

Institutionalizing energy efficiency

Experiences from Kenya and East Africa Region

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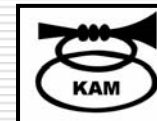
GEF-KAM Energy Efficiency Project

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Kenya – East Africa



- ❑ High energy costs
- ❑ Low levels of electrification
- ❑ Low awareness and capacities in the region on energy efficiency
- ❑ Bad experiences with past efforts

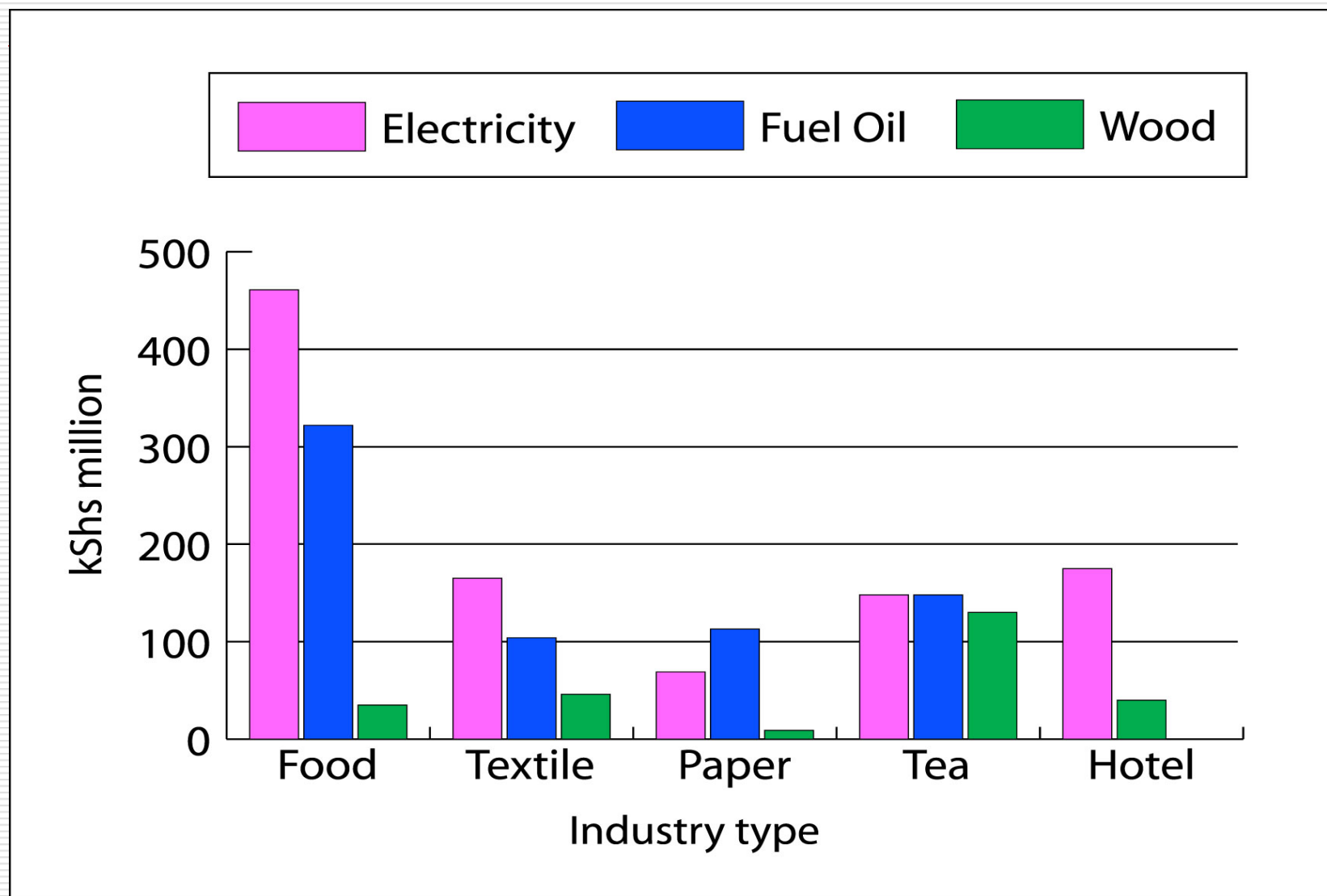


Kenya Energy Scenario

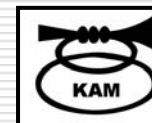
- **Acute shortage** of commercial energy. Increased thermal electricity generation
- Dependence on imported petroleum products for Industry and Transport.
- **Wastage of energy** ranges between 10% and 30% of primary energy input



Energy Saving Potential - Kenya



Estimated energy saving potential in Kenya for selected sub-sectors



GEF-KAM Energy Project -Kenya

- ☐ A GEF and UNDP supported project
 - Raised awareness in industry and government about economic importance of energy efficiency
 - Capacity development
 - ☐ Trained engineers in industry and consultants
 - ☐ Developed University and polytechnic level training
- ☐ Financial Mechanisms

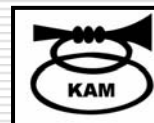
Some Project achievements

- | | |
|--|--|
| <p>1. Energy Savings realized in 5 years (2001-2006)</p> | <ul style="list-style-type: none">– 115,000Toe or 1,300 GWh in 5yrs |
| <p>2. In electricity units savings are equivalent to</p> | <ul style="list-style-type: none">– 140MW power plant operating for 1 Yr |
| <p>3. CO₂ emission reduction estimates</p> | <ul style="list-style-type: none">– 580,000 ton @ \$5.50 per tonne in 5yrs– 5.27 million ton @US\$ 0.6 in 15yrs |



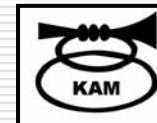
Need for Policy and Institutionalization

- ❑ Projects deliver results over a period of sustained activities and budget
- ❑ What happens after projects end?
- ❑ How are the gains to be sustained and lessons learned be multiplied
- ❑ **This shows need for policy and institutionalization**



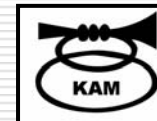
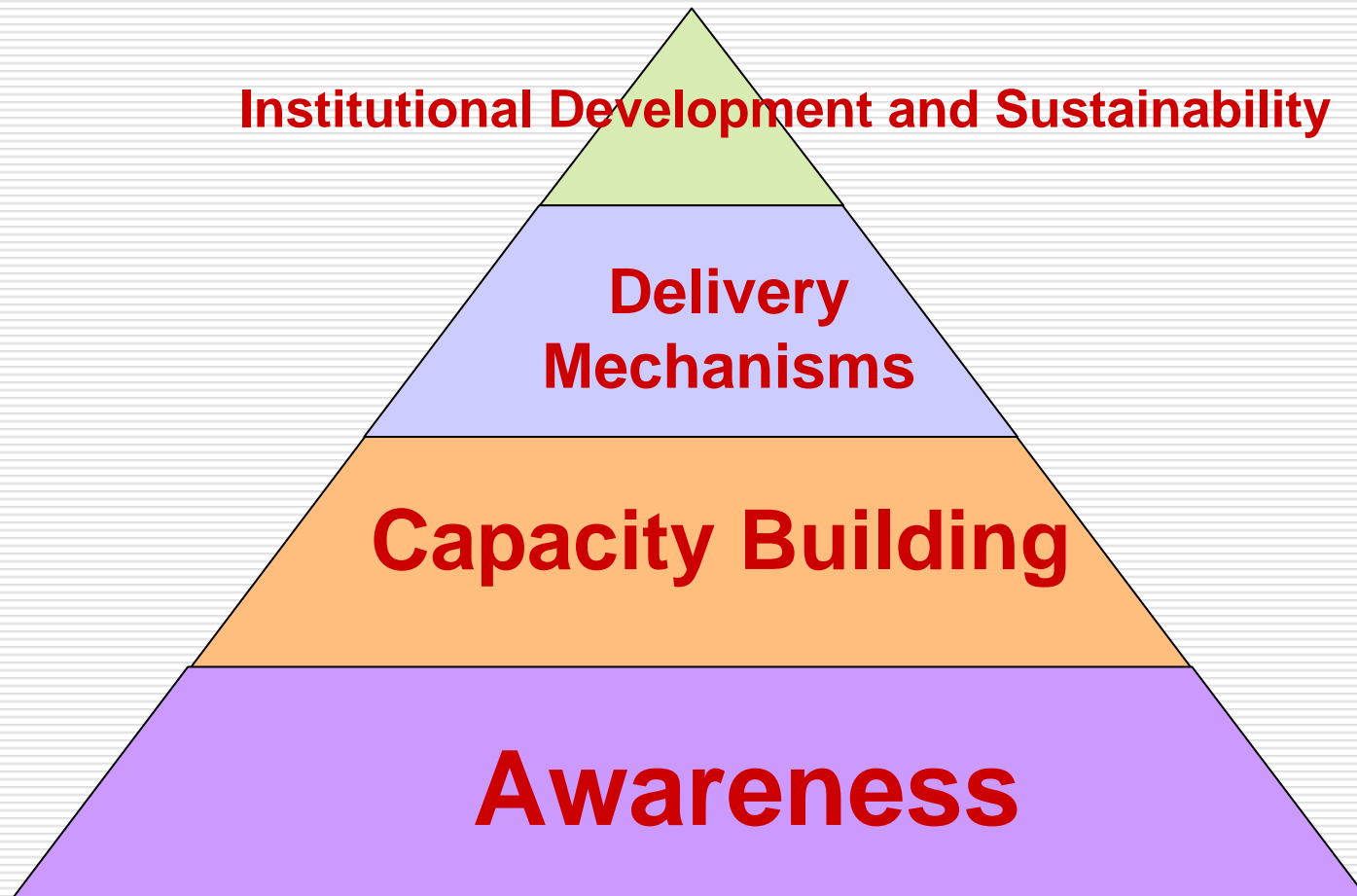
Why EE Policy and institutions

- ❑ To promote Energy Efficiency at all levels
- ❑ Up-scaling to all sectors of the economy
- ❑ Making the “saved” energy available for increasing access to energy
- ❑ Managing Rebound effect (protecting the gains from energy efficiency)
- ❑ Implementing targets and standards



Introducing energy efficiency

- Focus on policy and Institutionalization



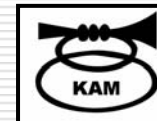
Institutionalization-Four Pillars

- ❑ Awareness – Public and government support – (Function of public institutions)
- ❑ Capacity Building – enabling the people to take action, (Private and public involvement)
- ❑ Implementation and delivery of services – confidence building and realizing benefits, Financial incentives, ESCOs (Private/Public)
- ❑ Policy and institutional support – creating national structures, legal support (Private/Public)



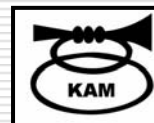
Energy Efficiency - The Process

- In addition to Creating awareness and Developing technical competence, efforts must focus on:
- Expression of EE in Policy
 - Energy Policy Revision to recognize energy efficiency
- Legal frameworks
 - Energy Act. Rules, regulations and incentives
- Institutional development at public and private level



Institutionalization activities

- ❑ Policy and Regulatory developement
 - Project worked with government to revise energy policy and introduced energy efficiency and conservation
 - Project worked with government to Produce Energy Act with specific reference to Energy Efficiency
- ❑ Intergration of energy efficiency with the Government's Private Sector Development strategy
 - Raised awarenes among arliamentarians
- ❑ Developed a Centre for Energy Efficiency and Conservation (CEEC) based at Kenya Association on Manufacturers
- ❑ New Energy Regulatory Commission (ERC) will provide National Level facilitation



Key gains towards institutionalization

- ❑ EE fully recognized in government energy policy
 - Utilities and energy regulator now fully embrace energy efficiency
- ❑ New Energy Act has set out rules and guidelines for energy efficiency in all facilities plus incentives
- ❑ Energy Management Curricula developed in collaboration with University of Nairobi and Kenya Polytechnic
- ❑ Developed a Centre for Energy Efficiency and Conservation (CEEC) based at Kenya Association on Manufacturers
- ❑ Energy Management Award (EMA) now a premier industry event
- ❑ Government has set aside funds to support energy efficiency and will create a specific fund
- ❑ Has established one ESCO in Kenya



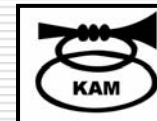
Promotion activities- Energy Management Awards



Engagement of all stakeholders

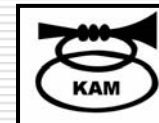


public-private partnership



Challenges

1. Continuous promotion and learning
2. Establishing “positive framework” to promote energy efficiency
 - ❑ Set and achieve national targets
 - ❑ Promote ESCOs
3. Energy Standards and Labels not widely applied
4. Absences of incentive mechanisms
5. Poor Financing



Thank

You