

Popularizing the use of Liquefied Petroleum Gas (LPG) as a Substitute for Fuel Wood among Women in Nigeria



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INTRODUCTION

Energy is one of the most important components of sustainable development, affecting peace and security, the environment, and social and economic growth and development. Despite the prevalence of modern energy systems in developed countries, however, more than two billion people in the developing world (this includes citizens in Nigeria and other African countries who are mostly resident in rural areas), have very limited or no access to modern energy systems and services and rely solely on traditional fuel sources such as firewood, biomass, charcoal, and animal waste for heating and cooking within the home.



BACKGROUND

- Despite the abundance of oil and gas and high potential for hydro-electricity, Nigeria still depends to a large extent on traditional energy sources such as fuelwood, bagasse and crop residue for its domestic energy needs. Nigeria's fuelwood consumption is estimated at about 80 million cubic meters (about 25 million TOE). Fuelwood is widely used for heating and cooking, cottage industrial applications and food processing. Currently, these traditional energy sources account for about 55 percent of Nigeria's primary energy requirements, even though they are usually not included in a country's commercial energy consumption calculations.



LIVING WITH THE WRONG FUEL

- Kerosene is widely used by Nigerian urban households for cooking and this was confirmed by a recent survey by FOTE in Lagos State while fuel wood is still a major cooking fuel in Nigeria households especially in the rural areas.
- Most paraffin stoves available for households to use are mostly unsafe and cooking carried out indoors in environments that lack proper ventilation.



LIVING WITH THE WRONG FUEL CONT'D

- Studies have shown that women exposed to indoor smoke are three times likely to suffer from chronic obstructive pulmonary disease, such as chronic bronchitis than women who cook with electricity, gas or other cleaner fuels.
- In addition Chronic exposure to indoor air pollution has been associated with 76,000 deaths in Nigeria and 1.6 million deaths per year globally (WHO, 2006).



ACCESS TO MODERN ENERGY SERVICES AND IMPACTS ON WOMEN

Women's access to modern energy services will liberate and empower them. Because women and men use energy differently in their daily lives, the introduction of modern energy services affects them in different ways. For example;

Access to cleaner fuels, such as liquid petroleum gas (LPG), for domestic cooking and heating reduces women's exposure to harmful indoor air pollution. Time formerly spent in collecting biomass fuels can instead be devoted to increased education, literacy, and income-generating activities.



FOTE ACTIVITIES ON POPULARIZING LPG

Friends of the Environment (FOTE) was established as a Non-Government Organization (NGO) with the prime mission of promoting the understanding and appreciation of environmental issues and sustainability in Nigeria.

In 2009, GEF-SGP partnered with FOTE by providing funding for popularizing LPG in two communities in Lagos State. The activities undertaken under this scheme included: Awareness creation workshops, survey on the perception and use of LPG in Lagos State, training on safe use of LPG appliances, pilot micro-finance scheme that has enable some women to purchase gas cylinders. For sustainability we are discussing with micro finance institutions to take over the scheme.



LIQUEFIED PETROLEUM GAS (LPG) AND SOCIO-ECONOMIC BENEFITS

The use of LPG and more efficient devices can free women's time for productive endeavours, education, childcare and relaxation. Because it is clean, safe and very efficient in generating heat, the use of LPG will contribute to better quality of household life.

Thus, of all the modern fuels available today, LPG is particularly well suited to domestic cooking and heating because of the following advantages:



Cleanliness: LPG burns efficiently, without producing smoke and with low pollutant emissions. These qualities reduce indoor pollution and therefore, LPG could be a major contribution to a better health of women and children.

Portability: It is easily liquefied and stored in pressured containers. These properties make LPG portable, and hence, it can be easily transported in cylinders to end users.

Safety: It is safer to use because of the packaging and less susceptible to adulteration as is the case of kerosene which has caused many explosions and deaths in the past.

- **Efficiency:** LPG is extremely efficient in generating heat, and therefore a major step up on the energy quality ladder.
- **Environment friendly:** From an environmental point of view, LPG emits much less CO₂ (a greenhouse gas and the primary source of global warming potential) per meal when burned than fuel wood and other traditional fuels. By reducing demand for wood, switching to LPG can reduce deforestation. Relative to most other non-renewable fuels, LPG produces low emissions of CO, HC and oxides of nitrogen (NO_x), which are the principal precursors of ozone.



CONCLUSION

The opportunities for LPG utilization as the main domestic energy source abounds because of its immense potential availability for national use for the next 180 years or more.

In particular expanded access to LPG can have profound and beneficial effects on the economy, environment and the quality of life.

However in order to make LPG appealing to households, it must be affordable, accessible, safe and reliable in the local marketplace.