

# Enterprises need interventions beyond energy: Policy recommendations for government from small energy surveys in rural South Africa and Botswana

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## ABSTRACT

Small enterprises are important in the growth of economies and they stimulate the economy through employment, skill transfer and by addressing market segments neglected by big businesses, for example provision of services like telecommunications in rural areas. The aim of the paper is to provide recommendations on how governments should help small enterprises through provision of modern energy and other services. While energy services may not be explicitly mentioned as a major problem, many of the services that societies require entail the provision of energy services. This paper is based on literature reviews of policy documents and field surveys carried out among small enterprises in electrified and unelectrified rural areas in South Africa and Botswana.

The study found that most small enterprises have difficulty accessing and affording modern energy services and may not have access to the grid or the grid may not be reliable. Modern energy services facilitate the delivery of the above interventions. Policy integration is important given the cross-sectoral nature of development needs.

## 1. INTRODUCTION

Grid electrification in rural areas is costly because the dispersion of the houses results in high distribution and transmission costs are high. This is compounded by the low consumption and limited ability to pay. In this case other energy sources such as renewable resources are recommended as an energy technology. Electricity plays a minor role in rural energy supply due to the lower levels of electrification [1].

Micro and small enterprises are considered to be the major source of income and employment in many countries. There are studies which establish the constraints which make it difficult for small businesses to sustain their business. Mead and Liedholm conducted a study on birth, survival and closure patterns of the small enterprises. The success of small enterprises is determined by many factors, among them support of people [2].

## 2. METHODOLOGY

The study on which this paper is based consisted of surveys in South Africa and Botswana, focussing on perceptions among rural enterprises.

Five trained enumerators were employed in South Africa and another five in Botswana to assist in the administration of the questionnaires. A total of 280 questionnaires were administered during the survey, 200 in South Africa and 80 in Botswana. The study in South Africa was done in 2007 and that in Botswana in 2008. All the questionnaires were entered into Excel and a statistical package (SPSS) was used to analyze the data. The findings should be seen as suggestive; the samples are not nationally or provincially representative as selection of the sample was strongly influenced by accessibility of areas in wet weather, and the limited project budget.

## 3. RESULTS AND DISCUSSION

People in rural areas use different type of energy sources and besides energy there numerous other factors that affect rural enterprises. From the surveys it was found that there are different problems which rural people are experiencing in both countries.

### 3.1 Government role

The majority of respondents felt that the government or local municipality are not doing enough to help people and their small businesses.

Table: 1 Perceptions on whether government helps rural enterprises or not.

Botswana	Respondents
Govt does not help	77
Givt helps	3
South Africa	
Govt does not help	185
Givt helps	14

About 97 % of all respondents in Botswana believed that the government did not help the community and 3% believed that the government helped with training in management of businesses. In South Africa about 92% of respondents felt the government did not help their enterprises, with only 8% seeing the government as helpful. The government help was said to be in the form of grants, free water, free electricity and police patrols to provide safety to communities.

### 3.2 Perception on what the government can do to help

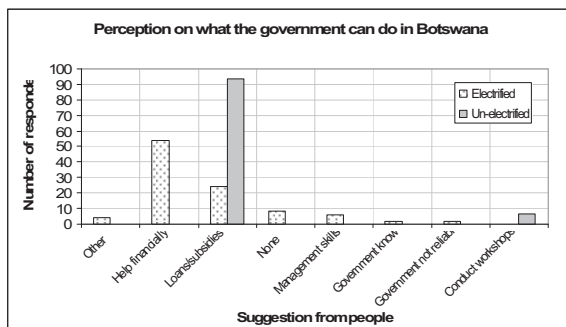


Figure 1 Perceptions on what the government could do to help small businesses in Botswana

Figure 1 shows that in Botswana finance-related issues dominated suggestions on what the government could do. About 94% of respondents from un-electrified areas and 24% from electrified areas said government should help small business with loans or subsidies so that they could sustain their businesses. About 54% of respondents wanted the government to help them financially without elaborating. To a much smaller extent respondents wanted government to help with the development of skills and workshops on businesses management.

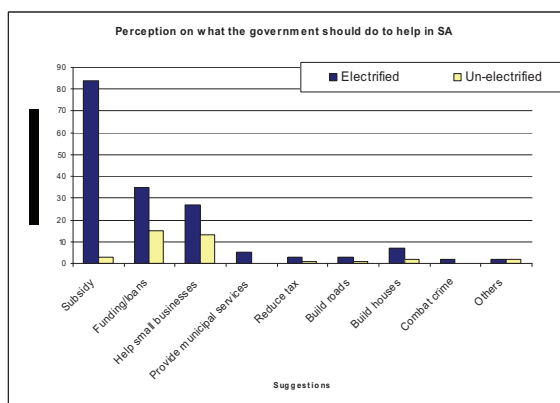


Figure 2 Perception on what the government can do to help small businesses in South Africa

Figure 2 shows that the suggestions of what government could do to assist rural enterprises in South Africa also centred on financial issues. Most of the respondents in South Africa wanted the government to help them with subsidies (84%) and loans (35%). About 27% wanted help with managing their businesses; saying they did not have much experience and suggested government could build business skills train centres. Other minor suggestions included development of roads and infrastructure and municipal services such as refuse removal.

### 3.3 Perceptions on the most profitable businesses

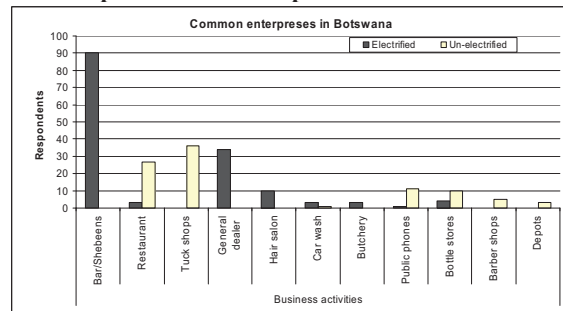


Figure 3 Perceptions of prevalent businesses in Botswana

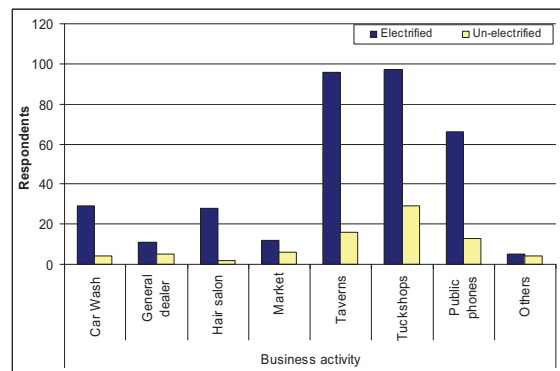


Figure 4 Perceptions of prevalent businesses in South Africa

Electrified survey areas in Botswana (Fig 3) seemed to be dominated by bars<sup>1</sup> or shebeens<sup>2</sup>. General dealers constituted about 34% of enterprises in the electrified areas. In the un-electrified areas, tuckshops<sup>3</sup> dominated, followed by restaurants<sup>4</sup>. In South Africa the businesses in electrified areas were distinctly more numerous than those in the un-electrified areas. Tuckshops and taverns<sup>5</sup> (fig 4) were dominant in both electrified and un-electrified areas. Most people buy their daily food such as bread from tuckshops since they cannot afford to go to town everyday for groceries. Hair salons dominated more in the electrified areas because most of the appliances which are used in a salon, for example hair clippers, blow dryers, curling tongs etc., need electricity. It is much easier and time saving than using other sources of energy.

### 3.4 Perceptions on the most profitable businesses

<sup>1</sup> Bar means licensed premises where liquor is sold and may be consumed on the premises

<sup>2</sup> A shebeen is usually a private residence that is used as a bar and is usually unlicensed

<sup>3</sup> A tuckshop, also called a spaza is a small shop selling a limited range of groceries

<sup>4</sup> A restaurant in rural areas does not provide waiter services

<sup>5</sup> A tavern is a up market bar with more entertainment options, usually frequented by teenagers

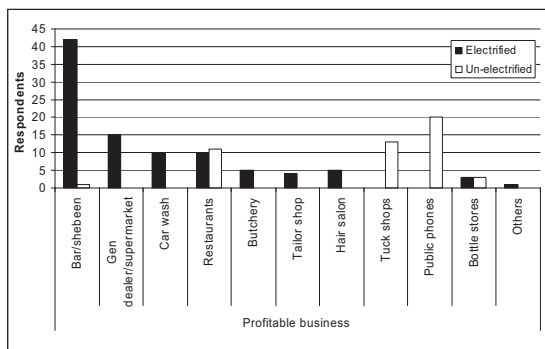


Figure 5 Businesses seen as most profitable in Botswana

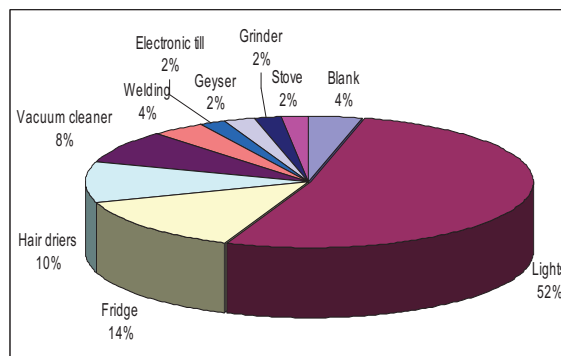


Figure 8 Reported electricity usage in electrified areas in Botswana

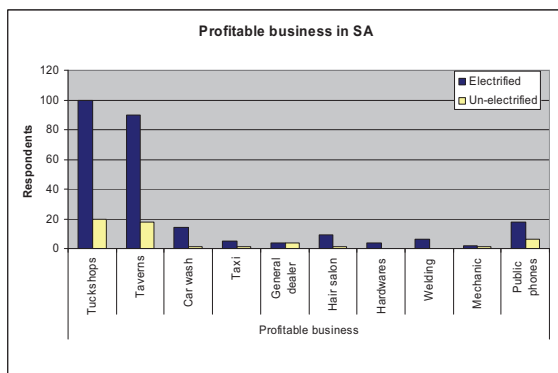


Figure 6 Businesses seen as most profitable in South Africa

Bars/shebeens were seen as more profitable in Botswana while in South Africa it was tuckshops and taverns. There are more businesses found in the electrified than in un-electrified areas. Most of these businesses, especially those which sell liquor such as taverns, bars/shebeens operate at night. Tuckshops and general dealers sell groceries and they are local, so no transportation is required.

### 3.5 Electricity usage

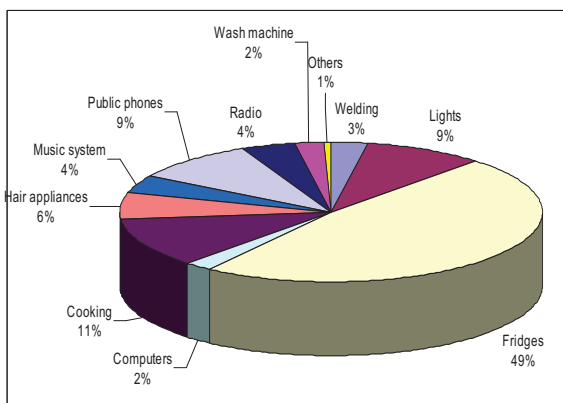


Figure 7 Electricity usage in electrified areas in South Africa

The study found that most small enterprises have difficulty accessing and affording modern energy services and may not have access to the grid, or where connected, the grid may not be reliable. Availability of electricity can affect the type of business and operation for example taverns are mostly found in electrified areas since they use many different appliances such as jukeboxes (music), refrigerators and televisions. About 49% of the electricity users reported using it for fridges followed by cooking in South Africa while in Botswana 52% reported using it for lights and 14% for the fridges. In both countries electrified respondents reported using other energy sources for their businesses and households.

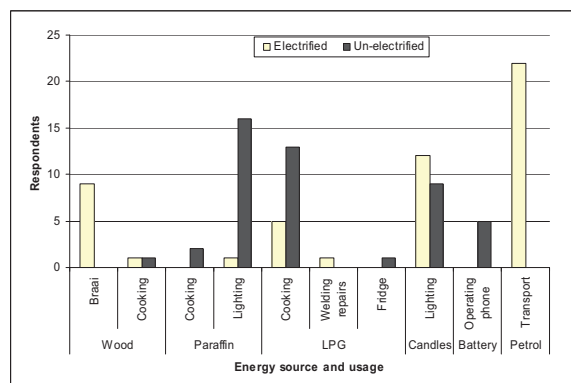


Figure 9 Energy usage in Botswana

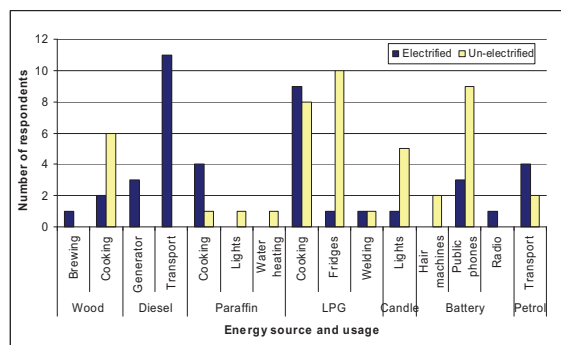


Figure 10 Energy usage in South Africa

In both countries most respondents reported using energy for transportation. Diesel is used more in Botswana for transport while in South Africa is petrol. Paraffin and LPG is used more for cooking especially in electrified areas in Botswana. In South Africa LPG is used more in un-electrified areas for cooking and paraffin for lighting. In South Africa candle usage is more in electrified areas than in un-electrified areas; this might be due to frequent power cuts. Batteries (car batteries) are used more in un-electrified areas for operating the public phones.

Table 2 Problems experienced from energy sources

Energy source	Electrified	Unelectrified
Wood	Long distances	Long distances, transport cost, smoke
Candles		Fire risk, do not last, poor light
Paraffin	Expensive, smell	Slow, smell, eye irritant
Diesel	Expensive, inaccessible	Expensive, heavy
LPG	Expensive	Expensive, unsafe, costly to transport
Batteries	Unreliable	Charging queues, do not last, acid dangerous
Grid electricity	Expensive, power cuts, limited capacity	Expensive

Electrified areas experienced frequent power cuts and found electricity expensive hence they were also using other sources of energy. Areas which were not electrified were using other energy sources such as candles, paraffin, LPG, diesel and batteries. Where wood was fetched, transport was needed and this was seen as expensive and potentially dangerous fire hazard. Candles were seen as being a poor source of light that did not last. Paraffin was associated with health problems since it smells and it causes eye irritation. The majority of respondents complained about the energy sources being expensive, and also about transport costs.

#### 4 CONCLUSIONS AND RECOMMENDATIONS

Small enterprises generally had negative view of government support and focussed on financial assistance as the greatest of need. However this may be a symptom of the widespread financial illiteracy and poor managerial capacity. These issues would tend to lower the prospects of business success.

Integrated support for small enterprises including financing, business management training and allied skills is clearly needed. This means several government departments such as those responsible energy, poverty alleviation, education and enterprise development need to coordinate their efforts around the identified needs of rural enterprises.

The availability of modern energy services, particularly electricity not only widens the scope of activities open to enterprises. Such opportunities include repairs and metal

fabrication, retailing consumables requiring refrigeration, provision of telecommunication and information technology services.

Modern energy services make the provision of the support activities like training much easier through improved lighting, use of audio visual aids, and computers. It also becomes possible for rural enterprises to access cost saving services like internet banking, stock ordering, and access to the large amount of information available online, including tutorial covering some of their training needs.

## 5 REFERENCES

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## 9. ACKNOWLEDGEMENTS

The authors wish to thank the South African Energy Research Institute (SANERI) for allowing the principal

author, who is an Honours student to gain experience and knowledge through project participation and for making project data available for this paper. The authors thank the CSIR for supervision and sponsoring conference participation.