to the above as well as the pollution of the picturesque bay at the rear of the Municipal Park by unloading garbage on its banks.

Solid Waste Management is handled by the M.C. by first collecting from points where residents deposit their garbage and then disposing the same. Concrete bins have been provided at secondary collection points, but due to irregular collection these overflow and waste is seen accumulating outside them. Drains are also choked with this overflow. Primary collection at source is also carried out by handcarts moving from house to house, but due to inconsistency, residents dump their garbage on roadsides.

Collection is more frequent in commercial and densely populated areas, with daily collection on main roads and twice a week on other roads. Streets in commercial areas are swept daily, and roads in residential areas twice weekly.

More details on solid waste disposal, such as its composition, sources of generation, the capacity of the M.C. in terms of machinery, equipment and labour and past disposal sites etc. are given in Annex 3.

The disposal of solid waste was carried out fairly satisfactorily some time ago, when waste was transported to a landfill site at Bataduwa 4 kms away from the town. Subsequently other sites (private lands) closer to the town such as Katiyoda Buhari Gardens were used for the last 10 years. The dumping of Tsunami debris here and also at Bambagalawatte has deprived the M.C. of waste disposal lands.



Garbage deposited in parkland



Waste dumped into tree guard in park.
Note tree affected by waste due to public apathy



Debris from Tsunami dumped on road to



Reclaimed old dumping site



Garbage deposited on coast



Another view of garbage on banks of bay
Note water polluted by floating garbage



Garbage deposited alongside Bay (Estuary) behind park
Note Galle Fort in background



Municipal truck unloading garbage into Bay

An officer from the Central Environmental Authority works at the M.C. and according to the information obtained, a solid waste management programme is being organised under the auspices of the Asia Foundation. A polythene and plastic recycling plant is proposed at Dadella, a joint venture with M.C. and 'Sun Plastic' a private organization. A proposal for distributing compost barrels to residents in the Galle Heritage Site in the Fort was also mentioned.

It is clear that these pilot projects have had only a marginal impact on the solid waste disposal problem in the city.

Issues in Solid Waste Management

- The active participation of the community is a prime requirement for a sustainable solid waste management programme. This is very lacking. Separation of waste at source and a greater use of composting bins can mitigate the problem.
- Financial constraints and shortage of machinery, equipment and labour.
- Frequency of the collection and disposal is poor resulting in piling of the waste generated.
- Scarcity of suitable land in close proximity for the disposal of waste.
- Present disposal methods causing environmental pollution and a threat to the health of the community.
- Organizational weaknesses and absence of a long-term solid waste management plan.

6.4 Drainage

The main drainage of the town is discharged to the sea through four Elás (canals), Unawatuna Ela, Moragoda Ela, Kepu Ela and Modara Ela. These take the outflow from roadside drains (68.7 km), which are of the open type and unpaved. These drains are not maintained satisfactorily. The low-lying areas in the central parts of the town are subject to flooding during heavy rain due to poor drainage.

Issues

- The absence of drains along some secondary roads causes erosion and silting of the canals.
- Unauthorised constructions near waterways as well as dumping of garbage into canals obstructing the flow.
- Dumping of garbage and land filling in low-lying and marshy area reducing the flood retention capacity in the lower stretches of the built up areas.
- Absence of a community oriented approach towards the maintenance of the storm water drains.
- Lack of co-ordination between the three institutions RDA, PRDA and the ULA responsible for the maintenance of roads and side drains according to their categories.

6.5 Roads

The national road network (19.2 km) in the town is within the jurisdiction of the Road Development Authority (RDA). The Provincial Council (PC) maintains about 5.8 km of road and the Galle Municipal Council (GMC) maintains 17.0 km of Class 1 roads, 28.0 km of Class 2 and 33.0 km of Class 3 roads. About 80% RDA roads were found to be in good condition, while about 70% of the GMC maintained roads were in a fair state. However a greater part of the P.C. roads are in an average condition and poor in some areas. GMC maintains 04 bridges and around 345 culverts, 21 km of built up side drains and 52 km of earth drains.

6.6 Electricity & Telecommunications

Electricity is available in the whole of the GMC area. The CEB supplies power through 17 grid stations and 97 substations and transformers. Domestic connections are around 11,500, Industrial 267 and Commercial / Institutional 2100 totalling 13,867 metered connections. Although the service in the town centre is satisfactory, voltage drops occur in some areas. In view of the growing population and consequent increase in service needs the system needs augmentation to meet the future demand.

Telecommunications

According to Sri Lanka Telecom 8843 individual connections have been provided in GMC area and around 2780 applicants are on the waiting list as at 2005. However private telephone companies have established and telephone facilities are available through them. There are around 26,000 cell phone users in Galle town presently.

6.7 Social Infrastructure

1. Education

The best educational facilities in the Galle District are found in Galle Town. There are 36 schools with a school going population of 42,000 of which about 17,000 students (40%) come from outside the city limits, even from distant places in the District. The National Schools are Mahinda College, Richmond College, Southland Balika Maha Vidyalaya (MV), Sanghamitta MV, and Ripon Balika MV. There are also three other popular schools in the town namely Aloysius MV, Sacred Heart Convent and Gintota MV. The class room floor space per student in the five National Schools is given in Table 13 below.

Table 13
Student / Classroom Floor Space – 2001

School	Total No. Students	Total Classroom Space Sq.ft.	Ratio
Mahinda College	3320	19,300	5.8
Southlands Balika M.V.	4539	25,120	5.5
Sanghamitta M.V.	5664	16,181	2.8
Richmond College	4331	12,750	2.9
Ripon Balika M.V.	2512	5,493	2.2

Source : Divisional Educational Office, Galle 2001

The above classroom floor space per student is on the very low side and well below the standard of 10 sq.ft. per student.

Besides the above premier schools in the city, there is a Polytechnic at Kaluwella, an Open University at Labuduwa. The Faculties of Medicine and Engineering of the Ruhuna University is located in Galle at Karapitiya and Hapugalle respectively.

2. Postal Facilities

Galle Town is served with a special grade Post Office and two other grade 1 Post Offices at Fort and Gintota, 24 Sub Post Offices (SPO's) are distributed among the 15 wards near prominent road junctions. Further the Central Business District (CBD) is also served by SPO's at China Gardens, Galle General Hospital, and Galle Harbour. In addition there are many Agency Post Offices to serve the public. It is thus seen that Galle Town is well served with postal facilities.

3. Medical Facilities

The medical services available to the people in Galle Town is of a high order. The Government Hospitals located in the Town are as follows:

1. Teaching Hospital at Mahamodara.
2. Teaching Hospital at Karapitiya
3. Talapitiya Maternity Home
4. Karapitiya Cancer Hospital
5. Dissanayake Ayurveda Hospital

In addition to the above Government Medical Institutions, four private hospitals also service the town namely,

1. Co-operative Hospital
2. Sri Lanka Nursing Home
3. Central Hospital
4. Southern Hospital

Under the Tsunami Affected Areas Rehabilitation Project (TAARP) TADB grant 0006-SR (SF) for Galle some projects have been identified for immediate implementation. These are indicated below in more detail.

Tsunami Affected Areas Rehabilitation Project (TAARP)
In Galle M.C. Area

(i) FORT

Project expansion of Cardio Thoracic Unit of Karapitiya Teaching Hospital (only one such unit is available outside Colombo) project cost Rs. 14.10 Million.

(ii) KARAPITIYA

Construction of a well equipped Paediatric Intensive Care Unit (ICU) its significance is that only one other Paediatric ICU exists for the whole Island at the Lady Ridgeway Children Hospital with only 6 beds, in Colombo, Project cost Rs. 94.5 Mn.

(iii) KARAPITIYA

Construction of a 60 bed ward complex for the Thassim Chest Clinic in Galle. Project cost Rs. 11.28 Mn.

While the above projects would immensely benefit the city population due to their close proximity, yet the demand for such services from a large number of people living in the province and afar would make their ready availability somewhat difficult.

7.0 Urban Development

The City of Galle gained Municipal status as far back as 1867, and was declared as an Urban Development Area in 1979, under the Urban Development Authority Law No. 41 of 1978. It is now evident that, even after two and a half decades since the above declaration the city has not developed to its full potential as a regional centre. This is despite it being endowed with many human and natural resources such as the sea coast, the harbour, a rich agricultural hinterland and with good road and rail transport links to Colombo, the capital city.

An assessment of the physical and social infrastructure was given in section 6.0 and other indicators of urban development such as Land use, Land values would be discussed here.

7.1 Land Use

The total extent of land in the city is 17.42 sq.km. or 1742.4 hectares. The distribution pattern of this extent under different uses in 1992 and 2003 is shown in Table 14.

The land is predominantly in residential use, 62.1% in 1992 reducing to 58.4% in 2003. This has occurred along with a population increase of 6300 or about 1200 households during this period, indicating an increase in the housing density in the city centre, partly due to conversion of residential land to commercial uses. The decrease in agricultural land by 2.9% i.e. from 105.7 hectares (6.1%) in 1992 to 55.7 hectares (3.2%) in 2003 show that such lands especially coconut land has been used for housing and other purposes in the peripheral areas i.e. the wards where the growth rate has increased (Hirimbure 3.5%, Madawalamulla 1.5%, Etiligoda 2.3% and Dadella 1.2%). See Table 05 Page 13.

Commercial land use which was about 30.5 hectares (1.8%) increased to 49.3 hectares (2.8%) in 2003 indicating an increase of 1.0% but compared to Matara (6.4%) in commercial uses, this increase does not indicate that the commercial activities are at a satisfactory level for a District and Provincial centre such as Galle. The congestion in the Central Business District (CBD) and lack of parking facilities are some reasons for poor commercial development in the CBD. Land use in industrial activities was around 15 hectares (0.9%) in 1992 and a very small increase of 0.4% i.e. to 22.4 hectares (1.3%) is seen. Except for the Ruhunu Cement Works there are no major industries within the Galle M.C. area. Most of the existing industries are medium to small scale ones such as Garment factories, Fibre mills, Timber Mills, Oil mills, Handloom establishments etc. and apart from these, the Fishing industry and Tourism. Public and Semi public uses, which include the new Divisional Secretariat, housing many public departments, the two hospitals at Mahamodara and Karapitiya, the many other public institutions, semi government corporations and the district offices of the infrastructure agencies etc. take up 128.5 hectares, 7.4% of the total land extent of the city in 2003. This is an increase of only 0.5% over the 1992 extent of 120.2 hectares (6.9%) Roads and transport activities use up a major portion of land 244.8 hectares (14.1%) in 2003 which is next to residential use of 58.4% or the total land extent in the town in 2003. This is an increase of 8.3 hectares or 0.5% over the 1992 extent of 167.3 hectare. There is no evidence of road widening in the town centre during this period, but the increase can be attributed to additional roads for access to land sub divisions and new lands for housing development.

Land utilized as open space for parks and playgrounds being only 1 to 1.3% of the total extent in the city is very inadequate considering the increased population, i.e. 90934 a persons according to the census of 2001. The open space standard for land subdivisions for housing stipulate 10% of the total

extent, so that according to it and the extent of land used for housing in 2003 i.e. 1016.4 hectares (see Table 14) an extent of about 100 hectares are required, but what is available as

open space for recreation is only 23 hectares. This is somewhat compensated by the sea coast being available as recreation space. However only the residents in the wards abutting the coast can really benefit from it. It was clearly evident that there is a need for parks and playgrounds in wards of the inner city areas. Of the total land extent of 1742.4 hectares, 1497.2 hectares (86%) have been developed by 2003, and of the undeveloped land, as aforesaid, a reduction of 50 hectares in agricultural use, is seen. However a noteworthy feature is that there is no reduction in the extents of land under Forest (7.9 hectares) mainly around the Beeke reservoir), marshland (28.1 hectares) and the water bodies (104.0 hectares) since 1992 (Table 14) which augurs well from an environmental point of view. Some vacant land of about 49.5 hectares in extent have also not been utilized. The locations have not been identified in this profile and requires further investigation.

Table 14
Land Use Distribution 1992 & 2003

Land Use	1992		2003		Increase %
	Extent Ha.	% of Total	Extent Ha.	% of Total	
Developed Land					
Residential	1081.4	62.1	1016.4	58.4	- 3.7
Commercial	30.5	1.8	49.3	2.8	+ 1.0
Industrial	15.5	0.9	22.4	1.3	+ 0.4
Public / Semi Public	120.2	6.9	128.5	7.4	+ 0.5
Roads / Transport	167.3	9.6	244.8	14.1	+ 4.5
Parks / Playgrounds	19.8	1.1	23.3	1.3	+ 0.2
Cemeteries	12.5	0.7	12.5	0.7	0
Sub Total	1447.2	83.1	1497.2	86.0	+ 2.9
Undeveloped Land					
Agricultural	105.7	6.1	55.7	3.2	- 2.9
Forests	7.9	0.4	7.9	0.4	0
Marshes	28.1	1.6	28.1	1.6	0
Water Bodies	104.0	6.0	104.0	6.0	0
Vacant Land	49.5	2.8	49.5	2.8	0
Sub Total	295.2	16.9	245.2	14.0	- 2.9
TOTAL	1742.4	100	1742.4	100	0

Source : 1992 Urban Development Sector Project
ADB – TA 1508 SRI – August 1992
2003 Development Plan for Galle Urban Development Area –
U.D.A. Nov. 2005.

7.2 Land Values

Compared to land values in other district capitals, land values in Galle had been comparatively low up to 1992. Since then, apart from the depreciation of the Rupee, land values have gone up with the promotion of tourism and related activities such as construction of hotels and guest houses, the local handicraft industry etc.

A broad classification of land values covering all the wards in the Municipality is shown in Table 15 and Fig. 8. There can be many variations within each category depending on the location of land, such as along main roads, where the higher values prevail. Availability of infrastructure facilities and sites subject to flooding are other factors that affect the price of land.

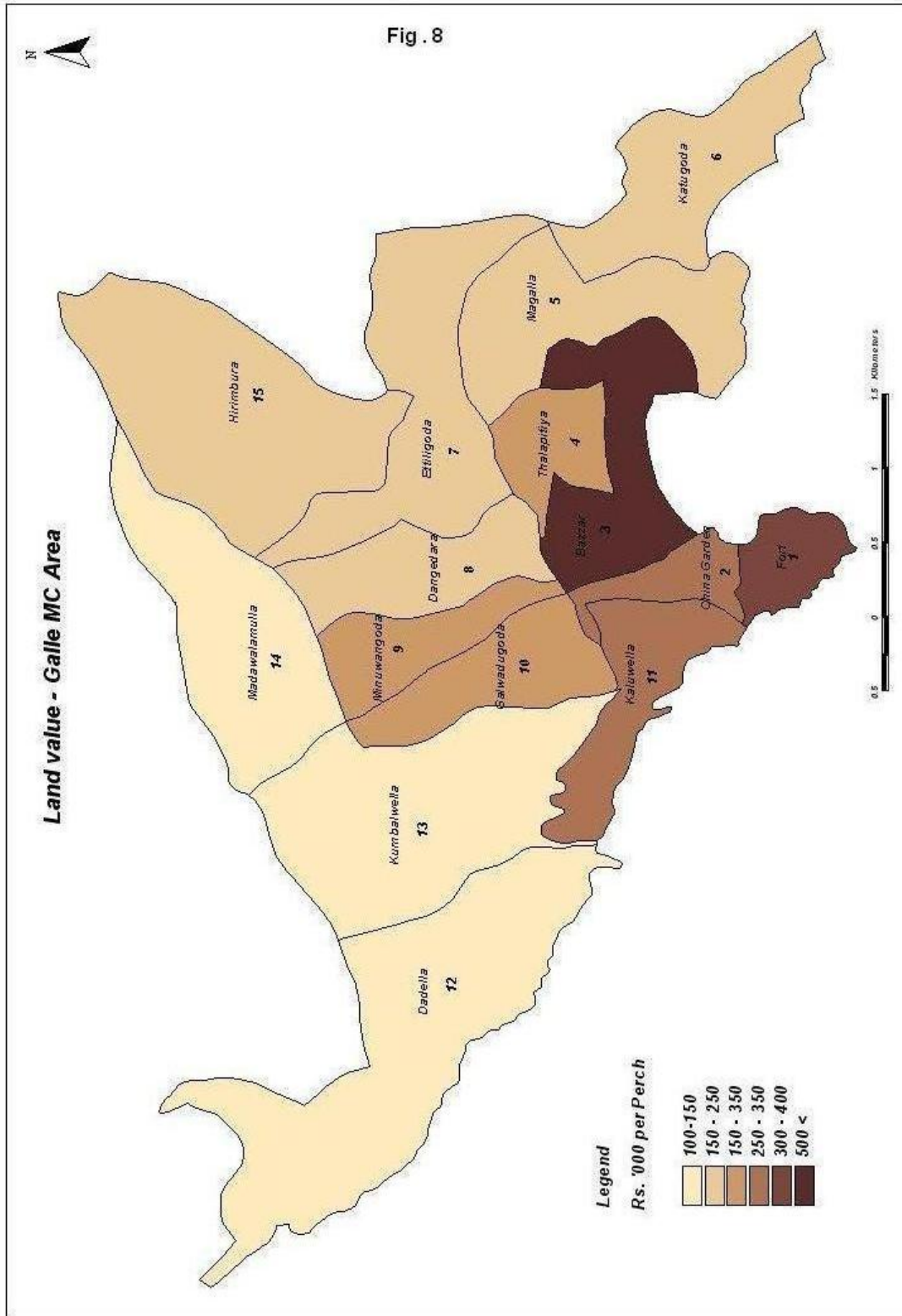
Land values in Ward 3 (Bazaar) are the highest, over Rs. 500,000/- per perch. Ward 1(Fort have values between Rs. 300,000/- to Rs. 400,000/- per perch. In Ward 2 (China Gardens), Ward 11 (Kaluwella) and in the Southern part of Ward 4 (Talapitiya) land prices range between Rs. 250,000/- and Rs. 350,000/- a perch. Ward 5 (Magalla), Ward 6 (Katugoda), most of Ward 7 (Ettiligoda) and Ward 15 (Hirimbura) which is a fast growing residential area and Ward 8 (Dangedera) the values are between Rs. 150,000/- to Rs. 250,000/- a perch.

Ward 12 (Dadalla) where most low-income settlements exist, Ward 13 (Kumbalwella), Ward 14 (Madawalamulla) and the Northern half of Ward 10 (Galwadugoda) have the lowest values, between Rs. 100,000/- to Rs. 150,000/- a perch.

Table 15
Land Values – Galle M.C. - 2004

Ward No.	Ward	Land Value Rs. '000 per perch
1	Fort	300 – 400
2	China Garden	250 – 350
3	Bazaar	Above 500
4	Talapitiya	150 – 350
5	Magalla	150 – 250
6	Katugoda	150 – 250
7	Ettiligoda	150 – 250
8	Dangedera	150 – 250
9	Minuwangoda	150 – 350
10	Galwadugoda	150 – 350
11	Kaluwella	250 – 350
12	Dadella	100 – 150
13	Kumbalwella	100 – 150
14	Madawalamulla	100 – 150
15	Hirimbura	150 – 250

Fig. 8



8.0 Issues, Constraints and Opportunities

8.1 Issues

The City of Galle is beset with many urban issues that are common to most urban centres in the country. As such the expectations of a better quality of life by the people even to the extent that the city would provide is never realised due to poor urban management. These issues are mostly concerned with the provision of basic urban services such as water supply, sanitation waste disposal etc. Their deficiencies were discussed in more detail in section 6.0. Apart from these there are many other issues that have affected the quality of life in the city and which continue to prevail.

1. Low lying areas in the city being subject to flooding even after light rainfall, Dagedera and Sangamitta wards being the most vulnerable. The causes for the flooding are;
 - (a) Unauthorised land filling.
 - (b) Poor maintenance of roadside drains and main drainage canals (natural waterways) Kepu Ela, Moragoda Ela and Parana Ela.
 - (c) Unauthorised constructions and dumping of garbage by settlers near the above canal banks obstructing the flow of water. The above issue has led to the pollution of the environment as well. Mosquito breeding in stagnant water causing the spread of vector borne diseases.
 - (d) Sand extraction near canal outfalls at Mahamodera, Gintota and Katugoda.

2. The gradual loss of the most valuable natural resource in the city i.e. the sea coast and its scenic beauty (an asset to the Tourist Industry) being adversely affected by unauthorised settlements. This is further aggravated by the unplanned constructions at the Mahajana Pola and thereby obstructing the view of the Galle Fort and Rumaswala hill.

3. The city economy being affected by the poor functioning of the Central Business District (CBD). This is due to;
 - (a) Commercial growth taking place along main roads in ribbon form.
 - (b) Absence of parking facilities causing traffic congestion and free pedestrian movement due to the large number of vehicles being parked on the roadsides. Informal trade activities have aggravated the situation.
 - (c) The small plot sizes in the commercial area restricting development especially along Main Street, where the floor area ratio has been relaxed by the Authorities.

- (d) The secondary streets in the CBD being narrow, discouraging commercial development, eg. Old Matara Road, around Samudra Mawatha, Pettigalwatte and China Garden (Cheena Koratuwa). See pages 40 to 42.

Although Galle is a first order town (city) and a regional capital with a population 90934 the extent of land use in commercial development is only 2.8% compared to 6.34% in Matara, which is an Urban Council (Pop. 42756).

- 4. Poor public transport facilities. The main bus stands function at two separate locations, and without basic facilities causing inconvenience to commuters. Although Galle is served by rail transport, the bus stands are distant from the railway station. As such passenger interchange becomes difficult.
- 5. The absence of a place for public assembly / playground in a provincial capital such as Galle being unacceptable by any standard.

8.2 Constraints

Besides the aforementioned issues, which have emerged through laissez faire growth, there are other constraints that require strong planning intervention to direct the future development of Galle into a sustainable city. The main constraints that have to be addressed are as follows:-

- 1. Expansion of commercial activities in the CBD is constrained due to good developable land being put to non-productive uses – eg. Prisons complex and the old hospital premises.
- 2. Pollution of the urban environment through mismanagement of city's waste disposal, and having a negative impact on the Tourist industry, which is one of the main source of income generation in the city.
- 3. The existing capacities of the infrastructure such as water supply, power and other social facilities being inadequate to serve the newly urbanising areas in the periphery of the city.
- 4. Unavailability of serviced land of sufficient plot size in the city discouraging private investment.
- 5. The absence of a sewerage system in the city.



Chaotic conditions at main bus stand
Note commuters loitering on road side



Informal trade along road side
Note obstruction to legitimate trade



Congested main street
Note lack of parking space and informal trade on road side





Lack of Parking space obstructing traffic flow





Construction of Shop houses at Pettigalawatta



Reconstruction of public market at Pettigalawatta

8.3 Opportunities

If the above mentioned issues and constraints are overcome the city can be developed into a very sustainable one. Many opportunities are available to the Municipal Council for further achieving this objective.

1. The Southern Development Programme can have a catalytic effect on the growth of the city provided the Local Authority is alert and take advantage of the opportunities, eg: Southern express way and port development.
2. The immense possibility of improving the city economy through tourism i.e. by the effective management of the city's natural and other resources. eg. the coastal zone, heritage sites, the inland water bodies and the local handicraft industry, etc.
3. The opportunity of integrating the newly urbanising areas outside the city limits into the municipal system.
4. Along with the above expansion increasing industrial productivity by establishing Agro based industries in the city.
5. Above all, the city being a regional capital, the opportunity of upgrading its services sector for greater economic benefit.

It can be stated that the manifestation of urban issues discussed above are not solely due to lack of resources. Sometimes the resource allocation for urban services is substantial, but they are managed inefficiently, the institutional arrangements being poor.

9.0 Environmental Aspects

Increasing populations in cities cause a heavy demand on its infrastructure, and if such provision does not keep pace with population growth, the situation becomes unmanageable leading to environmental degradation. The many causes for the pollution of the environment in the City of Galle are;

1. Piling of garbage on canal banks and waterways by householders and traders of small service centres located near canals.
2. The city's garbage disposal system being erratic, and the disposal of waste in open dump sites and in environmentally sensitive areas. (This is dealt with in detail in section 6.2 under solid waste management and illustrated in pages 26 to 29).
3. Blocking of drainage system by plastic and polythene waste.
4. Coral mining (this has somewhat reduced in extent at Magalla and Amupolatta).

5. Overflowing of septic tanks and cesspits in densely populated and low lying areas due to soakage area being limited causing unhygienic conditions during the rainy season. This emphasises the need for a sewerage system for the inner city.
 6. Air pollution by vehicle emissions in the congested inner city, where streets are narrow and without any public open spaces.
 7. Effect of the Tsunami on ground water quality. About 10% of the population use well water for household needs.
- * See Annex-6 for more details on Environmental Aspects.

Permits are issued by the Environmental Officer (EO) from the Central Environmental Authority (CEA) attached to the M.C. for establishing light to medium polluting industries, and permits for high polluting industries such as service stations etc are given directly by the CEA. However, there is no monitoring system in place for checking these activities, and their polluting levels.

9.1 Mitigating Measures

It is observed that some measures have been adopted on a limited scale for improving the environmental quality in the city, but their limited application have no significant effect in mitigating the poor environmental conditions in the city as a whole. The EO referred to a school environmental programme where the school going population is educated on environmental issues. The programme has been initiated in 13 schools. The EO mentions 50% success in the tree planting scheme. The EO also spoke of a polythene and plastic recycling plant at Dadalla, a joint venture between Sun plastic and the M.C.

Composting barrels have been given to some by the Divisional Secretary and there is also a proposal for distributing compost barrels to residents in Galle Heritage Site.

It is apparent from the above findings that the environment in the city has been adversely affected through laissez faire growth and that planning interventions in the past have not been effective. There is also the lack of mechanism for community involvement in resolving some of the environmental issues listed 1 to 7 under 9.0.

In the above context, reference is made to the U.N.'s Sustainable Cities Programme (UNSCP) which states that "Cities in the developing world are much more vulnerable to environmental risks and problems prevalent on the developed world, which makes the transition to sustainable development much more difficult".¹ In response to the failure of traditional approaches to address such urban issues "tools such as the UNSCP and Environmental Planning and Management (EPM) have emerged"²

¹ Sustainable cities - Concepts and Applications of a United Nations Programme UNCHS. (19946).

² Ibid

10.0 The Tsunami Impact on Galle

Of all natural disasters that have occurred in the past, the destruction caused by the Tsunami is unprecedented. Over 34,000 lives were lost and over 500,000 people were rendered homeless. The coastal belt of the districts of Jaffna, Mullaitivu, Trincomalee, Batticaloa, Amparai, Hambantota, Matara, Galle, Kalutara, Colombo and Puttalam were affected with 114,000 houses being destroyed. The fishing community bore and brunt of the Tsunami. Extensive damage caused to infrastructure, transport, power and telecommunications along the coastal belt have compounded the magnitude of the rehabilitation and resettlement process. In this backdrop what we are concerned here is the destructive effect of the Tsunami in Galle District, and particularly in the Galle Municipal Council area.

10.1 Galle District

Galle District which is bounded by a coastal belt of 72 kilometres was the second most affected district by the Tsunami, the worst affected being Amparai District, where 10,436 people died and 107,085 were rendered homeless. Although the East coast was most affected, Galle and Hambantota Districts on the South West was the next most affected of all other areas. In Galle 4248 people died and 122,399 were rendered homeless, and in Hambantota 4,500 died and 14,523 being homeless. (Table 16). The details on Galle District is given in Annex 4.

The Tsunami has caused a dent in the national economy by its destructive effect on coastal economic resources, especially the Fisheries and Tourist industries; in addition the damage to the infrastructure in 62 towns (some being district capitals) along the coastal zone, and which are the centres of regional economic pose a severe setback to their development.

14 urban places located along the coast in Galle District, extending from Bentota to Ahangama were affected by the Tsunami. They are as follows:

Category	Nos.	Urban Place	Population (2001)
Large Towns (Cities)	01	Galle	90,934
Medium Size Towns	01	Ambalangoda	19,720
Small Towns	06	Bentota	13,029
		Balapitiya	16,106
		Dodanduwa	6,200
		Hikkaduwa	6,600
		Habaraduwa	--
		Ahangama	8,764
Market Centres	06	Induruwa Kosgoda Kahawa Boossa Gintota Koggala	Not available

Table 16
Tsunami Impact on Human Resources

District	Displaced Persons	P.C. of Total	Deaths	P.C. of Total	Injured or Missing	P.C. of Total
Trincomalee	72,986	13.6	1,078	3.5	337	1.6
Batticaloa	62,293	11.6	2,975	9.6	3,408	15.8
Jaffna	52,266	9.7	2,640	8.5	1,196	5.6
Mullaituvu	22,557	4.2	3,000	9.6	3,800	17.7
Kilinochchi	1,603	0.3	560	1.8	726	3.4
Amparai	107,885	20.0	10,436	33.5	942	4.4
Hambantota	14,523	2.7	4,500	14.4	872	4.1
Matara	9,337	1.7	1,342	4.3	8,738	40.6
Galle	122,399	22.7	4,248	13.6	882	4.1
Kalutara	34,947	6.5	279	0.9	518	2.4
Colombo	36,060	6.7	79	0.3	76	0.3
Gampaha	1,449	0.3	06	0.02	08	0.04
Puttalam	66	0.01	04	0.01	03	0.01
Total	538,371	100	31,147	100	21,506	100

Source : Compiled from data in Atlas prepared by Dept. of Census 2005

10.2 Galle Municipality

Apart from the damage to infrastructure such as Roads, Power and Telecommunication, many public facilities such as Schools (06) and Hospital buildings (02) were affected. The Port, Fisheries harbour, Fisheries Department buildings, the Pola, Bus stand and the Cricket Stadium were also damaged. 10 of the 15 wards in the town were affected by the Tsunami. The extent of damage to buildings in the Galle Municipality is given in Table 17. A total of 3165 buildings were damaged, of which 1955 (61.8%) were houses, and 1210 buildings (38.2%) were other buildings comprising of commercial buildings mainly, administrative and industrial buildings.

The most affected ward was Ward 6 (Katugoda) where 683 structures (524 houses and 159 others) were damaged, of which 275 houses and 60 other buildings were completely destroyed. The most number of commercial and other public buildings, 167 Nos. completely destroyed was in Ward 2 (China Gardens) which is part of the C.B.D. The other similarly affected areas of the CBD are Ward 3 (Bazaar – 70 houses and 59 others) Ward 4 (Thalapitiya – 21 houses and 30 others buildings), Ward 11 (Kaluwella – 83 houses and 95 commercial and other structures) and part of Ward 5 Magalle (53 houses and 44 others) part of Ward 6 (Kotugoda – 275 houses and 159 others) which is the most affected ward. (Table 17).



Tsunami affected buildings





Make shift housing at Tsunami affected site



Tsunami affected building at Magalla
Note debris not cleared

A very significant feature of the Tsunami wave effect on Galle Town was that Ward 1 (Fort) which is a small peninsula was the least affected, almost negligible with only 4 buildings being partly damaged, and which could be used.

10.3 Reconstruction and Rehabilitation

The reconstruction and rehabilitation of the Tsunami devastated areas in the Galle District began soon after the peoples magnificent response to the immediate rescue and relief operations. The many public institutions also stepped in and performed their tasks quite effectively. International donors, many N.G.Os, social service and religious organizations etc. came to the rescue of the government. While this is history, it is now observed that these resources are not being utilized for optimum benefit, due to lack of co-ordination at field level between the state agencies and the implementing institutions, especially in the housing sector which has made the recovery process a long drawn out one. Some of the reasons for this situation are;

1. The public institutions such as TAFREN AND THRU based in Colombo were staffed with personnel who lacked the expertise in specialised fields. In meeting the housing needs and settlement of the displaced, existing institutions such as the National Housing Development Authority were not given a sufficient stake in the programme. This institution has wide experience in housing development and settlement of low-income communities by working at grass roots level. The non involvement of established institutions and the lack of a planning response to disaster management was aptly stated thus;

“Withdrawal of planning institutions i.e. (UDA and NPPD) from the tasks in the Tsunami recovery programme, in favour of a new institution created by ‘administrative fiat’ (namely the Tsunami Housing and Rehabilitation Unit (THRU) ³.

The public policy on disaster management lacked the systematic environment for the mobilization of all forms of resources that were essential for a recovery and mitigation programme. ⁴

The above passing reference in general was made as it is relevant to the slow progress in the resettlement work in the Galle District.

The Tsunami rehabilitation programme in Galle involves:

1. Redevelopment of the city under the Town redevelopment programme.

³ Mendis. W. Paper presented at International Conference on Disaster Management & Planning response 5 & 6th Dec. 2005.

⁴ Ibid

2. Rehabilitation of Galle Fisheries harbour and anchorages, and other supporting services such as reconstruction of ice plants and storage facilities, repairing, rebuilding damaged / destroyed fishing craft and gear (see Annex 4 for details).
3. Rehabilitation of roads, power, telecommunications, water supply and drainage by the line agencies RDA, CEB, SLT and NWS & DB. (see Annex 4).
4. Housing Construction – The extent of damage to housing in the Galle District is given in Annex 4 and that within Galle M.C. area in Table 17. It is recorded that in Galle District M.O.Us with 34 donor agencies have been signed, yet the progress has not been up to expectations after over a year, due to the aforementioned reasons. This is in contrast to the damaged infrastructure (roads, bridges, power and telecommunications) which were restored in good time.

The delay in housing construction can also be attributed to:

- i. The 100 metre reservation being in force, lands that were available for housing were too far from coast and unacceptable to the communities.
- ii. Lengthy procedures in acquisition of state land. Acquisition of private land became all the more difficult.
- iii. Lands identified for resettlement in Galle District were hilly and this took some time for detail planning.
- iv. The housing and resettlement programme did not provide an opportunity for community participation leading to social problems.

Of the many NGOs and others engaged in housing the Tsunami victims, the UN Habitat Rebuilding Community infrastructure and shelter project (Project FS/SRL/05/501 Galle) operating in the city needs special mention. The project is targeted to 10 project communities in the City, where 615 households have been affected by the Tsunami. They are Wallawwatte (115), Kovilawatte (53), Magalle (46), China Gardens (86), Talapitiya (60), Katugoda (48), Siyambalagahawatte (158), Lunuwilawatte (15), Gintota (45) and Mahamodera (9) (see Fig. 9). The total beneficiaries number 2772 at household sizes of 4 to 5. Other than construction of new housing and effecting major repairs, a few infrastructure sub projects have been also started with community participation. These include access roads, a small bridge, wells and a community centre at Wallawwatta.

11.0 Development Plans

The City Profile would not be complete without reference being made to the recent Development Proposals for the city by the Urban Development Authority (UDA). The plan envisages the extension of the city limits to cover a planning area of 52 sq.km. or 5200 hectares, encompassing an addition of 56 G.N. Divisions to the North and East of the present M.C. area. This development has taken into consideration the proposed Southern highway skirting this extended area and the need of land for expansion of the city functions. The new Urban Development Plan has been prepared under section 8 a of Act No. 4 amendment of the Urban Development Authority Law No. 41 of 1978 and covers a period of 10 years from year 2005. Yet, the implementation of the plan is subject to the legal procedures that have to be followed and its acceptance by the relevant public institutions and more importantly by the people.

59 Action projects have been identified and may be referred to in the Development Plan.

These projects which are all capital intensive are to be implemented on the short, medium and long term. Some projects are said to be ongoing, of which one is the implementation of a solid waste disposal system, whereby the M.C. is to be assisted by the provision of equipment, machinery, and identifying a site for waste disposal. However there is no evidence of such an ongoing project except that the M.C. was dumping such as garbage in environmentally sensitive areas such as the park and estuary located near the Council office. (See page 29).

In the above context, it would be useful to state that the traditional master planning approach to a city's physical development has been found to have failed through the years. Its inherent weaknesses are that they are too predictive and through Maps and Texts propose future land use and infrastructure patterns for a city 10 – 15 years or more into the future; without much attention being paid to the city's economic potential and a multi sectoral investment programme, the community leaders and other stakeholders' views and their participation. The plan is prepared in an agency aloof from "community expression on infrastructure demands and infrastructure providers understanding of supply costs".

Another observed feature is that traditional Development Plans with a strong spatial / land use bias have simply had no significant effect on action. Whether or not the object was of such plans were landable, this type of planning is being abandoned because of its patent failure to achieve results.⁵

A city being a vibrant place of many activities that interact with each other, those of public institutions, private businesses, entrepreneurs, industrialists, infrastructure providers and the city's inhabitants. It draws upon the limited resources of the city and adversely affects its environment. Therefore the need arises for defining the environmental capacity of a place in planning for sustainable development.

⁵ Mc Neill Desmond "The Changing Practice of Urban Planning" Habitat International" 7:56

Also it must be understood that cities and towns grow and evolve through a series of public and private investment decisions and that urbanisation is informally linked to the environmental capacity of a place. The alternative to the master plan, is the formulation of a structure plan (also termed a guide plan) which can be the basis for a multisectoral investment plan, through environmentally conscious public private partnerships.

12.0 Concept for a Structure Plan

12.1 The Sustainable Cities Programme

The many issues that plague the city of Galle and inhibits its development became evident in the preparation of this city profile. The ineffectiveness of traditional development plans or master plans in addressing such urban issues was discussed.

The need for a strategic approach to sustainable development was also emphasised, as it is now recognised that urbanisation is informally linked to the environment, which when degraded, and unchecked has an adverse impact on the economic and social well being of a city.

The United Nations Sustainable Cities Programme suggests that “cities in the developing world are much more vulnerable to environmental risks and problems prevalent in the developed world, which makes their transition to sustainable development much more difficult”. The city of Galle is placed in such a situation, but its transition is not without hope. Good urban governance and the proper management of its resources can overcome the environmental risks the city is faced with.

This objective could be achieved by adopting a strategic approach, whereby such risks and the issues identified in Section 8.0 are subject to a city consultation process. Participatory urban decision making and stakeholder commitment can lead to public private partnership in investment on action projects to overcome such issues.

12.2 Future of the City

A city profile provides all necessary information on the socio economic and environmental conditions, service delivery capacities and the management capability of the city council for the participatory urban decision making process of the SCP. However the profile would not be complete without the stakeholders being given some perceptions on the future of the city of Galle from a planning perspective. As such a concept for an outline structure plan for the city is incorporated into the profile. The outline structure plan is in effect a response to the development scenario in the region within next decade, and which would have significant impact on the City of Galle.

Some of these developments are as follows.

1. The Southern expressway now being constructed and traversing to the North of the city and its links to the latter.
2. The Southern development programme implemented by the Southern Development Authority.
3. Development of the Galle Port and the fisheries harbour.
4. The donor assisted rehabilitation and reconstruction programme, fisheries and tourism sectors.

The other factors that have been taken into consideration (the rationale) in formulating the outline structure plan are;

1. The growth of Galle M.C. from a medium size town in 1971 to city size in 2005, and the population expected to increase further at higher growth rates after 2001.
2. The city being the provincial and district capital, a position that will not change under the national urban policy.

12.3 Extension of U.L.A. Boundaries

Most Urban Local Authorities (ULAs) have not redefined or adjusted their boundaries in relation to the urbanisation of their peripheral areas. These areas generally benefit from urban services available within the city but without any revenue being accrued to it, as they lie within the jurisdiction of the Pradeshiya Sabhas. The City of Galle also has 20 Grama Niladari (GN) divisions just outside its area, where the population is increasing at higher growth rates than in some wards in the city. Land being available at lower prices and with some urban facilities and good access, have attracted people to these areas. (See Annex 7 for list of GN divisions). It is also observed that the population in some wards in the central area of the city is decreasing at negative growth rates ranging from -1.6 to -2.9 per cent to make way for other urban activities in an ad hoc manner. (See Table 05). The extension of the Galle Municipal Council Limits appears to be very necessary for the above mentioned reasons.

12.4 Planning Considerations

As a means of resolving some of the issues in the city, the supply of land is a crucial factor that has to be considered. Solid waste disposal is one such issue and for establishing an environmentally sound sanitary land fill coupled with a recycling and composting project as a long term solution, land is required, and could only be found in the periphery of the city or just beyond the M.C. limits. Also the need for urban renewal in identified areas in the city through public private partnerships can be realised only by relocation of some housing. There are derelict buildings that lie in small plots, which is a

constraint to redevelopment. Yet, these lands are of high value, and through a Real Estate Exchange Programme entrepreneurs can be motivated to invest on the development of these lands by first providing housing in pleasing neighbourhoods in the peripheral wards and incipient suburbs, where land values are low. Galle is a city that has the potential to attract such investments.

However the above strategy should be facilitated by the supply of serviced land i.e. augmenting the physical infrastructure and extending them to the unserved peripheral areas through the respective state agencies (RDA, NWS & DB and CEB).

The adoption of a rational land use policy such as the use of under utilized land for more profitable economic activities is necessary. The relocation of the Prison Complex and use of adjacent good shed site for siting a new bus station and integrating it with the railway station is an example. The present bus stand can then be used for commercial development and improving the CBD in general. Also, due consideration should be given to:-

- Demarcation of reservations to natural water ways and water bodies to enhance the living environment.
- Strict enforcement of the Coast Conservation Act so that the coastal zone could be protected, and providing open space for recreation.
- The conservation of the Galle Fort and the historic buildings in its environs so that the city of Galle can continue to attract tourists as a World Heritage Site.

In view of the priority given by the government to the development of the Southern region vis-à-vis the development of the Galle Port, the Southern expressway, with its links to the city from Pinnawela improvements to the Fisheries Harbour and construction of a Marina, the establishment of agro based industries in the region, the City of Galle would experience a significant growth as a regional capital during the next decade. Therefore there is a need for a Structure Plan to accommodate this growth in a planned way.

The formulation of a Structure Plan could only be accomplished by a Team of Professionals viz a Senior Urban Planner (Team Leader), Sociologist, Engineer (Infrastructure development) Economist, an Investment Promotion Specialist, Environmentalist and an Urban Designer / Architect, working in collaboration with the Urban Development Authority (UDA) and the Infrastructure providers (RDA, NWS & DB, CEB, and others). The spatial distribution and location of social infrastructure facilities and / or upgrading of existing facilities such as Health, Education, Postal have to be done according to GOSL norms and threshold populations for manning these services.

12.5 Planning Area

Based on the rationale as discussed under sections 12.1 and 12.2 above, the many issues identified in the city and its future role in the region, a planning area consisting of 31 G.N. divisions has been demarcated. This includes the 20 G.N. divisions with high growth rates and those forming the Unawatuna area, which has a great potential for tourism, but lying outside the M.C. area. All G.N. divisions are within a distance of 2.0 kilometres from the U.C. limits, the extension of which would depend on socio political factors and considering the views of the Municipal Council. Beyond the above area (31 G.N. divisions) is an area with low density population and a large stretch of paddy lands forming a characteristic feature in the topography of the land and which may be considered as the perimeter of the designated Planning Area (see Fig. 10).

The designated 31 G.N. divisions given in Annex 7 cover a total extent of approximately 1494 hectares of land with a resident population of 35,267 at an average density of 24 persons per hectare (2001 census).

An outline for preparing a structure plan for the integrated development of City of Galle and its environs is shown in Fig. 10. It provides a guide for the extension of the M.C. area, the redevelopment of the city centre (CBD), housing development etc. after detail study. The outline plan also represents a basic framework in the utilization of land and locating action projects with regard to the issues and constraints, and the opportunities as identified under sub sections 8.1, 8.2 and 8.3 to which reference should be made.

Also, some potential tourist and recreational areas are shown in Fig. 11, which should be taken into consideration in structure planning.

As a initial step, a socio-economic and land use survey of the designated area should be carried out and a G.I.S. base should be established for the M.C. area and immediate environs.

13.0 Conclusion

In concluding, it is necessary to mention that all stakeholders (interest groups) and the Municipality should focus their attention during city consultations to the introduction of an unit within the municipal organizational structure, which could deal with project formulation. It is generally noticed that opportunities that are sometimes available are missed due to the weak institutional capacities of U.L.As. The City profile reveals that there is an urgent need to resolve the major issues discussed, for which some projects have to be initiated and funding sought, either through international agencies (ADB, CIDA, UNDP etc) and / or private sector investment. This has been discussed in the foregoing sections, and it is reiterated here as the City of Galle has all the prospects of attracting such public investment. The projects referred to above are:

1. Urban renewal of prime areas in the city through public private partnerships Real Estate exchange is one such means.
2. Establishment of a sanitary land fill coupled with a composting and recycling sub project as a long term solution to the solid waste disposal problem.
3. The dredging of Elas (waterways) running across the city, and rehabilitating the road drains for the effective drainage of the built up area and to prevent flooding.
4. Extending the physical infrastructure facilities to the peripheral areas (those just outside the M.C. limits or incipient urbanizing areas), while raising the capacities of such infrastructure (especially water supply and power) within the Municipal Area.
5. Planning and implementation of a sewerage scheme for the central area necessitated by the high density of the population (over 100 to 150 persons per hectare). This would improve the sanitary conditions in this area, as well as encourage private investment under Item No. 1 above.
6. A community based Environmental Improvement Project with the objective of enlisting peoples support in reducing or eliminating the causes of environmental degradation of their city.

Fig. 10

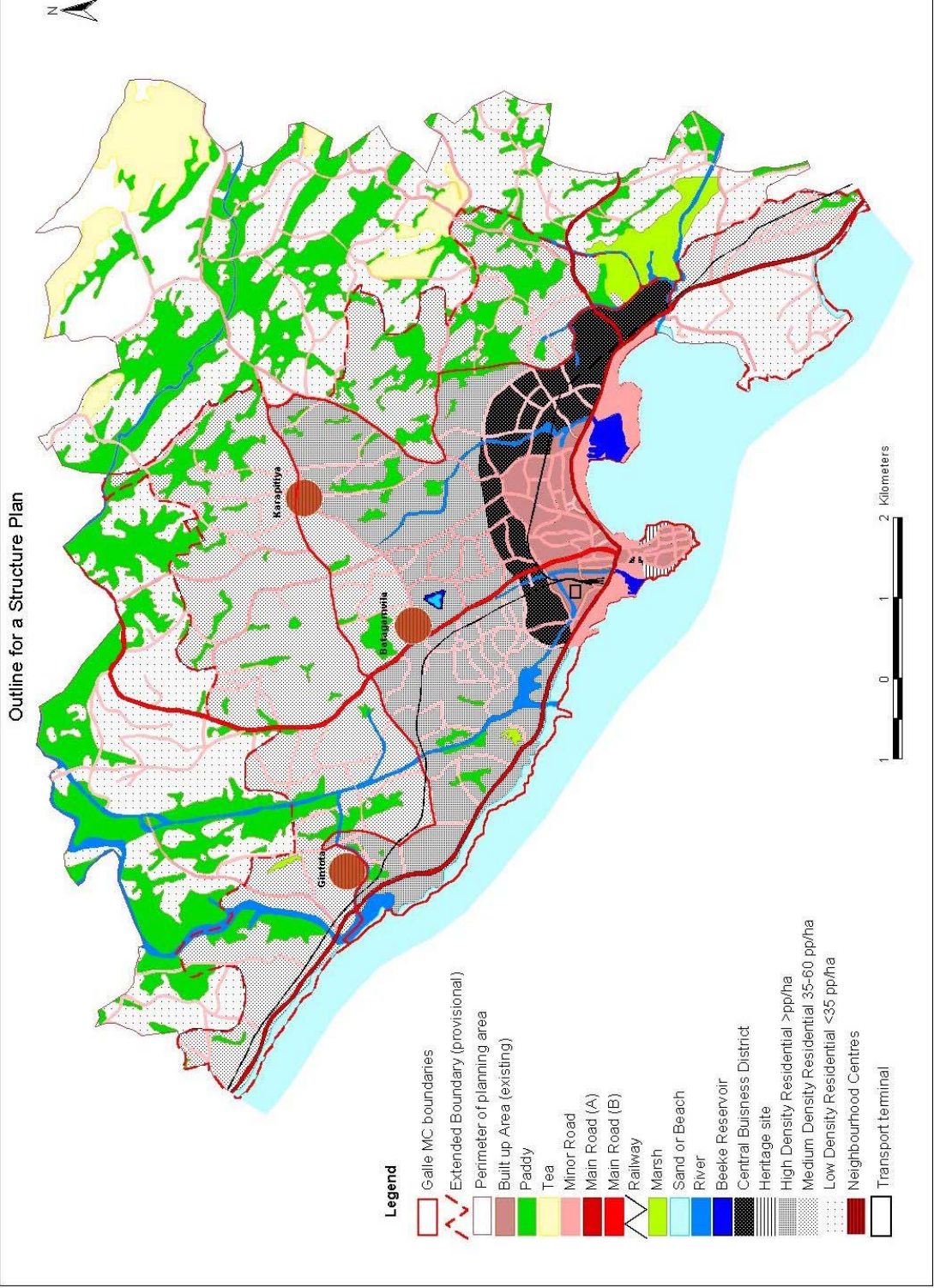


Fig. 11



14.0 Administration and Finance

14.1 Organization

The organization structure of the Galle Municipal Council is depicted in Figure 12. The Council functions under the following six (6) Standing Committees headed by the Mayor in providing services to the ratepayers of the city.

- Community Development Committee
- Health, Sanitation and Solid Waste Committee
- Environment and Marketing Committee
- Parks, Ports, Electricity and Cultural Committee
- Works, Housing and Urban Development Committee
- Finance Committee

The Municipal Commissioner assisted by Deputy Municipal Commissioner is the chief administrative head of four departments and the Internal Auditor of the Municipality. Accordingly they are as follows:

Municipal Secretary
Municipal Engineer
Accountant
Medical Officer Of Health (MOH)
and
Internal Auditor

The above departments and their organizational structures are shown in pages ... to ...

14.2 Staff Assigned to Departments

Each department is staffed according to the nature of work to be performed by such units. They are in following categories of employments i.e. Municipal secretary is assisted by:

The staff cadre in the Municipal Council had always below the approved cadre. In 2005, the council had only 771 employees with 62 nos. of vacancies not filled. This situation prevailed during the previous three years as well. The Table shows a gradual reduction of vacancies as against approved cadre. Bulk of employees of the council is laborers who are engaged on sanitary works. Electricity and Supply of water are vested with Ceylon Electricity Board (CEB) and National Water Supply & Drainage Board (NWSDB).

Table 1
APPROVED CADRE AND VACANCIES

Year	Approved Cadre	Existed Cadre	Vacancies	Percentage of vacancies
2002	637	542	95	15 %
2003	867	760	107	12%
2004	841	767	74	9%
2005	833	71	62	7%

Source: Municipal Budgets, Galle MC

It is also observed that some employees responsible for two departments. Public Health Inspectors are supposed to work under the instruction of MOH some PHIs are attached to Municipal Engineer. Solid waste disposal is one of the burning issues in the city in considering the public health. However, this subject is presently handled by the Municipal Engineer. No proper coordination seems to be prevailed.

14.3 Financial Management

The Annual Budget is prepared in consultation with all heads of departments and approved to prior beginning of each year. The Budget indicates the revenue and expenditure of each programme in summary form and also in detail.

The finance and the accounting functions are the responsibility of the Chief Accountant. The duties of the Chief Accountant is fairly heavy in considering the responsibility entrusted to him in collecting rate and taxes and sanctioning expenditure within the framework of guidelines spelt out by the Auditor General Department as well as the Internal Auditor of the council under the Commissioner. Units operated under Chief Accountant are given in the Figure 1. Accordingly he is supported by a Accountant, and number of other staff including Administrative Officers, Record Keepers, Development Assistants, Book keepers, clerical hands, Revenue officers, Computer operators, KKS and laborers.

14.4 Financial Performance

Budgeted revenue and expenditure of the municipality for the year 2005 is given in Table 2 A and Table 2 B. They show a heavy dependency on the Central Government for carrying out affairs of the council which indicates bad governance. The municipality has no sufficient revenue sources to bridge the gap of an annual expenditure of Rs.136,638,140 other than getting a revenue grant of Rs.65,511,000 which represents

45 % of the total revenue expected for the year. Tax & rates represent only 20% of the total revenue and seems the largest contribution to the revenue of the council. Other revenue sources range from 4 % to 12 %.

On the other hand it is estimated that 71% of the expenditure covers for personnel emoluments of which 46 % is to be spent for the staff engage in physical planning i.e. under Program 3 which is supposed to generate only 13 % of total revenue expected for the year. Program 1 (General Administration) Program 2 (Health Services) and Program 5 (Utility Services) present 21 %, 14 % and 13.5% respectively. Unless the council is prepared to review and restructure tariff for receiving substantial recurrent revenue it would be impossible to avoid dependency on the Government / Provincial Council for carrying out services to the rate payers of the city.

Budget for the year 2006 is being prepared and is not available for review presently.

14.5 Financial Performance

The details of actual income and expenditure were not available with the Account Department since written documents were washed away due to tsunami caused on 26 December 2004. Hence the comparison between actual income and actual expenditure as against budgeted estimates could not be made as expected.

14.6 Rate & Taxes

The town is divided into 15 wards with assessment properties accounted as 29,539. The last Revision of Rates & taxes was done in 2002 and accordingly assessments are categorized as follows:

▪ Residential properties	=	10 %
▪ Commercial & industrial	=	15 %
▪ Institutional	=	22 %

Total amount of Rs. 24,225,000/= is estimated on the basis of above rates from total number of properties in following categories:

1. Residential premises	=	16,924
2. Commercial & Industrial premises	=	3,585
3. Industrial premises	=	16
4. Governmental institutions	=	574
5. Vacant lands	=	7,242
6. Paddy lands	=	227
7. Others	=	<u>971</u>
TOTAL	=	29,539

The total revenues derived from rate & taxes during the year 1999 to 2004 are indicated below:

1999	Entire year	=	Rs. 14,717,362/=
2000	Entire year	=	Rs. 15,934,413/=
2001	Entire year	=	Rs. 15,044,331/=
2002	Entire year	=	Rs. 21,298,494/=
2003	Entire year	=	Rs. 23,209,323/=
2004	Up to 30.06.2004	=	Rs. 13,663,562/= (entire year not computed)

The loss of revenues was due to the failure to collect rate taxes due from rates payers. However the Council has power to enforce municipal by laws under 252 of the municipal ordinance for collection of rates & taxes.

Table 4 A indicates that the percentage of income derived from rates and taxes shows a gradual decrease. For example in the year 2002, this sector contributed 24% of the total income derived, while in the year 2004 it contributed only 20 %. Other income sources have shown a decrease except rents, warrant and penalties. The inference from this is that the Council rely more on government grant rather than adjusting expenses as per revenue derived from its own sources

On the other hand, Table 4 B indicates that the total amount incurred for personnel emoluments has gradually increased from Rs. 74,322,000 (64 %) in 2002 to Rs. 96,081,100 (71 %) in 2005 of the total expenditure of the year.

14.7 Income from Trade Licenses

There are 257 categories of trades that operate business after obtaining licenses. Number of premises accounted as 2,954 accommodating 3,171 trades for the year 2005. The total income derived from trade licenses was Rs. 5,090,800/- for the year 2005. Gradual increase or decrease of these trade premises could not be evaluated and come into decision due to non availability of records with the Account Department since most of it were destroyed by tidal waves of the tsunami on 26th December 2004. However with records available it was revealed that, some trade licenses are relatively very low considering the quantum of income generated by such individual trades. The license fee charged from manufacturing organizations like Ruhunu Cement or

Ambuja Cement which were large income generating manufacturing organizations was Rs. 5,000/= A similar amount is being charged for on industries like a Ice Factory which serve mainly the fishing community . Similarly the Garment industries which give employments opportunities to the people in the town and periphery, Coir products for export purposes in the locality. If the licensing fees are worked out rationally, considering the type of activity, the income derived to the Council would be much higher.

TABLE – 2 A
BUDGETED REVENUE AND EXPENDITURE ACCOUNTS 2005

A. Revenue	General Ad Ministration Rs. 000	Health Services Rs. 000	Physical Planning Rs. 000	Public Utility Rs. 000	Welfare Service Rs. 000	Total Rs. 000	Percentage
Rate & taxes	24,226.0	501.0	1.0	0.0	4,500.0	29,228.0	20 %
Rent	-	1.0	12,041.0	5,240.0	1001.0	18,283.0	12 %
Licenses	1,713.8	3,375.0	1.0	1.0	0.0	5,908.8	3 %
Fees for Services	2,550.5	2,905.1	7,102.0	8.0	112.0	12,677.6	8 %
Warrant cost & penalties	500.0	4.0	6.0	1.0	201.0	5,212.2	4 %
Other income	11,410.0	17.1	35.1	0.5	80.0	11,858.6	8 %
Revenue grants	65,511.0	5.5	3.0	2,001.0	6.0	67,526.5	45 %
Total Revenue	110,411.3	6,808.7	19,505.0	7,251.5	5,900.0	149,876.5	
Percentage	74 %	4 %	13 %	5 %	4 %		100 %

TABLE – 2 B
BUDGETED REVENUE AND EXPENDITURE ACCOUNTS 2005

A. Recurrent Expenditure	General Ad Ministration Rs. 000	Health Services Rs. 000	Physical Planning Rs. 000	Public Utility Rs. 000	Welfare Service Rs. 000	Total Rs. 000	Percentage
Personnel Emoluments	19,095.8	1,437.7	48,995.1	5,926.1	7,686.4	96,081.1	71 %
Traveling	796.0	247.0	336.0	107.0	133.0	1,619.0	1 %
Supply and requisites	1,588.5	2,312.0	3,121.0	674.0	405.5	8,101.0	6 %
Repairs & maintenance	1,005.0	6,24.0	6,285.0	525.0	910.0	9,349.0	7 %
Transportation, Communication & Utility Services	349.0	942.0	2,490.0	260.0	698.5	7,880.5	6 %
Interest	0.0	240.0	1,000.0	60.0	1,500.0	2,800.0	2 %
Govt. Subsidies & Contributions	126.5	160.0	86.0	22.0	5,652.0	6,046.5	4 %
Pensions & benefits	3,150.0	326.0	910.0	160.0	215.0	4,761.0	3 %
Total Expenditure	29,251.8	19,228.7	63,223.1	7,734.1	17,200.4	136,638.1	
Excess revenue and expenditure over / deficits	21 %	14 %	46 %	6 %	13 %		100

TABLE – 3 A
ACTUAL REVENUE FROM 2002 - 2004

A. Revenue	2002 Actual	2003 Actual	2004 Actual	2005 Budgeted			
Rate & taxes				29,228.0			
Rent				18,283.0			
Licenses				5,90.8			
Fees for Services	Not	available		12,677.6			
Warrant cost & penalties				5,212.2			
Other income				11,858.6			
Revenue grants				67,526.5			
Total Revenue		17,860,241.80	13,293,958.81	149,876.5			
Percentage							

TABLE – 3 B
ACTUAL EXPENDITURE FRO 2002 - 2004

100 Recurrent Expenditure	2002 Actual	2003 Actual	2004 Actual	2005 Budgeted			
Personnel				96,081.1			
Emoluments							
Traveling				1,619.0			
Supply and requisites				8,101.0			
Repairs & maintenance				9,349.0			
Transportation, Communication & Utility Services	Not	available		7,880.5			
Interest				2,800.0			
Govt. Subsidies & Contributions				6,046.5			
Pensions & benefits				4,761.0			
Total Expenditure		1,870,594.96	109,572,973.38	136,638.1			
Excess revenue and expenditure over / deficits				96,081.1			

Source : Annual Budget of Galle Municipal Council 2002 - 2005

TABLE – 4 A
VARIATION OF BUDGETED REVENUE FROM 2002 - 2004 AND BUDGET
FOR 2005

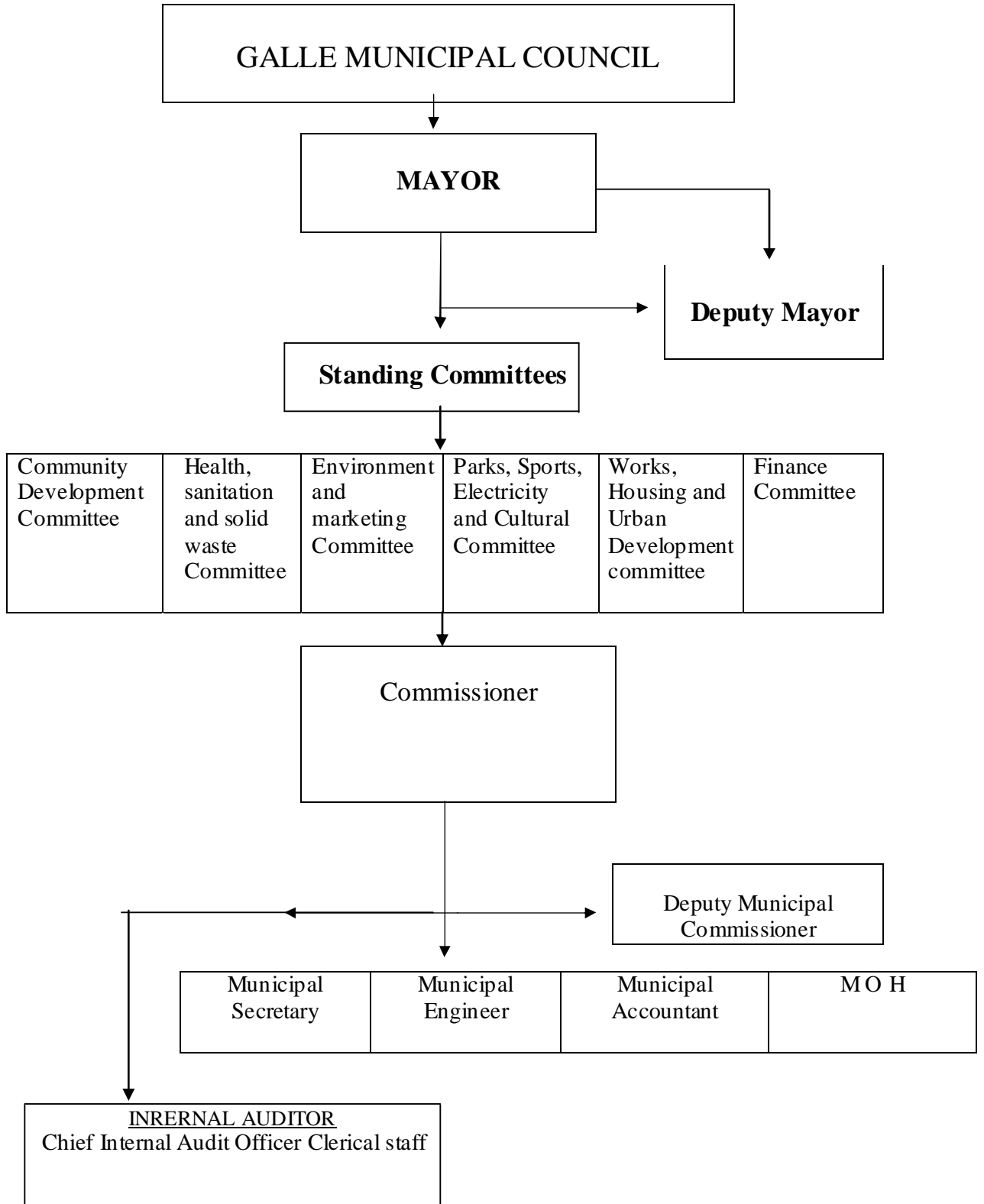
A. Revenue	2002		2003		2004		2005	
	Total 2002 Rs. 000	Percentage	Total Rs. 000	Percentage	Total Rs. 000	Percentage	Total Rs. 000	Percentage
Rate & taxes	33,216.0	24	41,016.0	29	28,412.0	22	29,228.0	20 %
Rent	10,554.0	8	12,004.0	8	13,474.0	10	18,283.0	12 %
Licenses	4,461.0	4	4,074.4	3	4,515.8	3	5,908	3 %
Fees for Services	7,968.6	6	8,090.6	6	10,615.6	8	12,677.6	8 %
Warrant cost & penalties	2,263.1	1	3,403.1	2	2,713.1	2	5,212.2	4 %
Other income	15,965.2	11	12,132.5	9	12,557.6	11	11,858.6	8 %
Revenue grants	62,023.8	46	61,975.5	43	57,031.5	44	67,526.5	45 %
Total Revenue	134,451.7	100	142,696.1	100	129,354.6	100	149,876.5	
Percentage								100 %

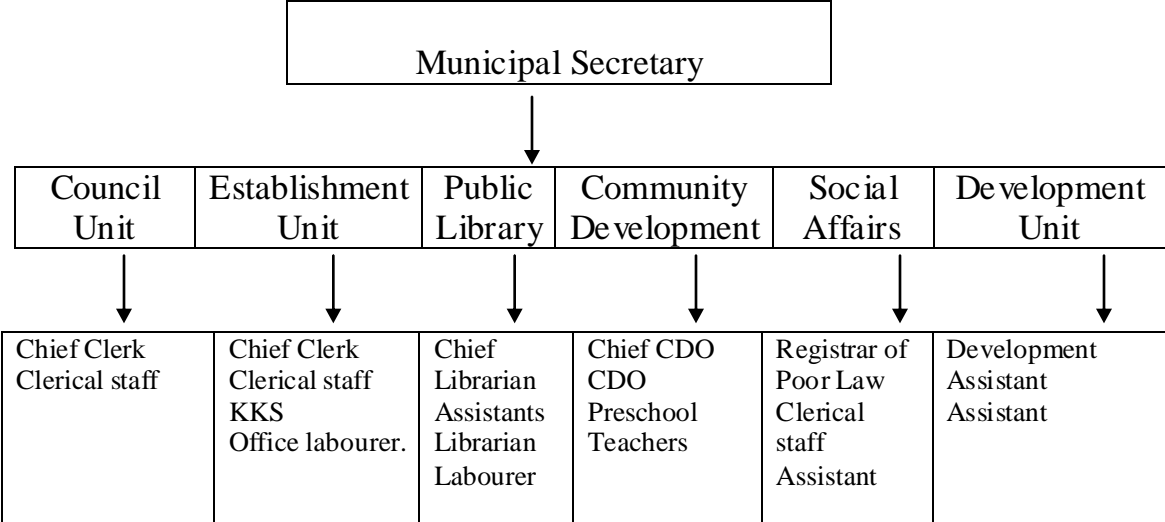
TABLE – 2 B
VARIATION OF BUDGETED EXPENDITURE FROM 2002 - 2004
AND BUDGET FOR THE YEAR 2005

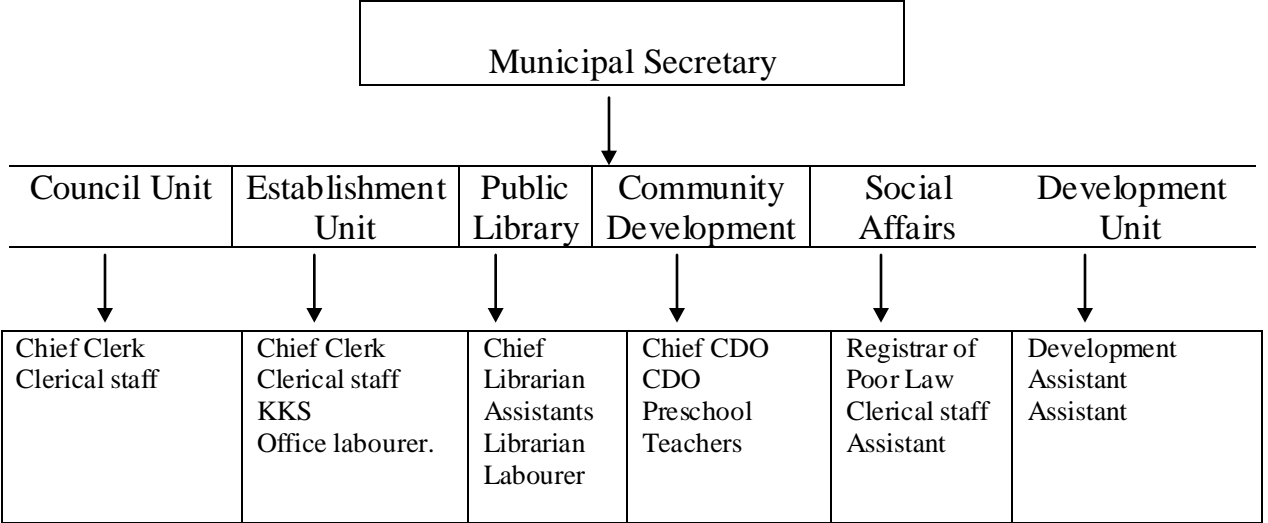
100 Recurrent Expenditure	2002		2003		2004		2005	
	Total Rs. 000	Percentage	Total Rs. 000	Percentage	Total Rs. 000	Percentage	Total Rs. 000	Percentage
Personnel Emoluments	74,322.0	64	80527.6	61	86241.7	69	96,081.1	71 %
Traveling	937.0	1	1350.5	1	1665.5	1	1,619.0	1%
Supply and requisites	8,835.0	8	8944.5	7	8075.6	6	8,101.0	6 %
Repairs & maintenance	9,376.5	8	20919.5	16	8475.0	7	9,349.0	7 %
Transportation, Communication & Utility Services	8,127.0	7	60558.0	4	5737.5	5	7,880.5	6 %
Interest	1,763.2	1	2717.0	2	2417.0	2	2,800.0	2 %
Govt. Subsidies & Contributions	6,104.0	5	5349.5	4	6150.5	5	6,046.5	4 %
Pensions & benefits	7,314.5	8	6285.5	5	5805.0	5	4,761.0	3 %
Total Expenditure	116,719.2	100	132152.0	100	124567.8	100	136,638.1	0 %
Excess revenue and expenditure over / deficits								100

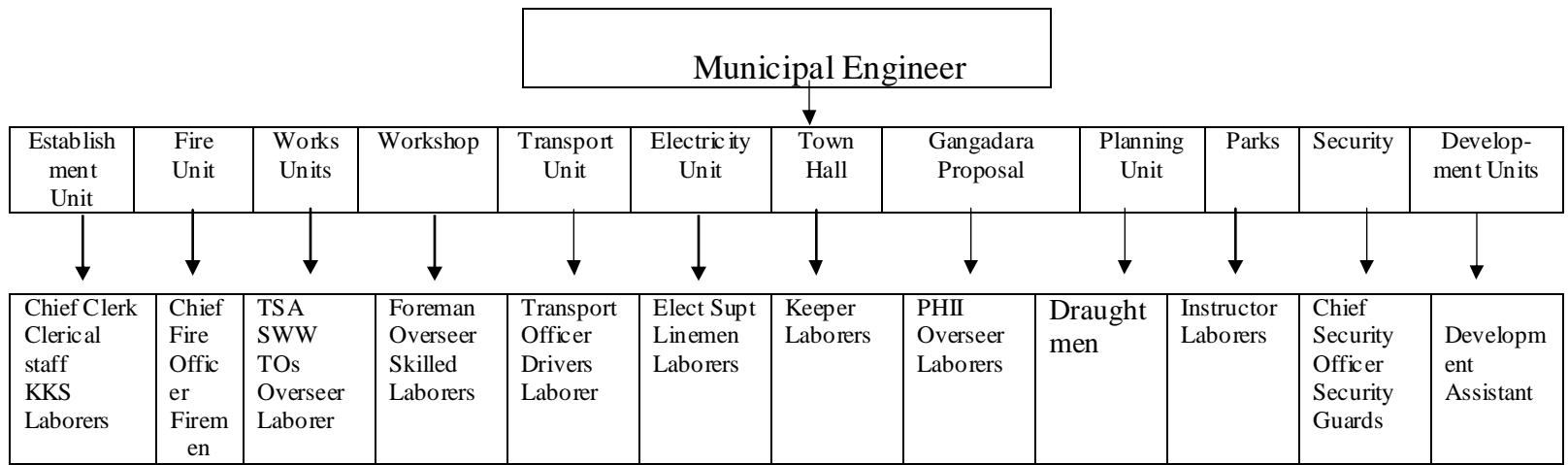
Fig. 12

ORGANIZATION CHART



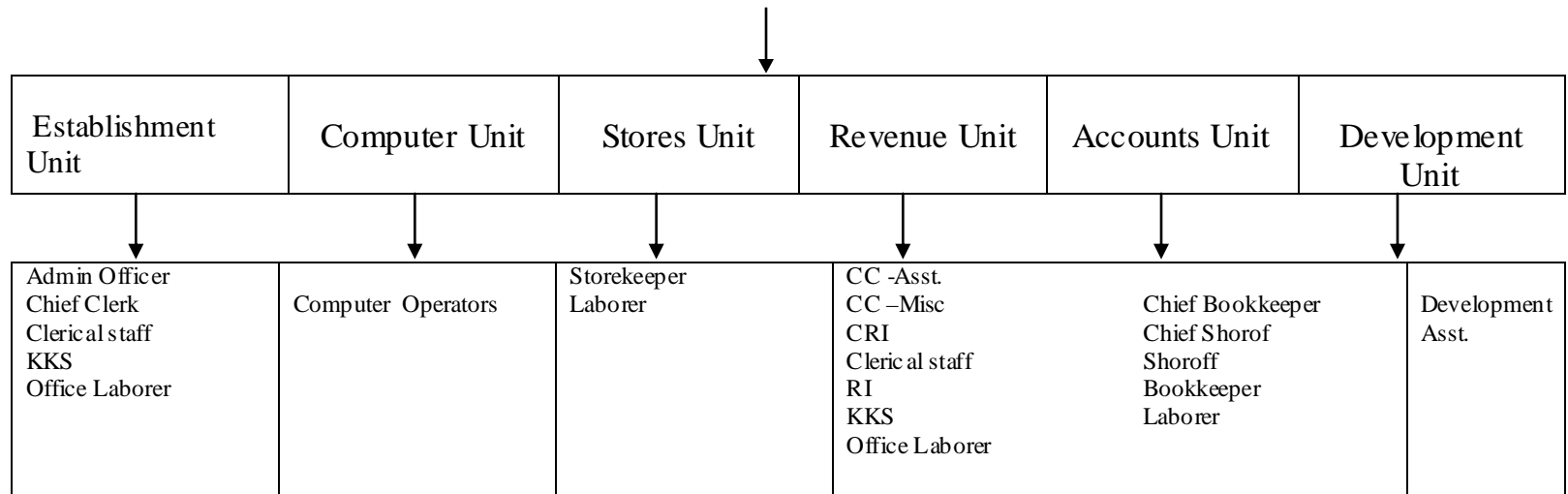


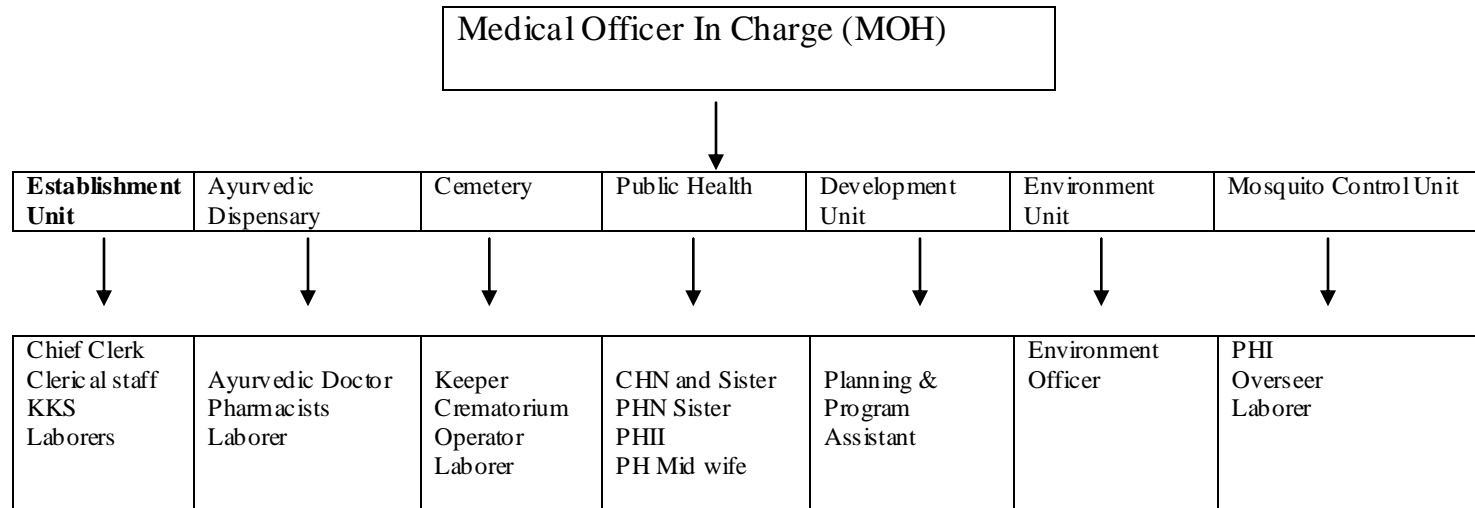




SWW - Suptd. of works
 TSA -
 TOs - Technical Officers

Municipal Accountant





CPHI - Chief Public Health Inspector

PHI - Public Health Inspector

Population of G N Divisions Comprising Wards

Ward No.	Ward	G N Divisions	G N Division Population	Ward Population
1	Fort	Fort	1993	1993
2	China Gardens	China Garden	1985	2514
		Minuwangoda	529	
3	Bazaar	Weliwatte	2714	4934
		Pettigalwatte	2220	
4	Thalapitiya	Kongaha	1616	7274
		Thalapitiya	5658	
5	Magalla	Makuluwa	4007	6713
		Magalla	2706	
6	Katugoda	Katugoda	3556	6339
		Dewata	1562	
		Dewathura	1221	
7	Ettiligoda	Miliduwa	3075	8355
		Ethgoda S	2395	
		Dangedera E	2885	
8	Dangedera	Dangedera W	1829	4899
		Madapathala	2294	
		Pokunuwatte	776	
9	Minuwangoda	Batagamwila	1185	2405
		Sangamittapura	1220	
10	Galwadugoda	Galwadugoda	3012	5970
		Kandewatte	2958	
11	Kaluwella	Mahamodera	2610	6221
		Kaluwella	3611	
12	Dadalla	Gintota W	1567	8977
		Gintota E	1630	
		Dadella W	1320	
		Dadella E	755	
		Walawwatte Siyambalagahawatte	1440 2265	
13	Kumbalwella	Kumbalwella N	723	9277
		Bope E	1728	
		Bope N	1680	
		Richmond Kande	1099	
		Kumbalwella S	2183	
		Osanagoda	1864	
14	Madawalamulla	Deddugoda N	2422	6636
		Madawalamulla S	1139	
		Madawalamulla N	3075	
15	Hirimbura	Mahitipe	3717	8427
		Deddugoda S	2079	
		Maligaspe	818	
		Welipatha	1813	
	Total	--	90934	90934

Source : Compiled from Census Data 2001

Small to Medium Scale Industries in Galle MC

<u>Type</u>	<u>Nos.</u>
Foundries	02
Timber & Saw Mills	23
Oil Mills	30
Manufacture of Tractor Trailers	02
Smithies and Tin Works	07
Welding works including Oxygen Welding	53
Lathe works	16
Aluminium Fabrication	01
Metal engraving	12
Motor repairs (Cars etc.)	17
Tea packeting	02
Manufacture of electrical goods	04
Printing presses	18
Shoe manufacture & Artificial leather goods	09
Carpentry workshops	11
Butter and Yoghurt making	02
Radio, TV repairs & Servicing	16
Watch repairs	06
Batik workshops	02
Grinding Mills	12
Saw Mills	01
Lime kilns	02
Fibre glass industry	01
Soap factory	01
Cushion works	07
Advertising Hoardings	08
Jewellery making	14
Cutting and polishing gems	04

Total	287
	===

Source : Galle Municipal Council Register of Licences

Some Details on Solid Waste Management in Galle Municipal Council Area

Waste Generation

Approximately 40 to 45 tons of waste is generated in the town, a major part of it being household waste from 17,200 households. Also, a daily floating population of around 20,000 people are also responsible for the waste generated. The other sources of waste are from

04	Hospitals
03	Polas
04	Public Markets
360	Commercial Outlets
32	Schools
9014	Other Properties
10	Industries

The above waste produced consist of both biodegradable waste (kitchen refuse, market refuse, meat and fish offal, plant cuttings, grass, paper and cardboard) and non biodegradable waste such as plastic and polythene material, rigifoam, metal, glass etc. Building demolitions, street litter and sweepings add to the waste.

Composition of Waste

According to the data available at the M.C. the composition of waste is as follows:-

Organic matter	83.43%
Paper	3.7%
Glass	0.27%
Polythene / Plastics	6.2%
Other waste	1.6%

Industrial waste such as dyes (Textile industry) and other chemically harmful waste are discharged without treatment to waterways. Hospital waste is collected together with the household and other waste to be disposed of by dumping in the open, posing a serious health hazard to the community.

Machinery and Equipment

The machinery and equipment and staff available are:

Compactors	-	Nil
Tractors	-	12 (7 with M.C. and 5 on hire)
Handcarts	-	06

Staff involved:

Municipal Engineer	01	(along with his other duties)
Public Health Inspector	01	(part time)
Labourers	136	

Without a single compactor, and with only a few tractors and handcarts the M.C. has to handle 45 tons of waste daily generated in the 15 wards in the Town 17.42 sq.km. in extent.

Tsunami Destruction in Galle District**Affected Divisional Secretaries Divisions**

1. Hikkaduwa
2. Galle Four Gravets (Galle M.C. Area)
3. Habaraduwa
4. Ambalangoda
5. Balapitiya
6. Bentota

Total affected households	:	26728
Affected population	:	135942 (14% of District population)
Total number of Deaths	:	4248

Damage to Infrastructure**Sectors 1. Roads**

- 4 bridges destroyed (2 on Colombo-Matara Main Road)
- 50km of roads

2. Electricity

- 10,000 consumer lines
- Bulk supply connections
- 21 Nos. sub stations
- Equipment and Tools and Billing Centres
- D.G.M. office Galle

3. Telecommunications

Plants	05
Transmission plants	01
Power plants	01
Switching plants	01

Social Infrastructure

1. <u>Hospitals</u>	-	02 Nos. (Mahamodara Teaching Hospital, Karapitiya Teaching Hospital)
2. <u>Schools</u>	-	25 government schools
3. <u>Housing</u>	-	Completely destroyed
		4,482
		Partly destroyed & cannot be used
		1,687
		For Total
		<u>6,169</u>
		Partly damaged and can be used
		<u>6,040</u>
		Total affected
		<u>12,209</u>
		=====

4. **Administrative buildings**

Galle Kachcheri
Hikkaduwa and Habaraduwa Divisional Secretariats
Private Sector Regional offices
Navy Camp (Buildings vehicles etc.)

5. **Fisheries**

Fisheries harbours 02
Anchorage 03

Boats	Destroyed	Damaged	Value (Rs. Mn.)
Multiday Boats	66	106	542
3 ½ Ton Boats	66	15	180
17 ¹ Boats	199	148	143
Traditional Crafts	371	282	72
Beach Fishing gears	75	02	76
Total	777	553	1013

Source : Fisheries Sector TAFREN

Besides the above, religious buildings such as Temples, Mosques, Churches along the coastal strip were destroyed or partly damaged.

Community Development Activities – Galle MC

Municipal Council carries out the following activities pertaining to community development in the city, these are:

- (a) Public Assistance Program for desolate persons
- (b) Daycare centers
- (c) Pre-schools
- (d) Sewing centers
- (e) Community Development Societies

(a) Public Assistance Program for destitute persons

The Public Assistance Committee meets monthly and considers various requests made for the release of grants under this program. There are around 1504 persons benefiting under this program. The Municipal Council has to incur around Rs. 375,000/= for providing grants monthly. Data reveals that the Council has granted Rs. 4,422,500/= for the year 2004 as poor relief under the program. This program facilitates a monthly grant of Rs. 250/= per person while paying Rs. 1,000/= for natural death and Rs. 2,500/= for death under emergency situations such as flood, through a recommendation of the Grama Seva Niladhari. The program is managed under a Registrar of Poverty Law.

(b) Daycare centers

A single Daycare Center of the Municipal Council is conducted under Galle Netherlands Friendship League. Presently the center is managed by a Head Mistress with the support of 11 women assistants for looking after around 40 infants. Salaries due for the staff are paid by the parents who keep their infants at the center. In addition, Municipal Council provides

- Milk
- Vaccination
- Health & Sanitation

(c) Pre-schools

Galle Town has 23 pre-schools managed by the Municipal Council. Each school is provided with a Head Mistress and 3 assistants. Pre schools are mostly located at Community halls constructed by the Council in 15 municipal wards and the rest are located in Buddhist temples. These schools presently serve 510 students.

Municipal Council pays Rs. 4,000/ for each school as an allowance for teaching in addition to providing all equipment such as chairs, desks, black boards etc required for the children. Sinhalese is the medium of instruction for all schools except one school which is conducted in Tamil medium

(d) Sewing Centers

Two sewing centers are located in Dadalla and Magalla with a staff of 2 instructors and 2 assistants paid by the municipal council. These centers are maintained by the council as a service to the community.

(e) Community Development Societies

There are 46 Community Development Societies established in the town in different locations for undertaking community works in association with the municipal Council. Each Society has around 100 members. Membership Fee is fixed as Rs. 10/= for each member. Reconstruction works of Tsunami affected houses have been done by these societies in association with the UN Habitat Program of the Town and the Municipal Council. In addition, there are 15 low income housing schemes with 100 houses in each scheme provided by NHDA being also maintained by these societies.

Environmental Aspects - More details

An Environmental Officer of the Central Environmental Authority (CEA) is attached to the Galle Municipal Council (MC) to look after affairs related to the environment in the city. Under the direction of Environmental Officer of the MC, a school environmental program has been launched in 13 schools in the city. The prime objective of this program is to motivate children towards environmental protection and thereby make children ready with skills. This program includes a Recyclable Solid Waste and Compost pilot project in Southland College and a Tree Planting program in a school at Unawatuna.

Yet there are many issues that are of much concern to the Environment Officer. Among them the following issues were highlighted:

- Solid wastes disposal
- Pollution of coastal area
- Air pollution through vehicular traffic
- Pollution of wells
- Disposal of debris generated by the tsunami disaster
- Sewage disposal

Solid waste disposal

Disposal of solid wastes is one of the crucial problems in the city. Lack of a sanitary land fill site is the main issue faced by the Galle Municipal Council. Existing practice is the dumping of waste in privately owned lands. These sites are mostly in low-lying areas where the owners expect their reclamation for utilizing such lands for various urban uses. The Municipal Council has no alternative other than dumping waste into these low-lying lands although it is environmentally unsound. Dumping wastes into low-lying areas for reclamation pollute ground water and disturb the entire ecosystem in the area in addition to other environmental hazards.

Most private lands have now been reclaimed by dumping waste and now the MC goes to new locations. These locations include the coastal belt and also municipal lands such as the public park which is worse than dumping waste in private lands for the purpose of reclamation. Dumping waste into pits close to the town hall premises has made the working environment of the municipal office very unpleasant.

A polyethylene recycle centre was in operation as a joint venture sometime back but it is not regularly operated at present. Chief Secretary of the Southern Provincial Council has made arrangement to distribute 500 compost bins among householders in the city. A proposal has also been made toward promoting home gardening coupled with a waste separation scheme by Galle Heritage Foundation.

The coast is also polluted with debris of tsunami affected buildings and other structures. Dumping waste along the coastal belt by the municipal authorities as aforesaid causes severe environmental pollution, though they are dumped into pits. An environmental impact study has not been done on ad hoc dumping of waste in these environmentally sensitive areas of the city.

Atmospheric Pollution

The air in the city centre and immediate outskirts is polluted by the various industrial activities, especially from the cement factory through a high level of particle emission. Due to congestion of traffic in the narrow streets, vehicle emissions arising from burning of fossil fuels, and containing suspended particles, carbon dioxide, carbon monoxide, oxide of sulphur, nitrogen and benzene pollute the ambient air. It is not known whether this has been estimated in the City of Galle, to be at a dangerous level.

Sand mining in River Beds

This is a serious environmental hazard. It has been estimated that the sand extracted from Deduru Oya, Maha Oya, Kelani Ganga, Kalu Ganga and Gin Ganga (in Galle) amounted to 3.825 million cu. metres (7.4 million tonnes) in 1997.

Noise Pollution

This is a common phenomenon in most of our cities, and Galle is no exception. The blaring of horns and noise from loudspeakers in music centres is quite disturbing.

In general, the air and noise pollution problem is aggravated due to the narrow thoroughfares, lack of urban greening (landscaped areas and other open spaces) in the city centre.

Air pollution through vehicular traffic

The city has no proper parking arrangements for most of the public buildings except the municipal office premises which have adequate parking at the moment. It is strange that the newly built District Secretariat has no adequate parking. Parking of vehicles is a severe problem in Main Street where no public parking areas or private parking are provided. Many schools vans are parked in an ad hoc manner near school premises obstructing the general traffic.

Pollution of wells

Most householders in the city are benefited with the main water supply of NWSDB except some householders who live in the periphery of the city limits and some low income families who still depend on well water. Some of these drinking wells were polluted with sea water as a result of the tsunami. Several attempts made to clean such wells have still failed.

Disposal of debris generated by tsunami disaster

Galle City is one of the most affected by the tsunami disaster. Disposal of debris seemed still a problem to the city authorities. Some of the debris have been transported for the purpose of reclamation of low-lying private lands in Nugaduwa area. However there is a large volume of debris still remaining in the city and in the coastal belt.

Sewerage disposal

Galle City has no sewerage scheme though it is densely populated. Except for the General Hospital premises, all other public institutions still depend on individual septic tanks for sewage disposal. These are constantly filled with sewage and evacuations have to be done regularly. Municipal Council has only one gully sucker for the purpose but no sewage disposal yard resulting in dumping at different locations creating many environmental problems to the city dwellers. Implementation of a Sewerage system coupled with a waste water disposal system is an essential requirement despite the high cost.

G.N. Divisions forming Planning Area

G.N. Code	Name	Extent Hectares	Population	
42	Pitiwela N	30.39	1125	High growth rates
42A	Pitiwela	10.69	639	
44	Boossa	94.80	1455	
105	Welipitimodera	104.92	2691	
107	Piyadigama	80.62	1590	
107A	Bope N	22.30	907	
120	Watareka E (Part)	12.50	400	
120A	Mampitiya	40.34	1356	
125	Kalegana S	30.84	1026	
123B	Pelawatte	45.77	1288	
125A	Kalegana N	33.71	959	
124	Kitulampitiya	27.32	1358	
127A	Hirambugama	30.68	1403	
126	Godakanda	55.25	1285	
126A	Karapitiya	47.42	1649	
130A	Ettiligoda	48.13	788	
130E	Ambalanwatte	13.24	1126	
130D	Jambuketiya	21.21	922	
113A	Bataduwa W	43.52	1156	
113B	Nugaduwa	57.68	1520	
124A	Tuntiripana (Part)	55.00	650	Other G.N. divisions
127E	Nawinna	22.07	450	
126B	Galketiya	63.37	767	
114	Labudoowa	78.93	1309	
113	Bataduwa	56.42	946	
130B	Haliwela (Part)	40.00	800	
136	Unawatuna E	81.77	1757	
137	Unawatuna W	41.17	743	Unawatuna Area
137A	Unawatuna C	56.22	1092	
137B	Yaddehimulla	66.78	820	
137C	Bonavista	81.15	1290	
Total		1494.21	35,267	

Details on Poverty Elements

The Household Income and Expenditure Survey (HIES) carried out by the Census Department indicates that 19.3 % of the population in the DS Division Four Gravets (Municipal Council Area) are below the poverty line. This figure is referred to as Headcount Index (HI), according to which a population of 17607 persons are considered as poor (See Table). Assuming the household Size 4.5, the number of families amount to 3900.

The Table also indicates the figures for the other DS Divisions in the Galle District as well as other Districts covered by the HIES, and may be used for comparison.

Also refer to item (a) in Annex 5 Public Assistance Programme for destitute persons.

The Samurdhi beneficiaries in Galle Municipal Council Area total 7040