

GENDER MAINSTREAMING IN RENEWABLE ENERGY AND ENERGY EFFICIENCY: CASE STUDY NIGERIA

By

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**Paper presented at ECOWAS High Level Energy and Gender
Conference, 7 – 9 May 2013, Freetown, Sierra Leone**

Presentation Outline

- Background
- Introduction
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Background

- Energy is a key factor in economic and social development.
- Worldwide, approximately 3 billion people rely on biomass for cooking and heating, and about 1.5 billion have no access to electricity.
- 1.5 m. premature deaths, among mainly women and children, result from stove-smoke inhalation and long-term physical harm from collecting fuel wood.
- In recent times the scarcity of kerosene in Nigeria has brought new dimension, as many women and children are roasted by explosions caused by adulterated cooking fuels.
- Limited access to energy is a problem that has an unequal effect on women, especially in rural areas.
- In Nigeria indoor pollution from solid waste is the third highest killer after malaria and HIV&AIDs causing 95,000 deaths according to WHO report.

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Background Cont'd

- *Women have used renewable energy to increase profits and efficiency in their informal sector enterprises, and have proven themselves capable of operating and also constructing renewable energy technologies on their own, when provided with the appropriate training and support.*
- Women may be effective renewable energy entrepreneurs, due to their experience as users of energy in households and their own enterprises; in some countries women are already marketing solar home systems successfully.

Introduction

- Renewable Energy (RE) and Energy Efficiency (EE) projects are implemented in some Villages in Anambra State of Nigeria.
- Renewable Energy is a non conventional natural source of energy that is not depleted e.g. solar, wind, hydro, biomass, geothermal, ocean wave, hydrogen, etc.
- Energy Efficiency is the use of technology that requires less energy to perform the same function. A compact fluorescent light bulb that uses less energy than an incandescent bulb to produce the same amount of light is an example of energy efficiency.

Introduction Cont'd

- Methodology; Children of the Farmers Club, (CFC) Organized Training Workshops in collaboration with Energy Commission of Nigeria (ECN), State government, UNESCO and some National Research Centres on RE & EE in Nigeria.
- Energy Commission of Nigeria is the apex Government organ charged with the strategic planning and coordination of the National Energy Policy in all ramification.
- The funding of the Training workshop is sponsored by ECN, Anambra State Government, Children of the Farmers Club (CFC) with little financial support from UNESCO.

Rationale

- The Federal Government had not provided any budget lines for promoting access to cooking energy services overtime.
 - High rising cost and some times shortage of cooking fuels as kenosene sells far more higher than petrol.
 - It is most often women who must expend large amounts of time and physical effort to supply fuel for their households and productive needs.
 - Women use their own labour to carry heavy loads over increasingly long distances, at great risk to their health and safety.
 - Their roles as energy managers must be backed with inputs of investment, management and technology.
 - Job creation and economic empowerment
 - Reduce deforestation.
 - Climate Change mitigation.
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Rationale Cont'd

Cooking:

- Inefficient cook stoves are used by women.
- Dried animal dung, agricultural residues e.g. rice husk, corn cobs, groundnut shells, etc.
- Firewood, Saw dust, Kerosene and Charcoal.

Drying:

- Open air drying of agricultural produce were mainly being practiced by farmers especially rural women.
- **Lighting:**
- Kerosene lanterns, incandescent bulbs, candles, oil palm lanterns, etc were being used extensively in the rural area by women.

Rationale Cont'd

This project is need based:

- Over 20 million households in Nigeria are dependent on the traditional use of fire wood for their daily cooking.
- According to the WHO, smoke from cooking fire causes 95,300 deaths in Nigeria.
- Poor families using three-stone fire spend much of the food budgets on buying wood and charcoal; others spend hours collecting wood.
- Inefficiency in the combustion of wood raises the cost of cooking for the poor and contributes to deforestation.
- Presently, Nigeria loses about 3% of its tree cover annually.
- Enhancing efficiency in biomass energy use will address health, poverty and environment challenges and create a market of over 2 billion US Dollar in new cooking stoves

Her Excel inspecting CFC stand @ 1st Gender & RE Conference Abuja.



Cross Section of Women Participants During The Training.



Women & Students Listening Attentively .



Women viewing Improved Wood Stoves.





New Knowledge can be Exciting and women can form common front.



Hon Mrs Obi explaining further to women on issues of Household Energy.



Women willing to learn more



Students participants observing solar water pump



Woman demonstrating processing of Jathropha oil for cooking.



Jathropha oil being lit for cooking.



Achievement Cont'd



Students Participants showing keen interest.



Students were not left out



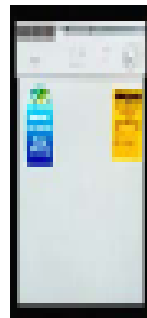


Energy Efficient Systems

buildings



products



homes



EE Lamp



Achievements Cont'd

- The Nigerian Alliance for Clean Cook stoves was launched in 2012. This public-private partnership seeks to introduce 10 million clean cook stoves to the Nigerian market by 2020. It will strengthen policy frameworks, technical standards, create more innovative financing and promotion
- Oando Marketing Plc rolled out its low cost 3kg LPG stoves in three (3) states (Lagos, Delta and F.C.T.). Plans national coverage by 2016 with a goal of 5 million stoves.
- Techno oil's "green revolution initiative" which has so far deployed over 20,000 gas cylinders of 3kg, 5kg and 12.5kg at a discounted price to stimulate local consumption and allow poor families access LPG.
- Development Association for Renewable Energy has a target of selling 12,500 Save80 clean wood burning stoves. They have successfully registered the project with the CDM executive board.
- Nigerian Electricity Supply Company (NESCO) is generating and supplying 25MW of electricity to Jos and its environs.
- NNPC/CAPITAL OIL KERO DIRECT SCHEME aimed at selling kero to end users at #50 subsidized price.

NNPC-CAPITAL OIL KERO DIRECT; Queue to buy kerosene



Mountains of Rice Husk at Ifite-Ogwari



Challenges

- Low Energy Access: Av. Access to electricity 40%
- Big Demand-Supply gap
- Demand: over 15,000 MW
- Installed capacity: about 9,400 MW
- Actual generation: approx. 3000 MW
- Over dependence on fossil fuel for electricity and total negligence of EE and RE technologies

Challenges Cont'd

- Lack of the energy law reduces investor's confidence on the policy.
The National Energy Policy which contains the Renewable Energy Policy though approved by the Federal Executive Council in 2003 is yet to be passed, by the legislature, into the nation's energy law.
- Development of comprehensive incentives for renewable energy, in order to attract and encourage private sector participation are yet to be put in place.
- Funding is one of the most challenging, as the State Governments are unwilling to sponsor such projects.
- ECN has limited budget for the training programs.
- Development Partners unwilling to fund NGOs projects as they work with Government MDAs.

Conclusion/Recommendation

- Women showed keen interest in the learning process and demonstrated their capability to carry on the technology with minimum or zero supervision.
- Most of the women were willing to go into RE enterprise if financial support is given to them.
- Most of their husbands showed willingness to support their wives in the RE&EE business venture.

Conclusions/Recommendation

- There should be gender audits of national energy policies. which consist of – in-depth analysis of energy planning approaches, budgets, the institutional capacity of ministries , to implement gender mainstreaming strategies.
- Making technical training accessible to women with programmes designed that are more sensitive to women’s needs, offered at times and locations compatible with women’s family roles, and adapted to women’s levels of skills and confidence.
- Women role as energy provider can be transformed if they can manage fuel wood or oil seed plantations, dispense kerosene or LPG, assemble solar panels, making briquettes, dung cakes and build cook stoves to brick kilns,
- Adequate funding of RE and EE projects to empower the women.
- Strengthening of legislative framework.