



URBAN LEADS

SIX COMMUNITY SHOWCASE INITIATIVES



INTRODUCTION

South Africa is at an energy crossroad. It needs to transition from a large-scale, high-carbon, coal-based energy economy to a lower-carbon, renewable based economy. South Africa's future competitiveness depends on it. Simultaneously, there is an increasing focus on municipalities, who have a key role to play in fostering this transition through local service delivery.

The Urban-LEDS project recognises these two trends and has the objective of enhancing the transition to low emission urban development in emerging economy countries. The project is implemented by ICLEI Africa in partnership with UN-Habitat and funded by the European Commission. It supports selected local governments in Brazil, India, Indonesia and South Africa with a comprehensive methodological framework, known as the Green Climate Cities methodology, to integrate low-carbon strategies into all sectors of urban planning and development within their municipalities.

The project was launched in South Africa in February 2013, and seven municipalities have been working with the ICLEI Africa Urban-LEDS team to compile baseline reports, participate in workshops, develop strategies and implement projects.

While the strategy development and data gathering is critical, it is also important to have practical examples of low emission solutions that can be showcased in each municipality.

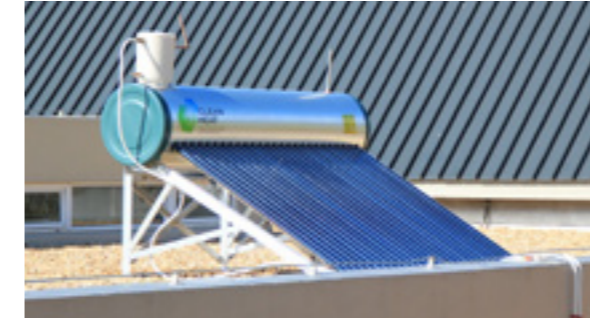
This brochure provides an overview of the community showcase projects that were implemented:

- **Doornkop Community Centre** in Steve Tshwete Local Municipality (Mpumalanga)
- **Groutville Care Homes** in KwaDukuza Local Municipality (KwaZulu Natal)
- **Grootkloof Environmental Education Centre** in Nelson Mandela Bay Municipality (Eastern Cape)
- **Mphe-Thuto Primary School** in Mogale City Municipality (Gauteng)
- **Empangeni Library** in uMhlathuze Municipality (KwaZulu Natal)
- **Saldanha Bay** Local Municipality (Western Cape).





LOCAL SOLUTIONS



The overall objective of the community showcase project was to demonstrate the community benefits of sustainability action, focusing on sustainable use of energy and water.

Local involvement determined the nature of each project and its different approaches, partnerships and sites of implementation. This contextualisation was a key ingredient for success.

A variety of the following practical solutions were implemented in the five municipalities:



Solar PV panels with an inverter and battery bank which allows the building to reduce electricity cost while still being able to function during power outages. Solar arrays of between 5 and 18kW were installed. One was totally off-grid, while most were grid-tied and can potentially feed into the grid.



Solar water heaters are a practical way to heat water without using electricity. Both high and low-pressure systems were implemented depending on the local requirements.



Mobile LED solar light (Mobiya light by Schneider) is a cost-effective solution that provides light and cellphone charging ability.



A **solar streetlight** brings light into a community even if they don't have access to electricity. It provides bright LED lights, which are charged by the sun.



LEDs replacing inefficient lights to help reduce the overall energy costs, and provide better luminosity and longer lifespan.



Skylights bring natural light into the building meaning you don't need lights even when overcast.



The installation of ceilings provides insulation that helps to keep the building warmer in winter and cooler in summer.



Urban food gardens are an important way to help trickle-feed much needed fresh produce into our kitchens. It links us to the soil and teaches us about resilience.



Rainwater harvesting is becoming more important due to the increased concerns around access to water. Taking this a step further than just using it in the garden requires the installation of a **filtration system** that provides clean potable water. The installation of a **solar based pump** helps to top up a water tank from a borehole, reducing both water and electricity costs.



Wonderbags are insulation cookers that work in a safe and no-fuss way. They reduce energy costs and the amount of water needed for cooking, while saving a ton of CO₂ per household per annum.



Counter compost containers are used in the kitchen for collecting organic food waste. From fruit peels and pips, to vegetable peels, tea bags and eggshells. It all goes back into the gardens to provide nitrogen-rich compost.

The Doornkop community is situated 15km north of Middleburg, Mpumalanga, on communal property with a population of around 9000 people. They have a Communal Property Association (CPA), which manages the land on behalf of the beneficiaries. The project focussed on the community centre, crèche and old age centre used by the local community. The showcase project included the installation of Solar PV (18kW), two solar water heaters, solar street light, security lights, ceilings (for insulation), Wonderbag and mobile solar lights.



The community centre is used by a variety of different role players who have all indicated that the electrification of the building has been beneficial to the local community. A summary of the beneficiaries and the impact of the project follows.

Community Development Workers (CDWs): Their focus is to provide community support and resources that can add value to government programmes. They monitor and evaluate programme implementation, which is recorded on their phones with photographs. *“Previously we had no place to charge our phones, but now we can charge our phones and do our work. It is also great that we can have a cup of coffee at the office when it is cold in the morning.”*

Kopanang and Ikageng Home Base and Drop Inn Centres: These two organisations provide home base care to the sick and elderly who are bedridden and housebound. They also cater for youth in need, through providing a meal and support with homework. *“The fridges have made a big difference to us because we can keep food fresher for longer, so we don’t need to travel to town so frequently and we can keep the diabetic insulin cold.”*

Community Meetings: Various community meetings are held at the centre, but because some people need to work in town during the day, it is difficult to meet at a suitable time. *“We can now have meetings in the evenings because there is light in the building and we can do presentations. We also have Wi-Fi so can do our work here in Doornkop, instead of needing to travel into town.”*



Dinokeng Early Childhood Development Centre: They look after pre-school children during the daytime while parents need to work. The children participate in a development programme and receive meals at the centre. They had no electricity previously and their building had no ceiling. *“We are really happy to have electricity because now the children can watch Sesame Street and listen to music. We can also meet with parents after hours because we now have lights. The solar street light also helps to keep our people safe, because many of us need to take a taxi into town before sunrise, or only get home after dark.”*



Greenlite Youth Co-Op: The youth co-op developed their skills by assisting with the installation of the solar PV panels. *“It was an exciting project to work on because we learnt new things and realised that there are more opportunities for us. We are busy applying for funding so that we can start a ‘solar spaza shop’ and sell solar products to the community.”*

Schools: The Batlagae Primary School (1200 learners with 37 teachers) and Mkhulu Combined School (1200 learners with 32 teachers) both received catering size insulation cookers that they can use when preparing food for learners at the school.



SOLAR PV SYSTEM

We have **72** solar panels of **250 W** each, which provide a potential capacity of **18 kW**. The PV system is connected to six inverters and **32** batteries with a total storage capacity of **48 V**. The solar panels and batteries provide electricity for use at our centre.



SOLAR WATER HEATER

Using the energy from the sun, our solar water heater provides hot water to our centre. While it helps us to save on electricity, it also reduces **CO₂** emissions by **2,8 tons** per year.



SOLAR STREET LIGHT

Our solar street light has a PV panel, battery and LED lights that use the **energy of the sun** to provide us with light at night.



CEILINGS

We have installed ceilings in the crèche and old age centre because this provides **insulation** to keep our centres warmer in winter and cooler in summer.



MOBILE LED SOLAR LIGHTS

Our mobile LED solar light is an eco-friendly, energy-efficient, robust light that demonstrates the concept of solar PV. After charging it for one day we can use it for up to **48** hours. We can even use it to charge our cellphones.



WONDERBAGS

Our Wonderbag is made in Africa for Africans. It helps us with cooking in a safe and no-fuss way. It reduces energy costs and the amount of water needed for cooking. It saves **1 ton** of **CO₂** per household, per year.



COMPOST CONTAINERS

We use our counter-top compost containers in the kitchen for collecting organic waste. From fruit peels and pips, to vegetable peels, tea bags and egg shells. It all goes back into our gardens to provide **nitrogen-rich compost**.



GROUTVILLE CARE HOMES - KWADUKUZA

The twenty Groutville Care Homes are situated in the KwaDukuza Municipal area and each house between six and eight orphans under the care of the Child Welfare Association. These foster families need to take responsibility for their own homes, so they were very pleased to find ways to save money. The showcase project included the establishment of food gardens, mobile solar lights, Wonderbags and solar water heaters.



The care homes are situated in a newly established residential area quite a distance from amenities. Many of the foster parents need to work during the day, while also taking care of the foster kids.

Food gardens were identified as low-cost, high impact interventions. The Child Welfare Association provided foster homes with guidance and every home received a spade, fork, hand fork, hoe, watering can, composting and seedlings. Ntombizonke said, "we really like the food garden, because it supplements our food with healthy vegetables." Hlengiwe confirmed, "we have been eating from the food garden and saving money. The kids really like the cabbage and spinach. It helps us because we don't need to buy so many vegetables."

Each of the homes also received an insulation cooker, which is both safe around children and helps to save electricity. Catherine says that she used her Wonderbag every day to cook beans, rice and stews. She has also taught the children how to use it because it helps to save gas. Nolungile said that she uses her Wonderbag a few times a week to help with the vetkoek dough rising.

In an attempt to provide the families with an affordable solar solutions, the families each received a Mobyia solar light, with a solar

PV panel, battery and LED light. Catherine says that they keep the light on for the whole night in the baby's room. Lungi says, "our family uses the solar light every night, because it is safer than candles and helps to save money. It helps us during a power outage, or when we need to use the outside toilet".



Due to a delay outside of our control the solar water heaters and solar streetlights were only installed right at the end of the project. It is however anticipated that the solar water heaters will provide a great energy and financial saving for the families, while the solar street lights will contribute to the overall security and safety in the community. Penny Dhaver from Child Welfare said, "We are grateful, because all these efforts help to make the lives of our foster children and parents more convenient and affordable".

PROJECT DETAILS



SOLAR WATER HEATER

By using energy from the sun, the solar water heater provides hot water to our home. This saves electricity and reduces carbon emissions by **2,8 tons** per year for each house. Jointly, this is a saving of **57 tons CO₂** per year for the **20** care homes.



MOBILE LED SOLAR LIGHTS

Our mobile **LED** solar light is an eco-friendly, energy-efficient, robust light that demonstrates the concept of solar PV. After charging it for one day we can use it for up to **48 hours**. We can even use it to charge our cellphones.



LED SECURITY LIGHTS

Safety is important and the LED flood lights require only **10 W** of electricity. This is a **90%** saving on energy consumption, compared to a conventional halogen flood light, while it also lasts **15** times longer.



RAINWATER HARVESTING

We **catch rainwater** on the roof and have connected it to a water tank so that we can use it for watering our food garden or washing clothes when needed.



TREES

We have planted trees in our garden, which provide food and habitat for birds and small animals. Trees absorb **CO₂** and other potentially harmful gasses. They also provide fruit, shade and oxygen.



FOOD GARDENS

Urban food gardens generate important supplementary fresh produce for our kitchens. They link us to our soil and teach us about resilience.



WONDERBAGS

Our Wonderbag is made in Africa for Africans. It helps us with cooking in a safe and no-fuss way. It reduces energy costs and the amount of water needed for cooking. It saves **1 ton** of **CO₂** per household, per year.



COMPOST CONTAINERS

We use our counter-top compost containers in the kitchen for collecting organic waste. From fruit peels and pips, to vegetable peels, tea bags and egg shells. All of this goes back into our gardens to provide **nitrogen-rich compost**.

The Grootkloof Environmental Education Centre is situated in the Van der Kemp's Kloof Nature Reserve in Port Elizabeth, Eastern Cape. It was built to promote environmental education among the local residents and includes classrooms, offices, kitchen and toilet facilities, as well as caretakers' accommodation. The showcase project included the full retrofit of the lights, solar PV (4,5 kW), solar water heater, rainwater harvesting and filtration system. The solar PV feeds into the grid, but also has a battery bank to allow operation during load shedding, while the water filtration system allows the centre to use municipal water only as a backup.



The beneficiaries include the community members that use the environmental education centre, as well as the local municipality who owns and manages the building. While environmental education traditionally focuses on the natural environment, there is an understanding that local biodiversity is being threatened by climate change. The emphasis of environmental education is now shifting towards adaptation and mitigation requirements that contribute to biodiversity protection.

Through implementing a lighting retrofit, solar solutions and water filtration system, the environmental education centre now showcases what can be done to mitigate the impact of climate change. Learners that visit the centre can learn what they can do in their own homes, while also learning about the impact on the natural environment. The centre now runs totally on solar for electricity and hot water, while the rainwater harvesting and filtration system provides all the water used on-site.

A learner from Imbasa Primary School said, *"it is important for us to learn about nature because we need to protect it. We also need to know what we can do at our homes to save electricity and save water. We are the future leaders and need to take responsibility."*



Joram Mkosane, the Director of Environmental Management at Nelson Mandela Bay Metro said, *"this showcase project helps us to better understand how we can incorporate green technology into our municipal buildings. It is also important that it has been done at the EE Centre so that the community can see it first hand and learn more about renewable energy."*



SOLAR PV SYSTEM

We have **20** solar panels of **200 W** each, which provide a potential capacity of **4 kW**. The PV system grid feeds excess energy into the grid. The battery backup operates the lights, offices, and class room during load shedding. This can save **6 tons** of **CO₂** per year.



SOLAR WATER HEATER

By using the energy from the sun, the solar water heater provides hot water to our centre. While it helps us to save on electricity, it also reduces **CO₂** emissions by **2,8 tons** per year.



LIGHTS

We have replaced **161** lights with energy-efficient LEDs. All our lights operate on motion sensors and /or photo cells. The energy consumption for our lights has decreased by **59%** due to the lighting retrofit.



RAINWATER HARVESTING AND FILTRATION

We have a rainwater harvesting system that can hold up to **22 500** litres of water. The **3-stage** filter system (particles, ultra and UV filter) ensures that the water has potable quality. This is our main water supply for the whole centre.



MOBILE LED SOLAR LIGHTS

Our mobile **LED** solar light is an eco-friendly, energy-efficient, robust light that demonstrates the concept of solar PV. After charging it for one day we can use it for up to **48** hours. We can even use it to charge our cellphones.



WONDERBAGS

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COMPOST CONTAINERS

We use our counter-top compost containers in the kitchen for collecting organic waste. From fruit peels and pips, to vegetable peels, tea bags and egg shells. It all goes back into our gardens to provide **nitrogen-rich** compost.



Magaliesburg is a small town situated west of Gauteng in Mogale Municipality. It has a long and rich history linked to the Sterkfontein Caves where the remains of primitive man were discovered. The Mphe-Thuto Primary School hosts around 900 learners, servicing the local area and specifically the adjoining township. The showcase project included the replacement of all the lights in the school, a solar water heater, skylights and solar driven borehole water pump. Working in partnership with Earth Life Africa and Oxfam, an 18kW solar PV panel was installed with a grid-tie inverter and battery bank, as well as a bio-digester and rainwater harvesting.



Recognising the immense potential of the town, the Magaliesburg Development Initiative (MDI) was launched in November 2012. It is a community development programme based on sustainable regeneration framework, which aims to transform Magaliesburg into a resilient and sustainable destination. Initiatives include energy efficiency projects for the local guest houses, clean-up campaigns with a focus on litter and alien clearing, setting up waste recycling, and implementation of renewable energy solutions.

Within this framework, the community showcase aimed to benefit learners at the Mphe-Thuto Primary School. The installation of skylights in the class rooms provide additional natural light, reducing the need for switching on lights. Grace, a local teacher, said *“the skylight is very effective in the classroom and provides a lovely atmosphere for teaching. It is almost like sitting under a tree.”*

All the lights in the classrooms, offices as well as the outdoor security lights were replaced with energy efficient lights. Jerry, the caretaker, was really pleased about this because there were so many different types of lights at the school that had to be replaced frequently.

A group of women formed a co-operative to manage the food gardens at the school.



The soup kitchen uses some of the vegetables to feed the learners, while the rest of it is used by the co-operative or sold to the local community. Charles explained that, *“our main problem is access to water and the current drought makes it very difficult.”* Mama Maria says *“now that we have a solar-powered borehole pump, it fills up our water tanks and we don’t need to carry buckets of water for long distances.”*

Their main problem was access to water, and with the recent drought this was accentuated. This was addressed through the installation of a solar-powered borehole pump that can fill the water tanks, which is then used in the food gardens. They no longer have to carry buckets of water for long distances.

A Wonderbag was given to the school’s soup kitchen, which provides meals to the learners on a daily basis. Mamma Unis said that *“the Wonderbag helps us with cooking meals for the kids, while it also helps to save energy. It takes a bit more planning, but carries on cooking even when there is nobody around.”*

The installation of solar PV panels, with battery bank, and solar water heater will help the school to reduce their monthly electricity bill, as well as being able to function during a power outage. When we asked the principal Mr Phiti how he felt about this he said *“I am simply over the moon. The School Governing Body, teachers and learners all express their gratitude for the support provided to us.”*



SOLAR PV SYSTEM

We have solar PV panels on the roof that use the light from the sun to create energy. An solar inverter changes the energy from direct current to alternating current so that we can use it at the school.



SOLAR WATER HEATER

Using the energy from the sun, the solar water heater provides hot water to our school. While it helps us to saves on electricity, it also reduces **CO₂** emissions by **2,8 tons** per year.



LIGHTS

All the lights in our school have been replaced with more energy-efficient options, which will save over **6000 kWh** of electricity each year and **5,2 tons CO₂**.



SKY LIGHTS

The sky light brings natural day light into our classrooms. This means that we don’t need to swich on the lights, reduces energy consumption and saves money. This could save **340 kg CO₂** per classroom each year.



RAINWATER HARVESTING

We catch the **rainwater** on the roof and have connected it to a water tank so that we can use it for watering our food garden or washing clothes when needed.



FOOD GARDENS

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BIODIGESTER

We use food scraps from the kitchen and other organic waste to feed our biodigester. This creates **fertilizer** and **methane gas**, which can be used for cooking. It helps to reduce **CO₂** emissions and sends less waste to landfill.



EMPANGENI LIBRARY - UMHLATHUZE

The Empangeni Library is situated in the uMhlathuze Municipality, KwaZuluNatal and is used by the surrounding community on a daily basis. The showcase project included the retrofit of 337 tube lights to LEDs and the installation of solar PV that can provide an estimated 7,1kWp.

Power outages often occur in South Africa and this has a huge negative effect on the local economy. The Empangeni Library also felt the impact of power outages and in the past they had to shut their doors if there was no electricity.

The installation of the solar PV now allows them to keep their doors open even during a power outage, because they are getting their energy from the sun. A total of 28 solar panels capture the energy from the sun, which is stored in 8 batteries and connected to an inverter. This allows the library to run their lights and dedicated computers so that they don't need to close during a power outage.



The library also received a Wonderbag, solar LED light and other small items to be included into a permanent exhibition at the library to help create awareness around energy efficiency and renewable efficiency.

The head librarian Marita van Kaayenburg said that, "the installation of the solar PV panels has been great, because now we don't need to shut down if there is no electricity. We have also found that our electricity account is lower, which saves us money, although the lights are now brighter than previously."

The showcase complements the Municipality's existing initiatives in street and traffic light efficiency. There are over sixteen thousand street lights in uMhlathuze Municipality that need to be replaced with LEDs, which could provide a saving of around 37% of the Municipality's own energy consumption. There are also over 400 traffic lights that have already been retrofitted with LEDs and integrated controllers to help reduce electricity consumption through more efficient technology.



Tumelo Gopane, Deputy Municipal Manager, says "this showcase project helps to provide a shining example of what can be done in municipal buildings. We are already addressing the traffic lights and street lights, so now we also need to consider the lighting requirements in the various municipal buildings."

PROJECT DETAILS



SOLAR PV SYSTEM

We have **23** solar panels of **260 W** each, which provide a potential capacity of **6 kW**. The PV system is connected to an inverter and **8** batteries. The solar panels and batteries provide electricity for our library and we can run our lights and two computers for **2,5** hours during load shedding.



LIGHTS

We have changed **337** fluorescent lights to energy-efficient LED lights. The energy consumption for our lights has decreased by **60%** due to the lighting retrofit with an energy saving of **8788 W**.



COMPOST CONTAINERS

We use our counter-top compost containers in the kitchen for collecting organic waste. From fruit peels and pips, to vegetable peels, tea bags and egg shells. It all goes back into our gardens to provide **nitrogen-rich compost**.



MOBILE LED SOLAR LIGHTS

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SALDANHA BAY - CASE STUDY ON GREENING MUNICIPAL INFRASTRUCTURE

Recognising that a fundamental shift in financing arrangements is needed if these community showcases are to be up-scaled across the country, a complementary case study was commissioned in Saldanha Bay Local Municipality, focusing on financing the transition to a new infrastructure paradigm in fast-growing secondary cities in South Africa. These municipalities play an important role due to their functional and economic importance as local service centres and hubs of fast-growing populations.



The municipality's ability to provide the infrastructure needed to support the local economy and residents has a significant financial implication on maintenance and operations budgets. The nature of this infrastructure impacts on the ability to reduce resource consumption and emissions, and develop resilience to climate-related impacts.

Given that individual municipalities are unable to meet their expenditure mandates with existing revenue sources, national grants will continue to support infrastructure investment – particularly targeting infrastructure backlogs for the poor.

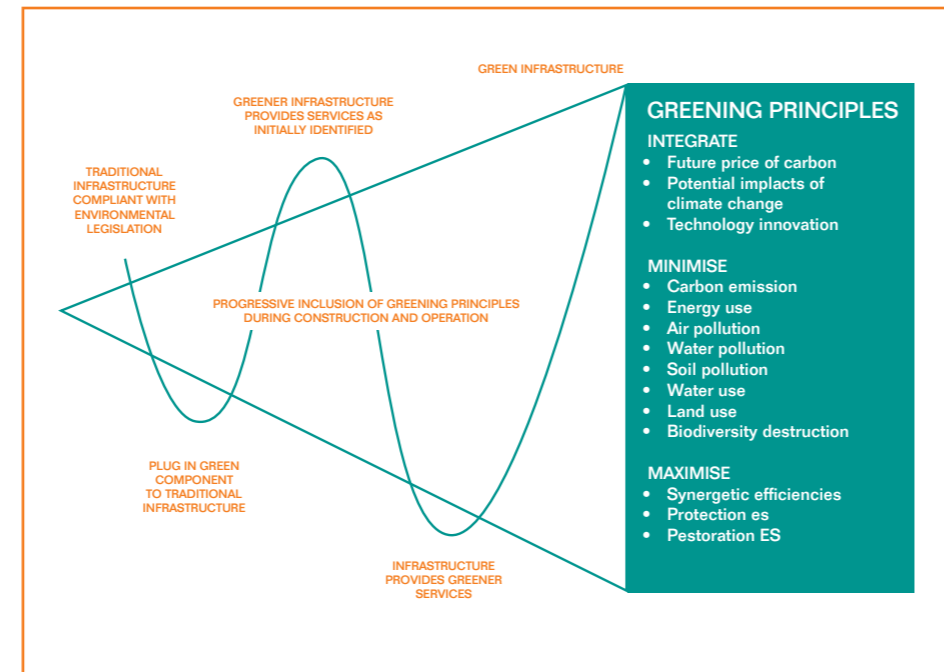
This report aimed to broadly frame municipal sustainability in terms of fast-growing secondary cities in South Africa and understand the important role of green infrastructure in enabling this.

This includes a case study of the Saldanha Bay Municipality (SBM) to determine how the municipality could utilise grant funding and other financing mechanisms to green their infrastructure, reduce emissions and develop climate resilience whilst contributing to the long-term sustainable development of the area. It is intended that this report be used as a tool at various existing platforms to engage more deeply with relevant stakeholders and other

municipalities to discuss the process of greening infrastructure and service provision across South Africa.

As is similar to the concept of green buildings, green infrastructure exists on a continuum between improving on the performance of grey infrastructure to infrastructural systems that enable restoration of the local and global environment.

The adoption and implementation of green infrastructure requires a paradigm shift in municipal infrastructure provision where innovation is possible. To implement this, a framework for transition is needed to achieve low emissions development; where planned phases and steps allow for both bold and incremental greening initiatives.



The continuum of intervention for green infrastructure (Source: Giordano, 2013)

KEY FINDINGS ON GREENING MUNICIPAL INFRASTRUCTURE

1 INNOVATIVE PROCESSES

Provision of infrastructure cannot continue based on a resource intensive 'business as usual' approach. Innovative green infrastructure can have profound implications for municipal governance, management and financial models.

2 GRANT INCENTIVES

The existing municipal infrastructure grant architecture needs to incentivise the proactive provision of green infrastructure investments by municipalities and private sector partners.

3 FINANCING & FUNDING

Long-term investment planning should include financial requirements and potential funding options for the provision of green infrastructure.

4 INSTITUTIONAL REFORM

National Treasury should be engaged to explore how supply chain management processes can enable municipalities to adopt green infrastructure approaches, and explore the establishment of innovative financing arrangements – such as green infrastructure bonds.

5 FULL COST ACCOUNTING

By adopting a lifecycle approach to infrastructure that includes all external costs and benefits, the infrastructure service will enable municipalities to make more informed choices.

6 CAPACITY BUILDING

It is important that green approaches include an educational component, as there might be community resistance to innovation if it is seen as an inferior service.

REFLECTIONS

The community showcase initiative has generated a wealth of insight in implementing demonstration projects as catalysts for wider change.

COMMUNITY PROCESS AND BENEFITS

Demonstration projects were directly embedded in buildings used by local communities. Through significant engagement with local leadership and counsellors, the community ideas were identified and prioritised. This community process also helped establish the requirements for the long-term operation and maintenance of any installed infrastructure that the community or municipality would have to take responsibility for.

LONG-TERM MAINTENANCE

As part of shared responsibility, each of the community representatives signed agreements for the long-term maintenance of the infrastructure provided. This was done in the context that some community organisations don't have the operational finance guaranteeing the required maintenance. The issue was largely addressed by providing low-maintenance equipment and technology, which requires minimum technical maintenance and/or by including the installation on the municipal asset register.

FINANCIAL SECURITY

The Doornkop community was encouraged to increase their own income generation by asking energy users to contribute financially when using electricity generated by the solar panels. While sunlight is free, the maintenance and security is not. It is however essential that the local community takes full responsibility for this and that they understand the value of their contribution.

CAPACITY BUILDING

It was essential that the communities had a basic understanding of the technology that was installed and what their responsibility was in the process. The implementation was done in line with the requirements of each specific project, ranging from a renewable energy expo in Doornkop, to on-the-job training of community members and an educational session for parents at the Groutville care homes. All service providers were encouraged to work closely with the local community.

LOCAL IS LEKKER

Although it might have been easier to appoint one service provider to implement all the different projects, it was decided to

appoint a local service provider in each of the different municipalities. This directly supported the local economy and created a better relationship between the service provider and community residents.

MULTI-LEVEL GOVERNANCE

Several projects required interdepartmental co-ordination or co-operation between different spheres of government, which necessitated vertical integration. For instance, the Groutville project required the co-ordination between KwaDukuza municipality and iLembe district municipality. The two spheres of government have different responsibilities and needed to work together to ensure effective service delivery. Varying programmes and timeframes of government structures can impact negatively on project implementation and should be taken into account from the start.

A MULTI-PRONGED APPROACH

The community showcases were once part of the overall Urban-LEDS project. In Steve Tshwete and KwaDukuza, three-years of intensive work included the calculation of the municipal greenhouse

gas footprint, development of stakeholder-led low emission development strategies and action plans, as well as training and capacity building of staff and local communities. The combination of these different interventions is a powerful and comprehensive model that can be replicated elsewhere.

The most valuable lesson learnt was that implementation of a showcase project in a municipality sparks political and community-level interest and enthusiasm, and helps people gain a practical understanding of what change is possible.

To ensure these community showcase projects lead to long-term success, three areas of focus remain: Ensuring that the mechanisms recommended to ensure long-term sustainability are actually put in place, exploring financial solutions to up-scale these projects, both in these municipalities and in other locations and working to mainstream lower carbon infrastructure and decision-making criteria into municipal planning strategies, policies and plans.

Only then will we see the kinds of systemic change that our human settlements desperately need if they are to become resource efficient and sustainable places to live, work and play.

CONTACT US

ICLEI – Local Governments for Sustainability is the world's leading association of sub-national governments dedicated to sustainable development.

The ICLEI Africa Secretariat – the regional office in Africa – builds leadership and networks for change by offering a wide suite of training and capacity building tools and projects, exchange programmes and sharing of good practice.

Our sustainability professionals have a wealth of experience in enhancing the sustainable development trajectory of local governments. We are backed by a well-established global programme of work, and many years of experience in implementing a range of energy, biodiversity, resilience and water-related projects and programmes with all levels of sub-national government and their partners.

We invite stakeholders from national governments, association of local authorities, institutional or funding partners, and local/provincial governments to get in touch with us if you have an interest in:

- Supporting local authorities in countries across the continent to mainstream sustainability principles into their energy, transport, water, waste, spatial planning and human settlement functions.
- Supporting and developing joint project proposals.
- Partnering with a trusted intermediary to integrate sustainability principles into local municipal plans and processes.



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PROJECT IMPLEMENTORS:



MUNICIPALITIES:

