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Johannesburg

Addressing Poverty

FULL NAME OF MUNICIPALITY

City of Johannesburg, South Africa

MUNICIPAL PROFILE

POPULATION: 2.9 million

LAND AREA: 2,300 km²

MUNICIPAL BUDGET: US\$1.04 billion
(ZAR 9 billion)

STRATEGY

Accelerate the Transition to Sustainable
Communities and Societies

CHALLENGE

To address immediate basic needs and promote longer term human security and sustainability values among residents where poverty and accessing basic human needs, such as shelter, food and clothing are of primary importance.

GOAL

To promote sustainable economic growth while respecting environmental principles and developing local capacity.

ACTION

Involve the community in selecting the most innovative, technically relevant and ecologically sound solutions to enhance local economic development, and build community capacity to contribute to those solutions.

ABSTRACT

The Johannesburg EcoCity initiative is a partnership between the City of Johannesburg and EcoCity Trust, a non-government organization. Through the collaboration between the city, EcoCity Trust and the community, the Johannesburg EcoCity promotes sustainable economic growth while respecting environmental principles and developing the community's

capacity to participate in the achievement of such growth. The Johannesburg EcoCity initiative is based on poverty alleviation by creating an ecological friendly city through the adoption of innovative, technically relevant and ecologically sound solutions for local economic development. A number of community-run cooperatives have been established that provide employment opportunities and contribute to a more sustainable community. Community capacity building and participation has increased as residents are taking the initiative to run their own businesses and market and administer cooperatives that have a positive environmental impact. A key strength of the initiative has been the development of cross-sectoral partnerships that have contributed to various aspects of the program.

CASE

The Johannesburg EcoCity initiative is based in the municipality of the City of Johannesburg. The city is the largest in the Southern African region, with 2.9 million inhabitants. Population growth is estimated at 9.5%, a statistic that is likely to be modified over time due to the high incidence of HIV infection (24%). Although the city is only just over 100 years old, it is an industrial and residential hub—an economic center of importance to the South African economy.

The city has 11 regions: Diepsloot, Midrand/Ivory Park, Sandton, Northcliff/Rosebank, Roodepoort, Doornkop/Soweto, Alexandra, Inner City, Johannesburg South, Diepkloof/Meadowlands, and Ennerdale/Orange Farm. The regions have separate municipal offices that provide services to the areas, but all political and planning decisions are made centrally.

Key environmental challenges facing the City of Johannesburg include:

- *coal and wood burning*—prevalent in the less formal areas and estimated to cause 70% of the air pollution;
- *vehicle emissions*—particularly in high density areas, and there is an increase of 16.5% in vehicle growth per year;
- *mining*—there are 159 mines in the city, some of which are still operating. They cause water pollution and air pollution (dust) and most of the unused dumps are not rehabilitated for other uses;
- *waste*—waste collection services are inadequate, 12 landfills are releasing methane and 3 incinerators all contribute to the environmental problems;
- *industrial pollution*—industrial pollution from the Kelvin power station, and also industries mostly in the eastern region create both air pollution and storm water contamination. Particulate matter is, in some of the worst areas, 250% higher than that recommended by the World Health Organization;
- *water*—scarcity of local water means huge infrastructure costs, most of the larger rivers such as the Juskei, Klip and Kaalspruit are highly polluted with the E. coli bacteria;
- *city sprawl*—poor decentralized planning has resulted in a city with low residential densities, contributing to environmental problems and inefficient land use management;
- *biodiversity and land use planning*—only 1.38% of the land is conserved whereas the International Union for Conservation of Nature and Natural Resources (IUCN) recommends 10% be set aside for these purposes.

All the above issues are driven by underlying trends such as poverty, urban growth, high emission transport and expansion of polluting industries. One-third of the city's population have a total household income of ZAR1,000 (US\$99) per month and 40% of the population are under 24 years of age. Twenty-four percent of the city's residents have less than a grade 8 qualification (matriculation takes place in grade 12).

Midrand—The Pilot Area

The Johannesburg EcoCity initiative was piloted in the city's Midrand/Ivory Park region. At the time of the pilot, the region was a separate and neighboring municipality to Johannesburg, located 25 kilometers north of the Johannesburg central business district and 28 kilometers south of the Pretoria central business district. In 2001, Midrand was incorporated into the City of Johannesburg.

Economic growth is estimated at a rapid 20% per year in the Midrand area, as businesses complexes and the high-tech industry have invested heavily in the area. This trend is likely to change due to centralized planning. The total population in Midrand is 240,000 and is expected to grow to 380,000 by the year 2010.

Midrand is an area of many contrasts, geographically, racially and economically, as a result the legacies of apartheid and economic development trends. On one side, you have affluent suburbs, where residents have large plots of land which are interspersed with clusters and townhouse developments. On the other side, there are the densely populated planned and informal settlements where 80% of the population live.

Over the whole of Midrand, 65% of the population earns less than ZAR800 (US\$79) a month (US\$70), compared to 21% nationally, and it suffers from high levels of unemployment. Of all of the households in Midrand, over 40% are informal with limited access to basic services (water, electricity, sanitation, waste removal, paved roads). These households spend a greater proportion of their income on energy. While 60% of the households have access to electricity, it is not fully utilized because it is too expensive.

It is in the area of these households where you find the greatest population densities and the associated social, health and environmental problems. For example, respiratory tract illnesses are significantly higher as a result of the use of coal as the primary heat source during winter months.

While much of the land area of Midrand can be characterized as rural residential (a City of Johannesburg category of development) or undeveloped, there is a lack of public open spaces, especially in the informal residential communities. While there are numerous natural areas, they exist outside of the densely populated residential communities where the wetland and riparian habitats have been subjected to serious degradation. The water in the Kaalspruit River has been described as more polluted than that which arrives at sewage treatment plants.

The EcoCity Initiative

Despite its name, the Johannesburg EcoCity initiative's primary concern is not about the environment. Rather, its focus is on poverty alleviation, based on the belief that sustainable development can be best implemented if it can be demonstrated to improve the quality of life and the standard of living of local residents. The Johannesburg EcoCity initiative has embraced the belief that long-term environmental successes are dependent on the economic, social and environmental security of the person, the home and the community.

The Johannesburg EcoCity concept grew out of grassroots environmental activism that was a response to specific environmental issues in Midrand. It became apparent that progress would not be made if there were simply a reaction to each environmental crisis as it arose. There was a need for a proactive approach that would incorporate economic, social and environmental issues into the planning and development process. The EcoCity initiative was also a response to worldwide encouragement for local councils to adopt a Local Agenda 21 process.

The EcoCity initiative was established in 1999 as a partnership between the Midrand Town Council and the Midrand EcoCity Trust. The Midrand EcoCity Trust was a local non-government organization (NGO) that was created for the purpose of promoting change within the community and to drive the EcoCity process, while the role of the local council was to mainstream these developments through the various council departments.

With the amalgamation of Midrand into the City of Johannesburg, the City of Johannesburg has joined the partnership, with the goal of expanding the EcoCity vision throughout the city. As a result, the name has changed to Johannesburg EcoCity and the Midrand EcoCity Trust is also now simply called EcoCity Trust.

The EcoCity initiative is based on the principles of poverty eradication, self-reliance, capacity building, green transformation, equity and public participation. Through these principles, the Johannesburg EcoCity Initiative has been able to orient urban planning and investment towards sustainable development.

In order to develop a strategy for the future, at the beginning of the process there was a need to develop a comprehensive picture of the issues and problems that were important to Midrand region residents. A State of the Environment Report (SoER) that was completed for the local council in 1999 outlined the current and future environmental problems in the Midrand area if the current development pattern were not changed. The vision of the EcoCity initiative was developed as a solution to the environmental problems that were identified in the SoER.

The SoER identified pollution as a dominant theme. For the majority of residents, air, land and water pollution are the major concerns, and they are exacerbated by the lack of services and infrastructure. Public open spaces, waste management, transportation and household energy use were also identified as issues in need of attention. However, the SoER also established that, as a rapidly growing area, there was a great deal of potential to implement sustainable development norms into the planning process.

One of the key principles for the new planning process was that the Midrand region become a self-sustaining area that produces its own wealth and keeps resources circulating within the community. From the beginning, the Midrand region was focussed on creating an alternative sustainable development vision where the community

Velinograd, Bulgaria

In 1997, Velinograd, Bulgaria, had a very high rate of poverty and citizens lacked hope for the future. They were skeptical about the use of sustainable development planning as a strategy for improving the local economy. However, through their work with the UN Development Programme-Capacity 21, the city successfully used poverty alleviation as the primary theme for its community planning. Along with the rejuvenation of local markets, upgrades to schools and green spaces, and other projects, the town created a business center. The center helped to increase the growth of foreign investment in local small- and medium-sized enterprises and has provided a focus for the entire community. This success has allowed the town to invest in other projects as well.

(Source: UN Development Programme, Capacity 21. March 2001. "From the Turbulent 1990s to the Sustainable 2000s: Bulgaria's Capacity 21 Programme," Approaches to Sustainability.)

defines and develops the objectives and strategies, and they are implemented using local resources. This vision of the planning process incorporates social, economic and natural elements into decision making, with the goal that every decision should reflect positively on each of these elements.

There are many instances where cities/communities have had difficulties moving beyond the statement of a vision, and into actual implementation. The strategy that was used by Johannesburg EcoCity to overcome those difficulties was to create synergies between the NGO EcoCity Trust and the local government and to promote the active participation of the community.

The working partnership between EcoCity Trust and local government, and the mutual support between the two, made it easier to promote an entirely new vision and to promote change. This new vision was developed through community participation as part of the Local Agenda 21 process.

Through community workshops, residents agreed to common principles and initiatives. The community decided that the best way to drive the process was to use small, local businesses. Business cooperatives were set up that created employment opportunities in the community, contributed to sustainability values and generated community support for the Johannesburg EcoCity initiative. The goal was to have these cooperatives be self-sustaining within two years of their establishment. Examples of some of the Johannesburg EcoCity initiatives include agricultural and financial cooperatives, organic farming, building of an eco-village, promotion of green energy and energy conservation, recycling, transportation initiatives, youth initiatives, water demand management, and the creation of an integrated environmental management system.

The establishment of community cooperatives contributed to the creation of economic opportunities, increased the capacity of residents and contributed in some way to the improvement of the environmental conditions that were identified in the SoER.

However, the Johannesburg EcoCity initiative is not simply a series of isolated sustainable development initiatives. The initiatives are all coordinated around a common vision, common values, common goals and common strategies. Therefore, each element, while important in its own area, is also an integral part of the larger strategy. The focus has been very much based on how creating opportunities for people can create opportunities for the environment. The Johannesburg EcoCity initiative has demonstrated to community members and to politicians that it is possible to create economic benefits while making a contribution to a more sustainable community. Since the focus of the Johannesburg EcoCity initiative has been on poverty alleviation through respect for environmental principles, it was able to generate greater community support. It is through community agreement on the issues, the problems and the solutions that the movement towards sustainable communities could be achieved. It also required the support of local government to provide the opportunities for community partnership.

The challenge ahead is to extend and mainstream the pilot activities that have been established in the Midrand region through the City of Johannesburg's key development sectors, while maintaining the momentum that has been generated in the Midrand region. This will be achieved through mainstreaming the activities and work within the local government departments and the utilities. EcoCity Trust will play a role in strengthening and developing more partnerships between the Council and local NGOs and community-based organizations, as well as the private sector, so that the broader community can partake in supporting and implementing the initiatives in other regions in the City of Johannesburg. The establishment of a joint technical committee and a steering committee will oversee this process and ensure that the program receives the necessary political support. The program is not a short-term intervention; it will form part of the strategy for the next ten years for the Council.

RESULTS

There results of the Johannesburg EcoCity initiatives are varied. A recycling buy-back center has created 50 jobs and contributed to the reduction

of waste going to landfill. There is a group of 70 organic farmers on the river edge, which has contributed to the stabilization of the flood plain and to wetland rehabilitation. The organic produce is transported to the market using local transportation providers. A bicycle cooperative has created 8 jobs and provided 200 bikes for commuters and 1,200 bikes for school children, which decreases the reliance on transport by car. There are 34 homes that have been equipped with energy efficient light fixtures, which demonstrate the economic benefits of investing in energy efficiency. A youth group of 14 people has provided capacity building and training in business for ecotourism. Fourteen women run a construction cooperative, building homes in an environmentally friendly way. Water pollution and water savings initiatives have been introduced, such as grey water recycling and demand management, and water conservation fittings are being promoted in new developments. Local builders and contractors are sought for all projects and they use locally available materials.

The aspect that is most impressive about the Johannesburg EcoCity initiative is that it has been able to coordinate projects that are focussed on diverse issues into a common, long-term strategy. The development of the Ecovillage provides a good example of the overall results of the Johannesburg EcoCity initiatives. Early on in the community participation phase, people were very adamant that all they wanted was housing. They

need, the community ultimately incorporated multiple environmentally friendly innovations and technologies. The Ecovillage features houses built with reclaimed bricks, grey water recycling, and oriented to maximize exposure to the sun in the winter months, equipped with solar panels and other energy efficiency approaches.

The fact that these issues were considered for new housing in an area where the majority of people live in informal housing, is an indication of the degree to which the community has accepted sustainable development principles. The challenge is expand these principles into new developments throughout the city.

The ultimate result of the Johannesburg EcoCity initiative is that it demonstrates that focussing on poverty alleviation is a good way to promote and implement local sustainable development initiatives. The Johannesburg EcoCity initiative has contributed to increased capacity at the community level, increased participation in the decision-making process, and has allowed local residents to identify problems and to contribute to solutions to those problems. The awareness does not extend just to the immediate community. There has been acceptance by the City Council of the principles of the Johannesburg EcoCity initiative and there have been attempts to incorporate the environment into the strategic planning process and into integrated development plans at a city-wide level.

The Shova Lula Cycle coop, set up as one of the EcoCity initiatives, is involved in the sales and maintenance of bikes, advocates bike use and bike safety, and promotes bike use for entrepreneurial activity.

(photo: Cedric Nunn)



did not care what type of housing it was, how it was made, where it came from or who provided it. They just wanted housing. However, in working through options to address their most urgent

LESSONS LEARNED

One of the key lessons learned was the importance of the involvement of the local government from the beginning. Once local government became involved in the running and management of the Johannesburg EcoCity initiatives, an element of financial stability was introduced, which decreased the reliance on outside donor funding and donor priorities.

Another lesson learned was the recognition of the importance of local institutional arrangements and local capacity building. By focussing on these elements, greater local participation and greater local ownership over the initiatives

was ensured. Some of the ways in which this was done was to encourage volunteerism, promote the use of local cooperatives and to develop local solutions to local ecological problems.

KEY REPLICATION FACTORS

There are a number of key issues that must be identified when considering replicating the Johannesburg EcoCity initiatives. First, is it possible to identify a core of committed individuals that can drive the process, particularly in the early stages? Second, is there a willingness to continually monitor and evaluate initiatives to identify what has been successful and what has not? Finally, is local government supportive and open to changes in the way the planning process operates? Local government has to be committed and willing to mainstream successful initiatives into daily city operations in order to generate widespread adoption of EcoCity type strategies.

BUDGET AND FINANCING

The Johannesburg EcoCity initiative received funding of ZAR6 million (US\$595,000) from foreign donors (1999-2002) to begin the various initiatives. From 1999 to 2002, they have received ZAR1.2 million (US\$119,000) from the City of Johannesburg and its predecessor, the Midrand region, as core funding. The city has also provided office space in the civic center.

STAFF

There is a small staff of three people that administer the EcoCity initiatives and a group of 20 consultants that are used as they are needed for particular projects.

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