

**EVALUATING THE SOCIO-ECONOMIC
EFFECT OF MULTINODAL URBAN
DEVELOPMENT ON THE POOR
COMMUNITIES ON THE PERIPHERY:
THE CASE STUDY OF HILLCREST-
WATERFALL AND MOLWENI.**

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MTRP II.

Submitted in partial fulfilment of the requirements
for the degree of Master of Town and Regional Planning,
University of Natal, Durban.

December 1996.

ACKNOWLEDGEMENTS.

My thanks goes to:

God Almighty who gave me strength and perseverance in the past two years.

Philip Harrison, my supervisor for his kind support and brilliant comments.

Mpho, Nomsa, Busi, Nokuzola, Noluthando, Mbongeni and Lihle who always brought a smile back on my face.

My family for their love and support.

Durban Corporation for sponsoring my second year of this degree.

The people I interviewed in Hillcrest-Waterfall and Molweni, other consultants and Amanda Williamson who supported my research work.

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CHAPTER 1

1.0. INTRODUCTION.

The major concern of this research is that of investigating the impact of contemporary urban form on poor communities located on the urban peripheries. The study aims to investigate the nature and the role of emerging and maturing urban forms that develop outside the major metropolitan cores. These urban forms give metropolitan areas a multinodal or polycentric pattern. These are not new developments, but they have not been receiving adequate attention by planners. In South Africa these spatially peripheral areas are occupied by both black and white communities who have different socio-economic backgrounds. The invasion of new forms of employment in these areas is perceived differently by members of communities experiencing these changes. It is also perceived differently by bodies of decision makers, such as developers, governments bureaucrats and planners. New urban forms are therefore of interest to the field of planning because their existence requires changes in urban policies.

1.1. BACKGROUND TO THE PROBLEM.

In South Africa metropolitan peripheries have a problem of poverty because of the high percentage of poor communities located there. Adjacent to these poor communities there are suburbs occupied by whites who are economically better off than these communities. Internationally it has been proven that economic restructuring is changing the character of middle and upper income suburbs to that of areas of economic activity, mainly offices and shopping. Some of these suburbs are located on the periphery and others closer to the urban major cores. These changes clearly have impact on the communities located within these suburbs. What is not clear is the impact of these changes on the lower income communities adjacent to where these economic developments are occurring.

As suggested there is a close relationship between the changing nature of suburbs and economic restructuring. Economic restructuring is a global phenomenon, although there is also much which is particularly South African in origin, for example, the effect of extremely high crime rates in the inner city. According to Harloe and Fainstein (1992) economic restructuring at global level has an impact on social structures within cities. They argue that economic restructuring favours the affluent groups because of the type and demand of new jobs that are associated with new technologies. The suggestion here is that the poor living in and adjacent the suburban areas may not necessarily benefit significantly from a shift of economic activity closer to their residences. This dissertation explores this argument in relation to a particular South African context.

1.2. PRESENTATION OF THE PROBLEM.

"The struggle of land, housing, social services and jobs is likely to continue and intensify in the future. In the post-apartheid state the class as opposed to racial dimensions of this struggle are likely to become more overtly pronounced, with access to urban space based on wealth rather than racial criteria becoming the defining characteristic of South Africa's cities" (Saff 1994:377).

This statement by Saff says a lot about nature of problems still facing South Africa. Economic restructuring and new forms of employment occurring on the metropolitan peripheral areas might benefit certain groups of people and still leave masses who are poor in the same conditions.

The research problem then, is to investigate the effect of economic growth in the Hillcrest-Waterfall node on the low income community of Molweni which is located adjacent to them. Hillcrest-Waterfall is middle and upper income, mainly white residential area on the Durban metropolitan region. This node

is situated 35km away from Durban and about 10km away from Molweni.

1.2.1.HYPOTHESES

The investigation is based on the following hypotheses. My first hypothesis to be tested is that multinodal urban forms do not significantly benefit poor communities located adjacent to them. My second hypothesis is that new forms of employment on the metropolitan peripheries are accompanied by accelerating social and economic polarization.

1.2.2.ASSUMPTIONS

The study will also test basic assumptions that I made that underpin my hypotheses. The first one is that job opportunities in Hillcrest-Waterfall are occupied mostly by local white residents. The second assumption is that the type of economic functions in Hillcrest-Waterfall requires skilled and semi-skilled labour. The third assumption is that high percentage of Molweni residents have low levels of education and lack technical skills which make it difficult for them to be employed in Hillcrest-Waterfall. The last assumption is that Molweni residents do not see the socio-economic development of Hillcrest-Waterfall as having a positive impact on their community.

1.3. METHODOLOGY.

I have chosen this piece of work because of my interest in the functionality of the urban form of South Africa. The locational position of Hillcrest-Waterfall and Molweni in relation to one another and also within Durban metropolitan region raised some interest for me which led to this investigation. The study required both qualitative and quantitative information, therefore I had to rely on secondary and primary sources for this investigation. I used the following secondary sources as the basis for my research: international literature; Highway Mail

Newspaper; Hillcrest Business Magazine; Research Survey conducted by Stavrou (1992); and the orthophoto map of KwaDinabakubo.

Primary sources included a surveys which have unstructured and structured interviews conducted in Hillcrest-Waterfall node and KwaDinabakubo. Unstructured interviews included discussions with John Cragg (Town Clerk) and Simon Elliott (Urban Planner) who is currently involved with the development plan proposal for the Hillcrest area.

Structured interviews included two type of surveys, namely, an economic survey in Hillcrest-Waterfall and a socio-economic survey in Molweni. In both cases questionnaires were used to collect data. The researcher personally conducted the survey in both areas.

1.3.1.HILLCREST-WATERFALL ECONOMIC SURVEY.

The target population for the economic survey included all economic activities occurring in Hillcrest-Waterfall. But, judging the time allocated for this project the researcher decided to focus on the economic activities along the major routes of the study area. Quota sampling was used as a method of selecting the names of enterprises in the area. This was done with the help of the Hillcrest business magazine which is published annually by Azalea Promotions.

Initially, a telephone directory was used to select the sample. However there were problems with this research tool and so a face-to-face survey, proved to be more effective in terms of focusing survey into a much controllable radius. A sample of thirty enterprises was selected from Hillcrest-Waterfall. Enterprises were randomly chosen from each cluster, with randomly selected replacement for each enterprise in case of refusals or other problems arising from the field.

A pilot survey of seven questionnaires was conducted. Some of the questions had to be restructured and others discarded because of their sensitivity to the respondents. Follow-ups on those questionnaires filled during the pilot survey were made telephonically.

The questionnaire for the urban centre of Hillcrest-Waterfall had both closed and open-ended questions. The questionnaire required the interviewee to respond in writing. The reason for this was to give the interviewee enough time to respond at his or her own convenience.

The survey in Hillcrest-Waterfall took five days. The researcher discovered that early morning sessions were better than later hours which were busy as managers by then had to attend customers and clients. Two enterprises refused to be interviewed. Only one enterprise failed to fill in the questionnaire because the manager was not available. The researcher had to go back to this enterprise three times before replacing it. This survey in general was able to come up with the expected results.

1.3.2.Limitations of Hillcrest-Waterfall survey.

Some respondents were sceptical about the survey. One respondent commented that this was the ANC government strategy to find out if they have African employees in their businesses. Others reported that they were too busy to for such things. But the researcher developed 'survival techniques' throughout the survey. Another limitation was the race of the researcher which made it difficult to probe information related to racial issues. In bigger enterprises, questions that required reference to the gender of individuals in specific positions was not answered adequately. These enterprises also failed to give numbers of employees in relation to their places of residence.

1.3.3. SOCIO-ECONOMIC SURVEY IN MOLWENI.

A community leader was contacted before going through with the survey in Molweni. The researcher had targeted a sample of thirty households. An orthophoto map was used in selecting houses to be interviewed. The focus was on one section of Molweni, called KwaDinabakubo. This area was targeted because of its spatial arrangement and its close proximity to the public transport. The proximity of individual households to one another facilitated the process of data collection.

A questionnaire with both closed and open-ended questions was used to collect data. Questions for the interviewees in Molweni were interpreted in Zulu. The survey in Molweni was conducted during week-ends with the aim of finding the targeted people at home. A strategy for dealing with absent householders was to replace the initially selected house with house on its right hand side. The analysis of data was done manually by the researcher. A coding sheet was designed after all questionnaires were edited. The results were then recorded in a matrix.

1.4. STRUCTURE OF THE DISSERTATION.

This introductory chapter is followed by a chapter providing a theoretical framework which sets out the basis for arguments and recommendations to be brought forward by the researcher in the final chapter. The chapter discusses international literature on the character of multinodal urban forms. It covers debates about these new urban forms in relation to their spatial impact on metropolitan areas. The chapter also covers the implication of multinodal urban forms on planning policies in those countries where studies have been conducted.

Chapter 3 discusses the South African urban form. This chapter gives the historical background of the multi-centred form of South African metropolitan cities. The chapter explores the

character of these multinodes and draws comparisons between these metropolises.

Chapter 4 presents the general background of the study areas, findings and analysis of data. Chapter 5 draws in implications of the finding for planning policies. The chapter relates the main findings of the empirical research to theory outlined in the literature. Chapter 5 also presents recommendations related to planning.

CHAPTER 2.2.0 THE INTERNATIONAL EXPERIENCE OF MULTINODAL URBAN FORM.2.1. INTRODUCTION.

Multinodal urban form has historically not received much attention because of the assumption that city centres are the heart of metropolitan areas. This may remain true for small cities but is not often the case for large metropolitan areas. Engines of wealth in large metropolitan areas have often been decentralised from the city centres for a long time. It has been proven in other countries that small urban centres outside the inner cities provide solutions to some of the problems encountered in metropolitan areas. But it is also true that some of these problems cannot be solved by mere growth occurring in these small centres. This chapter explores a number of factors influencing spatial processes that are taking place in metropolitan areas and their impact on the urban form.

Marcuse (1993) describes the patterns of the contemporary city as having,

"luxury housing, not really part of the city but enclaves or isolated buildings, occupied by the top economic, social, and political hierarchy; the gentrified city, occupied by the professional-managerial-technical groups, whether yuppie or muppie without children; the suburban city, sometimes single-family housing in the outer city, other times apartments near the centre, occupied by skilled workers, mid-range professionals, upper civil servants; the tenement city, sometimes cheaper single-family areas, most often rentals, occupied by lower paid workers, blue-and white-collar, and generally including substantial social housing; and the abandoned city, the end result of trickle-down, left for the poor, the unemployed, the excluded, where in the United States home-less housing for the homeless is most frequently located" (Marcuse 1993:355)

This description of the city is a useful backdrop to a discussion of the processes unfolding in the suburban part of the city and the impact of these processes on the abandoned part of the city.

2.2. DEFINITION OF TERMS.

At this point it is useful to clarify certain terms. Some of these terms have been coined by authors for the purpose of clarifying processes that are unfolding in cities. The following terms are used in this dissertation.

- * Urban desegregation - refers to the mixing of group of people of similar class who have been separated before according to their races, ethnicity and/ religion in a way that it becomes impossible for one group to access facilities of another group (Saff 1994).
- * Deracialisation of space - is the physical and administrative amalgamation of poor and affluent communities located adjacent to each other (Saff 1994).
- * Closed urban centres - refers to the inaccessibility of upper income residential areas by to communities as a result of affordability and attitudes rather than laws or regulations (Downs 1973) and (Mingione 1993).
- * Polycentric/Multinodal urban development - refers to the spatial model explaining the development of subcentres outside the central business district (Suarez-Villa) and(Waddell and Shukla 1993).
- * Divided city - this refers to the city with a clear dual nature where one group of people refers to the other as "them". This goes with stigmatization of the poorer group (Fainstein, Gordon and Harloe 1992).
- * Cities-within-cities - refers to cities immediately adjoining major cities or a fully developed urban development which started as small urban centres on the periphery of metropolitan areas (Currie 1978).

2.3. CAUSES OF MULTINODAL URBAN FORM IN CITIES.

It is important to explore the causes of polycentrism in cities as this might help planners to monitor such developments in growing cities. Studies have shown that one or more of the following factors have an impact on the urban form of the cities. These factors are, urban growth, economic restructuring, technological changes and gentrification. Areas that are often affected by these factors are the city edges where most upper and middle income suburbs are found.

One major impact of these factors is the changing nature of suburbs. Some authors such as Waddell and Shukla (1993) believe that focus should be on those suburbs that have changed their characters as residential extensions of the cities into areas of economic growth. They argue that the development of suburbs should not be undermined by planning because economic growth in the suburbs is happening as it happened centuries ago in the inner cities. The role of suburbs in metropolitan areas is changing with time and this should be accepted. A number of writers have identified these suburban economic nodes and have given different names. Curries (1978) calls these urban features 'cities-within-cities', Choldin (1985) refers to them as 'suburban minicities and Garreau (1991) calls them the 'edge cities'.

Kahn (1984) contends that theories and models of urban growth and form rest on the operation of the following urban ecological processes: concentration, centralisation, decentralisation, segregation, invasion and succession. A combination of these processes bring out urban form that either works well for its inhabitants or limits their potential to develop the area.

Traditional urban form showed a strong focus on the city centre. As indicated, recent studies are showing that there are other areas of focus within the cities that generate the wealth of metropolitan areas other than the city centres.

There are cities that are already too large to work efficiently with only one centre. Functions in the city centre can be forced

by various reasons to move to other localities within the urban region. Alexander (1979) for instance lists factors that influence office relocation as follows: crime and blight in the inner city; congestion; access to customers and clients who reside in the suburbs; rising office rents; internal factors such as room for expansion; and firms influenced by the move made by others.

Suarez-Villa (1989:196) believes that "the single most important cause of metropolitan polycentrism is an increase in agglomeration diseconomies resulting from rising traffic congestion, as metropolis expands its population size and area". Traffic congestion resulted in rising travelling costs, time loss and frustration of driving in a congested environment. Entrepreneurs and managerial elites who, to a greater extent are the victims of these negative effects, decided to move their businesses to the peripheral areas.

Labour force and commercial functions followed these developments. The other cause of multinodal development is that of the changing nature of manufacturing industrial jobs and the rise of service jobs which required a different type of labour and clients. Harrison (1994) contends that global economic changes also influenced urban form at local level. There was a growth of sprawling amorphous city regions which occurred as a result of technological changes. These were some forms of development on the metropolitan peripheries. These changes were characterised by loss of unionised, blue collar employment; and increase in low skill, low wage jobs in the service sector, such as office cleaning, domestic service, clerical, sales, hotels and restaurants.

Further growth in urban centres outside the inner city were the result of: pull factors such as good quality of life; variables such as lower health and personal risks due to reduced pollution and crime; larger homes due to lower land costs in the peripheral areas; more open space and green areas and better access to outdoor and recreational facilities. Linked to this

were the migration of commercial functions which also had advantage of lower property taxes or any other form of direct business taxation which tended to be higher in the city than on the periphery. Strict zoning and land use regulations which constraint development in the highly valued land pushed economic functions away from the city centre.

2.4. THE EVOLUTION AND THE ROLE OF POLYCENTRIC CITIES WITHIN METROPOLITAN AREAS.

This section explains the evolution of the multinodal urban form of metropolitan areas as observed in first world countries such as America and Britain. Suarez-Villa (1989) discusses four stages of metropolitan restructuring. During the first stage he identifies the development of monocentric smaller cities with the majority of economic functions clustered in the central area. During the second stage there is a development of the suburban fringe. In this area he identifies the development of residential suburbs accompanied by commercial functions. The central area continues to have concentration of functions. During the third stage there is a decrease in the rate of growth in the central area. This growth is affected by the suburban sprawl and the emergence of the commercial nuclei that serve the suburban population. Suarez-Villa says the growth of these nuclei depends on the growth of the metropolitan core areas. They might ultimately expand into matured subcentres.

The growth of these subcentres attracts mainly office and commercial functions that decentralise from the inner city, although light manufacturing industries can also choose these locations. From Suarez-Villa's (1989) point of view agglomeration economies for some manufacturing activities, occurring in these emerging commercial nuclei increase with easier accessibility, lower wage rates and better quality of life. This kind of development attracts capital investment on the periphery. During the fourth stage a mature industrial metropolis and a polycentric structure emerge. The role played by these subcentres at a certain stage overshadow that of the central areas. Employment opportunities in these subcentres

increases and commuting from the suburbs to the central areas decreases.

A number of authors such as Currie (1978), Gordon et al (1986), Cervero (1986), Heikkila et al (1989), Garreau (1991) and McDonald and Prather (1994) have studied the nature and the processes involved in shaping American metropolitan cities. Their observation on these cities give the background about the nature of these polycentric cities in America and the role of small urban centres emerging outside metropolitan cores. Currie (1978) studied the advantages of the emergence of these cities in metropolitan areas. This kind of design seeks to reconcile the social advantages of smaller community living with the economies of large concentrations of people.

Currie (1978) advocates the integration of different groups which might solve social problems caused by separation. Instead of focusing on one primate centre which benefits those who can commute with ease on the metropolitan areas because of least dependence on public transport, these adjoining cities will be spread over and thus the poor who cannot afford cars will easily access work or shopping areas.

Garreau (1991) describes the edge city as any place which has five million square feet or more of leasable office space; has 600 000 square feet or more of leasable retail space; has a population that increases by 9a.m. on workdays, marking the location as primarily a work centre not a residential suburb; a local perception of that area as a single end destination for mixed use ; and it also has a history in that thirty years ago the site was by no means urban, it was overwhelmingly residential or rural in character.

The suburbs that were observed by Garreau had a potential to develop into fully fledged urban centres because of the nature of the population residing in them. They are occupied by affluent communities. These communities are able to sustain economic development because of economic power. This power is also used to protect the elite from mixing with the "underclass".

Down (1973) sees these areas as "closed " to poor communities. Mingione (1993) as Down characterises some of these suburbs with economic functions as being "closed" to the poor communities. From his studies, Mingione (1993) observed that they are deprived and excluded from utilising facilities and services available in these suburbs.

Heikkila et al (1989), Gordon et al (1986) and McDonald and Prather (1994) studied the impact of polycentric urban form on metropolitan management. Polycentric urban form has an impact on land values in residential areas where urban centres develop. Job opportunities are brought closer to some suburbanites. This kind of development has changed commuting patterns in American metropolitan areas in the 1980s. Suburbs have become the destinations of workforce population. People no longer vacate suburbs each morning to go and work in the city centre, but instead some come into these suburbs for their jobs.

Observations made by these authors are also focused on the nature on physical structures that are built in the urban centres. Cervero (1989) says office parks in these suburbs are characterised by designs that resemble modern college campuses that provide rural-like work environment for highly skilled professional workers. They are also characterised by nicely groomed landscapes, glass-textured buildings with impressive atrium entrances, plentiful parking and employment densities that are a fraction of those found in the city centre. In other suburbs the problems of the city centre such as traffic congestion accompany the developments in these areas.

The potential of the suburbs in alleviating some of the problems of the metropolitan areas can no longer be underestimated. Choldin (1985) has identified suburbs as places where some of the inner city's activities have gone to. He says suburbanites have stopped going to the city because the suburbs are providing all their needs. He has come up the term 'satellite city' for those suburbs that consume labour and supply commodities. According to Choldin (1985:19) "more than seventy percent of the suburban residents in the largest metropolitan areas work in the suburbs

too". He says only twenty percent of the workers in New York's suburbs commute to the central city.

The development of subcentres on the periphery does not automatically solve all the problems of metropolitan areas. 'Divided cities' remain the order of the day. New forms of employment create new sets of problems. According to Harloe and Fainstein (1992) there is a belief that economic restructuring and social change result in the creation of an increasingly isolated mass of impoverished people, whose chances of upward social and economic mobility are minimal. These conditions are evident in cities like New York, London and other cities (Logan et al 1992:136).

In Britain small urban centres outside the core of metropolitan areas are the result of factors some of them different to those operating within American metropolitan areas. According to Williams (1986), gentrification is one of the major reasons for the emergence and maturity of suburban centres. In Britain gentrification is not confined to larger inner cities, but also occurs in smaller towns and villages surrounding larger metropolitan areas.

Another reason for the emergence of small urban centres outside the metropolitan cores in Britain is that of a culture of wanting to preserve the rural environment at least in the imagination of the wealthier classes. According to Lowe et al (1993) for British conservatives and traditionalists the city represents a threat to the social and moral order. High crime rates and all the other problems of the inner city are perceived as cultural backwardness. The English countryside is viewed as "the supreme achievements of civilisation" (Lowe et al 1993:64). This perception of the city caused 'white flight' or 'retreat' from the city.

English people had the tendency of wanting to create their own domain in a reconstructed countryside on the urban edge. The countryside domain is created with the attitude of keeping other cultural and social groups out. The British people perceived

other cultural groups as not 'fit' to occupy the countryside. To them the countryside offers rustic peace and tranquillity, an escape from the dirty utilitarian logic of industry and commerce. Social groups that occupy the countryside are white middle class with families. Urban youth wishing to escape from the city into the countryside to participate in wild parties are, for example, actively excluded from this domain of 'civilised quietness'.

During the years of agricultural depression there was a shift in economic functions initially performed in the countryside. There was growth in service sector and manufacturing functions in these regions. This was also promoted by the internationalisation of capital. Economic restructuring changed the nature of peripheral areas. Small firms were relocated in these localities. This changed the patterns of employment. These changes were occurring on both global as well as local levels. Metropolitan areas were impacted by these economic changes.

Lowe et al (1993) 's observation of the evolution of the countryside is that, the middle class who invaded the countryside dominated particular forms of housing, labour markets, communities and also political institutions. They changed the social and material world by reproducing "new traditionalist" conceptions of the rural. The new suburban communities that emerged in Britain catered for a narrow spectrum of social classes. Ethnic minorities felt that they do not belong in the countryside. Lowe et al (1993) criticise planning system in Britain for taking part in the creation of "politics of exclusion" in their attempt to develop the countryside. The creation of small urban centres outside the cores of metropolitan areas in Britain is therefore greatly influenced by cultural attitudes which limit the benefits to the chosen class within the metropolitan areas.

2.5. REACTIONS TO THE MULTINODAL URBAN DEVELOPMENT.

The role of the edge city can be perceived differently by people, government bureaucrats and others who have power to influence decisions. For instance Garreau (1991) observed that people have

different perceptions about the edge cities. The edge city often does not meet the expectations of the traditional suburbanites who believe in the preservation of nature. They see its growth as a threat to their peaceful environment.

Writers such as Down (1973) sees these suburban centres as being too closed for other communities living outside them. These urban centres are controlled by communities, who decide about who to employ and what type of economic activities should come into their domain. Down (1973) therefore advocates the opening up of these suburbs to the poor with the intention of increasing accessibility of economic benefits in the suburbs. Downs believes that there should be public policies that would reconcile the objectives and desire of both poor Americans desiring to upgrade themselves and wealthier Americans desiring to protect the quality of their hard-won suburban life. He proposed the concept of economically balanced communities, which the model of multinodal development might achieve.

Some advantages of integrating social classes are: "creating jobs opportunities for low and moderate income households; greater opportunities for those households to upgrade themselves by moving into the middle income neighbourhoods; access to quality facilities such as schools for their children; opportunity for the nation to reach its officially adopted goals for producing improved housing for low income households; fairer geographic distribution of the fiscal and social costs of dealing with metropolitan poverty; less possibility of major conflicts in the future caused by confrontations between two spatially separate and unequal societies in metropolitan areas; and greater possibilities of improving poor conditions in ghettos" (Downs 1973:26).

2.6. CONCLUSION.

Several writers have indicated the significance of multi-nodes within metropolitan areas, the most important one being that of decentralising employment centres from the central cores. This also help in alleviating problems of the inner cities. It also

alleviate problems of the commuters by providing employment closer to their places of residence. But there are also problems associated with such urban processes, such as the social and economic polarization caused by the nature of economic functions that decentralise to the peripheral areas. Another problem is that of the development control by communities which totally exclude other communities from benefiting from decentralised employment. Multinodal development can be perceived as both positive and negative urban processes unless there is a deliberate intervention to promote benefits for all.



CHAPTER 3.

3.0. SOUTH AFRICAN METROPOLITAN URBAN FORM.

3.1. INTRODUCTION.

The size of most South African metropolitan areas cannot be compared to that of the larger American or British cities, but there are significant similarities in other respects. Harrison (1995) for instance observed the emergence of "silicon landscapes" outside the core of the Pretoria-Witwatersrand metropolitan area (Gauteng). This kind of development is similar to the edge cities identified by Garreau (1991) in American metropolitan areas and some to the British urban village observed by Lowe et al (1993).

3.1.1. THE EVOLUTION OF POLYCENTRISM IN SOUTH AFRICAN METROPOLITAN CITIES.

The evolution of multi-nodes within metropolitan areas in South Africa can be traced back to the discovery of gold in the nineteenth century. According to Cook (1975) central business activities started on the Witwatersrand in 1886. Mining in this region did not only occur in Johannesburg but also in areas such as, Randfontein, Roodepoort, Krugersdorp, Bedfordview, Alberton, Edenvale, Boksburg, Benoni, Brakpan, Germiston and Springs. The metropolitanization of the Witwatersrand and the integration of these mining centres into a single multinodal urban system was made possible by advances in transportation. Railway lines linked these small urban centres to the Johannesburg which was seen as the core because major offices were located there. Car ownership increased communication links between the major core and the other surrounding urban centres.

There were also changes in the commuting patterns of people who were formerly mineworkers and those who depended on jobs in the metropolitan core. Increase of employment in the tertiary sector strengthened secondary nodes within the growing Witwatersrand metropolis. An increasing number of workers were able to find employment in non-mining work within these smaller

centres. This also changed shopping patterns of the people who previously had to commute to the Johannesburg core. Smaller centres received more customers and were thus able to compete with Johannesburg. This brought to life the urban centres surrounding Johannesburg. Cook (1975) states that by the 1920s few and in some cases no whites living in those urban centres did their shopping in Johannesburg. During this period there was a rapid growth in these centres which made it possible for them to develop as relatively independent towns within a broader urban system.

Mandy (1984) identifies the cause of the development of small urban centres around Johannesburg in later years. He says that small centres emerged as a result of the migration of commercial, office, warehousing and light industrial activities from the city to the areas with better and a less congested environments. In Johannesburg for instance, there was vacant land within the attractive northern suburbs. Upmarket commercial activities and offices migrated to those areas, because of their accessibility by car, generous parking and more tranquil surroundings. This commercial decentralisation to places such as Sandton, Randburg, Parktown and Rosebank started during the late 1960s. These urban features were further prompted by technological innovations and telecommunication. Commercial decentralisation was followed by the decentralisation of office in the 1980s. During the 1990s Sandton/Midrand area became one of the South Africa's fastest growing urban nodes. High crime rates and violence in the inner city in the 1990's accelerated the growth of decentred nodes.

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According to Dewar et al (1990) major urban development in the Cape Town metropolitan area started in the 1880s although Cape

¹ By 1996 Sandton had office rentable area of 787 100sq.m, Parktown 322 800sq.m, Rosebank 265 200sq.m. compared with the total of 1 730 300sq.m. in the inner city of Johannesburg (SAPOA 1996). Other nodes include Braamfontein, Ellis Park, Ormonde, Bedfordview, Milpark Hyde Park, Illovo and Eastgate.

Town had a longer history. Urban development occurred in a linear form following main public routes. Clusters of urban centres occurred at points of higher accessibility where different transport routes interconnected. The city centre is one of these developments. Others are Bellville, Rondebosch, Observatory, Mowbray, Claremont and Wynberg. Planning, which was influenced by Garden City and Neighbourhood concepts, tried to restrict this spine development. The aim was to create self-contained towns, but this did not work out in areas which were occupied by poor communities, because of the lack of job opportunities. Ultimately, development was still focused along major axes but focussed on particular nodes. The building of African townships and Mitchells Plains for Coloureds on the Cape Flats created new nodes of development, but little economic activity was attracted to these areas. On the other hand white suburban areas continued to attract economic activities for instance office relocation occurred in areas such as Claremont, Bellville, Pinelands, Rondebosch and Newlands during the 1990s (SAPOA 1996).

The development of Durban metropolitan area occurred in almost the same manner as that of the Cape Town metropolitan area. Their locational positions and natural harbours made them attractive to the first settlers. The discovery of gold promoted the status of Durban from being a small service centre to a major export node. It also accelerated the construction of railway lines to connect this urban centre with the mining towns. Village settlements together with their commercial centres developed along railway lines which were closely aligned to existing main roads. According to Kahn (1984) these axes occurred first along the interfluvium, where Bellair, Malvern, and Escombe were established but then within Pinetown Basin and atop the Kloof Plateau. Axial development also occurred towards the north east of the main urban centre and also towards the south. Settlements such as Avoca and Umhlanga in the north and Amanzimtoti on the south were established.

According to Kahn (1984) commercial centres in the Durban area were established first around major railway stations. The major core developed in Durban central area. Pinetown became the

second important node. Other decentred nodes that developed were Kloof, Hillcrest and Amanzimtoti (see map 1). All these nodes have developed further, however, decentralisation has not occurred to the same extent as in Gauteng. Durban metropolitan area's economic activities and jobs are still concentrated in the centre and in the south industrial areas immediately to the south of the centre.

Recent authors have, however, observed an increase in the rate of decentralisation for example, Maseko (1994:109) wrote that, "as a result of economic changes and advances in information technology, a new metropolis is being created in the greater Durban area". Amongst other things that are contributing to the spatial changes, is the changing geography of office space in Durban metropolitan area. From Maseko's findings, these offices choose locations where there is adequate space for business expansion, ample parking space, pleasant environment, congestion-free environment and closer to freeways. In Durban metropolitan area, Maseko (1994) says, office relocation occurs in high income residential areas such as Westville and Umhlanga. Westville has a total office rentable area of 61 700sq.m. (SAPOA 1996).

Comparing the evolution of polycentrism in the three South African metropolitan area, it is evident that the rate and extent of polycentric development differs between cities. The polycentric nature of Gauteng is historically related to the spatial location of goldmines. In recent years high rates of decentralisation have been influenced by market forces and social factors. These factors are present to a far more limited degree in Durban and Cape Town metropolises, but nevertheless, polycentrism is occurring in these metro areas. Martens and Williamson (1996) contend that nodes such as Kloof, Hillcrest, Westville and Umhlanga are beginning to be seen as important centres in their respective local councils. This interest has been the result of new local boundaries and new elected local governments which are expected to play role in economic development (see map 2).

3.2. THE CHARACTER OF SOUTH AFRICAN EDGE CITIES.

It is obvious from the discussion above that polycentrism is not new in South African metropolitan areas although the level of significance has increased markedly in recent years. Also, the nature of development that occurred in old 'edge cities' of Johannesburg such as Springs or Germiston is quite different from what is occurring Randburg, Sandton and Rosebank or Westville in Durban today. One of the causes of the shift in the nature of polycentric development could be that of the changing nature of cities. These are the days of informational cities that are developing in a context of globalisation. The East Rand cities for example were mostly mining and service centres. The original polycentric nodes arguably provided more benefit to poorer communities adjacent to them than today's developing decentred nodes do. They were, for example, able to employ more unskilled labour as compared to the informational city. The existence of small urban centres helped in creating employment for the people who were residing closer to them.

The nature of the new edge cities benefit a few, because new jobs associated with economic restructuring require highly skilled labour and so the "spatial mismatch continues in many cities" (Government Gazette, 1995:20). Population is more concentrated in areas where there are often very few job opportunities. Cape Town metro area has been mentioned above as an example of this. Johannesburg is another example, where there is a migration of employment to the north, further away from large population of low income located in townships and informal settlements in the south. A few who are closer to these developments are not employable because they do not have skills required in jobs that have migrated to these locations.

In few years back the mushrooming of informal settlements closer to some of these suburbs have totally changed the urban form of South African metropolitan cities. There are problems associated with these spatial changes in urban areas. Urban centres that emerge outside the city cores are occupied by affluent groups. Economic activities, such as office parks emerging between

Johannesburg and Pretoria provide employment which is for only certain groups or class of people. Adjacent to these nodes and upmarket development are places such as Alexandra, which are occupied by poor people, who are probably insufficiently skilled for the economic activities emerging close to their communities. Another factor raised by Saff (1994) is that the affluent suburbs also have facilities and services that are not accessible for affordability reasons to the poor communities adjacent to them. What is emerging outside the city centres are spatial patterns that have a character of 'divided cities'.

Cape Town is enjoying rapid economic growth because of its clean environment which attracts high tech industries and its enormous tourism potential, but its spatial pattern is not different to that of other metropolitan areas in South Africa. Suburbs with attractive environments are those occupied by affluent groups and are the areas attracting new economic activities. Constantia, Rondebosch and Bellville, for example, are not accessible to the poor communities, not only in terms of transport but also in terms of their 'openness' to the poor.

Saff (1994) uses two terms in trying to explain South African urban process. He says there is segregation and racialisation of space. Segregation goes hand in hand with apartheid laws, where areas and people were separated according to their race. Racialisation is a more complex situation because separation of communities is controlled through markets. Poor communities find it difficult to access affluent places because of financial constraints and also because of attitudes of the affluent groups towards poor. Because of this separation of groups metropolitan areas have pockets of suburban cities and abandoned cities in close proximity to each other.

Economic functions emerging outside the inner cities in other countries alleviate some of the problems of fast growing metropolitan areas. They provide employment for those people living in those suburban cities. As Waddell and Shukla (1993) contend, these urban centres provide employment for the poor who cannot afford to travel long distances to where opportunities are

located. This can also be true in relation to other facilities and services located in these urban centres. Poor communities can easily access these areas instead of going to the inner city for these opportunities.

In South Africa, the benefit of the dispersed nodes for the poor is questionable. Looking back at the urban form of South African metropolitan areas, it is clear that they are characterised by separatism and racialisation of space. Poor communities find it difficult to access facilities and employment in adjacent affluent areas. Bernstein and McCarthy (1990) propose that cities or urban centres that are not accessible to the poor communities should be opened to them. Facilities that already exists should be utilised by all communities located closer to them. Polycentrism in South Africa encourages the emergence of divided city. Saff (1994) therefore calls for deracialisation of space in South African cities. It is important that polycentrism which has a potential to bring employment closer to people living far away from the inner city should work for the poor South African living within metropolitan cities.

3.3. CONCLUSION.

This chapter showed that South African metropolises have the polycentric urban form, and that different factors in different cities are responsible for this development. The most important factor about polycentrism in South Africa is its effect on the poor communities located far away from job opportunities and social amenities. The gap that should be closed by decentralisation of economic activities is left open because of the type of activities that relocate on the city outskirts; and, also because of the large concentration of inadequately skilled population located adjacent to these developments.

Racialisation of urban space also plays an important role in making multinodes inadequate in addressing the problems of the poor on the urban peripheries. South Africa's metropolitan areas remain with the problem of social and economic polarization which seem to be exacerbated by the creation of multinodal urban

centres. These issues are explored in the next chapter of the empirical study done in relation to Durban metropolitan area.

CHAPTER 4.

4.1. BACKGROUND TO THE STUDY AREAS.

The case study falls within the Durban Metropolitan Region, which is situated in southern part of KwaZulu-Natal. This region has an estimated population of about 2.5 million people, (Urban Strategy 1996). It is also said that the size and population of Durban metropolitan area is still growing at the rate of approximately 2.2% per annum. Studies showing the distribution of population and employment indicates that employment is highly centralised and far removed from large concentrations of low income residents on the periphery although there are decentralised nodes. About 80% of employment is situated in the core of the city, that is the areas including, the CBD, Berea, the Bay and around Pinetown/New Germany.

Hillcrest-Waterfall and Molweni are located on the outer western edge of Durban metropolitan region approximately 35km from the metropolitan core. Durban is easily reached from these areas by a four-lane highway and Pinetown is just about fifteen minutes drive from these areas. The western part of Durban metro is "regarded as having rural and natural landscape qualities which are worthy of conservation" (McCarthy 1996:1). The study area is located along the "greenbelt" which was used to contain the spread of Durban and Pietermaritzburg. The greenbelt policies of 1970s had an effect on limiting the growth of suburbs on the western part of Durban. This was used as a planning strategy to control overurbanisation in Durban.

According to McCarthy (1996) part of this greenbelt, for example, an area between Inchanga and Hillcrest is a major zone of potential tourism interest. Hillcrest has been identified as one of the potential areas of densification and infill on the western sub-structure of Durban metropolitan region. According to McCarthy (1996) Hillcrest/Gillitts have about 250ha which could be used for urban development, but there are different views

about this kind of development on the western edge of Durban metro. The survey included a much wider area than Hillcrest/Gillitts, but the results showed that 75% of whites felt that there should be less development in the area although 63% of blacks disagreed with this view.

Most of the rural areas on the outer western sub-structure are still controlled by tribal authorities. Molweni is one of those tribal settlements on the west under the leadership of Chief Mthembu of Inqungqulu Tribal Authority while KwaDinabakubo area falls under Chief Bhengu of Ngcolosi Tribal Authority. Political changes have forced metro governments to include part of these areas within their jurisdiction (see map 3 in the appendix).

Hillcrest was established in 1895; before this it was part of the Langerfontein farm which belonged to Gerrit P. Kemp and was surveyed in 1851. It was connected to Durban by rail which was constructed in 1897. Rail was overtaken by the construction of the road system, with the first highway being constructed in 1957. This road made Hillcrest very accessible and the area was soon developed as a residential suburb, particularly sort after by senior citizens. Hillcrest has 20% of its current population classified as senior citizens. It has a population of 5000 residents (Hillcrest Town Board 1996). It is surrounded by affluent peri-urban areas such as Kloof, Gillitts, Botha's Hill, Everton and Assegay. The business core of Hillcrest has twelve shopping centres, the largest and most recent development known as the Heritage. (These are indicated in map 4, see the appendix).

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From the interview with the town clerk, John Cragg, he indicated that private sector is responsible for development in the area;

¹Boulevard, Christiancentre, Grants, Hillcrest, Hillgate, Lillies, Richdens, Village, 8 Old Main Road, Clocktower Building, the Colony and Heritage Market.

the role of the Board, other than that of providing and maintaining infrastructure, is to approve plans submitted by private sector. A spokesperson for the residents (Mr. Auslebrook) was quoted in the Highway Mail (1996) as opposing proposed development on the following basis: development would increase traffic along the main road; the noise levels from the existing Heritage Market is already a problem for some residents; the noise problem will change the quiet nature of Hillcrest to a disjointed busy commercial and industrial centre like Pinetown; another development like Heritage would change the nature of the surrounding environment; and that Hillcrest is overcommercialised and overtraded for its population size.

The neighbouring community of Waterfall falls on the farm Lower Langerfontein. By early 1900s this community had only two stores, and was used as a tree plantation. There was also a narrow gauge train, for the transportation of wattle and gum logs. The township of Waterfall was formally developed between 1959 and 1967 by Hillcrest Estate Agency. The population of Waterfall including the Cresholme and Crestview Development areas which amalgamated with Waterfall in 1987, is now approximately 6500 permanent residents (Hillcrest Town Board 1996). Waterfall is connected to Hillcrest by Inanda Road. There is large piece of land between the two areas which presently used for sugar cane (see map 2 in the appendix). Residents of Waterfall are still dependent on Hillcrest for many services and facilities such as payment of services, high schools and the hospital.

Molweni is separated from Waterfall by a narrow strip of open space, indicated as undeveloped land in map 2. It is also accessible by Inanda road from Hillcrest. Molweni is an urban informal settlement, although many members of the community still keep cattle as part of their possessions. Molweni has a population of approximately 9 000 people (Starvrou 1992). Data for this study was collected from the section of Molweni known as KwaDinabakubo, which has approximately 600 families (Starvrou 1992). This part of Molweni was established in 1986 when people were relocated there from KwaNgcolosi because of the flooding of Inanda dam and relocated here. KwaDinabakubo has one formal

shop and a number of spaza shops. There is one school which combines both primary and secondary education. In terms of facilities the area is poorly serviced.

4.2.FINDINGS AND DATA ANALYSIS.

The empirical part of this study was divided into two surveys: the first section was an economic survey which was conducted in the Hillcrest-Waterfall node. The second section of the survey was the socio-economic survey conducted in Molweni, specifically, KwaDinabakubo. With the first survey the aim was to explore the character of Hillcrest-Waterfall since their establishment. The aim of the second survey was to explore the character of the population of KwaDinabakubo.

4.2.1. HILLCREST-WATERFALL SURVEY.

As indicated in the methodology both structured and unstructured interview type were used in the study. From the unstructured survey a historical background of the study areas was collected. It has been used to provide the context for the case study and to develop an understanding of the character of the study areas. Hillcrest and Waterfall were established within a rural environment and still have something of that character in the area or at least the impression of a carefully cultivated rural village. Older residents in particular still promote this perception about their area and still romanticize the rural character of Hillcrest-Waterfall node. Estate agents and the Town Board also emphasize the natural beauty and the village atmosphere of Hillcrest and Waterfall. As indicated in the Highway Mail (1996), urban development is not perceived as a good thing within this country environment because of the fear that this would change the quiet nature of the area.

The sample size in the business survey was thirty. Random sampling was used in selecting interviewees. As the researcher was personally handling the interviews there was no difficulty in administering questionnaires. Coding was done after the

completion of the interviews. The interpretation of data is based on the tables formulated from the matrix.

The economic survey provided an indication of the nature of economic activities that occur in Hillcrest-Waterfall node. Table 1 summarizes these findings .

Table 1.
Type of Economic Activities at the CBD of Hillcrest-Waterfall.

Nature of business.	Number.	%
Retail	21	70
Office	9	30
Total	30	100

Hillcrest-Waterfall's central business area is still dominated by retail functions. Office relocation that is occurring rapidly in Westville, as observed by Maseko (1994), has not arrived on any great scale in Hillcrest-Waterfall. Various reasons could be attributed to this. One could be the distance factor. Another could be that Durban metropolitan area is not developing as fast as the Witwatersrand. At this point there is still no urgency of utilisation for this somewhat remote node. The last factor could be that some applications have been turned down by the Town Board, which is intent on preserving the rural character.

Linked to the type of functions located in the CBD of this nodal development is the nature of the link between these functions and other nodes within the Greater Durban metropolitan area and other towns or cities. Table 2 summarises those businesses that are independent and those that are still linked to head-offices outside Hillcrest-Waterfall.

Table 2(a)

Businesses dependent/independent to their head-offices.

	Number	%
Independent	24	80
Branches	6	20
Total	30	100

Table 2(b)

Location of Head-offices.

Town/city	Number	%
Pinetown	2	6,66
Durban	1	3,33
Amanzimtoti	1	3,33
Johannesburg	1	3,33
Cape Town	1	3,33
Not branch	24	80
Total	30	100

Table 2(a) indicates that the majority of businesses in Hillcrest-Waterfall are mainly independent. They are not part of the decentralisation processes that are occurring in fast growing metropolitan areas such as Johannesburg. These are just small independent shops which are aiming at servicing the growing population in the area. Table 2(b) also indicates that economic functions in Hillcrest-Waterfall are not the results of the problems or push factors of the inner city. Only 3,33% of the sampled businesses in Hillcrest-Waterfall node have links with Durban.

Table 3 summarizes the year of establishment of economic functions occurring in Hillcrest-Waterfall. From the table below it is clear that most of economic change has taken place during the 1990s. This could be the result of a number of factors which are summarized in table 9 and 10. Economic growth was very stagnant prior to the 1980s. This was also picked up from the informal conversation with the local people, who said this node was almost dead prior the 1980s. What they are observing taking place is regarded as very recent. This kind of development is similar to the 'urban village' development identified by Lowe et al (1995) and gentrification discussed by Williams (1986).

Table 3.
Year of Establishment of Businesses in Hillcrest-Waterfall.

Year	Number	%
Prior 1960	1	3,33
1960-1969	1	3,33
1970-1979	3	10
1980-1989	9	30
1990-1996	16	53,33
Total	30	100

The latest buildings such as those in 'the Heritage' have incorporated Victorian style into neo-traditionalist or post-modern architecture. The names given to some of the shopping complexes, such as The Colony and Heritage indicates the bond residents still have with the British culture. This new developments indicates the desire for the residents to retain their own dominion with a British and a rural ambience within this African metropolitan area .

Table 4 shows the mobility of enterprises within Hillcrest-Waterfall node. From the table below it is clear that there are few enterprises that have migrated from areas outside Hillcrest-

Waterfall. Only a few enterprises have relocated from Pinetown to Hillcrest-Waterfall. A large component of businesses have not changed their premises. The reason for this, is that, this large number is made up of the businesses who have been not more than ten years in the area. Those businesses that have changed premises are those who have started as small enterprises in the area, but have grown through the years. These businesses indicated that the move was the because of the need for expansion.

Table 4.

Location where Enterprise was Initially Located.

Location	Number	%
Same Premise	22	73,33
Different Premise	3	10
Kloof/Botha's Hill	3	10
Pinetown	2	6,66
Total	30	100

This table again emphasises the point that business development in Hillcrest-Waterfall is not the result of decentralisation of inner city activities. One enterprise which was initially located in Pinetown indicated that their migration was caused by the need for space for expansion. Another factor that they raised was that of lower rentals as compared to Pinetown. Another enterprise that indicated the need for space for expansion as their reason for migration was initially located in Kloof.

Table 5 summarizes the reasons for enterprises to locate in Hillcrest-Waterfall. The majority of enterprises indicated that they started their businesses in Hillcrest-Waterfall because they saw the growth potential of the area. They took advantage of the market gap at the time of the establishment of their businesses. In table 1 it was indicated that most of the

enterprises are retail functions, therefore one can say that this nodal development still plays the role of a service centre on the outer west of Durban metropolitan area.

Few enterprises indicated that the cause for the establishment of the business is because the owner lives in the area. In table 7 though it is clear that the majority of the employees reside in Hillcrest-Waterfall and the surrounding white suburbs. The low percentage then cannot be the indication that other owners do not live in the area. This could mean that the reason was not seen as important to other respondents.

Businesses who have relocated have generally indicated as their reason for establishment that, they needed a bigger space for expansion. However table 4 indicates that there are very few of those at this stage. Table 5, like table 2(a) and table 4 shows that Hillcrest-Waterfall 's role within the Durban metropolitan is presently not that of absorbing the decentralised economic activities in a way that nodes such as Westville do.

Table 5.

Reasons for Establishing Enterprise in Hillcrest-Waterfall.

Reason	Number	%
Growth in Hillcrest-Waterfall	22	73,33
Owner lives in Hillcrest-Waterfall	4	13,33
Space for Expansion	2	6,66
Good environment	1	3,33
No Response	1	3,33
Total	30	100

As Kahn (1984) has indicated, invasion and succession is one of the processes of commercial development; this can be witnessed in Hillcrest and Waterfall which were initially residential areas for middle class whites who were retreating from the congested

city. A commercial node has been developed by enterprises who took advantage of the accumulation of threshold population. This cycle of growth began with the construction of the highway in 1957 which improved its accessibility, and which in turn made it possible for the growth of it as a residential suburb.

In trying to understand the role of Hillcrest-Waterfall, the survey tried to investigate the type of employment provided by this node. This has been investigated through the positions held by different employees in enterprises, this is shown by Table 6(a).

Table 6(a).

Positions of the Employees in their Places of Work.

Position	Number	%
Directors	12	14,28
Managers	16	19,04
Professionals	10	11,90
Technicians	3	3,57
Clerks	17	20,23
Semi-skilled	10	11,90
Unskilled	16	19,04
Total	84	100

Table 6 (b) .

Type of employment in Hillcrest-Waterfall.

Type	Number	%
Skilled	58	69,04
Semi-skilled	10	11,90
Unskilled	16	19,04
Total	84	100

Table 6 (b) tries to give a more focused perspective on the nature of employment provided in Hillcrest-Waterfall node. These tables indicate that most people are engaged in clerical jobs or higher positions. As most businesses are independent enterprises, they have managers or directors who are mostly the owners of these businesses. Most employees in Hillcrest-Waterfall are skilled and a few are semi-skilled. Hillcrest-Waterfall presently has a low percentage of unskilled labour. The demand for workers in these job categories is far lower than in the inner city.

The nature of employment in Hillcrest-Waterfall is further investigated by studying the places of residence of the employees. This is summarized in table 7.

Table 7.

Places of Residence of the Employees.

Area	Number	%
Hillcrest-Waterfall and surrounding white peri-urban suburbs (Kloof, Everton etc.)	31	50,82
Pinetown/New Germany	7	11,47
Durban	5	8,19
Predominately Indian suburbs (Reservoir Hill, Phoenix etc.)	2	3,28
African Residence (Molweni, Embo etc.)	16	26,23
Total	61	100

The majority of the people employed in Hillcrest-Waterfall live in white suburbs, these include Hillcrest, Waterfall, Kloof, Gillitts, Everton and Botha's Hill. Only 16% of the employees come from the surrounding peri-urban areas which include Molweni, Embo, KwaNgcolosi, Marianhill and areas as far as Hammarsdale. These areas are occupied by African people, who in South Africa have a history of low levels of formal education. Studies also indicates that the majority of Africans living in peri-urban areas are unskilled for white- and to a certain extent blue-collar jobs. Linking table 7 with table 6(a) and 6(b) a conclusion could be made that the unskilled labour for which there is limited employment comes from the surrounding African peri-urban areas.

To investigate the perception of enterprises about the nature of population they are servicing and also to estimate the radius of their threshold population, a question was set to inquire about the market targeted by businesses in Hillcrest-Waterfall. A high percentage of the enterprises indicated that they are targeting the upper and middle income group. A few indicated that they serve all segments.

Table 8.

Market Targeted by Enterprises in Hillcrest-Waterfall.

Market	Number	%
Upper to Middle	20	66,66
Middle to Lower	2	6,66
All Segments	7	23,33
Specialised	1	3,33
Lower	0	0
Total	30	100

In most instances these were the retail functions such as supermarkets and petrol filling stations. No enterprise in Hillcrest-Waterfall indicated that they service the low income group only. The specialised category indicated that it is mostly serving schools in the area, (see Table 8). From this table, Hillcrest-Waterfall is clearly an urban node that serves primarily the upper and middle class whites.

The survey explored further the nature of the Hillcrest-Waterfall urban node by investigating the perception of the enterprises about this node. This has been achieved by trying to find the advantages and disadvantages of establishing their businesses in Hillcrest-Waterfall node. Advantages are shown in table 9.

The most important reason that make businesses want to invest in this area is its potential to support such development. Again this is closely linked to the type of market businesses aim to reach. Suburbanisation might have been the result of white retreat from the busy city but from the reasons listed by respondents, choice of business location indicated here is not the result of the ills of the inner centre but rather has to do with independent enterprises who wanted to take the advantage of a market gap in an expanding residential area.

Table 9.

Advantages of establishing business in Hillcrest-Waterfall.

Reason	No.	%
Growth in the Area	14	46,66
Good environment	2	6,66
Minimal competition	1	3,33
Enough parking and future expansion space	1	3,33
Rental advantage	1	3,33
Friendly Customers	1	3,33
More than one reasons	9	30
No Response	1	3,33
Total	30	100

Table 10 summarizes the cited disadvantages of establishing a business in Hillcrest-Waterfall. Many indicated that they have not yet encountered any major difficulties in their localities. Asked about the crime problem, one respondent said, that is a national issue which cannot be confined to a small area. The list of disadvantages is provided in table 10.

Table 10.

Disadvantages of Establishing Business in Hillcrest-Waterfall.

Reason	No.	%
None	18	60
Not enough business	5	16,66
Distance from the City	3	10
Competition with Similar Enterprises	1	3,33
Bad weather for Trade	1	3,33
More than one Reason	2	6,66
Total	30	100

The advantages that are indicated by enterprises are mostly related to the relatively small size of this urban node and its locational position on the far edge of the where urban development is concentrated.

4.2.2. CONCLUSION TO HILLCREST-WATERFALL SURVEY.

The data presented above indicates that the Hillcrest-Waterfall nodal development is dominated by retail functions which service mostly upper and middle class whites. Job opportunities in these two urban centres are occupied by skilled people who reside in Hillcrest-Waterfall and the surrounding white peri-urban suburbs. Enterprises that are located in these urban centres are not generally linked to other towns or cities or to the inner city of Durban. There is much about Hillcrest-Waterfall that resonates with Lowe et al's (1995) argument that gentrification of the countryside occurs because the 'English' middle and upper classes want to create their own haven and preserve colonial culture in urban villages that reminds them of some romanticised, imaginalised English past. On the final note, Hillcrest-Waterfall economic development is highly controlled by

conservatives who oppose change which might bring benefit a wider range of people.

4.2.3. SOCIO-ECONOMIC SURVEY AND DATA ANALYSIS OF MOLWENI.

Observations made of Molweni, especially KwaDinabakubo, gave the researcher a general impression that this is a high density low income area. Other people call this area Tintown because houses are made of corrugated iron. These impressions were reinforced by the data presented in table 11, which shows the level of education of those respondents who were selected for sampling.

Table 11.

Level of Education of Molweni Residents.

Standard	Number	%
0-Std 2	5	16,66
Std 3-Std 6	11	36,66
Std 7- Std 10	12	40
Technical skills/Professionals	2	6,66
Total	30	100

Basically Molweni people have generally low levels of education. Very few of the surveyed population have professional training. These findings are common in socio-economic surveys done in other poor communities in South Africa and elsewhere in the world.

Table 12 indicates areas of employment of the respondents. The results of this investigation shows that there is a high rate of unemployment in the area. This table shows that most people interviewed are employed within Molweni itself. This is followed by areas of industrial concentration; Pinetown and New Germany. Significantly, Hillcrest-Waterfall absorb only 10% of the Molweni workers people. This is a very low percentage especially considering that Molweni is in such a closer proximity to the growing urban node of Hillcrest-Waterfall. People who are employed in Hillcrest-Waterfall in table 12 indicated that they are employed as domestic workers and one is employed by a

building construction company. These people form part of the small unskilled labour force in Hillcrest-Waterfall.

Table 12.

Places of Employment of the Molweni Residents.

Area	Number	%
Molweni	6	20
Hillcrest-Waterfall	3	10
Botha's Hill	2	6,66
Pinetown/New Germany	5	16,66
Isipingo	1	3,33
Durban	3	10
Unemployed	10	33,33
Total	30	100

Table 13a indicates the type of employment in which employed Molweni people do. Data in table 13(b) will be discussed concurrently with table 13(a).

Table 13a.

Type of Employment of Molweni people.

Nature of Employment	Number	%
Office	3	15
Shop	2	10
Factory	4	20
Domestic	4	20
Government	5	25
Other(e.g. Taxi Driver)	2	10
Total	20	100

Table 13(a) indicates type of employment in which the people of Molweni are engaged in, but a clearer picture is given in table 13(b). A large component of these people are engaged in unskilled labour. There are no persons engaged in managerial nor supervision positions. There are no persons with technical skills. A very low percentage of interviewed people indicated as have clerical skills, which might not mean that

Table 13b.

Positions Held in Places of Employment.

Position	No.	%
Managers	0	0
Supervisors	0	0
Clerks	1	5
Technicians	0	0
Professionals	2	10
Semi-skilled	4	20
Unskilled	13	65
Total	20	100

s/he was trained for the job. A low percentage of the surveyed population were categorised as semi-skilled; this included people who are drivers in their places of employment. This data characterises Molweni as a low income area.

Part of the survey looked at the shopping patterns of the Molweni people. Because of the range factor, shopping behaviour of the residents were divided into three basic needs of the majority of households. Theoretically, the range of goods determine the shopping behaviour of people. It can be assumed that Molweni people would choose to do their shopping in Hillcrest-Waterfall,

given the proximity of this area to Molweni. However, as shown below this is not the case.

Table 14(a) shows where people buy their groceries. There are people who have shown clear patterns, but others do their shopping in more than one area. Pinetown is the favourite area where most people do their shopping. Others indicated that they prefer Pinetown because of transport reasons. They indicated that it is difficult to get transport from Hillcrest or Waterfall to Molweni despite the closeness of these areas. People who usually do their shopping in Hillcrest and or Waterfall are those who work in these areas. Sometimes these shopping trips occur when people go to the post office or the clinic.

Table 14a.

Shopping Patterns of Molweni Residents (Groceries).

Centre	Number	%
Hillcrest/Waterfall/Molweni	2	6,66
Hillcrest only	2	6,66
Pinetown/Molweni	3	10
Pinetown/Hillcrest/Waterfall	12	40
Pinetown only	10	33,33
Durban only	1	3,33
Total	30	100

The data presented below shows that none of the Molweni residence purchase clothing and furniture in Hillcrest-Waterfall node. People of Molweni prefer to go to Pinetown for clothing and furniture. Very few people from Molweni go to Durban for shopping, the survey indicates that those who go as far as Durban are those employed there.

Table 14b.

Shopping Patterns (Clothing and Furniture).

Urban Area	Clothing		Furni.	
	Number	%	Number	%
Hillcrest/Waterfall	0	0	0	0
Pinetown only	27	90	27	90
Pinetown/Durban	2	6,66	1	3,33
Durban only	1	3,33	1	3,33
No response			1	3,33
Totals	30	100	30	100

An investigation of the trips made by Molweni people to Hillcrest and Waterfall has been made with the aim of evaluating the usefulness of these urban centres to the community of Molweni. Table 15(a) shows the frequency of the trips to Hillcrest and/or Waterfall.

Table 15a.

Frequency of Trips to Hillcrest and/or Waterfall.

Frequency	Number	%
Daily	2	6,66
Twice a Week	2	6,66
Once a Week	6	20
Once a Month	10	33,33
Never	10	33,33
Total	30	100

Table 15b.

Reasons for Visiting Hillcrest and/ or Waterfall.

Reason	Number	%
Shopping	14	46,66
Banks	2	6,66
Bank and shopping	2	6,66
Work	2	6,66
Never Visit the area	10	33,33
Total	30	100

People who indicated visiting Hillcrest-Waterfall daily are those who work there. The majority of the people seldom visit these areas. People who indicated that they do shopping in Hillcrest and Waterfall said they usually send their children on these trips. A significant number of people indicated that they never visit Hillcrest or Waterfall. Table 15(c) shows businesses that often visited by Molweni people who sometimes to go to Hillcrest-Waterfall do their shopping. A small percentage indicated that they only go to banking institutions. None of the residents indicated that they go to any of the many small independent shops in Hillcrest-Waterfall.

Table 15c.

Businesses Visited in Hillcrest/Waterfall.

Name	Number	%
Spar-Waterfall	5	16,66
Pick 'n Pay-Hillcrest	9	30
Spar/Pick 'n Pay	4	13,33
Banks	2	6,66
Never Visit	10	33,33
Total	30	100

People of Molweni have different views about the role Hillcrest and Waterfall in their community. A high percentage of the people of Molweni do not see the development of Hillcrest-Waterfall as being of value to them. But a minority suggestion that such developments will bring employment and shopping facilities closer to people. Table 16 summarizes the perception of Molweni people about economic changes in Hillcrest-Waterfall. When asked to elaborate on

Table 16.

Perception about the Positive Role of Hillcrest-Waterfall in Molweni.

	Number	%
Yes	10	33,33
No	18	60
Don't Know	2	6,66
Total	30	100

their responses some people complained about the inefficiency of public transport from Hillcrest and Waterfall. They mentioned that it is difficult to find a taxi from these points to their homes. All taxis depart from Pinetown with full loads. Other

said things are expensive in these two urban centres, and also they prefer Pinetown because the choice is wider.

The survey looked into the role of Hillcrest-Waterfall in the provision of facilities to the community of Molweni. Hillcrest and Waterfall have well established facilities such as schools, clinics, hospitals and other facilities which can benefit Molweni's social conditions, this is indicated in table 17.

Table 17.

Facilities in Hillcrest-Waterfall Used by Molweni residents.

Facility	Number	%
Clinic	9	30
School/Clinic/Cinema/Sportfield	10	33,33
Hospital	0	0
None	11	36,66
Total	30	100

A significant percentage of people use the clinic in Waterfall however, none indicated using the hospital in Hillcrest. Molweni residents said they go to King Edward hospital, which is more than 35km away from this area. A few indicated that their children attend school in Waterfall. One person indicated that he uses sportfield in Hillcrest during his lunch time. A few indicated that their children go to cinema in Waterfall. A significant percentage indicated that they are not using facilities in Hillcrest-Waterfall. They stated their reasons as follows. These facilities are too far from their area; they do not have money to use them; they do not need them; they have transport problems; and they are controlled by whites.

4.2.4. CONCLUSION TO THE MOLWENI STUDY.

The data presented above indicate that Molweni is definitely a low income area. A high percentage of people have low levels of

education and lack skills to be employed in white collar jobs. The data also shows, that Molweni is a poverty stricken area with a high level of unemployment. For the purposes of the study the important finding is that, the community of Molweni do not significantly make use of the urban node adjacent to them, and a significant percentage of people do not see the development in Hillcrest-Waterfall as having any positive effect on their community. Many felt that Hillcrest-Waterfall was the domain of wealthy white people and they therefore felt excluded socially. Transport problem was cited as one of the barriers to access these areas. However, a few have hoped that the development of Hillcrest-Waterfall will benefit their community.

4.3. CONCLUSION.

The analysis of the Hillcrest-Waterfall and Molweni data clearly indicated that these areas that are located adjacent to each other have totally different characters which are quite opposed to one another. Hillcrest-Waterfall have a character of a suburban centre for the middle and upper income whites and on the other side Molweni is an 'underclass' community whose members have to travel past the urban centre of Hillcrest-Waterfall to get access economic and social services at far greater distance.

CHAPTER 5.5.0. CONCLUSION AND RECOMMENDATIONS.5.1. SYNTHESIS.

The empirical study of Hillcrest-Waterfall and Molweni was intended to test whether there is any significant benefit to the poor communities located on the edge of metropolitan areas adjacent to nodal developments. The study also intended to test whether new forms of employment on the metropolitan peripheries accelerate social and economic polarization. The following assumptions were investigated:

*Job opportunities in Hillcrest-Waterfall are occupied mostly by local white residents.

*The type of job opportunities in Hillcrest-Waterfall requires mostly skilled and semi-skilled labour.

*High percentage of Molweni residents have low levels of education and do not have adequate skills for such jobs.

*Molweni residents do not perceive socio-economic development in Hillcrest-Waterfall as having any positive impact on their community.

Before testing the hypotheses and assumptions the study tried to investigate the nature of Hillcrest-Waterfall as a decentred node of Durban metropolitan area. In doing so it drew on concepts developed in international literature, for example, cities-within-cities, edge cities and urban village development. It was found that Hillcrest-Waterfall has high percentage of retail functions which are independent from those occurring in the inner city, and were not a result of relocations. There is a significantly low level of office development presently occurring

in Hillcrest-Waterfall node. Significantly, low levels of commercial and office decentralisation in the case of Hillcrest-Waterfall rebuts the theory that the nodes that emerge outside the inner city are necessarily the result of relocations following the increase in agglomeration diseconomies resulting from rising traffic congestion, high crime rate, blight in the inner city and rising office rents.

Writers such as Gordon et al (1986), Suarez-Villa (1989) Heikkila et al (1989), Waddell and Shukla (1993) and McDonald and Prather (1994) argue that the development of multi-nodes within metropolitan areas provides employment for the residents located adjacent to those nodes. They view this form of development as a way of solving employment and commuting problems that plague metropolitan areas. These arguments are relevant for the case study only in terms of the employment benefits for Hillcrest-Waterfall employees residing in white residential areas surrounding these nodes. But this development does not benefit much of the population from the African residential areas, this argument can therefore be refuted in the case of the Molweni residents.

The Hillcrest-Waterfall node was predominantly a residential area thirty years back. McCarthy (1996) shows that the area was essentially of a rural nature. From the 1980s to 1990s there has been rapid economic growth in the area. The growth of the area is mainly supported by local people in the upper and middle income categories. This is shown by high percentage of independent enterprises running in this node.

The characteristics of Hillcrest-Waterfall node suggest that it may be a future edge city within the Durban metro, at present, however, it is best described as an urban village. The Victorian style of the Heritage centre, the rural feel of the study area

and the exclusion of low income group through the provision of services that cater for upper and middle income groups give Hillcrest-Waterfall the character of the sort of urban village described by Lowe et al (1993). This is also supported by the comments made by Hillcrest's spokesperson in the Highway Mail (1996) that shows that development is highly controlled by a conservative 'anti-development' local community.

Significantly the findings of the study show that there is no close relationship between Hillcrest-Waterfall and Molweni. The Hillcrest-Waterfall node which is presently enjoying economic growth in retail functions, does not have high percentage of unskilled labour and also of employees from the surrounding African residential areas. The Hillcrest-Waterfall node employs a high percentage of skilled labour from white residential areas. These findings emphasize the relevance of Downs (1973) and Mingione's (1993) argument of the closed urban centres, that cater for the middle income groups only.

The assumption that new forms of employment on the periphery are accompanied by social and economic polarization is also shown to be true by these findings, although this can be argued on a sub-regional scale (the outer western sub-structure). The type of economic functions happening in this node benefit mostly people with adequate skills and exclude those who are less qualified, whereas a few kilometres from this node there is a community with high level of unskilled people

This economic polarization or rather the mismatch between the needs of the Molweni residents and the benefits provided by Hillcrest-Waterfall. A high percentage of Molweni residents indicated that they prefer to purchase their low order goods in Pinetown rather than Hillcrest-Waterfall and none of them indicated purchasing high order goods in this node. On the other

hand none of the enterprises in Hillcrest-Waterfall indicated that they service low income groups only. A high percentage of enterprises indicated that they service upper and middle income groups, illustrating the exclusion of lower income group from economic activities in this node.

The hypothesis that there are suburban mini-cities that are largely closed to the poor communities, thus increasing social polarization, has been shown to be true in relation to the case-study as there is significantly very few residents of Molweni who are using facilities in Hillcrest-Waterfall because of financial and transport constraints but also because of the perceived attitudes of the residents of Hillcrest-Waterfall.

As informed by the study my hypothesis that the multinodal urban forms do not significantly benefit poor communities located adjacent to them can be accepted. My hypothesis that new forms of employment on the metropolitan peripheries are accompanied by accelerating social and economic polarization can also be accepted as well as various assumptions as outlined in the first chapter.

5.2.RECOMMENDATIONS.

The findings of the study undertaken in Hillcrest-Waterfall and Molweni raise concern about polycentrism in metropolitan areas.

Should planners, for example push for this kind of development in metropolitan areas if it benefits certain groups of people and exclude the most disadvantages groups? "Polycentric city is already on the agenda in South Africa" (Government Gazette 1995:20).

Polycentrism per se is not a problem but rather the issue of the control of these nodal developments and networks of power within

them. As previously indicated, affluent communities have power to exclude others from their territories, but this can be ameliorated through the intervention of democratically constituted government. This might be a difficult situation where the local authority representatives are drawn from the same groups that are excluding the poor from development, but local elections in South Africa made it possible for the amalgamation of councils from different communities. This amalgamation is a first step towards deracialisation of space in urban areas. However, even with amalgamation it may be possible for a local elite to protect their position to such an extent that they exclude others from the benefits of multi-nodal urban development.

Metropolitan government should have a say in decisions made at local level, and improve channels of communication and networking between communities and between various departments involved in development projects. The interest of the poor should be protected by the metro government by ensuring that integrated development is pursued throughout the metropolitan region. Metropolitan government should also ensure that there is equal distribution of resources between areas that will benefit all. Underprivileged areas adjacent to closed urban centres should receive special treatment from the planning practitioners.

Polycentrism or multinodal urban development is accepted as part of the solution to the employment and commuting problems experienced in the metropolitan peripheral areas, but current forms and the creation of 'politics of exclusion' as it is the case with Hillcrest-Waterfall and Molweni requires bold policies that will ensure that the urban poor enjoy benefits. The following recommendations are proposed particularly for the facilitation of development of Molweni community:

*** Firstly, the metropolitan government should play an active role in managing development and in decision making.**

Although local authorities have been given power to make decisions and manage developments in their respective sub-structures within metropolitan areas, metro government still has an important role to play in co-ordinating development projects within the whole region. This co-ordination helps to eliminate unnecessary competition within sub-structures. Hillcrest-Waterfall will stand a chance of developing its own local economic development strategies without being intimidated by other sub-structures. In trying to balance economic development within Durban Metropolitan Region, new development projects should be brought in Hillcrest-Waterfall node. There is a need for the creation of employment in Hillcrest-Waterfall node to alleviate serious unemployment problem shown by the study in Molweni. The type of employment that should be directed in this node should accommodate the high percentage of unskilled labour residing in Molweni.

Metropolitan government should apply the Development Facilitation Act in dealing with conservative 'anti-development' people in Hillcrest-Waterfall node. This legislation strives to bypass bottlenecks in existing regulations, especially those impeding the delivery of serviced land for low-cost housing. This Act also seeks to promote efficient and integrated land development through a set of principles which include, the location of residential and employment opportunities in close proximity or integrated with each other; a diverse combination of land uses; countering urban sprawl; optimising the use of existing resources, notably underutilised infrastructure; and promoting environmentally sustainable land development.

Metro government should also provide funding, resources and expertise but also to actively ensure that communication linkages between Hillcrest-Waterfall and Molweni are healthy and progressive.

*** Secondly, the role of planning in Hillcrest-Waterfall should be enhanced.**

Market-led economic development in Hillcrest-Waterfall favours the skilled and the higher income groups who are obviously targeted by entrepreneurs. Development should not be left in the hands of entrepreneurs only, but there should be partnership between public and private sectors. Instead of being at logger heads with developers, local authority should create a healthy environment that would attract businesses into the node. The aim should be to create employment for Molweni community and also of providing services affordable to them. Planning should also emphasise the role that can be played by Hillcrest-Waterfall as a sub-regional node in the outer west sub-structure and also as an activity corridor between Durban and Pietermaritzburg. This can be done by attracting businesses into the area, which can be achieved by removing 'politics of exclusion' and 'anti-development' ideologies in this urban village. Gentrification should be aimed at bringing employment that will benefit all communities on this peripheral edge of Durban Metropolitan Region which will to a greater extent alleviate 'spatial mismatch' in this region. Planning should actively change this 'urban village' into an 'edge city' by managing economic development instead of controlling it.

*** Thirdly, planning should focus on the development of spatial 'connecting corridor'.**

McCarthy and Smit (1988) argue that activity corridors can be used to channel movement from existing predominantly white areas to predominantly African residential areas. African townships or residential areas do not have the necessary threshold to allow for the development of rich facility environments and commercial development, activity corridors are seen as a solution to these

problems. The study showed that one of the serious problems facing Molweni people is efficient public transport between their area and Hillcrest-Waterfall node. Public transport closes their chances of easily accessing this node closer proximity than Pinetown.

Inanda Road which presently has a concentration of economic development can be used as an activity corridor to connect Hillcrest-Waterfall node and Molweni. A concept map for this planning strategy has been developed (see appendix, map 5). A piece of land presently used for sugar cane (see map 2) should be used for low-cost housing, informal sector and light industries. There are areas of attraction which should be developed for tourism and for recreation purposes, for example Inanda Dam which can be used for fishing and other water sports for middle income groups. To promote integration and functionality of Inanda Road this recreation should be access through the route passing closer to Molweni so that informal traders would be able to benefit from the passing tourist.

*** Fourthly, there should be an emphasis on the development of public transport.**

In terms of integrating the poor communities into nodes, transport is the key. This has been mentioned as a problem to Molweni residents. This is closely linked to the development of spatial 'connecting corridors' because their success will increase densities which are the key to transportation problems. Mixed land uses attract people of different income groups and also increases thresholds required by economic activities, including transportation of people. High concentration of mixed economic activities along Inanda Road will increase the efficiency of the public transport between Hillcrest-Waterfall and Molweni.

* **Fifthly, there is an urgent need to develop human resources.**

New forms of employment require certain levels of skills which cannot be provided by Molweni community because of their levels of education shown by the study. Therefore the government has a responsibility of funding projects to develop human resources in this community. This is a long term goal, but it is necessary for the sustainability of development. Programmes to empower Molweni residents can be a joint venture between communities, public and private sectors. Planners as managers should facilitate these programmes to ensure that development benefits all. The findings also showed that there is a shortcoming in the planning department in Hillcrest-Waterfall, this department also need restructuring and empowerment of those who are in office. A planner is needed to give guidance to the local council and manage development projects which should cater for the Hillcrest-Waterfall and the surrounding formal and informal settlements.

5.3. CONCLUSION.

In concluding this work, I strongly support the multinodal urban development in metropolitan areas because of the decentralisation of employment and facilities that benefit communities located on the edges of metropolitan areas. This benefit commuters who spend a lot of money and time travelling daily from peripheries to the core of large metropolitan areas, where employment was initially located. But this work showed that it is not every community that benefits from multinodal urban development, decentred nodes such as Hillcrest-Waterfall benefit to a greater level middle and upper income communities and to the lowest level the lower income communities. The study showed that the problem is not that of the urban form, but it that of the control of development within this node. Planning can be used to bring about desired urban processes that will increase urban efficiency

in Hillcrest-Waterfall urban centre. This 'urban village' can be revitalised and be changed into a vibrant 'edge city' or a 'city-within-city' of the greater Durban Metropolitan Region. These changes should be accompanied by planning strategies that will emphasise integration of peripheral communities. This can be achieved by promoting spatial, physical, social and functional integration between Hillcrest-Waterfall and Molweni. Inanda Road is the solution in creating a spatial 'connecting corridor' to facilitate integration here. Further investigation is needed to evaluate the type of land uses attractive to entrepreneurs and to the communities that can be developed along Inanda Road.

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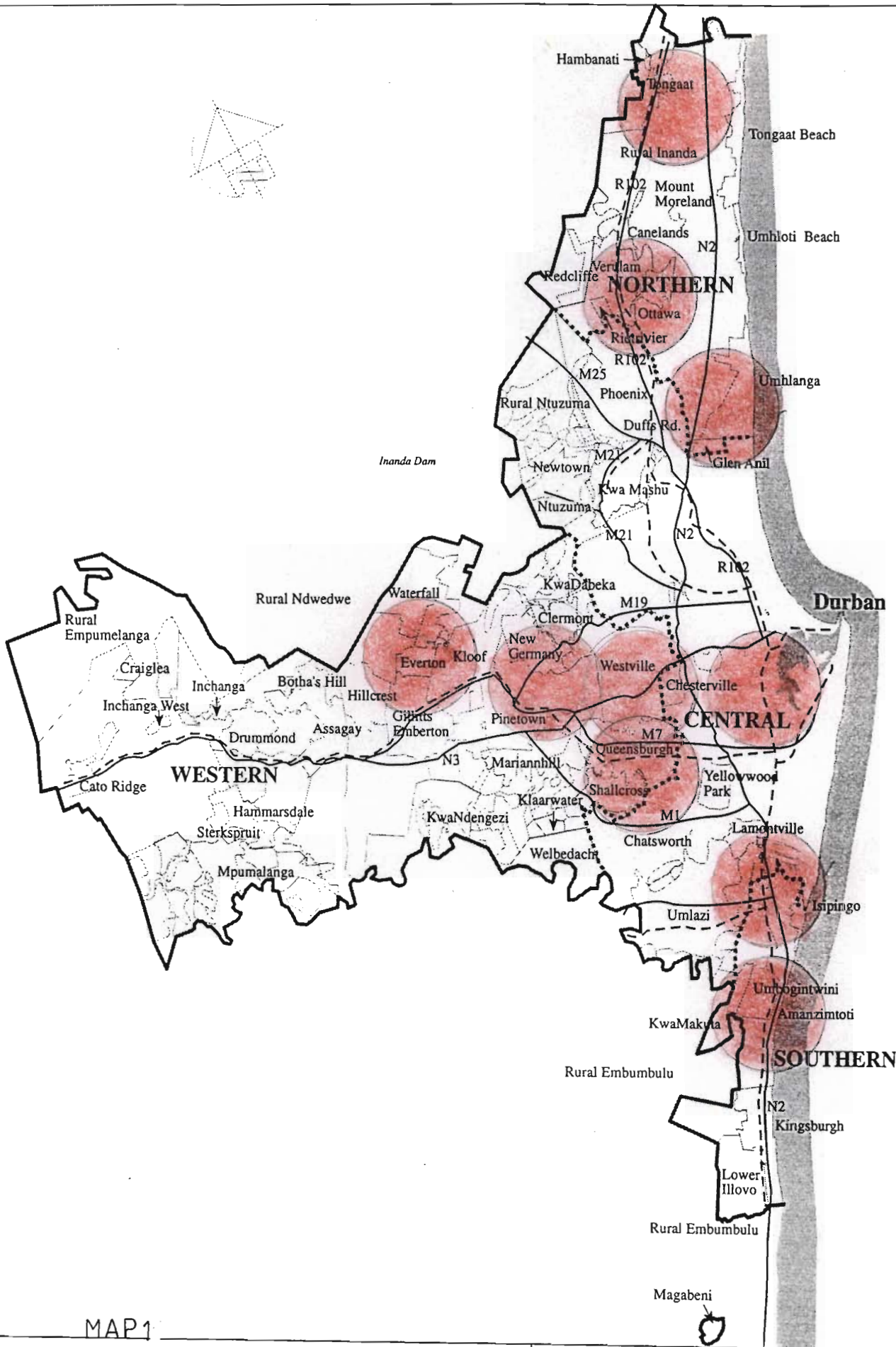
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APPENDIX I.

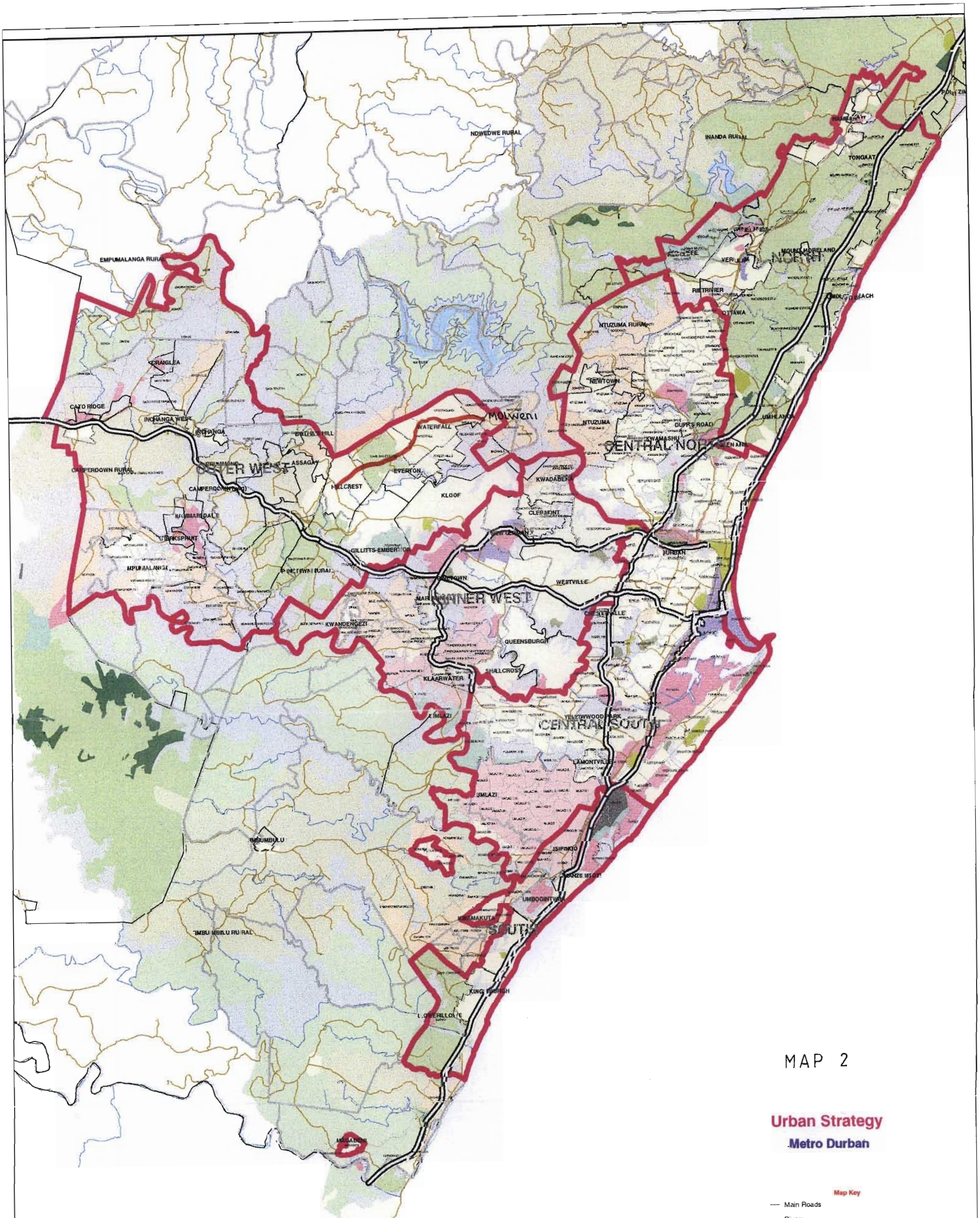


MAP 1

- Durban Metropolitan Boundary
- - - Local Authority & Settlement Boundaries



SERVICE
NODE



MAP 2

**Urban Strategy
Metro Durban**

Existing Land Use

Urban Formal	Market Gardening	Undeveloped Land	Recreation
Urban Informal	Sugar Cane	Industry	Reservoir
Urban Mixed	Forestry	Commerce	Airport
Rural	Smallholding	State / Institution	

Map Key

- Main Roads
- Rivers
- Previous Local Authorities
- Tribal & Community Authorities
- Community Areas
- Local Council Areas
- Major Roads
- INANDA ROAD



*Map prepared from data from the 2007 Census of Population and Housing, Census 2007, Statistics South Africa. The boundaries of the municipalities are shown in black. The boundaries of the local council areas are shown in red. The boundaries of the tribal and community authorities are shown in grey. The boundaries of the community areas are shown in light blue. The boundaries of the previous local authorities are shown in light green. The boundaries of the major roads are shown in black. The boundaries of the Inanda Road are shown in red. The boundaries of the main roads are shown in grey. The boundaries of the rivers are shown in blue. The boundaries of the undeveloped land are shown in light green. The boundaries of the recreation areas are shown in light blue. The boundaries of the reservoirs are shown in light blue. The boundaries of the airports are shown in light blue. The boundaries of the state/institution areas are shown in light blue. The boundaries of the industry areas are shown in light blue. The boundaries of the commerce areas are shown in light blue. The boundaries of the forestry areas are shown in light blue. The boundaries of the sugar cane areas are shown in light blue. The boundaries of the market gardening areas are shown in light blue. The boundaries of the urban formal areas are shown in light blue. The boundaries of the urban informal areas are shown in light blue. The boundaries of the urban mixed areas are shown in light blue. The boundaries of the rural areas are shown in light blue. The boundaries of the smallholding areas are shown in light blue. The boundaries of the state/institution areas are shown in light blue.



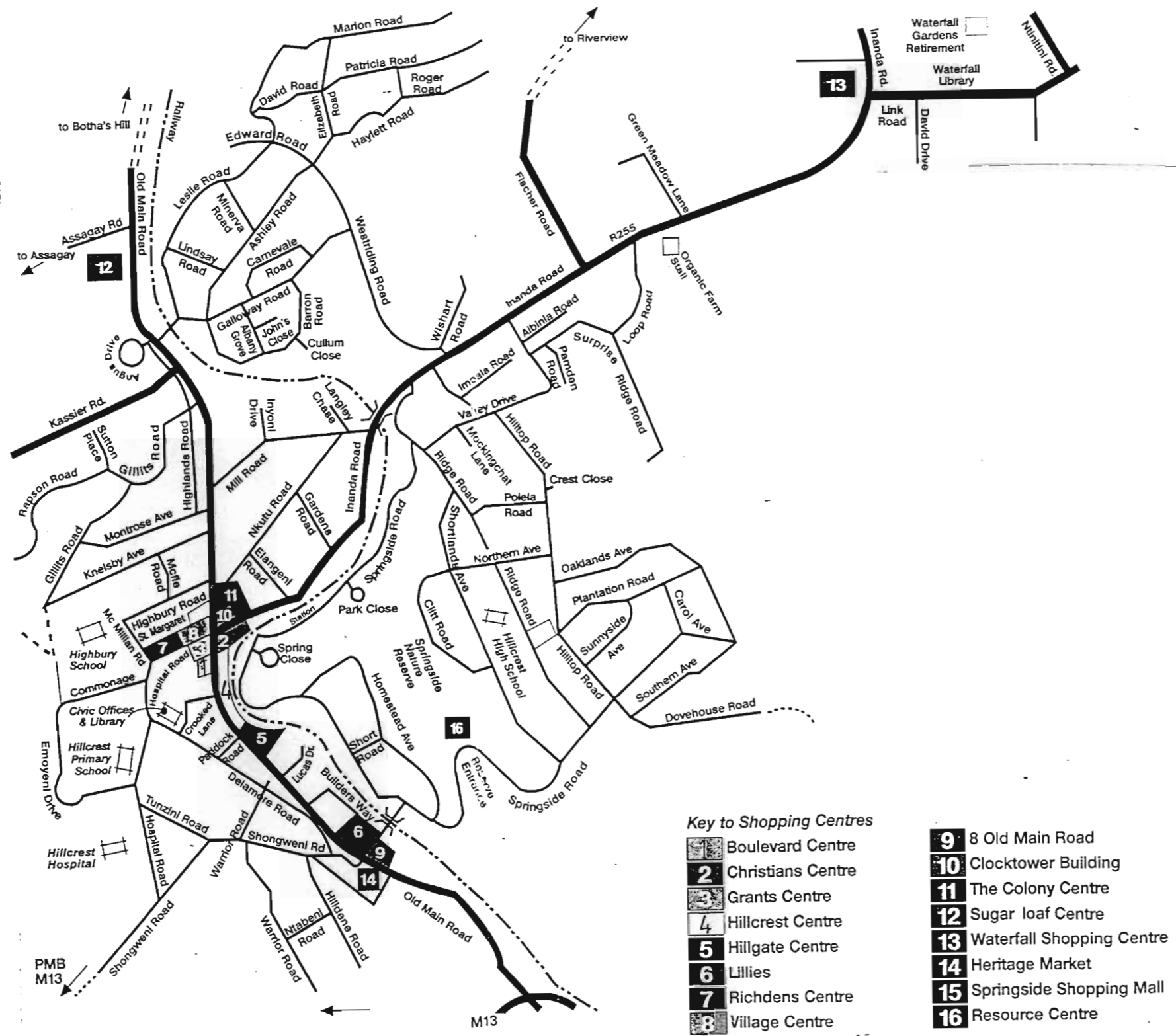
Map not to scale

- Metropolitan Boundary
- - -** Local Council Boundaries
- Community Boundary
- Roads

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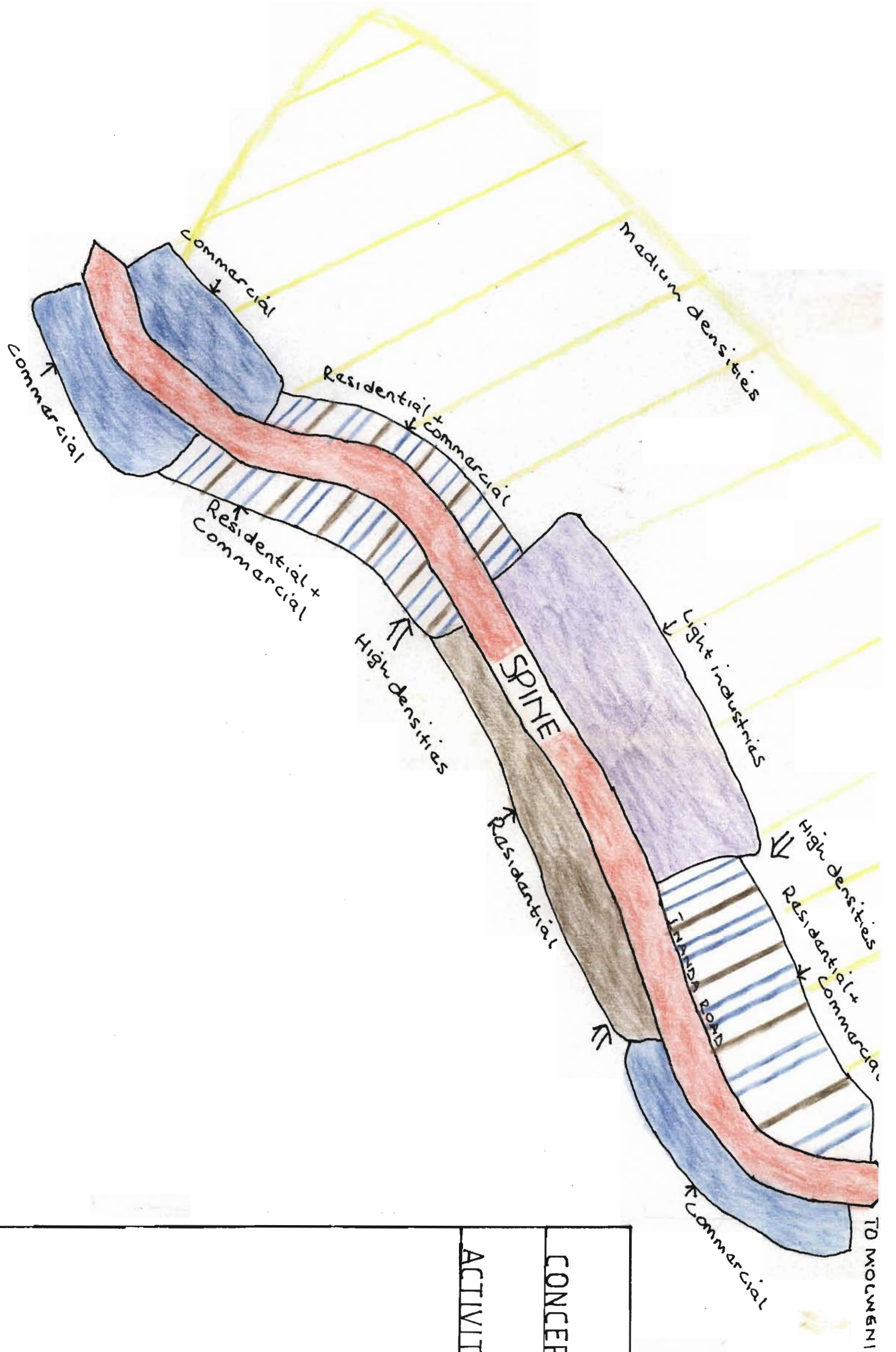
MAP 3

**DURBAN
 METROPOLITAN AREA
 AND
 LOCAL COUNCILS**



- Key to Shopping Centres**
- 1 Boulevard Centre
 - 2 Christians Centre
 - 3 Grants Centre
 - 4 Hillcrest Centre
 - 5 Hillgate Centre
 - 6 Lillies
 - 7 Richdens Centre
 - 8 Village Centre

- 9 8 Old Main Road
- 10 Clocktower Building
- 11 The Colony Centre
- 12 Sugar loaf Centre
- 13 Waterfall Shopping Centre
- 14 Heritage Market
- 15 Springside Shopping Mall
- 16 Resource Centre



CONCEPT MAP (5)
 ACTIVITY CORRIDOR

KWADINABAKUBO

KEY

 INANDA ROAD

 LOCAL BOUNDARY



APPENDIX II.

Town and Regional Planning -University of Natal.

Respondent number.....

1. Name of the enterprise.....
2. Nature of the enterprise.....
3. When was it established.....
4. Where was it located initially.....
5. Is this enterprise an independent firm or a branch of another firm.....
6. If a branch firm, where is the company headquarters
7. When did it move to Hillcrest/Waterfall.....
8. Why was it established in Hillcrest/Waterfall and not anywhere else
9. What is the size of your enterprise in terms of your employees
10. Please categorise your employees in terms of the following:-

Status	Number	Gender
10.1. Directors
10.2. Managers
10.3. Professionals
10.4. Technicians
10.5. Clerical
10.6. Unskilled
10.7. Other(specify)

11. Please categorise your employees in terms of their place of residence:-

- 12.1. Hillcrest
- 12.2. Surrounding peri-urban (e.g. Embo, Molweni)

12.3. Other (specify)

13. Who is your target market, please tick the appropriate answer,

Upper income.....

Middle income.....

Low income.....

14. What are the advantages of running your business in

Hillcrest/Waterfall?.....

.....

15. What are the disadvantages of running your business in

Hillcrest/Waterfall?.....

.....

QUESTIONNAIRE II.

TOWN AND REGIONAL PLANNING-UNIVERSITY OF NATAL.

- Respondent number.....
1. Gender of the head of the household.....
 2. Place of residence.....
 3. Level of education and technical skill (if any).
.....
 4. Why did you choose to live in your present residence
.....
 5. Where are you employed.....
 6. What type of employment are you involved in:-
Office....
Shop.....
Factory...
Domestic..
Other (specify).....
 7. What position are you holding in your employment:-
Manager.....
Supervisor....
Clerk.....
Technician....
Professional..
Unskilled....
Other.....
 8. How long have you been employed in your current employment
.....
 9. What are the reasons of leaving your previous employment
.....
.....
 10. Where do you buy your:-
Grocery.....
Clothing.....
Furniture.....
 11. How often do you go to Hillcrest/Waterfall.....

12. Why do you go there.....
.....
13. Which places do mainly go to.....
.....
14. Do you think the development of Hillcrest/Waterfall is
benefiting the people of Molweni(if so how).....
.....
15. Do you use any of these facilities in Hillcrest/Waterfall:-
School.....
Library....
Clinic.....
Hospital...
Cinema.....
Sportsfield....
Other (e.g. entertainment areas).....
16. Explain why you are not using those facilities you did not
tick.....