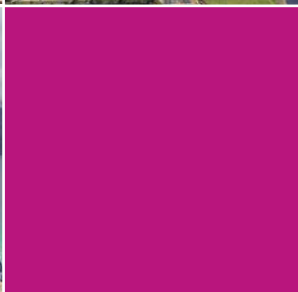




CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD



SHOWCASING EXCELLENCE

MAYOR'S PORTFOLIO
OF URBAN SUSTAINABILITY
2014

Making progress possible. Together.

Document navigation shortcuts

- Entries on the Contents page link to the relevant page.
- The tabs on the right-hand pages link to the first page of each section.
- The document title in the footer of each page links to the first Contents page.



Cape Town faces the challenges of a fast-growing population. Every person should have access to opportunity, progress, social equality, dignity and respect; but against a backdrop of limited and dwindling natural resources.

Many of the City of Cape Town's ongoing projects are tackling these challenges in highly creative and innovative ways.

The Mayor's Portfolio of Urban Sustainability

has selected 34 of these projects for assessment in terms of their sustainability in a delicate urban ecosystem - their ability to meet the social and economic needs of Capetonians without compromising the natural system on which they rely.

Supporting, analysing and sharing these projects also serves to change thinking, and to encourage all City managers to incorporate sustainability parameters into their planning and implementation.

This showcase exhibits some of the best practice achieved, and highlights areas that need improvement for long-term sustainability.

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Corporate project to
improve inland water and
stormwater quality,
page 91



Preservation and progress

Balancing the need to protect Cape Town's unique natural and built heritage for future generations, while providing much-needed social and economic opportunities to improve the lives of all citizens, is a challenge that the City of Cape Town is tackling head-on.



A message from the City Manager



Cape Town has a long history of working towards building a more sustainable and environmentally friendly city. In 2001, Cape Town became one of the first cities in South Africa to approve and adopt a comprehensive city-wide environmental policy. The Integrated Metropolitan Environmental Policy (IMEP) set out the City's environmental commitments, and was accompanied by a series of strategies and plans that laid out specific steps for achieving sectoral goals.

The strategic goals of the 2012-2017 Integrated Development Plan (IDP) can be found on page 109. This IDP was revised in line with changing City priorities. The five key pillars of the IDP encompass the kind of city that the City aims to achieve: the opportunity city, the safe city, the caring city, the inclusive city, and the well-run city.

The City has also committed itself to the implementation of a number of international conventions and pledges. Among these, the most significant is the United Nations Millennium Development Goals (UN MDGs), a set of key actions that must be taken in order to ensure a more sustainable future in the developing world.

The Mayor's Portfolio of Urban Sustainability has a specific focus on best practice in sustainability in terms of project design and implementation. The portfolio in no way suggests that Cape Town is a sustainable city, but rather that there are efforts being made to develop sustainable solutions to urban challenges, and that sustainability practices can be embedded into any City department to resolve any challenge. This reinforces the importance of multidisciplinary project teams as well as the need to interpret sustainability objectives at a project level to ensure a move towards sustainable development.

Achmat Ebrahim
City Manager

A message from the Executive Mayor



Cape Town is a unique city with beautiful people, spectacular scenery and a special natural heritage. However, we face a host of challenges in improving the quality of life for many of our citizens. As Capetonians, South Africans and Africans, we have a shared responsibility to tackle these challenges head-on.

As the city celebrates its status as World Design Capital 2014 and embraces design-led thinking as a transformational tool, our administration is exploring creative approaches to complex problems. Among them is the question of building a city of opportunity and progress; looking for approaches that build social equality, provide economic opportunity, respect and enhance our natural heritage, and promote excellence in government.

This portfolio is a showcase of some of the ways in which we are journeying towards a more sustainable city. The projects included here are a sample of some of the excellent work done in Cape Town on a daily basis. They are examples of creative thinking, innovation, collaboration with partners, and commitment to the overall health of our city. Those projects that have received a Gold Star rating are to be celebrated, while those that did not should be encouraged to understand how they can enhance their impact.

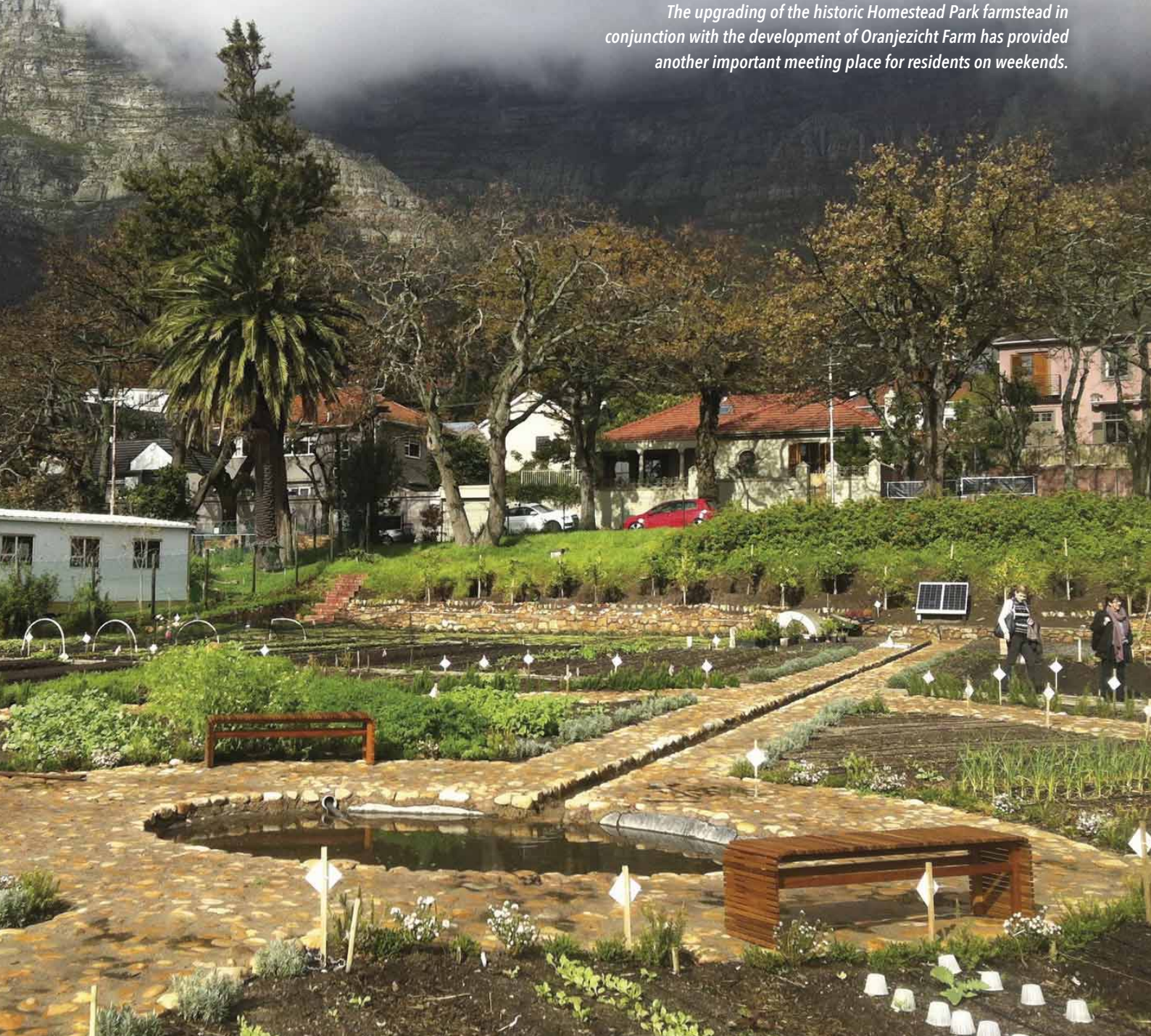
We have identified where we are doing well, but also where we can do better; we have a chance to build on our successes and work towards a better future. We believe that sustainability is not a once-off fad, but requires long-term dedication to improving the lives of all Capetonians.

P. de Lille

Patricia de Lille
Executive Mayor

Inner city sustainability

The upgrading of the historic Homestead Park farmstead in conjunction with the development of Oranjezicht Farm has provided another important meeting place for residents on weekends.



Urban sustainability and its importance

Sustainability is perhaps one of the most difficult concepts to define. Numerous definitions have been put forward to explain the word 'sustainability' as well as the related term 'sustainable development'. The well-known definition of sustainability refers to having enough for everyone forever, therefore being able to cater for the needs of the present without compromising future generations' ability to do the same.

According to the 2010 National Strategy and Action Plan for Sustainable Development: "... sustainability (or a sustainable society) is seen as the overall goal ... while sustainable development is the process by which we move towards that goal. Further, sustainability in this context implies ecological sustainability, which recognises firstly, that the maintenance of healthy ecosystems and natural resources are preconditions for human well-being, and secondly, that there are limits to the goods and services which they can provide ... ecological sustainability acknowledges that human beings are part of nature and not separate from it.

"Sustainable development, then, implies the selection and implementation of a development option which allows for the *'achievement of appropriate and justifiable social and economic goals (based on meeting basic needs and equity) without compromising the natural system on which it is based'*." (emphasis added)

Sustainability is an increasingly important point of discussion because of the reality of limited and dwindling natural resources. In cities, populations are burgeoning along with consumption rates and the generation of waste. This effectively makes cities the new hot spots of global environmental change.

Similarly, cities also serve as centres of change because of their significant capacities for innovation and learning, and because of competitive pressure to do so. Consequently, cities are well positioned to take the lead in promoting sustainable growth for long-term future scenarios.

Climate change and biodiversity degradation are key drivers of global environmental change. Mitigating or offsetting these threats is an important component of urban sustainability. Where mitigating climate change is unrealistic, the City is challenged to build resilience or adapt to climate change. Projects in this portfolio are assessed and profiled as to how they have succeeded in addressing these issues.

Similarly, the City has set ambitious targets with respect to building social capital and addressing its economic challenges, and the assessment of projects in this portfolio against these respective axes of sustainability provides information on the City's successes and failures in moving in this direction.

Finally, governance completes the sustainability jigsaw, and three axes of sustainability display how the City's key projects have addressed this area, underpinned by the City's IDP key strategic focus area of a well-run city.

The projects profiled here are in effect proxies of the City. Thus, to the extent that key City projects have reached or failed to reach certain targets of sustainability, so has the City as a whole succeeded or failed to achieve targets of urban sustainability. Moving project managers towards incorporating sustainability parameters into their planning and implementation will, in turn, move the entire City towards sustainability and a more sustainable-practice growth pattern.



In cities, populations are burgeoning along with high consumption rates and the generation of waste. This effectively makes cities the new hot spots of global environmental change.



The portfolio: **An overview**

As an African city faced with the legacies of an unjust past and the uncertainties of contemporary challenges, Cape Town needs to respond in a manner that builds social and ecological resilience as well as sustainability through innovative, creative and integrated thinking.

Cape Town's designation as World Design Capital (WDC) 2014 is generating strong interest in how the City is designing solutions to the multiple challenges it faces, and successfully implementing these through tangible, creative projects that bring real results to the people of Cape Town. ▶



The vision of the Mayor's Portfolio is to showcase projects managed or supported by the City that demonstrate elements of best practice in sustainability and innovation in terms of design and implementation.

A 2005/6 City of Cape Town publication "Portfolio of Sustainability Best Practice" profiled and assessed various projects across the City, which demonstrated examples of best practice in contributing to urban sustainability. WDC 2014 provides a timeous opportunity to build on the lessons learnt and to produce a follow-up publication showcasing Cape Town's sustainability excellence and building collaborative processes that incorporate innovative design based on sustainability principles and effective implementation.

Each project profiled in this portfolio addresses the four 'legs' of sustainability (ecological, economic, social and governance considerations) to varying degrees. While the importance of any one of ecological conservation, economic prosperity, social justice or governance excellence is recognised, a project that fails to reflect aspects of all of these falls short of its potential and may not be as effective in its outcomes as it could be.

The vision of the Mayor's Portfolio is to showcase projects managed or supported by the City that demonstrate elements of best practice in sustainability and innovation in terms of design and implementation. Through this process, the portfolio facilitates and promotes the mainstreaming of urban sustainability principles, improved practice across City projects, collaboration and partnerships, and the marketing of Cape Town's best practice in sustainability and innovation.

To fulfil this vision, the following supporting aims and objectives were identified:

- To identify particular on-the-ground projects managed or supported by the City of Cape Town
- To build collaborative processes and facilitate the continued mainstreaming of sustainability principles throughout the City administration
 - Engage with officials across line functions regarding aspects of projects and integrated thinking
- To identify project elements (economic, social,

ecological or institutional) that demonstrate best practice, and can motivate project managers across the City to move towards best practice in their own work

- Determine how these elements may demonstrate best practice, and draw attention to the sustainability principles that may be present
- Encourage project leaders to incorporate sustainability ideas from other projects, which could contribute to increased success of their own projects
- To assess these projects according to a defined set of indicators and provide feedback on their strengths and weaknesses via an objective, expert panel
- To provide a useful resource to demonstrate how to implement sustainability principles
 - Distribute final product to all project managers and directors across the City to encourage best practice
 - Ensure accessibility to a wider audience through media coverage of the publication via online media, print media and other networks

The City is proud of the achievements of its directorates in demonstrating an understanding of sustainability principles by having incorporated these principles in their project planning and implementation. However, this portfolio also identifies areas where projects have fallen short in addressing the full spectrum of sustainability.

Some projects that have a strong economic focus have lacked fully inclusive processes, and have not realised their potential in delivering social benefits. Other projects that rigorously address ecological issues have failed to deliver optimal social and economic outcomes.

Thus, while this publication profiles Cape Town as a leading sustainable city, planning and implementing projects that enhance the lives of its citizens now and in the future, it also serves as a call to project managers across the City to strive for more sustainable methods and approaches in project design, implementation and operation.



Project structure

Strategic support

Through the guidance of the Strategic Policy Unit, the advisory forum and the review panel of eminent persons, this portfolio has promoted 'sustainability thinking' and facilitated and encouraged the incorporation of sustainability principles in all City projects, particularly in the long term. Positioning the portfolio in this manner improves decision-making processes to ensure that sustainability objectives are upheld; moves the City towards a stronger foundation of environmental sustainability, and will hopefully serve as an incentive to other institutions and organisations to adopt a similar focus.

Advisory forum

The advisory forum, which consisted of directorate representatives, was established to provide high-level strategic

input to the Mayor's Portfolio. The forum provided insight into projects to be profiled, and advised on mechanisms to ensure most favourable outcomes and the fulfilment of longer-term objectives.

Review panel

The review panel of eminent persons external to the City comprised representatives from the Western Cape Provincial Government (Province), the academic sector, professionals from the private sector as well as civil society leaders. These persons were invited to join the panel because of their knowledge, interest and work in broad areas of urban sustainability. As far as possible, panellists from divergent areas of interest and expertise were chosen.

This panel played an important role in process review as well as moderating the assessment of the projects

Improved outcomes:

The Smart Cape internet access project was initially assessed as being weak in respect of ecological objectives, but the opportunity to strengthen the project's contribution to urban sustainability led to a revised assessment.



Twelve sustainability objectives were identified and reviewed by the project advisory forum and review panel.

Care was taken to ensure that each of the sustainability objectives would remain constant in order to monitor change over time.

included in the Mayor's Portfolio.

The review panel process included a group review session of the project methodology, individual study and analysis of initial project assessments, and a group review session to determine final assessments and provide feedback to project managers.

Assessment algorithm

Twelve sustainability objectives (see page 111) were identified and reviewed by the project advisory forum and review panel. Care was taken to ensure that each of the sustainability objectives would remain constant in order to monitor change over time. The following criteria guided the selection of sustainability objectives:

1. Each objective relates to the achievement of sustainable development.
2. The objectives are easy to understand, regardless of field or specialisation.
3. Data required are easily attainable.
4. The objectives accommodate the varying temporal and spatial scales and project contexts.

Each objective was interpreted by one or more guidelines, and was loosely defined to allow for creativity in determining how a project fulfilled it.

To avoid a potentially misleading quantitative analysis of project data, the assessment scale allowed for the incorporation of interpretive criteria and guidelines, relying more on descriptions than absolute numbers.

Assessment process

To simplify outcomes, the qualitative scale was linked to a quantitative one. 'Poorly' was graded '1' and 'excellent' a '5'. The scoring against each of the 12 axes was then represented on a spider diagram (see example opposite).

Once the assessment framework was finalised, each directorate was given the opportunity to identify projects that they felt met the following criteria:

1. Projects should already be under way and work should have started. Projects should not still be in the planning or conceptualisation phase.
2. Projects should be recently completed, about to be completed or work in progress. New and active phases of older projects are also encouraged.
3. Projects should ideally encompass the principles of sustainability – i.e. they address environmental, economic and social issues in an integrated manner and within a framework of good governance.
4. Projects should ideally be innovative or original in their

approach, and should embrace or demonstrate collaboration and partnership building, thus linking to the principles of World Design Capital 2014.

Interviews with project managers facilitated the collation of information to indicate how the project met assessment objectives. This information was then translated into an assessment table, a diagram and a project profile, which summarised the challenges being addressed by, and briefly outlined key aspects of, the project.

Project managers were invited to review their respec-

tive profiles and initial assessments, and were afforded the opportunity to effect concrete interventions to strengthen aspects of their project and enhance its sustainable practices prior to a final assessment.

After the final project profiles and initial assessments had been completed and internally reviewed, they were presented to the review panel for their verification and formal assessment. This process resulted in a number of minor scoring adjustments, coupled with invaluable recommendations to enhance project sustainability.

Smart Cape, which facilitates wide-spread computer and internet access in Cape Town, was initially assessed as shown by the blue line in figure 1.

It is clear that Smart Cape was initially assessed as being weak in respect of ecological objectives. Given the opportunity to strengthen the project's contribution to urban sustainability, the project team made the following changes:

- The website banner will promote ecological events when they arise.
- Ecological issues and related links are displayed on the landing page.

- A link to the Environmental Resource Management webpage was incorporated into the Smart Cape landing page. Similarly, a commitment was made to link to other ecological websites.
- The project team committed to build partnerships with the departments concerned.

Smart Cape's initial assessment was then revised to take these project changes into account. The revised assessment (indicated in pink) illustrates a more holistic project outcome, contributing to all the assessment objectives without diminishing the project's primary aims and objectives.

Project managers were invited to review their respective profiles and initial assessments, and were afforded the opportunity to strengthen aspects of their project and enhance its sustainable practices.

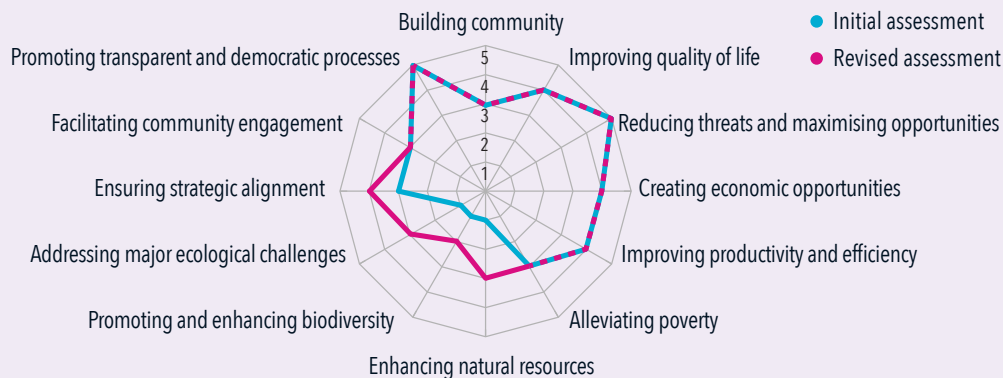


Figure 1: Smart Cape: Original and revised assessments



Strategic links

The portfolio projects link to several strategic focus areas, policies and strategies, and are aligned with World Design Capital 2014.

Integrated Development Plan (IDP)

The portfolio links to the strategic focus areas of the City's IDP, which are as follows:

- **Opportunity city:** This strategic focus area recognises the need to build an economically enabling city by ensuring that people have decent jobs. The need to conserve biodiversity in Cape Town for enjoyment by present and future generations is also recognised as a key element of making it a city of opportunity for everyone. These are two key elements of sustainability – economy and environment – and profiled projects should address these (and/or other) needs.
- **Safe city:** Safety is essential to the public's experience of the city. Sustainable development seeks to build resilience and ensure that the city and its residents are protected from anticipated and unanticipated changes from both natural and human-induced sources, and is therefore a key element in building a safe and resilient city.
- **Caring city:** The primary purpose of creating a caring city is to look after the health and well-being of citizens and visitors. Projects that meet sustainability criteria will by definition contribute to a healthier urban landscape.
- **Inclusive city:** An inclusive city ensures that residents have access to the resources they need. This recognises present and future generations' rights and requires an approach that does the same.
- **Well-run city:** Sustainability can only occur in a context where the institutional arrangements favour democratic and transparent processes. Best practice in sustainability contributes to improved governance

through efficient, effective and appropriate processes.

The portfolio recognises that all contemporary projects in the City should address these strategic focus areas, but chooses specifically to profile those projects that include ALL aspects of sustainability.

Integrated Metropolitan Environmental Policy (IMEP)

The Mayor's Portfolio aligns with the policy principles of the IMEP. These include the following:

- The City's commitment to the responsible stewardship of resources within local government's charge
- The City's commitment to recognise and minimise the impact of its activities on the global environment
- The City's commitment to promote an ethic of collective environmental responsibility in Cape Town through environmental education and awareness programmes
- The City's commitment to open, transparent and effective environmental governance

Project managers were challenged to think broadly about their projects and to consider the role the projects played in promoting best practice in sustainability. These considerations included references to the above IMEP principles, giving attention to the approaches embedded in the design and implementation of projects.

Economic Growth Strategy

The City's natural assets and economic growth are not in conflict with each other. The Economic Growth Strategy (2013) observes that "to build an opportunity city, economic growth ought to be environmentally sustainable in the long term". The strategy further recognises that, given threats of climate change and resource depletion, sustain-

IDP linkages



Opportunity city



Safe city



Caring city



Inclusive city



Well-run city

The Integrated Development Plan (IDP) is a plan for how the City will prioritise its budget spending over a five-year cycle.

The IDP is agreed between local government and residents, and is adjusted to accommodate changing needs.



**THIS SYMBOL WILL
TRANSFORM OUR CITY**

ing growth into the future requires a shift towards “effective environmental resource management together with climate change adaptation and mitigation measures”.

Objective 3.4 of the Economic Growth Strategy (“Protect environmental assets and sustain and expand eco-tourism”) encourages the establishment of green industries and lower-carbon, environmentally friendly alternatives to goods and services. It further encourages the profiling of the city as a tourism destination as well as a global sustainability leader.

These elements of the strategy support this portfolio’s emphasis on sustainable future growth. As evidenced through this portfolio, projects that showcase urban sustainability arose from integrated planning, where design teams sought to create opportunities for investment and job creation.

Social Development Strategy

Objective 1.5 of the City’s IDP, which provides for social upliftment, must be regarded as equally important as objectives 1.3 and 4.2, which respectively promote a sustainable environment through efficient utilisation of resources and economic prosperity.

The City’s Social Development Strategy emphasises the importance of the organisation operating as an integrated whole, where each directorate has an important role to play in facilitating social development. The Social Development Strategy approach differs from previous approaches, which viewed social development as the domain of a specific directorate concerned with relatively small, discrete projects.

Instead, the strategy considers all of the City’s work as geared towards improving the well-being of all people in

Cape Town, which is reflected in this portfolio’s integrated approach to sustainable project assessment. To effectively achieve this, communities need to be given the opportunity to participate in their own development, and a transversal approach to social development has to be followed.

World Design Capital

The Mayor’s Portfolio of Urban Sustainability is an important component of WDC 2014, because it showcases projects that not only promote best practice in sustainability, but also display a level of creative and innovative thinking.

The vision of WDC is to use 2014 as a catalyst to “transform our city into the most inclusive, sustainable, liveable and productive on the African continent”. This portfolio supports this vision by celebrating projects that have developed new ways to meet basic needs and provide services. These projects build communities and social capital, create economic opportunities for local people, and protect the natural environment.

The synergy between this portfolio and World Design Capital creates a platform not only to showcase progress being made towards sustainability, but also provides an opportunity for further dialogue about future approaches to City projects as part of an agenda that includes concepts such as design thinking, collaboration and co-design.

This portfolio strives towards a socially, economically and ecologically prosperous and resilient Cape Town, where the protection and careful use of the city’s rich natural resources leads to social upliftment and economic prosperity, rejecting the all too common paradigm where natural resource depletion and destruction results in social and economic impoverishment.



The vision of WDC is to use 2014 as a catalyst to “transform our city into the most inclusive, sustainable, liveable and productive on the African continent”.

**LIVE DESIGN.
TRANSFORM
LIFE.**

**A global trendsetter**

Responsible tourism (page 77) includes favouring small-scale operators and local sources - which ensures that communities benefit. The Cape Town Declaration, co-created in 2002, is internationally used as the defining statement.

Projects at a glance

Altogether 34 projects, managed and supported by various directorates, are profiled in the Mayor's Portfolio and demonstrate best practice in sustainability. Every project was scored on a scale of 1 ('poorly') to 5 ('excellent') against each of the 12 assessment objectives. Projects scoring between 45 and 48 were awarded a Silver Star rating (★), while those with a total average score above 48 received a Gold Star rating (★). The star ratings are awarded to projects that consistently performed highly across all categories and are identified as examples of best practice in sustainability.

Target area: Social

Project	Description	Evaluation summary
Alcohol and drug treatment sites	Replicable model for providing outpatient treatment for substance abuse.	Makes multifunctional use of clinics and reduces the threats associated with substance abuse.
ARV chronic clubs	Model that enables high patient loads to be managed in groups for effective resource use and enhanced service delivery.	Demonstrates the value of collaboration in large-scale systems improvement.
Backyarders pilot project	Interim intervention developed to provide backyarders with water and sanitation services.	Facilities give backyarders access to basic services without the possibility of debt accumulation.
★ Diarrhoeal disease season environmental health interventions	Integrated plan to improve quality of care received at primary health-care facilities and reduce the incidence of new diarrhoeal cases by minimising risks of exposure to and spread of the disease.	Education outreaches help reduce disease cases and increase appreciation for a clean and functioning urban environment.
Disaster risk management: Public education and awareness programme	People-to-people approach to improve residents' awareness about and preparedness for fire and flood risk.	Makes use of existing community structures to raise awareness and educate people living in vulnerable parts of the city.
Early childhood development (ECD) centres of excellence	Comprehensive centre combining crèche facilities with a resource library and training programme.	Provides a safe and healthy environment for children as well as skills development for local ECD educators.
Guga S'thebe arts and culture centre	Strategic asset that has the potential to bring communities together in a shared appreciation for the arts.	Promotes social cohesion and community participation in the ongoing development of the centre.
Housing consumer education	Making information about homeownership options, rights and obligations accessible to new homeowners.	Enhances democratic processes because first-time homeowners have better understanding of their asset, which also strengthens the delivery of sustainable housing, encourages behavioural change and facilitates better decision-making.

Target area: Social (continued)

Project	Description	Evaluation summary
Legible City	Implementing tourism infrastructure to enable visitors to understand the extent and diversity of the city and access it easily and safely.	The provision of appropriate signage and other tourism infrastructure promotes education and awareness, while simultaneously presenting a strong visual identity that distinguishes Cape Town from other destinations.
★ Pelican Park housing development	The City's second and largest integrated housing project that ensures that land uses support the daily functioning of communities and contribute to the overall character of the area.	Scores excellently for facilitating the formation of a healthy community that brings together people from different income groups.
School resource officers	Improving the safety of scholars at schools, who currently experience high levels of violence, burglary, gangsterism and vandalism.	The placement of officers at vulnerable schools in the city reduces threats to learning and substantially improves the community's relationship with law enforcement agencies through positive interventions.
Surran Road Park	Reclaiming a previously negative space and turning it into a safe and lively community space, increasing the self-esteem and perceived value of previously disadvantaged communities.	Reducing threats by repurposing and attracting the community back to the park, thereby increasing human surveillance.
Valhalla Park family recreation centre	Key pilot project designed to provide a mix of activities catering for all ages and energy levels – including formal and informal recreational activities.	Provides a useful opportunity to experiment with innovative approaches to enhance community participation in healthy activities.
Violence Prevention through Urban Upgrading: Harare urban park	Example of sustainable, multifunctional public space developed through participatory design.	Promotes safe and integrated sustainable communities, citizenship, pride and improved quality of life for residents in low-income neighbourhoods.
Witsand "iEEECO" low-cost housing	Going beyond simply providing dwelling units, beneficiaries in this project receive energy-efficient houses. Contributes to integrated community leadership structures, while also effecting incremental, tangible upgrades.	Demonstrates the impact of developing energy-efficient houses on the quality of life and sustainability of human settlements.

Target area: Economic

Project	Description	Evaluation summary
Bi-directional metering on prepayment systems	Pilot project to establish a smart metering solution to accommodate bi-directional energy flow for residential applications in a prepayment environment.	The project is a learning experience for the City, but it is hoped that as technology advances, optimal and reliable solutions will become available.
C3 notification system	System that facilitates consistent and reliable process for handling complaints and requests from citizens.	The system promotes transparency and accountability by monitoring complaints from when they are received until they are resolved.
Connecting the Company's Garden	Providing the best network and user-friendly experience to those using the free service and to serve as a pilot to test the potential for further rollout. This is just one of the many ways the City is connecting Cape Town.	Makes the internet an accessible resource, while the use of quick reference (QR) codes as an asset management tool enhances efficiency.
Energy-efficient retrofitting programme	Retrofitting Council buildings to improve energy efficiency and promote behaviour change among users.	Supports the building of resilience to climate change, improving the City's carbon footprint and 'walking the talk'.
External training opportunities	Leveraging the City's human and financial resources to provide training and development opportunities for unemployed youth.	Aligns with national imperative to create opportunities for unemployed youth to access skills and work experience.
★ Integrated rapid transit: Red lane	Designated lanes to ensure uninterrupted bus flow during peak times.	The red lanes reduce travel time and costs, which, in turn, has an economic knock-on effect.
★ Kraaifontein integrated waste management facility	Benchmark facility for solid waste management.	Enhances communities' understanding of waste management and the associated costs of handling municipal solid waste.
Responsible tourism	Promoting tourism management that respects local culture, ensures that communities benefit from tourism, and protects the local resource base.	Supports newly established small, medium and micro-sized enterprises as well as motivates for infrastructure investment.
Smart Cape access initiative	Innovative efforts to provide residents with free public access to computers and learning.	Facilities afford previously underserved communities access to technology in a manner that supports and enhances their quality of life as well as access to economic opportunities.
★ Weaving sustainable livelihoods	Demonstration of benefit-sharing between people and nature, and how it can contribute to improved quality of life.	Sharpens existing weaving skillsets in local communities and promotes safe harvesting of <i>Typha</i> from the nature reserve.

Target area: Ecological

Project	Description	Evaluation summary
Air quality programme	Management plan developed to steer the City toward becoming "the city with the cleanest air in Africa".	Contributes to improved health of citizens and supports the low-carbon economy.
Community gardens	Supporting the growing number of community groups who are actively greening their public open spaces.	Encourages health and well-being, positive social interaction and community capacity-building, and provides opportunities for environmental education.
★ Corporate project to improve inland water and stormwater quality	Strategy developed to proactively reduce the amount of pollutants entering the stormwater systems.	Integrated approach to reduce pollutants that enter the stormwater system and contaminate catchments.
★ Friends and Neighbours: The Other Side of the Fence	People-centred approach to reconnecting communities and nature.	Aims to break down the physical barrier between communities and their neighbouring nature reserve, as well as the psychological fence that prevents communities from conserving the biophysical environment.
★ Marine and Environmental Law Enforcement Unit	Proactive multi-agency collaboration that functions through cooperation and clear communication between the coastal regulatory agencies.	Demonstrates the outcomes of sharing resources and capacity across government tiers as a sustainable strategy to combat environmental crime, counter illegal fishing and ensure effective environmental management.
★ Shark Spotters programme	Focused on improving the relationship between people and sharks by changing perceptions.	By reducing the likelihood of an attack and the risk in using False Bay beaches, the programme contributes to the 'decriminalisation' of sharks.
Staff bike-share pilot	Efficient alternative mode of transport for City officials travelling short distances on City business.	Seeks to make cycling in the city safer, and to ultimately change the urban landscape. However, the pilot is currently limited to City officials in the central city and requires upscaling in order to start realising its potential contributions to urban sustainability.
Spine Road non-motorised transport: Phase 1	Creating vibrant spaces by restructuring urban public space, while creating a sense of safety and security.	Adds to improved access to amenities and resources. Regular community engagement and awareness campaigns introduce communities to different forms of non-motorised mobility.
Zeekoevlei eastern shore redevelopment	High-impact project to redevelop the eastern shore into an attractive amenity in the Cape Flats district.	The upskilling of workers is integral to the success of the project, as it builds confidence and morale, and improves the quality of infrastructure.

Portfolio projects



It must be emphasised that the following categories are not intended to reinforce the pillars of sustainability as separate entities, but rather to showcase how projects that might have been confined to resolving a social, economic or ecological problem can be moulded so as to incorporate all the aspects of sustainability. It will become evident that a project can be focused on meeting a social objective, for example, but also contribute to best practice in sustainability. Within each project, primarily driven to meet a social need, there is untapped potential, which, if exploited without compromising the project's primary purpose, can yield ecological and economic benefits,

resulting in a best-practice sustainability project.

To ensure that projects will stand the test of time and appropriately respond to the urban challenges in Cape Town, it is important that they engage with the relevant stakeholders and build beneficial partnerships. The projects in this portfolio are mostly a result of carefully developed partnerships and alignment between the three tiers of government and other sectors, including civil society and the private and academic sectors. Also, these projects demonstrate the importance of accountability and transparency when addressing challenges at the various stages of implementation.

To ensure that projects will stand the test of time and appropriately respond to the urban challenges, it is important that they engage with the relevant stakeholders and build beneficial partnerships.





■ SOCIAL portfolio

The projects contained in this section of the portfolio have strong social components as project drivers. Most of these projects have significant community involvement in the development of processes and structures. Although the pillars of sustainability are interconnected, the projects in this category were originally motivated by the need to address a social problem, thus responding to a need that arose from within the community or came from the everyday dynamics within communities in the city.



Simple and effective

A key element of the diarrhoeal disease season environmental health interventions (page 35) is frequent hand-washing. To support this, campaigns promote a low-cost 'squeeze bottle' as an easy, portable solution for hand-washing with soap where a tap is not available.



Alcohol and drug treatment sites

Problem statement

The Western Cape has the country's highest number of substance abusers, particularly those using methamphetamine ('tik'). Besides impacts on users and their families, substance abuse has serious consequences for communities as a whole, as it may lead to irresponsible sexual behaviour, criminality and violence.

Project outline

Before 2008, the City provided no options for outpatient treatment of substance abuse. The outpatient-intensive treatment model from the Matrix Institute in the United States was identified as a potentially replicable best-practice model for providing treatment. The City's Health

Directorate chose to roll out the programme through local clinics, and on 26 June 2008, the first treatment site was launched at Tafelsig Clinic in Mitchells Plain. Three more sites have since been opened in Table View, Delft South and Town 2, Khayelitsha.

Project design

The treatment facilities provide an innovative and alternative option for clients seeking substance abuse assistance. The service provided is free; there is no waiting period to join the programme, and it is conveniently and strategically located within a clinic, thereby allowing clients to remain within a supportive community structure and become sober while facing day-to-day realities. ►

An innovative approach:

A convenient – and free – option for clients seeking substance abuse assistance within a supportive community structure.



The Tafelsig outpatient alcohol and drug treatment site was the first Matrix site in Africa, and one of a small number of sites worldwide to receive a three-year certificate of excellence from the Matrix Institute.

Project implementation

The treatment programme is intensive and includes at least three sessions per week for four months. These include individual and group sessions, as well as family sessions that educate and empower family members about appropriate support approaches once clients return home. Repairing broken relationships and restoring community cohesion are important outcomes of the programme.

Furthermore, the treatment programme is individual-specific and can be tailored to address each client's needs. Since the programme is manual-based, therapists can keep track of progress made by each client and ensure that all clients receive comprehensive treatment. Similarly, clients can choose to remain in the programme for as long as they would like, and may re-enter if they relapse after treatment.

The Tafelsig outpatient alcohol and drug treatment site was the first Matrix site in Africa, and one of a small number of other sites worldwide to receive a three-year certificate of excellence from the Matrix Institute. This recognises the high quality of the programme and the impressive capacity of its managers and therapists.

Evaluation

By providing an innovative and locally-applicable outpatient treatment programme for substance abuse, the City is working to improve the lives of diverse communities. For instance, the Matrix sites contribute to unlocking the City's latent employee base and equip clients with life skills, hence the excellent score for reducing threats and optimising opportunities. To make efficient use of all resources, clients are encouraged to access other health services available at the clinics. This makes effective use of clinics as multifunctional spaces.

Similarly, substance abuse affects the quality of life, safety and health of the user as well as others. Therefore, by implementing this project, clients are made aware of the consequences of their actions, and through relevant resources, clients and their families can be equipped to better deal with addiction.

Similar to the ARV chronic clubs (page 31), this project does not actively harness the potential of social clubs/networks to create economic opportunities. Additionally, the project team could increase ecological impact by exploring possible links between the project and environmental health.

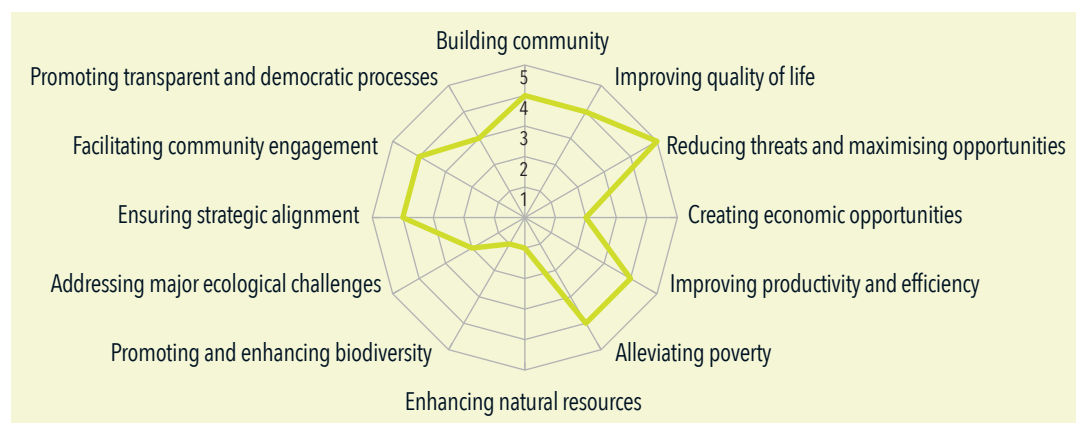


Figure 2: Alcohol and drug treatment sites assessment



ARV chronic clubs

Problem statement

Since South Africa launched its antiretroviral (ARV) programme in 2004, the City has seen thousands of people enrol, with nearly 100 000 people in care at the end of December 2012. The increasing number of patients on life-long treatment puts huge pressure on facilities, resources and staff, which ultimately compromises patient outcomes and the quality of the ARV programme itself.

Project outline

A new and innovative approach to dealing with high patient loads was piloted by Médecins Sans Frontières

(MSF) at Ubuntu Clinic in Khayelitsha. The adherence club model, later renamed the ARV chronic clubs model, enables large numbers of stable patients to be safely managed in groups of approximately 30 people.

Project design

Each group is facilitated by a non-clinical staff member – a peer educator or lay counsellor – and meets every two months to collect medication and undergo necessary monitoring. A club member may spend a maximum of one hour at the clinic every two months, significantly reducing the cost of ARV treatment in time and money. ►

Efficient interventions:

The ARV chronic clubs model enables large numbers of stable patients to be safely managed.



By the end of 2012, 37 ARV facilities were running more than 600 clubs with approximately 16 000 patients receiving care in this manner.

Project implementation

The pilot found that 97% of patients put into clubs remained in care over a 40-month period, compared to 85% of matched patients who stayed in the clinic system. Treatment failure was reduced by 67% in club patients. With improved patient outcomes and huge benefits for the respective clinic and attendant staff, the success of this approach was recognised and endorsed by Province's Department of Health and the City of Cape Town's City Health Directorate. These departments partnered with MSF and the Institute for Healthcare Improvement (IHI) in order to spread this model to other high-volume ARV facilities across the Cape Town metro.

The 'breakthrough series collaborative' approach – an innovative model for large-scale systems improvement designed by the IHI – was used. Multidisciplinary teams from each of the participating facilities gathered every six months over 18 months to develop quality improvement skills and take part in shared learning according to the 'plan, do, study, act' approach.

During this time, each was mentored by a quality improvement facilitator (existing staff members trained by IHI and assigned to a number of facilities), supported

by MSF and an IHI improvement advisor. This approach helped to streamline training, improve learning outcomes, allow for flexibility in approach and, ultimately, enhance the sustainability of the clubs at each facility. Local knowledge, collaboration and peer-to-peer sharing strengthened the design inputs for the club model at each facility.

Evaluation

This project strongly promotes cooperation and collaboration between parties, hence the allocated score for transparency and democracy. Not only has this won the project awards, but it has also provided the resources to develop support material that can be used when replicating the model. The project also makes efforts to alleviate poverty by enhancing the quality of service available.

By the end of 2012, 37 ARV facilities were running more than 600 clubs with approximately 16 000 patients receiving care in this manner. Unfortunately, the project has not harnessed the economic potential created by the social networks. Similarly, the ecological pillar of this project is weak and requires an innovative solution, such as retrofitting the clinics where meetings take place.

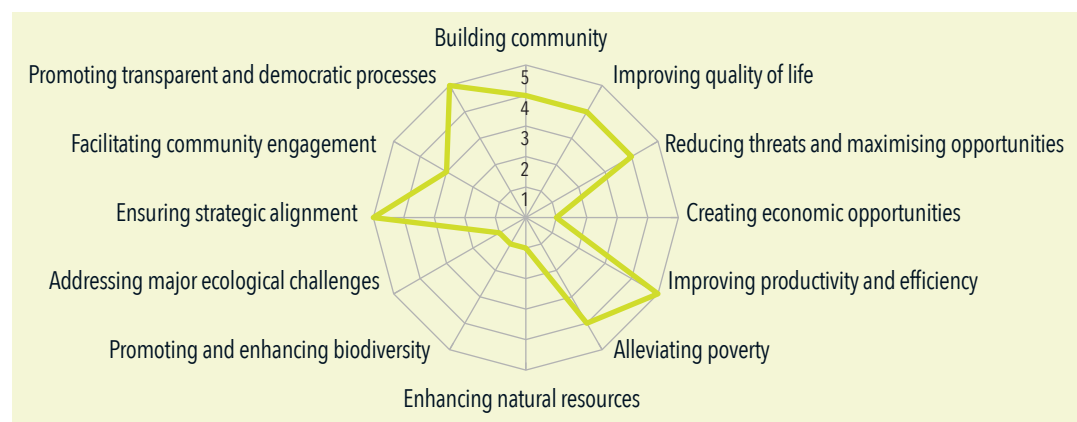


Figure 3: ARV chronic clubs assessment



■ Backyarders pilot project

Problem statement

The backyarder project is an interim intervention that was developed in response to the City's overwhelming housing waiting list. Currently, about 400 000 people are waiting for formal housing, while the City can only provide 10 000 houses per annum. This waiting period for housing has contributed to a sharp increase in the number of backyard dwellers in Cape Town, which population the City has failed to specifically serve for many years.

Project outline

The backyarder project is the first of its kind in the country

and takes steps toward giving backyard dwellers an opportunity to access basic water and sanitation services. Backyarders pay rent for space on an erf, but often do not receive basic services such as other Cape Town residents. Consequently, backyarders tend to dispose of sewage and greywater inappropriately, in stormwater systems and even rivers. This has immense consequences for the environment and also poses health risks.

Project design

Communities indicated their preference for facilities located on individual erven, which would be more accessible ►

In my backyard:

The design is a concrete structure that comprises a flush toilet, which is regulated to 20 flushes per day, a wash-trough and a tap. The tap has an intelligent flow dispenser that monitors water use.



By finding an innovative way of providing backyarders with water and sanitation, this project showcases the collaborative work between communities and the project team.

and convenient. Since the facilities serve a limited number of people in a backyard, they have not been vandalised because of a sense of ownership. Furthermore, during the construction phase, the contractors make use of local labour as well as community-based liaison officers, who serve as mediators between the City, community and contractors to ensure the smooth installation of the facility. Also, a partnership with the Human Settlements Directorate has prevented the uncontrolled increase in backyard shacks by reaching an agreement with tenants. This effectively prevents burdening of City infrastructure and services.

Project implementation

The design is a concrete structure that comprises a flush toilet, which is regulated to 20 flushes per day, a wash-trough and a tap. The tap has an intelligent flow dispenser that monitors water use. Previously, each erf received a standard 6 kℓ per month, regardless of the number of backyarders that stayed on the site.

Through this project, each backyard shack is recognised as in need of these services, and each one now receives 6 kℓ per month. To assist with water use monitoring, each backyarder receives a unique tag to access the tap and

prevent conflict between backyarders about water rations. Similarly, water is rationed equally throughout the month, so unused water can be carried over to the next day and mismanagement of allocated water can be restricted.

Evaluation

Monitoring water use in this manner protects consumers from accumulating debt that they cannot repay, thereby intercepting the poverty cycle. By finding an innovative way of providing backyarders with water and sanitation, this project showcases the collaborative work between communities and the project team to deliver a facility that meets community needs as well as improves the City's ability to manage the water and sanitation recollection debt rate. As a result, the project scores highly for improved productivity and efficiency.

Unfortunately, the project performs poorly ecologically. This could be remedied by using ecologically sustainable water and sanitation facilities, or by incorporating smart living training. Similarly, the project could collaborate with initiatives to reduce pollution in wetlands downstream of informal settlements, which would also contribute to better living conditions.

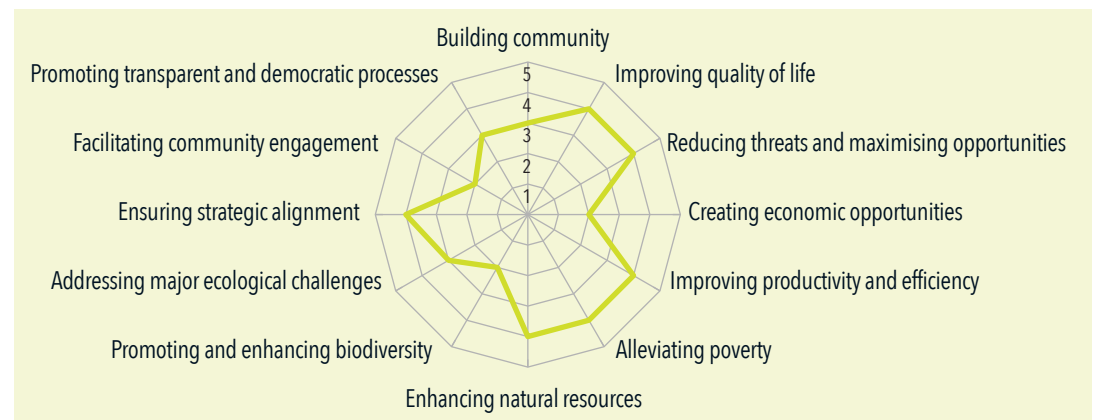


Figure 4: Backyarders pilot project assessment



★ Diarrhoeal disease season environmental health interventions

Problem statement

Diarrhoea is a major cause of avoidable childhood mortality worldwide. In Cape Town, the warm months between November and May provide the ideal breeding ground for the rapid spread of pathogens causing diarrhoeal diseases. Termed 'diarrhoeal disease season' (DDS), this time of year sees a significant increase in the incidence of diarrhoea and dehydration reported to clinics across the city, particularly among children under the age of five.

Project outline

A decision to have environmental health practitioners (EHPs) investigate diarrhoea deaths exposed the upstream factors that favour the spread of diarrhoea and lead to unnecessary deaths. In order to proactively address the root causes of the disease and reduce morbidity and mortality rates, an integrated and comprehensive

plan was devised involving multiple stakeholders.

Project design

The DDS plan has two primary aims: a) to improve the quality of care received at primary health-care facilities through adequate resources and appropriate training, and b) to reduce the incidence of new cases by minimising risks of exposure to and spread of the disease. This includes scaling up the monitoring of health hazards and rolling out educational projects. The 'plan, do, review' approach to monitoring and evaluating this project has ensured that interventions are both locally-appropriate and increasingly effective.

Environmental quality, socio-economic status and health conditions are fundamentally linked; hence EHPs' primary roles include monitoring, evaluation and reporting on delivery of basic services in informal settlements, ►

Low cost, high impact:

In order to spread the 'message' of simple approaches to avoid diarrhoeal disease, hundreds of community members have been employed via the Expanded Public Works Programme.



While spreading key messages across affected areas, the programme also provides jobs and skills development opportunities.

especially related to water, sanitation and solid waste. EHPs are also responsible for health and hygiene projects within communities, including educational initiatives with a particular focus on child-minders and caregivers.

Project implementation

Research has shown that the most effective prevention technique is frequent hand-washing. To support this, campaigns promote the low-cost, locally designed 'squeeze bottle' as an easy, portable solution for hand-washing with soap where a tap is not available. In informal settlements, this is a key component in reducing diarrhoea.

Complementing the health and hygiene community education projects, a strong media communications strategy was developed, with weekly talks on local radio stations, clinic visits, workshops with crèches, and one-on-one interaction with parents and caregivers. It also includes drives to educate traditional healers on appropriate treatments for diarrhoeal disease, and informal food vendors on hygienic food safety practices.

In order to spread the 'message' of simple approaches to avoid diarrhoeal disease, hundreds of community members have been employed via the Expanded Public Works Programme. These workers are trained in environ-

mental health practices and are temporarily employed to supplement the work of the EHPs. While spreading key messages across affected areas, this approach also provides jobs and skills development opportunities.

Evaluation

EHPs agree that the benefits of their education outreach- es are evident from the database, which shows a continu- al decrease in the number of cases with severe dehydra- tion and preventable deaths among children. They also cite an increasing appreciation for the importance of a clean and functioning urban environment for human health and well-being as a key driver in their work. These successes account for the project's strong social pillar.

Since EHPs are responsible for monitoring the City's provision of basic services, such as waste removal, sanita- tion and water provision, their increased presence and attention to these issues in informal settlements con- tribute to improved environments. The project is also founded on regular monitoring and evaluation, hence the notable alignment with good governance. Data collected by EHPs are core to informing management strategies and proactive interventions to reduce the disease burden of preventable diseases on vulnerable communities.

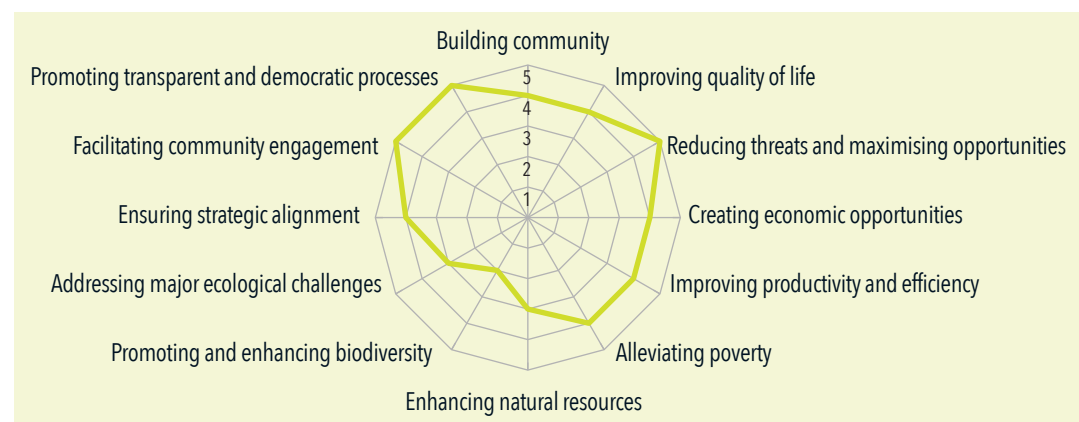


Figure 5: Diarrhoeal disease season environmental health interventions assessment



Disaster risk management: Public education and awareness programme

Problem statement

Cape Town is prone to two major hazards that often end in disaster, namely floods and fire. Thousands of vulnerable people, particularly in the city's informal settlements, are affected by flooding every winter, and by fires every summer.

Project outline

To help prevent disasters caused by flooding and fires, and to mitigate their impact when they do occur, the City has initiated a public education and awareness campaign. The campaign is aimed at improving residents' awareness of and preparedness for fire and flood risk, as well as appropriate responses to emergency situations.

Project design

Initially, the campaign took the form of an outdoor theatre performance by the Jungle Theatre Company. The play, called "Spirit of Fire" or "Spirit of Water", depending on the context, engaged with community members in high-risk informal settlements through an interactive learning experience. Pamphlets were also distributed, but due to their impersonal 'throw-away' nature, they made very little impact. Therefore, a fresh, interactive approach was needed to make the campaign relevant and effective.

Project implementation

The campaign has taken a new direction by engaging directly with community leaders to develop group-based

Flooding facts:

A public education and awareness campaign around flood and fire risks engages directly with community leaders to develop group-based interactive learning sessions.



The campaign attempts to reduce the incidence of disasters by making effective use of existing community structures.

interactive learning sessions. These sessions will be facilitated by ten to 15 trained community leaders using a specially developed information flipchart. Each facilitator will be employed through the EPWP to lead the group education sessions on a seasonal basis. To increase transferability of information, the FireWise and FloodWise flipcharts were created in the three major languages of Cape Town.

Evaluation

The campaign attempts to reduce the incidence of disasters by making effective use of existing community structures. This is evident in the social assessment outcomes of

the project as well as the excellent use of community engagement. Furthermore, by linking community experience and people-to-people communication, the project demonstrates collaboration between the City and communities, thus taking a joint stance regarding disaster prevention and mitigation.

To ensure successful disaster management and truly effect change, however, the project needs to integrate with planning and stormwater management departments. Since the project was recently launched, only time will tell whether the campaign has effectively reduced incidents of fire and flooding.

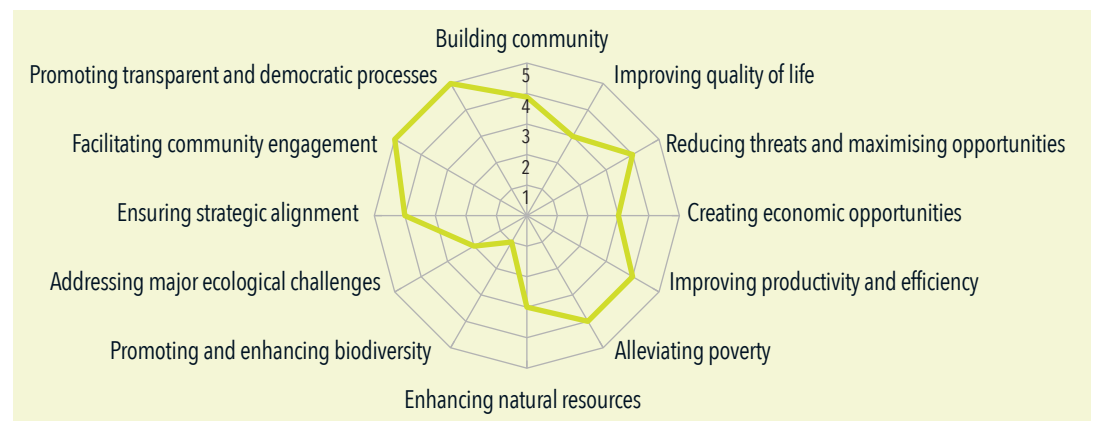


Figure 6: Disaster risk management: Public education and awareness programme assessment



Early childhood development centres of excellence

Problem statement

Many areas in Cape Town are not sufficiently resourced or capacitated to provide appropriate and healthy facilities for children below the age of six. This has negative implications for their intellectual, social and physical development, as well as their safety.

Project outline

The early childhood development (ECD) period, from birth to age six, is the most critical time in a child's development, during which children require the most care and support. It is during this time when cognitive stimulation, nutrition and emotional attachment all work together to

shape the identity, coping skills, intelligence and problem-solving abilities that children will need to grow into positively adjusted adolescents and adults. The City recognises this, and is committed to rolling out effective ECD programmes.

Project design

One of these is the ECD centres of excellence initiative. After much research on best (and worst) practices in ECD centres around the country, a comprehensive centre combining crèche facilities with a resource library and training programme was designed.

With support from Dutch funding agency Stichtung ►

A place of safety:

The new early childhood development centre provides a safe and healthy environment for up to 200 children varying from infants to six-year-olds.



As the model is replicated in other areas of the city, these centres will have an indelible impact on the children and families of Cape Town, both now and long into the future.

Mzamohle, the Mellon Housing Initiative and the South African Sustainable Development Initiative (SASDI), the first of these ECD centres of excellence was designed, built and opened in Mfuleni in October 2010.

Project implementation

The new double-storey building provides a safe and healthy environment for up to 200 children varying from infants to six-year-olds to take part in educational programmes that assist with future education and development. They are also fed nutritious meals during the day – for some, this is their only food of the day.

The centre is managed by the SASDI Education and Learning Facility (SELF) through a memorandum of agreement with the City. The building includes additional offices to be used for administrative functions, space for a resource library, as well as a caretaker's flat on the property. Outside opening hours, facilities at the centre can be used by local non-governmental organisations (NGOs) or small businesses that require space for meetings or events. Similarly, community events held in the evenings generate additional income for the centre and also ensure constant activity, which is a deterrent to criminals.

The centre of excellence model provides a useful

resource for the entire community, particularly other under-resourced ECD facilities. As the model is replicated in other areas of the city, these centres will have an indelible impact on the children and families of Cape Town, both now and long into the future.

Evaluation

This project has a strong social component. In addition to providing a healthy environment for children, the centre of excellence model also invests in outreach and support for other ECD facilities in the community. This is in the form of training and development of ECD educators as well as resources such as toys, books and other educational items, which other facilities can borrow on a short-term basis. These efforts ultimately promote generally improved conditions in the community, and encourage community engagement. Consequently, the project achieves above-average scores for the social aspects of the assessment.

However, the project does not have adequate connections to the ecological pillars of sustainability. This could possibly be achieved by incorporating environmental content in the lessons taught, or perhaps incorporating green building principles in future projects.

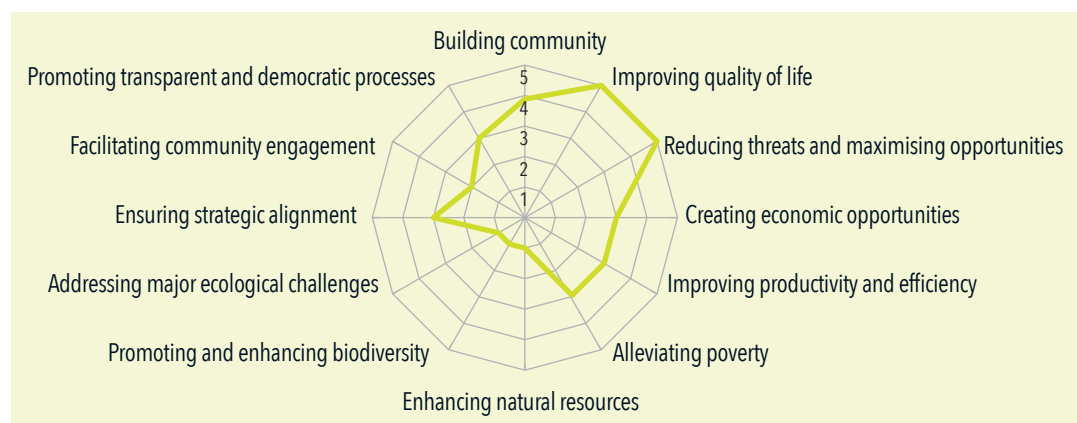


Figure 7: Early childhood development centres of excellence assessment



■ Guga S'thebe arts and culture centre

Problem statement

Guga S'thebe is the only arts and culture centre owned by the City of Cape Town in a township that was historically established for black South Africans. It is a strategic asset that can be used to bring communities together in a shared appreciation for the arts.

Project outline

Guga S'thebe is located alongside the Langa Heritage Museum, which comprises the Old Pass Court building managed by the Langa Heritage Foundation, and the Old Post Office, which is often used as a temporary exhibition space. Together with the theatre, these facilities form the

Langa cultural precinct.

The various art exhibitions at the centre not only attract tourists, but also give Langa residents an opportunity to be exposed to local and national art and artists. The precinct incorporates art studios, a resource centre, store-room facilities, a retail facility for arts and crafts, and workshops for metalwork and pottery.

Project design

Currently, a project team from the City is managing the precinct and exploring ways to attract more visitors to this cultural space. While doing so, they are looking to establish a new community board, which can be capacitated to ►

The art of craft:

The Guga S'thebe centre in Langa is an important element of the City's vision of supporting the development of cultural and creative clusters.



The project effectively alleviates poverty by seeking to empower community members, as well as incorporating a resource centre that is accessible and well equipped.

formally manage the centre. The activation of Guga S'thebe is an important element of the City's vision to support the development of cultural and creative clusters, similar to those in Soho (London) and Hollywood (Los Angeles). These creative clusters have proved to be an interesting and sustainable way to stimulate economic opportunities.

Project implementation

The increased diversity of cultural products on offer is expected to support the role of Guga S'thebe in developing and strengthening the economic base of the community, as well as enhance the experience of locals and tourists in Langa. As in any low-income area, the provision of meaningful employment opportunities is vital to the success of Guga S'thebe. The EPWP is expected to provide some structured employment at the centre, but indirect and informal opportunities are equally important in Langa, where some 60% of the adult population is unemployed.

To support and kindle an entrepreneurial spirit in Langa, Guga S'thebe will also offer small-business support to potential and existing business owners, with a vision to see these flourish. To facilitate this, the Cape Craft and Design Institute is undertaking a feasibility

study to ascertain the financial viability and potential of various crafts at the centre.

Evaluation

The Langa Cultural Precinct is envisioned to promote community engagement and social cohesion in Langa and throughout the city. Activities at the centre have kept the end user involved in the design process, use and ongoing development. Alongside this, the project effectively alleviates poverty by seeking to empower community members, as well as incorporating a resource centre that is accessible and well equipped.

Ecologically, though, the project scores poorly, because no intentional connections have been made between the centre and the environment. This would be an ideal location to facilitate environmental debates and discussions. Lastly, Guga S'thebe is currently under Council management, despite the desire to have the facility operated by the community. This poses questions around the factors that enable communities to successfully run community centres. Given the overarching objective for Guga S'thebe to be one of the City's creative hub anchors, the management team needs to be trained/upskilled to carry the vision into the future.

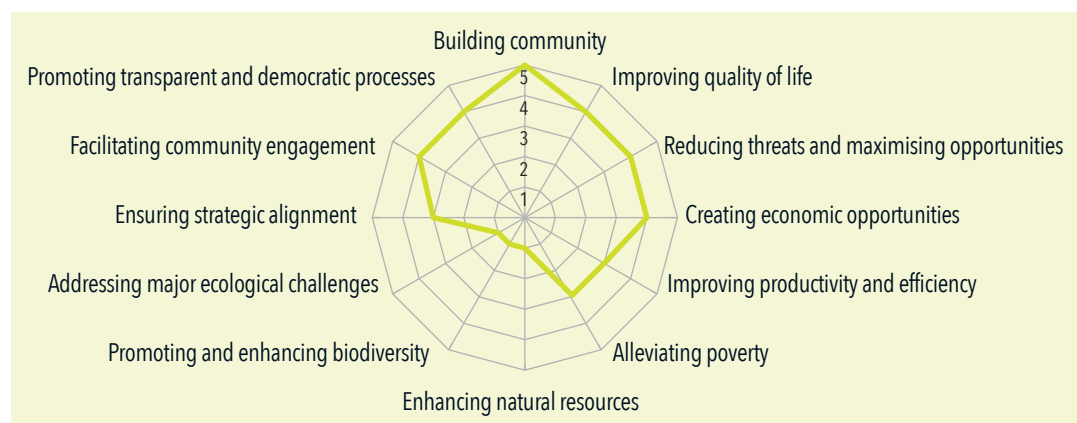


Figure 8: Guga S'thebe arts and culture centre assessment



NICOLA LOMBARD

Housing consumer education

Problem statement

The Human Settlements Directorate identified a pressing need to clarify homeownership options, rights and obligations for new homeowners. This information is unfortunately not easily accessible, which has resulted in poor decision-making on the part of new housing owners and the formation of unsustainable settlements.

Project outline

The housing consumer education (HCE) programme was

formed in 2011 to ensure that all housing beneficiaries, including the elderly, understand government's role in providing housing, as well as their own rights, duties and responsibilities.

Project design

The training is primarily aimed at the recipients of subsidised housing, because they are often unfamiliar with the process of purchasing and owning a house. These processes involve various agreements, such as the deeds ►

Home bodies:

The housing consumer education (HCE) programme helps new homeowners, who tend to be under-equipped, to make informed decisions about appropriate housing options as well as other housing matters.



By providing access to information, the HCE enhances democratic processes, as first-time homeowners develop a better understanding of their rights, duties and responsibilities.

of sale, mortgage bond agreements and instalment sale agreements. As a result, new homeowners tend to be under-equipped to make informed decisions about appropriate housing options as well as other housing matters. The HCE addresses this need, and equips beneficiaries with the knowledge and tools needed to make owning a house relatively simple and affordable rather than a burden.

Project implementation

So far, training has been conducted for more than 4 000 homeowners in Ocean View, Manenberg, Philippi, Mitchells Plain and other communities. Training is also made available to City officials as well as partnering organisations in projects such as the Pelican Park housing project (page 47).

The HCE programme covers a wide spectrum of issues relevant to housing beneficiaries. The programme is designed and developed to address issues relating to housing options, finance and savings, health, water and sanitation, HIV/Aids awareness and maintenance of properties. The workshops encourage the beneficiaries to make the most of the opportunity provided to them by

seeing and operating their home as an asset. Beneficiaries are also advised to draft a will and apply for household insurance in order to secure their family's future.

Evaluation

Through this programme, the City assists new homeowners, and educates them about 'smart living' – a lifestyle that is sustainable in terms of waste generation and recycling, water and electricity use and the conservation of natural resources. By providing access to information, the HCE enhances democratic processes, as first-time homeowners develop a better understanding of their rights, duties and responsibilities. This also strengthens the delivery of sustainable housing, encourages behavioural change, and facilitates better decision-making.

Overall, the project performs excellently in governance-related matters, but the same cannot be said for enhancing biodiversity. Although the training provided includes smart living workshops for homeowners, it may be helpful to expose communities to indigenous and alien plant species, given that natural resources are likely to be found on or around housing sites.

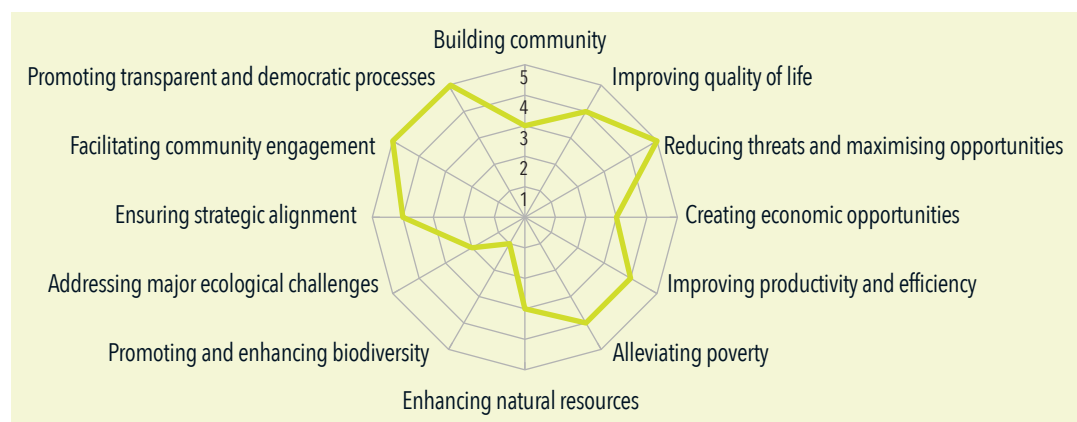


Figure 9: Housing consumer education assessment



Legibility is about granting access and information to people, so that they can walk away from an interaction with a space or artefact, and feel that they have been empowered to respond to it.

regions to create identity and to optimise access to tourism precincts. Within this framework, the Legible City programme was initiated to make the city easier for people to understand and navigate. Its objectives include creating distinct, high-quality environments that differentiate areas of character and special significance within Cape Town, support the movement of visitors through the city, and generate a clear sense of place. Better experiences will lead to more feet, and will therefore enhance the economic benefits of tourism through job creation and building businesses that support tourism.

Legibility is about granting access and information to people, so that they can walk away from an interaction with a space or artefact, and feel that they have been empowered to respond to it.

One of the projects has been a pedestrian system/gateway developed for Langa and Muizenberg to enhance visitors' experience of the two areas. These areas were identified based on their tourism potential, private-sector and community involvement, and the existence of tourism routes.

This project is designed to create an enhanced sense of place for both residents and visitors by connecting spaces and amenities, and enhancing the city's identity.

Evaluation

In Langa, the project focuses on the gateway (via Bhunga Avenue). This is important, as it enhances the sense of place and ties in with the historical attractions such as Haarlem Street, the Old Pass Office and Guga S'thebe in Washington Street. Plans include the use of artwork and the formation of links with existing historic maps telling the story of Langa.

In the Muizenberg area, the focus was mainly on maintenance issues (cluttering of old and outdated signs, broken pavements, etc.), but also highlighted issues that make it more difficult for people with accessibility restrictions (wheelchair users, the elderly, etc.) to use the tourism routes. Maps and markers on the ground also assist with the movement of people, while interpretation signage helps to tell the stories of Muizenberg (for example, a poster on the history of surfing).

By appropriately providing signage and other tourism infrastructure, this project promotes education and awareness, while simultaneously presenting a strong visual identity that distinguishes Cape Town from other destination cities.

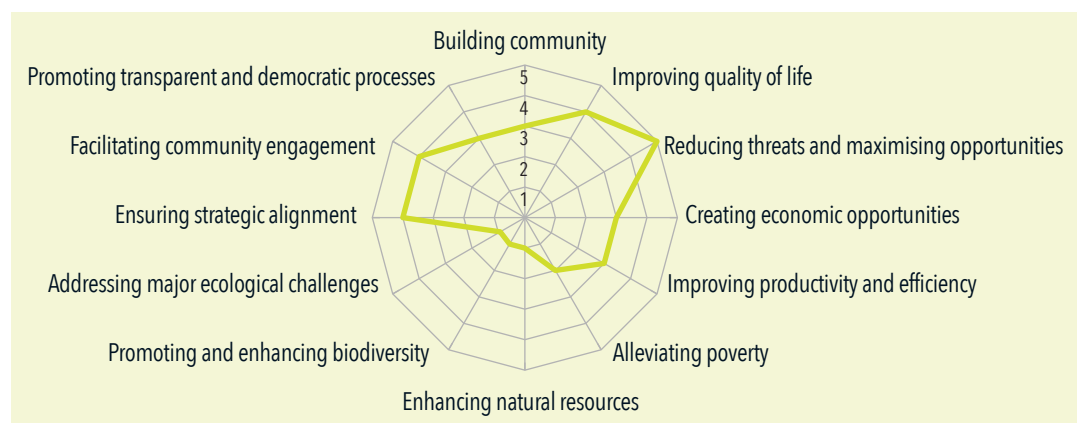


Figure 10: Legible city assessment



★ Pelican Park housing development

Problem statement

Socio-spatial inequality is still prevalent in the city, and there is also a significant lack of affordable housing. This results in Capetonians continuing to live in a manner segregated by income brackets.

Project outline

Pelican Park is the City's second and largest integrated housing project. Situated between Zeekoevlei and Strandfontein Road, just north of the False Bay coast, the development includes subsidised and bonded housing as well as a proposed commercial centre, green open spaces, and sites for a clinic, future schools and places of worship.

Project design

In order to maximise innovation, integration and the economies of design and scale, developers, with integrated teams of built-environment professionals and contractors on board, were invited to propose turnkey solutions

for the site. The Pelican Park project is unique, because it caters for homeowners across a wide spectrum of income levels. Altogether 2 000 of the units are fully subsidised and will be allocated to beneficiaries on the housing database. Additionally, 700 gap housing units are planned for families earning between R3 501 and R15 000 per month – to accommodate those who do not qualify for a government subsidy, but also cannot afford to purchase their own homes without financial assistance. Open-market houses priced from R480 000 will also be included to provide opportunities for those earning above R15 000 per month to purchase their own homes. The development will also incorporate about 60 shop houses along the main roads in the community. These will be double-storey units with space for living on the top floor and a business operation on the ground floor.

Project implementation

Innovative bid assessments for project procurement were ►

Across the board:

The Pelican Park project is unique because it caters for homeowners across a wide spectrum of income levels, providing fully subsidised, gap and open-market houses – as well as double-storey shop houses.



The Pelican Park housing development scores excellently for facilitating the formation of a healthy community, which brings together people from different income groups, while still meeting needs specific to each group.

based on the rand value of each house, and included enhancements that developers were prepared to make to improve the quality and reduce the resource use of each unit. This approach has subsequently been applied to all housing projects put out to tender by the City. All subsidised houses are planned to feature a 100 ℓ solar water heating system, a grassed front yard with a boundary wall, superior-quality external doors, concrete tiled roofs, and lights and electrical plug points in every room. To maximise the socio-economic aspect of sustainable development, the project employs the local skills of 300 people through the EPWP to do some of the work on-site. The City, in collaboration with the NGO Habitat for Humanity, hosts workshops on consumer education and responsible homeownership, which beneficiaries are required to attend.

Although the project site is 360 ha in total extent, 200 ha have been identified as a valuable and rare remnant of sand fynbos dunes, and will be conserved. Similarly, houses at the interface between development and False Bay Ecology Park will face the boundary over a perimeter road and green fence, with discrete pedestrian access points to reduce the negative impact of human intervention on the natural environment. Not only does this design aspect give homeowners spectacular views,

but it also provides the park with additional surveillance.

Evaluation

However, the Pelican Park housing project is not without its challenges. There are strong concerns about the impact of the project on the community, property and land value of neighbouring Pelican Park and Zeekoevlei residents. Consequently, extensive and continuing community participation is a key aspect of the project.

The Pelican Park housing development scores excellently for facilitating the formation of a healthy community, which brings together people from different income groups, while still meeting needs specific to each group. For instance, the subsidised housing has added enhancements that make houses more comfortable and pleasurable to live in, such as solar water heaters and additional plug points. The project also encourages the formation of small, medium and micro-sized enterprises by incorporating shop houses to stimulate economic activity in the community. Additionally, the project demonstrates commendable alignment with the City's plans to develop integrated settlement patterns, which ensure that land use supports the daily functioning of communities and contributes to the overall character of the area.

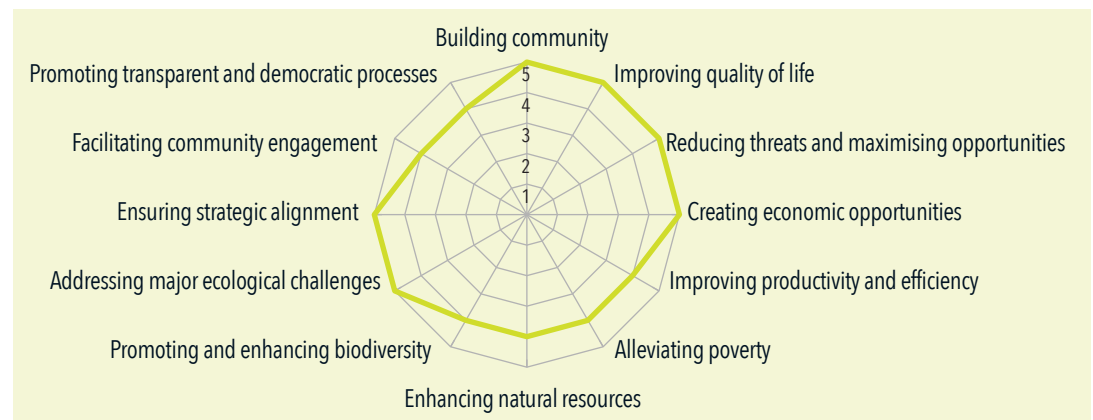


Figure 11: Pelican Park housing development assessment



School resource officers

Problem statement

High levels of crime and violence in schools in the city have a negative impact on learning and teaching, and compromise learner and staff safety. Furthermore, the negative perceptions of law enforcement in these areas amplify the incidence of illegal activity.

Project outline

In response to this problem, the City initiated a project that seeks to improve the safety of scholars at schools that currently experience high levels of violence, burglary, gangsterism and vandalism, for example.

Project design

The Metro Police have partnered with the South African Police Service (SAPS), Province's Education and Communi-

ty Safety departments, as well as key players from the USA to implement a school resource officer (SRO) programme in six secondary schools on a pilot basis. While new to South Africa, the SRO model is widely implemented across the USA to ensure school safety in order for "learners to learn and teachers to teach".

An SRO is a sworn Metro Police officer assigned to a school on a long-term basis to identify and address the underlying problems that may lead to disorder, ill-discipline and crime. The SRO is also responsible for the implementation of strategies to overcome the identified challenges to make schools and their immediate surroundings safer.

Project implementation

Before deployment to schools, SROs underwent a rigorous ►

A new concept in SA:

School resource officers (SROs) are sworn Metro Police officers assigned to a school. The SRO model is widely implemented across the USA.



The placement of SROs at vulnerable schools reduces threats to learning, and substantially improves the community's relationship with law enforcement through positive interventions.

recruitment process based on international best-practice criteria and, with funding from the Violence Prevention through Urban Upgrading (VPUU) programme, received high-quality training in conflict resolution, communication, project management, computer skills and broken windows theory presented by the National Association of SROs.

An SRO is a visible, active school safety figure, who is a resource both in the classroom and in the community. While primarily engaged with supporting the principal to proactively ensure the safety and security of people on the school property, SROs are also available to educate learners on law-related matters and are the first persons to counsel victims. Other goals include bridging the gap between police officers and young people, increasing positive attitudes towards law enforcement, teaching the value of the legal system, promoting respect for people and property, reducing juvenile delinquency by helping students to formulate awareness of rules, authority and justice, and ensuring students and teachers do not become victims of crime at school. A high moral standard is expected of SROs, as they are called to be positive role models who embody justice and respect.

To address the high levels of absenteeism (due to fears of walking to and from school), SROs will be involved in developing a safe-movement corridor with patrolling officers, closed-circuit television (CCTV) coverage and good lighting. The aim is to improve the school experience through various safety interventions.

Evaluation

This pilot gives an opportunity to investigate possible options for further intervention to improve safety and security at schools. The placement of SROs at vulnerable schools in the city reduces threats to learning, and substantially improves the community's relationship with law enforcement through positive interventions. As a result, the project received a high assessment for social and governance aspects. The project may further benefit from community-level coordination and support. This would reduce the reliance on already stretched SAPS services.

Ecologically, though, the project scores poorly. Crime prevention is included in SRO training, but these techniques have not been implemented. However, future plans include the establishment of safety corridors for learners to travel to and from school.

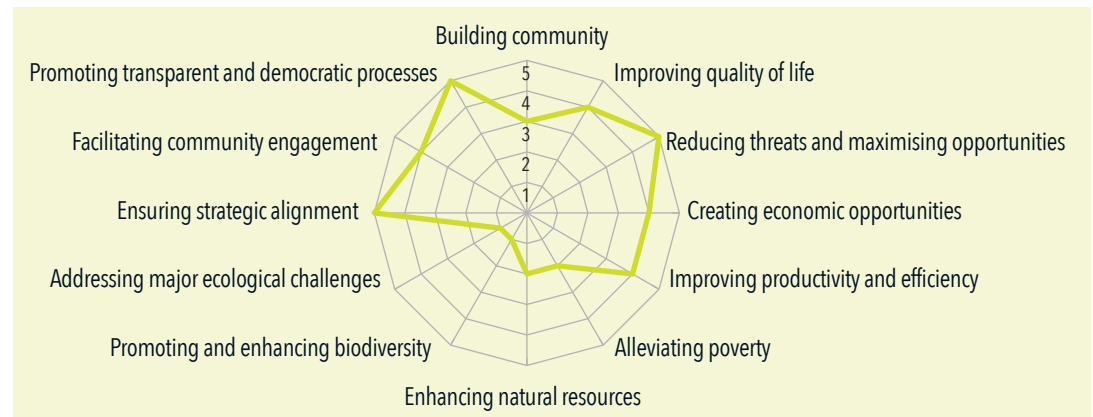


Figure 12: School resource officers assessment



■ Surran Road Park

Problem statement

Hanover Park is a suburb infamous for gang activity, where open space is synonymous with crime and violence, and vacant plots seem to invite drug dealers and gangsters. In 2010, the community and the City partnered to reclaim one of these spots.

Project design

Developments on Surran Road Park began as a skateboarding facility, and activated several other investments

such as picnic facilities, landscaped walkways, an informal soccer turf and a children's play area.

Project implementation

A particular effort has been made to provide facilities for all age groups in the area, moving away from the model where parks are developed solely for children to play. The park has an amphitheatre to support events and activities, as well as a fynbos garden inspired by the biodiversity garden in Green Point Urban Park. ►

Fine features:

The park has a fynbos garden inspired by the biodiversity garden at Green Point Urban Park.



Community members voluntarily assist with park supervision, especially over weekends, which is a good sign that they are taking ownership of the space.

Future investments at the park will include a landscaped 'photo corner' for events such as weddings and birthdays, an outdoor gym to encourage healthy and active lifestyles, as well as lighting.

The multi-use nature of the park ensures that it meets the needs of the community in a tangible way. Currently, the park already serves as an asset to the nearby church, crèches, local schools and people living in neighbouring Council flats, and is used for the City's 'Come and Play' programme.

Constant activity at the park provides a passive security presence, effectively reclaiming the space from the illicit activity taking place in the rest of the neighbourhood.

Two community members have been employed to oversee the park, including maintenance, daily supervision, security and communication. These overseers act as a channel for the community to communicate with the project managers. The long-term aim is to capacitate these individuals to tender for management of the park on behalf of the City.

Interestingly, other community members voluntarily assist with park supervision, especially over weekends,

which is a good sign that they are taking ownership of the space. Evidence of this is that gangs are no longer active on this piece of ground, and people are now able to enjoy the park in safety.

Evaluation

Surran Road Park was designed to be a valuable community asset. This urban space was developed as a mechanism for reclaiming misused public space. This is represented in the diagram below as reducing threats, because developing the park effectively repurposed the space and attracted the community back to the park, thereby increasing human surveillance. Likewise, the investment directed toward the park has put it on par with parks found in wealthier parts of the city, and encourages the community to take ownership of the space.

Ecologically, the park development ensures that illegal dumping has one less public space to burden, and community volunteerism on weekends is also evident. This is testament to the positive effects of developing under-utilised public space, given the unique local issues, constraints and expectations in communities.

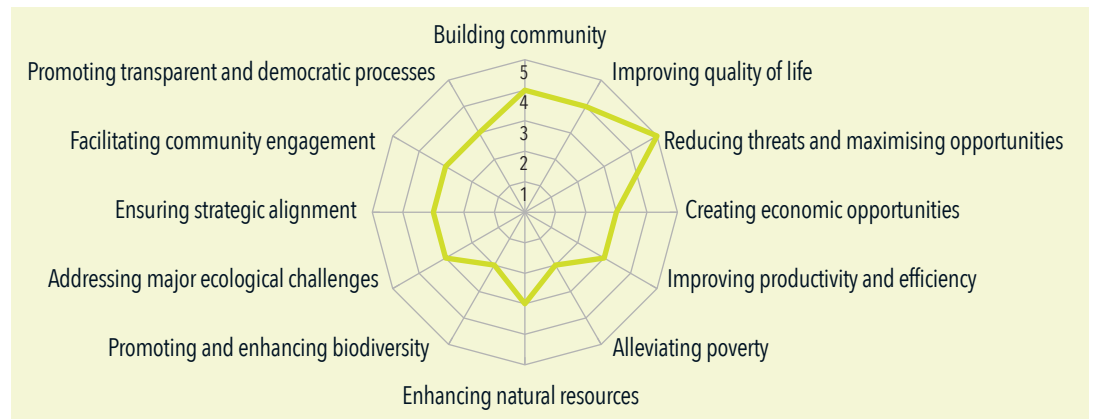


Figure 13: Surran Road Park assessment



BRUCE SUTHERLAND

Valhalla Park family recreation centre

Problem statement

Many communities in Cape Town do not have access to recreational facilities. While formal sports fields and centres are scattered across the city, these do not facilitate multi-generational, multi-type recreational activities.

Project outline

A study commissioned by the City in 2011 highlighted a need for the provision of facilities to support informal recreational activities, which build community rather than

focus heavily on formal sporting codes.

In response to this, the Sports, Recreation and Amenities and City Parks departments, in partnership with the Spatial Planning and Urban Design Department, embarked on several projects around the city to bring facilities to communities without access to appropriate or adequate recreational opportunities.

Project design

The Valhalla Park family recreation centre (FRC) is a key ►

Making a splash:

A splash park – or spray park – is cheaper to build and maintain than a swimming pool and there is no risk of drowning, so there is no need to employ lifeguards.



The Valhalla Park FRC provides a useful opportunity to experiment with innovative approaches to enhance community participation in healthy activities.

pilot project designed to provide a mix of activities catering for all ages and energy levels – including formal and informal recreational activities. This 5 ha park features a full-size soccer AstroTurf, a skate park, BMX track, informal cricket oval, toddlers' play area, an innovative splash park, outdoor gym, clubhouse, reading rooms linked to the local library, an ablution block, a network of paths and landscaped areas, and plenty of space to relax. The centre's proximity to a public library, local church, secondary school and ECD centre ensures that it is easily accessible to all members of the community.

Project implementation

The FRC provides enhanced opportunities for physical activity and healthy lifestyles. It also encourages increased use of the local library and healthy minds through the provision of 'reading rooms' – small outdoor bomas that can host group or individual reading sessions.

The open design of the facility also allows family members to be in constant visual contact with each other, which improves perceived and actual safety. Rather than fences, the Valhalla Park FRC uses design principles and high user numbers to facilitate security. Also, a full-time supervisor will be appointed to live on-site and provide

24-hour oversight – facilitated by the visible second-storey flatlet built above a small centre, which the community can use for functions.

Evaluation

The Valhalla Park FRC provides a useful opportunity to experiment with innovative approaches to enhance community participation in healthy activities. It is a big step towards providing communities in Cape Town with high-quality facilities that improve their quality of life in an environmentally sensitive and socially inclusive manner.

Indigenous trees and grasses are key aspects of the landscaping, due to their minimal maintenance requirements and positive environmental impact. During construction, a high water table was discovered; a borehole will therefore be used to provide water for all maintenance and non-contact activities.

Creating economic opportunities, on the other hand, is not a strong aspect of the project, as can be seen in the diagram, but the project team foresees forming links between the FRC and the economic hub, supported by the Economic Development Department. The business hub will provide entrepreneurs with a space to market their goods and grow their businesses.

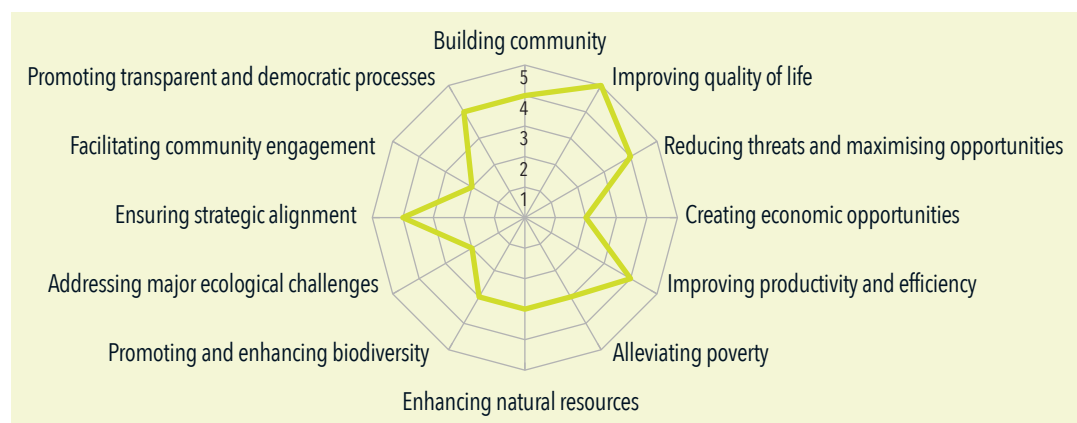


Figure 14: Valhalla Park family recreation centre assessment



■ VPUU: Harare Urban Park

Problem statement

The insecure living conditions in low-income 'townships' in Cape Town, namely the high crime rate, poor urban spaces, high concentration of vulnerable groups, lack of basic services, minimal disaster risk management plans, insecure tenure arrangements, unemployment and poor education, all add to increased occurrence of violence.

Project outline

The aim of Violence Prevention through Urban Upgrading (VPUU) is to build integrated sustainable communities in low-income areas in a manner that better equips them to overcome economic, social, cultural and institutional exclusion in a drive to prevent crime. The project is based on the understanding that environmental design can affect people's choices.

Project design

VPUU is a population-level intervention that aims to relieve exclusion and vulnerability by acting principally at

the level of community. It does this while remaining engaged with factors that operate at the micro-level (individual and family) as well as the macro-level (metropolitan, provincial, national and international). The objective is to be an inclusive programme that works with the community, for the community. As a result, volunteerism and cooperation are considered to be part of the development from the outset, where the community take on a measure of responsibility, ownership and identity.

Project implementation

The VPUU programme follows a clear participatory urban appraisal methodology, in which residents are given a high level of influence in the implementation and service delivery process. It should be noted that all implementation is undertaken in partnership with the appropriate municipal government line departments in terms of their mandates, and the VPUU team acts as an implementing agent or development facilitator.

The programme is a participatory research-based

Integrated communities:

Through participatory design with local leadership and the relevant municipal line departments, the project team was able to transform this crime hot spot into a dynamic area.



Through participatory design with local leadership and the relevant municipal line departments, the project team was able to transform this crime hot spot into a dynamic urban park.

approach that combines best practices with the concept of asset-based development, informed by the context and community knowledge within South Africa. The emphasis of all projects is that they should be locally owned and determined. Participatory conceptualisation, design, implementation, operation and maintenance are key success factors of the programme. A high degree of transparency, integrity, promotion of volunteerism and accountability are factors that have contributed to the high acceptance of VPUU. The programme implementation is measureable and accountable to the funding partners and the community beneficiaries.

Harare Urban Park is an excellent example of a sustainable multifunctional public space. The community used the space as a shortcut to amenities, and soon, the pedestrian desire line turned into a main pedestrian thoroughfare. However, since the site was considered as 'left-over space', it also became a dumping ground for all types of waste. Furthermore, this area became unsafe and was identified as one of the worst crime hot spots by community members in 2006.

Through participatory design with local leadership and the relevant municipal line departments, the project team was able to transform this crime hot spot into a dynamic

urban park. The urban park is made up of an 'active box' building, a playground, a pedestrian route, a stormwater pond that doubles up as informal sports field, and the Football for Hope centre. Good lighting along the pedestrian route and well-lit sport areas allow children to play into the evening.

Sustainability aspects are incorporated via rainwater recycling and solar collectors – both warm-water and partially photovoltaic. This concept of positively occupying perceived dangerous spaces is made possible through the interaction with the social and institutional elements of the programme.

Evaluation

VPUU is a comprehensive area-based community development programme that aims to promote safe and integrated sustainable communities, citizenship, pride and the improvement of quality of life for residents in low-income neighbourhoods. Evidence of the programme's impact is seen in the local pride and sense of ownership manifested through volunteer security groups and paid landscape maintenance by residents, as well as the absence of vandalism. As a result, the programme scores excellently in the social and governance parts of the evaluation.

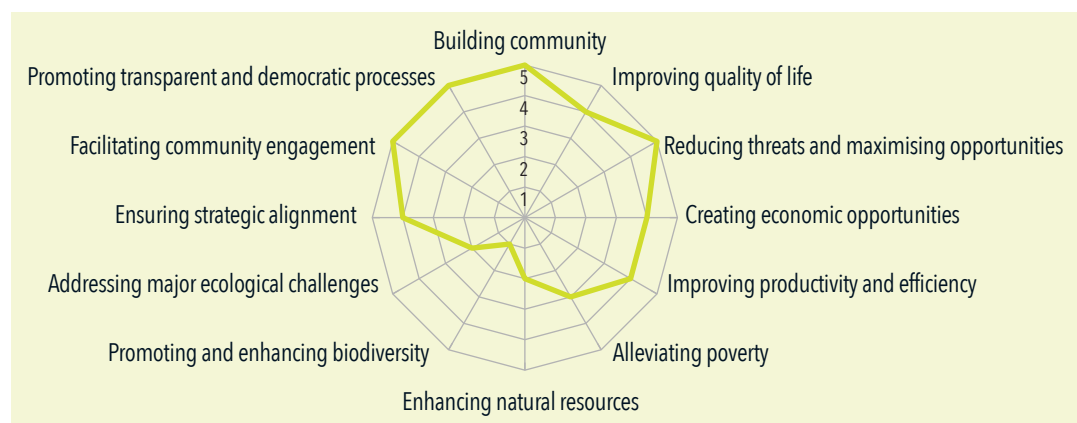


Figure 15: Violence Prevention through Urban Upgrading: Harare Urban Park assessment



■ Witsand 'iEEECO' low-cost housing project

Problem statement

The Witsand community, on the outskirts of Atlantis, faces the same challenges as many other informal settlements across Cape Town: small living spaces for large families, negative environmental conditions, high unemployment and poor health. In order to address some of these, a housing project was launched in 2000. At the time, approximately 2 000 households living in Witsand needed a formal house.

Project outline

Originally, this project was conceptualised as a turnkey project using one entity to plan, design, construct and deliver a village. PEER Africa was appointed as a consultant to roll out the project using their iEEECO (integrated-energy environment empowerment cost-optimisation) model, and it was envisioned as the first low-cost housing development that could apply for international Clean Development Mechanism (CDM) funding. However, policy changes in the early 2000s had a significant impact on this approach. The City of Cape Town became the account-

able developer, while PEER Africa remained as a consultant and the iEEECO model continued to shape the process.

Project design

The iEEECO model recognises that maintaining and managing a formal house can often become a financial burden on households. As a result, to reduce the cost of space heating, houses are designed to reduce ongoing energy costs through passive solar design, which uses architectural features (including adequate natural lighting, roof overhang, insulation and orientation) to keep dwellings warmer in winter and cooler in summer. The building design also considers the physical context of the building itself. Importantly, iEEECO allows residents to determine trade-offs between various features in order to optimise their final product within the limits of a national housing subsidy.

In order to ensure community buy-in as well as to empower citizens, the national People's Housing Process (PHP) was selected for the Witsand project. This approach prescribes that "communities and community-based

Energy-efficient:

The houses are designed to reduce ongoing energy costs through passive solar design, which keeps dwellings warmer in winter and cooler in summer.



The Witsand housing project goes beyond simply providing housing – beneficiaries receive good-quality homes that are not expensive to manage due to their energy efficiency.

organisations must be mobilised to engage more effectively with the housing programme”.

Project implementation

The Witsand project is planned to undergo at least two phases. Phase 1 included the underground stormwater, sewerage and water supply systems as well as the layout of black-top roads. A total of 452 houses were built from 2005 until 2009. Phase 2 was scheduled for completion at the end of 2013, by which time an additional 1 835 houses had been built by the three different community groups. However, it is unlikely that these will be able to house all the current residents; the community is growing due to the ongoing construction activity.

In these energy-efficient homes, the use of ‘dirty’ fuels for heating is reduced, which enhances the health of households and economic benefits. The success of this is attested to by the fact that the community benefits from CDM funding. A reduction of 0,5 t of carbon dioxide per household per year has been independently verified and certified. This is a key aspect for ongoing sustainable funding for iEEECO-modelled houses.

On the development plan, sites for schools, a library, public open spaces, a place of worship and a satellite

police station are included. In time, these will need to be activated by relevant government departments.

The Witsand housing project goes beyond simply providing housing – beneficiaries receive good-quality homes that are not expensive to manage due to their energy efficiency. The iEEECO/PHP approach also contributes to integrated community leadership structures, while bringing incremental, tangible upgrades to the community.

Evaluation

From the diagram below, it is clear that the core constituent of the housing project, namely energy efficiency, improves quality of life by building a sustainable human settlement. By making use of passive design, the housing provided helps the poor save money, which would have otherwise been spent on heating. Furthermore, the project excellently aligns with the strategic objectives of the City to develop sustainable communities by adopting integrated planning approaches that are environmentally sustainable and that empower communities. Economically, the project team hopes that by actively overseeing the building process, trained community-based groups will be equipped to tender for other housing projects or other such business opportunities.

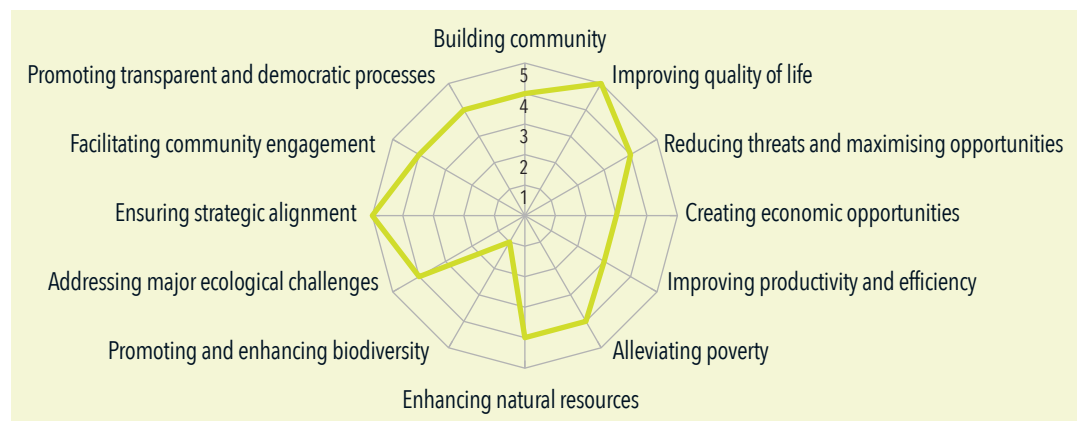


Figure 16: Witsand “iEEECO” low-cost housing assessment



The gold standard for housing

The Pelican Park project (page 47) received a Gold Star rating. The star ratings are awarded to projects that consistently performed highly across all categories and are identified as examples of best practice in sustainability.



■ ECONOMIC portfolio

Given South Africa's high unemployment rate and global competitive markets, projects of an economic nature are designed and implemented to stimulate economic activity and generate economic growth. The projects instituted are aligned with the need to create sustainable employment opportunities and facilitate the alleviation of poverty. As a result, the projects within this category perform strongly in the economic field of the assessment, and are primarily driven by the need to ensure optimal use of existing resources in a responsible and balanced manner to ensure continued profitability.



Red gold

The MyCiti integrated rapid transit (IRT) project (page 73) received a Gold Star rating. The first lane that was constructed runs between the City and Table View, and encompasses many of the guiding principles of the IRT project.





■ Bi-directional metering on prepayment systems

Problem statement

In 2007, National Government responded to the electricity crisis in the country by requiring all municipalities to implement smart metering systems by January 2013.

Project outline

In 2012, the City initiated a pilot project to establish a metering solution to accommodate bi-directional energy flow for residential applications in a prepayment environment. The project also involved an effort to allow two-way communication between the utility provider and consumers.

Project design

In the bi-directional metering model, electricity produced by a renewable-energy system, such as photovoltaic panels, can flow into the utility grid, effectively spinning back the customer's existing electromechanical electricity credit meter, or prepay meters' decrementing credit units, while exporting electricity. This requires later billing corrections. However, the City has a general policy to move away from electromechanical credit meters to prepayment meters for residential applications.

If the pilot participants produce excess electricity, this can be 'sold' back into the grid. Net-metering simplifies ►

A two-way process:

Allowing customers to sell power generated by their own solar panels, for example, to the City via a pre-paid metering system is a technical challenge that is being addressed through this pilot project.



The project is a learning experience for the City and its people, but it is hoped that as technology advances, optimal and reliable solutions will become available.

this process by allowing consumers to use any excess electricity to offset electricity used at other times during the billing period through a one-for-one transaction for the duration of the pilot. The final bill that the customer receives reflects the difference between total imports from and total exports to the municipal grid. Such a system can contribute to a well-run city, and has done so in other cities around the world.

Project implementation

Pre-payment infrastructure in South Africa is a unique challenge, which is being addressed through this pilot project. In preparation for bi-directional metering, the City developed a prepayment metering policy. Other developments include dual tariffs designed for imported and exported energy, supplementary agreement and integration with SAP ERP billing, and vending systems.

The smart prepayment metering pilot project in the City involves domestic participants, but the technology currently available is restrictive. A cautious approach has been adopted to establish robust technical solutions and business processes. The project is a learning experience for the City and its people, but it is hoped that as technology advances, optimal and reliable solutions will become

available. Net-metering can play a significant role in the green economy, as it incentivises the use of renewable-energy sources such as solar and wind energy devices. This is an important aspect of the Energy and Climate Change Strategy target for the City to generate 10% of its total energy consumed from renewable sources by 2020.

Evaluation

The City's IDP supports investment in infrastructure that will promote sustainable growth in the City and will ensure that there is sufficient capacity to support development. Currently, the impact of the pilot is limited to the participating households; hence the low social assessment outcomes. Additionally, net-metering is hindered by several challenges, including integration with the institutional billing system, the lack of active standards development, and a lag in terms of industry production. Despite this, the City recognises that embedded generation will play an increasingly important role in supplying power to the country. The assessment also displays the project's strong links with green technology business, which may stimulate production of these technologies locally. At present, however, the green industry in South Africa is limited.

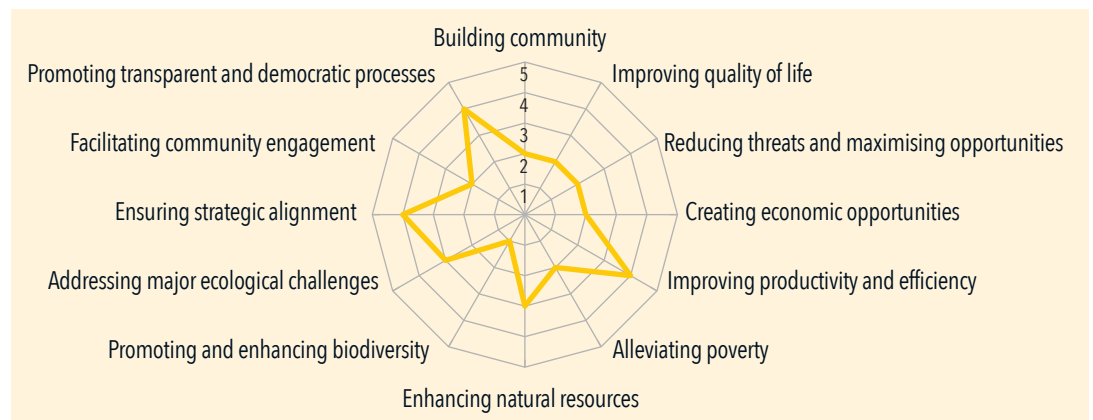


Figure 17: Bi-directional metering on prepayment systems assessment



■ C3 notification system

Problem statement

Even though, from 2003, the City used system analysis and programme development services, there was growing concern in several City departments that there was no consistent and reliable process for handling complaints and requests from citizens. Since the primary mandate of local government is basic service delivery, failure to do so effectively and efficiently is actually unconstitutional.

Project outline

The C3 notification system was created to revolutionise local government service delivery. The system extends existing core SAP ERP (enterprise resource planning) module functionality combined with geographic information systems (GIS), public-sector record management as well as the latest reporting tools to report complaints and requests.

A two-way process:

A notification is created every time a service request is received by the City's call centre.



Since all possible types of complaints have been catalogued, call centre staff have a quick and easy way to classify the issue and direct the complaint through the correct channels.

Project design

The C3 system is part of a larger notification system operated by the City. A notification is created every time a service request is received, whether by phone to the City's centralised call centre, via SMS, e-mail, over the counter or through written correspondence. Complainants are given a reference number, allowing them to follow up on the complaint, and as soon as it has been resolved, the notification is closed.

Project implementation

From information given by the complainant (name, location and nature of the incident or service required), the system routes the notification to the relevant department with the location marked on an electronic map. The work required is then assigned to field workers or office staff to ensure speedy resolution. Since all possible types of complaints have been catalogued, call centre staff have a quick and easy way to classify the issue and direct the complaint through the correct channels. This ensures that the City has a record of the event and makes the follow-up process much easier.

Line managers can monitor the performance of opera-

tional staff, and manage their teams to ensure that service requests are dealt with swiftly and effectively. Likewise, councillors can monitor problems in their wards and subcouncils, because they can log, view and track complaints, follow up on unresolved complaints on behalf of residents, keep record of how many complaints were received in their area and of what the most common complaints were.

Evaluation

The C3 notification system is an exemplary tool for good governance. As indicated in the diagram below, the system promotes transparency and accountability by monitoring complaints from when they are received until they are resolved. This aligns with objective 1.4 of the IDP, ensuring responsiveness to citizens' concerns. Furthermore, the system contributes to economic sustainability by quantifying and reporting on complaints and requests received. Therefore, reports can be used effectively to inform budget allocations and efficient resource allocation. Consequently, the process of measuring what gets done (or not) could directly inform the quality and quantity of further service delivery.

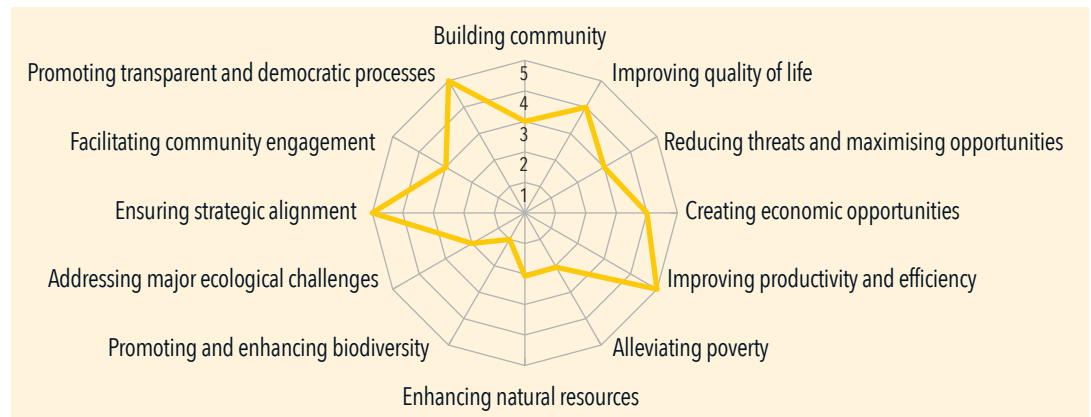


Figure 18: C3 notification system assessment



Connecting the Company's Garden

Problem statement

The City is constantly looking for ways to add value to public spaces in order to encourage a wider contingent of Capetonians and visitors to use and enjoy these areas.

Project outline

The Company's Garden is Cape Town's oldest heritage site dating back to the 1650s, and is now being brought firmly into the future with the introduction of free wireless internet access. The Company's Garden is the green heart-beat of the City, and a space that is being used more and

more for leisure, art installations and community experiences. Free Wi-Fi access can help to deepen and widen users' experience of these events and activities.

Project design

The partnership between City Parks, Connected Spaces and Cape Town Partnership aims to bring the convenience and benefits of free Wi-Fi to a public space, while giving people the opportunity to enjoy the beautiful surroundings of the historical Company's Garden. The project aims to provide the best network and user-friendly experience ▶

Free to air:

Free Wi-Fi access can help to deepen and widen the experience of visitors to the Company's Garden – Cape Town's oldest heritage site.



Many of the tree labels have a QR (quick reference) code, and with a smartphone, visitors can scan these QR codes and visit a webpage containing further information.

to those using the free service, and to serve as a pilot to test the potential for further roll-out. It is just one of the many ways the City is connecting Cape Town.

Project implementation

Recently, the Company's Garden also implemented a new tree-labelling project and placed new tree labels on the many historic trees in the garden. Many of these labels have a QR (quick reference) code, and with the use of a smartphone, visitors can scan these QR codes with a bar-code-scanning application, which will take the user to a webpage containing further information and interesting facts about the tree. The QR codes and associated webpages have been developed in partnership with Social Media Solutions as service provider. The Company's Garden Wi-Fi facilitates easy, free access to these webpages, which also have a translation link, so that users can read

information about the tree in their preferred language.

Evaluation

The City's goal is to make Cape Town a place where everyone is connected and has access to information as well as the benefits and opportunities that come with it. As evidenced by the diagram below, using QR codes not only makes learning more accessible, but also decreases the cost of asset tracking. The free Wi-Fi in the Company's Garden grants people the opportunity to access the internet from their phones, tablets, laptops and other such devices. This makes the internet an accessible resource, and may give people a platform through which to access economic opportunities as well. From the diagram, it is evident that the project also enhances efficiency, since QR codes also serve as an asset management tool, thus enabling easier management of the park's resources.

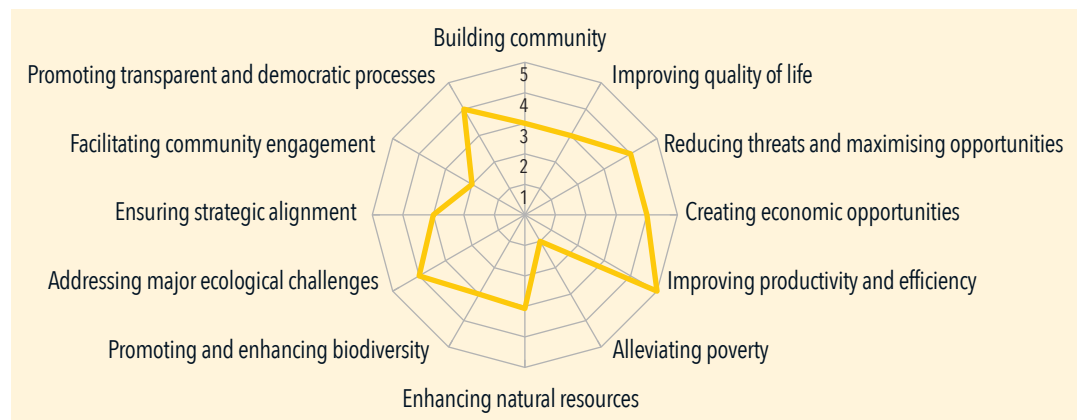


Figure 19: Connecting the Company's Garden assessment



■ Energy-efficient retrofitting programme

Problem statement

Climate change has a negative impact across the world. The City of Cape Town has a responsibility to lead the way in mitigating climate change through improving energy efficiency in its own buildings before expecting others to do the same.

Project outline

One of the City's Energy and Climate Action Plan objectives required a 10% reduction in energy consumption of Council operations by 2012. Retrofitting Council buildings to improve energy efficiency, as well as promoting behaviour change among users, has been one of the innovative ways in which the City has pursued this objective.

Project design

Several programmes have been introduced to support improved efficiency in some of the 500 Council-owned buildings in Cape Town. This multipronged strategy has several implications for the City's sustainability. All retro-

fits and behaviour change campaigns serve to reduce energy consumption and Cape Town's carbon footprint. This directly links to reducing the City's electricity bill, and can subsidise improved service delivery elsewhere.

Project implementation

Energy efficiency demand-side management buildings project: This municipal programme, financed and facilitated by the national Department of Energy and the Division of Revenue Act, provides funding for implementing energy-efficient retrofits in municipal infrastructure.

Through this programme, the City of Cape Town has undertaken full energy audits of 14 Council-owned buildings, and implemented appropriate lighting interventions. A unique aspect to this project is that contractors are required to guarantee specified energy savings to the City – 547 MWh every year, or 54% of baseline use.

Automatic meter reader project: The old adage 'you can't manage what you don't measure' applies to the very poor quality of historic data on energy consumption of ►

Leading by example:

One of the City's Energy and Climate Action Plan objectives required a 10% reduction in energy consumption of Council operations – such as the Cape Town Civic Centre where lighting accounts for 27% of electricity use – by 2012.



The retrofitting of Council buildings is aimed at enhancing productivity and efficiency by promoting beneficial partnerships, facilitating transfer of knowledge and endorsing better resource use.

Council buildings. In order to obtain excellent data on energy consumption of Council buildings, 55 automatic meter readers (AMRs) will be installed in several large administrative buildings. These provide real-time, web-based data to accurately measure energy consumption, shape energy management plans, monitor and verify savings, and identify priority buildings for retrofitting.

These buildings will also benefit from the roll-out of an extensive energy management system and behaviour change campaigns to reduce unnecessary energy use.

Building retrofits: Technology retrofits include installation of high-efficiency luminaires, control of air-conditioning operating hours, solar water heater installations, thermostat control and power factor corrections. Energy savings of 329 MWh per year are guaranteed through the energy savings contract, and the anticipated payback period of these interventions is approximately seven years. The Danish International Development Agency (Danida) has provided funding to audit and retrofit four buildings that were earmarked during the energy-efficiency programme.

Civic Centre lighting retrofit: The Civic Centre is the City's largest building. An energy efficiency audit showed that lighting accounts for 27% of its electricity use. Vari-

ous interventions have been put in place and a full lighting retrofit programme is underway, which should realise savings of 3 800 MWh per year.

Evaluation

The retrofitting of Council buildings is aimed at enhancing productivity and efficiency by promoting beneficial partnerships with the Department of Energy, other municipalities as well as between City departments, thus facilitating transfer of knowledge and endorsing better resource use. The diagram below illustrates that the project contributes significantly to addressing major ecological challenges. This is achieved through building resilience to climate change, improving the City's carbon footprint and 'walking the talk'. Through this project, the City demonstrates the benefits of adopting a sustainable approach to building operation and maintenance.

However, effort needs to be invested into triggering behaviour change on a larger scale. Such initiatives will increase awareness and facilitate community partnership. Since the project is limited to Council property, it does not have a strong social component, but the ripple effects from the project contribute to improved quality of life across the city.

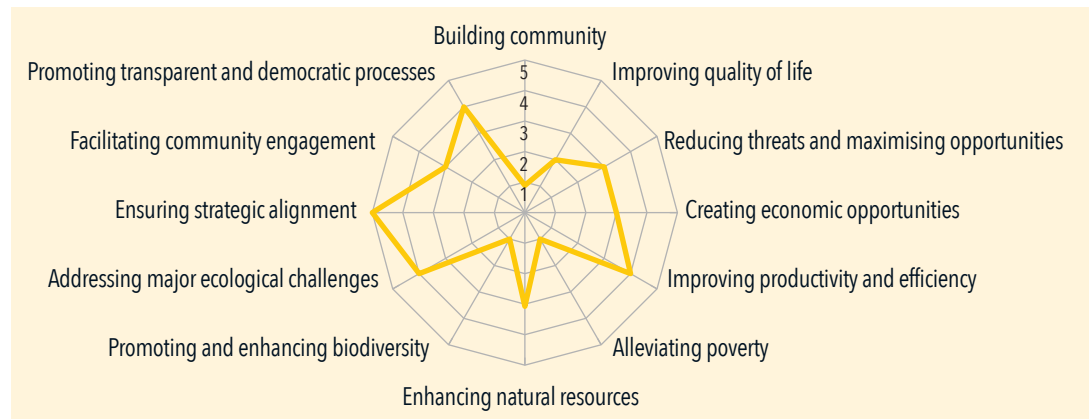


Figure 20: Energy-efficient retrofitting programme assessment



External training opportunities

Problem statement

The high levels of unemployment in South Africa suggest that young people who exit educational institutions will struggle to find work. This is especially frustrating for matriculants and graduates, who find themselves without any viable economic opportunities.

Project outline

All organisations in South Africa are called upon to contribute to economic development and empowerment using their particular resources and skills. The City of Cape Town is dedicated to being an opportunity and

inclusive city. Through bursaries, graduate internships, learnerships, apprenticeships and in-service training, the City aims to equip matriculants and graduates with access to economic opportunities and enhanced quality of life.

Project design

The external training opportunities programme aims to leverage the City's human and financial resources, partnerships and all available external funding sources to provide training and development opportunities for currently unemployed youth – school leavers, current students and graduates – and ensure that they have a brighter future. ▶

Access to opportunities:

The City's external training opportunities programme is designed to provide training and development opportunities for unemployed youth, within the organisation where possible.



This programme aligns with the national imperative to create opportunities for the unemployed to access skills and work experience.

Project implementation

The City hosts two career exhibitions each year in previously disadvantaged communities, with an emphasis on local and nationally scarce and critical skills. These expos are advertised through community newspapers and radio stations to reach a wide audience. In 2012, more than 59 000 young people made their way to these events.

To ensure that the City plays its role in experiential training, each directorate has targets that must be met. In 2013, the City allocated 250 apprentices to Corporate Services, Human Settlements, Transport for Cape Town and Utility Services.

These apprentices are expected to meet the demand side of the labour market, using the training provided to become skilled technicians employed by government, or move into the private sector. The City also intends to roll out a new apprenticeship programme in partnership with further education and training institutions, with the City responsible for technical bursaries.

Currently, 605 people are in learnerships, in-service training and graduate internship positions across the directorates. Additionally, the City has funded 222 bursaries, 80% of which are in engineering, social work and nursing.

In addition to its own resources, the City has multiple

current partnerships with external organisations that would see the above opportunities succeed, including the four major tertiary academic institutions in the province, the provincial government, the Cape Town Regional Chamber of Commerce, the Tertiary School in Business Administration (TSiBA) and the sectoral education and training authorities.

Evaluation

This programme aligns with the national imperative to create opportunities for the unemployed to access skills and work experience. In accordance with the IDP, this project fulfils the stipulated City objectives regarding skills development, as well as those of National Government to increase access to work experience, hence the economic assessment outcomes.

Although the project involves biannual exhibitions, there is often not enough capacity to facilitate two-way communication. Also, ecologically, the project does not perform well. This may be remedied by providing a larger range of training opportunities in the Environmental Resource Management Department, since this currently constitutes only a small fraction of the total training opportunities offered.

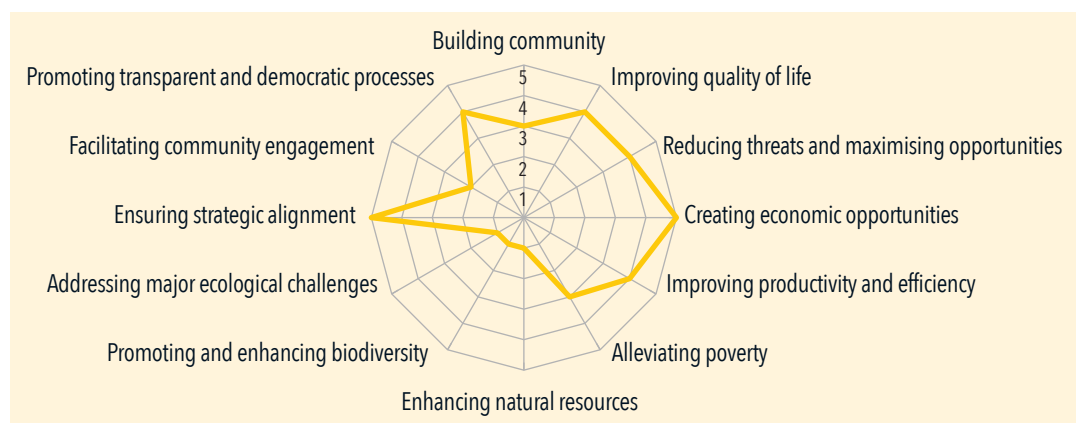


Figure 21: External training opportunities assessment



★ Integrated rapid transit: Red lane

Problem statement

One of the key aspects of a sustainable city is a safe, affordable, efficient public transport system. Capetonians make over one million trips every day, using a public transport system that is fairly unreliable, difficult and expensive, while those commuting by car face ever-increasing delays due to congestion.

Project outline

To improve the way in which Capetonians move around the city, an integrated rapid transit (IRT) approach was

adopted. IRT represents a package of measures that the City is applying in an attempt to provide a more sustainable and balanced transport system.

Project design

A key element in the IRT plan is the MyCiTi service – a high-quality bus network that delivers fast, comfortable and cost-effective urban mobility. Part of MyCiTi's merit stems from the construction of exclusive right-of-way infrastructure, rapid and frequent operations, and excellence in marketing and customer service. ▶

Right of way:

The MyCiTi service – a high-quality bus network that delivers fast, comfortable and cost-effective urban mobility – uses dedicated red lanes.



MyCiTi serves as a credible car-competitive option, which is smart, clean, efficient and sustainable.

Project implementation

Designated lanes ensure that buses can travel uninterrupted by traffic during peak times. These bus lanes have been coloured red using iron-oxide pigments. This also serves as a strong visual message to prevent other vehicles from using the lanes.

The first lane that was constructed runs between the City and Table View. This route encompasses many of the guiding principles of the IRT project, but construction plans suggested that an existing cycling path would need to be removed. Fortunately, IRT strongly supports active mobility, and a new dedicated cycle path was built concurrently. Bicycles are also permitted on buses, which is a significant benefit for commuters.

High-quality landscaping is also a priority for the MyCiTi routes, so mini-ecosystems exist within the green corridors that run alongside the red lanes. By reducing run-off and the heat island effect and improving the visual appeal of the routes, green infrastructure has proved an important aspect of the design.

The construction of MyCiTi routes provides a large number of construction jobs through the EPWP, which will be multiplied as routes expand across the city. Feeder

buses are also assembled in-house, providing jobs and training for technicians. Permanent positions for station management will also multiply as the service expands. Opportunities for formal and informal trading are currently being explored.

Evaluation

MyCiTi serves as a credible car-competitive option, which is smart, clean, efficient and sustainable. As a result, it has a strong ecological assessment, as recorded in the diagram below. By the same token, the red lane reduces travel time and costs, especially when considering that 50% of MyCiTi customers are former car users. This, of course, has an economic knock-on effect. This transport system also encourages densification along bus routes, which is achieved by locating stations in close proximity, ideally walking distance, to communities. In addition, it supports better use of land and other natural resources. Similarly, employing infrastructure-led economic development is one of the IDP's key drivers. Thus, adopting a strategic land use management and transport infrastructure approach aligns this project with the City's overarching objectives.

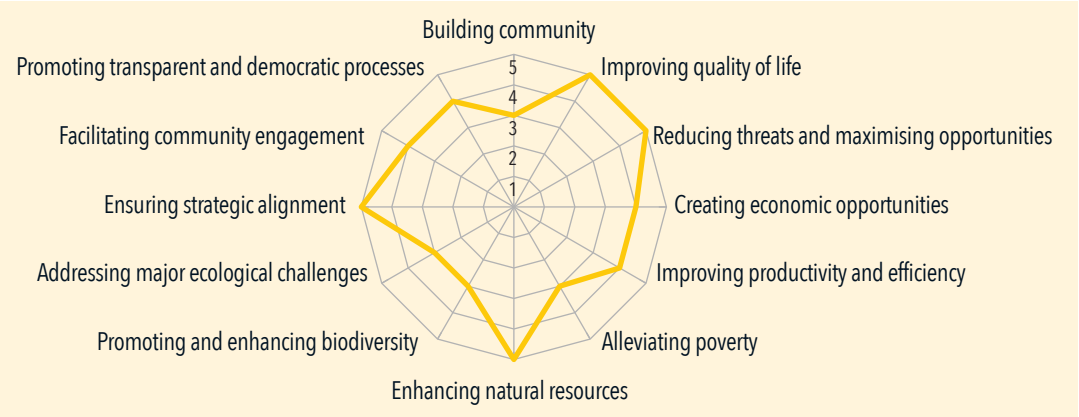


Figure 22: Integrated rapid transit: Red lane assessment



BRUCE SUTHERLAND



★ Kraaifontein integrated waste management facility

Problem statement

On average, each Capetonian generates approximately 2 kg of waste every day. This translates into truckloads of waste – much of which could be recycled. It is therefore of the utmost importance for current and future generations to think about and deal with solid waste and its impact on the city.

Project outline

The primary purpose of the Kraaifontein integrated waste

management facility is to handle and compact waste to landfill, as well as to divert waste from landfills through greens-chipping operations, materials recovery facility and the public drop-off.

Project design

The facility receives waste from the local areas, but also from other areas where the Think Twice campaign is implemented. Waste is collected at source and brought into the facility for sorting.

Benchmark best practice:

The Kraaifontein integrated waste management facility has set a benchmark for solid waste management, and was also recognised by the South African Institution of Civil Engineering as an outstanding project.



To enable the community to closely engage with operations at the plant, a residents' monitoring committee was formed, that meets regularly to resolve concerns regarding the plant's operation.

Project implementation

Having previously been known for illegal dumping, locating the facility in the Kraaifontein area has given the local community a place to dispose of waste legally. The facility has also employed numerous people from the local community.

On-site contractors are employed to do the chipping operations, operate the materials recovery facility, and transport waste from the facility to landfill sites. These contracts are awarded through the EPWP as well as through direct employment by the City.

In addition to managing waste, the facility is equipped with a conference room, which is used for meetings, training, workshops and public awareness initiatives. Interested parties are also allowed to arrange visits to the facility, during which they are educated on facility operations as well as any other initiative within the Solid Waste Management Department.

This waste management facility is unique and has not only been set as a benchmark facility for solid waste management, but was also recognised by the South African Institution of Civil Engineering for being "the most out-

standing civil engineering achievement in the technical excellence project category 2012".

Evaluation

Through interactions with various municipalities, community members and institutions of learning, the project team believes that enhancing communities' understanding of waste management can lead to reduced associated costs of handling municipal solid waste. This is reflected in the project's excellent social assessment.

Furthermore, to enable the community to closely engage with operations at the plant, a residents' monitoring committee was formed, that meets regularly to resolve concerns regarding the plant's operation. Similarly, the project team employed local skills to construct the facility. Methods for replication could therefore be standardised if and when the need arises. In addition to keeping the environment clean, the landscaping at the facility makes use of indigenous plants, and the project team monitors adjacent water bodies (including groundwater and stormwater runoff) to avoid litter in catchments. This is reflected in the ecological performance of the facility.

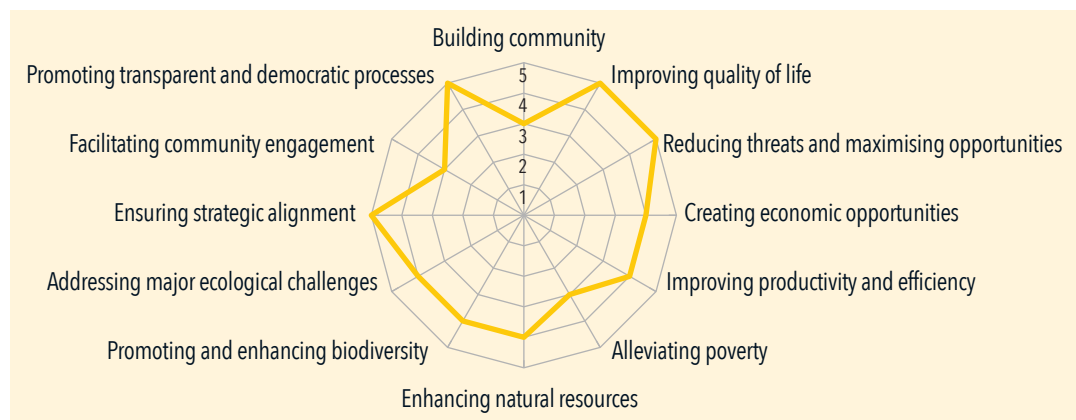


Figure 23: Kraaifontein integrated waste management facility assessment



Responsible tourism

Problem statement

South Africa was the first nation to include responsible tourism (RT) in its legislation with the promulgation of the White Paper on Responsible Tourism in 1996. In order to translate these into reality, the private sector needs to subscribe to and implement the principles of RT. Communities also need to contribute by ensuring an appropriate response to the industry and visitors.

Project outline

Having taken a strong stance on sustainability, Cape Town is inextricably linked with the RT concept. The Cape Town Declaration, co-created in 2002, is internationally used as the defining statement of RT, which, put simply,

makes “better places for people to live in, and better places to visit”.

Project design

RT emphasises tourism management that respects local culture and heritage, ensures that communities benefit from tourism operations, protects the local natural environment and resource base, and ensures an authentic experience for the traveller.

The year 2009 was a successful one in this regard: The Responsible Tourism Charter was signed by government and trade associations, including the South African Association for the Conference Industry, the Federated Hospitality Association of South Africa, the Southern Africa

A practical policy:

Responsible tourism includes favouring small-scale operators and local sources, which ensures that communities benefit from tourism operations and that the natural environment and resource base are protected.



COCO VAN OPENS

RT contributes to encouraging and supporting newly established small, medium and micro-sized enterprises, as well as motivating for infrastructure investment.

Tourism Services Association and Cape Town Tourism. This charter commits the organisations to work towards seven priority areas, namely the conservation of water resources, energy efficiency, integrated waste management, preferential procurement, enterprise development, skills development and social development. Also, a Responsible Tourism Policy and Action Plan was developed, and approved by Council.

Since then, the City has been working to embed RT as an attractive and viable approach for service providers in Cape Town. Key elements of RT, as embraced by the policy and recognised by the United Nations World Tourism Organisation, include:

- ensuring that communities are involved in and benefit from tourism;
- marketing tourism that respects local, natural and cultural environments; and
- assessing environmental, social and economic impacts as a prerequisite for developing tourism.

Project implementation

In order to understand the opportunities and constraints for practising RT, the City launched a pilot project in September 2011. This pilot brought together just over 20

service providers who are already on the path to more responsible approaches – including accommodation providers, tour operators, events organisers and others – to measure and report on their progress against key priority areas of RT. This process will inform the development of indicators, which can be used to measure progress towards RT.

Evaluation

The tourism industry is one of the biggest job creators in Cape Town. Aligned with this, RT contributes to economic sustainability. The project achieves this by prioritising preferential procurement, enterprise development as well as skills development. These aspects of the project contribute to encouraging and supporting newly established small, medium and micro-sized enterprises, as well as motivating for infrastructure investment. In addition to stimulating economic activity, this project also emphasises efficient resource management.

However, the tourism industry is highly competitive, and only small windows for information-sharing exist. Consequently, RT practices support community engagement as a strategy to increase awareness and appreciation of RT approaches.

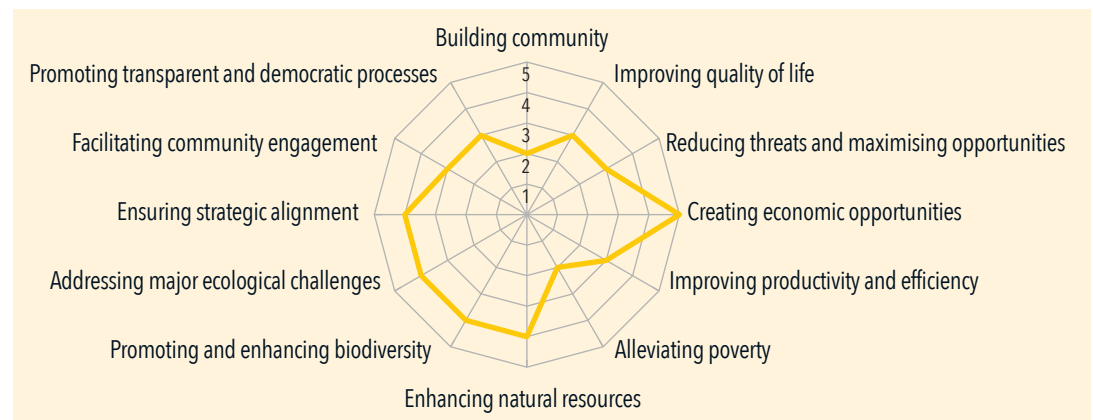


Figure 24: Responsible tourism assessment



Smart Cape access initiative

Problem statement

The cycle of poverty in which many Capetonians find themselves cannot easily be broken without external support or interventions. Computer illiteracy and lack of internet access contribute to the perpetuating lack of opportunities that prevent many people from achieving their dreams.

Project outline

Access to a computer and the internet is a key tool for economic and social development. Providing this service to citizens is not constitutionally required of a local municipality, but the City recognised it as a priority in support-

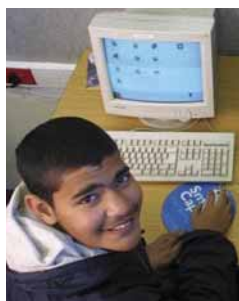
ing citizens to take advantage of the many developmental opportunities that computer and internet literacy provide.

Project design

In 2002, the Smart Cape access initiative was piloted in five libraries. The project's initial success quickly led to a Smart Cape corner being introduced in each of the 98 libraries in the city. This as well as the effectiveness of the initiative led to the project's recognition for its innovative efforts to connect residents with free public access to computers, and soon thereafter, the City was presented with the Access to Learning award by the Bill and Melinda Gates Foundation. ▶

Across the digital divide:

From five pilot sites in 2002, Smart Cape is now in every one of the City's 98 libraries. The project was presented with the Access to Learning award by the Bill and Melinda Gates Foundation.



In addition to bridging the digital divide, Smart Cape uses an easily replicable model, thereby ensuring a project that can be rolled out widely across the city.

Project implementation

The funds from this award allowed for an upgrade of all the hardware and software in Smart Cape corners, and resulted in the number of registered users jumping from 150 000 to 250 000-275 000. Although most facilities are based in libraries, those in Ikwezi, Bonteheuwel, Ravensmead and Uitsig are based in community centres. This is reflective of the programme's adaptability to fit particular community needs using existing infrastructure.

Registered users are allowed one session per day up to a maximum of 45 minutes, unless otherwise arranged with the administrator. The time limits help manage the high demand for the facilities as well as the reported queues (especially after school). Similarly, users are allowed to access the internet through their own devices at the Central, Bellville and Harare libraries.

Anecdotal evidence suggests that the Smart Cape initiative has been incredibly successful in providing opportunities to many different people, including school children researching school projects, job-seekers looking for employment opportunities, entrepreneurs marketing their businesses, and parents accessing health and well-

ness information. Apart from the internet, users can access Open Office suite, Typing Tutor and Paint software.

Evaluation

The Smart Cape facilities afford previously underserved communities access to technology in a manner that supports and enhances their quality of life. Thus, regardless of income levels, people can have access to resources and information. As can be seen from the diagram, the project excellently addresses historical inequity and access to amenities, and also promotes education and awareness.

In addition to bridging the digital divide, Smart Cape uses an easily replicable model, thereby ensuring a project that can be rolled out widely across the city. Interestingly, the project team has found a way to add to the City's ecological sustainability as well.

Since the project provides an information portal, connections have been made with the City's Environmental Resource Management Department, supplying information about nature reserves, environmental issues and other relevant information that may previously have been inaccessible to citizens.

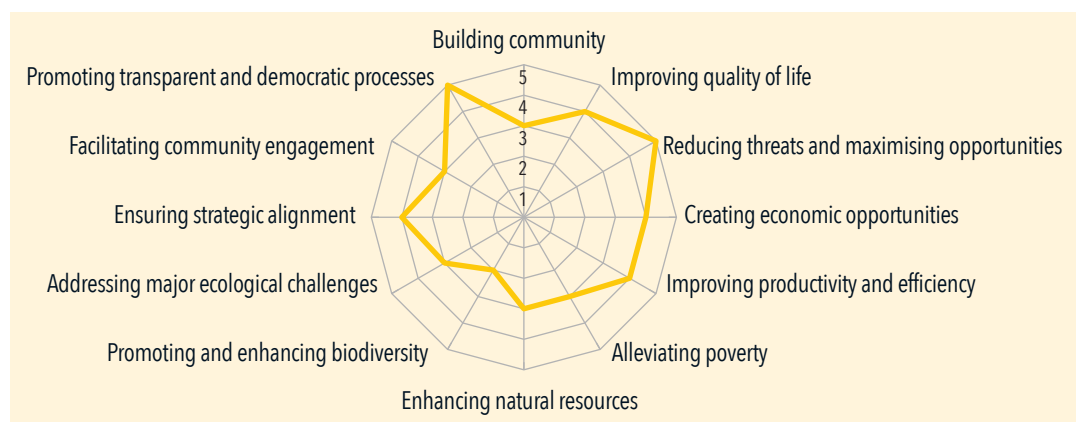


Figure 25: Smart Cape access initiative assessment



CHIARA BAUMANN

★ Weaving sustainable livelihoods

Problem statement

Many people have moved to Cape Town from rural areas in other parts of the country in search of employment opportunities. When formal jobs do not materialise, some of them are able to use indigenous, traditional activities to generate a small income. However, the informal, sporadic and isolated nature of this work means that it is unlikely to bring great prosperity without external support.

Project outline

In Dunoon, which is the most densely populated informal settlement in Cape Town, a group of resourceful women was discovered harvesting *Typha* (bulrushes) in and around the Rietvlei wetland and Diep River. When these women sought a permit for their activities, a local ward councillor alerted the City's Economic Development and Environmental Resource Management departments to the opportunity to support alternative, sustainable liveli- ▶

Winning weave:

Through EPWP funds, the project was able to pay the 30 women participants a stipend. This provided a financial incentive to take part in the training, and improved their quality of life.



CHIARA BAUMANN

Indigenous harvesting allows the participating group of women to gather raw materials for their work, while contributing towards the management of *Typha* in the nature reserve.

hoods. A pilot project using *Typha* as an income source was soon initiated.

Project design

In this case, the women in Dunoon harvest the *Typha*, which thrives in the wetlands of Table Bay Nature Reserve, dry it and then use it to weave functional and decorative items, such as bowls, mats and furniture. In addition to being awarded permits, the group of women received some harvesting-related training and basic safety equipment. Additionally, the group attended a 40-day workshop to equip them with enhanced weaving skills and creative responses to market demand. The goal is to ensure that products are of a quality that meets the demands of a high-end, niche market.

Since *Typha* spreads rapidly in water and can easily become an expensive problem to control, indigenous harvesting offers this group of women the opportunity to gather raw materials for their work, while contributing

towards the management of the plant in the nature reserve.

Project implementation

Through EPWP funds, the project was able to pay the 30 women participating in the project a stipend. This provided a financial incentive to partake in the training, and contributed to improved quality of life.

Evaluation

The *Typha* livelihood project demonstrates that benefit-sharing between people and nature can contribute to improved quality of life. This project performs well economically and environmentally, because it is founded on enhancing existing skillsets in local communities.

Although the project creates economic opportunities and promotes skills development, strategically aligning the project would ensure that when upscaling, it receives the necessary support and infrastructural investment.

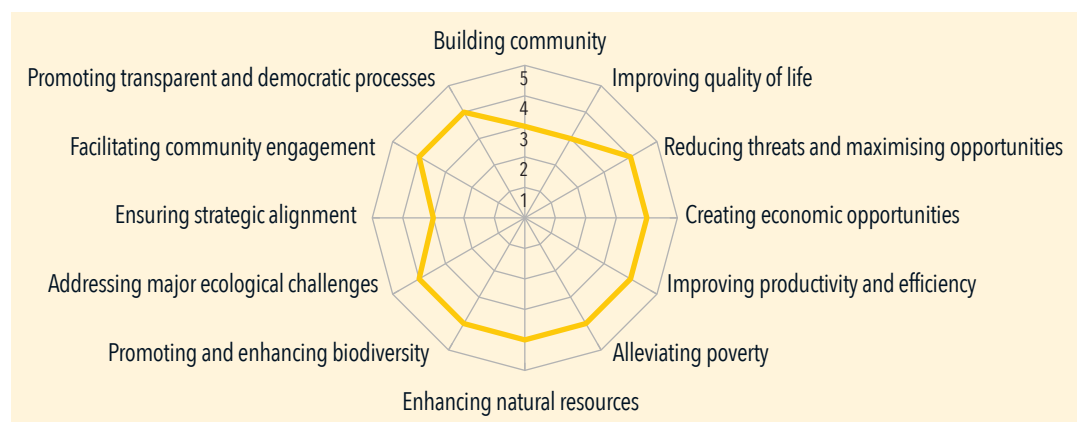


Figure 26: Weaving sustainable livelihoods assessment



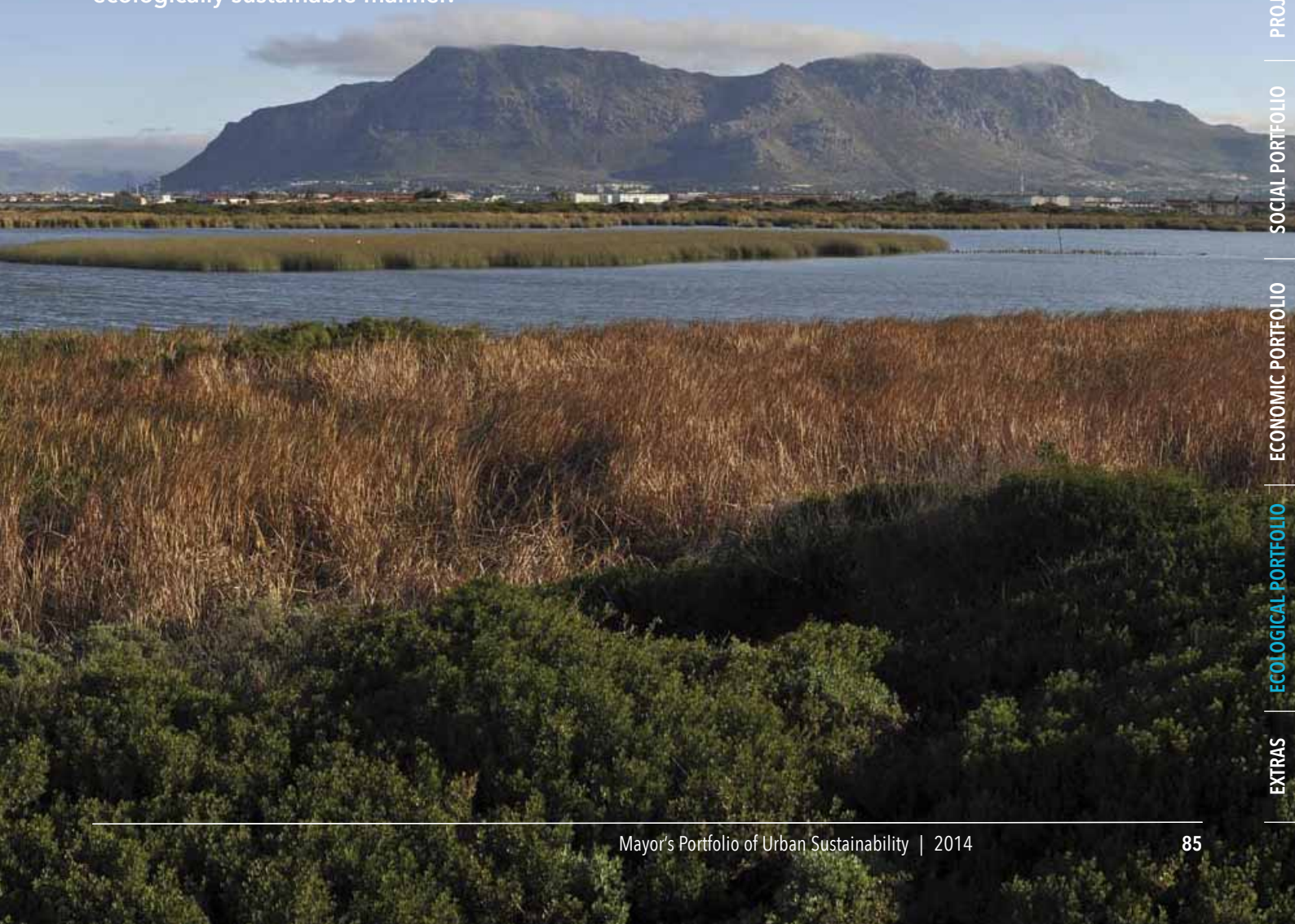
Golden opportunity

The award-winning, greenfield Kraaifontein integrated waste management facility (page 75) received a Gold Star rating.



■ ECOLOGICAL portfolio

These projects are directly linked to the capacity of the biosphere to meet the needs of current and future generations, using natural resources responsibly in the short term to ensure that these resources are available in the long term. The projects contained in this category are primarily focused on empowering people and organisations to carry out their activities and obligations in an ecologically sustainable manner.



Clear gold

The corporate project to improve inland water and stormwater quality (page 91) has been so successful that several bird species – particularly the greater flamingo – have returned to the Black River after an absence of decades. The project has earned a Gold Star rating.





■ Air quality programme

Problem statement

Poor air quality in Cape Town has a negative impact on human and ecosystem health. Air pollution is also a major contributor to global climate change.

Project outline

At the 2012 national lekgotla on air quality, the City of Cape Town was commended for “its specific efforts and achievements” in improving the city’s air quality. The National State of Air Report also indicated that Cape Town has reduced emissions over the last couple of years. This is the result of an integrated and deliberate programme to monitor, control and reduce ambient air pollution.

Project design

In 2003, the City passed an Air Quality Bylaw (updated in 2010), and followed this with an Air Quality Management Plan in 2005. This plan identified ten objectives for becoming “the city with the cleanest air in Africa”. Several

programmes were developed to address different aspects, causes and impacts of air pollution in the city.

Project implementation

Ambient air quality monitoring network: With 13 stations across the city, Cape Town’s ambient air quality monitoring network is the largest in the country. Each monitoring station is a state-of-the-art mini-laboratory, and records levels of particulate matter and priority pollutants: nitrogen dioxide, sulphur dioxide, carbon monoxide and ozone. The data recorded at stations are reported annually in the State of Environment Report, and used to monitor air quality improvements, identify sources of pollution, and inform policy decision-making.

Air pollution emissions inventory: In order to understand the source of pollutants and the contribution of industry, an emissions inventory was developed. This process, funded by Danida, was supported and validated by Cambridge Environmental Research Consultants, who ►

Smokey sidewalks:

In Khayelitsha, where traders line the streets with meat cooking on open wood fires, a programme to train these traders to better manage their fires is under way.



Air quality management contributes to improved health of citizens and supports the low-carbon economy.

contributed state-of-the-art software and expertise to ensure that the inventory meets international standards.

This database enables decision-makers to understand the spatial distribution of emissions and the contribution of each industry to air pollution, thereby informing policy and programmes to address negative and harmful emissions. The inventory is kept current through regular visits in order to update information at selected facilities, and the information is also captured on the City's GIS.

Other interventions: The City also has very strict guidelines regarding industrial emissions, and high standards for licensing listed activities. New industries are obligated to comply with these standards, while existing plants have until 2020 to conform. In order to mainstream this, so-called 'episode days' – when air pollution exceeds the strict World Health Organisation standards – are recorded on the corporate scorecard for the City.

In addition to monitoring and studies conducted, education is used as a tool in high-risk communities. The popular cartoon character Sniffles, for instance, is used in schools and homes to raise awareness about dark smoke and fires. In Khayelitsha, where traders line the streets with meat cooking on open wood fires, a programme to train these traders to better manage their fires is under

way. However, some of these issues are particularly complex, both socially and economically.

Evaluation

Air quality management contributes to improved health of citizens and supports the low-carbon economy. This programme strategically aligns with various interventions, which are, in turn, supported by the City bylaws and different tiers of government to form an integrated approach to air quality challenges. This programme's contribution to enhanced natural resources is also noted. This is achieved through efforts to reduce automobile dependency by collaborating with the Vehicle Emissions Working Group, a consultative body.

Although the interventions are showing improvement, there are threats to the project. Recently, for instance, the air quality laboratory lost key staff members and is struggling to fill the vacancies due to a lack of readily available, experienced replacements in the labour market. Also, the project team does not actively facilitate community participation, but a Northern Communities Forum led by an active community member was recently established. This provides a channel through which the project team can build community resilience.

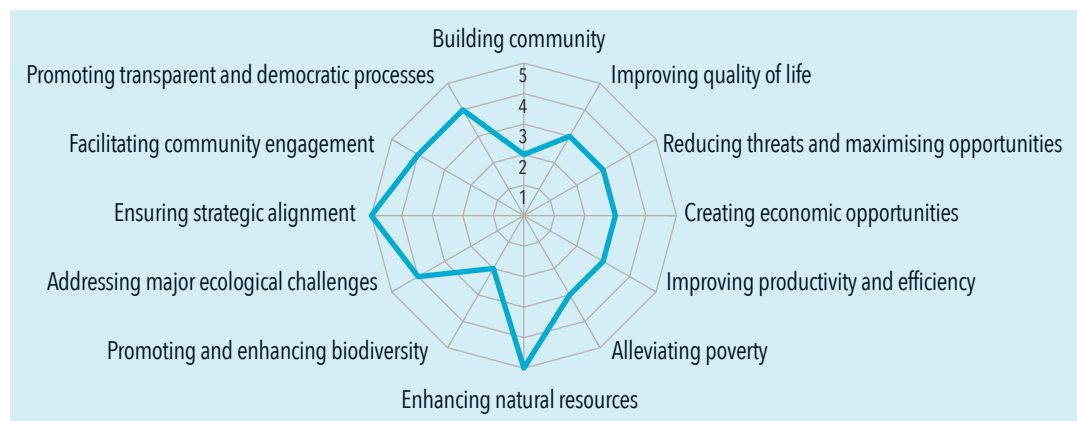


Figure 27: Air quality programme assessment



■ Community gardens

Problem statement

Residents who wished to undertake local greening and beautification projects through gardens on public land did not have financial or in-kind support from government for their community-enhancing work.

Project outline

Community gardening is not a new concept in Cape Town, but the recent community gardens project has been undertaken to provide much-needed technical and professional support for the growing number of individ-

ual citizens or community groups who are actively involved in greening their local public open spaces.

Project design

Initial pilot phases of the project identified existing gardening initiatives where residents were already investing personal time, energy and resources on a voluntary basis to their local projects. City Parks identified ways in which they could support the various projects, without diminishing community ownership and the passion and commitment with which residents invested in these gardens. The ►

A shared effort:

City Parks identified ways in which it can provide support for community gardens without diminishing community ownership, passion or commitment.



Skills development and training is a crucial element of the project, not only to improve the employability of beneficiaries, but also to educate them about water demand management, promoting the use of indigenous plants, and ensuring the most efficient use of resources and space.

focus of the project is on beautification and enhancing ornamental horticulture, improving the visual experience and ecosystem integrity of local environments.

Project implementation

As the demand grew, a more strategic approach to identifying potential gardening plots on public open space was developed. Many public open spaces in the city have become mere walkthroughs or spots for illegal dumping and vandalism, offering pedestrians and other users a poor-quality experience whilst passing through the space. These pedestrian walkways are being targeted for linear allotment gardens to improve the everyday experience of local people.

Most of the gardens are medium-sized, requiring one to five volunteers to assist with garden development and maintenance. City Parks provides technical and professional support for these initiatives through land allocation, site preparation, in-kind support and set-up capacity, and professional horticultural training. The Department also organises community engagement opportunities and raises awareness through horticulture-related events. Skills development and training is a crucial element of the project, not only to improve the employability of ben-

eficiaries, but also to educate them about water demand management, promoting the use of indigenous plants, and ensuring the most efficient use of resources and space.

Evaluation

Community gardening is a valuable activity that contributes to health and well-being, encourages positive social interaction and community capacity-building, and provides opportunities for environmental education while beautifying and protecting public open spaces. Since there are a variety of issues that are bound to arise when dealing with public open space, the project team embraces community engagement as a key factor, and aims to balance community needs with the City's investment.

Through in situ horticultural training, the project increases the employability of community members, but the overall economic dimension of the project is limited. Although food gardens were initially considered, there were complications regarding their management. Overcoming this hurdle may unlock the economic potential of community-run gardens and contribute to poverty alleviation.

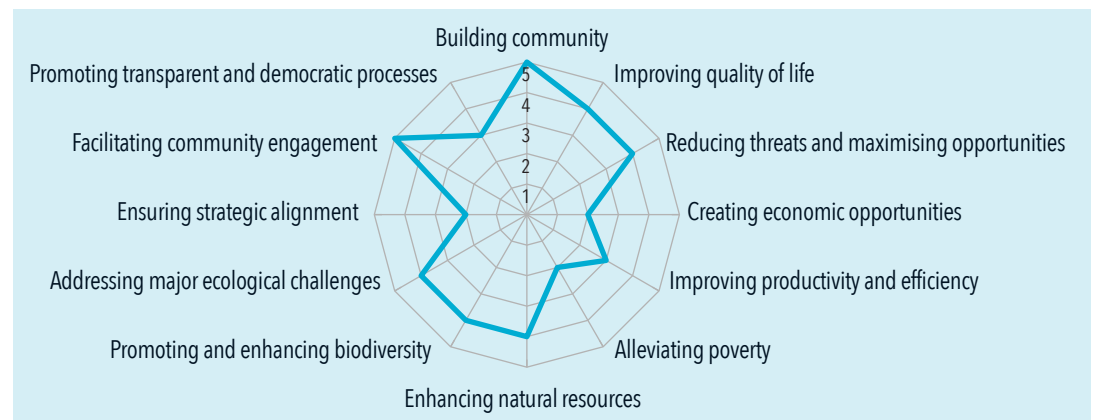


Figure 28: Community gardens assessment



★ Corporate project to improve inland water and stormwater quality

Problem statement

Cape Town's extensive network of rivers and wetlands fulfil diverse ecological, aesthetic, recreational and infrastructure network functions. Over the past few decades, many of these watercourses have been adversely affected by pollution. Poor water quality poses a significant threat to human health, aquatic biodiversity and the added value that good-quality water brings to the economy.

Project outline

Rivers and wetlands in the city form an important part of the natural landscape; bring beauty and a sense of place and belonging to people; encourage tourism, and provide recreational opportunities, health benefits, natural hazard regulation and other ecosystem services.

Declining stormwater quality places a number of burdens on the City, including costly reactive treatment of pollution incidents, the social cost of being unable to utilise water bodies, and the degradation of the public image of Cape Town as an attractive city.

Project design

Recognising the need for an integrated and comprehensive strategy for addressing this city-wide problem, a Water Quality Improvement Strategy and Implementation Plan (WQIS&IP) was formulated. This plan incorporates over 60 different initiatives from nearly all directorates across the City, ranging from informal settlement upgrades to staff training as well as site-specific intervention plans.

In the pink:

The Black River, into which treated effluent from the Athlone wastewater works is also discharged, is now so clean that flamingoes and other waders have returned after an absence of decades.



An integrated approach is expected to contribute to a reduction in pollutants entering the stormwater system as well as their proliferation in catchments.

Project implementation

The overall purpose of including all of the projects in the WQIS&IP is to proactively reduce the amount of pollutants entering the stormwater system, rather than merely responding to pollution incidents once they have occurred. Such a reactive approach, which has characterised the City's strategy in the past, costs approximately eight times as much as an integrated, proactive approach.

A key aspect of the WQIS&IP is internal communication and external awareness campaigns. The WQIS&IP document, for instance, helps to improve communication between the various project managers within the City, improves synergy, and minimises the duplication of work.

The communications capacity within partner departments is used to undertake wider awareness campaigns and to engage with citizens around the issue of stormwater quality and pollution. As there are a myriad of users and uses of Cape Town's stormwater, it is imperative to take an integrated approach to managing water quality through appropriate user behaviour and natural resource management.

The wide range of projects within the WQIS&IP addresses a large number of issues in the City's natural, infrastructural and organisational realms. The acknowledgement of

the complexity of stormwater quality management has given rise to the development of task teams, and the WQIS&IP also positions Cape Town as an innovative and proactive advocate for water-sensitive urban design.

Evaluation

An integrated approach is expected to contribute to a reduction in pollutants entering the stormwater system as well as their proliferation in catchments. A key element of the strategy is the adoption of proactive prevention and minimisation approaches to stormwater management.

To achieve this, the project supports skills development through urban water management training workshops as well as raising basic awareness among staff. In addition to ecological sustainability, the project team recognises the need to develop a marketing/communication plan to reduce and manage pollution.

To implement this water quality improvement strategy, though, requires multi-departmental commitments. Since maintaining the health of catchments allows water bodies to serve as safe recreational resources, the project scores well in terms of the social and ecological pillars. Ultimately, the project aims to ensure that all water users respect the health of river catchments.

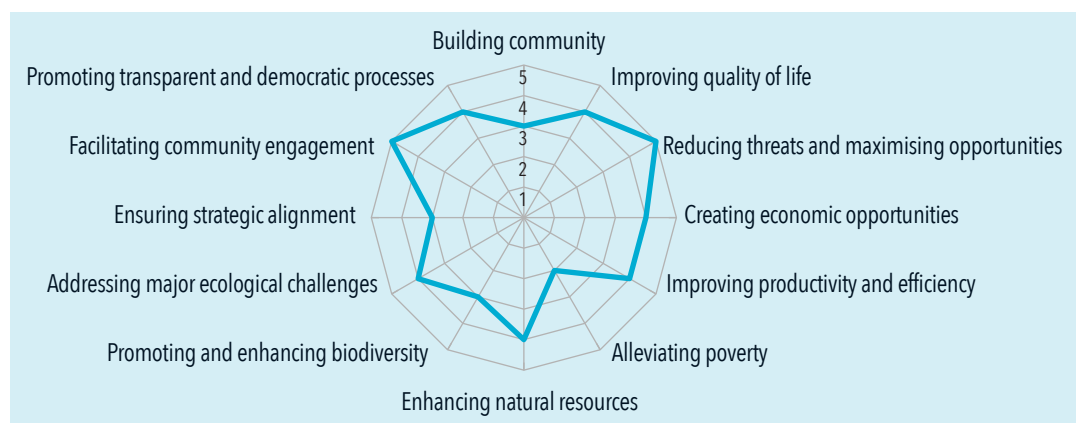


Figure 29: Corporate project to improve inland water and stormwater quality assessment



★ Friends and Neighbours: The Other Side of the Fence

Problem statement

The Village Heights community is predominantly unemployed and plagued by many social ills, which often spill over to the other side of the fence – namely False Bay Ecology Park – as is evidenced by illegal access, illegal harvesting of resources, criminal behaviour, illegal dumping and land invasion. These conditions result in a poor and unattractive settlement that is distanced from the potentially uplifting benefits of the reserve.

Project outline

'The Other Side of the Fence' is an intervention stemming

from False Bay Ecology Park's Friends and Neighbours programme. The pilot project aims to connect Village Heights, a small informal settlement in Lavender Hill, with False Bay Ecology Park, thereby improving quality of life, creating beauty and building opportunities for disadvantaged communities.

Project design

Realising the need for a people-centred approach to nature conservation, the project focuses on understanding the needs and desires of the community. As a result, community responses have influenced the priorities, ▶

Going for growth:

A people-centred approach to nature conservation has led to participation in events such as Arbor Day in Village Heights.



The success of this project is heavily reliant on community buy-in and harnessing the existing social cohesion in the community.

structure and expected outcomes of the project. In strategic alignment with the IDP, 'The Other Side of the Fence' promotes the relationship between the community and their surroundings, builds social capital, and maintains and enhances ecosystem services. 'The Other Side of the Fence' is supported by a multi-stakeholder partnership and draws together the resources and input from local and provincial government and non-governmental organisations.

Project implementation

Although the project began with the objective of creating a community garden, engagement with the community has resulted in the development of a multifaceted project with five components that can be achieved in the short to medium term: clearing illegally dumped waste, removing alien invasive vegetation, creating a nature garden, building a children's play area and developing a food garden. Each of these aspects contributes to urban sustainability by improving the surrounding environment, cultivating a sense of pride in the community, and alleviating poverty.

Evaluation

The success of this project is heavily reliant on community buy-in and harnessing the existing social cohesion in the community. The project team recognises this, and invests in regular community meetings and workshops to collaboratively design solutions to challenges in the community, hence the noticeable result in respect of community-building. To enhance community engagement, however, care must be taken to ensure that all the relevant community stakeholders are represented and involved in the project design and implementation process.

Furthermore, 'The Other Side of the Fence' demonstrates that reconnecting people to the biophysical environment has socio-restorative potential, which can be seen from the socio-ecological performance of the project. For instance, clearing of alien vegetation along the periphery of the community has transformed a site previously used for criminal activity into positively functional open space, mitigating environmental threats and reducing the risk of fire hazards to the community and nature reserve.

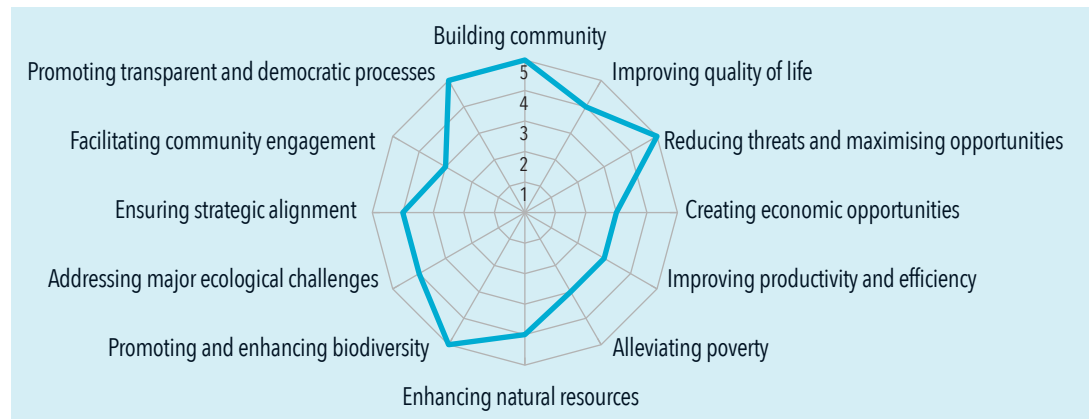


Figure 30: Friends and Neighbours: The Other Side of the Fence assessment



★ Marine and Environmental Law Enforcement Unit

Problem statement

Until recently, there has been minimal environmental enforcement and visible policing along Cape Town's coastline. This resulted in regular non-compliance with the Marine Living Resources Act, illegal dumping and sand mining, as well as criminal and anti-social behaviour. There was growing public concern regarding the lack of officials protecting marine and environmental resources and ensuring compliance along the city's coastline.

Project outline

The City established the Marine and Environmental Law Enforcement Unit to address the need for a visible and effective law enforcement presence along the 307 km of coastline under its jurisdiction. The City recognised the importance of addressing safety and security concerns as well as of protecting marine and environmental resources as part of resolving socio-economic problems in coastal communities.

Patrol power:

The Marine and Environmental Law Enforcement Unit has been provided with eight vessels, including a 7,5 m patrol boat and three jet-skis.



ARNE PURVES

The Unit is part of a broader process to protect the coastline, engaging communities in protecting marine resources to ensure that regulations are understood and complied with.

Project design

The Unit pursues a proactive multi-agency collaboration, which functions through cooperation and clear communication between the coastal regulatory agencies, driven by the City and supported by the Department of Agriculture, Forestry and Fisheries. Strategic alignment between agencies enables joint operational planning, coordinated governance along the coast, and shared outcomes in the interest of Cape Town's coastal integrity, marine and environmental resources, tourists and citizens.

Project implementation

The City's Law Enforcement, Specialised Services and Environmental Resource Management departments joined forces to train law enforcement officers to be proactive in combatting illegal activity and non-compliance, as well as to perform a safety and security function at popular Cape Town beaches and coastal resorts. To achieve this, the City supported the development of an internal marine and environmental law enforcement strategy and the ongoing training of specialised law enforcement officers. Training covers environmental legislation, law enforcement processes and procedures, lifesaving, skippers training and seamanship.

The Unit is part of a broader process to protect the coastline. For example, recognising that marine resources support local communities within and outside the city's boundaries suggests that it is important to engage communities in protecting marine resources to ensure that regulations are understood and complied with.

Evaluation

The Unit tackles a number of ecological challenges by engaging with communities and providing visible terrestrial and marine policing. The primary objective is to optimise and conserve natural resources. Since the city's natural resources are so vast, strategic alignment with all levels of government and relevant agencies is essential. This results in resource pooling, which increases the available capacity to form a sustainable strategy. Instead of disbanding communities' reliance on natural resources, the project seeks to promote sustainable livelihoods and resource alternatives. To effectively achieve this, the project team hopes to continuously engage with communities to stimulate behaviour change and promote sustainable harvesting. Thus, the Unit's future plans include enhancing coastal community knowledge of natural resource management, which will improve the project's social axes.

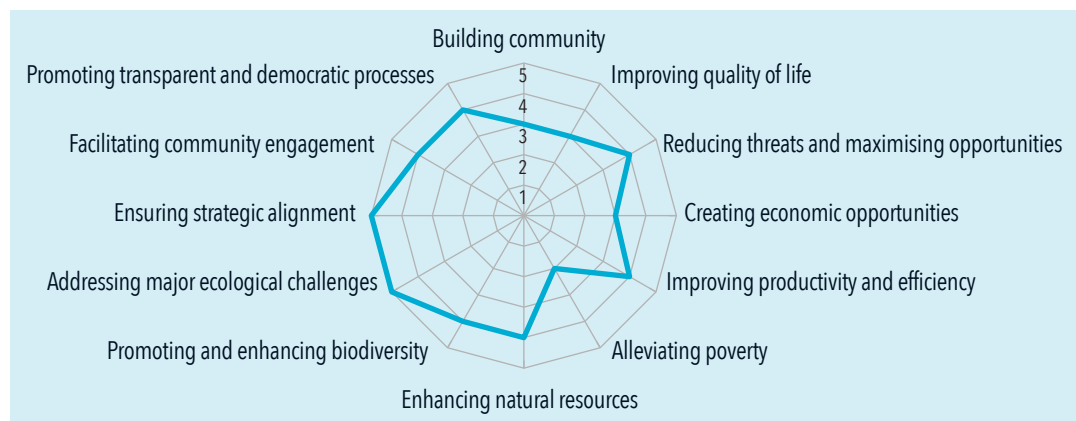


Figure 31: Marine and Environmental Law Enforcement Unit assessment



★ Shark Spotters programme

Problem statement

The presence of white sharks in the False Bay area posed a risk to bathers on False Bay beaches. In November 2004, Tyna Webb, a Fish Hoek local, was fatally attacked by a great white shark during one of her regular dawn swims. Just months earlier, JP Andrews, a 16-year-old, lost his leg in a white shark attack while surfing in Muizenberg. These two incidents led to a significant decrease in visitor numbers to the previously popular False Bay beaches.

Project outline

With an increased sense of danger, surfers asked a local lifesaver to look out for sharks while they were in the water. Set on the mountain slopes above Muizenberg and armed with binoculars, the lifesaver was to phone a car

guard on the beach should he spot a shark; surfers would then be warned to leave the water until the shark was gone. At the same time, in Fish Hoek, the trek-net fishermen started warning bathers if they saw a shark in the water while they were fishing.

Project design

This informal arrangement was formalised in 2006, when the City of Cape Town and the Worldwide Fund for Nature made funds available for a full-time programme, complete with a programme manager, field manager, researcher and several 'spotters'. Since then, the programme has expanded to cover other beaches, including Muizenberg, Noordhoek and, most recently, Caves at Kogel Bay as well as Monwabisi. Shark Spotters registered as a non-profit organisation in 2008, and the board is ▶

Beach lookout:

Should the spotter see a shark in the water that poses a risk to beach users, a message is relayed via radio to the beach spotter. A simple system of flags and a siren informs beach users of the potential danger.



MICHAEL SCHOLL

While programmes elsewhere in the world seek to reduce shark risk by elimination, Shark Spotters are determined to improve the relationship between humans and sharks by changing people's perceptions of these animals.

made up of local residents and business people who have taken an active interest in the safety of the beaches.

Project implementation

How the system works: Spotters are positioned on the mountains and cliffs above specific beaches where, equipped with polarised sunglasses and binoculars, they are able to survey the sea. Should the spotter see a shark in the water that poses a potential risk to beach users, a message is relayed via radio to the beach spotter at the relevant beach. A simple system of flags and a siren informs beach users of the potential danger, advising people to leave the water until the shark has left the area. This acts as an early-warning system, allowing people to make informed decisions about their activities in the water.

The programme currently employs 26 spotters and provides them with appropriate training and skills development. Their first-aid qualifications, up to level 2, often come in handy on a busy beach. There is a very low staff turnover rate on the programme, as the occupation is highly regarded by spotters' families and communities.

The programme also provides an ideal data source for research on white shark behaviour. With training in white shark ecology and behaviour, as well as basic training on

dolphins and whales, spotters record all information about each sighting. This has contributed to a better understanding of temporal and spatial behaviour patterns of white sharks in False Bay, informing both beach management and conservation agendas. The data also contribute to ground-breaking research on a widely misunderstood, endangered apex predator.

Evaluation

While programmes elsewhere in the world seek to reduce shark risk by elimination, Shark Spotters are determined to improve the relationship between humans and sharks by changing people's perceptions of these animals. Through beach programmes and other interactions with residents and communities, the programme has produced a marked improvement in the safety of beach users. This, in turn, facilitates increased use of the beach as well as economic activity in the area. Furthermore, the programme promotes marine conservation and contributes to knowledge bases of sharks, which can be incorporated into environmental education. Currently, the programme employs 26 previously disadvantaged individuals, and as it gains increased high-level support and investment, this number is expected to increase.

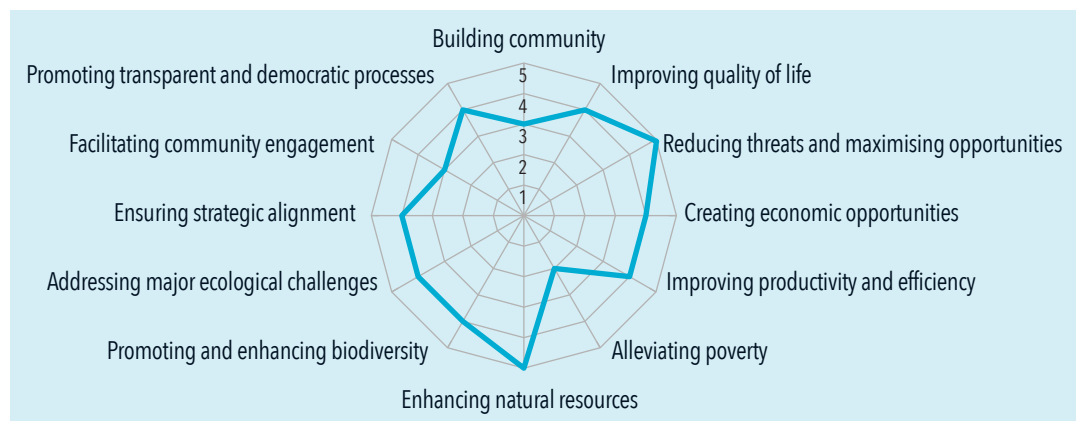


Figure 32: Shark Spotters programme assessment



BRUCE SUTHERLAND

■ Staff bike-share pilot

Problem statement

The Cape Town central business district (CBD) is relatively small. Yet, many City employees spend a lot of time travelling between buildings on business. These short journeys are often by car, which contributes to air pollution, increases congestion on the roads, and heightens stress levels.

Project outline

The bike-share pilot project was initiated to provide an alternative solution for employees who travel short dis-

tances on City business. The project forms part of the broader Travel SMART programme, which encourages and supports the use of efficient and sustainable modes of transport. Travel SMART envisions urban transport systems and networks that are fuel-efficient, inclusive, safe, space-saving and healthy.

Project design

A registered user can use a communal bike, helmet and an optional reflective vest to travel around the CBD on official business. Using a bicycle saves time and money, negates ►

Pedal power:

The bike-share pilot project provides an alternative solution for employees who travel short distances within the relatively small city centre on official business.



The bike-share project contributes towards making cycling in the city safer and ultimately changing the urban landscape.

parking hassles, and reduces the cyclist's carbon footprint. Cycling offers great exercise and supports a healthy lifestyle. As with other forms of exercise, cycling reduces the risk of heart disease, cancer, stress, depression and diabetes, and can improve energy levels, work productivity and quality of sleep. Cycling also contributes to a better, more sustainable urban environment, while giving cyclists an exciting opportunity to experience the city.

Project implementation

The Bicycling Empowerment Network (BEN) is a key partner in this pilot. While BEN's main mission is to address poverty and mobility through the promotion of cycling, in this project, it assists with the maintenance and servicing of the bicycles. Likewise, the City's Environmental Resource Management and Specialised Technical Services departments played a significant role in the establishment of the pilot project.

Evaluation

The bike-share project contributes towards making cycling in the city safer and ultimately changing the urban landscape. However, the pilot is currently limited to City officials in the city centre and requires upscaling in order to start realising the envisaged contributions to urban sustainability.

The bike-share project is intended to help identify challenges and areas for improvement in implementing bike-share facilities in the city. One major challenge for the project is the lack of a budget. Similarly, although more than 50 officials have registered, these registrations are not evident in actual bike use. Strategic interventions are necessary to identify and address the obstacles to people cycling within the city centre.

Nonetheless, the project does well to promote replicability of principles and methods, but will require social transformation and possibly new approaches to facilitate community participation.

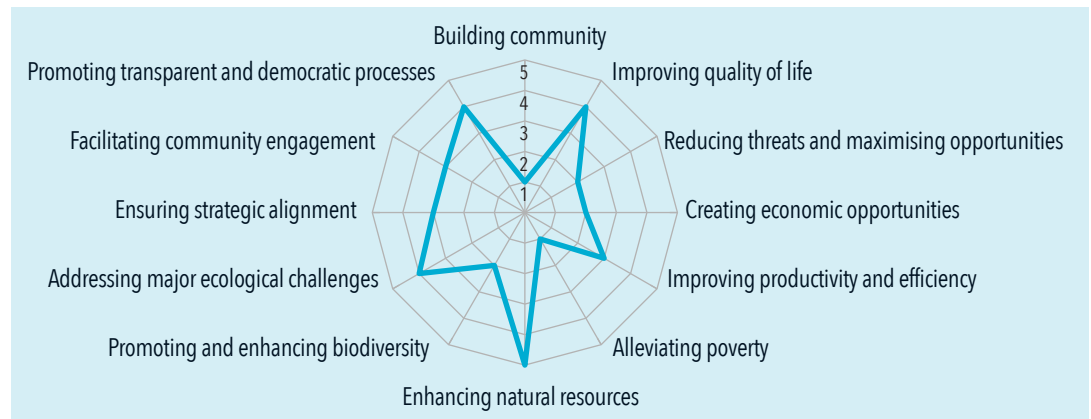


Figure 33: Staff bike-share pilot assessment



■ Spine Road non-motorised transport: Phase 1

Problem statement

Spine Road is the largest feeder to, and main carrier of, public transport options in Khayelitsha. Considering that in poor communities, 85% of the community walks to public transport interchanges, it is essential that accessibility is enhanced and environmental sustainability is taken into consideration.

Project outline

Non-motorised transport (NMT), also referred to as active

mobility, does not require an engine for mobility. Spine Road is a major arterial road that connects people to schools, public amenities as well as neighbouring communities. Due to high road use, the project team identified the need to enhance accessibility and safety for pedestrians and cyclists.

Project design

The Spine Road NMT project offers bicycle facilities and pedestrian walkways with soft and hard landscaping. The ►

A safer Spine:

By increasing pedestrian presence, the project increases the perceived and actual safety along the road.



By increasing pedestrian presence, the project increases the perceived and actual safety along the road, which makes public spaces come alive.

project is designed in a manner that restructures urban public space to create a liveable and vibrant community environment, while creating a sense of safety and security.

Project implementation

The Spine Road NMT extends over 2,4 km and is designed to promote universal access, i.e. use by the disabled, elderly, youth as well as those with special needs. To encourage varied uses along the NMT, the project team organises awareness campaigns, pamphlets and media releases, and also distributes reflective bibs and bands. These focus on activities such as roller-blading and skateboarding. Combined with additional lighting, the bibs and bands promote the visibility of NMT users.

Safety is further increased through traffic-calming techniques along Spine Road. These measures include traffic circles and the narrowing of roads leading up to intersections. The Spine Road NMT uses clear signage to further meet the needs of NMT users.

The construction of this NMT made use of the EPWP,

and employed local labour and subcontractors with accredited training for different aspects of the project.

Evaluation

NMT provides an alternative to automobile dependency. Not only does active mobility reduce energy consumption and gas emissions, but it also alleviates poverty. This project was recognised for its contribution to improving resource accessibility, especially for job seekers. Additionally, the project team facilitates regular community engagement as well as active mobility campaigns to introduce communities to different forms of NMT.

Furthermore, by increasing pedestrian presence, the project increases the perceived and actual safety along the road, which makes public spaces come alive. Consequently, the project scores highly for improving quality of life. In the near future, the Spine Road NMT is planned to connect to the IRT system. Such plans reinforce the City's goal to improve transit systems and accessibility to serve all citizens and visitors.



Figure 34: Spine Road non-motorised transport: Phase 1 assessment



BRUCE SUTHERLAND

■ Zeekoevlei eastern shore redevelopment

Problem statement

More than 20 years ago, the eastern shore of Zeekoevlei – the largest freshwater body in Cape Town – was a well-used recreational facility. However, a lack of funding and, therefore, maintenance and visible management resulted in the area falling into disrepair, and criminal activity thrived. Despite this, up to 45 000 people have continued to visit the eastern shore every year to picnic or braai.

Project outline

The year 2010 saw a renewed effort to reclaim the eastern shore. A master plan was prepared in line with the 2001 False Bay Ecology Park Development and Action Plan, with input from various stakeholders. Simultaneously, the provision of high-quality recreational spaces was identified as a priority in the Cape Flats district plan.

Project design

R25 million from the National Department of Tourism is facilitating a high-impact project to redevelop the eastern shore into an attractive amenity with braai, picnic and ablution facilities, as well as improved roads, parking areas and landscaping. A large grassed and landscaped area is planned to provide a space for events, markets and other important community functions. With a beautiful view over the vlei to the peninsula mountain range, the redeveloped shoreline will be a true asset to this part of Cape Town.

Project implementation

Since this is a Department of Tourism EPWP project, it employs labour-intensive construction methods and relies on previously unemployed and unskilled people from the ▶

Outstanding amenities:

The eastern shore of Zeekoevlei is being redeveloped with braai, picnic and ablution facilities, as well as improved roads, parking areas and landscaping.



KEVIN NEWMAN

A key objective of this project is training and skills development to better equip workers for employment when the project is complete.

surrounding communities. There is a strong emphasis on providing training and skills development opportunities, as it better equips workers to find other employment once the project is complete. During a rigorous selection process, almost 200 people were selected from the surrounding wards' job seekers database, and offered employment on the project.

Construction began in July 2012, and will continue through four stages until July 2014. An estimated 81 158 person days of employment will be provided in total.

False Bay Nature Reserve management will take over responsibility for maintenance of each stage as it is completed, to allow for an overlap period for reserve staff to 'test' infrastructure while the implementing agent is still on-site. This will ensure that greater benefits are delivered to locals, quickly and efficiently. Management plans include a strategy to slowly replace alien vegetation with indigenous vegetation in a bid to maintain a sense of place and balance environmental integrity with heritage.

The Zeekoevlei eastern shore redevelopment has provided a short-term (two-year) employment opportunity for over 200 job seekers through investments of time and money by various government departments, and will

reclaim a well-loved recreational area for enjoyment by those in the local community and beyond.

Evaluation

Development along the Zeekoevlei eastern shore demonstrates excellent strategic alignment, because it promotes cooperative governance and aligns with the priorities and responsibilities of all three tiers of government. A key objective of this project is training and skills development to better equip workers for employment when the project is complete. Furthermore, the project office is on-site and all administrative functions are undertaken by a skilled administrator, who provides training to another two previously unskilled, unemployed locals, as per the EPWP model. The upskilling of workers is integral to the success of the project, as it builds confidence and morale, and improves the quality of infrastructure.

Ecologically, however, the site still contains alien vegetation species. Although these create a sense of place, they do not contribute to conserving indigenous biodiversity. To address this, the project team has prepared a succession planting plan so that when old trees die, they will be replaced with new, indigenous species.

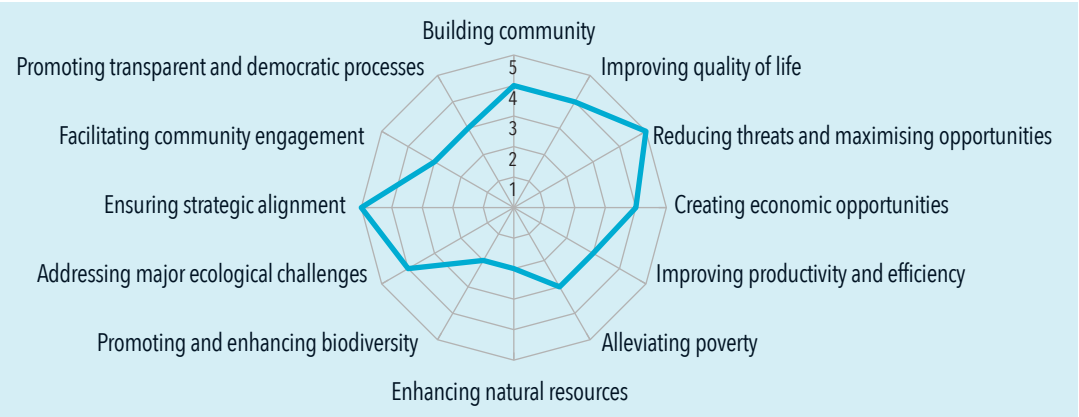


Figure 35: Zeekoevlei eastern shore redevelopment assessment



Golden opportunity
The 'Friends and Neighbours' project's (page 93) people-centred approach to reconnecting communities and nature earned it a Gold Star rating.

Cape Town – towards sustainability

The opening chapter of this portfolio made mention of a universal concept of sustainability and sustainable development, and cited as a definition for the latter “the selection and implementation of a development option which allows for the achievement of appropriate and justifiable social and economic goals (based on meeting basic needs and equity) without compromising the natural system on which it is based”.

In the context of Cape Town, this definition captures the essence of three important City policies and strategies, namely the Integrated Metropolitan Environmental Policy (IMEP), the Social Development Strategy and the

Economic Growth Strategy. The importance of this portfolio’s link to these cornerstones of City governance has been described earlier, and can also be discerned through the 34 project profiles and assessments.

The City is proud to have demonstrated through this portfolio project managers’ increasing awareness of the importance of building sustainability principles into project conception and outcomes.

Some projects – those designated “Gold Star” – have achieved this already, broadly demonstrating positive outcomes against all 12 sustainability objectives. Others are moving towards these ideals as works in progress.

While the projects profiled are but a fraction of the City's output, the examples of best practice in sustainability, exemplified through this portfolio by those projects that were assessed as "excellent" in a certain area, will serve to inspire similar results across a wider front of delivery in project design, implementation and management.

By engaging with these lessons learnt, project managers will be able to avoid pitfalls and shortcomings, and to replicate and even enhance the best-practice approaches documented in this portfolio. The result will be a more substantial and profound delivery of goods and

services to the benefit of recipient communities.

It is important, however, that the close interaction on urban sustainability issues with project managers across all sectors outlined earlier does not end with the publication of this portfolio.

An ongoing assessment process is essential to mainstreaming sustainability principles into City delivery and growth. Ideally, this involvement, assessment and support around urban sustainability should influence project conceptualisation, implementation and management, leading to more effective and beneficial outcomes for all.





**THE
OPPORTUNITY
CITY**



**THE
SAFE
CITY**



**THE
CARING
CITY**



**THE
INCLUSIVE
CITY**



**THE
WELL-RUN
CITY**

Portfolio Extra 1: More about the City's five strategic focus areas

The City of Cape Town's Integrated Development Plan (IDP) provides the strategic framework that guides the municipality's planning and budgeting over the course of its political term.

When the new City administration was elected, a strong plan of action for Cape Town was developed. This plan is based on a clear understanding of what needs to be achieved during this term of office, and is built on the following five key pillars:

- The opportunity city
- The safe city
- The caring city
- The inclusive city
- The well-run city

These five pillars help to focus the City's message and purpose of delivery. They also help to translate the electoral mandate into effective organisational structures.

In the IDP, these pillars are called strategic focus areas (SFAs), because they are the overarching 'themes' encompassing all the City's programmes and initiatives. The result is a detailed matrix that enables effective programme implementation and accurate performance measurement of the focus areas.

While these programmes and objectives often overlap across SFAs, classifying them under the five pillars allows the City to effectively measure their outcomes. The SFAs can then act together to produce the objectives of the administration, and help the City address the structural inequalities of the past. Being drivers of social and economic development, they help the City fulfil its constitutional mandate as local government and help change people's lives.

The IDP has been developed with maximum citizen

participation. This involved input from all levels of the administration as well as the most extensive public participation process ever undertaken by the City. Based on this inclusive approach, the IDP describes the programmes under each SFA, as informed by the overarching principle of infrastructure-led growth. These five SFAs can briefly be described as follows:

The opportunity city

The core focus of the opportunity city is to create an economically enabling environment in which investment can grow and jobs can be created. Creating such an opportunity city involves the following:

- Using numerous levers to attract investment
- Providing adequate support to the market via efficient regulation, planning and infrastructure support
- Continued investment in infrastructure
- Ongoing development and strengthening of economic partnerships
- A focus on key projects that will promote growth and sustainability
- Making the most of City assets to aid development and growth
- Encouraging the growth of small businesses and entrepreneurs
- A focus on taking care of the natural environment and managing natural resources more efficiently

The safe city

Citizens need to be safe in their city. However, safety is a broader issue that goes beyond policing. A truly safe city manages disasters and risks, enforces traffic regulations, and provides fire and rescue services. Safety is essential to





the public enjoyment of open spaces, city beaches and nature reserves. The City of Cape Town's focus on building a safe city includes the following:

- Continued dedication of resources and programmes to ensure effective safety provision
- Local and international partnerships to allow for training and education
- Ongoing roll-out of neighbourhood watch programmes
- Increased public awareness of, and participation in, safety and security initiatives
- Alignment of staffing models with national and international best practice
- Investment in staff training and capacity-building
- Enforcement of environmental compliance
- Investment in innovative safety policies, specialised units and programmes



The caring city

In order to be a world-class city, Cape Town must be welcoming to all people, and it must make residents feel that their government is doing everything it can to provide for them so that they can truly access opportunities. Key to realising the vision of a caring city is the following:

- Continued implementation of the rates rebates policy to help reduce poverty
- Provision of amenities, such as parks, libraries, sports and recreational facilities, and community and youth centres
- Greater focus on more direct ways of promoting social development
- Offering effective substance abuse programmes to help minimise the number of people who are excluded from society
- Increased efforts to make all people feel that they are a part of their communities



- A focus on creating integrated human settlements by building communities, not just houses
- Ongoing review of the provision of services to informal settlements
- Investment in primary health-care facilities

The inclusive city

An inclusive city is one where everyone has a stake in the future and enjoys a sense of belonging. While achieving this relies on the proper functioning of the programmes, the City of Cape Town also concentrates on the following:

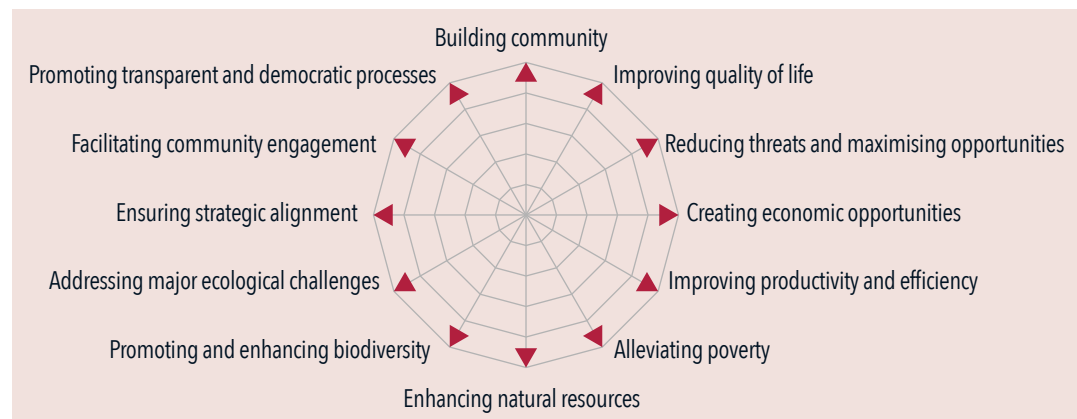
- Developing effective public transportation programmes
- Ensuring greater recognition of culture and heritage
- Proper use of resources to address the backlog of community facilities in underdeveloped areas
- Responding effectively to the needs of its citizens

The well-run city

Citizens need to know that their government works for them, is accountable to them, and answers to them at all times. To achieve this, the City of Cape Town will do the following:

- Keep Council meetings open to the public to ensure that the actions and decisions of the City's political leaders are always transparent
- Publicly advertise all City tenders above a prescribed rand value
- Stick to its budgets and programmes of debt collection and revenue projections
- Manage its staff structure to ensure service delivery
- Maximise staff potential through effective human resources management, staff training and staff development
- Strictly monitor all services to ensure delivery
- Remain open and transparent in all its dealings

Portfolio Extra 2: Defining the sustainability objectives of the projects



1. Building community

For example through:

- facilitating community participation; and
- creating social cohesion and capital.

2. Improving quality of life

For example through:

- meeting basic needs;
- enhancing participation in arts, culture, sports and heritage;
- improving living conditions, promoting dignified human settlements and good-quality open spaces; and
- promoting health and well-being.

3. Reducing threats and maximising opportunities

For example through:

- improving safety and security;
- addressing historical inequity and lack of access to amenities; and
- promoting education, training and awareness.

4. Creating economic opportunities

For example through:

- creating jobs;
- facilitating skills development and training;
- creating small, medium and micro-sized enterprises; and
- developing infrastructure for growth.

5. Improving productivity and efficiency

For example through:

- providing efficient utilisation of resources;
- reducing input costs and costs to taxpayer; and
- promoting beneficial partnerships.

6. Alleviating poverty

7. Enhancing natural resources

For example through:

- improving water quality;
- reducing reliance on non-renewable energy;



STEPHEN GRANGER



STEPHEN GRANGER



- reducing impact on land;
- improving air quality and reducing emissions;
- reducing waste and pollution; and
- promoting urban densification.

8. Promoting and enhancing biodiversity

For example through:

- promoting consolidation of the biodiversity network;
- reducing the incidence of invasive biotic species; and
- protecting sensitive ecosystems.

9. Addressing major ecological challenges

For example through:

- building resilience to climate change;
- addressing environmental degradation; and
- addressing historical inequities in accessing natural resources.

10. Ensuring strategic alignment

For example through:

- promoting cooperative governance and aligning with

provincial, national and international priorities and responsibilities; and

- ensuring alignment with the Spatial Development Framework, Integrated Development Plan and other key strategies.

11. Facilitating community engagement

For example through:

- communicating and raising awareness on sustainability issues;
- promoting sustainable livelihoods; and
- facilitating public input.

12. Promoting transparent and democratic processes at a high level

For example through:

- promoting cooperation and collaboration;
- promoting access to information; and
- ensuring replicability of project principles/methods/approaches/outcomes.



Portfolio Extra 3:

More about project evaluation

A custom-designed table was used to record and assess projects' performance in respect of sustainability objectives. The table below is an extract from the Alcohol and drug treatment sites project (page 29). The objectives were broadly defined to afford project managers the

opportunity to relate each objective to their respective projects. A scale of 1 to 5 ('Poorly', 'Partly', 'Well', 'Very Well' and 'Excellently') was employed to assess the extent to which projects met each objective and these were later tallied to identify portfolio star-rated projects.

Project title: Alcohol and drug treatment centres (extract)

How does the project address the following objectives?

Sustainability objectives	Project approach	Assessment	Scoring
Creating economic opportunities		Partly	2
1. Creating jobs	The project team initiated an EPWP project through which a client could be employed for a few months. Clients are also assisted with creating their own CV so they can enter the job market.	Partly	2
2. Facilitating skills development and training	The programme steers clients towards skills development opportunities as information of opportunities are channelled to clients. Life skills are a key aspect of the treatment programme.	Partly	2
Improving productivity and efficiency		Very well	4
1. Providing efficient utilisation of all resources	Clients are encouraged to access other health services which they normally would not have accessed e.g. testing for HIV/Aids and TB. Being located in an existing clinic also reduces the need for new infrastructure, administration systems, etc.	Excellently	5
2. Reducing input costs and costs-to-taxpayer	The treatment programme, based on international standards of best practice, is offered at no cost to the community. By being based in a clinic, the service becomes more accessible to the community. Most treatment services charge a fee for utilisation of their services but the City sites provide a free service.	Very well	4
3. Promoting beneficial partnerships	The programme has valuable partnerships with other NGOs and health facilities e.g. provincial day hospital other departments within City Health e.g. environmental health and other partners e.g. Sports & Recreation, SAPS. The sites are also part of local drug networks and forums in their areas.	Very well	4



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Portfolio Extra 4: Abbreviations and figures

AMR	automatic meter reader	IRT	integrated rapid transit
ARV	antiretroviral	MSF	Médecins Sans Frontières
BEN	Bicycling Empowerment Network	NGO	non-governmental organisation
CBD	central business district	NMT	non-motorised transport
CCTV	closed-circuit television	PHP	People's Housing Process
CDM	Clean Development Mechanism	QR	quick reference (code)
Danida	Danish International Development Agency	RT	responsible tourism
DDS	diarrhoeal disease season	SAPS	South African Police Service
ECD	early childhood development	SASDI	South African Sustainable Development Initiative
ECD	early childhood development	SELF	SASDI Education and Learning Facility
EHP	environmental health practitioner	SRO	school resource officer
EPWP	Expanded Public Works Programme	TsiBA	Tertiary School in Business Administration
ERP	enterprise resource planning	UN MDGs	United Nations Millennium Development Goals
FRC	family recreation centre	USA	United States of America
GIS	geographic information systems	VPUU	Violence Prevention through Urban Upgrading (programme)
HCE	housing consumer education (programme)	WDC	World Design Capital
IDP	Integrated Development Plan	WQIS&IP	Water Quality Improvement Strategy and Implementation Plan
iEEECO	integrated energy environment empowerment cost-optimisation		
IHI	Institute for Health Improvement		
IMEP	Integrated Metropolitan Environmental Policy		

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Opportunity from nature

The Table Bay Nature Reserve, a singly managed area comprising several former 'reserves', is home to Typha (indigenous bulrushes), which women from Dunoon harvest for weaving items for sale as part of the City's 'Weaving sustainable livelihoods' project.



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