



Low Emissions Development Program

CASE STUDY

Training municipal officials on greenhouse gas accounting: the CLEER Tool



Photo Credit: SA-LED

Municipal participants at CLEER Tool workshop in Cape Town

The Clean Energy Emission Reduction (CLEER) Tool¹ is a free, user-friendly online calculator that can be used to calculate greenhouse gas (GHG) emission reductions from existing or planned clean energy projects. The outputs of the Tool can be used by municipalities to report on progress in implementation of mitigation actions, and planning for future mitigation actions to be included in their climate change response, both of which are likely to be required for compliance with the proposed Climate Bill.

¹ <https://www.cleertool.org/>

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From 2016 to 2018 the USAID South Africa Low Emissions Development (SA-LED) Program organized a series of training workshops for municipal officials on the use of the CLEER Tool. Apart from teaching participants how to use the Tool, and how results can be presented and communicated, the workshops also sought to provide participants with an understanding of what climate change is, why it is relevant to them, and what actions can be taken to reduce GHG emissions. The sessions also provided an overview of climate change legislation and GHG accounting and reporting more broadly.

Launched in 2015, USAID's SA-LED Program strengthens 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.

The first set of training sessions were held in five District Municipalities, Ehlanzeni, Gert Sibande, Nkangala (Mpumalanga Province), West Rand (Gauteng Province) and OR Tambo (Eastern Cape Province). Participants included representatives from the district municipalities and twenty local municipalities that fall within these districts. An additional training session was held in the City of Cape Town that included representatives from 13 municipalities from across the country. A total of 100 officials were trained during these workshops.

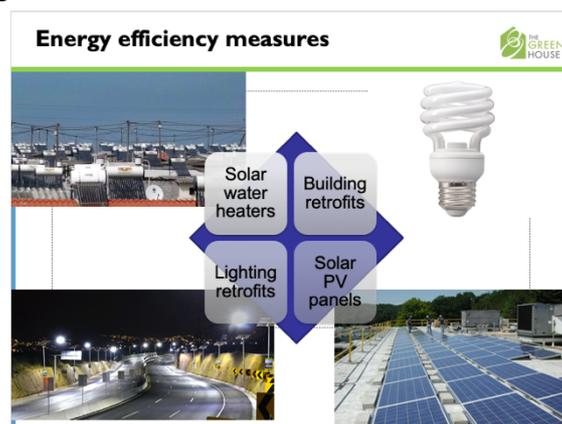
This case study provides an overview of the workshop structure and training material. It then presents observations on the successes of the trainings, discusses the key challenges faced by both the trainers and participants, and summarizes learnings that can inform similar municipal trainings going forward.

WORKSHOP STRUCTURE AND TRAINING MATERIAL

Each workshop ran for two days. On the first day, participants were introduced to the basics of climate change, including:

- Climate change concepts: causes, impacts, adaptation and mitigation;
- Sources of GHGs;
- South Africa's climate change and GHG reporting legislation, including implications for sub-national governments;
- GHG accounting;
- Mitigation actions and their link to GHG inventories; and
- Options for adaptation to climate change.

Following the introductory session, the training introduced the history, purpose and approach that underpin the CLEER Tool.² Information was presented on the benefits of quantifying GHG emissions reductions from projects that have already been implemented, and of projecting reductions from planned projects. These discussions helped participants to develop an understanding of the value of the Tool and how workshop participation could benefit themselves, their department and the municipality going forward.



Examples of mitigation actions available to municipalities

² A key aspect of the CLEER Tool is that it is built on the IPCC Guidelines, GHG Protocol and other international guidance, to ensure the calculated values are internationally accepted. This means the Tool is marked as "Built on GHG Protocol".

Workshop participants were taken through the basics of the CLEER Tool, including the technologies and default data embedded in the Tool, data requirements and the user-friendly, simple-to-understand outputs generated.

Hands-on examples were used allowing participants to get a feel for the Tool and understand the process of entering data and performing the calculations. The instructors demonstrated the first of these examples and thereafter the participants practiced on the twelve supplied examples, with instructors being available to answer any queries and/or provide guidance as needed.



The second day of the workshop began with discussions on the importance of mainstreaming GHG mitigation across all municipal departments. It was highlighted that mitigation actions are not always in conflict with the policies and mandates of departments. For example, the installation of LED streetlights as a mitigation action results in cost savings (even though initial capital outlay is higher than other options, overall lifetime costs are lower). The roll-out of efficient cookstoves not only reduces emissions but can contribute to employment creation.

USAID Clean Energy Emission Reduction (CLEER) Tool

The CLEER Tool is a user-friendly calculator based on internationally-accepted methodologies, enabling users to calculate emissions reduced or avoided from clean energy activities. The tool helps users to:

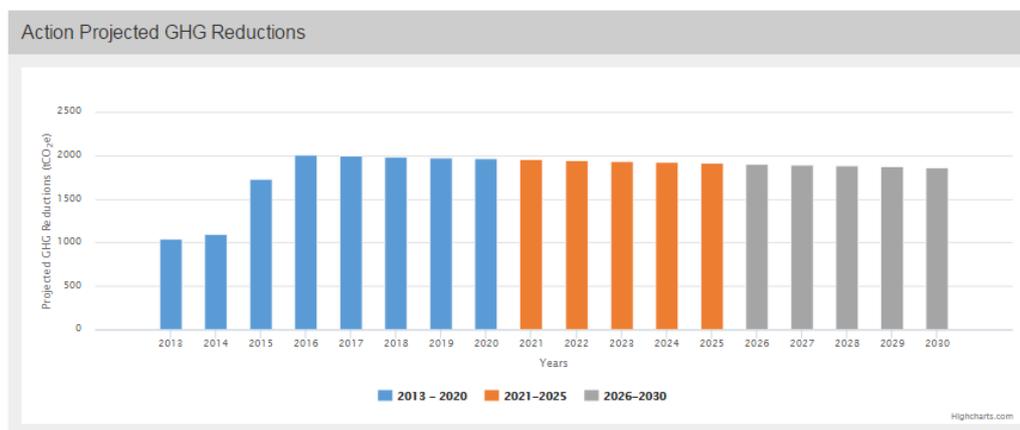
- estimate, track, and report greenhouse gases (GHGs) reduced or avoided from clean energy,
- estimate and project the amount of energy generated or saved from clean energy activities,
- identify high impact activities with cost-effective GHG reductions,
- evaluate the emissions reduction potential of planned activities and possible alternatives, and
- estimate projected GHG emissions reduced or avoided to 2030.

CLEER uses up-to-date methodologies and emissions factors from the IPCC, the GHG protocol, and other internationally-accepted guidance for estimating GHG emissions and reductions.

The CLEER tool was developed by the USAID Resources to Advance LEDS Implementation (RALIS) Project, in cooperation with the USAID Global Climate Change Office (GCCC). USAID works with partner countries to establish the foundations for low emission energy systems, with a focus on helping countries build enabling environments that can attract and sustain private investment in clean energy. Clean energy activities promote the use of renewable energy and energy efficiency technologies, build human and institutional capacity, and improve the enabling environment for clean energy investment and deployment. This work seeks to reduce or avoid GHG emissions, while promoting sustainable human and economic development.



CLEER Tool landing page



Emission savings projections generated by the CLEER Tool, demonstrating the user-friendly and easy-to-understand outputs

Participants also learned about the ability to share project information in the CLEER Tool, through the use of teams and groups and were given the opportunity to practice on the CLEER Tool with their own project data. This exercise allowed participants to resolve any challenges they experienced on day one and raise any further queries.

A vital part of the training workshop was discussions on participants' opinions of the CLEER Tool and its usefulness, the training workshop itself and the support that municipalities required from SA-LED going forward. These discussions provided guidance to the trainers on how both the Tool and workshops could be improved. The feedback session also provided an opportunity to identify further points of entry for SA-LED to provide support to the municipalities.

REFLECTIONS ON THE SUCCESS OF THE TRAINING

The training sessions were well received by participants, with high levels of interaction and discussions throughout. The Tool was considered user-friendly and produced results in an easy-to-understand, presentable format, suited for use in reports or project proposals. Particular interest was shown in the ability to estimate cost savings of mitigation projects, as this information is central for the preparation of project proposals and obtaining support for mitigation projects in municipalities.

The training also helped participants identify additional mitigation activities that could be implemented and provided them with an understanding of how they could access finance or assistance for implementation. This included identifying projects or areas where the SA-LED Program could provide assistance. Finally, the training sessions identified various minor issues with the Tool itself (e.g. incorrect electricity units) and potential improvements that could be made, such as adding financial savings calculations. This information was communicated to the Tool developers who have made the necessary changes.

“The training was an eye opener for the Province and its municipalities”

**— MS. DUDU SIBIYA,
MPUMALANGA PROVINCIAL
GOVERNMENT, DEPARTMENT
OF AGRICULTURE, RURAL
DEVELOPMENT AND
ENVIRONMENTAL AFFAIRS**

CHALLENGES FACED BY PARTICIPANTS IN THE TRAINING AND IN CLIMATE MITIGATION MORE BROADLY

As indicated previously, the focus of the CLEER Tool and hence the training is on emissions from energy projects. However, given that climate change falls within the mandate of environmental departments, the majority of participants being recruited from environmental rather than energy departments. As a result, many of the participants did not have basic insights on concepts related to energy, its links to climate change, and energy related GHG mitigation opportunities. While an attempt was made to provide information on these topics to participants during the sessions, there was insufficient time available to make them fully conversant with the subject matter. As a result, many of the participants could not see the full value of the Tool, or how it could be used effectively in their current work.

Trainees also identified numerous challenges to project implementation within municipalities. The first is a lack of buy-in from municipal decisionmakers for mitigation or green economy projects, mainly due to limited understanding of the value of low emissions development / GHG reduction projects and/or GHG reporting. Meetings on topics related to the environment are often poorly attended, and cooperation between departments on cross-cutting projects that cut across departments or themes can be limited. For example, in some municipalities, electrical department officials cannot see the importance of mitigation projects and are unwilling to share electricity demand or supply data with environmental departments that could help to make the case for project finance or other support.

Further challenges include an absence of monitoring and management systems, which limits the data available for project assessments, and a lack of funding for projects. Both of these challenges are seen to be related to the lack of buy-in from high-level officials, which hampers green economy project roll-out.

KEY LESSONS

There are a number of lessons from the workshops that may be used to inform future training workshops or for the improvement of mitigation roll-out within municipalities. With respect to the training:

- It is critical to ensure that the correct group of individuals are invited to the workshops and attend for the full two days. The training team needs to identify the target individuals and departments that will gain the maximum value from the training. For the CLEER Tool personnel in the energy or electrical departments are good candidates.
- It is thus important to ensure that invitations are sent out by a suitably high-level official and/or organization (e.g. the municipal manager or SALGA), which will demonstrate the importance of the training and the fact that attendance has high-level management buy-in.
- Provision needs to be made at the start of the training session to ensure that all individuals have a similar level of basic knowledge, prior to training on the Tool itself.
- To ensure participation rates are high, presentations and examples need to be tailored to the group of participants. During the CLEER Tool trainings, participants responded best to worked examples that were based on projects already implemented within their municipalities (e.g. solar water heaters) and lost focus when they covered material that was not relevant to their region (e.g. urban planning in rural municipalities). Provision thus needs to be made for sessions where there is a diverse mix of participants. Here the value of having two trainers was highlighted, as they were able to provide support to different groups working on different examples.
- It is important to relate the Tool and its outputs back to financial considerations, as this is central to project support within the municipal context. For example, the CLEER Tool can be used to demonstrate both cost and emissions reductions due to electricity savings. In future trainings a session could be included that demonstrates how the data from the tool can be used in project proposals towards obtaining funding and support for energy projects that also have a mitigation impact.

With respect to roll out of mitigation action and green economy projects more broadly:

- Buy-in from high-level officials is critical, as it will help to drive cooperation from government departments, prioritization of such projects and access to finance. It is possible to increase buy-in to mitigation projects and GHG reporting initiatives through educating officials on the basics of climate change, mitigation, and reporting, with emphasis being placed on the importance of these considerations across municipal departments, and how cooperation across the municipality is vital for overall success. Such sessions can also serve to demonstrate to officials on how mitigation projects are not always counter to other municipal mandates, and in many cases can provide economic savings, social benefits and job creation. Education and communication on these multiple benefits and driving the issue across sectors can help to secure this buy-in and maintain momentum.
- Climate change issues need to be kept topical and in the minds of all municipal officials. This can be achieved through the appointment of a high-level climate “champion”, who maintains the visibility of climate change in the municipality, ensures cross-cutting cooperation, the implementation of projects/strategies, and that legislation is enforced. The “champion” needs to have dedicated time set aside for climate change related work, as otherwise the role will be overlooked and its value compromised.
- Municipal officials need to be educated on the importance of monitoring and evaluation. Failure to collect appropriate data will result in difficulties in calculating emissions reductions and could lead to a lack of further support for mitigation projects.