

EASE PROGRAMME IN TANZANIA

ENERGY AND POVERTY IN TANZANIA

(Some Issues and Challenges)

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General Overview and Suggestions

1.0 Presentation Outline

- Introduction-The Ease programme
- The Challenges
- Energy Overview
- Rural energy overview
- Overview of poverty alleviation efforts
- Initiatives for poverty reduction
- Energy and poverty links
- Energy and its relation with MDGs
- Experience on energy and poverty initiatives
- Achievements so far
- Barriers to provision of modern rural energy services
- Way forward
- Conclusion

2.0 Introduction

Enabling Access to Sustainable Energy programme-EASE

International development programme partly supported by DGIS with a mission:

To enhance access of low-income groups in rural areas to sustainable energy services through:

- Improving insights into energy and poverty links- Research, pilot projects and capacity Building.**
- Promoting the importance of energy and poverty issues at all levels- Lobbying, advocacy and Networking.**

3.0 The challenges

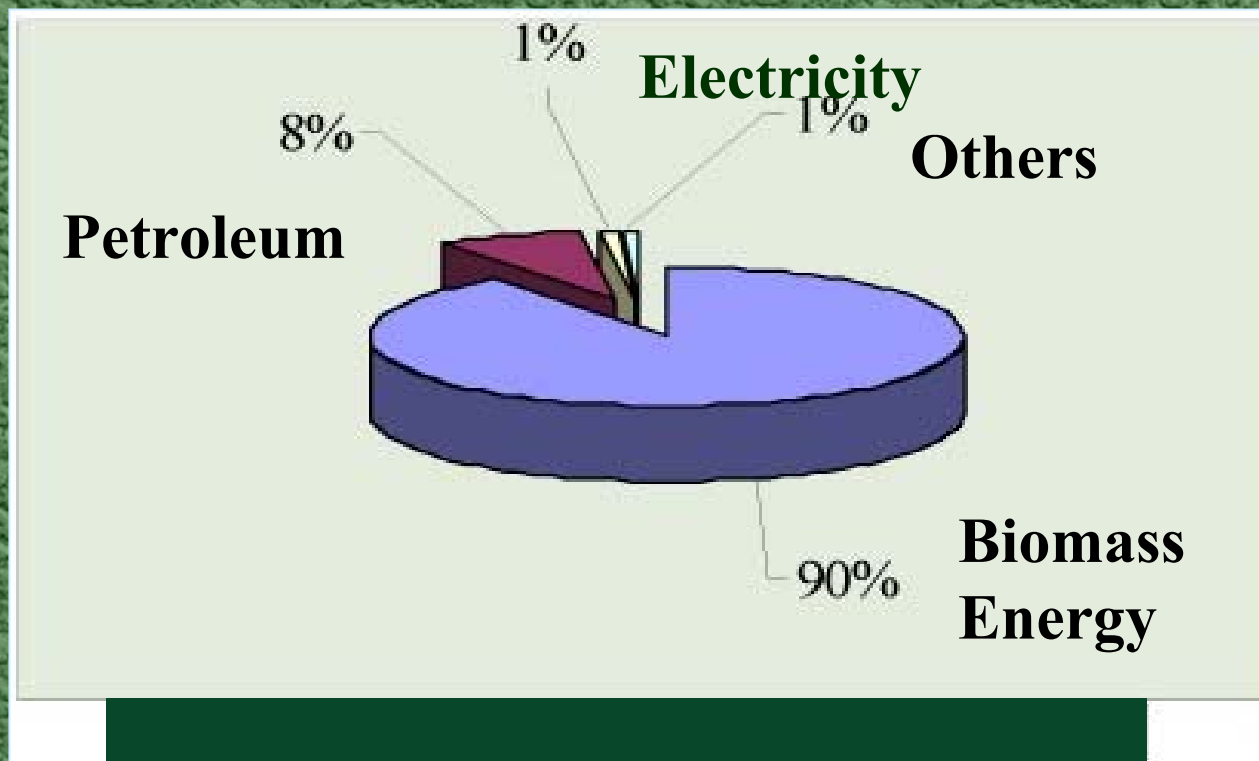
- 50% of the Tanzanians live in poverty; Majority are in rural areas;
- 36% cannot meet basic human needs;
- Biomass and human energy will remain important energy sources for the foreseeable future;
- 90% live without electricity;
- More than 98% are without electricity in rural areas.
- To provide the energy needed for poverty reduction and support sustainable economic growth.



4.0 Energy Overview

- Characterized by very low per capita consumption of energy:-
- Per capita commercial energy consumption in the year 2000 was 70 kg of oil equivalent compared to 1434 kg worldwide and 384 kg of oil equivalent of low income economies during the same period.
- Total energy consumption was 24 million tonnes of oil equivalent for the year 2000;
- 80% of total energy is consumed in rural areas;

Total Energy Consumption pattern in Tanzania(2000)



5.0 Rural energy overview

- Characterized by unsustainable use and production of biomass energy.
- High incidence of poverty and dispersed settlement patterns.
- Poor access and more expensive low quality energy services.
- Gender parity where children and women collect and prepare energy for household while commercial energy is mainly for men.
- Human energy derive most of rural economy and provide services in water supply, agriculture, transportation and food production.



6.0 Overview of poverty alleviation efforts

- Poverty is complex and multi-dimensional problem;
- Causes of poverty includes the following among others:-
 - Low knowledge, poor education and health services.
 - Poor access to employment and markets.
 - Inadequate income generating activities etc,



6.1 Initiatives for poverty reduction

- Tanzania development vision 2025 for long-term development of Tanzania free from poverty;
- National poverty eradication strategy based on vision 2025 provide broad framework to guide poverty reduction up to 2010
- Poverty reduction strategy paper aiming at providing guidance for phase wise poverty eradication initiatives
- National strategy for growth and poverty reduction which is a new national organized framework for putting high the focus on country poverty reduction agenda.

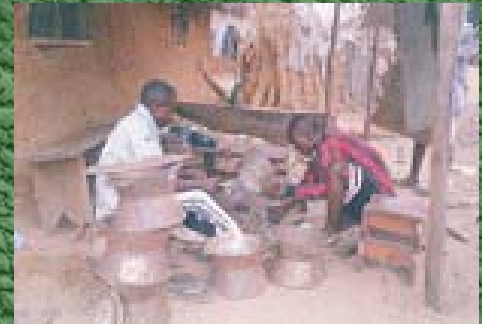
7.0 Energy and poverty links

- Links between energy and poverty have crucial impact on poverty and socio economic development (productivity, health, income growth and environment)
- Lack of better energy services cause:
 - women and children to walk for several hours at the expense of productive activities or education.
 - The poor pay more for low quality energy services up to 30% of their income.
 - At the national and local levels there is strong correlation between income and better energy services.

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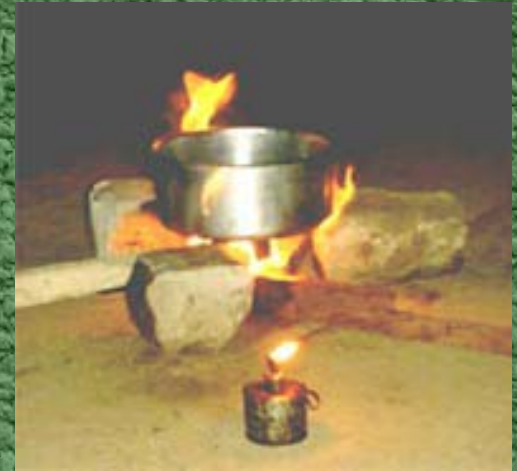
Better energy services:-

- Facilitate Small and Medium Enterprises (SMEs) growth.
- Contribute to delivery of better social services e.g. vaccine refrigeration, power medical equipment, pumping and treating of water.
- Free time for productive activities and for education.
- Contribute to the 3 pillars of sustainable development
- Plays crucial roles to achieve the millennium development goals (MDGS)



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- Traditional cook stoves causes indoor air pollution with carbon monoxide, benzene and formaldehyde.
- Excessive use of biomass energy for cooking with related indoor air pollution causes poor health and more deaths than tuberculosis and malaria combined (WHO)-world wide.



MDGs	ENERGY CONTRIBUTIONS
<p>MDG1: Eradicate extreme poverty and hunger by 2015</p>	<ul style="list-style-type: none"> • Clean, efficient fuels reduce the large share of household income spent on cooking, lighting and keeping warm • Energy can be used to help sowing and harvesting crops and to process and transporting food • Access to reliable energy services enables enterprise development • 95 percent of all staple food need cooking
<p>MDG2: Achieve universal primary education</p>	<ul style="list-style-type: none"> • Access to energy provides opportunities to use better teaching equipment, • Electricity enables access to educational media and communications in school, • Modern energy systems and efficient building design reduce costs and thus school fees, • Energy helps create a more child friendly environment at school thus improving attendance and reduce drop out rates

ENERGY & MDGS.....

MDG3: Promote gender equality and empower women

- Availability of modern energy services frees up children's time from helping with survival activities so that they can go to school
- Reliable energy services offer scope for women's enterprises and allow income generating activities beyond day light hours,
- Lighting allows evening classes and help to retain teachers,
- Street lights improves women's safety

MDG4&5&6: Health (Reduce child mortality and Improve maternal health and combat HIV/AIDS, Malaria and other diseases)

- Energy is needed to store medicine,
- Indoor air pollution from fires contributes to respiratory infections in children,
- Provision of nutrition cooked food, space heating and boiled water contributes to better health,
- Energy services provide access to better medicine refrigeration, equipment sterilisation and operating theatres

ENERGY & MDGS.....

MDG7:Ensure environmental sustainability

- Overuse of fuelwood can cause erosion, reduce soil fertility and desertification, fuel switching, improved efficiency and energy crops can help,
- Using cleaner, more efficient fuels reduces greenhouse gas emissions which cause climate change,
- Clean energy production can encourage better natural resources management,
- Energy to pump water for irrigation and drinking water

8.0 Experience of energy and poverty initiatives

- Several initiatives have been taken which have lead to formulation of different energy-poverty related :
 - policies,
 - strategies,
 - legal and regulatory frameworks
 - programmes and
 - Projects
- These efforts have to some extent encouraged investments in rural energy, competition and participation that improved energy services and facilitated greater uptake of modern renewable energy technologies at a small scale.



9.0 Achievements so far

Initiatives on provision of better energy services have so far managed to facilitate a small fraction of Tanzanians to have access to modern energy services among others include:-

- Revised energy policy, poverty policy and national strategy for growth and poverty reduction with stronger emphasis on rural energy
- Efforts to establish rural energy agency and rural development funds are on going
- More than 45% of households in Dar es Salaam use improved charcoal stoves, about 10% rural households use improved woodstoves.
- More than 300 improved charcoal stoves artisans are employed in the production of more than 10,000 improved charcoal stoves per month that is worth more than Shs. 20million.

10.0 Barriers to provision of modern rural energy services

Efforts made so far to improve rural energy for the rural poor have not had much success due to:-

- Low priority and inadequate commitment from the government.
- Poor understating of energy and poverty links
- Financial
 - Majority of rural poor are unable to afford improved energy services and there are no affordable credit schemes
- Policies and institutional
 - Policies are not pro-poor that;
 - Much more efforts and resources are geared towards provision of electricity and fossil fuel, as compared to traditional fuels

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- On going reforms are are not involving and benefiting majority of the population
- **Technical**
 - Inefficient technologies dominates production and utilization of the biomass energy
- **Social cultural**
 - Inadequate involvement and participation of the rural poor in formulation and implementation of policies, strategies and programmes.
 - Low awareness of potentials of modern energy services for poverty reduction

11.0

Way forward

Government in collaboration with other energy key stakeholders need to:

- **formulate and implement policies, strategies and regulations that would facilitate greater access to modern energy services by the poor.**
- **Ensure that energy markets are fair, efficient and uncorrupt.**
- **Facilitate energy technologies and services in rural areas to be more efficient.**
- **Put greater emphasis on improving production and utilization of traditional fuels.**
- **Ensure policies, strategies and programmes are designed with local people to meet their needs.**
- **Energy services for poverty reduction requires multi- sectoral approach and integration with other development efforts.**
- **Design innovative financing and technology delivery mechanism to overcome high initial costs for providing energy services to the poor**
- **Promote best practices and innovations in rural energy programmes design and implementation.**
- **Promote affordable multifunctional technologies that make use of locally available energy resources and meet different user needs.**

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- Put greater emphasis on development of productive uses of energy services for creating new jobs and SMEs that could lead to more opportunities.
- Support measures to develop indigenous capacity and institutions in the area of sustainable energy through training and education to create partnership capabilities, sales and services.
- Create favorable legal, institutional and regulatory climate for sustainable energy development and increased involvement of private sector and civil society.

12.0

Conclusion

- Government has a critical role in developing energy links that support policies for reducing poverty.
- Immediate and urgent action are needed to ensure provision of better and more energy services for the poor majority of the population, i.e overcome the high-first cost barrier, encourage local participation etc.
- Poverty and dependence on biomass fuels go hand in hand as income raises people normally switch to modern fuels, if available.
- Efforts to improve energy for the poor/rural could fail if policies prevent economic growth.
- Experiences shows that rural energy development and capacity building support should be long term and well resourced



Conclusion.....

- Energy for rural areas and poverty reduction is complex and not well established:- there is a need for a combination of approaches based on clear insights and links.
- It is our strong opinion that the efforts of the EASE and other related programmes would contribute to greater access of the poor to better energy services.



Thank you for your attention

Technicians from TaTEDO installing a solar PV system at Msangani health Centre, Kisarawe, Coast Region.

