



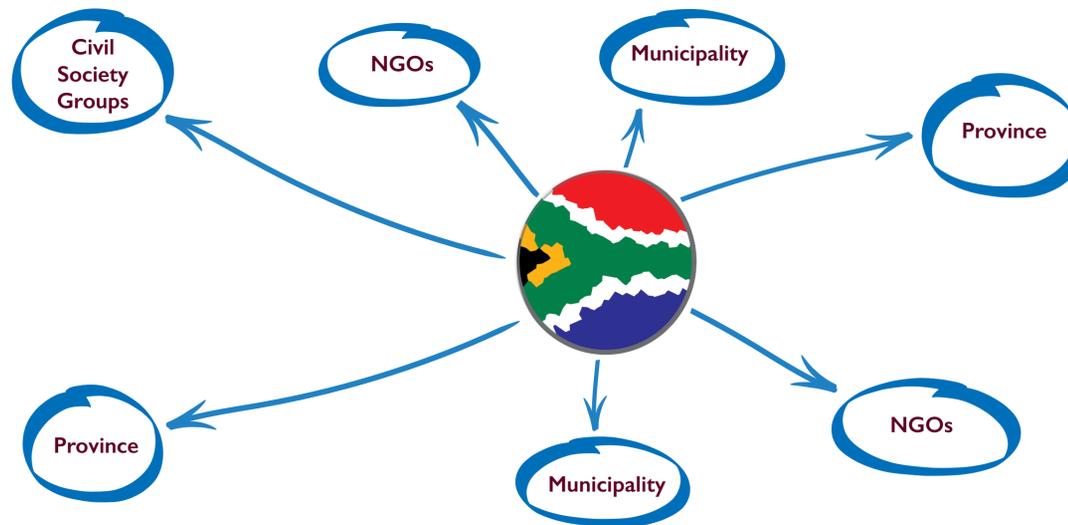
The USAID South Africa Low Emissions Development Program (SA-LED) supports the Government of South Africa's Green Growth Agenda. SA-LED is strengthening the capacity of the public sector to plan, finance, implement, and report on low emissions development projects and to accelerate the adoption of low emissions technologies for a green economy. The program was developed and is implemented in partnership with the Department of Environmental Affairs (DEA) and the Department of Science and Innovation (DSI).

CapeNature is a governmental organization responsible for maintaining wilderness areas and public nature reserves in Western Cape Province, South Africa with a mission to manage, conserve, and promote human, natural, and heritage assets through best practice, access, benefit sharing, and sustainable use.

Working from the National Level to the Sub-national Level

CapeNature approached SA-LED for support to mainstream low emissions development into their already sustainability-focused mandate. SA-LED provided technical assistance at CapeNature's Wolwekloof Nature Reserve & Training Facility to demonstrate what LED might look like for a conservation organization like CapeNature.

In line with South Africa's climate change mitigation strategies, SA-LED supported CapeNature with technical and capacity-building assistance to mainstream LED into their operations.



SA-LED's Process

1. Conduct a feasibility study for environmentally sound energy, waste, and hydro systems at Wolwekloof's above- and below-ground infrastructure.
2. Provide green building recommendations for above-ground infrastructure.
3. Identify resource-saving opportunities for existing infrastructure.
4. Where possible, quantify opportunities identified through an engineering feasibility study.
5. Integrate LED into CapeNature operations through capacity-building, i.e. train operations staff & educational unit.



The photos show the above- and below-ground infrastructure that were identified as LED opportunities for green building and mini hydrop in the main water pipes.



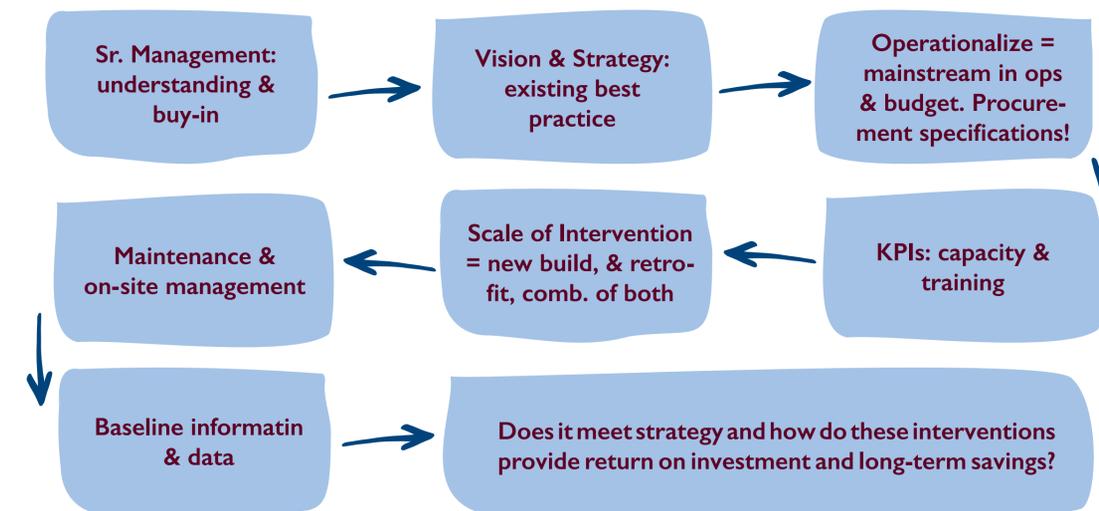
SA-LED provided engineering technical assistance that sketched out the LED opportunities for CapeNature.



Photos: C. Beyers for USAID

Decision Support Process

Technical work was used to develop a decisions-support diagram on mainstreaming LED in Cape Nature processes.



Specific Above- and Below-ground Recommendations

- Retention pond to collect run-off water is vital in this drought-stricken area.
- Retrofit thermally inefficient buildings according to passive solar design and comprehensive green building principles.
- Retain water on-site to feed the wastewater treatment work (WWTW); if filtered and prepared correctly, rainwater can be harvested as potable water.
- Apply shading techniques to neutralize heat islands throughout the site.
- Small-scale hydro and assess potential for solar photovoltaic installations on the WWTW.
- Water-harvesting, food gardens, and potential use of biodigesters — large-scale cooking facilities.

