

COOPENER

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DEA

Development and Energy in Africa



Regional Workshop

Arusha, Tanzania, 16-18 October 2007

Workshop Report

RISO



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Energy, Environment and
Engineering Zambia Limited

<p>Authors: Gordon A. Mackenzie, Sten Dieden, Wendy Annecke and Peter P. Zhou</p> <p>Title: Regional Workshop Report</p> <p>Department: Systems Analysis (SYS)</p>	<p>DEA report number: Risø 8.1 February 2008</p>
<p>Abstract</p> <p>This report refers to the COOPENER project “Development and Energy in Africa (DEA)” initiated on 1 May 2005. The 30-month project is implemented by Risø DTU – The National Laboratory for Sustainable Energy (Technical University of Denmark – DTU¹), Denmark as project coordinator, in collaboration with the Energy Centre of the Netherlands (ECN), and in partnership with six African Centres:</p> <ul style="list-style-type: none"> • Botswana: EECG • Ghana: KITE • Mali: Mali Folkecenter (MFC) • Senegal: ENDA-Energy • Tanzania: TaTEDO • Zambia: CEEEZ <p>The report covers the proceedings of the Regional Workshop, held at Ngurdoto Mountain Lodge, Arusha, Tanzania from 16 to 18 October 2007.</p> <p>The practical preparations for the workshop in Arusha were arranged by the Tanzanian partner TaTEDO. The main purpose of the workshop was to present and discuss the methodology and case study results from the DEA project. This was done by the Risø DTU team and the African Centres. In addition, a side event presented by AFREPREN/FWD presented a related project on successful energy interventions in Africa. A second side event presented results of the UNEP AREED programme. A field visit on the second day allowed workshop participants to view a real group of energy interventions in a nearby village setting.</p> <p>The report contains three Appendices, comprising the List of Participants, the Presentations and a description of the field trip.</p> <p>The workshop organisers acknowledge with gratitude the significant support from GTZ which supported travel and accommodation expenses of an additional 11 participants from African countries, adding to the usefulness and outreach of the workshop.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><i>The sole responsibility for the content of this report lies with the authors. It does not necessarily reflect the opinion of the European Communities. The European Commission is not responsible for any use that may be made of the information contained therein.</i></p> </div> <p>¹ From 1 January 2007, Risø National Laboratory, the Danish Institute for Food and Veterinary Research, the Danish Institute for Fisheries Research, the Danish National Space Center and the Danish Transport Research Institute have been merged with the Technical University of Denmark (DTU) with DTU as the continuing unit.</p>	<p>Contract no.: EIE/04/201/s07.43094</p> <p>Group's own reg. no.: 1215139</p> <p>Sponsorship: European Commission, Intelligent Energy Europe, COOPENER Programme</p> <p>GTZ (part sponsorship of Arusha workshop)</p> <p>Pages: 223 (incl. Appendices)</p> <p>Risø DTU Energy for Development (EfD) Systems Analysis Department P.O. Box 49 DK-4000 Roskilde Denmark Telephone +45 46775171</p> <p>gordon.mackenzie@risoe.dk Fax +45 46321999</p> <p>www.e4d.net</p>

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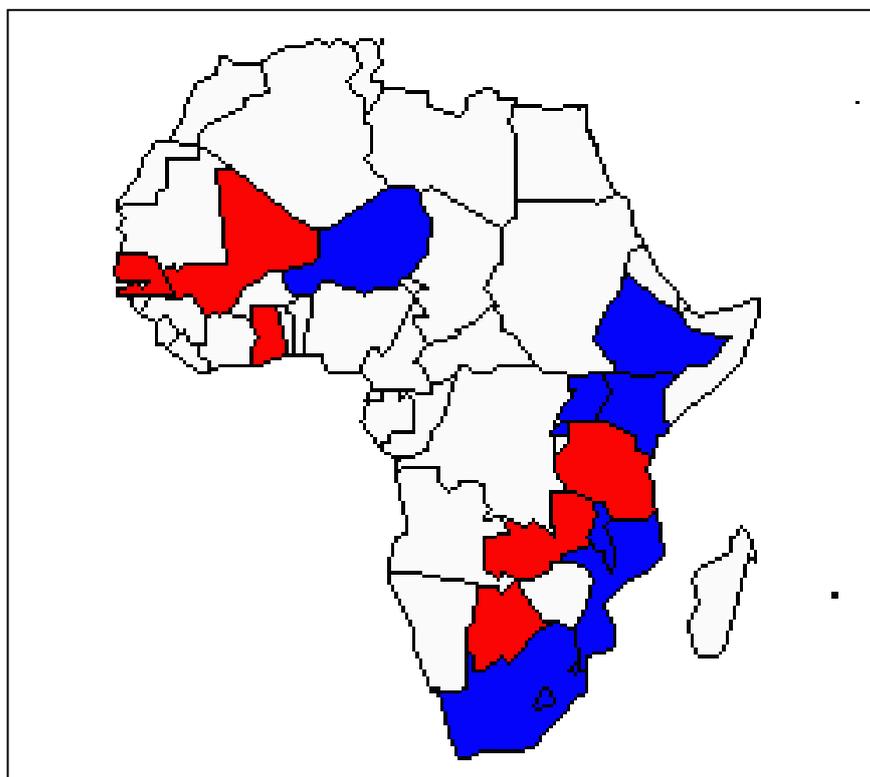
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Preface

Development and Energy in Africa (DEA) is a project under the European Commission's Intelligent Energy - Europe programme COOPENER. Ultimately DEA aims to "support decision makers with the implementation of more sustainable energy policies, ..." in line with the key action VKA 11.1 of the COOPENER programme. The project will do this by identifying and quantifying, where possible, the elements of concrete energy interventions that contribute to sustainable development (SD) and systematising this in an Assessment Framework which can enhance policy to promote energy for sustainable development.

The principal aims of the Development and Energy in Africa (DEA) project are (i) to identify and examine the developmental impacts of energy innovations and actions linked to improving energy access and poverty alleviation and (ii) to use the information obtained to improve on-going and future energy interventions through the energy policy makers and institutions in the countries concerned.

Specific energy activities in six African countries (Botswana, Ghana, Mali, Senegal, Tanzania and Zambia) will be examined with respect to development impacts and a methodological framework developed to feed results back into the conception and design of new projects. The Project is aimed at national energy- and development-policy makers, initially in the six participating African countries, but with a view to wider application in Sub-Saharan Africa. The project is also relevant for international and national energy, development and environment practitioners.



The six DEA countries (red) were joined by representatives from 10 other Sub-Saharan African countries (blue) to make a total of 16 African countries represented at the Arusha workshop.

1 Background

1.1 Workshop purpose

The Arusha Workshop was the final event in the 30-month DEA project which started in 2005. The workshop's purpose was to present and discuss the results of the project in a broader context to stakeholders from the six target countries as well as from other African countries. A total of 57 participants including representatives of 16 African countries attended the workshop.

The DEA project is by no means an isolated phenomenon. Virtually every team working on the project over the past 3 years has also been engaged in other related activities – for example other COOPENER projects, the EU Energy Initiative, GVEP and GNESD activities, UNEP and UNDP supported projects, and indeed national projects targeting energy access for development. The project participants, and the workshop delegates, will continue to work in other projects aimed at investigating promoting and hopefully implementing increased energy access to the rural and urban poor, for productive uses, to contribute to poverty alleviation and to work towards achieving the MDGs. The DEA regional Workshop in Arusha provided an excellent forum to reflect on these activities, in the context of determining what difference the various initiatives make to development. The DEA approach provides a relatively simple way to facilitate such reflection.

The overall aim was that, through the DEA project, participants in the Arusha workshop would be equipped either to use the M&E methods developed to assess their projects' contribution to the MDGs, or they would know where to go to seek professional assistance with M&E in order to facilitate better project implementation and results.

The specific objectives of workshop were:

- to present and discuss a methodology for monitoring and evaluating outcomes and impacts of energy projects, illustrated through case studies in 6 countries. Three sets of national workshops in the 6 countries. Now is the time to present the work to a broader audience: selected stakeholders from other Sub-Saharan African countries.
- to discuss the way forward: identify needs and opportunities for incorporating monitoring and evaluation (M&E) in energy projects, and discuss possibilities for sub-regional networks on M&E based around the 6 DEA centres
- to present, within a side event, a report on successful energy interventions carried out by AFREPREN/FWD (with support from GTZ which has allowed more stakeholders to attend the workshop)
- to present, also within a side event, and discuss the AREED programme, the UNEP enterprise development programme, conducted in 5 countries, which will move into a new phase towards the end of the year. This is particularly relevant since DEA was a spin-off of the AREED programme.

The workshop brought together stakeholders from 16 Sub-Saharan African countries: from Senegal in the west to Tanzania in the east, and from Ethiopia to South Africa. A 17th country, The Gambia, though invited was not represented due to air ticketing problems.

A wide selection of energy projects of different types was presented - some successful, some not so successful - all trying to provide energy access as an input to development and poverty alleviation.

Throughout the workshop, participants returned to the common theme of M&E and impact analysis of energy projects and interventions. There is a continuing need to document, and find evidence for how energy interventions impact on poverty alleviation, and achieving MDGs. Connected with this is the importance of determining which other factors need to be in place, and how to design and monitor future projects so that they achieve maximum impact. That is, how to get maximum effectiveness from energy investments.



2 Workshop proceedings

2.1 Day 1

Day 1: Tuesday 16 October		
08:00 – 09:00	Registration	
Session 1: Opening and Introduction		
09:00 – 10:00	Official opening	<i>Hon. Nazir Mustafa Karamagi, Minister for Energy and Minerals, Tanzania</i>
10:00 – 10:30	Introduction: The DEA project	<i>Gordon A. Mackenzie (Risø)</i>
10:30 – 11:00	Coffee break	
Session 2: Methodology and Case Studies		
11:00 – 11:30	Monitoring and Evaluation of energy projects: the DEA Assessment Framework (AF)	<i>Sten Dieden (Risø)</i>
11:30 – 13:00	DEA Case studies (1): <ul style="list-style-type: none"> • Woodfuel Projects: Senegal • Renewable energy projects: Mali and Tanzania • Solar home systems: Zambia 	<i>S. Sarr (ENDA) P. Dembele (MFC), O. Lema (TaTEDO) L. Zulu (CEEEZ)</i>
13:00 – 14:30	Lunch	
13:00 – 14:30	Lunchtime side event: Successful Energy Policy Interventions in Africa – A GTZ/BMZ supported study	<i>AFREPREN/FWD</i>
Session 3: Electrification projects		
14:30 – 15:00	Keynote paper: Development impacts of rural electrification in Zimbabwe	<i>Maxwell Mapako (CSIR, South Africa)</i>
15:00 – 16:00	DEA Case studies (2): Rural electrification projects <ul style="list-style-type: none"> • Botswana • Ghana 	<i>Peter Zhou (EECG) Solomon Quansah (KITE)</i>
16:00 – 16:30	Coffee break	
Session 4: Groupwork		
16:30 – 17:30	<ol style="list-style-type: none"> 1. How can evidence on developmental impacts influence and affect policy? 2. Application of DEA AF/M&E in participating countries? 	<i>Facilitated group discussions in preparation of consultation session on Day 2</i>
19:00	Conference Dinner	



2.1.1 Opening speech

By Hon. Mr. Nazir Karamagi (MP), Minister for Energy and Minerals, Tanzania

Mr Chairman, Distinguished Participants, Ladies and Gentlemen.

It is a pleasure and honour for me to be afforded this opportunity to address you at this important Regional Workshop on Development and Energy for DEA partners and to extend to you a very warm welcome to Tanzania.

This workshop is important one as it has brought together international experts, professionals and policy makers for discussion on very important topics of energy and development in Africa, which include assessment framework and policy impacts.

I understand that the purpose of this workshop is to present and discuss the results of the project in a broader context to stakeholders from the six target countries (Botswana, Ghana, Mali, Senegal, Tanzania and Zambia) as well as from other African countries. I am also informed that the workshop will enable energy stakeholders to better understand development-poverty-energy linkages and embodiment of its knowledge in energy projects, which contributes to the process of increasing the development and poverty alleviation impacts of energy interventions.

This opening session is partly an opportunity for me to participate on behalf of the Government of Tanzania in this important development, energy and poverty reduction workshop.

Mr. Chairman I take this opportunity to thank UNEP Risø Centre and the Tanzania Traditional Energy Development and Environment Organization (TaTEDO) for their efforts in organizing this workshop on behalf of other energy centres in Africa. I would like to thank the UNEP Risø Centre, the DEA Project Coordinating Centre for providing funds of hosting this Regional Workshop. I would further like to extend to the UNEP Risø Centre representative Dr. Gordon Mackenzie and other DEA project partners, a very warm welcome to Arusha, Tanzania.

Mr. Chairman, I am glad to note that the workshop is the final event of the 30-month DEA project which started in 2005. *I am aware that Risø National Laboratory of Denmark in collaboration with centres in six African countries have developed an Assessment Framework (AF) to identify and*

*quantify the outcomes and impacts of energy projects. This is important tool for decision makers, policy makers and project managers especially professionals involved in monitoring and evaluation of energy projects. There are several energy projects which have been implemented without knowing their potential impacts to the community because the impacts are not assessed prior to or within project implementation period. It is no doubt that this tool if applied effectively will alleviate remove this problem and make the impact assessment process more effective.*¹

For the governments as well as the donors and civil community in our developing countries, poverty eradication and the sustainable development are major challenges, which are on top of our development agenda today. We are all aware that energy is a crucial input to all income earning and poverty eradication initiatives. The use of appropriate sustainable modern energy technologies is crucial to increased productivity and higher quality of products, which in turn could fetch better prices both at the local and foreign markets. When modern energy technologies are used to provide from better energy services such as drying, cooking, milling, pumping, transport and communication, they stimulate economic growth and thereby contribute enormously in war against poverty, achievement of the MDGs and environmental conservations.

Mr. Chairman, in Africa more than 50 percent of the people are living in poverty. Lack of access to clean, reliable and affordable energy services is considered a core aspect of poverty. Ironically, poverty is also one of the factors that make most of the people in African countries depend on low quality energy. At the household levels, biomass-based fuels, particularly fuelwood is mainly used for cooking and kerosene for lighting. Electricity access in most of the rural areas in Africa is only limited to less than 10 percent of the population.

Mr. Chairman, for the people living in poverty, the most pressing priority is the satisfaction of basic human needs, which include access to food (which must be cooked with energy) shelter, water supply and sanitation. Other necessities of a poor person is to improve standard of living, including health care, education, and better transport. Appropriate and affordable energy plays a key role in the provision of all these basic needs towards an acceptable standard of living.

Agriculture, which is still the leading sector of our economy for most of the African countries, is heavily dependant on human (mostly women) labour for meeting most of their energy requirements. Experience shows that only a small part of the agricultural energy needs is met from draught animal power and from a few tractors. The overwhelming dependence on human energy for agricultural activities in African countries obviously limits agricultural productivity, quality of the products and consequently the income from agriculture for the farmers and economies of the continent as a whole. Unfortunately, that is not all, the inefficient traditional energy technologies used for crops processing such as direct solar drying or firewood further contribute to lower productivity from agriculture due to high after harvest losses and thereby obviously incomes from agriculture considerably reduced.

Mr. Chairman, small –scale industries particularly in the rural areas consume large amount of fuelwood. The most common small-scale industries include brick burning, local beer brewing, fish smoking, tobacco curing, baking and charcoal production. Although these activities contribute to our poverty eradication efforts as they provide employment opportunities and off farm income for the poor people, they can nevertheless add to other problems of environmental degradation. We need therefore to balance the two sides by encouraging the use of appropriate energy technologies at the same time conserving the environment.

¹ *Emphasis added (ed.)*

Mr. Chairman, the efforts of the DEA to formulate, create awareness and come up with a framework for impact assessment in the energy sector will definitely contribute to the energy projects impact to the overall socio-economic development of the African countries. I hope most DEA project partner states and other African countries will adopt the recommendations of this project and the workshop.

Mr. Chairman, your programme, shows a number of topics that will be discussed during the different workshop sessions. I am informed that you will further discuss the assessment framework as a tool of monitoring and evaluation, case studies from different African countries importance of ICT to the next generation in Africa, impact assessment and its effect to energy related policies and finally you expect to come up with appropriate suggestions and recommendations for energy related policies in order to support poverty reduction and sustainable development efforts in Africa. I humbly suggest that thoughts should also be directed to better ways of improving the quality of energy and raising purchasing power of poor especially people in rural areas through energy related income generating initiatives in order to reduce poverty and achieve the MDGs.

I hope that over the next two days, the workshop will not only come up with a comprehensive deliberations for assessing impacts from energy interventions and achieving the objective of contributing to development of modern energy and to offer support to policy making activities, but also come up with sound recommendations and commitment from the partners to effectively put into actions such deliberations.

Finally, Mr. Chairman, distinguished participants, I would like to wish you fruitful deliberations during the next three days of your workshop. With these brief remarks, I have the pleasure to formally announce this workshop open.

Thank you for your attention



The Hon. Mr. Nazir Karamagi (MP) Minister of Energy and Minerals, Tanzania, after the opening session of the workshop with Gordon Mackenzie (Risø DTU).

2.1.2 Introduction

Gordon A. Mackenzie, UNEP Risø Centre, Denmark

Honourable minister, new and old colleagues, friends, I'd like to welcome you to this regional workshop – the final event of the 2½ year DEA project – sponsored by the EU's COOPENER programme.

I'd like to give you a brief introduction to the DEA project, the objectives of this workshop, and some reflections on how this workshop fits into the general process of thinking about energy and development in the African context. The DEA project is by no means an isolated phenomenon. All of us working on it over the past 3 years or so have also been engaged in other related activities – for example other COOPENER projects, the EU Energy Initiative, GVEP and GNESD activities, UNEP and UNDP supported projects, and indeed national projects targeting energy access for development - and of course we will continue to work in other projects aimed at investigating promoting and hopefully implementing increased energy access to the rural and urban poor, for productive uses, to contribute to poverty alleviation and to work towards achieving the MDGs.

Objectives of workshop

The DEA project: To present and discuss a methodology for monitoring and evaluating outcomes and impacts of energy projects, illustrated through case studies in 6 countries. We have held 3 sets of national workshops in the 6 countries. Now is the time to present the work to a broader audience, our colleagues from other Sub-Saharan African countries. The methodology and the case studies will be presented today, with a summary overview tomorrow from Peter Zhou.

The Way Forward

An important task for the workshop, after we've heard about the methodology and the case studies, will be to identify needs and opportunities for incorporating M&E in energy projects, and discuss possibilities for sub-regional networks on M&E based around the 6 DEA centres

My colleague Sten Dieden has been developing an approach to utilise the DEA experience in such sub-regional or regional networks. He has discussed this already with colleagues in the Southern African region, including Peter Zhou, and a draft proposal will be presented for your feedback in the second morning session tomorrow.

Side events

While the DEA project, its methodology and case studies, will obviously dominate the proceedings of this workshop, we will be able to hear about and discuss other programmes that address the issue of energy and development. We have two side events coming up, which will look at other related aspects of energy and development in Africa. The first side event will present a report on successful energy interventions, funded by GTZ/BMZ and carried out by AFREPREN/FWD based in Nairobi, together with other partners. In this context we are most grateful for the support of GTZ which has allowed us to support more stakeholders to attend. The report will be presented in a side event today at lunchtime.

In the second of our side events, we will hear about the African Rural Energy Enterprise Development programme –AREED. Colleagues from Zambia and Ghana will present a summary of the UNEP enterprise development programme, conducted in 5 countries. AREED is moving into a new phase towards the end of the year DEA has of course been closely linked right from the start, and in fact DEA may be seen as a spin-off of the AREED programme. The AREED programme will be presented in a lunchtime side event on Thursday.

Coast to coast participation

So, the workshop brings together stakeholders from 18 Sub-Saharan African countries² – from Senegal and the Gambia in the west – to Kenya and Tanzania, from Ethiopia to South Africa and Lesotho. Plus quite a few in between!

We will hear about a wide selection of energy projects: some successful, some not so successful, all aimed at providing energy access as an input to development and poverty alleviation.

There will be particular focus on monitoring and evaluation (M&E) and impact analysis of energy projects and interventions – to document, find evidence for how the projects impact on poverty alleviation – achieving MDGs – what other factors should be in place – how to design and monitor projects in future so that they achieve maximum impact. That is, how to get maximum effectiveness from energy investments.

The need for M&E and impact assessment

To put some figures on it, a recent meeting (March, 2007)³ presenting the multilateral development banks' Clean Energy Investment Framework, identified three issues, or pillars for investment:

- Transition to low carbon economy
- Adaptation to climate change
- Increasing energy access in Sub-Saharan Africa

For the third pillar, increasing energy access in Sub-Saharan Africa it is estimated that the annual investment needed is about \$4 billion. Current annual funding of \$2 billion is available, but this leaves an annual investment gap of \$2 billion. Even if funding for energy investments was to be made available, it raises the fundamental question: How to ensure that investments serve desired development objectives?

While we know that energy access is a critical input for achieving development objectives. In turn we also know that what works in one place does not necessarily work in another. Thus, how do we ensure that these scarce resources get spent properly when so much is at stake?

We need to understand how energy interventions lead to development, and especially what other factors have to be in place to achieve success. Impact assessment and monitoring and evaluation can provide guidance for future interventions. M&E of energy interventions in particular provides a tool to adjust for donor-driven, or top-down approaches to project design, allowing for specific local

² In fact, only 16 countries attended the workshop. The nominated representative from The Gambia was unable to attend due to air ticket misunderstandings while on transit. A participant from Zimbabwe, though registered, did not attend. Stakeholders from number of other countries had expressed interest in attending, but numbers were limited by the available funding.

³ Financing Clean Energy: A Framework for Public-Private Partnership to Address Climate Change, Conference & Workshop, 13-14 March 2007, EBRD, London.
http://www.weforum.org/pdf/climate/programme_london2007.pdf

factors to be taken into account. This leads us precisely to the subject that is at the heart of this workshop – methodologies for assessing the impacts of energy interventions. In other words trying to get a “handle” on how much, why and how a given energy intervention can “make a difference”. This is what DEA is all about.

DEA background

Let me first explain some of the acronyms that we’ll be using:

- **AREED** – The UNEP-facilitated African Rural Energy Enterprise Development Programme – is a programme that has been running since the beginning of the decade, in several phases, initially funded through the United Nations Foundation, and more recently by Swedish SIDA. As mentioned earlier, my colleagues from 2 the 5 centres will give a presentation on AREED on Thursday. Briefly, AREED has supported enterprise development in the five target countries – Ghana, Mali, Senegal, Tanzania, Zambia – through entrepreneur identification and capacity building, and seed financing – for a wide variety of energy SMEs. The DEA project emerged as an idea among these centres, together with the URC, and with the addition of EECG Botswana. We also brought in ECN of the Netherlands in the context of the GNESD collaboration. Funding was secured from the COOPENER programme of the European Commission, and the project started in May 2005.
- **COOPENER** – a part of the EC’s Intelligent Energy Programme, most of which targeted at energy in Europe, but COOPENER aimed at developing countries, and initially S-S Africa
- **EUEI** – The European Union Energy Initiative – of which COOPENER is a part – targeting energy access for poverty alleviation in S-S Africa, following the Nairobi Energy for Africa conference in 2003. Facilitation Workshops in Ouagadougou (2004) and Maputo (2005) each with multisectoral teams from 7 countries contributed to the multisectoral dialogue and development of proposals for the ACP/EU energy facility. We have tried to maintain a link to these 14 countries through the stakeholders invited to this workshop.
- **M&EED** – the international group for Monitoring and Evaluation for Energy and Development, facilitated by GVEP with membership of many organisations, including GTZ, UNEP, UNDP, DFID, EdF, - parallel to DEA developing a methodology for M&E. Early in the DEA project, joined forces with the M&EED group whereby DEA adopted the methodology and used it in the case studies. My colleague Sten will tell you about the methodology in the next session.

DEA Methodology

All I need say here is that the DEA methodology embodies a relatively simple but systematic approach to asking questions at different levels regarding the input, output, outcomes and impacts of any given energy project. The DEA approach is similar in a way to the logical framework (LFA) that most of you know, but starting from the other end so to speak.

DEA Case studies

A central part of the DEA project has been applying this methodology to assess real energy projects – 6 in all – in the 6 participating countries. The selection of these case studies attempted to cover a

range of different types of projects. Thus we have 2 grid-based rural electrification projects, one PV solar electrification, one woodfuel and stoves project, one r.e. for women and one r.e. for water pumping. These case studies will be presented individually by my colleagues from the 6 centres, and tomorrow Peter Zhou will present an overview of the case studies highlighting how the methodology was used and the lessons learned.

Conclusion – the main business of the workshop

With this short introduction, it is now time to begin the main part of the workshop which is presenting and discussion the methodology and how it has been applied in case studies in the 6 participating countries. This is in many ways the climax and culmination of a project which many of us have worked for more than 3 years on. We have been aiming and planning for this workshop essentially since the start of the project, and before. One of our main aims has been to develop or adapt a methodological approach, test it in the field on case studies, and present it among a broad regional forum of stakeholders. I have to say now that we have succeeded in achieving that goal. What remains is to present the DEA approach and its application to you, and if you agree to work together so that it may be used to the benefit of your countries.

2.1.3 Presentations

The remainder of the day's proceedings followed the Workshop Programme shown above. All presentations are included in Appendix 2, including the Lunchtime side event: "Successful Energy Policy Interventions in Africa – A GTZ/BMZ supported study" which was presented by Stephen Karekezi of AFREPREN/FWD.

The presentations were followed by lively discussions and a group session which included time devoted to discussing the state of M&E for energy projects in all the countries represented at the workshop, and of possible ways forward. The groups discussed the question 'What are the primary obstacles to energy for development projects [to succeed] in your country, and could M&E be used to address any if these?'

The groups brought a variety of messages and conclusions to the plenary. Obstacles to energy projects ranged from insufficient finance and insufficient planning, to unfriendly policy; all of which were seen to be difficult to address directly through M&E. However it was agreed that careful M&E of projects, which provided empirical evidence, could in the longer term, influence both the outcome of project and policy. There was general agreement that M&E skills needed to be addressed across all levels of stakeholders and in all countries.

2.2 Day 2

Day 2: Wednesday 17 October		
	Session 5: Case studies	
9:00 – 10:30	The DEA Case Studies in practice – summary presentation	<i>Peter Zhou (EECG, Botswana)</i>
10:30 – 11:00	Coffee break	
	Session 6: The way forward	
11:00 – 13:00	Towards regional facilities for independent M&E of energy projects in sub-Saharan Africa: An assessment of interest, capacity, constraints and policy influence.	<i>Consulting the workshop participants: Sten Dieden and Wendy Annecke (Gender and Energy Research and Training)</i>
13:00 – 14:00	Lunch	
14:00 – 18:00	Excursion: visit to local energy projects	<i>Facilitated by TaTEDO</i>

On the second day there was a discussion on the merits of the AF. Generally those who had worked with it saw the virtue of its structure, but there were suggestions from AFREPREN (Kenya) and the CSIR (South Africa) that the methodology was too complicated. Simplifying it may be task an M&E forum could take forward.

Towards entrenching the DEA project’s usefulness and making the effort sustainable, Sten Dieden proposed a model, designed around African regional hubs, for taking M&E forward to the participants. In conjunction with the presentation a questionnaire-based survey was undertaken among workshop participants to solicit their views and experiences on related matters. The discussion was enthusiastic about the need for M&E and largely, very supportive of the proposition to work regionally with M&E. Funding remains a key issue however, not only in regard to building capacity in M&E but also in conducting it; “Our government doesn’t even have money for energy for development projects, let alone M&E” one of the participants pointed out.

Some 34 participants completed the questionnaire (members of case study teams etc were considered biased and did not complete it). This will yield important results on

- Levels of awareness of M&E in each of the participating countries
- Interest and demand for M&E in energy for development
- Country capacity to undertake M&E
- Ability to pay for training in M&E
- Ability to pay for professional and independently conducted M&E
- Usefulness of regional cooperation
- Current energy interventions requiring M&E

As the convening body for the International Working Group for M&EED, GVEP had indicated an interest in taking M&E forward in Africa, along the lines of the proposed model. As a first step,

GVEP has commissioned a feasibility study for an M&E facility which would do this, initially in Southern Africa. The results from the discussions at DEA-Arusha and of the questionnaire constitute vital input to that feasibility study.

The afternoon session was devoted to a site visit. The group went to visit Leguruki village where an improved oven is being used in a baking project and a multi-function platform has been installed. The MFP is fuelled by jatropha oil which is locally grown and pressed on the spot. If there is not sufficient oil produced other oil can be used in the generator. The generator supplies 40 households with limited current (lights) at night, and has attachments for grinding maize and pressing oil. Other attachments could be acquired. In a second village an improved stove had been recently built for a school and had begun to provide meals for the children at the school. All the interventions appeared to be well used and maintained by local people. Details of the field visit to Leguruki village are included in Appendix 3.



Oscar Lema of TaTEDO welcoming participants to the field visit at Leguruki Village.

2.3 Day 3

Day 3: Thursday 18 October		
	Session 7: Monitoring and Evaluation – Gender and IT	
09:00 – 10:00	Monitoring men and evaluating women - gender considerations in M&E	<i>Presentation by Wendy Annecke Plenary discussion.</i>
10:00 – 10:30	Next-generation Internet tools for project evaluation: Can Africa log in with mobile phones?	<i>Lawrence Agbemabiese, UNEP Paris</i>
10:30 – 11:00	Coffee break	
	Session 8: AREED experience	
11:00 – 12:30	The African Rural Energy Enterprise Development (AREED) Programme – experience gained and the future for energy SME development	<i>AREED teams</i>
12:30 – 14:00	Lunch	
	Session 8: Regional experience and conclusions	
14:00 – 15:00	Rural electrification experience: presentations from other countries, productive uses of electricity, M&E, development impacts, policy issues	<i>Facilitated plenary discussion</i>
15:00 – 16:00	Conclusions of the workshop	<i>Risø and Centre teams</i>
16:00 – 16:30	Close of workshop	<i>Ministry of Energy, Tanzania and TaTEDO</i>
16:30	Closing cocktail	

On the third and final day Lawrence Agbemabiese's presentation on next generation IT for monitoring raised considerable interest, as did the GVEP presentation on including gender consideration in M&E which was presented to the largely male audience.

A final session was devoted to deciding on a way forward, and Sten Dieden of Risø summarized the discussion as follows:

There is evidence of a strong demand for M&E in all participating countries

- There is a strong need for local capacity building expressed by most;
- The ability to pay is minimal;
- We need more awareness of the value of M&E, and tangible results from the ground will provide evidence and can be used to raise awareness.
- There is a need for M&E to be funded externally and something to exchange on the regional level – institutions to build M&E capacity in all energy projects.

3 Conclusions

The Regional Workshop brought together over 50 regional energy workers from government, NGOs and universities, representing 16 African countries. The participants had different levels of experience in M&E and impact analysis related to energy interventions, but a clear desire was indicated by all of the importance of working together to develop recognized M&E systems and practices. In-country the levels of awareness of M&E and its usefulness is limited, and the ability to pay for services is weak. As awareness grows, however, and the usefulness of M&E becomes clear, the ability to pay for services may increase. In the meantime there is a need for support to carry out M&E and to build in-country capacity. This is a need that must be addressed in coming activities and initiatives.

In general, external participants⁴ were impressed by the high level of commitment and the quality of research undertaken in the six case studies. The presentations and discussions indicated an urgent need to build M&E into the project cycle in a consistent way. Knowledge about projects, how they perform and their impacts is essential for designing future interventions that succeed and produce the desired impacts, and this knowledge must be available within the countries.

National and regional networks where energy sector specialists and actors meet can be useful for to discuss and promote the enhanced implementation of M&E into the energy project cycle, and indeed to identify funding possibilities.

In the area of biomass energy M&E is particularly needed. Although biomass is a big industry, it is largely in the informal sector. Continued interventions target the biomass sector, promoting sustainable fuels, improved energy conversion and combustion techniques, etc. but partly because of the informal nature of the sector, M&E has been lacking, and the effectiveness of various interventions and methods is poorly documented and understood. A mainstreaming of biomass energy into the formal sector is a gradual and difficult process, but nevertheless more attention from energy planners is needed, and M&E should play a role. This is an important topic for future discussion and work.

Ambassadors of M&E are required to take the message of this workshop back to the stakeholders in the countries. Internal workshops on M&E can be one way of sustaining the messages that were received at Arusha and making them part of national energy programmes. Incorporating M&E within national energy development programmes does require enhanced awareness, but also dedicated resources. It is hoped that this workshop has contributed to the awareness, and that resources may be identified both internally and externally through new cooperation activities.

The main purpose of meeting at the DEA workshop in Arusha here was to share and exchange information about the DEA Assessment Framework. Many participants came with little or no background information and so initially there was a lack of understanding and some confusion regarding the concepts. However, this was rectified by the high quality of the presentations and the active discussions, so that all participants left with a significantly enhanced awareness of the importance of M&E.

Finally, it has to be stated that M&E and Impact Analysis will not on their own enhance the effectiveness of improved energy access in meeting development goals. They are only tools to indicate the way to go, and to flag possible successes and failures. While awareness of M&E and indeed carrying out M&E in practice is essential, the results and lessons of M&E have also to be

⁴ i.e. participants from outside the 6 DEA country teams and EU partners.

incorporated into energy policy and project design. This is after all the main purpose of conducting such monitoring and analysis.

It is now widely recognised that energy access is a vital input for development. But projects and interventions for improving energy access can only deliver with regard to development impacts if they succeed and reach the intended target groups, and importantly if the necessary other conditions are in place. The overriding necessity is that scarce resources targeted at improving energy access and security result in real development, poverty alleviation and better living standards for people. M&E and IA, if carried out and given proper attention, can help to ensure that the energy-development connection works as well as possible. The remaining immediate challenges are thus to institutionalise the process, to identify and devote adequate resources to M&E, and to adjust and refine project design on the basis of the results of M&E and impact analysis.



Gordon Mackenzie (Risø DTU), Jensen Shuma (TaTEDO) and Lawrence Agbemabiese (UNEP DTIE) discussing the workshop programme

4 Appendix 1: List of participants

Name	Country	Organisation	Title	email
Mr Peter Zhou	Botswana	EECG Consultants Pty, Ltd	Director	pzhou@global.bw
Mr Onkabetse Lebogang	Botswana	Ministry of Minerals, Energy and Water Resources, Energy Affairs Div.	Principal Energy Officer	olebogang@gov.bw
Ms Anne Kenamile Leipego	Botswana	Ministry of Minerals, Energy and Water Resources, Energy Affairs Div.	Chief Research Officer	aleipego@gov.bw
Mr Sten Dieden	Denmark	UNEP Risø Centre	Researcher	sten.dieden@risoe.dk
Mr. Gordon Mackenzie	Denmark	UNEP Risø Centre	Energy Policy Coordinator	gordon.mackenzie@risoe.dk
Mr Anders Larsen	Denmark	Aalborg University / UNEP Risø Centre	student	anderslar@hotmail.com
Mr. Abbas Salum	Denmark	Aalborg University / UNEP Risø Centre	student	abbasum@yahoo.com
Mr Wossenu Arede Weldekiros	Ethiopia	EREDPC, Ministry of Mines and Energy	Senior Household Energy Expert	wossenuareda@yahoo.com
Mr Lawrence Agbemabiese	France	UNEP DTIE	Energy Programme Officer	lagbemabiese@UNEP.FR
Ms Anne Rehner	Germany	GTZ , Energizing Africa		Anne.Rehner@gtz.de
Mr Frank Ottaibil Atta-Owusu	Ghana	KITE	Project Officer	faowusu@kiteonline.net
Mr Joseph Essandoh-Yeddu	Ghana	Energy Commission	Head, Planning and Policy Division	jeveddu@yahoo.co.uk
Mr George Obeng	Ghana	Kwame Nkrumah University of Science & Technology	Research Fellow	geo_yaw@yahoo.com
Mr Solomon Quansah	Ghana	KITE	Senior Projects Officer	solomon.quansah@gmail.com
Mr Patrick Balla	Kenya	Adventist Development and Relief Agency (ADRA) SOMALIA	Energy Project Coordinator	p.balla@adrasom.org
Mr Kennedy Muzee	Kenya	AFREPREN/FWD		afrepren@africaonline.co.ke
Mr Stephen Karekezi	Kenya	AFREPREN/FWD	Director	afrepren@africaonline.co.ke
Ms Waeni Kithyoma	Kenya	AFREPREN/FWD		afrepren@africaonline.co.ke
Mrs 'Mamokete Molapo	Lesotho	Department of Energy	Senior Systems Analyst	molapo@energy.gov.ls
Mr Chiyembekezo Kaunda	Malawi	The Malawi Polytechnic (University of Malawi)	Lecturer, Energy Engineering	skaunda@poly.ac.mw
Mr Pierre Demebele	Mali	Mali Folkecenter	Coordinator of DEA project in Mali	p.demebele@malifolkecenter.org
Mr Lanciné Sylla	Mali	Direction Nationale de l'Énergie	Directeur National de l'Énergie	lsylla2002@yahoo.fr or dnenergy@afribone.net.ml
Mr Ousmane Ouattara	Mali	Mali Folkecenter	Deputy Director	o.ouattara@malifolkecenter.org
Mr João de Lima Albino Junior	Mozambique	Ministry of Energy, Renewables Directorate	Head of Department of Alternative Energy	lai@me.gov.mz
Mr Bello Nassourou	Niger	Ministère des Mines et de l'Énergie, Division des Énergies Renouvelables	Senior Electrical Engineer	nassourou_bello@yahoo.fr

Dr. Anastase Rwigema	Rwanda	Kigali Institute of Science and Technology (KIST).	Lecturer	a.rwigema@kist.ac.rw
Mr Jean Pascal Corréa	Senegal	ENDA		enda.energy@sentoo.sn
Mr Sécou Sarr	Senegal	ENDA		enda.energy@sentoo.sn
Mr Ousmane Fall Sarr	Senegal	Senegalese Agency for Rural Electrification	Director of Studies and Information Systems	ofsarr@yahoo.com
Mr Max Mapako	South Africa	CSIR, Natural Resources and Environment	Senior Energy Specialist	mmapako@csir.co.za
Mr Stanford Mwakasonda	South Africa	Energy Research Centre, University of Cape Town	Researcher	Stanford.Mwakasonda@uct.ac.za
Ms Wendy Annecke	South Africa	GVEP		wendya@sustainable.org.za
Mr Douglas Banks	South Africa	RESTIO Energy	Managing Director	douq@restio.co.za
Mr Ernest Mazimpaka	South Africa	Energy Research Centre, University of Cape Town	PhD student	Ernest Mazimpaka [emazimpaka@yahoo.fr]
Mr Samuel Dlamini	Swaziland	Ministry of Natural resources and Energy, Energy Section		smkdlamini@yahoo.co.uk
Mr Jensen Shuma	Tanzania	TaTEDO		energy@tatedo.org
Mr Oscar Lema	Tanzania	TaTEDO		energy@tatedo.org
Dr. H. Rajabu	Tanzania	University of Dar es Salaam, Department of Energy Engineering	Senior Lecturer	hmrajabu@udsm.ac.tz
Mr Nazir Karamagi	Tanzania	Ministry of Energy and Minerals	Minister	
Mr Sosthenes Massola	Tanzania	Ministry of Energy and Minerals	Minister Secretary	
Mr. James Ngeleja	Tanzania	National Environment Management Council (NEMC).	Environment Management Officer	ngeleja@hotmail.com
Mr. John Moshi	Tanzania	Ministry of Planning, Economic and Empowerment		jomoshi@plancor.gov.tz
Mr. Mkoma Masanyiwa	Tanzania	Ministry of Energy and Minerals	Ag. Commissioner for Renewable Energy	masanyiwam@gmail.com
Mr. Pankras P. Uwoya	Tanzania	Ministry of Energy and Minerals	Ag. Director for Policy and Planning	memplanning@yahoo.com
Ms. Esther Mfugale	Tanzania	Ministry of Agriculture, Food Security and Cooperatives		mkofue@yahoo.com
Ms Ukundi Nkya	Tanzania	TaTEDO		energy@tatedo.org
Mr Martin Luther Mukiibi	Uganda	Energy Institute of Uganda	General Manager	martin@energyinstug.org
Mr. Benon Bena	Uganda	Ministry of Energy and Mineral Development	Principal Energy officer	bena@energy.go.ug
Mrs Lilian Zulu Munyeka	Zambia	CEEEZ	Project Officer	ceeez@coppernet.zm
Prof. Francis Yamba	Zambia	CEEEZ	Director	ceeez@coppernet.zm
Mr. Oscar Kalumiana	Zambia	Department of Energy, Ministry of Energy and Water, Development	Director of Energy	OSKalumiana@mewd.gov.zm



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5 Appendix 2: Presentations



6 Appendix 3: Field Trip to Leguruki Village