



ENERGY, POVERTY AND THE FAMILY

1. Introduction

The complex articulation between the cost of, and access to, energy; the effects of poverty; and the needs of families, especially poor families, speaks to multi-layered vulnerability. Professor Ashley van Niekerk of the University of South Africa¹ addressed a recent CPLO roundtable discussion on this issue, and this Briefing Paper owes much to his presentation and to the discussion that followed.

It is useful, at the outset, to consider the connections between energy, poverty and the family in terms of spatial relationships – that is, the way in which a place or an object is situated in relation to another place or object. It is also useful to note that one of the primary contexts in which this three-way relationship plays itself out is in the sprawling informal settlements which are a dominant feature of our towns and cities. Most of these settlements (formerly termed ‘squatter camps’) began as a protest against the Group Areas Act, which determined where black South Africans could or could not live. In the late 1970s and early 1980s the wives and families of migrant workers moved away from the rural areas to the urban areas to join their husbands, fathers, brothers and sons. This defiance was fueled by the desire to be a family. These settlements have been fiercely contested areas ever since, but they have continued to grow, almost always without adequate provision for basic services. They have been the site of forced removals, evictions, poor service delivery and broken promises. They have also been the site of devastating fires – one of the key manifestations of how poverty forces people to rely on unsafe energy choices, often with tragic consequences.

2. Structural Vulnerability

The United Nations Development Programme's 2014 Human Development Report “*Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience*” draws a distinction between ‘natural’ disasters and crises, and those which are ‘human induced’. It stresses that many disasters and crises are a consequence of ‘structural vulnerability’ which exacerbates vulnerability to risk. This is especially the case with fire.

At a briefing to the Select Committee on Housing and Human Settlements, the Department of Human Settlements identified some of the many challenges confronting it. These included “dysfunctional and inequitable settlement patterns; housing affordability problems; weak spatial planning and governance capabilities; and a fractured housing market, with inequitable access to its workings and benefits”.² Furthermore, perhaps the most welcome aspect of the Minister of Human Settlements, Lindiwe Sisulu’s, recent speech was the concession that the “delivery of houses has dropped drastically across all provinces” by as much as 30%. The significant decrease in the delivery of housing has been a long-standing concern, but it has been obscured by unreliable claims of successful delivery.³ The Minister’s candor in this regard is thus to be welcomed.

The negative effects on family life of living in crowded, small, restrictive spaces with little privacy are considerable. The theologian Jon Sobrino writes about the burden, depths and diversity of poverty. “Economic poverty expresses a deep human, anthropological, and social need: the difficulty of forming a home, human life...”⁴ The psycho-social importance of ‘home’ in our consciousness cannot be overestimated. Article 25 of the Universal Declaration of Human Rights, states that everyone has “the right to a standard of

living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services..."⁵

The geographic spatial arrangements of human settlements continue to reflect those of our apartheid past, which means that the poor continue to occupy space that is some distance from employment opportunities, health and social services, schools, and further education and training institutions. This means that a disproportionate percentage of the household budget is spent on transport; and therefore, indirectly, the poor are paying more than other social classes for the energy used to power such transport - road transportation is liquid fuel intensive and trains are powered by electricity.

When it comes to the other major forms of domestic energy consumption, according to the most recent census, conducted in October 2011, 84.7% of South African households use electricity for lighting (up from 70.2% in 2001), 73.9% use electricity for cooking (up from 52.2%), and 58.8% use electricity for heating (up from 49.9%).⁶ While it is encouraging that these figures show significant increases in the use of electricity, generally the cleanest and most efficient form of energy for domestic purposes, it is still the case that a quarter of our population uses other forms of energy for cooking, and nearly half get their heating from non-electric sources. In both cases, a small number will have switched to gas for cooking and heating, but it seems likely that the majority still rely on coal and/or wood fires.

It is also worth noting that having access to electricity does not necessarily correspond to the capacity to make use of electricity. Each household receives 60 units of electricity a month. However, what happens after this 'free' electricity has been used? Many households are compelled to explore other energy options. As electricity becomes more expensive, this trend is likely to grow.

3. The Cost of Electricity

The National Energy Regulator of South Africa (Nersa) recently announced that South African electricity tariffs are likely to increase by more than the 8% already sanctioned for the year starting April 1, 2015.⁷ Furthermore, a new survey shows that this is exacerbated by oversights in tariffs charged by municipalities.⁸ During her budget vote the new Minister of Public

Enterprises, Lynne Brown, assured South Africans that ongoing concerns related to the affordability and reliability of electricity supply to residential and business consumers were "being addressed very seriously and very urgently".⁹ Grant Thornton's *International Business Report* second quarter survey revealed that "52% of South African business executives cited rising energy costs [...] as the biggest factor currently hampering growth and expansion in the country".¹⁰

4. 'Fuel Poverty' and 'Energy Poverty'

The literature distinguishes between 'fuel poverty' and 'energy poverty'. A household is said to be in fuel poverty when its members cannot afford to keep adequately warm at reasonable cost, given their income. Up to now, this term has mainly been used in the United Kingdom, Ireland and New Zealand, but discussions on fuel poverty are increasing across Europe, and the concept now applies everywhere in the world where poverty may be present. "It is now widely recognized that fuel poverty has severe effects on some of the most vulnerable people in society. However, [...] the focus on families and children has been relatively neglected".¹¹

According to the authors of a recent paper,

"It is clear that fuel poverty can have severe and lifelong effects on children. Studies show that long-term exposure to a cold home can affect weight gain in babies and young children, increase hospital admission rates for children and increase the severity and frequency of asthmatic symptoms. Children in cold homes are more than twice as likely to suffer from breathing problems, and those in damp and mouldy homes are up to three times more likely to suffer from coughing, wheezing and respiratory illness, compared to those with warm, dry homes"¹².

On the other hand, energy poverty has been defined as "the absence of sufficient choice in accessing adequate, affordable, reliable, high quality, safe and environmentally benign energy services to support economic and human development. Energy poverty interacts with other manifestations of poverty and it is important to explore the issues that surround it, including the gender aspects".¹³

Energy poverty is thus a lack of access to modern energy services. It refers to the situation of large numbers of people in developing countries whose well-being is negatively affected by very low consumption of energy, use of dirty or polluting fuels, and excessive time spent collecting fuel to meet basic needs. It is inversely related to access to modern energy services, although improving access is only one factor in efforts to reduce energy poverty. Energy poverty is distinct from fuel poverty, which focuses solely on the issue of affordability. Many South African homes experience both fuel poverty and energy poverty.

According to a report prepared by the International Energy Agency for the United Nations, "if nothing is done to address energy poverty, by 2030 nearly 4,000 people per day around the world will die due to the toxic smoke and indoor fires from unsafe primitive cooking stoves – more than the premature death estimates for malaria, tuberculosis, or HIV/AIDS."¹⁴

Moreover, as a further illustration of the effects of energy poverty, the level of tuberculosis (TB) infection in South Africa has reached such a high level of prevalence that there have been calls to declare it a public health emergency.¹⁵ The condition is compounded by the cold and damp winter conditions in the Western Cape, which is the province most affected by TB, and by poor people's inability to combat these conditions

5. Home in an Informal Settlement

During the course of the 20th century law-makers developed minimum standards for the construction and maintenance of buildings, designed to protect public health, safety and general welfare. In the case of informal settlements, these critical criteria are not taken into account at all, with the result that dwellings in such settlements are unsafe, and vulnerable to fire and to flooding. Regardless of the treacherous nature of such accommodation, not much has been done to address these issues, and the continued pattern of migration to the urban areas further compounds the problem.¹⁶

Although there has been considerable progress in the electrification of informal settlements, the majority of residents still rely on paraffin, wood and coal for lighting, cooking, heating and bathing purposes. These are inherently far more dangerous than electricity, as is apparent from the regularity, and the destructiveness of fires in

informal settlements. Loss of life, burn injuries, and the long-term consequences of both, sustained during such fires are a direct result of poverty.¹⁷ Harsh socio-economic realities create the conditions where such injuries and fatalities can take place. The spaces between dwellings are very narrow, and this close proximity to neighboring homes means that fires spread very quickly and easily. Research conducted by the Household Energy Safety Association of Southern Africa demonstrates that a shack and its contents burns down in four minutes, which allows very little time for the occupants to evacuate safely, let alone to save the household contents. Female headed households are particularly vulnerable as there is one less adult to act in the crisis.

While it is clear that fires are a public health issue, the impact on the mental and emotional health of the family is often overlooked. Victims suffer both acute and chronic stress; socio-economic difficulties; feelings of helplessness and hopelessness; post-traumatic stress disorder; social devaluation; panic disorder; and generalized stress disorders. Finding the strength and courage to rebuild is enormously challenging. It must be emphasized that some residents of informal settlements have start again repeatedly after multiple fires, having started at the beginning with very little.

While the spatial geography of informal settlements is central to any solutions to the destruction and injury wrought by fires, it is also important to look at the spatial arrangements inside the home. Residents typically live in small dwellings where it is very difficult to supervise the management of candles, paraffin lamps and stoves, all of which are easy to knock over. However, electrical kitchen appliances and heating devices are also dangerous in such a small space, and children can easily sustain burn or scalding injuries. Furthermore, most of the clothing and bedding found inside an average informal dwelling are made out of cheaper artificial materials and burn much quicker than cotton or wool.

6. Prevention

'*Breaking New Ground*', the existing policy document on housing, was drafted in 2004 and is now ten years old. Informal settlements require upgrading so as to provide adequate shelter and access to basic services, which should include fire and disaster relief services. There is a need for

more land to be made available for domestic habitation, with proper infrastructure and municipal services which extend to all residents.¹⁸ However, the increasing number of people arriving from rural areas leads to the further expansion of informal settlements which makes adequate planning and provision of services challenging.

A discussion paper entitled '*Towards a Fire Brigade Services White Paper*' was published in March 2013 by the Department of Co-operative Governance. It includes a comprehensive review of the current state of fire services in the country. Much more could be done in the immediate term to contain and prevent the spread of fires. Present practice is reactive rather than proactive. Such measures should include education on household energy safety; the provision of fire blankets and fire extinguishers; access to piped water, fire hydrants, and metal buckets of sand; and a community response plan. Dwellings need to be

set out in such a way that they are at least 3.5 metres away from other dwellings on each side.

7. Conclusion

The words of historian Professor Colin Bundy are apposite when considering the interlocation of energy, poverty and the family. Writing about forced removals, Bundy described the "trauma, frustration, grief, dull dragging apathy and surrender of the will to live"¹⁹. This is similar to what Sobrino calls "the intolerability of poverty."²⁰ There is a desperate need for the development of safe, reliable, clean and cheap forms of energy. It is something that all should enjoy, especially those who find themselves on the margins of society.

Lois Law
Researcher

¹ Prof Ashley van Niekerk PhD Specialist Scientist: MRC-UNISA Safety and Peace Promotion Research Unit; Professor Extraordinarius: UNISA Institute for Social and Health Sciences

² PMG Report: Department of Human Settlements on its 2014 Strategic Plan

³ Daily Maverick, 21st July 2014

⁴ Sobrino, Jon, '*No Salvation outside the Poor: Prophetic Utopian Essays*', Orbis Books, 2008

⁵ United Nations Universal Declaration on Human Rights

⁶ <http://www.southafrica.info/about/social/census->

⁷ Polity, 30th July 2014

⁸ Business Tech 3 July 2013

⁹ Polity, 17th July 2014

¹⁰ Polity 5th August 2014

¹¹ THE GENDER ENERGY POVERTY NEXUS *Finding the energy to address gender concerns in development* DFID Project CNTR998521, Joy S Clancy and Margaret Skutsch, Technology and Development Group University of Twente, N.L and Simon Batchelor, Gamos Ltd, UK

¹² A report commissioned by the Energy Bill Revolution and written by Pedro Guertler and Sarah Royston, Feb. 2013

¹³ Clancy and Skutsch, op. cit.

¹⁴ National Geographic Daily News OUR ENVIRONMENT ONLINE '*News for the everyday environmentalist*' July 2012

¹⁵ The Times '*TB is killing us*', 11th June 2014

¹⁶ For the 2011-2016 period it is estimated that approximately 241 758 people will migrate from the Eastern Cape, while Limpopo is estimated to experience an out-migration of nearly 303 101 people. During the same period, Gauteng and Western Cape are estimated to experience an inflow of migrants of approximately 1 106 375 and 344 830, respectively. SA News, SA government news service, published on Polity, 1st August 2014

¹⁷ Professor Ashley van Niekerk at Roundtable on 'Energy, Poverty and the Family'

¹⁸ Not all municipalities have promulgated fire management by-laws

¹⁹ Quoted by Stuart Wilson in his article '*Eviction: South Africa's bitter, year-round trauma*' published in the Daily Maverick, 15th July 2014

²⁰ Sobrino, Jon, op. cit.