

INTRODUCTION

Trinidad and Tobago, a twin island Republic are the two most southerly islands in the Caribbean; located between 10°3'N, 60°55'W and 10°50'N, 61°55'W as seen in Figure 1 below. Trinidad is located eleven (11) kilometers off the northeastern coast of Venezuela and its total land area is 5,128 km² or 1,980 sq. miles. Tobago's total land area on the other hand is estimated at 300 km². The population of Trinidad and Tobago is approximately, one million two hundred and sixty-two thousand three hundred and sixty-six persons. (1 262 366) (<http://www.cso.gov.tt/statistics/cssp/census2000/default.asp>).

Its economy is very reliant on petrochemicals but is described as being diversified. Private individuals own 47% of the land while the State owns the remaining 53%, much of which is forest reserves (Smart 1988; Stanfield and Singer, 1993). The average population growth rate for the period 2000-2005 was 0.3%; the unemployment rate measured at the fourth quarter of 2006 was 5.0% (<http://www.cso.gov.tt>).



Source: www.ajmtours.com/maps.html

Figure 1: Trinidad and Tobago within the larger Caribbean Context

The islands of Trinidad and Tobago were both former British colonies. As a consequence, their political system, institutional and administrative structures reflect a British tradition. The construct of its land use planning system, is quite archaic as it is based on the 1947 Town and Country Planning Act of England and Wales. The basis of land use planning in Trinidad and Tobago is therefore legislative. The legislation shapes the form of the land use planning system, by the imposition of legal obligations which must first be understood and then complied with in order to ensure the legality and efficacy of the system.

This paper presents a case study of the success and failure of the Trincity Millennium Vision, an urban town development being undertaken in Trinidad, managed under a local decentralisation policy. The analysis and discussion are based on the urban planning theory of new urbanism.

THEORETICAL BASIS

New urbanism stems from the belief in the ability of the built environment to create a sense of community. It therefore embraces ideas of regionalism, sustainable development, affordable housing, environmental justice, communitarianism and anti-sprawl (Fainstein, 2000). In other words, it is a move towards liveable communities - ideal "small towns" and neighbourhoods where people work, live and recreate. It attempts to return to the community the advantages of saving both time and money by not having to drive long distances to work thereby increasing available time for family and friends (Katz, Scully and Bessi, 1994)

The theory seeks to demonstrate how principles of urban design can be applied to the region that is, the suburban condition. Its application acknowledges that the city, its suburbs and

their natural environment should be treated as a whole; thereby incorporating its social, economic and ecological dimensions. Therefore, there should be defined edges (that is urban growth boundaries), the circulation system should function being cognisant of the pedestrian (supported by regional transit systems), public space should be formative rather than residual (that entails the preservation of major open-space networks), civic and private domains should form a complimentary hierarchy (there should be related cultural centres, commercial districts and residential neighbourhoods) and population and use should be diverse (created by adequate, affordable housing coupled with employment, thereby creating a job/housing balance) (Katz, Scully and Bessi, 1994). The combination of these elements, new urbanists argue creates the context for healthy urbanism within the neighbourhoods, districts and at the city centre.

The theory has not been embraced by all. There are some detractors such as (Talen, 1999) who question whether a sense of community will follow the physical form of cities and neighbourhoods and suggest that advocates of the theory clarify exactly what is meant by “a sense of community”.

BACKGROUND

The Town and Country Planning Act, Ch. 35:01, which regulates land use planning in Trinidad and Tobago, was proclaimed by Parliament and became law in 1969. At that point in time, urbanisation and urban sprawl were already taking place.

From examining the history of Trinidad and Tobago, it is apparent that urbanisation is not a recent phenomenon occurring in this country. The time line below seeks to illustrate, within the context of the island of Trinidad, the fact that the rate of urbanisation, which has been fluctuating over the years, stands as the variable which is subject to change—the reality of the process however, has been constant. What is rather interesting though, is the fact that urbanisation by and large has been “uncontrolled” in Trinidad and Tobago.

Immigration, demographic heterogeneity (migration and natural increase), uneven economic growth and the colonial and post-colonial experience of Trinidad and Tobago, have all contributed and given rise to an urbanisation process which has its genesis in the socio-historical past (Potter, 1989).

Time Line

1757- Port of Spain (the capital of Trinidad) was a fishing village and port of call for ships trading in tobacco. Her population was between 300 and 400 persons.

1783- Port of Spain assumed its central administrative and commercial position. French settlers and slaves settle and develop Trinidad's plantation economy.

1910- Discovery and exploration of oil in south Trinidad gives rise to a new sequence of economic prosperity, urbanisation and regional development for Trinidad.

1911-1946- San Fernando (the urban centre in the southern part of the island) experiences a second phase of population increase spawned by oil exploration.

1975-1989- In-migration from residents from within the Caribbean region who are absorbed in Port of Spain, along the East-West Corridor/ Capital Region and in the oil industry in the South of Trinidad.

Table 1 Population of two first urban areas in Trinidad, 1921-80, 2000

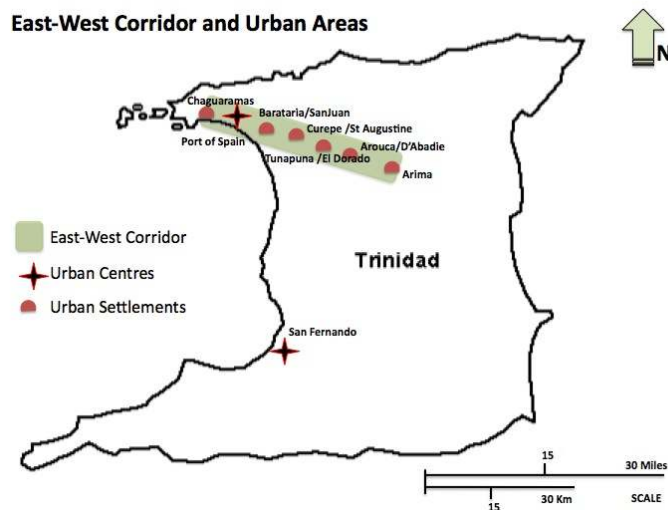
Administrative Area	Population (000's)						
	1921	1931	1946	1960	1970	1980	2000
Port of Spain	61.6	70.3	92.8	93.9	62.7	54.9	49.0
San Fernando	10.6	14.4	28.8	39.9	36.9	33.5	55.4

Source: Central Statistical Office Censuses (CSO: Port of Spain, Trinidad and Tobago)

The twentieth-century pattern was one of increased urban primacy up to 1946 with greater Port of Spain and San Fernando accounting for approximately 22 per cent of the national population at that time. Then rapid suburbanisation, which took the form of urban sprawl within the conurbation, occurred from 1960. This took place both west and east of the city of Port of Spain which led to the development of the East-West Corridor. This region acquired a dominance which it has never relinquished.

In 1960, Port of Spain reached its highest population to date, as seen in the table above. From that time onwards it started to lose residential population as the symptoms of urbanisation became apparent; one of them being inadequate shelter due to unavailability of land which had a direct effect on the price of land within Port of Spain and its environs. The increasing unavailability of land led to the development of squatter settlements on the outskirts of the city characterised by the poor settling on marginal lands or vulnerable sites, insufficient water provision in the unplanned emerging settlements, overburdened sewerage systems, improper waste disposal facilities and limited open space and recreational facilities (Mycoo, 1997). The increased demand for goods and services, jobs, income and infrastructure led to the generation of even more waste. All these symptoms exacerbated environmental issues in the urban centre.

By 1980 as seen in table 1.1 below, the dominance of the urbanised region referred to as the East-West Corridor was pronounced with an estimated 43 per cent of the national population (Potter, 1989) while the population of Port of Spain decreased from 1960 to 2000. The development of this region took place as a result of urban sprawl, and spans from Chaguramas in the western part of the island to Arima in the eastern part, as seen in map 1 below.



Map 1: East-West Corridor and Urban areas

Source: Author, 2008

Table 1.1 Population Size and Growth of the Capital Region/East West Corridor, by selected years (1921-1980) (a)

Planning Region	1921	1931	1946	1960	1970	1980
East West Corridor				354,662	378,120 (0.65%)	411,190 (1.55%)

Source: Central Statistical Office. 1960, 1970 and 1980 Population Census

(a) Percentages refer to average annual growth rate of the preceding decade.

The Manifestation of Sprawl

Low density housing which initially developed in a linear pattern along the major transportation route, the Eastern Main Road stretching from Port of Spain to Arima as land in the suburbs was more affordable than land in Port of Spain. This development was loose, non-compact and non-contiguous. It depicted a laissez-faire concentration realised through unplanned growth in which public sector and social costs were factored in as criteria in the allocation of development (GORTT, 1984). This movement of people was facilitated by the automobile, which was heavily relied upon as residents commuted from their homes to Port of Spain- the seat of government employment. This led to congestion and exclusionary new “dormitory” developments as residents worked and socialized in Port of Spain while living in communities east and west of the city. Overtime, this development was interspersed by commercial development.

Leap frog residential developments such as the Maloney and La Horquetta developments, located in the eastern boundary of the East-West corridor, the fragmentation of land use planning among multiple municipalities, the uncontrolled spread of development to the extent that much of the East-West Corridor became a continuous mass, lacking distinct neighbourhoods and villages stand as the icons of urban sprawl in Trinidad (GORTT, 1984). Such a development pattern has proven to be very wasteful of land and other resources.

The Response of the Town and Country Planning Division

Land use planning is administered by central government. The implementation of the Town and Country Planning Act Ch. 35:01 differed from the pattern followed in England. The Minister of Town and Country Planning, though given the option of delegating his responsibility of development control to the council of any local authority, instead delegated his power to the Town and Country Planning Division which was birthed by Act No. 3 of 1962. Its responsibility as stated in the long title of the Act is to “*make provision for the orderly and progressive development of land in both urban and rural areas and to preserve and improve the amenities thereof; for the grant of permission to develop land and for other powers of control over the use of land....*” The Local Authorities therefore were not involved in the management of land use planning in Trinidad and Tobago, but instead provided an advisory function to Central Government on matters of roads, drainage, water, markets, social services, health and housing (Ordinance No. 18 of 1945). Their duties were restricted to the daily operations of the geographical areas under their control as determined by local government boundaries. As such they included, but were not restricted to, the assessment and collection of land and building taxes, collection and disposal of garbage and sewage, provision and maintenance of roads, drains and bridges and street lighting to name a few.

The staff of the Town and Country Planning Division prepared a National Physical Development Plan for Trinidad and Tobago, which was approved by Parliament in 1984. This exercise was accomplished in the face of major administrative and institutional

deficiencies such as lack of cooperation from other sectoral ministries which led to the inability of the land use planning system to effectively coordinate both public and private sector development. The second major hurdle was its scarcity of staff resources and data collection problems which arose as a result (GORTT, 1984).

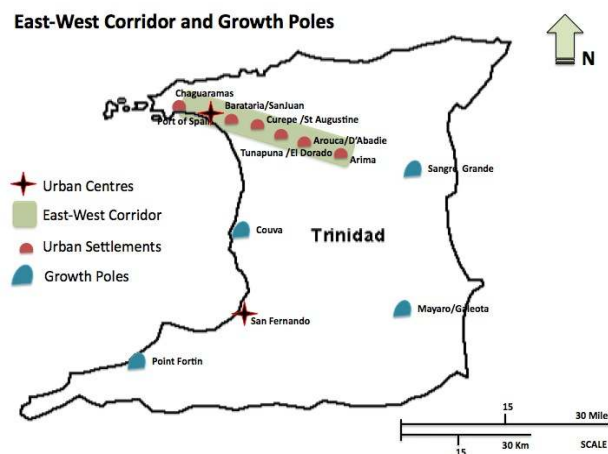
The National Urban Development Strategy --Regional Decentralisation

The strategy of dispersed concentration in selected centres attempted to strike a balance between concentration and dispersal by harnessing the economies inherent in the settlement of concentration which had developed while attempting to promote development throughout the country. In a bid to make this a reality, the idea promoted was the consolidation of existing urban centres and expansion into areas of high potential. It was believed that growth could have been stimulated without increasing congestion costs and the disparity between the existing urban and rural regions.

This stood as an attempt to contain urban sprawl as major growth centres would have been developed in peripheral areas in which many opportunities lay while restraining expansion of overspill centres in transitional areas which were under development pressure (GORTT, 1984).

In the two major urban centres of Port of Spain and San Fernando, it was proposed that urban expansion be confined to those areas in which a commitment to built development had already been made. Any further growth, it was projected would have resulted from infilling and intensification of the existing urban centres.

The areas of Couva, Sangre Grande, Mayaro/Galeota and Point Fortin were identified as the growth poles which were to accommodate the majority of new growth as seen in map 2 below. The growth pole at Sangre Grande was designed to siphon off activity attracted toward the East West Corridor.



Map 2: East-West Corridor and Growth Poles

Source: Author, 2008

The rationale behind this approach was to stimulate development of the four (4) key towns in transitional regions into centres of economic activity, capable of sustaining growth and

spreading the beneficial effects into adjacent rural areas via concentration of business contacts and other combinations needed for self-sustained growth (GORTT, 1984). This was to be accomplished by injecting a planned nucleus of “propulsive” industries with marked local multiplier possibilities into the surrounding areas through inter-industry linkages, downstream manufacturing and service activities. The intention was that income and the quality of life in the region as a whole be upgraded by polarising development at a particular point in the area where economies of concentration occurred, instead of spreading it thinly over the whole region as advocated by the strategy of dispersal. It was hoped that urbanisation would be directed into areas where built development alienated marginal amounts of land with a high potential for other uses, as was the case in the proposed expansion of Sangre Grande, Mayaro/Galeota and Point Fortin.

The realisation of this strategy depended upon the transformation of the existing spatial system and was therefore was reliant upon the cooperation of public authorities, which were responsible for the provision of adequate infrastructure for development, programmes of grants and concessions to firms locating in the specified areas and the decentralization of public sector employment to growth poles. Unfortunately, these measures were never put in place as this strategy of development was not adopted by the government (GORTT, 1984).

CASE STUDY

The History of the Development of Trincity

The Trincity region falls within the Tunapuna/Piarco Regional Corporation. It is bounded on the north by the Priority Bus Route, on the south by the Churchill Roosevelt Highway, on the east by Golden Grove Road and on the west by Macoya Road as seen in the satellite image below.



Satellite imagery showing the outline of the Trincity region

Source: Google earth, 2007

This region was formerly made up of a number of sugar estates, dating back to the days of colonialism. After the sugarcane industry started showing signs of diminishing returns in the late 1960s, the large estate owners who were looking for alternative sources of income embarked upon land development and home construction within the region. This they accomplished by setting up a company which constructed a series of “dormitory” settlements developed in accordance to a development plan. These settlements were appealing to the burgeoning population in Port of Spain which sought cheaper sources of housing as the price of land in Port of Spain became prohibitive to a growing number of persons. This business

venture soon ran into financial difficulties by the end of the 1970s and the company was sold to local investors who dissolved the company and set up their own company, Home Construction Limited which later became a public company. This company developed Trincity Mall in the late 1970s and one housing settlement in the early 1980s before it too was deemed to be unprofitable. Its development was spearheaded by surveyors and as such the layout followed a grid pattern (Fifi, 2008)

In 1989, Colonial Life (an insurance company) was involved in a take-over bid and purchased Home Construction Limited and its entire land bank in the Trincity region. CL Financial Group, a holding company of Colonial Life set up a number of individual companies which were to operate in different capacities. A real estate company, the HCL Group of Companies (hereinafter referred to as "HCL") was set up as a subsidiary of CL Financial. Home Construction Limited became a member company of HCL.

The lands planned by HCL in the Trincity region total 3,000 acres. The housing development carried out at Trincity by this company followed in the tradition of Home Construction Limited. Two and three bedroom single family detached units were built with residential densities of approximately thirty dwelling units per net hectare utilizing lots of not less than 300 m². Between Macoya Road and Orange Grove Road, HCL developed two industrial sites, which generated substantial employment opportunities within the Trincity region (Trincity Development Plan, 1990).

The Trincity Millennium Vision

The Trincity Millennium Vision is a plan which seeks to build an urban centre in Trincity along the lines of new urbanism. As a result, 1,000 acres of land located in the eastern segment of the Trincity region were selected as seen in the satellite imagery below.



-----outline of the Trincity region

-----outline of the Trincity urban area

Satellite imagery showing the outline of the Trincity region in relation to the Trincity urban area

Source: Google earth, 2007

The urban framework was developed for decentralising out of Port of Spain. The Trincity region was selected for the site of this urban area due to the following characteristics: Trincity's advantageous location at the geographic centre of the East-West Corridor, located about 15 km east of Port of Spain and about 10 km west of Arima, its close proximity to Piarco International Airport, its location on the national arterial highway system and the Priority Bus Route and the fact that it was earmarked as a location for future built development in the National Physical Development Plan for Trinidad and Tobago (1984) and it was the last substantial undeveloped parcel of land in the area which was owned by HCL.

HCL's "Millennium Vision" seeks to offer persons a lifestyle of convenience and quality through balanced communities in which residents can work, live and recreate. In an effort to mix the social and economic groups residing in the Trincity region, the Company embarked upon a means of attracting the executive, upper class to the Trincity urban area. The "dormitory" settlements previously created attracted lower middle and middle income earners. The inclusion of a golf course into the urban area proved successful in accomplishing this goal.

The plan for the urban area which is divided into 31 zones is as follows: Zones 1, 2, 4, 6, 7 and 23 comprise the town centre. Zone 1 is earmarked for shopping, zone 2, a transportation hub, zone 4, a convention hotel, zone 6, a business district, zone 7 a hotel resort and zone 23 for commercial purposes.

Zones 19, 31, E3, 26 and 30 are zoned for institutional and recreational purposes. As such, zone 19 is for secondary schools, zone 31 designated for primary schools, E3 as recreational grounds, zone 26 for institutional purposes and zone 30 for a health centre.

Zones 27 and 25 represent existing residential uses whereas zones 5, 8, 9, 10, 11, 12, 24 and 29 are zoned for commercial office and institutional purposes. Zones 5 and 8 for office complexes, zone 9 for an expo and trade centre, zone 10 and industrial park, zone 11 HCL's East office, zone 24, Sunrise Corporate Park, zone 29 as an institutional commercial park.

Lastly, zones 3, 14, 15, 17, 18, 21, 28, 16, 22, 20 and 13 are designated for different density housing surrounding the golf course. Zones 3, 14, 18, 28 and 16 are zoned for high density housing, zones 15 and 17 for single residential uses, zones 21 and 20 for mid density housing, zone 13 for multifamily housing and zone 22 is earmarked as a driving range.

Implementation of The Millennium Vision

The implementation of the Millennium Vision did not take place in static stages, but instead simultaneously in response to the demand of the market. Building upon the base of Trincity Mall, the main components of the town centre core area were constructed via the renovation of the Mall to provide greater variety of shopping, dining and entertainment facilities such as a multiplex cinema. The golf course and low density residential housing were also constructed. Two secondary schools were built in zone 19 in a further effort to attract persons with families out to the urban area. This was accomplished via a tripartite arrangement between HCL, the government of Trinidad and Tobago and the Anglican Church. This phase of development took place between 2001 and 2004.

The national exposition centre, two business parks, a corporate park and an industrial park were then set up in zones 17, 9, 6, 24 and 10 respectively. Republic Bank Ltd. is currently in the process of constructing one of its headquarters in the corporate park, negotiations are underway for the construction of a convention hotel in zone 4, one company is located in one of the corporate parks and sites are currently being sold, one company is located in its

industrial park and construction of a local government centre is carded to start in zone 26 in 2009.

The Trincity Millennium vision creates a framework within which principles of new urbanism can be exploited as it offers the resident the advantages of easy access within walking distance of all the essentials for easy living, employment, recreation, entertainment, shopping and health.

The development of the town centre has been funded through bank financing. Private investors then buy from HCL which builds the development. This was the case with the varying densities of housing constructed thus far around the golf course. In the case of the corporate park, HCL is selling the land to businesses who in turn will build their own offices. The mall and golf course are both owned and operated by HCL which also paid for the provisions for the improvement and upgrading of the infrastructure within the town centre needed to meet its anticipated demands.

ANALYSIS

The Trincity Millennium Vision was first envisaged in the late 1990s. Its implementation has been ongoing for fewer than ten (10) years. This period of time is too short to be able to classify shortcomings as failures. However, its rate of implementation has been slower than initially anticipated by HCL. So far, it has not been able to attract investment from the government. This element is still being explored and negotiated as the government is the largest employer. The location of government offices within the Trincity urban area will positively impact urban sprawl as the majority of the population in Trinidad lives along the East West Corridor.

As seen from the pie charts below, to date, the development of the urban area has been able to contain sprawl in a limited area. As can be seen from the pie chart A, two hundred and thirty-four (234) employees which represents the total number of employees employed in fifty (50) of the two hundred and fifty (250) stores operating within the mall, only 12% of those employed live within the Trincity region. The figures were higher for those who live within the urban settlements of Curepe to Trincity and Arouca to Sangre Grande, which account for 32% of those employed. It is evident that the Trincity Mall is positively impacting urban sprawl and to a greater extent within the eastern part of the East West Corridor.

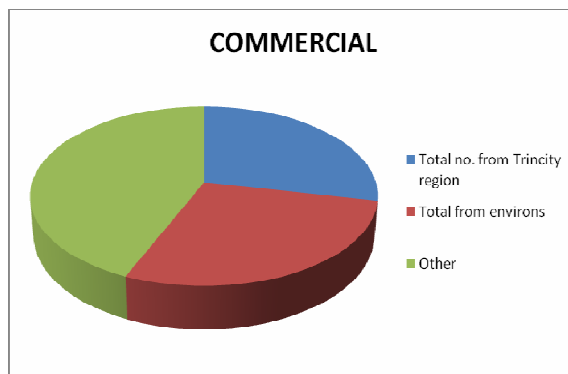


Chart A

Source: Author, 2008

The statistics from the sole company within the industrial park, as seen in pie chart B suggest the same reality as a 66% of its employees live within the region of Curepe to Sangre Grande. Though separate figures for those who reside within the Trincity region could not be

obtained, the trend is quite encouraging. 35% of the teachers employed in the two secondary schools within the urban area came from the Trincity region. This further suggests that urban sprawl is being contained on a limited scale.

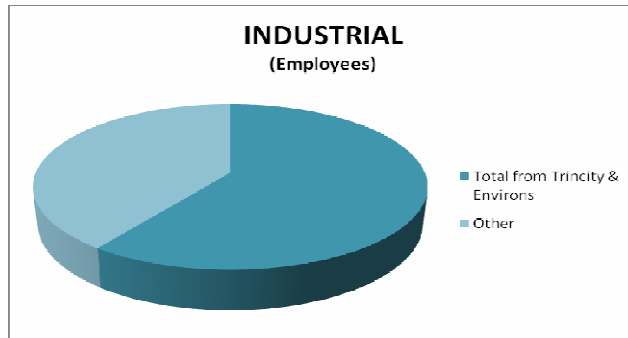


Chart B

Source: Author, 2008

60% of the students who attend both secondary schools live within the Trincity region as seen in pie chart C.

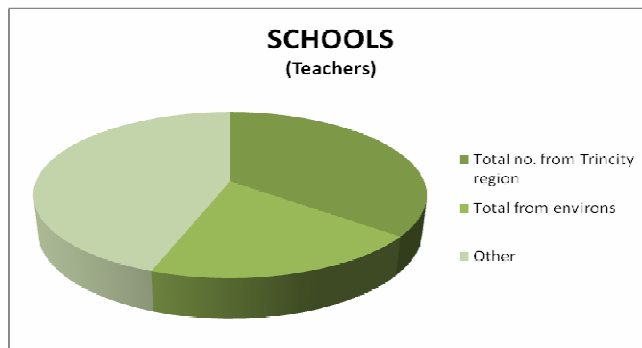


Chart C

Source: Author, 2008

The urban area has been able to attract persons from a higher socio-economic bracket as a result of the presence of the golf course. The town houses and condominiums sold in the area surrounding the golf course are being sold and large houses are being constructed within that vicinity. This evidence suggests that the goal of developing balanced communities is being achieved as persons from a higher economic bracket are now opting to reside to Trincity. This stands in stark contrast to what transpired before the development of the urban area.

The results are very encouraging given the age of this project. The urban area has proved that it is able to provide a number of residents within the Trincity region and its environs with employment which has reduced the number of persons who would have sought employment in Port of Spain. This suggests that it is able to offer viable alternatives of employment which has resulted in a reduction of the work to home distances for a number of persons within the

region. It is undeniable that the figures quoted above can be increased if the government started locating some of its offices within the urban area.

CONCLUSION

The Trincity urban area, via the implementation of the Trincity Millennium Vision is developing into a dynamic urban area with full infrastructure and an enormous potential for growth. HCL is very optimistic that they will be able to accomplish its goal of completing the proposed development within each of the 31 zones identified in its development plan within the coming 10-15 years. The success of Trincity Mall in terms of its appeal to persons in the Trincity region and beyond as a source of shopping and entertainment suggests that the ideal of the new urbanism theory can be accomplished in this urban area and even more so if the government were to lend its support. Based on the current analysis it is, it can be said that the urban area is developing into an area in which people live and recreate. The component of the equation which is yet to be realised to the same extent as the other two aspects is that of employment. In light of the 4/5 million square feet of floor space which is left to be developed, the Millennium vision seems well poised to accomplish this goal.

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