Rural Electrification and the SMME economy in South Africa

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Executive Summary

The question of rural electrification for poor households in South Africa is a key policy issue that arises from the apartheid legacy. Despite its significance, at present there is no government policy in place regarding rural electrification, particularly in the context of an integrated development framework and of specific development objectives for rural electrification programmes. Instead, current policy in South Africa is effectively shaped by the key public sector institutions involved in electrification programmes, most notably, Eskom.

The objective in this report is to contribute to existing policy debates and towards refinement of rural electrification programmes in South Africa. The aim is to investigate the specific contribution of electrification to the promotion and upliftment of the small, medium and micro-enterprise economy (SMME) in rural areas. The report is organized in two major sections of discussion. First, attention turns to assess the international experience of the impact of electrification programmes on rural small enterprise development. In section two, attention narrows to the specific South African situation. An analytical review is undertaken of key development objectives in SMME programmes and policy in South Africa and of key findings concerning the problems faced by emerging small business enterprises functioning in South African rural areas. Against this background an attempt is made to identify the significance of electrification as an input towards achieving the objectives of the SMME sector and of the role of Eskom in SMME development in South Africa.

The key findings and conclusions of this study are as follows:

- At the international scale, it is argued that whilst rural electrification encourages the 'modernization' of existing rural SMMEs, it exerts only a modest stimulus for the growth of new enterprises. Claims that rural electrification will stimulate major new rural SMME development are often exaggerated. Behind these disappointments is the fact that infrastructural upgrading is not the prime constraint on the emergence and development of new SMME enterprises. The international literature on rural SMME development highlights such critical issues as access to finance, skills training and markets. Within the category of new rural enterprises the major impact of rural electrification is upon survivalist kinds of activities, such as new small retail shops, bars or provision of personal services. Much less common will be the emergence of new rural production micro-enterprises as a consequence of electrification programmes. Finally, even where new rural production SMMEs have been observed, these must not necessarily be viewed as signals of an emergent new prosperity because where linkages occur in the form of exploitative subcontracting arrangements, these can be manifestations of deepening rural poverty, particularly for rural women.

- At the national scale of analysis, it is argued that the post-apartheid period has witnessed a new official commitment to the upliftment of the SMME economy in South Africa and the corresponding introduction of a new institutional structure of support for the SMME economy. Key actors in this new institutional structure are Ntsika Enterprise Promotion Agency (NEPA), Khula Enterprise Finance, the National Small Business Council and the network of provincial SMME desks. Local research on the rural SMME development shows that the question of uplifting rural SMME economy is more problematic than is the case of urban SMMEs. Overall, rural electrification is a marginal issue in the broader picture of the myriad constraints that confront rural SMME development in South Africa. Local evidence would appear to confirm the international pattern of an initial post-electrification boost to survivalist retail enterprise with only a limited long-term impact on the micro-enterprise economy. The core issues for rural SMME development surround the need to overcome the apartheid legacy of disadvantaged communities being situated in remote areas with limited access to markets, finance or information.

The key strategic intervention to uplift the prospects for rural SMME development is the initiation of successful local business service centres (LBSCs) to extend the institutional support networks to marginalized rural entrepreneurs. Another promising area for intervention...
is the possible creation of networks of periodic markets as stimulus to rural SMME growth and upliftment. Within the overall spectrum of rural SMME development, Eskom is a relatively minor player particularly as compared to the activities of NEPA, Khula or the Provincial SMME Desks. Eskom's commitment and efforts to upgrade SMMEs are motivated by economic considerations of expanding its market. A number of initiatives have been launched by the corporation's small business unit to support SMME development. Principally, these are aimed at urban township areas where some modest successes have been claimed in terms of creating an environment for new SMME births and expansion. The difficulties of the rural environment in South Africa, however, appear likely to temper the modest successes claimed by Eskom for SMME development in urban areas.

Finally, one disturbing finding was that the activities of Eskom's small business programme are only weakly linked to the new national institutional fabric for SMME upgrading in South Africa. This suggests a recommendation for a much higher degree of future coordination and cooperation between Eskom and the emergent new institutional actors responsible for SMME development in South Africa.
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1. Introduction

One aspect of South Africa's transition to political democracy has been growing demands on policy-makers to overcome the severe backlogs in service provision to the urban and rural poor. Indeed, the supply of energy and the question of "major investments" in electrification was specifically highlighted in the Reconstruction and Development Programme (South Africa, 1994, p. 23); in particular, it was stressed that energy policy "must concentrate on the provision of energy services to meet the basic needs of poor households" (ANC, 1994, p. 32). The overall policy commitment to an expansionary infrastructure programme designed to address service deficiencies was a theme which was re-iterated in the government's macro-economy strategy (GEAR) document (South Africa, 1996).

A key identified area for service backlogs is clearly in the rural areas of South Africa (see Hofmeyr, 1994; Thom, 1994; Thom et al, 1995), where it remains that "rural electrification has been largely ignored except for commercial white farms" (ANC, 1994, p. 32). Despite its undoubted policy significance, it has been observed that "There is no government policy in place regarding rural electrification in South Africa - policy is effectively made by the public sector institutions involved in electrification programmes" (Thom, 1996, p. 21). The key policy actor in national electrification, Eskom, presently is driving a policy process which "is not located within an integrated development programme" (Thom et al, 1995, p. xi). Moreover, there is a critical policy void in "the absence of a national rural development framework for rural electrification which sets out the role of electrification in rural development, as well as the specific development objectives of rural electrification programmes" (Thom et al, 1995, p. 47).

The task in this report is to contribute to these policy debates and towards refinement of rural electrification programmes in South Africa. More specifically, it aims to investigate the particular contribution of electrification to the development of the small, medium and micro-enterprise economy (SMME) in rural areas. For the chief actor in South African rural electrification, Eskom, the motives for SMME development are strategic and unequivocal: "the promotion of small business development is ultimately to create more sales for our electrification drive and to support economic growth and the creation of wealth in general" (Eskom, 1996a, 1996b).

The report will unfold through two major sections of discussion. First, attention turns to assess the international experience of the impact of electrification programmes on rural small enterprise development. In section two, attention narrows to the specific South African situation. An analytical review is undertaken of key development objectives in SMME programmes and policy in South Africa and of key findings concerning the problems faced by emerging small business enterprises functioning in South African rural areas. Against this background an attempt is made to identify the significance of electrification as an input towards achieving the objectives of the SMME sector and of the role of Eskom in SMME development in South Africa. In the concluding discussion, the key findings and recommendations from this study are drawn together and reviewed in the context of the international and South African experiences of electrification and rural SMME development.

2. Rural Electrification SMME Development: The International Experience

Although the problems of SMME development in the rural developing world and of the impact of rural electrification have attracted considerable research attention, few studies seek to directly link together these two strands of work and to assess concretely the actual impact of electrification upon rural small enterprise development. Accordingly, an attempt is made here to weave together two different and complementary sets of international writings. First, there is a body of international literature which examines electrification and its diverse impacts on rural communities and households. Within this literature, issues of SMME development are treated often only as an aside in broader analyses of electrification's impacts upon rural communities. The second set of literature concerns assessments of the internal and external problems and constraints on the development of rural SMMEs. In terms of this particular body
of work the significance of electricity is situated as one among several constraints affecting rural SMME development.

At the outset, it is important to recognize that the rural SMME economy - internationally or in South Africa - is not homogeneous. It is useful therefore to distinguish between different types of SMMEs. Following the National White Paper on Small Business which draws upon international patterns we divide the SMME economy into three sets of enterprises (South Africa, 1995a, p. 9). First, are survival enterprises of the informal economy, which are a set of activities undertaken primarily by unemployed people unable to find regular employment. In this group of enterprises incomes usually fall short of minimum standards, little capital is invested, skills training is minimal and there exist scant prospect for opportunities for upward growth into a viable small business enterprise. The second category of businesses are micro-enterprises which are very small enterprises often involving the owner, some family members and at most, one to four employees. Although such businesses frequently lack the trappings of 'formality' in terms of licenses or formal premises and entrepreneurs sometimes have only rudimentary business skills or training, many, though not all, micro-enterprises will make the transition into viable formal small businesses. Finally, small and medium enterprises constitute the basis of the formal SME economy, with employment levels in the range of between five and one hundred workers for small enterprise and up to 200 employees for medium sized enterprise. Such enterprises are usually owner-managed, operate from fixed premises and fulfill all the trappings associated with formality (South Africa, 1995a). These distinctions between survival informal enterprise, micro-enterprise and the formal SME economy will be employed, wherever possible, in the analysis below.

2.1 Electrification and Upgrading of Rural SMMEs

Upgrading the role of SMMEs in the economic system is a prime developmental goal for many developing countries (see e.g. Onyango and Tomecko, 1995; Steel, 1995). The international literature on rural electrification, however, yields mostly general statements of the capacity and impact such programmes can have on SMME development. Although the positive promotion of small enterprises is one of several rationales commonly put forward for rural electrification programmes (World Bank, 1975, 1996; Fluitman, 1983; Foley, 1990), few research studies undertake a comparison of the pre-electrification situation and post-electrification impact on SMMEs. Admittedly, given the complexity of development processes and the lack of data such studies are extremely difficult to carry out (Foley, 1990, p. 93). None the less, as a result of this shortcoming, most analysis contains only broad commentaries that link the questions of rural electrification and rural SMME development.

A number of generally positive pronouncements have been made concerning rural electrification's impact on local SMME development. The World Bank (1975, pp. 2-3) stresses that whilst many rural areas have little use for electricity and opportunities for "productive" uses are few, responses to rural electrification projects have been "surprisingly good" in terms of motive power for agro-industries and village commerce in several parts of the developing world. Identified productive uses include lighting and refrigeration in small shops and service activities, and for lighting, heating and motive power in rural workshops such as carpentry, welding and repair shops (World Bank, 1975, p. 23). Reviewing several studies on the impact of rural electrification on SMME development, Foley (1990, p. 91) observes "convincing evidence of increased economic activity and higher living standards... the arrival of an electricity supply in certain areas seems to be a crucial factor in precipitating decisions by local entrepreneurs to invest in a variety of productive enterprises".

Evidence for the positive observed impacts of rural electrification on SMME activities has been indicated by several developing world studies. In Nepal, for example, electrification is viewed as a stimulus to rural economic diversification, resulting in direct and indirect benefits both to communities and households (Dennis, 1989). Likewise, rural electrification in India is seen as affording a facilitating environment for localized industrialization and non-farm sector development as a whole (Panditrao, 1989). Again, in Nigeria, another study records a positive correlation between electrification and rural non-farm activities (Sokari-George et al, 1991, p. 176). One important finding is that it appears rural electrification is particularly effective in stimulating SMME activity in the services sector. Foley (1990, p. 91) quotes the results of a World Bank study on Indonesia showing new SMME service activities such "as beauty
parlours, photocopying, ice making and battery charging" coming into existence after electrification. A similar experience of the growth of new retailing SMMEs was observed in rural Peru where "there is a definite positive correlation between use of electricity and the emergence of new commercial establishments" (Valencia, 1990, p. 92).

With the introduction of electricity in the rural areas of the developing world several examples exist of technological upgrading by existing SMME activities. For example, in rural parts of Indonesia some shoe workshops shifted to use of electrical machines instead of manually operated machinery with an associated enhancement of productivity (Smyth et al. 1994, p. 35). Equally, in the Philippines many SMME activities transformed their technical and economic efficiency by going over to modern technology: "the introduction of diesel engines and electrification in some rural areas for example has significantly changed the prospects of small industries producing farm implements, building materials, garments and processed agricultural products" (Elkan, 1989, p. 237).

The work of Barnes (1988) possibly provides the strongest statement in support of a positive linkage between rural electrification and rural SMME development. Based upon surveys conducted in India, Indonesia and Colombia, it was argued that programmes of rural electrification "were found to have an impact on the development of small-scale industries and commerce" (Barnes, 1988, pp. 67-68). Moreover, it was asserted that rural "industry growth rates were noticeably higher for villages with electrification than those without it, although the number of businesses in rural areas still remained somewhat low" (Barnes, 1988, p. 68). In particular, the evidence from rural areas of India and Colombia suggests that village electrification "is positively associated with business development", with higher levels of industrial activity and employment in the post-electrification era (Barnes, 1988, p. 71). Further, it was concluded that in India "rural electrification has stimulated the development of rural industry and that in two similar regions, one with electricity and one without, the area with electricity will have more business activity" (Barnes, 1988, pp. 73-74). Likewise, in Colombia the relationship between rural electrification and small business activities was found parallel to that of the Indian experience. Overall, the conclusions from Barnes' three country investigation were unequivocal:

Rural electrification does have a significant impact on rural industry and commerce. Firms in rural areas generally are small, with a high turnover rate; they require every advantage in order to stay in operation. Electricity may be one factor that contributes to the establishment and survival of many rural businesses. The number of businesses is generally higher in rural areas with electricity, and comparisons between regions with and without electricity reveal that there is a systematic increase in the number of businesses in the regions with electricity (Barnes, 1988, p. 89).

In assessing the weight of these findings, however, it is important to appreciate the complementary local conditions that further assisted SMME development in the three cases under investigation, most importantly the ready availability of adequate credit finance and access to markets (Barnes, 1988).

The question of "complementary conditions" for rural SMME development is at the heart of analysis in the mainstream literature on SMME development issues. Major external constraints on the expansion of SMMEs have been examined by several researchers and they stress, in particular the questions of lack of access by SMMEs to finance and markets (Schmitz, 1982; Levy, 1993; Steel, 1995). Another stream of writings stresses the critical importance of a healthy agricultural sector for the parallel development of a strong rural SMME sector (Liedholm et al., 1994). Indeed, it is striking that in the core international writings and debates on the internal and external constraints on rural SMME development scant attention is given to electrification as a salient issue. Illustratively, a silence on electrification occurs in recent major debates on "agents for change" in the policy environment both for African SMMEs (see Gooneratne and Mbilinyi, 1992: English and Levitsky, 1995) and the developing world as a whole (Pedersen et al., 1994). This finding is not surprising in the wake of influential research which was conducted during the 1980s on the problems of the rural non-farm sector in Africa. In one of the most extensive investigations conducted on the constraints on the rural non-farm sector, which was undertaken in Kenya, it was stressed
overwhelmingly that the key blockages on the development of their businesses were capital/financing issues (Freeman and Norcliffe, 1981, 1983, 1984a, 1984b). Moreover, the stiff competition faced from both the formal and urban informal sectors in selling products and services severely restricted the rural non-farm sector to narrow markets (Norcliffe and Freeman, 1980, Norcliffe, 1983). Once again, the importance of electricity as an external constraint in the rural SMME sector was deemed marginal, at best.

### 2.2 Re-Thinking the Conventional Wisdom

Critics of the 'conventional wisdom' that associates extension of rural electrification necessarily with positive benefits present an altogether different set of perspectives (Fluitman, 1983, Pearce and Webb, 1987; Ramani, 1992). Typically, Schramm (1993, p. 504) argues that many of the beneficial results are both "too optimistic" and "often based on faulty methodologies". A further caution is sounded by Fluitman (1983, p. 30) concerning the possibly biased nature of findings of certain impact studies, most of which "were written to justify future funding of similar such projects". For Fluitman (1983, p. 53), as well as several other writers (see Cecelski, 1992, 1996), the benefits of rural electrification upon SMME development invariably "tend to be overestimated". Indeed, one crucially neglected by-product of the expansion of small-scale cottage industries, such as carpet weaving or basket making, as a result of improved lighting due to rural electrification, is an extension of rural women's working day. As one observer comments:

Does extending women's workday with night-time cooking or crafts increase their income - or just reduce their already inadequate sleep and health status? And who controls that increased income within the household, how it is spent? To what degree is lack of (daylight) time a key limiting constraint on household production, compared to other constraints on human energy (nutrition, sleep) or lack of complementary inputs (marketing, raw materials, credit, transport)? (Cecelski, 1996, p. 11).

In short, it is suggested that, in the absence of a restructuring of gender roles within households, one impact of rural electrification that stimulates SMME development in "women's activities" is an expansion in their "hours of the day" and correspondingly of unpaid work (see Valencia, 1990, p. 52).

In several parts of Latin America, notably in Brazil and Mexico, the spread of electrification into rural areas facilitated an expansion of rural industrial homework through subcontracting, particularly of clothing and textiles production operations (Crummett, 1988). Putting-out of work to small rural-based assembly units or to home-based production, involves predominantly a female workforce in Latin America. The putting out to decentralised workshops of electronic radio components assembly work is documented also with a predominantly female workforce in Kerala, India (Sen and Gulati, 1987). Lace-making in rural India provides another example of rural women becoming "invisible producers" and exploited as the ideology of the housewife obscures women's real position as "wage labour fully integrated in a world market production system" (Mies, 1981, p. 493). Accordingly, it is evident that programmes to promote small scale rural crafts, including through programmes for electrification, may have the unintended consequence of intensifying the exploitation of rural women when these programmes take place under existing relationships of household production and reproduction (see Mies, 1982a, 1982b).

It is critical to appreciate that the expansion of many kinds of rural SMMEs in the developing world is not necessarily a sign of progress but often merely a sign of poverty. In rural Indonesia, for example, the growth of cottage and household industries was inseparable from 'supply-push' rather than 'demand-pull' factors (Tambunan, 1992, 1994). It is evident that many rural households undertake SMME activities as a means for survival rather than an "accumulation strategy" with a long-term goal of profit maximisation (Tambunan, 1992). In Indonesia "the majority of small industrialists in rural areas were 'pushed' to establish their own industries...SSIs (small-scale industries) function as a 'last resort' for the poorly educated and low-skilled, the majority engage in these activities for survival. Only in the small number of cases where "demand-pull" factors exist and entrepreneurs were engaged in a long-term accumulation strategy did there occur linkages of growing micro-enterprise with larger enterprises through subcontracting relationships (Tambunan, 1994, p. 10).
Based upon a review of several rural electrification projects operated by international donor agencies, Schramm (1993, p. 505) contends that there "is little evidence that electricity by itself will result in new agro-industries, commercial or small-scale industrial activities". In Bolivia it was found that new rural industrial development was not linked to rural electrification at all; instead, it was accomplished "with self-generating diesel systems in response to price incentives and other factors such as availability of credit" (Fluitman, 1983, p. 33). Moreover, in rural Peru little support was found to support the view that electrification would stimulate the development of new businesses; Valencia's (1990, p. 76) research suggests that "when it comes to local processing industries, it is evident that some other conditions (apart from electricity) for this form of enterprise are non-existent or insufficient". It was concluded in rural Peru that there had been "no remarkable diversification of the type of (SMME) activities in the electrified area compared to the situation" prior to electrification (Valencia, 1990, p. 83). Likewise, in an extensive review of Asian experience, Cecelski (1996, p. 14) asserts that availability of electricity as a stimulant to the creation of new rural industry and commerce has been "less successful" than anticipated, particularly in remote areas. This finding was explained in terms of many village industries being reliant mainly on human labour or the heat energy from biomass fuels and with the availability of cheap labour there existed only limited incentives for village industries to automate (United Nations, 1990, p. 37; Cecelski, 1992, p. 153).

It must be acknowledged that for certain rural handicraft activities, the problems of these SMMEs are not necessarily linked to questions of technology. The example of the handwoven Kente cloth producers in Ashanti Region, Ghana is illustrative of an activity that attracted the attention of 'modernizers' of industry (Browne, 1983). It was shown that "low level technologies are not necessarily inferior technologies" and the hand powered narrow loom weaving is "well-suited to the materials available, the amount of capital, the skills of craftsmen and the requirements of the market". Most importantly, it was demonstrated that "the problems of weavers - and other rural artisans - are not primarily technological. They are organizational problems like obtaining raw materials, finding the necessary capital and marketing at the highest price" (Browne, 1983, p. 40). Another cautionary tale on the sometimes negative impact of electrification on a 'traditional' rural production activity is the case of the carpet-weaving sector of the Kashmir Valley, India. Attempts to 'modernize' the traditional handloom weaving industry in Jammu and Kashmir through introducing new intermediate technologies negatively affected the industry in many respects, not least through the displacement of workers as a consequence of the innovation of new power looms to replace hand weaving of traditional fabrics (Jain, 1980, p. 23).

Instead of rural electrification as catalyst, it is urged that electrification "should follow rather than lead regional economic development" (Schramm, 1993, p. 504). The essential point is therefore that rural electrification be regarded as a derived demand or as a product of rural development (Foley, 1990, p. 93; Ranganathan, 1993, p. 143). Pearce and Webb (1987) are highly critical of the myth of rural electrification as general economic catalyst, not least for SMME development. They maintain that the evidence is, at best, mixed and caution that "research is not at the stage where any such conclusion can be drawn" (Pearce and Webb, 1987, p. 334). Foley (1990, p. 93) concurs that it "is, in fact, extremely difficult to produce unambiguous proof that any development which takes place in a newly electrified area is directly and uniquely a result of electrification". Moreover, in terms of research methodology, it is argued that even if rural electrification does act as catalyst "we do not know that some other package of energy investments would not have secured the same effects, perhaps at lower cost" (Pearce and Webb, 1987, pp. 334-335).

Lastly, the issue of complementary inputs must be recognized once more (Fluitman, 1983; Ramani, 1992). In order to galvanize small economic activities, rural electrification must be accompanied by complementary inputs such as extension of rural credit and greater access to markets. The importance of not isolating rural electrification in a vacuum is re-iterated by several observers (Pearce and Webb, 1987); for example, Fluitman (1983, p. 55) stresses that a range of complementary factors may be bottlenecks in "making the most" out of rural electrification.
A common strategy to promote rural small-scale industry is to provide special premises in designated areas or 'industrial estates' which, as part of providing a better infrastructure, would be supplied with electricity. Elkan (1989, p. 248), however, is highly critical of the value of such infrastructural provision in promoting rural small-scale industry arguing that the enormous costs of such infrastructural provision cannot be justified in terms of the benefits for the SMME sector. A better pay-off, it is argued, would occur in terms of investing in infrastructure in small towns: "such infrastructure could be expected to have a higher pay-off than industrial estates, if only because it would be better used" (Elkan, 1989, p. 248).

2.3 The Emerging Consensus

Overall, as noted in a United Nations (1990) study, the importance of linking rural electrification with broader rural development programming is a recurrent theme, particularly in Asian SMME research. Here it was concluded that rural electrification's impact on households and businesses "varies tremendously from area to area but it is unlikely to be substantial in the absence of either an already dynamic economy or major complementary investments in rural development" (United Nations, 1990, p. 3). In particular, a distinction is drawn between the impact of rural electrification on existing as opposed to new rural SMMEs. For existing SMMEs "the state of physical facilities and local infrastructure", including electric power supply has been widely identified as one external constraint on rural SMME access to and transfer of new technologies (Kyeremateng, 1995, p. 215).

Although several research studies disclose that most existing rural SMMEs adopt electricity when it becomes available, its impact on "the establishment of new industries and businesses has generally been more modest" (United Nations, 1990, p. 7). Broadly speaking, those situations in which electricity supply has been a constraint on industrial growth "have primarily been for large and medium scale industries" rather than small scale industries in rural villages (United Nations, 1990, p. 39). These findings appear to be confirmed in a limited range of material which analyses the impact of rural electrification on SMME development in Africa. In Namibia, for example, whilst existing survival informal enterprises (such as cuca shops) and larger formal SMEs (such as retail outlets) adopted electricity, few signs exist of rural electrification programmes encouraging the growth of new SMME enterprise (Davis and Nghikembua, 1995). A similar conclusion appears to be reached in an evaluation of electrification in Northern Botswana, where due to high connection costs many rural SMMEs were unable to access electricity (Energy and Development Group, 1994).

From the international experience of rural electrification and SMME development the following key conclusions emerge:

- Although rural electrification undoubtedly causes the 'modernization' of existing rural SMMEs, in most cases it exerts only a modest stimulus for the growth of new enterprises. The expectation that rural electrification will function to galvanize a mass of new rural SMME development "is likely to remain unfulfilled" (James, 1995, p. 10).

- Technological upgrading is not identified as the core constraint on the emergence and development of new SMME enterprises. Rather, the international writings stress such issues as the importance of access to finance, skills training and markets.

- In some cases the expansion of home-based SMMEs linked to rural electrification will have the unintended consequence of expanding women's unpaid work alongside their productive work.

- Within the category of new enterprises the Major impact of electrification will be felt by survivalist service enterprise kinds of activities, such as new small retail shops, bars or provision of personal services. Much less common will be the nurturing of new rural production micro-enterprises as a consequence of electrification.

- New rural production SMMEs are not always a sign of emerging prosperity for in some instances as survivalist enterprise they can be manifestations of deepening poverty in rural communities. In cases where electrification has facilitated a linkage of rural producers to
external markets through putting-out or subcontracting systems, certain negative consequences may occur for women members of households.

3. Rural SMME Development in South Africa

Five related themes are examined in this section of the report, which turns attention away from international to local debates surrounding SMME development and the significance of electrification. First, the key development objectives, policies and programmes for the SMME sector, particularly in rural South Africa, are identified in order to provide the context for analysing the potential contribution of electrification towards achievement of these development objectives. Second, the new emerging institutional structure for SMME development in South Africa is sketched and clarified. Third, a review is undertaken of existing research on rural SMME development in South Africa. The discussion centres on the key features of the rural SMME economy and the major constraints on rural SMME development. Four, the specific focus narrows to issues surrounding rural electrification and of its limited significance to upgrading SMME development. Finally, attention turns to the role and activities of Eskom, the key producer and supplier of electricity in South Africa, in small business development and to its relations and position within the broader institutional fabric of SMME development in South Africa.

The analysis here draws upon a wide range of official policy documents, primary interviews: with key actors, the limited research undertaken on impacts of rural electrification in South Africa, and local specialist works on the SMME sector. Geographically, the discussion ranges over rural SMME development in a number of provinces, more specifically Mpumalanga, KwaZulu-Natal, Eastern Cape, Northern and North West provinces.

3.1 Development Objectives of the SMME Sector in South Africa

The broad development objectives for the SMME sector in rural South Africa can be gleaned from a number of official policy statements (South Africa, 1995a, 1995b). The key national objectives are set forth in the White Paper of the Department of Trade and Industry (DTI) on a National Strategy for the Development and Promotion of Small Business in South Africa (South Africa, 1995a). This document provides the context for the more specific objectives for the rural SMME sector which were laid down in the Discussion Paper on a Rural Development Strategy (South Africa, 1995b). Moreover, the DTI White Paper furnishes guidelines and a context for provincial SMME development planning throughout South Africa.

The White Paper on Small Business sets out the national objectives for the SMME sector in South Africa (South Africa, 1995a, pp. 15-16). The primary objective is stated as "to create an enabling environment" in terms of national, regional and local policy frameworks for SMME development. In addition to this basic objective, several more specific policy objectives are identified. First, is "to facilitate the greater equalisation of income, wealth and economic opportunities" which is inseparable from "a strengthening of the labour-absorptive process in the micro-enterprise and survivalist segments, the redressing of discrimination with respect to blacks as well as women's access to economic opportunities and power, and the facilitation of growth in black and small enterprises in rural areas". The second objective is to create long-term jobs which demands policy interventions designed to upgrade human resource skills and to strengthen the use of appropriate modern technologies. Third, is the goal of stimulating economic growth through addressing the obstacles and constraints that prevent SMMEs from contributing to overall growth. Fourth, is the policy objective of strengthening the cohesion between SMMEs to overcome their isolation or loneliness by promoting networking of SMMEs to build collective efficiency, to address development obstacles and to take up opportunities. Fifth, the objective is to level the playing fields both between large enterprises and SMMEs and between rural and urban businesses. Lastly, the national strategy is targeted to the goal of enhancing the capacity of small business to comply with the challenges of an internationally competitive economy.

These objectives and associated programmes as set down in the DTI White Paper relate widely to the SMME sector as a whole. In the Discussion Paper on Rural Development and in provincial SMME planning certain more specific objectives relating to rural SMMEs may be recognized. The Discussion Paper on Rural Development draws particular attention to the
need to address the apartheid legacy of the disempowerment of "the most marginalized groups", in particular of women and rural entrepreneurs (South Africa, 1995b, p. 25). Of particular importance is the need to stimulate the capacity of rural entrepreneurs to move beyond survivalist enterprise. In other words, within the rural SMME economy of South Africa a key development objective is to alter the existing balance of survivalist, micro-enterprise and formal SMEs which presently is weighted towards mere survival (Reichenbach, 1994; Rogerson, 1996a).

3.2 New Institutional Structures

Within the DTI national strategy, a new institutional framework for SMME development in South Africa was developed and this has been associated with the key intervention programmes which are targeted to support the national objectives for SMME development (South Africa, 1995a). As a result of the new SMME legislation a series of institutions have been founded to address the needs of South African SMMEs as a whole, including rural SMMEs. The key actors are (1) Ntsika Enterprise Promotion Agency, (2) Khula Enterprise Finance, (3) the National Small Business Council and (4) Provincial SMME Desks.

In the new institutional structure for implementing support to SMMEs the central role is played by Ntsika Enterprise Promotion Agency (NEPA). Indeed, this organization was initiated by the Department of Trade and Industry in order to implement the national SMME strategy. NEPA is committed to the objectives of developing a "thriving and vibrant SMME sector" and to ensuring "that small businesses are no longer confined to the margins of the economy and through its intervention create an environment for important sectors of South African society, for example black people, women, rural, youth and the less able, to be empowered to play an important role in the economic growth of South Africa".

At the heart of the programmatic interventions by NEPA is the establishment and accreditation of a network of local business service centres (LBSCs). In fact, as Bukula (1997, p. 25) remarks, the LBSCs "constitute the Department of Trade and Industry's most critical intervention for SMME service delivery at local level". The network of LBSCs are to deliver essential business support and core services, including training, information advice and counseling to SMME entrepreneurs (South Africa, 1995a, p. 45). Special provision is made in the programme for rural areas in terms of assisting rural communities to develop their LBSCs and in providing existing organisations with necessary resources to work with potential LBSCs in rural areas (BuDS, 1995, p. 8). The LBSCs are seen as providing certain of the key inputs necessary to achieving the development objectives for rural SMMEs, namely information/advice on markets and training. Overall, the goals of the LBSCs are to "ensure that SMMEs in all corners of South Africa are able to access non-financial support" (SQW and Ntsika, 1997, p. 8). In the first round of accreditation, undertaken in 1996, 27 organisations were accredited as official LBSCs, a status that qualified them for block grants on the basis that they offer certain core support services (SQW and Ntsika, 1997, p. 8).

Whereas the emphasis in NEPA's activities is upon furnishing non-financial support to SMMEs through intermediary organizations, the central activity of Khula Enterprise Finance is to facilitate access to the key input of finance for SMME development. Overall, Khula Enterprise Finance functions as the national wholesale SMME funding facility which is linked to a credit guarantee scheme. In common with NEPA, Khula works through an array of intermediary organizations, such as banks and NGOs, providing loans, a National Credit Guarantee Fund, seed loans, equity funds and institutional capacity building.

The National Small Business Council (NSBC) is an autonomous body led by the private sector which encompasses representatives of organised business, such as business associations and business chambers. The raison d'etre of the NSBC is "to sanction the national small business support framework and provide a sounding board for small business interests and concerns" (SQW and Ntsika, 1997, p. 8).

Finally, in all nine provinces, SMME desks have been established with the goal of becoming "a one-stop information unit, which would speed-up and simplify communication channels with government" (SQW and Ntsika, 1997, p. 8). Essentially, the role of these provincial SMME desks is to function as co-ordinating bodies for SMME support programmes and
activities at the provincial level. Provincial development planning for SMME development is geared to translating the national policy guidelines and adjusting them to local circumstances. The situation in terms of provincial SMME policy development currently varies between provinces with some provinces (such as Mpumalanga) well-advanced in their SMME policy development, others (such as North West) lagging behind (cf Bukula, 1997; Rogerson, 1997).

In the case of Mpumalanga the provincial government, through the SMME Desk, is formulating a policy framework for SMME development using the national White Paper on Small Business as the base (Mokoena, 1996; Peters-Berries, 1996). Following national guidelines, provincial strategy is geared to the objectives of promoting "the optimal development of the SMME sector with a view at the integration of the emerging entrepreneur into the mainstream economy" (Mpumalanga Province 1996, p. 2) and aims to "increase the number of SMMEs active in the Province by 20 percent" between 1995-98 (Mpumalanga Province 1996, p. 3). The five core objectives of provincial SMME development in Mpumalanga are stated as follows:

- developing a comprehensive SMME data base for the Province;
- creating a regulatory environment conducive to SMME development through facilitating policy development and implementation with respect to:
  - a provincial SMME development policy
  - a SMME oriented tender and procurement policy;
  - a sub-contracting policy; and
  - targeted support programmes for:
    - historically disadvantaged groups (e.g. women)
    - contractors;
    - tourism entrepreneurs; and
    - small/micro manufacturers.
- mobilizing support for SMMEs through local service centres in ten local areas;
- maximizing support for SMMEs through accredited service providers by co-ordinating and monitoring service delivery policies on a provincial level; and
- establishing a synergistic network of service providers to SMMEs in the Province (Mokoena, 1996; Mpumalanga Province, 1996, pp. 4-5).

Beyond the activities of NEPA, Khula, the NSBC and the Provincial SMME Desks, it is necessary to acknowledge also the roles played by a range of other actors in SMME development in rural South Africa. More specifically, alongside the new government structure of institutional support for rural SMME development, one must note the activities of many local NGOs, international donor agencies and the private commercial banking sector in supporting initiatives for upgrading the rural SMME economy in South Africa.

### 3.3 Rural SMME Development Issues

Broadly speaking the most common types of (non-farm) rural SMME enterprise in South Africa are found to be as follows: in retail activities - general dealers, cafes, tuckshops, spaza shops, shebeens, bottle stores and hardware stores; in services - the running of hair salons, transport activities, motor-car repairs, panel beating, shoe repairs and electric repairs; in manufacturing/construction - a broader range of activities are encountered from beer brewers, brick making, metal work, clothing, dressmaking, knitting, bakeries, small-scale maize millers and wood working (see Kirsten, 1995; Bukula, 1997; Mahabir, 1997; Rogerson, 1997).

Overall, the most widespread research finding on rural SMMEs in South Africa is to demonstrate its overwhelming and narrow survivalist character. Detailed studies on the contemporary rural SMME economy in South Africa show that it is neither buoyant nor lucrative but instead is dominated by survival activities (see Cunningham, 1991; McIntosh, 1991a, 1991b; Preston-Whyte and Nene, 1991; Morake et al, 1994; Reichenbach, 1994; Rogerson, 1996a). This broad finding was reinforced by the results of the 1995 October Household Survey which showed a predominance of enterprises in rural areas that employ less than five people and exert "limited impacts on unemployment or wealth creation" (SQW and Ntsika, 1997). The survey disclosed at the national level the overwhelming result that rural SMMEs in South Africa are narrowly concentrated in a limited number of activities, which are led by survivalist retail enterprise.
The lack of diversity in rural SMME development across South Africa is further confirmed by the findings of several micro-level studies across a number of different provinces. In rural KwaZulu-Natal, most SMME activities, involving grass-work, knitting, palm-wine tapping, thatching, traditional healing and selling beer, are viewed as "marginal, secondary and often intermittent" (McIntosh, 1991a, p. 247) and fall into the category of what has been termed "desperation strategies" (Cross and Preston-Whyte, 1983; Cunningham, 1991; Preston-Whyte and Nene, 1991). A recent large scale investigation of rural entrepreneurs across KwaZulu-Natal suggested that "for many entrepreneurs in the rural areas, the small business is a retirement activity" (Vaughan and Xaba, 1996, p. 10) with enterprises generating meager incomes for their participants (Baydas and Graham, 1996, p. 90). Analysing rural women's SMME involvement in KwaZulu-Natal, Preston-Whyte and Nene (1991, p. 237) record that "isolated rural areas do not offer any more than minimal opportunities for making money". Lastly, McIntosh (1991a, p. 251) notes that few rural entrepreneurs engage in "maximization strategies" rather "such economic activities as are carried out locally provide marginal returns for most people": the base of agricultural activities is simply too narrow and shows little scope for development.

Likewise, in studies of rural businesses in Northern and North-West Provinces it was evident that the majority of SMMEs belong to the survivalist category (Morake et al, 1994). The majority of SMME activities cluster in a narrow band of activities which is dominated by the overtraded retail sector. Kirsten's (1995) research on rural non-farm enterprises in 34 villages situated in Northern and North-West Province shows that 77 percent of enterprises were commercial, service or transport enterprises which were primarily of a survivalist character. Further, it was argued that "only a handful of enterprises" in the rural areas of Northern and North-West Provinces are involved in value-added activities, such as manufacturing, processing or construction (Kirsten, 1995, p. 199). The conclusion was reached that "it seems, however, that there is a lack of diversity in the rural non-farm economy and a virtual absence of small-scale rural industries" (Kirsten, 1995, p. 203).

These broad findings on the survivalist character and narrow range of rural SMME activities are supported by several other micro-level investigations. Typically, an early study in Northern Province showed that most people running SMMEs manage to survive on a day-to-day basis "making very minimal profits" with women, in particular, concentrated in survivalist businesses (Reichenbach, 1994, pp. 82-83). In the remote Ganyesa and Morokweng areas of North West Province, Bukula's (1997) research points to the overwhelming predominance of the retail sector within the rural SMME economy. Indeed, most SMME entrepreneurs in these deep rural areas of North West province are clustered in "overcrowded markets with minimal economic prospects", a situation of little diversity in the types of activities pursued by rural SMME entrepreneurs (Bukula, 1997, p. 31).

Finally, in the Eastern Cape and Mpumalanga provinces the existing body of research once more paints a picture of an SMME economy which is heavily weighted towards survivalist retail activities, such as the running of spaza outlets. In a case study of the rural Mount Aycliff community in the Eastern Cape, the non-farm SMME sector contained only a scatter of production enterprises; instead the local SMME economy exhibited a dominance of survival retail and service enterprise (Mahabir, 1997). Likewise, new research in Mpumulanga discloses a similar pattern from the White River area of an emerging SMME community of enterprises which are, to a large extent, merely survivalist in character (Rogerson, 1997).

Across a range of investigations there is an emerging general consensus that in addressing the key development objectives for rural SMMEs in South Africa the core policy inputs relate to improving access to finance, markets and training (Rogerson, 1996a; Mahabir, 1997; SQW and Ntsika, 1997). Financing is emphasized as a priority need particularly by Development Bank of Southern Africa analysts (Christodoulou et al, 1993) and associated researchers (Baydas and Graham, 1996). Nevertheless, the critical importance of access to finance is a theme which is also stressed in other works (SQW and Ntsika, 1997, p. 22). The World Bank (1993) research on SMME constraints in rural South Africa also stresses the significance of financial constraints (in terms of lack of working capital), problems with business premises and most importantly, highlights market constraints in terms of lack of customers, increasing
number of competitors in the context of competing within small, location-specific, low-income niche markets.

The most recent detailed research work emphasizes that South Africa's rural SMMEs confront a set of distinct constraints which represent a negative legacy of the apartheid Homelands programme (Bukula, 1997; Rogerson, 1997; SQW and Ntsika, 1997). In particular, rural SMMEs in South Africa have been characterised as normally "under capitalised, have greater difficulty to get access to working capital, have higher market access cost, less skilled labour and a poorly developed infrastructure" (see SQW and Ntsika, 1997, p. 5). The existence of a large section of rural SMMEs concentrated in remote areas of apartheid-created forced resettlement which are spatially divorced from the mainstream South African economy is a theme which is stressed by several researchers (Bukula, 1997; Rogerson, 1997). Increasingly, therefore, it is acknowledged that because rural SMMEs confront certain specific challenges that are not always experienced by their urban counterparts, there is a need for "a targeted strategic approach to rural SMMEs" in South Africa (SQW and Ntsika, 1997, p. 6).

Based upon her work in Northern Province, Reichenbach (1994, pp. 85-86) identifies core constraints on rural micro-enterprises as lack of markets, training and finance. It is argued that the future growth of rural SMMEs in this province will hinge on rural reconstruction programmes which will improve the life circumstances of the impoverished rural populations in terms of augmenting local demand for goods and services. For growing micro-enterprises, policy input stress is on training and provision of credit, provision of information and markets. In terms of women-run survivalist enterprises, however, the provision of vital infrastructure services, including electricity, is identified as offering "women relief from some of their manifold household and family chores" (Reichenbach, 1994, p. 95). In research conducted in KwaZulu-Natal the key policy issues are once again the need for start-up and loan credit and skills training (McIntosh, 1991a, 1991b). It is asserted that "training must go hand-in-hand with the development of supportive infrastructural services which are so lacking in most black areas" (McIntosh, 1991a, p. 252). Finally, as regards constraints on rural SMME development, the recent works undertaken on White River, Mpumalanga and Mount Aycliff, Eastern Cape both stress the common theme of entrepreneurs' problems of market access and access to finance (Mahabir, 1997; Rogerson, 1997).

Although the LBSCs are optimistically viewed as the most critical policy intervention to support rural SMME development by several observers (Bukula, 1997, Mahabir, 1997; Rogerson, 1997) it is increasingly evident that the location of these enterprises will be crucial to whether LBSCs fulfill their designated roles. In a pioneer investigation of the activities of an LBSC in Lydenburg it was concluded that "in the context of the funding mechanism, LBSCs are not reaching out to rural SMMEs as they have no incentive to do so" (SQW and Ntsika, 1997, p. 20). Given the difficulties and costs of reaching out to rural SMME entrepreneurs, it was argued that LBSCs will not achieve the goals of rural SMME development unless dedicated funds are committed specifically for rural SMME development. This conclusion was based upon an assessment of the experience of the Lydenburg LBSC which mainly serviced the local urban SMMEs and failed to reach out into the surrounding deep rural areas of both Mpumalanga and Northern Provinces. The disturbing conclusion is that of "inadequate access to support provision by small business located in rural areas" across South Africa (SQW and Ntsika, 1997, p. 23).

Another important possible future policy intervention to stimulate rural SMME development in South Africa is the suggestion for establishing a network of rural periodic markets. The notion of catalysing periodic markets initially has been strongly popularised in the activities and writings of the Market Society (1997); subsequently, it has received official endorsement in the Discussion Paper on Rural Development (South Africa, 1995b). Currently, fledgling periodic market rings are operating in the Stutterheim area of Eastern Cape and are planned in Sekukhuneland, Northern Province (The Market Society and the Bopedi Rotating Market Society, 1997).
3.4 Rural SMMEs and The Significance of Electrification

The foregoing body of writings does not highlight electricity as a major input to augmenting the rural SMME sector in South Africa nor to achieving the major objectives of the SMME sector as a whole. A recent study of the perceived problems and constraints of small formal manufacturers operating in the former KaNgwane rural Bantustan, now part of Mpumalanga, points to electricity as a minor factor in the SMME economy (EYBMR, 1995). Here, the local community of small manufacturers were asked to rate 46 pre-defined business problems on a rated scale from 'very important' to 'completely unimportant'. From these responses, a satisfaction rating was calculated with a scale of scores from zero (complete satisfaction) to 100 (complete dissatisfaction). The analysis revealed that for rural producers in this area the questions of lack of capital (working and fixed), lack of credit, costs of tools and machinery, and lack of sub-contracting arrangements were the most serious business constraints; all these issues received ratings of over 75 which indicates high levels of dissatisfaction (EYBMR, 1995, p. 138). By contrast, among the least significant issues for these rural enterprises was the factor of electricity provision; overall, lack of electricity received a rating of 12 which indicates that among formal small manufacturers in this area it is not ranked as a major policy issue. Indeed, of 46 business problems, lack of electricity was ranked only 34, confirming it as a factor of minor significance in the overall spectrum of SMME development in South Africa.

A similar conclusion concerning the limited role of electrification as a constraint on small manufacturing enterprises in rural Mpumalanga was obtained in an analysis of open-ended questions. The most frequently cited constraints on firms were those of a small local market and the existence of a large number of competitors (EYBMR, 1995, p. 141). Issues relating to electricity provision were mentioned by only 1.4 percent of respondents. Finally, when asked to offer suggestions on ways to improve their rural businesses, the core areas for project intervention concerned the creation of competitive market conditions and augmentation of financial services; once again improvement of electricity provision received a meager 1.4 percent of responses (EYBMR, 1995, p. 143).

Other Mpumalanga research focused on rural SMME development in the White River area lends little credence to advocates of electricity as a core input to upgrading the SMME economy in South Africa. In this area electricity was widely available, particularly in and around the small industrial growth point of Kabokweni. Across all categories of emerging SMME businesses - whether manufacturing, retail or service enterprises - the most important needs and constraints on their existing business development were related inextricably to market issues. Where respondents stated that problems existed in their business, 80 percent of responses were linked to absence of market opportunities. Typically, the interviewees responded that "business is slow", "It's money - I do not get enough money out of this business anymore", "the market is the problem", "The market is the problem, a real major problem for me", or "I need a market" (Rogerson, 1997).

The underlying reasons of the general market constraint were spelled out in a previous investigation of emerging production enterprises in the Lowveld:

Market constraints exist because most small manufacturers are competing within a small, location-specific, low-income niche market. New entrepreneurs are entering the market in increasing numbers as unemployment rises. As competition within a given niche intensifies, markets in the broader economy become virtually closed, given the location of new enterprises, quality factors and the difficulty of competing with mass-produced products from producers in the well-developed formal sector (EYBMR, 1995, p. 141).

It is clear that "lack of markets" for rural SMMEs in Mpumalanga, as well as many other parts of rural South Africa, is the consequence of - and surrogate explanation for - a complex of factors which relate to the local circumstances of communities of entrepreneurs that have been disempowered in the apartheid era (Rogerson, 1997). The issue of market access is not confined, however, to rural SMME development in Mpumalanga. It surfaced as the key problem experienced by SMME entrepreneurs in the Ganyesa area of North West Province (Bukula, 1997, p. 10). Overall, the question of absence of markets is inseparable from and inexplicable without reference to the history of displaced communities who have been severed from the national economic mainstream. Such communities have been spatially ghettoised in
areas with sparse resource bases, limited cash circulation and negligible information flows concerning product opportunities outside of traditional petty trading, services or production activities. The establishment of LBSCs and improved financing/training support are imperatives for upgrading these rural SMMEs (Bukula, 1997; Rogerson, 1997). The provision of electricity has provided little relief from the core constraints on the upgrading of these rural entrepreneurs.

A more important position for electrification in upgrading the SMME sector is, however, suggested in other research relating to SMME development in Northern Province. Unemployment and poverty were key reasons for rural SMME start-ups in Northern Province (Morake et al., 1994, p. 176); among key problems were financing, markets and poor infrastructure, including absence of electricity in remote areas (Morake et al., 1994, p. 184). It was argued that the provision of such basic infrastructure in remote areas would assist "in improving standards of living" (Morake et al., 1994, p. 198), a basic element in upgrading the potential for rural SMMEs. Among the recorded problems of former premises, which were mainly in the home or backyard, of industrial estate tenants in the Northern Province, were stated prominently that of "lack of electricity" (Choshi, 1997, p. 113). Indeed, after issues relating to lack of markets and lack of space for business, the absence of electricity was the third most cited response of emerging manufacturers in the small towns and rural areas of Northern Province. Moreover, in terms of the premises offered in the industrial estates, the two most commonly stated advantages were of the provision of industrial space and of services, most notably of electricity (Choshi, 1997, p. 116). These findings from Northern Province would seem to support the views expressed in the official White Paper on Small Business which recognized the general importance of developing physical infrastructure and business premises for SMME development, including the provision of electricity. It was conceded that in rural areas and many resettlement villages "there is often a critical shortage of built-up work spaces, combined with the lack of access to electricity, water and telephones" (South Africa, 1995a, p. 32).

Evidence deduced from the impact rural electrification at Elandskraal, Northern Province is mixed but also does point to electricity as a potential input for upgrading the condition of the SMME economy (van Jaarsveld and Focaraccio, 1994). At Elandskraal electricity has been introduced into existing SMME enterprises with certain positive impacts as regards lighting and refrigeration, particularly for the service sector, a finding which confirms the international experience. Nevertheless, one observer rates the impact of electrification on the SMME sector as "limited" (Viljoen, 1993, p. 54). A different perspective, albeit on the basis of extraordinarily flimsy empirical evidence, is offered by Fakira (1994), who contends that Elandskraal experience "provides strong support for the argument that the provision of electricity is an important precondition for the emergence and growth of diversified, dynamic microenterprises" (Fakira, 1994, p. 21). It is maintained that "the microenterprise sector in Elandskraal has experienced significant growth over the recent period since the electrification of the area" as "access to electricity makes it possible for enterprises to engage in those activities which are electricity dependent (which tend to be higher value, more lucrative activities)" (Fakira, 1994, p. 22). In a somewhat overstated conclusion, it is stated that "Powerful evidence for this argument has been advanced by the experience of microenterprises in Elandskraal, where enterprises have sprung up in new sectors after electrification" (Fakira, 1994, p. 32).

Potentially more convincing evidence of a modest local role for electrification in rural SMME upgrading is offered in two investigations undertaken in KwaZulu-Natal. The impact of electrification was investigated in the context of Loskop village in the Natal Midlands (Data Research Africa, 1996). Here, the advent of electrification was linked to a considerable growth taking place in the number of both full-time and part-time SMME operations suggesting that "electricity has had a major impact on the growth of the number of businesses in Loskop" (Data Research Africa, 1996, p. 5). This optimistic conclusion should be tempered by acknowledging that the growth of new businesses in this particular rural area paralleled the international experience of electrification as associated with the sprouting of new retail outlets, such as spazas, tuckshops, shebeens, general dealers and butcheries. Moreover, the growth of these businesses was a reflection of growing unemployment resulting in the proliferation of survivalist enterprise and of the special circumstances of an area wracked by violence which
caused people to buy goods in their local area. Overall, the Loskop findings are suggestive of the international experience of a surge in new, primarily survivalist businesses linked to the use of electricity for refrigeration. Little evidence exists of electrification being a factor in spurring the birth of new production micro-enterprises. What did occur, however, was that existing production SMMEs were stimulated in their growth through the change from non-electrical sources of power for welding machinery, power tools and sewing machines, allowing a welcome improvement in their product quality as well as product diversification (Data Research Africa. 1996, p. 2).

In a sober assessment of the problems of the SMME community in rural KwaZulu Natal, Vaughan and Xaba (1996, p. 12) make the useful point that "access to electricity for business purposes is not relevant or necessary for some sub-sectors (of the SMME economy), but lack of access is a significant constraint to those in other sub-sectors". In particular, their differentiated analysis of the significance/non-significance of electrification to the KwaZulu-Natal rural SMME economy concluded that "access to electricity determines levels of technology, and thus volume of output, for garment makers, and for block and brick makers" (Vaughan and Xaba, 1996, p. 12). This finding confirms that which was observed above in the Loskop village research (Data Research Africa, 1996). One final aspect of the analysis of Vaughan and Xaba (1996) relates to the gendered impact of electrification; it was concluded that whereas both male and female SMME entrepreneurs face the constraint of lack of electricity in the business "proportionately more men are disadvantaged" (Vaughan and Xaba, 1996, p. 12). To a large extent, this finding must be explained by the dominance of male entrepreneurs in those specific sectors of production activities in which electrification assumes a more prominent role.

The differentiated impact of electrification on rural SMME development has been acknowledged in other recent investigations. Mahabir's (1997) analysis of the problems faced in SMME development in rural Mount Aycliff, Eastern Cape appears to confirm the earlier findings on the problems of production enterprise in Northern Province. It was concluded in the Mount Aycliff study that the "few industries that operated here did so under very difficult conditions, with their business housed in poorly constructed buildings and with lack of electricity which prohibited the use of power tools" (Mahabir, 1997, p. 14).

Lastly, in research on North West province rural SMME development infrastructural deficiencies surfaced as one of the major sets of difficulties (Bukula, 1997). Overall, the community of SMMEs in this deep rural study area suffered from severe shortcomings as regards telecommunications, postal services, sewerage, roads and electricity provision.

3.5 The Role of Eskom in SMME Development

Over the past five years, Eskom is one of many large South African corporations which have become involved in activities surrounding small enterprise development (Mantle and Ryan, no date). The institutional major vehicle for such involvement is via the formation of a special small business unit within the large enterprise. Broadly speaking, four major channels exist whereby the South African large business sector has sought to assist the promotion of SMMEs through collective endeavours or individual corporate initiatives. First, through the support of national organisations which aim to facilitate linkages between emerging (black) SMMEs and the corporate sector or to support a wide array of entrepreneurship programmes and services or offer through NEPA, Khula, or the former SBDC. Second, through individual subcontracting or the direct procurement of goods and services from small business. Third, by the individual setting-up of SMMEs using employees or ex-employees by 'hiving' them into a set of activities previously carried out internal to the large business sector. Fourth, through the individual establishment of small enterprises which sometimes are run by retrenched employees or more widely to establish and nurture SMMEs as part of corporate outreach or social responsibility programmes (Mantle and Ryan, no date).

In the case of Eskom, the primary motives for the enterprise's involvement in SMME development are economic rather than philanthropic (Eskom, 1996a, 1996b). Eskom's small business initiative was launched in April 1993 against a background of the corporation's re-evaluation of the existing electrification programme. Of critical importance to appreciate was that Eskom calculated that it required after five years a break-even point for average
consumption of 350kWh; yet, in its third year, Eskom had seen average consumption in newly electrified homes reaching only 80kWh. Although new consumers had purchased appliances, it was evident that with the introduction of pre-paid electricity meters there were more electrical appliances stored away in cupboards than connected to the mains. The key conclusion of Eskom in its re-evaluation of the electrification drive was that "low consumption was a function of poverty and unemployment. We reviewed our approach and decided the best way to handle the problem was to assist in the development of communities. We realised that the way to create wealth in the townships - thereby increasing electricity consumption - was to create businesses in the areas where we were electrifying homes".

Against this backdrop, in October 1992 Eskom management took the important decision to actively nurture the development of black SMMEs as a vehicle for job creation. Overall, Eskom's small business initiative comprises three different strands of activities (Mantle and Ryan, no date, p. 29). First, is social investment and harmonisation which is driven by the corporation's human resource group and is primarily centered on community-based education and training. Second, is an inward programme which is directed towards increasing the amount of Eskom's direct purchases from existing black-owned small businesses. At the heart of these second set of initiatives is an attempt to promote subcontracting to existing black small businesses. The third initiative was external in focus and sought to promote the general development of new SMMEs, an initiative which has mainly been directed toward township areas. With the formation of the Business Development (SME) unit in Electrification during May 1993, Eskom sought more broadly to improve the viability of electrification projects by augmenting the level of economic activity and electricity consumption in all newly electrified areas. The corporation's short-term business objectives are unequivocal: (1) to increase sales and consumption, (2) to catalyse jobs in newly electrified communities and (3) to nurture SMME development through Eskom buying programmes (Eskom, 1996a, 1996b).

Several strategies have been adopted by Eskom in order to galvanize SMME development. As Mantle and Ryan (no date, p. 31) note, among these strategies were inter alia, to complement the existing network of SMME funders and trainers; to establish strong networks with other corporations and institutions; to obtain co-operation from communities; to build a data base of new businesses; and, to lobby orders from larger business enterprise. Newer focal points for strategic intervention are (1) the establishment of 'resource centres' where entrepreneurial training support is provided particularly around electricity installation, maintenance and repair, and (2) the creation of affordable franchises and the development of standardized business operations (Barr, 1996; Eskom, 1996a, 1996b). Examples of the types of small businesses that have been initiated are building, dry cleaning, food preparation, cabinet-making, bakeries and welding; in addition, several SMMEs are specifically linked to Eskom's electrification drive, including contracting out of school electrification, planting of poles for electrification, small appliance repairs and the establishment of vending agencies for the sale of electricity meter tokens (Mantle and Ryan, no date, p.32; Eskom,1996a, 1996b). The issue of franchising is increasingly moving to centre stage in the efforts of Eskom to generate SMME development (Mapetla, 1997).

Overall, through its diverse activities it is claimed that Eskom "assists in identifying business opportunities and then networks the entrepreneur" with other complementary SMME support agencies. The core role assumed by Eskom is of facilitator rather than direct funder of SMME development (Mantle and Ryan, no date, p. 32). The prime geographical focus for Eskom's SMME support programmes is the 'market potential' offered in urban township areas rather than in rural areas. Although all newly electrified areas are the ostensible target for the Eskom small business programme, at present, few initiatives for SMME development exist outside of township areas (Mapetla, 1997). One exception is a project designed to set up a cheese producing plant using goats milk in the Lusikisiki area of Eastern Cape (Mapetla, 1997). It is evident therefore that at present Eskom is not a key player in direct SMME promotion in rural areas.

Significantly, the broad activities of Eskom's SMME development programme fall largely outside and are only marginally linked to the key institutional structures in the national programme for SMME upgrading. An official in the Eskom SMME programme admitted that "We don't" link to NEPA's activities (Mapetla, 1997). Indeed, it was stated that "We have not
had much to do with them" and that Eskom had problems with the "organizational flux" taking place in NEPA which had to define more clearly its scope of operations (Mapetla, 1997). Finally, as regards NEPA, it was claimed that "we (Eskom) are way ahead of Ntsika in our work" of supporting SMMEs (Mapetla, 1997). The viewpoint from NEPA was to confirm the limited existing contacts with Eskom which was essentially a "lone wolf" operating in the business of SMME development and divorced from the mainstream national institutions (Bloch, 1997). That said, it must be recognized that NEPA is a new institution and still, to a large extent, finding its feet and defining its activities (Bloch, 1997).

In common with the lack of contact with NEPA, likewise, Eskom has no institutional or cooperative arrangements with Khula, an organisation which was described as "disappointing". In sourcing funding for support of its SMME initiatives Eskom preferred to deal with Future Bank as there are "no specific benefits" in working with Khula whose lending rates were described as on the same basis as those of commercial banks. Moreover, Eskom also retained its long-established ties with the former Small Business Development Corporation, an organization in which Eskom was a founder member. The only notable linkages of Eskom to the new national structures for SMME development occur at the provincial level. In project development Eskom does have contacts with Provincial SMME desks through its representatives in each province and its participation in provincial forums for SMME development (Mapetla, 1997).

Currently, it is claimed that Eskom's electrification drive is producing the result that "between seven and eleven new businesses are established for every 100 houses electrified" (Darling, 1997, p. 27). Even if such data, drawn from urban township areas, may be over-stated, it is evident that such rates of new business formation are extremely unlikely to be repeated in the case of rural SMME development. Like all agencies involved or potentially involved with rural SMME development in South Africa, Eskom cannot escape the special challenges that relate to the apartheid legacies of assisting spatially marginalized rural communities who have limited market opportunities due to their divorce from the mainstream economy.
4. Key Findings and Conclusions

The key findings and conclusions are summarised here concerning rural electrification and SMME development at the international and South African scale of analysis.

- At the international scale, it was stressed that whilst rural electrification precipitates the 'modernization' of existing rural SMMEs, it exerts only a modest stimulus for the growth of new enterprises. Claims that rural electrification will catalyse major new rural SMME development are often exaggerated. Behind these disappointments is the realisation that frequently technological upgrading is not the prime constraint on the emergence and development of new SMME enterprises. Instead, the international literature on rural SMME development highlights issues such as the importance of access to finance, skills training and markets. Within the category of new rural enterprises the major impact of electrification is upon survivalist kinds of activities, such as new small retail shops, bars or provision of personal services. Much less common will be the nurturing of new rural production micro-enterprises as a product of electrification programmes. Finally, even where new rural production SMMEs have been observed, these are not necessarily signals of an emergent new prosperity because where linkages occur to exploitative subcontracting arrangements, these can be manifestations of a deepening rural poverty, particularly for women.

- At the national scale of analysis, it was argued that the post-apartheid period has witnessed a new official commitment to the upliftment of the SMME economy in South Africa and the introduction of a new institutional structure of support for the SMME economy. Key actors in this new institutional structure are NEPA, Khula, the National Small Business Council and the network of provincial SMME desks. Research on the rural SMME development shows that the question of uplifting rural SMME economy is more problematic than is the case of urban SMMEs. Rural electrification is a marginal issue in the overall picture of the myriad constraints that confront rural SMME development in South Africa. Local evidence would appear to confirm the international pattern of an initial post-electrification boost to survivalist retail enterprise with only a limited long-term impact on the micro-enterprise economy. The core issues for rural SMME development surround the apartheid legacy of disadvantaged communities being situated in remote areas with limited access to markets, finance or information.

The key strategic intervention to uplift the prospects for rural SMME development is the initiation of successful LBSCs to reach-out the institutional support networks to marginalized rural entrepreneurs. Another promising area for intervention is the possible creation of networks of periodic markets as stimulus to rural SMME growth and upliftment. Within the overall spectrum of rural SMME development, Eskom is a relatively minor player particularly as compared to the activities of NEPA, Khula or the Provincial SMME Desks. Eskom's commitment and efforts to upgrade SMMEs are motivated by economic considerations of expanding its market. A number of initiatives have been launched by the corporation's small business unit to support SMME development. Principally, these are aimed at the township areas where some modest successes have been claimed in terms of creating an environment for new SMME births and expansion. The difficulties of the rural environment in South Africa, however, appear likely to temper the modest successes claimed by Eskom for SMME development in urban areas.

Finally, one disturbing finding was that the activities of Eskom's small business programme are only weakly linked to the new national institutional fabric for SMME upgrading in South Africa. This suggests a recommendation for a much greater degree of future coordination and cooperation between Eskom and the emergent new institutional actors for SMME development in South Africa.
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