

Economic conditions that leads to illegal electricity connections at Quarry Road Informal Settlement in South Africa.

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Crime statistics in South Africa seems to increase every year. Illegal electricity connection is considered a crime and a punishable offence. Crime can be caused by different aspects, e.g. poverty, drug abuse and alcohol abuse. Unemployment seems to be the leading cause of crime which may indirectly lead to poverty. Unemployment rate has gone up and people are looking for alternative solutions to support themselves and their families. Unemployment is one of the reason stated by people who illegally connect electricity. The illegal connection of electricity can be categorized into two groups. The first group is the group of people that utilize illegally connected electricity because they claim not to afford to pay for the electricity. The second group is the group of people who illegally connect electricity as a form of employment and illegally connect electricity for community members for a specific amount of money as remuneration. The study investigated illegal electricity connections in Quarry Informal Settlements. The main objective of this study was to explore the reason of illegal electricity connections in informal settlements focusing on Quarry Informal Settlement. Illegal electricity connections are lethal and the residents of Quarry Informal Settlements are aware of these consequences yet they seem to have no other alternatives to connecting electricity and no intervention from the municipality. Findings of this study also revealed that connecting electricity in Quarry Road Informal Settlement has since become a norm. It has since become an acceptable act to connect electricity illegally. A minority bought their houses with an already installed illegal connection while most have become accustomed to this act.

Keywords: Crime, Unemployment, Illegal Electricity connections, Informal Settlement

Introduction

Transitioning from apartheid to democracy marks one of the most eventful and important journeys in South Africa. This is the day where mostly, Africans gained their voice and broke free from oppression by the apartheid regime. Equality was to be the order of the day. It's regrettable that certain places are still suffering the consequences of apartheid-era disasters. Almost every day, new shacks, which are makeshift structures made of waste materials such as corrugated iron sheets and wood emerge like mushrooms. Quarry Road West had roughly 600 squatter settlements four years ago. Currently, there are already around 1500 shacks, and the settlement is growing every day (Rising Sun: 2019). The M19 and the off-ramp linking to

Reservoir Hills and Quarry Road West are now encroached upon by shacks. This has precipitated mass illegal electricity connections, which in turn disrupt electricity supply to the residents of Reservoir Hills. Many individuals continue to connect to electricity unlawfully, despite the eThekweni Electricity Department's warning signs. It is important to identify the measures that the Department has put in place to minimize illegal connections as this is also one of the causes of many deaths in the country. According to Pule (2014), illicit connections are killing many South Africans and creating power outages across the country. For example, "Electricity suppliers' main concerns are that illegal connections are dangerous and often result in serious injury or even deaths. It also causes overloading of the network, which results in unplanned outages, which affect the smooth operating of the traffic lights, as well as sustaining equipment at hospitals" (Pule, 2014:1). Further, it is important to understand the underlying factors that prompt people to connect illegally and how this is affecting the economy of South Africa. It is clear that power theft has a detrimental influence on a variety of socioeconomic activity, and the repercussions may be prevented. Illegal electricity connection in South Africa is a major problem. This problem is growing every year, and it will significantly affect various socio-economic activities that impact on people's livelihoods.

Theoretical framework

Electrification of informal settlements in South Africa

According to Gaunt, Salida, Macfarlane, Maboda, Reddy, and Borchers (2012), a few years back, there was a declared aim to abolish informal settlements a few years ago. Nonetheless, they are now recognized as a long-term component of the South African landscape in official papers such as policy recommendations for the electrification of unproclaimed regions. Rural electrification, formal electrification, and electrification of informal urban settlements are the three types of electrification. According to Gaunt et al. (2012), informal settlements confront the most obstacles of the three sectors. This demographic accounts for 14% of the population and is expected to number 4.4 million people and 1.2 million families. They go on to argue that it is the fastest-growing population that the government has failed to meet in terms of electrification, housing, and other necessities.

Different municipalities have made attempts to curb illegal electricity connections in Informal settlements. For example, The eThekweni Municipality Electricity department has started working hand in hand with the Human Settlements Department to electrify informal settlements. They have electrified numerous informal settlements in the KwaZulu Natal region, and according to Julyan (2014), the municipality electrified more than 15000 informal settlements in 2014 through the Integrated National Electrification Programme. The city targeted to electrify more than 20000 informal dwellers in 2015.

According to Yadoo (2012), there are two ways to achieve electrification. The grid model and the non-grid electrification procedure. The non-grid concept is aided by concessionaries and municipalities. For rural families, the non-grid technique is costly since they are claimed to be marked by poverty, low economic activity, weak infrastructure, and so on. An application cost of one hundred rands is required, as well as a monthly maintenance charge of R75. The non-selection grid's criteria are that the community will not be on the Grid's three-year plan and that

it is located in a remote region where connection hubs are not readily available. According to Willcox and Cooper (2018), the national electrification program has made significant progress in providing electricity to all households; however, the cost-effectiveness of offering electricity to rural areas and the complexity of providing electricity to preponderantly informal dwellings in principally unplanned and disorganized informal areas will impede future progress.

Urban Informal Settlements are home to at least 10% of South Africa's 4.4 million population. Informal settlements are quickly expanding, and the tight or limited budget cannot keep up with the demand. Every person has a right to vital services, according to the Republic of South Africa's Constitution, Act No. 108 of 1996. This includes power, which is available everywhere. As citizens of the country, it is the government's obligation to guarantee that persons living in informal settlements have access to basic services. Municipalities, as extensions of government, are responsible for ensuring the electrification of all inhabitants within their jurisdictions. This does not, however, imply that energy must be given in locations where the people of the country are at risk.

Traditionally, the Integrated National Electrification Program (INEP) concentrated on powering formal residences in both rural and urban locations. Nonetheless, the department is compelled to supply energy solutions to informal settlements due to the rising trend of informal settlements and the fundamental entitlement of all residents to vital services. Informal settlements have developed at a pace of 4% per year in accordance with urbanisation trends, however the rate of expansion is expected to reduce to 3% from 2010. (Chetty: 2018). As a result, the Department of Human Settlements has a housing initiative that includes efforts to eliminate informal settlements.

Housing delivery hurdles include:

- A lack of adequate and inexpensive land;
- Lack of viable relocation locations;
- The delayed approval procedure with respect to planning and promotion;
- Availability of funding and growing development costs, and;
- Restraints in terms of satisfactory existing bulk services

Electrifying informal settlements will enhance living conditions while also reducing the amount of accidents caused by unauthorized connections. Furthermore, the poor residents of these villages are denied access to free basic electricity to which they are entitled. In unconnected informal communities, there is a high prevalence of unlawful connections. These settlements cause the network to be overburdened and do not compensate for the power used. Electrifying these locations will solve the problem while also bringing money to the licensed company (Chetty, 2018).

Other problems in powering informal settlements include a lack of capacity in some locations to check illicit connections once they have been electrified. Assume that the eThekweni

Municipality Department of Electricity electrifies some regions while leaving other units. In that circumstance, the likelihood of not serviced families using the closeness of an official electrical connection to get an illegal connection rises, resulting in increased non-technical losses. In informal communities, population growth is also faster. If home growth is not regulated and planned, there is a risk that barriers may arise that make it difficult to connect new families to power (Lemaire and Kerr, 2016).

Research methodology

The qualitative technique was used to acquire data for the investigation. Qualitative research is the most effective way to learn a lot about a topic (Greener and Martelli 2018). The qualitative technique aids the researcher in capturing the participants' real-life feelings and experiences. Individual interviews were used to obtain data in this study. It's also worth noting that the data was interpreted based on the researcher's observations of written replies and their tone when responding to the questions. The researchers utilised purposive sampling for collecting data. Purposive sampling, also known as judgemental, selective or subjective sampling, is a type of non-probability sampling technique (Greener & Martelli, 2018) based on the researcher's judgment when selecting the participants that are being studied. Purposive samplings' primary objective is to focus on a particular characteristic of a population of interest, best enabling one to answer their research question. In purposive sampling, the sample that will be studied is also not representative of the whole population (Stockemer 2019). The researcher opted for a sample size of 15 participants. This will be enough to analyse data and understand why people connect illegally in an informal settlement. The researcher scheduled interviews with participants and did a door-to-door to collect data from willing participants. The researcher also explained the purpose of the research to the participants and what was required of them. The interviews were conducted at the comfort of their homes or an arranged place by the researcher, depending on participants' convenience.

Poverty and resident's anger as a cause of electricity theft

Respondents indicated that poverty in the informal settlement was rife, and this could be witnessed by looking at the living conditions of people residing in the informal settlement. The respondents were enraged by the government's failure to supply them with basic human essentials including power, water, and decent housing. There was outrage among them since they had been promised by the government over the years that they would be provided with such services.

Below show verbatim statements from respondents in view of the above.

"I am very angry at the government because we lost friends and family members whom we cannot replace because of izinyoka-nyoka, government might complain for loses in electricity but they can recover it. If they were concerned about these loses they could have made plans to address our problems. The revenue is more important to them but we also regard electricity as important for us." (QRI-11)

"The government is sometimes full of empty promises. We were told not to continue erecting shacks because they were saying they wanted to develop the area and build houses for us. That

has been said 5 years ago but now we are in 2021 and nothing has happened. This is the reason why we continue connecting illegally. As for me I am bitter because I have been living in this area for over 15 years, I am getting old and I have not yet seen the importance of the municipality and the reason why they should come to disconnect us.” (QRI-8)

“The company which was contracted to erect electricity poles and to peg land for us in 2015 just came towards December when everybody was preparing for holiday and when the company closed for the festive season they never came back till now to finish their work. No-one has ever followed up on this issue because we know that these are of the corrupt deals being done by the municipality. Even the counsellor never bothered to follow up because he knows he has electricity at his home.” (QRI – 9).

“Some of us are voiceless and we are being treated badly, as result we live with anger. As an old person, live with my grandchildren and life is very difficult for me. Sometimes its hard to get even food to eat yet the municipality want us to pay for electricity. Its better I use that money that was supposed to buy electricity for food and call the boys who connect izinyokanyoka to do for me too. I can’t afford to buy gas for cooking and paraffin every week.” (QRI-12)

An Informal dweller, interviewed by the Guardian (2019) complained about the electricity price hikes that make it almost impossible for them to have lights due to affordability. She was raised in the apartheid era and grew up with gas stoves, candles and paraffin heaters. *"Electricity was only for whites"* she states. A study done by Mbanjwa (2018) suggests that the socio-economic status also contributes to the illegal connecting of electricity. According to Gaunt et al. (2012), the factors contributing to illegal electricity connections in informal urban settlements include overpopulation.

Data report and analyses

The causes of illegal connection of electricity in the quarry road informal settlements

The respondents gave different reasons as to why they connect electricity illegally. A few cited financial reasons while most complained about poor service delivery in the area, citing that the free basic electricity that other informal settlements had previously benefited from has never reached their area. Most blamed the municipality for not connecting them legally, thus leaving them with no option but to connect illegally. The description in themes below shows some of the causes mentioned by respondents.

Several respondents pointed that the issue of informalised setup was a driving factor causing electricity theft. Respondents felt that electricity was necessary and left with no choice but to connect illegally, especially when situated in an urban setup. Respondents went on to say that they couldn't live without electricity, and the following are some quotes from respondents airing their thoughts and feelings.

Respondent 1; *“Here in Africa, many countries have informal settlements and residents are stealing electricity because they do not have legal electricity connections and everyone needs electricity. The problem is with our governments who don’t want to make sure that these people living in shacks get the same privileges being given to those living in brick houses.” (QRI-2)*

Respondent 2; *“The challenge that I have seen is that where there are informal settlements, the chances of people connecting illegally and stealing electricity is very high. So, there is theft where people are living disorderly.” (QRI-4).*

Respondent 3; *“It is my belief that the shortage of power is the root of the problem of this theft, if everybody had access to electricity, there would be very little or no electricity theft in South Africa.” (QRI-6).*

The above responses concur with Trevor (2010), where he stated that local governments confront challenges in providing electricity in informal settlements and the degree of electricity theft thus is particularly high. Also, Nkwanyana (2017) reiterated that, illegal connections of electricity would not end until informal settlements are stopped since they are the key drivers of theft and illegal connections. Respondents also noted that:

“A lot of people are migrating from their rural places to the city in search of bettering their lives, some go to Johannesburg, some go to Cape Town and some chose eThekweni. These people when they come, they will need shelter, water and electricity thus they do not have any choice rather than being shack dwellers. Such demand of these basic needs pushes them to illegally connect electricity.” (QRI-10).

When people move to the city, they create more informal settlements that aren't part of municipality development plans (Lauren, 2014). This development has made it problematic for towns to immediately make electricity available to new sections of the country. Whilst waiting to be legally connected, residents' resort to illegal tapping of electricity.

Government negligence as a cause of electricity theft

One of the main issues that respondents reiterated was that they blamed the government as the cause of electricity theft. Participants argued that government was failing to fulfil its mandate of providing basic essential services for its people. This however pushes people to commit crime and connect electricity illegally. The following are some of the verbatim statements shared by respondents:

“The government should be serious first if they want us not to connect izinyokanyoka. The money they are using to buy and replace transformers that have blown, is equivalent to the money they can use to electrify the whole community. This shows how people are desperate for electricity and it's a basic need to them.” (QRI-2).

“As for me I am not happy with our government, it does not think about us and our needs. They come to us during campaigns promising to give us electricity but once they are in office, you will never see them again. They are not concerned about people's lives and their safety because people are being electrocuted day and night.” (QRI-5)

“The government should address the issue of employment first. Some of us are not employed and the only way to access power is through izinyokanyoka. If you want to find a job, you cannot get one because you don't have a formal address to give your employer and no one wants to employ someone living in shacks. If the government gives us employment, we can be able to buy electricity for ourselves or find somewhere good to stay.” (QRI-6)

Moreso, the researcher discovered that most respondents throughout the study were complaining about corruption among municipal officials. The residents had no power to stop such corrupt activities since complaining did not make any change. Some respondents had this to say:

“From my understanding, corruption is the reason why these electricity projects are not successful in Quarry Informal Settlement.. Here in Quarry the Eskom people once delivered materials to electrify houses of those who had registered but we don’t know where the material went to. The municipality never took any step to do an investigation into that, this tells you why we say its corruption. On the other hand, Eskom never came to assess the progress of the project they had started. This means someone sold the material to their connected friends or relatives.” (QRI-9)

“Our councillors and Eskom must be held responsible for the bad job they did because they supposed to be following on the progress of the projects. People were fully paid to do this contract but they never finished the job.” (QRI-10)

The rational choice theory also plays a factor when one commits to crime. Human beings logically analyze the danger of committing a crime and measure it against the advantages, according to the rational choice theory (Weshuisen, 2011). This reflects the Quarry informal settlements residents, in terms of connecting electricity illegally. It was a decision reached after assessing the advantages of participating in the act albeit knowing the consequences.

Findings and recommendations

Findings

The study found that poor service delivery as well as economic factors were the main reasons for connecting electricity illegally. Some said *“Even if we wanted to buy electricity legally, the municipality isn’t willing to connect us legally”*. Some also stated that they bought the houses they stay in with a connection that is already illegal. The community is mainly dominated by people not formally employed, singles and widows. The category of these people finds it hard to find proper housing elsewhere or to connect legally and pay for the services.

Since electricity is seen or recognised a need just like water and air. The study found that residents around Quarry informal settlements regarded electricity as a need and could not survive without it, thus one of the major factors driving the to connect illegally.

Even though connecting electricity has led to many deaths, appliance failure as well as injuries, the community still chooses to connect illegally. Participants would quote past incidents caused by illegal connections but this hasn’t stopped them from connecting illegally.

The residents of Quarry Informal Settlements complained about poor service delivery and how they had been promised the free basic electricity which no one has delivered up to date. They state that the municipality is aware of the issues they are faced with but no solutions as yet. When briefly asked, one municipal employee cited that they have been working with the department of human settlements to legalize some informal settlements so they can get proper services. They further stated how this has been a challenge as some residents of the

neighbourhood complain about crime being high since the erection of informal settlements. Some informal settlements have been legalized but some face different challenges which makes it hard to provided services.

The study found that the municipality usually disconnect all illegal connections, arrested and prosecuted illegal connectors. Also, it was revealed that various awareness campaigns were done by the municipality, Eskom and the policy in trying to curb illegal connections.

When the residents of Quarry Informal Settlements were asked if they would be happy to explore other legal alternatives to connect electricity and pay, more than 90% of the participants answered “yes” to the question. One cited that if the municipality can give them affordable ways to connect electricity legally they would be very happy because sometimes they are scared when the children are out playing, he recalled an incident that once happened where children playing football and his son got chocked. Some said they would be happy to get free electricity which they can monitor themselves if the municipality can give them a few credits. When asked about Solar system, others seemed not to be aware of it and others reluctantly said they would try it out but felt it wouldn't be efficient for them, since it works only when the sun is out. Most of the participants recommended the free basic electricity as a solution.

Recommendations

- The municipality should work with the Department of Human settlements to find a way of making land legal or alternatively give them a safe infrastructure where shacks can be erected for service to be provided
- The municipal officials need to work hand in hand with counsellors of the community by informing them on any new developments or ways of how the electricity issue in the area can be fixed. This can be done through both parties negotiating terms that would assist in curbing illegal connections and gaining revenue.
- Municipality should aggressively create awareness around illegal electricity connections and formulate programs that would de-normalize illegal electricity connections
- Municipalities can use systems such as Paybilz where customers are able to read their own meters and submit their own meter. Meter readings are provided through the app and confirmed through a customer taking a picture. This system would work both in formal and informal settlements
- The usage of solar systems can be a more convenient alternative for informal settlements. Solar system work being converting sunlight into electricity. Solar energy can be created for free and last for a long time after a solar panel is installed. This is also the safest and cheapest way to have electricity.

Conclusion

The study's major goal was to look into the repercussions of illicit electrical connections in the Quarry Road informal communities in Reservoir Hills, Durban. The following goals were met

and addressed in order to attain this key goal: (1) to determine the causes of unauthorized electricity hookups in Reservoir Hills' Quarry Road informal communities. (2) to explore the approaches used by the eThekweni municipality, Electricity Department to curb or minimize illegal electricity connections. (3) to describe the effects that illegal electricity connections have on the Economy of the country and the community. (4) to explore the impact of illegal connections and the formation of groups like Abahlali baseMjodolo and Izinyokanyoka and the impact they have on society.

The above-mentioned objectives were achieved through the use of a qualitative, exploratory research approach. A judgmental sampling technique was used to select respondents from the Quarry Road informal settlements and officials from the Municipality. 15 participants participated in this study, (13 from the Quarry Road informal settlements and 2 Municipal officials).

The study concluded that electricity theft in Quarry Road informal settlements, in Reservoir Hills, Durban was a cause for concern issue which needed to be addressed at national level.

It is quite shocking to learn that illegal electricity is the main source of electricity in Quarry Informal settlements. The community needs intervention from the municipality as this has been ongoing for years now. Many lives have been lost due to illegal electricity connections, it is sad to learn that innocent lives also get affected by illegal electricity connections. Municipalities need to find ways to help the community of Quarry Informal settlements since their economic status is also not an easy one. It is also important to note that the residents of Quarry Informal settlements seem to be uncomfortable by their means of connecting electricity but they seem to have no other means to getting electricity yet being so desperate. Stealing electricity may have no excuse but the level of poverty is high in these informal settlements. Most of the residents seem to make money from a decent living job that do not pay enough to afford utilities while some only rely on government funding, which is to only put food on the table. One wonders how far a R350 grant can one survive since food and other house utilities have increased.

REFERENCES

1. Chetty, V.G., 2018. *The combating of unauthorised electrical connections in Kwazulu-Natal, South Africa* (Doctoral dissertation).
2. Gaunt, T., Salida, M., Macfarlane, R., Maboda, S., Reddy, Y. and Borchers, M., 2012. Informal Electrification in South Africa. *Sustainable Energy Africa*. Accessed March, 8, p.2020.
3. Greener, S. and Martelli, J., 2018. An introduction to business research methods.
4. Julyan, L., 2011. *The Balanced Scorecard as a performance measurement tool for the South African government's upgrading of informal settlements programme* (Doctoral dissertation, University of South Africa).
5. Lemaire, X. and Kerr, D., 2016. Informal Settlements-Electrification and Urban Services.
6. Mbanjwa, T. 2017. An Analysis of Electricity Theft: A case Study of KwaXimba in eThekweni, KwaZulu Natal, Durban. University of KwaZulu Natal.
7. Pule, A. 2014. Illegal electricity connections endanger lives. Vukuzenzele.

8. available: <https://www.vukuzenzele.gov.za/illegal-electricity-connections-endanger-lives>
9. Rising Sun. 2019. Photographic showcase explores life at Quarry Road West Informal Settlement.
10. available: <https://risingsunoverport.co.za/71174/photographic-showcase-explores-life-quarry-road-west-informal-settlement/>
11. Stockemer, D. 2019. *Quantitative Methods for the Social Sciences*. London: Springer International Publishing.
12. Willcox, M and Cooper, D. (2018) NAE Case Study: South Africa, Integrated National Electrification, retrieved from https://energypedia.info/wiki/NAE_Case_Study:_South_Africa,_Integrated_National_Electrification
13. Yadoo, A. (2012) Delivery models for decentralised rural electrification: case studies in Nepal, Peru and Kenya. International Institute for Environment and Development, London.