



The first Gold Standard project of its kind in the world, this innovative behaviour-change programme teaches local communities in South Africa to burn coal differently in order to be more fuel efficient, thereby reducing carbon emissions. The technique, called Basa Magogo, means 'Light it up! Grandmother' In Zulu. In addition to the emission reductions, the Basa Magogo technique also improves visibility and reduces health risks by producing less smoke.

Importantly, the new technique does not require any change of household equipment and is entirely implemented through local training sessions on improving use of stoves or braziers which people already own. It is validated and verified to the Gold Standard and will run for 10 years, at the end of which time the project hopes to have entirely replaced old techniques with Basa Magogo.

### Emission Reductions

By changing behaviour to encourage adoption of the Basa Magogo ignition technique for cooking, heating space and water and ironing, approximately 50% less coal is used to produce the same amount of heat as previously created by the old technique. One of the first monitoring reports from the project, which began in 2009, showed that a household which converts to Basa Magogo saves on average 300.7kg of coal a year. Monitoring of household coal use and coal merchant surveys are used to assess emission reductions.

Studies by the Council for Scientific and Industrial Research in South Africa also show that the time needed to reach cooking temperature using Basa Magogo was 10 minutes compared to 60 minutes for the conventional heating method.

In addition to emission reductions, Basa Magogo leads to a reduction in indoor and ambient air pollution, better visibility and reduced health risk. This is because, with the heat on top, particulate matter and volatile compounds are burnt off when they pass through the fire, making it more efficient and cleaner.

### How the Project Works

Throughout the project areas, a conventional ignition technique is predominantly used to start fires for cooking, water and space heating and ironing. The technique involves starting the fire at the bottom of the stove or brazier with wood or other ignition material and then adding coal on top. The fire then smoulders for up to an hour before the

coal is burned through and heat is available at the top. This technique is pervasive and users are resistant to change without active and focused measures to promote an alternative.

The Basa Magogo alternative involves placing the coal at the bottom of the stove or brazier, followed by the firewood or other ignition material, and then just a handful of coal on top of the fire. In order to implement the project, a comprehensive programme of small group demonstrations, surveys, monitoring and maintenance takes place.

Successful implementation of the project, which started in 2009 and will run for 10 years, will lead to more efficient use of coal resulting in reduced coal consumption and greenhouse gas (GHG) emissions. The ultimate goal, at the end of the 10 year period, is to replace the old ignition technique with the more efficient Basa Magogo method.



A project member using the Basa Magogo technique.

In order to implement the demonstration and monitoring plan, area leaders, team leaders, demonstrators and survey field workers were hired in all the locations where the project takes place. The team members are hired locally and their incomes are generated through carbon finance. In years two to 10, the project is entirely financed by the sale of Gold Standard VERs, which are what enables it to be economically feasible.

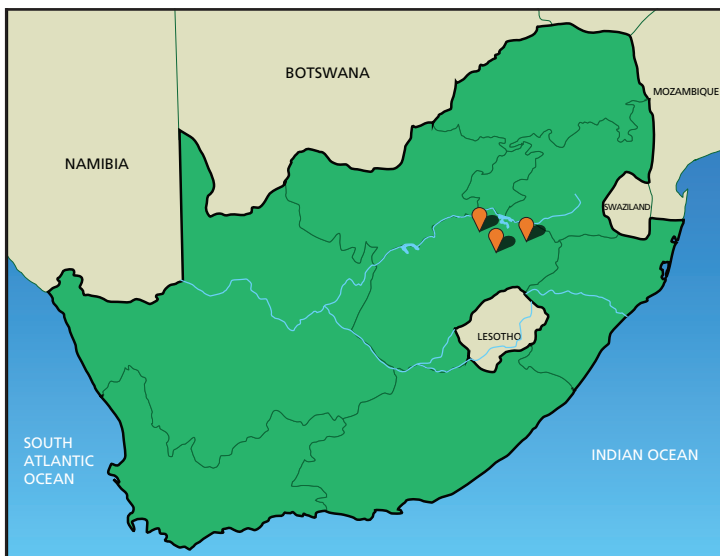
Demonstrations last for 30 to 45 minutes and are intended to be small, typically between five and 10 participants, in order to encourage more active discussion and interaction. In order to attract attendance, the field workers will go house-to-house in the targeted area to assess and record the existing coal use and give the invitation. The demonstration itself will be held in a house or public place preferably on the same street as the households targeted or within a short walking distance.

The demonstration includes information on the negative effects of smoke, a technical explanation of how Basa Magogo works, a physical demonstration using a brazier or stove and finishes with encouraging the participants to try the technique in their own households and measure how much coal can be saved.

## Project Locations

The 'Light it up' Improved Cooking Technique project covers three of the micro-scale projects that are teaching the Basa Magogo technique. These include the suburbs of the Emfuleni local municipality, located in the southern part of Gauteng province. Gauteng is the smallest province in South Africa, with only 1.4% of the land area, but highly urbanised, containing the cities of Johannesburg and Pretoria.

The project also takes place in the local municipality of Lesedi, which is south of Johannesburg in Gauteng province and the local municipalities of Dipaleseng, Mafube, Metsimaholo and Lekwa in the central provinces of Mpumalanga and Free State.



On the left is the old method, and the Basa Magogo method is on the right.

## Project Monitoring

Demonstrators and Survey Field Workers are employed in each project area, working with an Area Leader.

A few weeks after the demonstration, a survey of population samples is taken, in line with the approved Gold Standard project methodology, to monitor uptake of the Basa Magogo method. The data from the survey is stored online and published in the monitoring report.

Combined monitoring and maintenance visits take place in the project areas during the summer, in order to offer continued support in acquiring the skills to correctly use the new technique. The visits include monitoring usage of Basa Magogo and helping households with any problems or questions they may have.

In addition to supervision of the Demonstrators and Field Workers, community liaison and logistics, the Area Leader will also check a sample of the records from the Demonstrators every week in order to ensure a high level of quality control.

## The Project Developer

The project and its methodology have been developed by the Nova Institute, a not-for-profit organisation which provides practical solutions to poor communities.