

Report for the 2nd Policy Dialogue Panel Meeting on Urban and Peri-Urban Energy Access

Date: 5th May 2012

Venue: AFREPREN/FWD Offices, Nairobi, Kenya

Prepared by AFREPREN/FWD

INTRODUCTION

The Second Policy Dialogue Panel meeting on Urban and Peri-Urban Energy Access was held at AFREPREN/FWD offices, Nairobi on 5th May 2012, from 2.30pm to 5.00pm (See Appendix I). This was the second policy dialogue panel meeting organized under the thematic study of Urban and Peri-Urban Energy Access (UPEA) focusing on the low-income urban area of Nairobi known as Kibera. Nairobi is the largest city in East Africa, being a home to over three million people of which 70% dwell in informal settlements such as Kibera Slum. The residents of Kibera face major challenges in accessing adequate levels of modern energy services such as liquefied petroleum gas (LPG) and electricity.

The dialogue was attended by representatives from Kibera (a major low-income urban community in Nairobi), liquefied petroleum gas (LPG) stockist (Uchumi supermarket), University students and AFREPREN/FWD members of staff (See Appendix II) of which one of the staffer formerly worked with a power utility company in Uganda, thus giving us a more balanced panel to address the issue of modern energy services for the urban and peri-urban poor.

OBJECTIVES

The two and a half hours policy dialogue meeting focused on energy access for the urban poor people such as Kibera residents. The discussions mainly focused on:

- How the outcomes and results of the study findings can be used in improving energy access in the urban and peri-urban population.
- Ways that can be adopted in carrying forward the findings of the study to relevant decision makers.
- Discussion on the final recommendations of the study.
- Seeking clarification on pending comments such as;
 1. The price of the half filled LPG cylinders and why are they are popular in the Kibera region.
 2. Any additional policies and programs for urban poor development especially the ones which have been implemented in Kibera.
- Discussion on any further topics or issues that should be included in the study.

Mr. Jared Otuke, AFREPREN/FWD staffer, welcomed participants for the meeting (See Appendix II) and then proceeded to a round of introduction. He then gave a brief introduction of AFREPREN/FWD and gave an insight on how participants of the policy dialogue panel will be involved in the study. Thereafter, AFREPREN/FWD presented key elements of the Urban and

Peri-Urban Access study. The presentation (see appendix III) summarized all the major topics covered by the study and highlighted the issues of urbanization and its impact on energy access among the urban poor in terms of access to legal and cleaner energy services. The various programs and policies affecting access to energy among the urban poor were also covered in the presentation bringing into fore the best practices and recommendations of the study.

Following the background presentation, participants were invited to share their views in a discussion moderated by AFREPREN/FWD.

The following is a brief overview of the discussions:

DISCUSSIONS

Electricity Access

Ms Halima Dube, one of the representatives from Kibera concurred with the study findings regarding the high number of illegal connections in Kibera (See Appendix V). The illegal connections have created a major safety hazard in the area hence calling for an urgent need for the utility supplier, Kenya Power to address this issue. She further enlightened the panelists on the limited number of people with legal electricity connections who further distribute this power illegally to other residents at a standard monthly fee as low as Kshs 300(\$3.65).

Some members of the panel observed that the illegal connections provide a clear indication that there is demand for electricity in Kibera. The meeting discussed how the power utility should work out modalities to ensure that the residents are connected to the grid legally. One of the options floated was that Kenya power can identify key business enterprises in the area that they can use as liaising points connecting residents with electricity, and then collecting the bills which should be made affordable considering the income levels of the residents.

It was also brought to the attention of the panelists that there are several electricity related accidents as a result of these illegal connections; and as a measure to mitigate this challenge, the utility company always disconnects power supply to the area (Kibera) when it rains.

The use of prepaid meters (still under a pilot project in some areas of Nairobi) was discussed as one of the possible options to curb power theft in the informal settlements. The Kibera representatives, however, advised that pre-paid meters implementation would not guarantee any reduction in power theft given that residents seem to be able to work around any gadget for their benefit. In addition, some panelists highlighted that prepaid meters are mostly installed in high income neighborhoods probably due to the high cost of installing the meters.

Another suggestion discussed was the installation of metering systems on the transmission poles at a height which is not easily accessible to individuals. It was observed that for these measures to work effectively in the area, community members, especially the youth, need to be

engaged in the whole process in terms of sensitizing other residents as well as to protect the installations

LPG Access

Mr. Kilion O. Olang, the Supervisor at Uchumi Supermarket, Ngong Road, pointed out that the supermarket as an LPG stockist has several brands of LPG cylinders in stock but the urban poor rarely purchase the LPG from Uchumi. The urban poor normally purchase their LPG refills at suppliers in their vicinity whose refilling process is not clear cut (See Appendix V) and is difficult to understand. He also pointed out that LPG cylinders have not been fully standardized yet.

The Kibera representatives confirmed that the use of LPG in Kibera is very minimal. The few people who use LPG, buy it from local suppliers who are believed to be supplying illegally refilled LPG cylinders within the Kibera area.

Panelists agreed that there is need to sensitize Kibera residents on the benefits and use of LPG in comparison to the conventional fuel sources which are currently dominant in the area.

CONCLUSION

The dialogue came to a successive conclusion with participants encouraged to present their recommendations and way forward, outlined in the in the following text.

- It was suggested by the representatives from Kibera that programs in the area will be more successful if youth groups and available NGOs are used to sensitize people on the dangers of illegal connections and other energy access issues.
- Due to security concerns, Kibera representatives suggested that the power utility, Kenya power should work with the youth leaders in Kibera to help curb illegal connections.
- LPG cylinders should be standardized as it was observed in the meeting that LPG cylinder standardization has not been fully implemented.

APPENDICES

Appendix I: Agenda

Policy Dialogue Panel Meeting on Urban and Peri-Urban Energy Access

Date: Saturday, 5th May 2012

Time: 2:30pm to 4:30pm

Time	Activity
2:15 pm – 2:50 pm	Welcome by AFREPREN/FWD and Introduction of Panelists
2:50 pm – 3:20 pm	Introduction to Energy Access for the Urban Poor by AFREPREN/FWD
3:20 pm – 4:10 pm	Discussion by Panelists Moderated by AFREPREN/FWD
4: 10 pm – 4:30 pm	Way Forward
4: 30 pm onwards	Closure

Discussion Points - for Open Discussion by Panelists

- How will the outcomes and results of the study findings be used in improving energy access in the urban and Peri-urban poor population
- Discuss ways that can be adopted in carrying forward the findings from the study to relevant decision makers
- Discuss the final recommendations of the report
- Seeking clarification on pending comments
 1. What is the price of half-filled LPG cylinders and why are they popular in the Kibera region
 2. Discuss any additional Policies and Programs for Urban Poor Development especially the ones which have been implemented in Kibera
- Discuss any further topics issues that should be included in the study

Appendix II: List of Participants

Serial Number	Name	Organization
1.	Ms.Halima Dube	Student - University of Nairobi- Kibera resident
2.	Mr.Kilion Olang	Retail Manager Uchumi Supermarket, Ngong Road
3.	Mr. Joseph Kungu*	Engineer- Kenya Power
4.	Mr. Albert Chepkwony*	Shop Attendant, Uchumi Supermarket
5.	Mr. Peter Wanjiru Kinyanjui *	Stewan Gen Trading Company -Ngong Road
6.	Ms.Zuhura Hawa	Kibera Resident
7.	Mr. Zuhura Yakub*	Kibera resident
8.	Mr.Joseph Mutua	Student at Jomo Kenyatta University of Agriculture and Technology
9.	Ms. Yusuf Siama*	Business Person-Kibera resident
10.	Ms.Fatuma bubakar*	Community worker –Kibera resident
11.	Mr.Mirito Mutonu	Student at Jomo Kenyatta University of Agriculture and Technology
12.	Mr Brian Mukalazi	Student at Uganda Christian University
13.	Mr.David Irungu	Student at Kimathi University College of Technology
14.	Mr. Muhindi *	Branch Manager, Uchumi Supermarket - Ngong Road
15.	Mr. Amar S.*	Managing Director, Shell Kenya Ltd – Adams Arcade Petrol station
16.	Mr.Lugard Majoro	AFREPREN/FWD
17.	Ms. Agnes Naluwagga	AFREPREN/FWD
18.	Mr.Biness Lukwesa	AFREPREN/FWD
19.	Mr. Jared Otuke	AFREPREN/FWD
20.	Mr.Godfrey Kanyanta	AFREPREN/FWD

Note * Invited but regretted

Appendix III: Photographs from Meeting



Boardroom arrangement before arrival of guests for the UPEA II meeting.



Policy dialogue session in progress – chaired by Mr. Jared Otuke



AFREPREN/FWD presentation on the study findings.



Panelists during the policy dialogue meeting.






Panelists from Kibera - Ms. Halima Dube and Ms. Zuhura Hawa



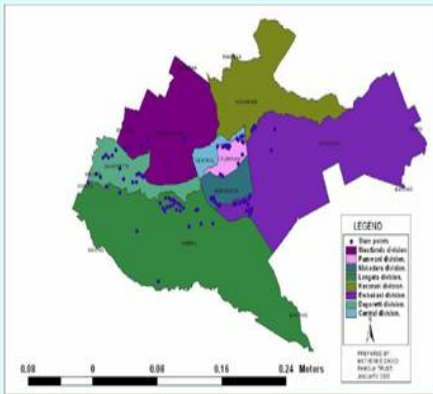
Session in progress

Appendix IV: AFREPREN/FWD presentation

<p style="text-align: center;">Outline of Presentation & Background Paper</p> <ol style="list-style-type: none"> 1. Introduction to AFREPREN/FWD 2. Key Objectives of UPEA Study & Dialogue Panel Involvement 3. Key Challenges & Limitations of the study 4. Urbanization in Kenya 5. Access to Legal & Cleaner Energy by Urban Poor 6. Energy planning for the urban poor 7. Energy Supply Agencies & Barriers 8. Best practices & recommendations 9. Areas for future study 	<p style="text-align: center;">2nd Policy Dialogue Panel on Urban Peri-Urban Energy Access</p> <p style="text-align: center;">by AFREPREN/FWD</p>
<p style="text-align: center;">Key Objectives of UPEA Study & Dialogue panel involvement</p> <p>UPEA III study objectives</p> <ul style="list-style-type: none"> • To analyze specific supply-side barriers & issues constraining electricity & LPG supply by utilities to slum populations • To summarize demand-side barriers to energy access emerging from UPEA-II • To recommend measures such as changes in policies, institutional arrangements that can facilitate energy access for the urban poor <p>2nd Dialogue Panel involvement</p> <ol style="list-style-type: none"> 1. Assessing the outcomes & best ways of using the results obtained from the study findings 2. Discuss ways to be used in carrying forward the findings from the study to relevant decision makers 3. Discuss the final recommendations of the report 4. Seeking clarification on pending comments 	<p style="text-align: center;">Introduction to AFREPREN/FWD</p> <ul style="list-style-type: none"> • Launched in 1989 • Set up to strengthen links between energy research & policy making/implementation • One of the key objectives: To stimulate investments in cleaner pro-poor sustainable energy options • Brings together over 300 energy professionals working at national level • Covers about 29 countries in eastern & southern Africa • Strong piggy-back principle in AFREPREN/FWD's approach (even for policy research reliance on existing expertise found in energy institutions) • Consultancy/Income Generation arm – African Energy Policy Research Network Ltd (not as active but expect it to grow) 
<p style="text-align: center;">Urbanization in Kenya</p> <ul style="list-style-type: none"> ▪ Kenya's urban population is about 12.5 million  <ul style="list-style-type: none"> ▪ By 2050, half of Kenya's population will be urban areas 	<p style="text-align: center;">Key Challenges & Limitations of the study</p> <ul style="list-style-type: none"> • Few studies have been carried out on this subject area • Primary data collection: Some respondents were not comfortable with providing information • Other respondents found it difficult to take time off their business transactions as they viewed the survey taking up too much of their valuable time. • Respondent fatigue: Many researchers are interested in Kibera locality • Kibera is a relatively high security risk area, hence difficult to conduct interviews with minimal intimidation. 

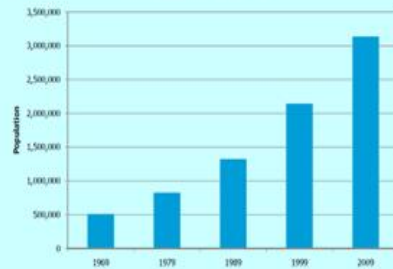
Urbanization in Kenya - cont'd

- Distribution of informal settlements in Nairobi



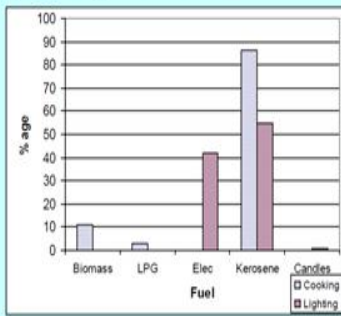
Urbanization in Kenya - cont'd

- Nairobi largest city in East Africa with over 3 million inhabitants
- Accounting for only 5% of the total land area of Nairobi
- It is estimated that 70% of urban population live in informal settlements such as Kibera



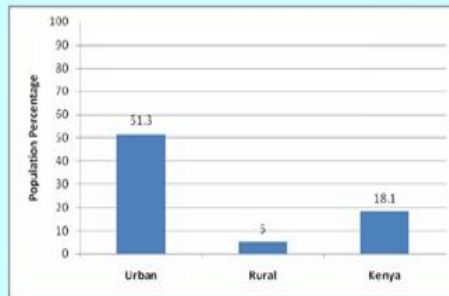
Access To legal & Cleaner energy by the urban poor-cont'd

- Energy Use among Households in Kibera



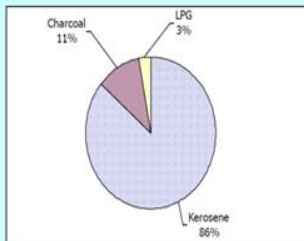
Access To legal & Cleaner energy by the urban poor

- Electrification Levels in Kenya in 2008



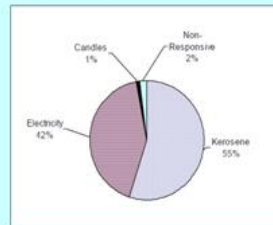
Access To legal & Cleaner energy by the urban poor-cont'd

- Most commonly used energy option for cooking in kibera



Access To legal & Cleaner energy by the urban poor-cont'd

- Most commonly used energy option for lighting in kibera



Energy Planning for the Urban Poor

- **Lighting Initiative in Nairobi Slums**-The project aim was to light streets & 160 slum villages within Nairobi
- **The Global Partnership on Output-Based Aid (GPOBA)**- innovative approach used by donors to ensure that aid is well spent & the benefits go to the targeted audience-normally the poor
- **Kenya Informal Settlements Improvement Programme (KISIP)**-progressive development of the national urban informal settlements

Energy Planning for the Urban Poor

Policies & Programs for Urban Poor Development

- **Kenya Slum Upgrading Programme (KENSUP)**- Its main goal is to improve living situation for at least 5.3 million Kenya's slum dwellers by 2020
- **National Housing Policy for Kenya**- to provide guidelines for the housing sector for the next thirteen years
- **Ministry of Housing Strategic Plan (2008-2013)**- The strategy affirms the ministry as the leading government agency for housing sector
- **Site & Service**- Involved development of areas in urban centres where low cost houses were constructed

Agencies involved in Energy supply to slums-cont'd

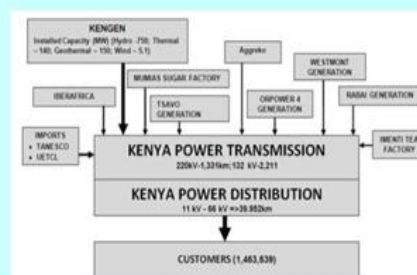
Agencies for LPG Supply

- Total Kenya Limited
- KenolKobil Limited
- Kenya Shell Ltd
- Libya Oil Kenya Ltd
- Westend Petroleum Ltd
- Stewan General Trading Company Ltd
- Uchumi Supermarket – Ngong Road
- Nakumatt Supermarket - Junction

Agencies involved in Energy supply to slums

Agency for Electricity Supply - Kenya Power:

- Responsible for electricity supply & distribution for domestic, commercial & industrial uses
- The generation of electricity has several players as illustrated below



Barriers/challenges in accessing Clean Energy cont'd

B. Supply Side Barriers

Electricity

- Illegal connection
- Hostile residents & Political interference
- Default in payment
- Lack of legislation to address electricity supply among urban poor

LPG

- Slow standardization of cylinders by oil companies
- Competition from unscrupulous dealers & suppliers who sale half-filled cylinders
- Insecurity
- LPG shortages & lack of smaller sizes of LPG like 3kg cylinders

Barriers/challenges in accessing Clean Energy

A. Demand Side Barriers

- **Affordability** - Electricity connection is still very expensive for the urban poor
- **Convenience** - Lack of sufficient LPG distributors within urban slum areas
- **Quality of Service** - sudden & frequent electricity blackouts, Variation in volume of LPG cylinders
- **Safety & Health Hazards** - Urban poor are wary on the use of electricity & LPG
- **Government policies** - Lack of policies that support modern energy access among the urban poor

Recommendations

•**Policy** - There is an urgent need to formulate policies that will enable point supply of electricity in urban slum settlements

•**Regulatory** - The government should formulate standards for urban slum houses to ensure basic amenities are provided including electricity

•**Institutional** - Government should ensure that structures & mechanisms are established in increasing energy access among the urban poor

•**Technological** - The electricity generation in Kenya should shift from expensive fossil fuel to alternative local abundant resources



Best practices

Energy Source	Best Practices
Electricity	<ul style="list-style-type: none"> - Kenya Power rolling out a pre-payment metering programme. - "Transformer maximization" programme: charging lower connection fees to households living in close proximity (600m) - Stima Loan programme - Installation of flood lighting in the city's slums - Supply & installation of Compact Fluorescent Lamps (CFL) to replace less efficient incandescent bulbs
LPG	<ul style="list-style-type: none"> - Standardization of gas cylinders by oil companies has made refilling easier, allowing consumers to refill from suppliers offering lower prices. - Introduction of pilot LPG mobile mini refilling project enabling urban poor to purchase cooking gas at preferred quantities from minimum amount of 1kg. - Introduction of weighing scales at LPG refilling stations
Kerosene	<ul style="list-style-type: none"> - Liberalization of the petroleum industry has led to establishment of small scale kerosene pumping stations - Reduction & removal of taxes & levies has made it more affordable - Introduction of price caps on kerosene

Areas for Future Study

•**Electricity supply to urban poor** – establish ways in which the utility provider can work with the urban poor to increase electricity access & reduce illegal connections

•**In-depth analysis & study on the LPG marketing & distribution in urban poor areas** – LPG supply chain & its effect on the LPG pricing among the urban poor , propose measures that can stabilize LPG prices

Appendix V: Some pictures of Kibera which were discussed during the meeting



An Aerial view of Kibera showing part of the neighbouring Urban Development (Housing) at the horizon



An aerial view of Kibera showing an overhead light by Adopt a Light



An example of a mast installed by Adopt a Light programme



Overhead power by Kenya Power



Some of the legal electricity connections in Kibera slum



Part of Makina estate in Kibera with legal electricity access



Illegal Connection of electricity in Kibera



Man laying a conduit for illegal underground connection



Illegal Connection



Meter boxes shown in Kibera for illegal re-

distribution of electricity



Different types of LPG containers



Different types of LPG containers (some with no brand name)



An example of a refilled LPG Cylinder in Kibera



An example of a refilled LPG Cylinder in Kibera



LPG selling point in Kibera.	Example of LPG cylinders found in Kibera (some with no clear labels)
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