

MIDRAND ECOCITY PROJECT

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BACKGROUND

Midrand's demographics

Midrand is a young, vibrant city that lies 25km from the Johannesburg CBD and 28km from the Pretoria CBD. It measures 240 kilometres square.

The city is ideally located between two of the largest urban centres in South Africa and is one of the fastest growing towns in the country. Midrand combines a commercial, light industrial and a settled residential community. Economic growth in the city is vibrant, as Midrand is one of Africa's most rapidly developing residential and commercial investment centres. The total population of Midrand is 240 000 people and is expected to grow to 380 000 within the next five years. As a result of a growth in existing population and an increase of people moving from rural areas to Midrand, the low-income areas are experiencing a growth in population of 15%. This expected growth will require the construction of an additional 25 000 homes for the lower income group over the next five years.

Additionally, the Midrand road network covers approximately 706 km. High levels of traffic congestion are experienced during the AM and PM peak periods, with high volumes of traffic experienced on the N1 motorway, a freeway that dissects Midrand. High congestion levels reflect that infrastructure growth cannot keep abreast of rapid development.

The city of Midrand is geographically, racially and economically divided. The formerly white suburbs are affluent; they have large plots of land interspersed with cluster and townhouse developments. By contrast the formerly 'black' township areas mostly on the eastern side of the Ben Schoeman highway, which include Ivory Park, a planned informal settlement nearby, have large populations but very little land. These areas house some 80% of Midranders at the area's highest population density of 14 people per km² with some 93% of people in Midrand living on 7% of the land. A new area recently developed and owned by the SA Housing Trust called Ebony Park, just west of Ivory Park has very small houses of 15m² and no proper school. An adjacent area, Rabie Ridge, a formerly 'coloured' area under the apartheid regime has formal brick homes, services and tarred roads including a community centre clinic, library, sports complex and school. More recently an area called Kaalfontein has been developed on Eskom land. This area of 8 000 homes is better serviced but has not yet been fully developed or settled. It will have formal services, no school, clinics or community centre.

Population growth is estimated at 15% for the Ivory Park/Rabie Ridge, Ebony Park settlements and 9% for the rest of Midrand. The expansion of the disadvantaged areas needs to be accommodated but finding the resources will be difficult. This sector of the community is impoverished and about 40% of Ivory Park people are formally unemployed. Of the formally employed, 65% earn less than R800 a month. In addition 85% of informal homes occur in Ivory Park. Approximately 85% of Ivory Park residents are without basic services, housing or access to economic opportunity. About 40% do not have electricity.

Midrand's history

Midrand grew from two urban complexes: Halfway House and Olifantsfontein. In the early 1980s, these were joined under a single administration. Ivory Park, a planned informal settlement nearby, is an impoverished community and poverty eradication, development, job

opportunities, economic growth and improved quality of life the main concerns. Ivory Park was established in 1991 to provide site and service stands to address the overflow of people from nearby Tembisa and other urban areas. Contrary to popular opinion, Ivory Park is not populated by rural refugees. Only about 30% of people have moved from rural areas in search of work and majority of Ivory Park residents have come from overcrowded townships nearby. The more recent settlements are themselves overflows from Ivory Park.

Ivory Park and Rabie Ridge have become a main focus of the local metropolitan council because they contain over three quarters of the people of Midrand with at least half living in informal housing facing great environmental and social problems. Pollution is a dominant theme, with air and water pollution being most problematic for poorer households. The Ebony Park, Kaalfontein settlements, not owned by the MMLC, create development difficulties for the Council.

HISTORY OF THE ECOCITY CONCEPT

Midrand's vision for an EcoCity was born out of activist work on changing the urban paradigm. The non-government environmental activist organisation Earthlife Africa Midrand, responded to two key events and fortuitously, the Midrand town council was receptive to the new thinking and put its muscle behind the campaigns. Up till then, environmentalism in Midrand had been confined to 'green' issues such as open spaces and the conservation of species.

However, two events in the early '90s marked a turning point. There was a dangerous chemical fire at the Rhone Poulenc veterinary chemicals warehouse and the threat of a hazardous waste dump to be sited at Chloorkop – 400 metres from proposed housing. These issues had Earthlife Africa activists working flat out to campaign for environmental justice. The Midrand community, from poorest to wealthiest, was mobilised around grassroots issues of environmental safety and health.

Earthlife Africa Midrand continued to take these 'brown' issues to local development forums and great acceptance of the need for changes emerged from the community. Another impetus for change was the shift to an ANC-led government in 1994. The Midrand Town Council began a dialogue with community representatives – from Ivory Park to the affluent suburbs. Through section 59 committees set up by the council, stakeholders became involved in numerous local issues. Section 59 committees were formed to deal with various portfolios and Earthlife Africa Midrand continued to achieve much grassroots environmentalism through the section 59 committee on environment.

Midrand councillors had the foresight to realise that environmentalism went way beyond green issues. Environmental issues, being concerned with water, air and land, dealt with basic survival matters. There was more and more dialogue between activists of Earthlife Africa and Midrand's councillors. It became clear that the way forward was to stop being reactive and simply respond to one environmental crisis after another. True progress would only be made if Midrand was proactive and fundamentally changed the way things were done. The idea of turning Midrand into an 'EcoCity' was born.

The MMLC approached the Danish-funding agency Danced (Danish Agency for Environment and Development) and it was receptive to the idea of providing seed funding for the initiation of the EcoCity project. In November 1998 the project began with the establishment of an office to drive the project.

Before the vision, objectives and strategies for achieving this could be formally developed, Midrand had to gain a comprehensive picture of the extent of the problem. A 'state of the environment' (SOE) report was commissioned for Midrand, one of the first of its kind in South Africa for a local council and funded by Danced. The report, which runs to hundreds of pages,

was by a group of experts and this was facilitated by the World Conservation Union (IUCN), South Africa. It collated pollution statistics for air, water, land and noise, giving indicators as well as detailed recommendations.

State of the Environment report findings

One of the first steps towards the EcoCity vision was to study the extent of the environmental and social problems facing Midrand. Midrand's 'state of the environment' report outlines its environmental strengths and weaknesses.

For example, Ivory Park suffers high levels of pollution: indoor air pollution can exceed World Health Organisation standards by some 100%, the streams that bisect it are like open sewers with all the attendant disease-causing bacteria and informal waste dumps add to the pathogen load in the township. At the same time, Midrand is rich in biodiversity. It even has many Red Data species yet only 1.4% of land is public open space (the international standard is 6%).

THE ENVIRONMENTALLY FRIENDLY CITY

The state of the environment report also covered the benefits of having an 'ecologically-friendly' city. It first painted a bleak picture of the consequences of unchecked urbanisation. Cities globally consume 75% of the country's resources and produce most of the waste. Cities can be a cesspool of unhealthy habitation and encourage a soulless life alienated from nature.

The report then pointed out how better planning could vastly improve the way cities are run. The United Nations through the International Council for Local Environmental Initiatives (ICLEI) has been promoting Local Agenda 21 initiatives to encourage town councils to change the pattern of development in their cities. Midrand, as a growing city, has the chance to do things right if it adopts Agenda 21 principles.

STRATEGY

Creating the Trust

The first step towards creating 'Midrand the EcoCity of the Future' was to create an independent organisation that could drive an EcoCity project. Due to inherent structural problems – not least bureaucracy – it is much easier for a non-government organisation to fast track changes and promote an entirely new vision than it is for a government department to do so. Certainly, local government can achieve much if it is working hand in hand with a lean and efficient civic organisation and that is what has happened in Midrand with a synergy between the Midrand Metropolitan Local Council and the Midrand EcoCity Trust.

The Midrand EcoCity Trust has been set up to drive the EcoCity Process. The Executive Director is veteran environmental activist, Annie Sugrue and the other trustees are Alan Dawson, past mayor and chairman of the executive committee of the Midrand Metropolitan Local Council (MMLC), Enoch Dlamini, deputy mayor of Midrand and Ahmed Moonda, acting CEO of the MMLC. The Midrand EcoCity Project is thus a council-driven project. The Trust facilitates the acquisition of donor funding and removes bureaucratic difficulties in implementation. It focuses on three key targets, the MMLC, the business and industrial sector and the communities.

As a result of ongoing public workshops and processes, a vision for the Midrand EcoCity has taken shape. A key principle is that Midrand can become a self-sustaining economy, generating much of its own wealth and circulating resources within the community.

The Midrand EcoCity Project was launched late last year with the generous support of the Danish government. Previously disadvantaged people are becoming highly self-reliant: they

are learning how to grow their own organic food, build earth friendly houses, harvest rainwater, run businesses, and market and administer co-operatives.

THE VISION, OBJECTIVES AND PRINCIPLES

The Midrand EcoCity will not be created by a one-off project. To achieve the goals, the Midrand EcoCity Trust has workshopped a clear vision, objective and principles in order to guide all future outputs.

Vision: To turn Midrand into the smart, eco-friendly place to be.

'Smart' refers to state of the art, yet appropriate technology which will be harnessed to support sustainable development. For example, many Midranders will live in simple homes but may work via the internet from home. Home offices will reduce road traffic and smog. Communities will be more cohesive. Besides working close to home, residents will live in homes that have solar water heating, they will grow or eat organic food, carry out most of their business locally to keep money circulating within the community, use water wisely and commute by bicycle when necessary. The city will also be people friendly. In addition to aiming for a cohesive social fabric, it will encourage tourism to this centre of excellence. Midrand the information age town will ensure that the disadvantaged sectors of the community will have access to the internet and electronic media and services. In fact, information technology will form a secure basis on which to build the administration and will be fully integrated within all the projects.

The Midrand Local Metropolitan Council (MMLC) has adopted the logo "Midrand – the smart, eco-friendly place to be" which means that council is also committed to the Trust's green vision so the drive is wider than a single organisation's efforts.

Objective

The overall EcoCity objective is "to create a city which is both interdependent with the rest of the world and self reliant through creating its own economic, social, physical and environmental solutions". This is achieved by recognising that no city is an island but it can harness to its maximum its own strengths and opportunities that will provide both the integrated environmental framework and the practical activities of the EcoCity.

Principles

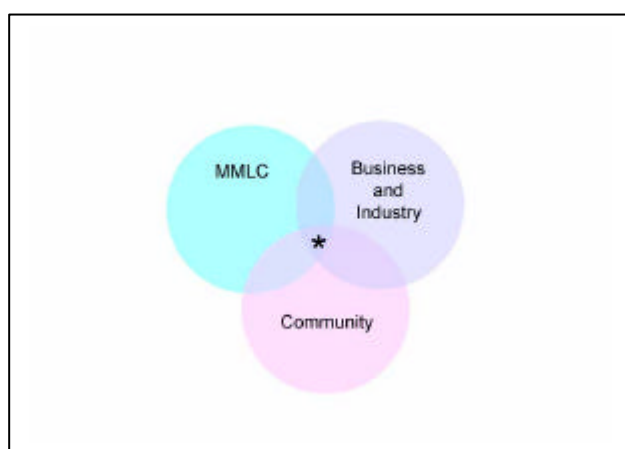
There are some key principles on which the Midrand EcoCity Project stands. These principles will be integrated within every area of activity driven by the Trust.

- **African renaissance** – Midrand EcoCity Project wishes to make a contribution to the rebuilding of Africa as propounded by South Africa's president, Thabo Mbeki. It wants to use Africa-specific solutions, combining knowledge from the West with indigenous African knowledge in developing an environmentally friendly city. It strives to create a living and working space where Africans (both black and white) feel comfortable.
- **Equity** – Midrand EcoCity Trust commits itself to environmental justice. This means equal access to resources and an equal bearing of environmental costs. Poor people mustn't bear the brunt of 'progress' and its attendant environmental degradation.
- **Poverty eradication** – Midrand EcoCity wishes to eradicate poverty by investing in 'social capital'; in other words, in training people and giving them access to the resources and opportunities for setting up their own businesses.
- **Self-reliance** – While Midrand EcoCity understands its interrelationships with other cities, South Africa as a whole and its neighbouring countries, Midrand must be as self-reliant as possible. People must create their own jobs and upgrade their neighbourhoods using their own resources and initiative.
- **Green transformation** – Jobs in Midrand EcoCity must be ecologically sustainable. Commerce and industry must subscribe to integrated environmental management systems. This means cutting down on resource use, pollution and waste production.

Midranders should produce environmentally friendly products and services in an environmentally friendly way so that they survive in the long term.

- **Improving quality of life** – Basic services should be provided to people who do not have access to potable water, sanitation, waste removal or safe energy. However, these services should be provided in such a way that they improve environmental quality in the city. If not, they ultimately worsen the quality of life for all.
- **Enhancing natural resources** – ‘Natural capital’ such as rivers, soil, biodiversity, air and so on must be improved in the creation of Midrand EcoCity. They should also be rehabilitated and managed wisely.
- **Providing a future for our children** – Sustainability means meeting the needs of present generations without compromising the needs of future generations. Midrand EcoCity will strive to make all its interventions sustainable. This means finding the delicate balance between what is *desirable* and what is *achievable* in a developing world country.

The Midrand EcoCity Project Role Players



Natural resources, infrastructure, people and money all interact with each other to achieve the EcoCity vision. Each element interacts with all the other elements.

- To achieve the EcoCity vision for physical infrastructure the following are required: thermally efficient houses, bicycle lanes, clean energy and the re-use of water where appropriate.
- To achieve the optimal use of natural resources pollution must be reduced, biodiversity conserved and better open space use promoted.
- To achieve the EcoCity vision for money, it must be made accessible to the disadvantaged through green banking options.
- To achieve the vision for people, or social capital, people must have their awareness and knowledge on environmental issues raised, and the disadvantaged must be empowered to make green choices and to participate in the green economy of Midrand.

PROJECTS

We currently have 25 projects. Each large programme area is supported in documentation with a Logical Framework Approach project document, which can be provided on request. Here are some of the projects currently being implemented:

- **Planning and Development**
 - **State of the Environment Report (SoE)**

- *Development of an integrated environmental management system*
- **Housing**
 - *Midrand/Ivory Park eco village*
- **Transport**
 - *Midrand Clean Commute*
 - *Non motorised transport-bicycle lanes and support for bicycles*
- **Energy**
 - *Cities for Climate Action Programme*
 - *Midrand Eco-City Cities for Climate Protection Forum*
 - *Public education and awareness campaign with specific target groups*
 - *Local Action Plan for the Midrand Eco-City*
 - *Ceilings in Ivory Park*
 - *Solar water heaters for Ivory Park*
 - *Umbawula- lower smoke open stove*
- **Business and industry**
 - *Promoting ISO14001 for local industry*
 - *Promoting recycling as a viable business*
 - *Midrand's 'Green Book' for guiding development*
 - *Seed Advisor on energy programmes*
- **Water**
 - *Water Demand Strategy*
- **Self-reliance and Economic Sustainability**
 - *Co-operatives*
 - *Eco bank and LETS System*
 - *Youth environmental programme*
- **Marketing and capacity building**
 - *Outreach through website and newsletters, street theatre and mass action campaigns*
 - www.midrand-ecocity.co.za
- **Waste Management**
 - *Recycling through community projects*
- **Food Security**
 - *Organic agriculture*
- **Open Spaces and Biodiversity**
 - *Biodiversity through habitat corridors and use of alien invaders as fuelwood and construction material*