

The impact of changes in the energy industry on the urban poor

COUNTRY REPORT - ALBANIA

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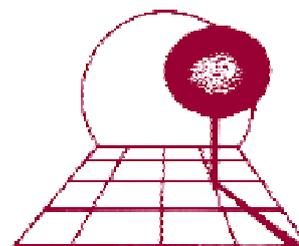
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1 Introduction

The electricity supply industries in former centralised economies have been identified as a priority for economic development. Governments, supported by incentives of loans and investments from international institutions, have implemented policies of liberalisation and privatisation. Such policies are primarily based on macro economic considerations, but the authorities recognise the gravity of the potential consequences of increased electricity costs, especially on the poor.

In a DFID¹ funded project bringing together NGOs and energy institutions in Albania, Kyrgyzstan, and Moldova, Gamos have conducted field research aimed at helping policy makers and CSOs understand the likely impact of changes in energy supplies on the urban poor.

The research uses statistical analysis to identify how people's behaviour with respect to energy use has already changed, and how they are likely to cope with forthcoming changes. The purpose of the workshop is to explore the implications of these findings on energy reform and social protection policy.

2 Research Methodology

The project process comprised preliminary surveys in Tirane (Albania), Biskek (Kyrgyzstan), and Chisnau (Moldova), which provided opportunities to interview policy makers and stakeholders. Focus group discussions with residents were held in subsequent visits, and helped identify salient issues in each country context, which were used in the design of household questionnaires. Detailed household surveys have been conducted in each city, and a preliminary analysis of the data has been completed. This is now being subjected to expert consultation (the purpose of the workshop) before final reporting and dissemination of project outputs.

The questionnaire comprised the following sections:

- Household descriptors, including employment and housing status
- Household energy use and changes in fuels
- Impact of tariff reforms, including likely coping strategies and outcomes
- Problems experienced with electrical supplies
- Household financial.

The analysis aims to assess how people will react to changes in energy markets – increases in prices, and enforcement of payment (electricity). The options are illustrated in Figure 1:

- Pay more
- Change to cheaper fuels
- Reduce energy consumption

It goes on to consider the possible implications of each of these.

¹ UK Department for International Development (DFID)

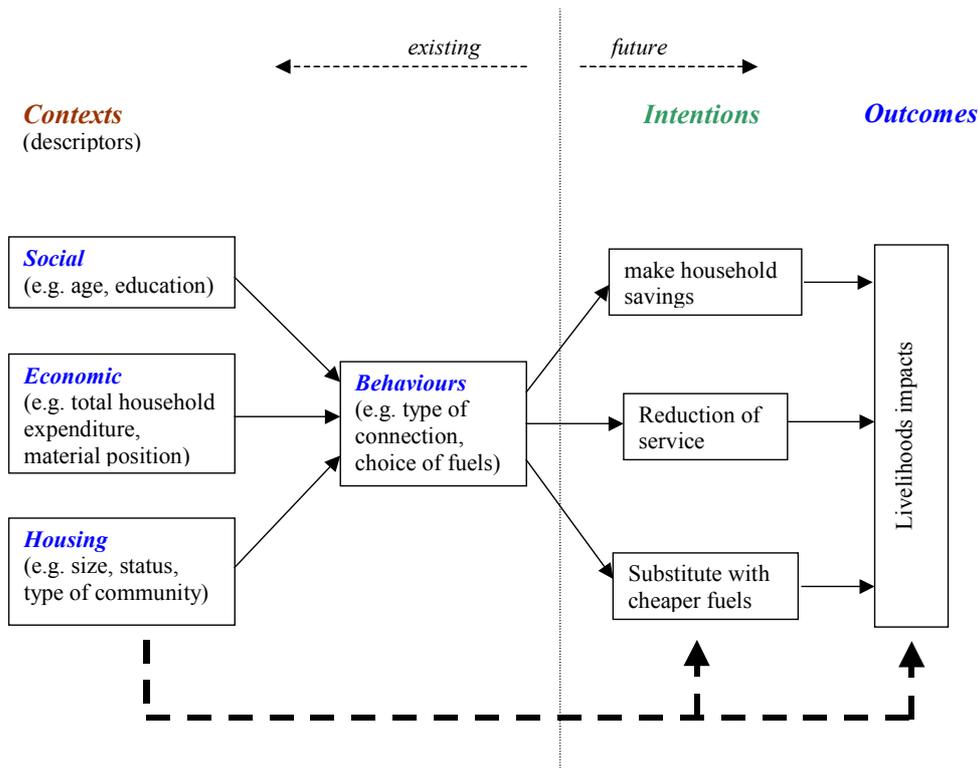


Figure 1 Links between indicators and behaviour

In Albania, a sample of 210 households was surveyed within urban (26%) and suburban (74%) neighbourhoods of Tirane (Kamez). The analysis uses non parametric statistical tests to look for the influence of various social groupings on behaviour and coping strategy².

3 Findings

3.1 Description of sample

An understanding of the types of communities sampled can be gained by the following key figures:

- The respondents were predominantly male (85%).
- The average age of all respondents was 45; The majority of respondents (40%) were between 35 and 45 years of age
- The majority of respondents have a tertiary or higher level of education
- 66% of heads of households claim to be unskilled workers; 27% professionals; 16% of spouses are involved in some form of unskilled paid labour.
- Only 10% of household heads are in full time employment, 22% are pensioners, and 8% are not working;
- The average size of household was relatively small (mean = 5.09). The average number of children per household was 1.66 children

² The Mann-Whitney U test has been used to test for differences between two groups, and tests present the probability (p value) that differences between two groupings have occurred by chance - differences with a probability of less than 0.05 have been taken to indicate a relationship. Similarly, when considering correlations between two variables, only where the p value associated with a Spearman Rank Order Correlation Coefficient is less than 0.05, and the correlation coefficient itself is greater than 0.2, has it been assumed that a valid relationship exists.

- The majority (80%) of the respondents live in individual houses, 18% in flats and only 2% in hostels or shacks³
- 28% of the respondents live in two room houses, but most people live in 3 room houses.
- 45% claimed their houses were not recognised by the municipal authorities
- The majority of the respondents (75%) claimed to have moved at some time from a rural village to Tirana; these people tend to lack legal tenure.

People were asked to rate the material position of their household on a subjective scale; the results correlate with other indicators of poverty (household income and expenditure, and inability to pay electricity and food bills). 34% indicated that they have difficulty providing food for the family; the majority can meet the food needs of the household but find it difficult to pay for utilities (57%), and only 9% claim to be in a position to meet the basic household needs.

The mean household expenditure per year is Lek 409,500. Those without legal tenure reported a significantly higher mean annual expenditure, and expenditure is higher amongst those reporting a stronger material position of the household.

3.2 Problems with Electricity Supplies

Power cuts are the commonly experienced problem (99.5% of sample), followed by voltage drop (86%), and people complain they occur 'all the time'. Overall, people feel that the frequency of both of these have deteriorated over the last 5 years, and that there has been a marginal improvement in voltage surges (fusing appliances).

3.3 Choice of fuels

The three main fuels used are electricity, gas (LPG) and wood. 99% of the sample have electricity, and 96% of households claim to have a legal connection to the grid. Most households still receive a forfait bills (58%) and only 37% have metered connections.

Table 1 Main choice of fuel

<i>Percent</i>	<i>Cooking</i>	<i>Space heating</i>	<i>Water heating</i>	<i>Clothes washing</i>
elec	22.9	10.0	71.0	66.2
LPG	65.2	58.1	16.2	13.8
wood	13.8	31.4	11.9	20.5

Most people use electric boilers for water heating (64%), resulting in a high use of electricity for water heating.

Gas accounts for the main energy expenditure amongst poor households (those that consider themselves in a weak material position, and those with low total household expenditure). In contrast, electricity accounts for the largest proportion of the energy budget amongst the better off. The proportion of energy budget spent on wood is highest amongst the better off, as only larger houses can be fitted with solid fuel appliances.

Choice of fuel for various activities is not, generally, sensitive to the key poverty groupings of material position of household or total expenditure. Exceptions are space heating, where poor

³ Defined by the interviewer by observation

households tend to spend a greater proportion of their energy budget on electricity and gas whilst the wealthy spend more on wood, and clothes washing on which those in weak material position spend a greater proportion on gas rather than electricity. Greater electricity dependency appears to correspond with greater fuel economy, whilst the use of wood appears to be associated with higher levels of energy expenditure.

3.4 Payment Patterns

Only 7% of the households sampled claim to always to be able to pay their electricity bill; At the time of the survey 25% claimed to have outstanding electricity debts; compare this with 6% having debts for food. 35% claim to make no payments, yet 99.5% of respondents feel that consumers should pay for their electrical consumption.

The average proportion of total household expenditure spent energy was 10%, but the figure increases with total household expenditure (those with the lowest household expenditure are only spending 6% on energy in contrast to 14% by those with the highest overall expenditure). Electricity bill payment patterns indicate that this may be due to non-payment rather than reduced energy consumption.

Households with metered connections spend a greater proportion of their energy budget on electricity than those with a forfeit bill.

22% have stopped paying electricity bills, most within the last 5 years (people stop when they see others get away with not paying), and 29% have started paying, most within the previous year. The payment of electricity bills is sensitive to both social and economic status - those in weaker socio-economic groups tend to demonstrate weaker payment behaviour. Households with “forfeit” bills are most likely to have stopped paying.

3.5 Changes to date

A number of questions were asked regarding perceived changes in the living conditions, including housing, health (child), employment, water and sanitation, education (schooling), communications, security, food and entertainment. The results were combined into a single index, which showed that the general feeling is that living conditions have improved slightly (mean = 0.18, range of scale -2 to +2). Positive changes relate to security, communications and education. In contrast deterioration is noted regarding employment and water and sanitation services. A more positive view is expressed by those with legal tenure (as opposed to those with illegal tenure), and those with larger dwellings.

The main reason given for inability to pay electricity bills was employment problems (74%) (loss of employment or changing to jobs with lower salaries); increased prices were mentioned by 19%.

A large number of respondents have changed fuels (whilst in their existing home). 32% of the respondents claim to have made a change in the fuel used for cooking; the majority were using electricity before and have now changed to gas. 25% have changed the fuel commonly used for space heating; again, the majority were using electricity while others (24%) were using wood. Gas appears to be the fuel most commonly adopted. *Cost* and *accessibility* were clearly the main reasons given for changing; cost appears to be more important in choice of space heating fuel as would be expected (heating uses a lot of energy).

Households which have changed cooking fuels have a higher total household expenditure, indicating that those with greater means are more likely to change fuels, reflecting an ability to pay for replacement equipment (especially when converting to LPG).

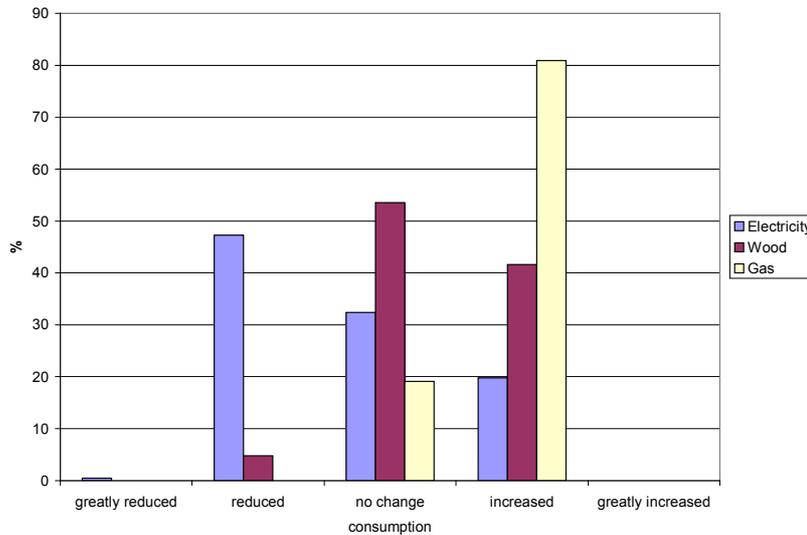


Figure 2: Perceived change in fuel consumption over last 5 years

Figure 2 illustrates how, overall, respondents feel that their consumption of electricity has reduced over the last 5 years, whilst their consumption of gas in particular has increased. Problems with access to electricity and reliability of supply were given as the reason for the shift away from electricity, along with the installation of meters; note that cost was rarely mentioned in response to open questions.

When asked about sources of information on electricity reforms, 38% of those that responded indicated that they were not interested in the issue. This apparent apathy, more acute amongst those in a weaker economic position, confirms that the impact of reforms has yet to be realised.

3.6 Impact of changes in the future

Enforcement of bill payments is seen as the most likely change in the future, and it is also regarded as likely to have the greatest impact. The perception of the impact of enforcement is consistent across most groupings, indicating that even the better off, and those who do pay their bills regard this as a threat. This indicates that the enforcement of paying bills on time will cause problems amongst most groups.

TV is the most effective medium for educating people on electricity reforms.

Of the three suggested coping strategies, changing to a cheaper fuel is clearly the favoured option, followed by a reduction in energy consumption (Table 2).

Table 2: Ranking of proposed coping strategies

Ranking	Pay more %	Change fuel %	Reduce use %
First	1.00	57.10	25.20
second	1.90	32.40	22.40
third	21.00	2.40	3.30
% response	23.80	91.90	51.00

Those with lower household expenditure are more likely to change fuels, which contradicts behaviour to date (fuel changes have occurred amongst better off households). Bearing in mind that most people are currently using LPG for heating and cooking (Table 1), the primary choice of alternative fuel is electricity, followed by LPG and then wood. Note that only those in a strong material position have a stronger preference for wood, and would choose LPG in preference to electricity. This may reflect financial barriers of equipment costs, or a lack of awareness of fuels costs. The main reason given for these choices of alternative fuels is cleanliness of fuel (26% of sample); economic considerations are second (8%). However, this is only true given the current mix of fuel costs i.e. cost could become a more influential factor if the cost of the preferred alternative (electricity) became prohibitively high.

When considering reduced use (energy conservation), space heating is clearly the application where people are most likely to make savings, followed by water heating and lighting. Households in the strongest material position show strikingly higher opportunities to make savings in lighting and cooking (indicating poor management at present), and a reluctance to sacrifice entertainment and household appliance use.

There appears to be a greater willingness to pay amongst groupings where non-payment is higher e.g. those that have not been receiving bills, those with lower household expenditure, and households where people have moved from rural villages (associated with illegal tenure). In order to pay more for energy, savings will need to be made elsewhere in the household budget – housing expenditure is the main area for savings, followed by clothing, travel and telephone expenditure.

Questions were posed to assess the strength of belief and the importance given to a number of possible outcomes regarding the impact of increased energy costs. Respondents felt that negative impacts on education and health are most likely, but they regard health as the most important issue (see Table 3), so negative impacts on health are likely to be the most important outcome of cost increases (e.g. not having hot water, not cooking food properly, lack of space heating). This is evident across all groupings. Overall, people do not fear consequences of non-payment, indicating a degree of confidence in their ability to pay.

Table 3: Importance of issues

Issues	Mean	Median	IQR
Health	3.60	4	(3 to 4)
Freedom from debt (loss)	2.28	2	(1 to 3)
Family unity	2.08	2	(1 to 3)
Education	1.64	1	(1 to 2)
Security	1.36	1	(1 to 1)

3.7 Effectiveness of safety nets

27% of households receive some form of state support, mostly in the form of pensions (22% of sample, 47 households); others receive disability, unemployment and other benefits.

26% of households have pensioners living in them, but 15 of these households (7% of sample) claim not to receive any pension benefit.

Of the 8 households claiming to have invalids, only 3 of these receive benefits.

Only 5 households (2%) receive unemployment benefit, which is the only one specifically targeted at the poor.

4 Conclusions and Recommendations

- People are most likely to respond to increasing energy costs by changing to cheaper fuels, or by reducing energy consumption. Those who have not been paying for electricity, and low income households, show a relatively strong willingness to pay higher prices.
- The greatest threat from increased energy costs will be to health. This has a knock-on effect as households will then spend more on medical treatment.
- The a forfeit form of billing for electricity consumption should be removed as soon as possible as it leads to wastage of electricity. The installation of meters is effective in reducing electricity consumption and improve payment rates.
- The government have remitted the debt from unpaid electricity bills twice in the last fourteen years – this encourages non payment of bills, as people hope it will happen again in the future.
- Eliminating the two tier tariff structure will tend to benefit high volume users and penalise the poor. The proposed mechanism of making compensation payments through existing benefits systems may well not reach some of the most vulnerable households which are not eligible for assistance.
- The policy of reducing LPG prices should be encouraged, as people tend to use cheaper fuels; the planned LPG stocking terminal at Vlora should have a major impact on prices. LPG is especially important as it can be used for heating, cooking and possibly for hot water. The price can be reduced by reducing the customs tax, vat, excise and imposing a price ceiling (regulation). Attention needs to be paid to resolving problems with the quality of PG e.g. correct filling of bottles, safety.
- Electrical energy conservation should be encouraged by a policy for introducing energy efficiency lighting (through both fluorescent and compact fluorescent lamps). This should include public awareness campaigns, together with tax concessions. The use of LPG water heaters should also be promoted, especially if water heating is excluded from the proposed compensation payment allowances. Thermal insulation of

dwellings should be targeted through awareness campaigns, and through enforcement of building regulations.

- At this point in time, informal wood cutting appears to be negligible. Demand for wood is likely to grow as low income households switch to using wood for cooking and heating. Licensed wood traders and environmental protection agencies need to be prepared to respond to increasing pressure on resources.
- The figure of 10% for proportion of household expenditure spent on energy is not typical of the country as a whole; it will be less in rural areas where wood is used. Similarly, the trend evident from the data is for people to switch to LPG, but rural residents will rely more heavily on wood.