

**Report of an International Dissemination Workshop
on**

**Enabling urban poor livelihoods policy making:
understanding the role of energy services
DFID KaR Research Project R8348**

**23 November 2005
DPU, Gower Street, London**

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Disclaimer

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Enabling urban poor livelihoods policy making: understanding the role of energy services DFID KaR Project R8348

REPORT OF INTERNATIONAL DISSEMINATION WORKSHOP 23 November 2005

Morning session

Introduction to the study

Joy Clancy (University of Twente and Project Team Leader) opened the session with a presentation of the background to the study and methodology. There is a lack of empirical data about energy use by the urban poor and policy making is based on the assumption that the urban poor have better access than rural poor to modern fuels. It is also a timely moment to review the impacts of energy market liberalization on low-income households. The objectives of the DFID KaR study were:

- To determine the role of energy in urban enterprises viability and the influence on household livelihoods.
- To analyse the role of social networks and relations in facilitating urban household.
- To analyse the impact of energy sector reforms on access by urban enterprises to energy services.

The study began in December 2003 and is to be finalized by December 2005. The aim of the workshop is to disseminate the findings of the study and to receive feedback from the workshop participants.

The methodology of the research has been a three country study – with partners in Nigeria, Philippines, and Brazil. A review of the literature on urban energy had also been made and published in a paper on best practice. The study was not intended to be comparative in the sense of collecting identical data.

A livelihoods framework was used to structure the research although it was realized during the formulation of the data collection strategy that the framework could potentially require the collection of too much data which were beyond the resources of the project. Therefore, four hypotheses were developed to give focus to the research.

1. Clean and affordable energy services are key factors in creating good physical well-being and productivity of urban household members.
2. Social networks and relationships facilitate access to energy services.
3. Energy services are key factors in sustainable urban livelihoods by establishment of new ones.

4. Energy sector reforms lead to improved access by urban enterprises to energy services.

These hypotheses were considered to capture all aspects of the livelihoods framework. Primary and secondary data were used to test the four hypotheses. Indicators were developed for each hypothesis.

Since urban households are complex in composition which would make data collection too complex it was decided to take enterprises rather than households as the starting point for sustainable livelihoods. The enterprise branches varied with the country but attempts were made to ensure that women were well represented as owners. An important aspect of the research was the capacity building of partners in conducting research.

In the questions section, the issue of how to incorporate gender into the livelihoods framework was raised. The study had not taken a specific gender focus so this has not been a direct methodological issue. However, enterprises selected for data collection had been ones where women predominate. One of the indicators has also asked specifically about who made decisions around energy.

The three country studies have already been presented at national workshops.

The three country studies

The three team leaders for the national studies presented their findings. Adriana Alvarez (Winrock International **Brazil**) report on the findings in two low-income districts of Salvador (Canabrava and Plataforma) where the focus was on micro-enterprises involved in the production and sell of food and beverage, beauty shops and seamstresses. Most (88%) of these small enterprises are not registered. This makes it difficult to get reliable information, because respondents are worried about who will have access to their data and in many cases they do not keep records of inputs and outputs in their enterprises as well as energy bills for the enterprise being impossible to disentangle from household bills. There is good access to electricity and LPG with 98% of households using these two energy sources. Despite the rise in energy prices (well above the inflation rate), there has been no downward transition to lower quality fuels. The explanation is that there are no biomass suppliers and biomass in the hinterland of Salvador is in short supply. Households have a number of electrical appliances, such as irons and refrigerators, which also double as equipment for the enterprises of the women in the household. While most households don't cite energy costs as a major concern, they were concerned about transport costs which had recently risen due to the oil price increases. Transport makes up to 30% of household monthly budgets.

The discussion in response to the study in Brazil focused on the near universal access. Affordability is seen as the main issue related to energy. Also second hand equipment is used extensively with low energy efficiency

(for example, perished rubber seals surrounding refrigerator doors). A criticism that can be made of utilities is their lack of visibility in poor communities. The utility representative at the national workshop had been so surprised to learn that in the communities in the studies no-one seemed to know of their special programmes to help the poor that she promised to take action. A representative from the Ministry of Energy in Brazil has also expressed interest in the study.

Feri Lumampao from APPROTECH presented the findings from the **Philippines** where two areas of Metro Manila (Marikina City and Manila City) formed the focus of data collection. Water was considered more of an issue than energy for the residents in the low-income areas. Electricity availability had improved since the energy market liberalization process had been instigated, although there are concerns about the price increases and connection fee (around US\$ 22) is more than 50% of many households' monthly income. LPG and kerosene supply had certainly improved. It is interesting that in most households there is joint decision making about purchases including energy sources and technology. APPROTECH had focused on enterprises that are involved in food processing, small restaurants and eateries and shoe-making many of which are located in the household. There are worrying signs in these enterprises due to energy price increases that some have gone out of business, some have laid off staff and there has been some shift away from LPG and kerosene to charcoal, particularly amongst households with rural networks. Another worrying trend has been the increase in households buying food from street vendors to reduce cooking costs. There is also an increase number of ambulant food vendors without or with limited facilities for preparing and cooking hygienic and healthy food which has implications for people's health.

During the discussion about the results from the Philippines concern was expressed about the downward transition to charcoal. There are a number of factors mitigating against switching from charcoal – firstly the taste that imparts to food and secondly its ready availability in quantities that people can afford to buy. APPROTECH has been working on disseminating a fuel efficient charcoal cookstove. Despite the difference in price between the improved stove (US\$ 3.5 to 5) compared to the traditional stove (US\$ 1 to 2), this has not proved a deterrent to sales. Since people have been sensitised to the dangers of indoor air pollution they appreciate the lower levels produced by the improved stove.

The findings from Nigeria were presented by Olu Maduka, from Friends of the Environment. Data was gathered from 4 urban communities in Lagos and Abuja (two communities in each city, the old and the new urban poor) where the enterprises of interest were fish harvesting/smoking, cassava processing (both Lagos), pottery and akara (pastry) frying (both Abuja). Irregular supplies and high tariffs of electricity have hampered wider usage and it is mainly restricted to use for lighting. Kerosene is used for cooking because of the crowded housing conditions, whereas fuelwood is used in most of the enterprises. An interesting finding was the role of faith-based organizations in enabling urban residents to have access to electricity connections as well as

repairs and maintenance. An example of the impact of the recent oil price increases can be seen in fish processing where income and growth in business size have been negatively affected. Fish harvesters have been prevented by new laws from buying petrol in jerry cans which they used to do from filling stations. So they now spend more money buying petrol in jerry cans from third parties. Meanwhile the women who smoke the fish have had to suffer increases in fuelwood prices which has been caused by higher transportation costs linked to the oil prices. Deregulation of the downstream petroleum marketers will be allowed to import and sell refined products based on import parity which is believed that the competitions will eventually drive the prices of refined products down. In October 2003, the government announced the full deregulation of the downstream sector. However, it has been unable to fully deregulate the price of PMS due to the agitation of the labour unions. Nigeria, particularly the poor, is still waiting to see the benefits of a deregulated energy market.

There was some discussion about how was the best mechanism to enable access to electricity since the high connection cost was a significant barrier to low income households in Nigeria. Low tariffs for an initial specified number of kilowatt hours had been problematic in Ghana due to the nature of households where one connection was used by an extended family. This quickly pushed the households into high tariff brackets and they ended up paying more for their electricity than under the old system. South Africa had overcome this by making the initial kilowatt hours free. The card system had not been successful in Nigeria due to tampering. South Africa has a fairly fool proof system but it is very expensive to install. Illegal settlements also find it difficult to get a connection. Public sector utilities are then constrained to supply them whereas the feeling was that this would not be problematic to the private sector. The lack of a physical address was also a barrier to getting a connection. Again private sector suppliers might be the answer since there was the attitude that public sector was 'government' so that there was no need to pay. Illegal connections were not always done by the low-income groups. In Nepal there is the interesting example of the communities buying electricity in bulk and then selling to individual consumers, with the community taking the responsibility for ensuring payment.

Afternoon session

General findings and testing the hypotheses

Joy Clancy presented the general key findings from the study. There is a strong linkage between household energy and enterprises – particularly for women. Therefore interventions to address household energy should keep this in mind since the equipment for one might double for use in the other.

Energy market liberalization had brought mixed results for low-income households. Availability of petroleum fuels has improved but electricity has not – although there has been a distinct improvement in quality of supply. The recent price increases in petroleum fuels has brought no discernable transition down the fuelwood ladder *where there is no access to wood fuels*. It does however bring other energy coping strategies some of which can be

seen to be beneficial, such as improved stoves, and others can be seen as worrying, such as skipping meals. There is no upward transition to better quality fuels since the price of petroleum fuels becomes a real barrier. Access to electricity is hampered by the connection cost. The flavour imparted by fuel is barrier to transition from charcoal to modern fuels.

Energy price rises are affecting informal sector enterprises viability since there is evidence to show that enterprises have closed, people have been laid off and decisions to expand business have been put on hold. Interesting evidence from Nigeria showed that general support to enterprise development not only energy target programmes can induce fuel switching. The nature of informal enterprises, such as size, legality and turn over, can be barrier to taking up micro-credit. The role of food vendors on the urban poor's lives was a particular concern.

In respect of hypothesis 1, (*clean and affordable energy services are key factors in creating good physical well-being and productivity of urban household members*), the results are supportive but no definitive correlation can be said to have been found. In terms of health, water quality plays a more direct role than energy, although indirectly it affects the opportunity to boil the water which can contribute to water quality. There are concerns that the health of poor people is being affected by energy costs, causing them to skip meals and using informal sector vendors where hygiene standards are not always high.

Evidence from formal energy sector organizations is negative in support of hypothesis 2 (*social networks and relationships facilitate access to energy services*) where these organizations do not appear to be getting their message across. In terms of NGOs and CBOs trust by the community in these organizations is important. Evidence from Nigeria with non-energy sector organizations is positive where faith based organizations have played a significant role in facilitating access to energy and repairs and maintenance. It was also found that there is a link between income and who makes the decisions in households on energy issues (which also impacts on enterprises): the lower the income the more likely men are to make the decisions. This strongly underlines the need to engage men in initiatives that are intended to make women the main beneficiaries, particularly to avoid preventative action by men.

In respect to hypothesis 3 (*energy services are key factors in sustainable urban livelihoods by increasing the viability of existing enterprises and enabling the establishment of new ones*), the evidence is supportive. Energy availability has led to a proliferation of service enterprises, such as ironing. The viability of enterprises is seriously being strained by the oil price rises which impacts on wood fuel prices in urban areas due to the component in the price related to transport. Informal sector enterprises are closing and staff are being laid off.

The evidence for hypothesis 4 (*energy sector reforms lead to improved access by urban enterprises to energy services*) shows that it is availability

rather than access that has improved with energy market reform. The petroleum sector has shown better success than the electricity utilities in benefiting the urban poor (although it is probably too early to draw definitive conclusions in Nigeria where the reform process started later than the other two countries). There is clearly an example of best practice benefiting the urban poor by the petroleum sector regulator in the Philippines who has responded to complaints of tampering with LPG cylinders, which not only guarantees consumers a fair deal but also preserves the image of the sector.

Much of the discussion in the afternoon session centred around the best way to disseminate the findings so that the results could have an impact on decision makers. The partners had all had to develop dissemination strategies¹ as part of the conditions of the KaR funding and these strategies had to be more than reports and the workshops. The special issue of ENERGIA News which will be published early in 2006 is part of the strategy. The project team felt that they could already count some successes of stimulation activities:

- The electricity utility in Brazil promising to take action to improve communication with communities about programmes intended to benefit them.
- APPROTECH has a project funded by UNDP Regional Energy Programme for Poverty Reduction (REP-PoR) with ambulant food vendors.
- The European Association of Development and Training Institutes (EADI) Gender and Development working group is to organize a meeting on faith based organizations and their role in women's lives.
- The University of Twente will carry out research on wood as a capital asset for women based on a finding in the Nigeria study and it will ask a student to make a case study of the Philippines regulator.

There was some discussion on how the results could be presented in a useful format for decision makers – the message should not necessarily be target at the energy sector people. Recommendations should be target and more in the form of 'how to do it' rather than 'what to do'.

There was a general discussion about the strengths and weaknesses of the DFID KaR programme (although this was rather academic since the programme does not exist in the format under which this study was funded).

¹ These can be found on the project website: <http://www.urbanenergy.utwente.nl/>

APPENDIX 1

Enabling urban poor livelihoods policy making: understanding the role of energy services

International Workshop
23 November 2005
DPU, Gower Street London

Programme

09.30	Registration – Coffee
10.00	Welcome and introductions
10.30	Background to the study and methodology Joy Clancy, University of Twente.
11.00	Brazil country study Adriana Alvarez, Winrock International Brazil
11.30	Coffee
12.00	Philippines country study Feri Lumampao, APPROTECH
12.30	Nigeria country study Olu Maduka, Friends of the Environment
13.00	Lunch
14.00	Synthesis report: Key findings and testing the 4 hypotheses
14.45	Discussion of results Discussant: Sheilah Miekle, DPU
15.30	Tea
16.00	Wrap-Up Jeremy Doyle, DFID

APPENDIX 2

Participants list

Adriana Alvarez, Winrock International, Brazil
Simon Batchelor, Gamos
Joy Clancy, University of Twente, The Netherlands
Jeremy Doyle, DFID
Dick Jones, GVEP
Feri Lumampao, APPROTECH
Olu Maduka, Friends of the Environment
Sheila Meikle, DPU
Kavita Rai ITPower
Nigel Scott, Gamos
Denise Oakley, Future Energy Solutions
Erin Boyd, EcoHarmony/HEDON

APPENDIX 3

Presentation by JOY CLANCY

Department of Technology and Sustainable Development,
University of Twente, The Netherlands

'Enabling urban poor livelihoods policy making: understanding the role of energy services'

Background

- Assumption: urban poor have better access than rural poor to modern fuels
- Lack of empirical data
- 30% of urban households in SA have no electricity
- Poorest 20% spend higher portion of income on fuels (of lower quality) than richer households
- Biomass still the fuel of the poor – use declines with city size
- Scavenging?
- Energy market liberalisation impacts?
- Studies neglect intra-household decision making

Study Objectives

- To determine the role of energy services in urban enterprise viability and the influence on household livelihoods.
- To analyse the role of social networks and relations in facilitating urban household livelihoods.
- To analyse the impact of energy sector reforms on access by urban enterprises to energy services.

Outputs

- Best Practices Paper: Energy Services for the Urban Poor (March 2004)
- 3 Country Reports which explore the urban livelihoods and energy nexus (1st half 2005)
- 3 National Workshops (1st half 2005)
- Synthesis Paper (November 2005)
- Briefing note (November 2005)
- International Practitioners Workshop (Nov 2005)
- ENERGIA News Special issue on gender, energy and urban livelihoods (January 2006)

Methodology

- 3 country study – Nigeria, Philippines, Brazil
- Livelihoods framework
- 4 Hypotheses developed
- Primary and secondary data
- Data gathering and analysis tools for energy-poverty-gender linkages

Approach

- Urban households are complex

- Enterprise not household is taken as starting point for sustainable livelihoods
- Enterprise branch varies with country
- All will look at informal ESCOs
- Indicators developed for each hypothesis
- Capacity Building of partners

Hypotheses

- Clean and affordable energy services are key factors in creating good physical well-being and productivity of urban household members.
- Social networks and relationships facilitate access to energy services.
- Energy services are key factors in sustainable urban livelihoods by increasing the viability of existing enterprises and enabling the establishment of new ones.
- Energy sector reforms lead to improved access by urban enterprises to energy services.

Indicators (Hypothesis 1)

- Health (meals;water potability & sanitation;smoke)
- Working days
- Perceptions of well being
- Involvement of child labour

Indicators (Hypothesis 2)

- Information flows about energy services
- Decision making with hh/enterprise
- Involvement of community in CBOs/NGOs; formal associations/clubs

Indicators (Hypothesis 3)

- Energy services and equipment available
- Physical variety of forms, quantity and reliability.
- Demand driven
- Price
- Repairs – timely & availability of spare parts
- Server provider's perception of end users
- End users perception of energy service
- Viable enterprise

Indicators (Hypothesis 4)

- Financial mechanisms to facilitate access to clean energy forms
- New policies in place related to energy & enterprises
- Expansion of service delivery
- New suppliers enter market
- Quality of services

Key Findings 1

- Linkage between household energy & enterprises – particularly for women
- Energy market liberalisation: Availability of petroleum fuels has improved; electricity not

- No discernible transition down the fuelwood ladder where there is no access to wood fuels
- Food flavour imparted by fuel is barrier to transition

Key Findings 2

- Energy price rises are affecting informal sector enterprises viability
- Support to enterprise development can induce fuel switching
- Nature of informal enterprises can be barrier to taking up micro-credit
- Informal food vendors have key role in urban poor's lives.

Testing the hypotheses 1

- Clean and affordable energy services are key factors in creating good physical well-being and productivity of urban household members.
- Results are supportive but no definitive correlation.

Testing the hypotheses 2

- Social networks and relationships facilitate access to energy services.
- Evidence from formal energy sector organisations is negative
- Evidence from Nigeria with non-energy sector organisations is positive
- Testing the hypotheses 3
- Energy services are key factors in sustainable urban livelihoods by increasing the viability of existing enterprises and enabling the establishment of new ones.
- Evidence supports the hypothesis.
- Testing the hypotheses 4
- Energy sector reforms lead to improved access by urban enterprises to energy services.
- Confirmed in oil sector in Brazil and the Philippines – but not for electricity (possibly too early to say in Nigeria)
- Availability rather than access has improved.

Presentation by ADRIANA ALVAREZ - WINROCK International Brazil

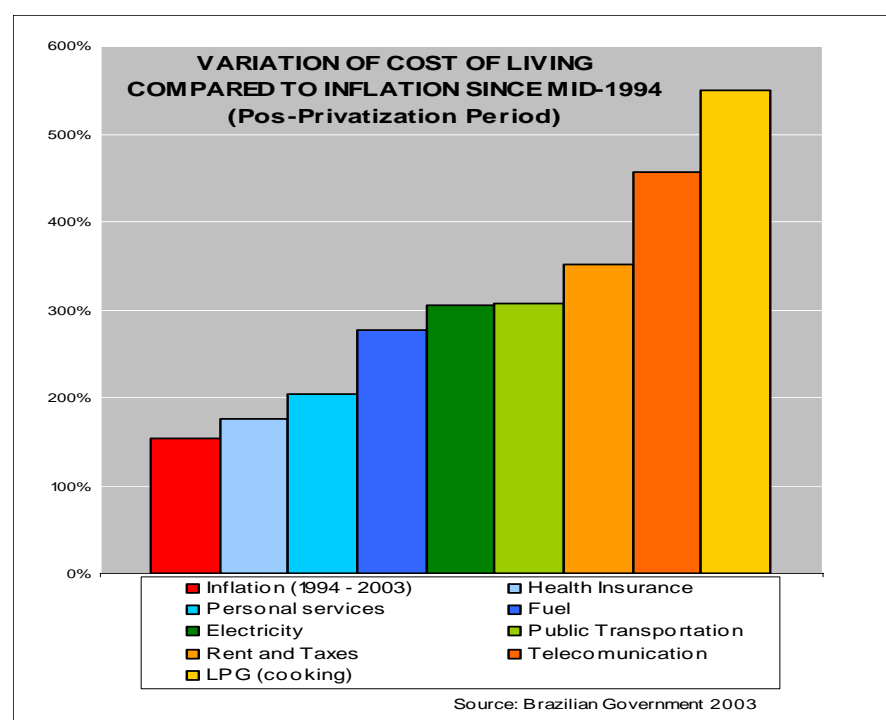
'Enabling urban poor livelihoods policy making: understanding the role of energy services'

Salvador – Bahia - Brazil

- Population: 2,631,831
- 85% Afro desc.
- HDI 0.693
- Unemployment: 24.7%

Background to Study

- Significant improvements in health, education and housing conditions however social inequality remains strong
- Informal economy – near half of economically active population
- Privatization in early 1990's
- Energy crisis in 2001
- Taxes that penalize small businesses



The Communities – Cities within the City

- Plataforma
- Canabrava

Selection Criteria of Communities

- Different histories, population density and settlement
- Geographic location within the city
- Experience with alternative use of energy sources (Canabrava)
- Adequate conditions for carrying out the study

In Country Methodology

- Sample – 250 households in each neighborhood. Additional 14 (9 in Plataforma and 5 in Canabrava for small enterprises case studies)
- Household questionnaire
- Enterprise questionnaire
- Transact walks
- Secondary sources
- Participatory appraisals
- Focus Groups
- Interviews with key individuals
- Case studies

Selection Criteria

Households:

- 10 streets – according to observation made in neighborhoods and IBGE sector maps

Enterprises:

- Household questionnaire included 12 questions to provide initial data. Criteria for selection included, a) great incidence in the community, b) intense use of energy sources, c) gender of the owner to include both male and females in survey.

Key Findings – Household Survey

Socio-economic traits

- Nuclear families – three to five people (house extension and family proximity)
- High proportion of female headed households – average of 42% (higher than national of 25.5%)
- Family income: 50% (1- 2 minimum wages or 76 pounds) in Canabrava and 31% in Plataforma. Most are female headed households.
- Occupation: retired, housewives, and domestic workers
- Education – 39% have not completed elementary school

Key Findings – Household Survey

Housing conditions

- 60% had up to 5 rooms
- 80% are home owners
- Better conditions in Plataforma – 49.5% in Canabrava had asbestos roof (cancer and heat)
- 75% had garbage collection services
- 98% internal water piping system – universal complaint about service (water comes every other day in Canabrava)
- Inadequate sewage system – 58% linked to public system and 23% canalized to ocean/stream

Key Findings – Household Survey

Health issues

- 25% evaluated as being excellent and 30% as regular
- High blood pressure, tired eyesight, backache, cough, and sinus problems were the main complaints

- 20% drink untreated water

Key Findings – Household Survey

Diet, nutrition, and food security

- Similar in both – beans, rice, meat, and cassava flour – except for intake of seafood
- Satisfaction: 85% in Plataforma
52% in Canabrava
- Mostly items that would be included are greens and fruit.

Key Findings – Household Survey

Energy Sources and Usage

- 98% connected to the grid
- 43% consume up to 100 kWh/month
- Appliances/equipments mostly used: color TV (97%); refrigerator (87%); blender (80%); iron (76%), cell phones (42%)
- 98% use LPG
- Electric installations and maintenance - one third were not made by a professional
- Transportation cost – 30% of family budget

Key Findings – Household Survey

Well being

- Main complaints – lack/shortage of money and unemployment
- Definition of well being – good health, live in peace, and have money/good job
- Leisure: watching TV (77%); talk/visit friends (60%); go to parties/festivals 35%. 78% complaint about lack of options for leisure in both communities

Key Findings – Household Survey

Well Being

What needs to improve:

In Plataforma

transportation system

employment rates

local health care

options for leisure

security system

In Canabrava

security

health center

number of schools

linkage to main sewage

transportation

Key Findings – Small Enterprises

General Overview

- 51 interviews (26 in Canabrava and 25 in Plataforma)
- 88% led by women
- 39% services; 52% production and retail; 9% commerce
- 54.9% production and sell of food and beverage; 25.4% own beauty shops; and 19.7% seamstresses
- 50% learned trade through family and 43% learned on their own.

Key Findings – Small Enterprises

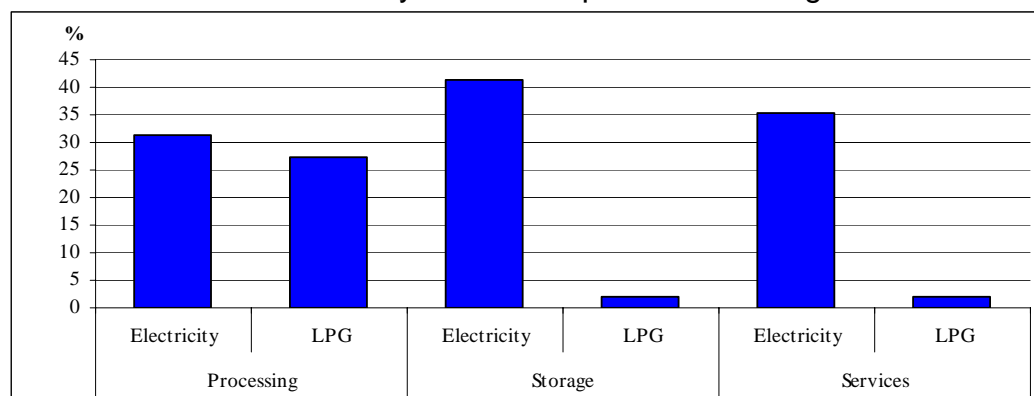
Weight/informality of enterprises

- All less than 5 years without knowledge/training in business management
- 84% In Plataforma and 92% in Canabrava are not legally registered
- 60% work alone
- Business at home
- Revenue 130 pounds a month – fear of disclosing information

Key Findings – Small Enterprises

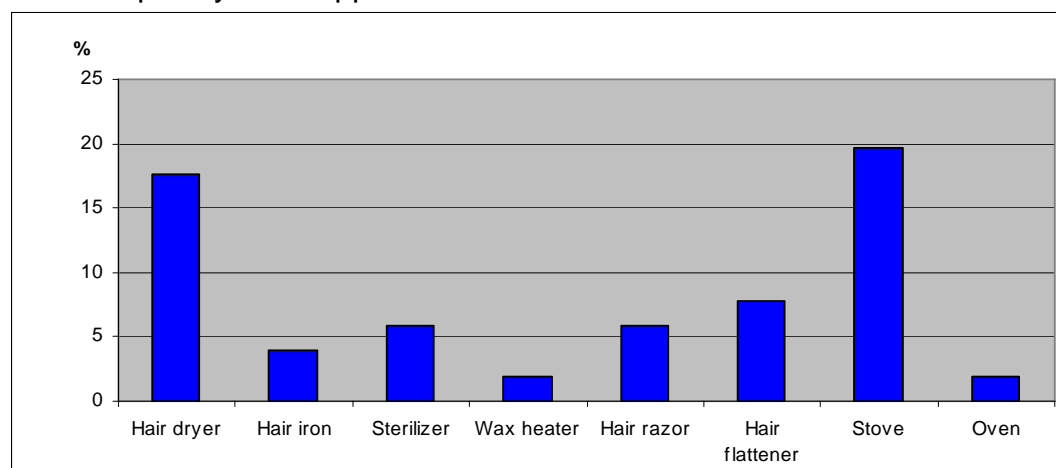
Sources of energy used

- Electricity (57% up to 24 pounds per month). 46% in Canabrava did not know!
- LPG – one to two tanks per month (7- 14 pounds)
- Gasoline/diesel for transportation – Plataforma up to 24 pounds per month whereas in Canabrava they tend to shop and sell in neighborhood



Key Findings – Small Enterprises

Most frequently used appliances:



Key Findings – Small Enterprises

Health related to work

- 56% backaches
- 56% sore eyes
- 52% sight problem
- 36% high blood pressure
- 32% allergies
- 76% think these problems do not effect the performance of their business

Recommendations

- COELBA – take results of studies to improve policies
- Benefits more accessible to urban poor
- Target making illegal connections legal instead of punishing consumers
- Micro finance needs to target very low income groups and provide business/financial training
- Comparative study – urban vs rural
- Apply research to needs addressed by community regarding energy sources
- Expand services of biogas plant

Presentation by FERI G. LUMAMPAO - Approtech

'Enabling urban livelihoods policy making: understanding the role of energy services'

Country Study Report: PHILIPPINES



Research methodologies

- Literature review of energy policies and situations in the Philippines
- Interview questionnaire
- Participatory Urban Appraisal technique
- Transect walk
- Focus Group Discussions

Locale

- Manila – 6 districts
- Marikina – 2 districts

Research sample – selective purposive sampling technique

- urban poor sectors

Sample size

- 1100 inclusive of households and enterprises

The Philippines - Energy background

Electricity

- Manila and Marikina are in the Luzon grid –
- 75% of the national electricity demand
- Distribution done by IPPs, municipality-owned utilities, and rural electricity cooperatives
- MERALCO - distributes more than 75% of national sales

General Results

Hypothesis 1

‘Clean and affordable energy services have positively contributed to the respondents’ health and well-being’

Indicators

- Respondents who can afford energy services (electricity) have less health problems
- LPG for cooking. Dirty kitchens (smoke are at the back of the house)
- Expensive water supplies; lack of potable water indicate high incidence of water-borne diseases
- Relatives involved and hired in enterprises
- Sense of well-being: migrants have stayed in Manila and Marikina for more than 10 years-(easy adjustment)
- Enterprises: buy and sell or trading; food processing; small restaurants and eateries; shoe-making industry

Hypothesis 2

‘Social networks do not necessarily facilitate community members’ access to energy services’

Indicators

- Majority of respondents do not belong to social organizations nor electric cooperatives
- In the locales, it is MERALCO that dictates electricity prices and access
- Installation fee is more than 50% on the monthly income of poor-pilferage is high
- Common organizations joined are religious and civic orgs.
- Decision making in the household is done by whoever earns; sometimes by both spouses
- Electricity-main source of power in homes

Hypothesis 3

Performance of enterprises is directly related to availability of energy services

Indicators

- Energy services increase viability of existing enterprises and establishments of new ones
- Energy services: electricity-high rates on energy consumption
- Potable water supply is a problem

- Fuels-LPG, kerosene, charcoal
- Traditional cookstoves
- Water and electric bills- from PhP600 to 1, 500 (as of 2004)
- Appliances are repaired instead of buying new ones

Hypothesis 4

‘Energy sector reforms are critical to improved access to clean and affordable energy services by local enterprises’

Indicators

- Urban poor have mechanisms to respond to economic crisis and high cost of energy
- Department of energy regulates power price increases
- MERALCO rapidly expanding; absence of regular brown-outs in urban areas
- Micro-enterprises depend on electricity; but the neighborhood fish balls; banana q; vendors use gas stove and charcoal to cook food product

Findings

Rising cost of energy results to

- Households buying food from street vendors
- Increasing number of ambulant food vendors without or limited facilities for preparing and cooking hygienic and healthy food
- Increasing number of incidents of water-borne diseases, bacterial and viral diseases, esp. among school age children
- Shifting from LPG and kerosene to charcoal
- Practicing energy-saving tips
- Boiling water for drinking and buying water filter gadgets
- Borrowing from individuals or micro-finance institutions
- Engaging in micro-business
- Retrenchment or shut down of operations

Recommendations

- Conduct nationwide campaigns on modern energy services and uses for healthy living and sustainable enterprises
- Promote and commercialize energy-efficient products and services
- Encourage the poor to organize lobby groups or become members of organizations facilitating energy services and reforms
- Lobby in congress for reforms on energy and electrification

Presentation by OLU MADUKA

‘Enabling urban livelihoods policy making: understanding the role of energy services’

Country Study Report: NIGERIA

DATA COLLECTION

Data was gathered from 4 urban communities in Lagos and Abuja (two communities in each city, the old and the new urban poor). A total of five hundred and ninety- eight (598) instead of the planned six hundred (600) households/enterprises were surveyed. The enterprises of interest are fish harvesting/ smoking and cassava processing in Lagos while pottery and akara (pastry) frying were selected for Abuja.

PROJECT SAMPLING TECHNIQUES

The planned and actual households and enterprises interviewed during the field survey are given below

Community	Households		Enterprises	
	Planned	Actual	Planned	Actual
Ilaje	150	134	50	63
Amukoko	150	120	50	35
Kwali	75	97	25	25
Karmo	75	100	25	24
Total	450	451	150	147

FINDINGS

GENDER OF HEAD OF HOUSEHOLD

Gender	Community				Total
	Ilaje	Amukoko	Kwali	Karmo	
Male	100	84	61	82	327
Female	32	24	36	18	110
Total	132	108	97	100	427

HYPOTHESIS 1

‘CLEAN AND AFFORDABLE ENERGY SERVICES ARE IMPORTANT FOR GOOD PHYSICAL WELL BEING AND PRODUCTIVITY OF HOUSEHOLD MEMBERS’

- Clean forms of energy include electricity, LPG, etc. Nigerians expect these forms of energy sources in abundance and our findings revealed that electricity is the preferred energy form used for lighting in these communities. However, irregular supplies and high tariffs have hampered wider usage. There is a switch to other sources considered more reliable but not as clean, for example the kerosene lamps. The availability and access to

electricity supply play an important role in facilitating household activities like lighting, cooking, washing, bathing, ironing grinding and entertainment etc. Irregular supply of electricity has impacted negatively on the households both in their well being and productivity

- It was discovered that most respondents in Lagos use kerosene for cooking due to space constraints in their accommodation. Kerosene stove usage however constitutes a health hazard to users, particularly with a daily exposure of 1hr- 3hrs daily. Their preference for cleaner burning fuels such as gas and electricity revealed the level of awareness of the community members on the environmental and health benefits of cleaner burning fuels.
- Our finding revealed that clean and affordable energy services are important for good physical well being and productivity of household members.

HYPOTHESIS 2

‘SOCIAL NETWORKS AND RELATIONSHIPS FACILITATE ACCESS TO ENERGY SERVICES’

- Religious organizations dominate the types of organizations the communities’ residents belong to. 52 percent of respondents belong either to Christian or Muslim associations. Other organizations which respondents belong to are Cooperative Societies (9 percent), Social Clubs (8 percent) and Business Associations (4.5 percent).
- Since the majority of respondents belong mainly to religious organizations they get repairs and maintenance, connection and energy by virtue of their membership of these religious organizations and in their ability to pay professionals and technicians for their services when so required.
- Our findings revealed that social networks and relationships do facilitate access to energy services.

HYPOTHESIS 3

‘ENERGY SERVICES ARE KEY FACTORS IN THE SUSTAINABLE LIVELIHOODS BY INCREASING THE VIABILITY OF EXISTING ENTERPRISES AND ENABLING THE ESTABLISHMENT OF NEW ONES’

- Pottery involves the use of various energy technologies and utilizes kerosene and fuelwood as major sources of energy. The use of LPG which is a clean fuel is however not affordable or readily available. Fish processing has been affected by the increase in fuel price particularly in the areas of income and growth in business size. The inability of fish harvesters to move their engine boats to petrol filling stations for fuel due to policy issues have impacted on their income as they spend more money buying petrol from third parties in jerry cans. Fuel wood as a major source of energy for fish smoking and akara frying has been adversely affected by the increase in transportation price and this has affected the growth of these enterprises.

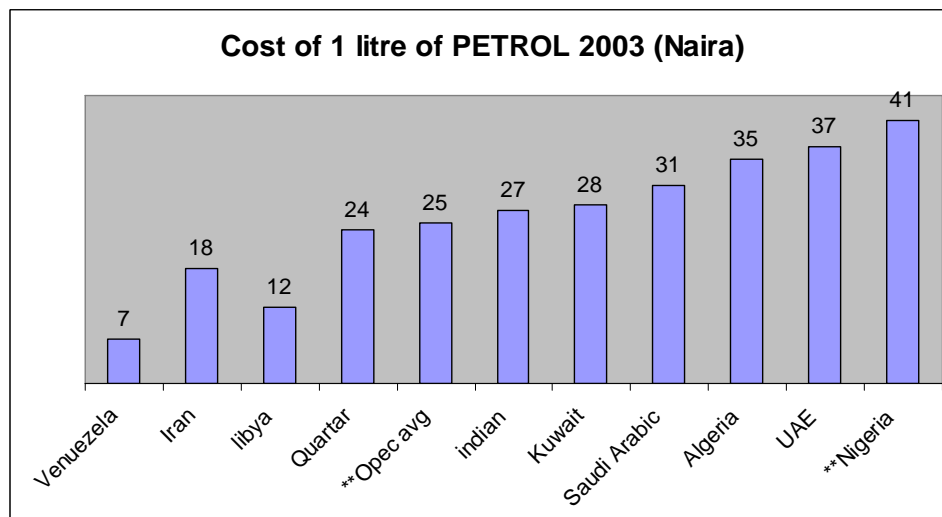
- Fuelwood and kerosene are major sources of energy for fufu making. Increase in fuel prices have affected this enterprise adversely but entrepreneurs are willing to endure the hardship this has placed on their living conditions. They believe that government's intervention in accessing credit can promote the profitability and growth of their businesses. Also, reduction in the prices of petroleum products , and electricity tariff will enhance the growth of their businesses.
- Findings from the study have been able to establish a strong link between energy services and the viability of the surveyed enterprises, as well as the establishment of new ones.

HYPOTHESIS 4

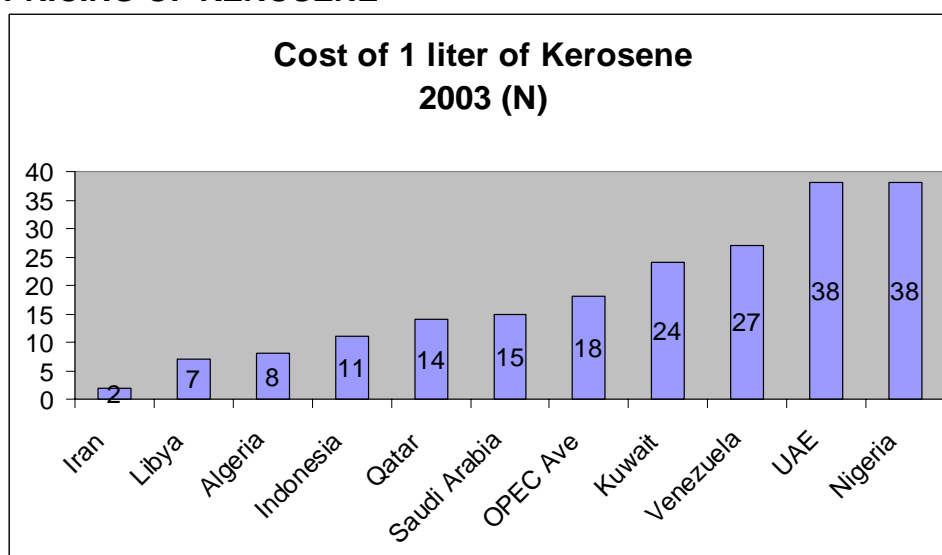
'ENERGY SECTOR REFORMS LEAD TO IMPROVED ACCESS TO CLEAN AND AFFORDABLE ENERGY SERVICES BY ENTERPRISES.'

- The Nigerian government is currently implementing public sector reform programmes geared towards reducing poverty, eradicating corruption, and empowering the private sector to become the engine for economic growth. This reform initiative called the National Economic Empowerment and Development Strategy (NEEDS) has identified the deregulation of the downstream oil sector a key aspect of the reform programme.
- The Nigerian government claims that petroleum products prices are subsidized. However, critics on the other hand claim that what the government calls subsidy should appropriately be referred to as opportunity cost since the government is not losing money from either crude oil sales or locally refined products sales. The lack of recourse to facts and data when speaking of oil subsidy in Nigeria has made governments position weak. Comparison of petroleum products prices with other OPEC countries revealed that in 2003, Nigeria had the highest prices for petroleum products among this club of oil producing nations. While most of the countries have maintained their prices, prices in Nigeria have increased substantially between 2003 and 2005.
- Deregulation of the downstream petroleum sector has been a major policy objective of this government where petroleum marketers will be allowed to import and sell refined products based on import parity. Because it will be free entry and exit, it is believed competition will eventually drive the prices of the imported commodity down. In October 2003, the government announced the full deregulation of the downstream sector. However, it has been unable to fully deregulate the price of PMS due to the agitation of the labour unions against frequent adjustments in the price of PMS. As a result, the NNPC, the Nigerian National Petroleum Corporation, is saddled with the task of importing petroleum products into the country and which currently sells for an average of about N65 nationwide.

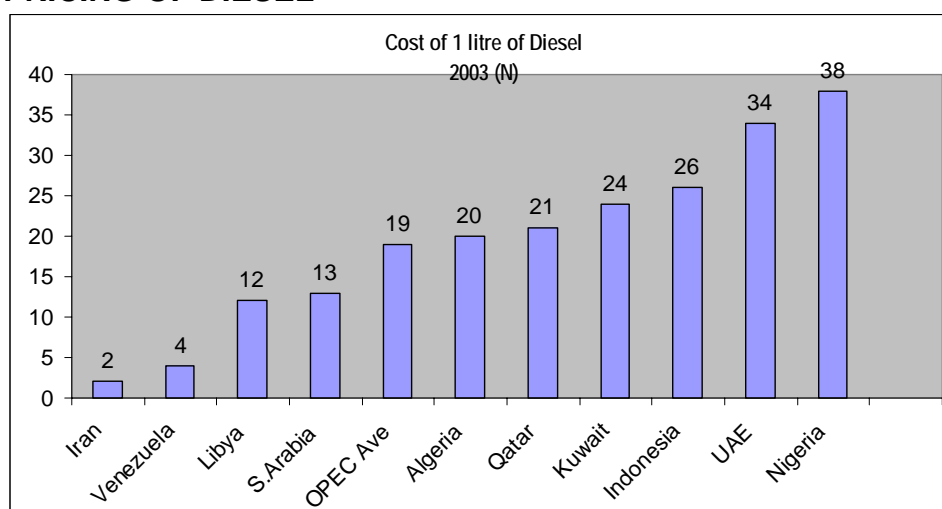
PRICING OF PETROL



PRICING OF KEROSENE



PRICING OF DIESEL



HYPOTHESIS FOUR FINDING

Our findings revealed that the energy sector reforms will lead to improved access to clean and affordable energy services by enterprises. An important thrust of reform in the energy sector is commercialization and privatization which will make products more readily available to enterprises albeit at a higher price at least in the short run.

RECOMMENDATIONS

The following recommendations may be considered in making the National Energy Policy more pro-poor and gender sensitive

- Subsidy and taxation on fuels should be designed to achieve access of cleaner energy to the poor
- Need to increase widespread access to fuel supplies as this is important in encouraging the transition to modern fuels. There is need to address equity of access across the community if the poor are to access higher grade fuels.
- Appropriate finance mechanisms for equipment and fuel supply should be implemented to allow a wider access to higher grade fuels at a lower unit cost to the poor.
- Community Based Organizations and associations should be recognized as legal entities to deal with utilities company such as NEPA
- Low tariffs for the first few KW hours of energy usage should be encouraged so that those with only limited loads (lighting, for example) can afford to have access to electricity connection and pay their bills.
- The policy of categorizing slums as illegal settlements, and the consequent refusal of utility companies to provide legal connections, should be reviewed.
- Renewable energy technologies to provide electrification should be considered for rural communities and the poor urban communities.
- There is need for affirmative and pro-active action to encourage women into policy making bodies.