

ADB FINESSE Africa newsletter



Financing Energy Services for Small-Scale Energy Users-ADB FINESSE AFRICA NEWSLETTER 2.0 , APRIL 2005

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Delivering Africa's energy challenge

We welcome our readers to yet another edition of the FINESSE Africa program newsletter. This newsletter focuses on the main messages coming from the recently held regional consultative workshop.

Deliberations during the workshop showed that, the four main characteristics of the energy situation in Africa are; high dependency on traditional biomass and human energy; little or no access to modern energy forms; vast but unevenly distributed and unexploited energy resources and lack of or weak basic energy infrastructure. Besides continued economic marginalisation, the current energy situation causes profound negative environmental and social impacts. The environmental impacts include land degradation, desertification and human health risks while the social impacts include increase in rural poverty, rural to urban migration and lack of social equity. But then, how do we promote energy systems that are economically viable and environmentally sound while at the same time ensuring social equity and institutional coherence?

Firstly, the traditional energy sector needs to be diversified so as to increase focus from just the power sector to include other sectors such as renewable energy and energy efficiency. This paradigm shift should encompass diversity in stakeholders, approaches, financing mechanisms and perspectives. Secondly, energy projects need to deliver to the challenge by ensuring coherence with local policies and needs. Furthermore, there is need for co-ordination and information sharing amongst all stakeholders, incorporation of lessons learnt and a sustained capacity building process. Third, there is need to widen access to energy services by scaling up successful interventions. This will be contingent upon successful market creation within and across countries and combining best practises with appropriate technologies and options.

The recently held FINESSE program consultation workshop reiterates the need for stakeholders participation in decision making processes. The sub-regional action plans developed during the workshop identified three focal areas that are within the framework of the FINESSE program namely, capacity building, policy and regulatory framework support and portfolio development. As the FINESSE program moves into its second year of implementation and embarks on more country-level activities, the action plans will provide guidance on, needs and priorities in each sub-region, existing institutions and actors to collaborate with and valuable lessons already learnt from other project and programs.

We take the opportunity to express our gratitude to all those who participated in the regional consultative workshop and look forward to your continued support.

Yogesh Vyas ,

Head - Sustainable Development and Poverty Reduction Unit.

'Time to scale up' - message from the regional consultative workshop

From 23 to 25 February 2005, the FINESSE team organised a regional consultative workshop at the Africa Development Bank's Temporary Relocation Agency in Tunisia. The two major goals of the workshop were to consult all stakeholders on strategies of promoting sustainable energy and assess the sustainable energy capacity building and technical assistance needs for countries in Africa. Attended by over 80 participants representing 35 regional member countries, other multilateral development agencies and stakeholders and ADB Bank staff, the workshop managed to make use of valuable lessons learnt and experiences from other projects and programs to develop consensus and impetus on effective strategies and priority areas required to promote sustainable energy for poverty reduction in Africa. Furthermore, the workshop also achieved a number of objectives that include; familiarisation of participants with the FINESSE Africa program implementation plan, presentations of the outcomes of sub-regional scoping studies, development of sub-regional action plans, and the sharing and exchange of information and knowledge on other ongoing initiatives that can benefit the Bank's regional member countries.

The central message that emerged from the workshop was that, given the diversity of the energy challenge in Africa, concerted efforts should now be on 'thinking big and moving fast', i.e. scaling up. The scaling-up of energy interventions should be self-sustaining and has to result in widening access to energy services and the creation of sustainable energy markets. Demonstration and pilot projects have to date developed solid knowledge and information on approaches and strategies that deliver results. This wealth of knowledge, experiences and best practices needs to be shared and exchanged among all stakeholders and needs to be used as a basis of designing new and innovative projects. The new projects should be de-

mand driven for them to deliver the challenges and should be coherent with local policies and developmental priorities. Successfully addressing the energy challenge in African is contingent upon a continuous and sustained capacity building process. Although the results of capacity building appear to be somewhat not immediate, the capacity building process is irreplaceable.

In working towards this overall message, participants at the workshop highlighted to the FINESSE program the following as areas that need immediate focus and action ;

- # bundling small projects to get bankable size portfolio for the Bank,
- # in line with the Bank's operations, support targeted studies and capacity building,
- # facilitation of credit to SMEs through lines of credit in partnership with local financiers,
- # work with sub-regional organisations to increase political backing for renewables,
- # enhance coordination of existing initiatives and available financing opportunities, and
- # integration of learning by doing in the implementation of projects.

Biomass energy was highlighted as needing more attention given the energy situation in most of the countries in Africa. It was further observed that the current FINESSE resources should be augmented by more resources to ensure the highest possible impact of the FINESSE program. The complete workshop report and the presentations made during this workshop will be posted to the FINESSE program website soon.



Workshop Opening L. to R. - Mr. Y. Vyas - ADB, Mr. R. Ben Mosbah - Tunisia, Mr. P. Afrika - ADB, Mr. T. van der Zon - DGIS

Overview of the results of the FINESSE sub-regional assessments

In preparation of the regional consultative workshop that was held on 23-25 February 2005, the FINESSE team initiated sub-regional assessments of the status renewable energy and energy efficiency. In each sub-region, the assessments focused on an overview of key issues related to alternative energy, policy and regulatory issues, priority technologies, capacity development and training needs and potential high impact projects.

The five sub-regions created for this exercise were North Africa, West Africa, Central Africa, East Africa and Southern Africa. Figure 1 below shows countries in each sub-region. The studies were conducted by experts based in each of the sub-regions who consulted various stakeholders at local, national and sub-regional levels.

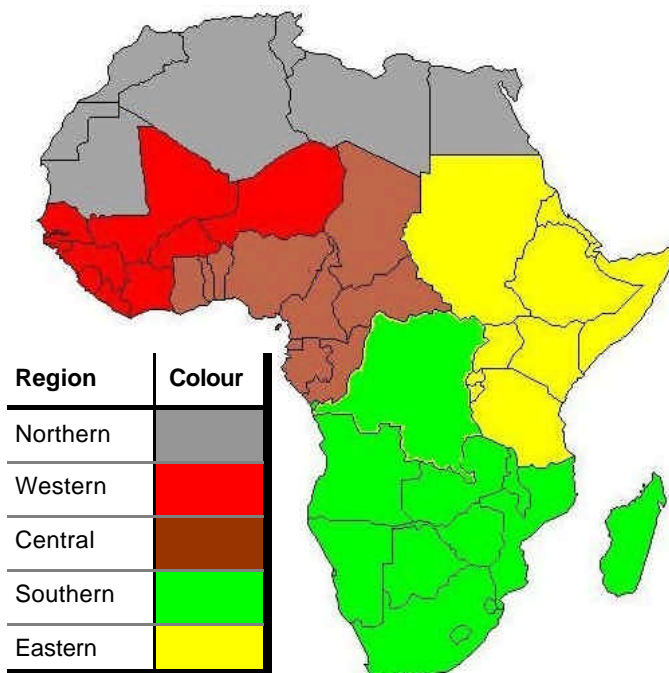


Figure 1, Map showing countries in sub-regions devised for the purpose of the FINESSE assessment

The five reports generally noted that there is an increased interest in renewable energy technologies across the continent. The increased focus on renewables is a result of various factors. The energy sector is increasingly getting dominant budgetary allocations in many countries besides inadequate performance from this sector especially the power sector. Furthermore, most countries in Africa are net importers of petroleum products and the volatility of the price of oil has severely exposed most national economies. Access to electricity is very low in Africa, with less than 5% of the population in rural areas and only about 20% of the urban population has access. It is increasingly becoming evident that the Millennium Development targets will not be met if access to energy services is drastically increased and renewables can contribute effectively towards this cause. Among others, these factors are primarily responsible for the renewed interest in renewables.

The energy situation in Africa can be described by use of three

sub-regions namely Northern Africa, South Africa and Rest of Africa that have distinct energy characteristics. The main energy sources for Northern Africa region are oil and gas contributing over 80%, with biomass contributing a minor 4%. In South Africa, oil, coal, electricity contributes 30%, 27% and 26% respectively. The situation in the Rest of Africa region is quite unique as biomass contributes 80% to the total energy consumed. Oil and electricity contributes 14% and 3% respectively. It can also be observed that the electricity generation in these regions are Northern Africa - 33%, South Africa - 46% and Rest of Africa - 21%.

Different renewable energy resources are somewhat evenly distributed across the continent. Solar energy is available throughout the continent with excellent resources available in desert areas in the Sahara desert, Namib desert as well as part of the Horn of Africa region. Wind energy is available along specific coastal region of the continent particularly in Northern Africa region and Southern Africa. Biomass is extensively available across the continent albeit to a limited extend in specific climate areas like deserts. Geothermal is available along the rift valley which extends more than 10 countries. Some countries in North Africa region also have geothermal resources. Large hydro power resources are available along the continent's major rivers that include the Congo river, Nile river and the Zambezi river. In fact, only 7% of the potential has been exploited to date. Small hydro resources are extensively available along most of the continent's smaller rivers.

Despite of the importance of the energy sector to the development of the continent, it was observed that there is a general dearth of comprehensive and long-term policies for the alternative energy sector and in some cases even the energy sectors itself. In countries where alternative energy policies are in place, such policies are not viewed as contributing to the mainstream policies that contribute to poverty reduction. Furthermore, there are limited budgetary allocations to the operationalisation of these policies by national governments. There are various regulatory barriers in most countries that inhibit private sector participation in the energy sector. Issues relating to pricing and access to the grid are still not addressed in most countries. It must however be noted that a number of countries are now well advanced on policy and regulatory matters. Institutions dedicated to the developing of alternative energy are now in place in many countries although such institutions are facing problems related to capacity and resources.

The continent overall has low capacity for technology adaptation and transfer despite of specific countries having the requisite capacity. Regional and national technology research centres are yet to significantly contribute to the development of capacity to manufacture alternative energy systems in local industries.

Overview of the results of the FINESSE sub-regional assessments (cont.)

Alternative energy technologies are still a niche market whose development is contingent upon supportive financing mechanisms. The mechanisms include incentives, targeted subsidies and innovative financing schemes that takes into account the local context.

The sub-regional assessments identified priority sustainable energy technologies based on technical potential and other related developments in specific countries. Figure 2 below shows the sustainable energy technologies that were proposed for each sub-region.

	Central	Southern	Eastern	Western	North
Improved Biomass	X	X	X	X	
Solar PV	X			X	X
Solar Thermal	X	X	X	X	X
Biomass co-generation	X	X	X		X
Micro hydro	X	X	X	X	
Geothermal		X	X		
Wind		X	X	X	X
Energy from Waste		X	X		X
CFLs	X	X		X	

Figure 2: Proposed technologies by region

Synthesis of sub-regional action plans

One of the main objectives of the FINESSE regional consultative workshop was to invite stakeholders from the five sub-regions to develop plans of action on how the objectives of the FINESSE program could best address their specific situations. The development of these plan of action took into consideration activities by various stakeholders and information provided during and prior to the workshop that included, results of the sub-regional assessments, current ADB energy sector activities, and issues papers presented by renowned experts.

The action plans that were developed by each sub-region will form the basis of FINESSE program activities in these sub-regions. To this effect, capacity building activities and portfolio development initiatives would be guided by the results of this participatory approach. Below, briefs of the salient points raised in each of the sub-regions are discussed.

Eastern Africa group report.

Need to support policy and capacity building initiatives at national, regional and ADB level.

Call to use ADB political standing to influence national and

Taking into consideration, existing national energy policies and priorities as well as the potential of regional initiatives, the list of potential target areas was reduced to potential high impacts projects by sub-region as shown in Figure 3 below

Region	Possible High Impact Projects
Central	Small Hydro / Cogeneration
Southern	Biomass based cogeneration. Solar water heaters. Database creation and policy program.
Northern	Wind power Solar PV and solar thermal
Western	Solar PV Small Hydro CFLs
Eastern	Geothermal Policy studies Solar thermal and cogeneration.

Figure 3 : High impact projects by sub-regions

The overall results of the sub-regional assessments showed the need for continuous policy research to strengthen the case for alternative energy in poverty reduction initiatives. Capacity building for member countries experts was identified as crucial. Given the identified high dependence on biomass, the area was realised to be needing more attention. It was further observed that more resources need to be raised to complement current FINESSE resources.

sub-regional level energy policies and priorities that are responsive to the case of alternative energy.

The need to develop a portfolio of flagship projects that would strengthen the case of ADB increased support for renewables.

Southern Africa group report.

A sub-regional assessment of existing renewable energy and energy efficiency policies, institutional frameworks, incentives, energy efficiency projects implemented, market assessment and resource potential and utilisation was carried out. The following were identified as needing attention:

Technical assistance for energy efficiency including capacity building for government officials, financial institutions, project developers, energy service companies. Support for the development of regional regulatory frameworks and national policies and strategies is required.

Synthesis of sub-regional action plans

(cont.)

Technical assistance for renewables included; national and regional policies and institutional support, capacity building for target government officials, financial institutions and project developers.

High level plan of action identified included, financing mechanisms, best practises assessment, projects development assistance, resource assessment and awareness and information programmes.

Northern Africa group report

It was observed that there is need to integrate renewable energy and energy efficiency in mainstream energy planning so as to eliminate tariffs that distort energy prices in favour of fossil fuels.

Capacity development requirements were identified to be predominantly in the areas of strategic energy planning so as to develop and introduce incentives for the promotion of sustainable energy technologies.

Central Africa Group report

The major issues raised in this group included;

the need to have concrete information on renewables energy resources in each country outlining potential, policies in place and utilisation and demand. Technical assistance

in energy planning, data gathering and disseminations is also required.

Reinforcing institutional capacity, promotion of renewable energy for poverty reduction through engagement of all stakeholders that include responsible ministries, NGOs, micro-financial institutions, entrepreneurs and chambers of commerce.

West Africa group report

The plan of action for the sub-region included:

Supporting the activities in national institutions, identification and development of sustainable energy technologies, developing capacity of both public and private investment in alternative energy.

Supporting the development of appropriate legal and regulatory frameworks and establishment of networks for exchange of best practices

Development of national alternative energy strategies, support existing national initiatives and the development of clean development mechanism projects.

The identified modes of support required include financial, technical and ADB leadership.

Partnerships Side Event

During the first evening of the FINESSE regional consultative workshop invitations were given to energy partnerships that resulted from the World Summit on Suitable Development in Johannesburg in 2002 (WSSD). Under chairmanship of Mr. Ton van der Zon of the Dutch ministry of Foreign Affairs the floor was given to the following networks:

- the Renewable Energy and Energy Efficiency Partnership (REEEP)
- the Global Village Energy Partnership (GVEP)
- the Global Network on Energy for Sustainable Development (GNESD)

International director Marianne Osterkorn introduced the audience to the REEEP initiative and explained its main objectives and the implementation of the program. REEEP is a global private-public partnership launched by the UK government at the WSSD and currently comprises of 90 partners representing governments, businesses and NGO's committed to accelerating the uptake of renewable energy and energy efficiency.

REEEP is currently funded by various governments such as the Austria, the Netherlands, Ireland, Italy, Spain, US, UK and EU.

Renewable Energy and Energy Efficiency Partnership



Eastern Africa - sub-regional group discussions

Partnerships Side Event

(cont.)

The overall objective of REEEP is to “generate green kilowatts & save energy”. It will reach this through;

- stimulation of a significant global increase of investments in renewable energy sources;
- stimulation of significant increase in the global use of energy efficiency measures;
- and improvement of rural energy supply in developing and transition countries by utilisation of RES and increase of energy efficiency.

REEEP works with regional offices that coordinate projects. In Africa the regional office is located in South Africa, but Mrs. Osterkorn indicated that a second office will be opened soon. Further Mrs. Osterkorn elaborated on the different African project proposals that were honoured in the last REEEP call for proposals. She further indicated that a new call for proposals to a total value of 2 million euros is expected by the end of May 2005. <http://www.reeep.org>

Global Village Energy Partnership

Mr. Abeeku Brew-Hammond, GVEP manager, briefed the audience on the Global Village Energy Partnership (GVEP).

GVEP originates from the 2000 Village Power conference, but was officially launched as a Type 2 initiative at the WSSD in Johannesburg. Mr. Brew-Hammond first indicated the GVEP desired outcomes:

- Over 30 countries with national energy-poverty programs
- Over 400 million incremental people with access to modern energy services
- Over 50,000 communities serviced with electricity
- Cadre of trained entrepreneurs in the delivery of energy services
- Financing leveraged from multilateral, bilateral and host country sources in support of energy access

- Increases in productivity, income, environment, equity and quality of life via urban, rural or peri-urban energy services, with measurable improvements in quality of life by those served

Currently GVEP consist of over 440 organisations that have subscribed to the values of GVEP and that work together in achieving the outputs as discussed above. The ADB FINESSE Africa program is one of the partners of GVEP.

In the second half of his presentation, Mr. Brew-Hammond went into specific details of the GVEP activities in Cameroon and South Africa, followed by a presentation by Mr. Sécou Sarr on the PREMS initiative in Senegal. <http://www.gvep.org>

Global Network on Energy for Sustainable Development

GNESD was represented at the FINESSE side event by Prof Ogunlade R Davidson, the Co-Chair of the Steering Committee. GNESD, which is supported by UNEP, is a network organisation that links centres of excellence around the globe that work on the field of sustainable energy issues. The network's aim is to promote sustainable development and poverty alleviation through the provision of the environmentally sound of energy services, and tries to reach these through the promotion of:

- information exchange;
- learning, analysis and study;
- policy support; capacity building;
- and advocacy,

with a focus on issues of concern to developing countries

In Africa the network is represented through AFREPREN from Kenya, EDRC from South Africa and ENDA-TM from Senegal. Prof. Davidson elaborated on the Energy Access studies carried out by the network partners and the lessons learned from it. More information can be found at <http://www.gnesd.org>



Participants at the regional consultative workshop

Energy News

Developing world has potential for thousands of MW of renewables.

Thirteen developing countries in Africa, Asia, South and Central America have the potential for thousands of megawatts of new renewable energies, according to a multi-million dollar assessment by the United Nations.

The 'Solar & Wind Energy Resource Assessment' (SWERA) mapped the solar and wind resource of 13 countries and concludes that the potential for deploying solar panels and wind turbines is far greater than previously supposed. Initial results from the project were released at a meeting organized by the United Nations Environment Programme, which is coordinating SWERA on behalf of 25 institutions around the world.

"In developing countries all over the world, we have removed some of the uncertainty about the size and intensity of the solar and wind resource," says Klaus Toepfer of UNEP. "These countries need greatly expanded energy services to help in the fight against poverty and to power sustainable development. SWERA offers them the technical and policy assistance to capture the potential that renewable energy can offer."

<http://www.unep.fr/shared/hilites/swera.pdf>.

Power shortfall a nightmare for Brazzaville residents

BRAZZAVILLE, 2 May 2005 (IRIN) - The destruction of high-voltage cables and the sabotage of electricity switchyards during the civil wars from June to October 1997 and from 1998 to 2002 in the Republic of Congo have crippled the energy-supply sector of this petroleum-rich nation.

The drop in electric output and frequent power cuts have become a fact of life for residents of Brazzaville, the nation's capital, and Point-Noire, the largest commercial city. Together, these cities form the hub of Congo's economic life and account for half of the country's three million people.

The electricity switchyard and the supply line running from the Moukoulou Dam, built in Mindouli, in the political adminis-

trative department of Pool, have been badly damaged. In addition, the network of the state-owned power company, the Société nationale d'électricité (SNE), is an outdated relic from the colonial era. Making matters worse is the fact that SNE has a monopoly on power production and distribution nationwide.

<http://www.irinnews.org/report.asp?ReportID=46894>

SA launches green power, credits scheme

South African companies can now buy electricity from renewable sources over the national grid and will be able to trade certificates proving their green power credentials, officials said yesterday. Battling to boost generating capacity to meet rocketing demand, the government plans to increase the proportion of power derived from renewable sources to help reduce environmental damage from a power industry overwhelmingly dominated by coal-fired stations. Amatola Green Power, launched yesterday, will be the first company trading electricity from renewable sources over the national grid.

Initially it will match power bought from a Tongaat-Hulett sugar mill, which feeds surplus power from its in-house generator fired by dried sugar cane waste, or bagasse, with customers willing to pay a premium for 'green power'. One of the first customers is conference venue Gallagher Estate, north of Johannesburg, where Amatola was launched yesterday at the opening of the Pan-African Power Conference and Exhibition. Gallagher Estate is also home to the Pan-African Parliament.

"They will have to pay a premium for the power," said Kevin Nassiep, chief director of energy planning at the Department of Minerals and Energy. South Africa's target is to use more than 10 000 gigawatt hours (GWH) of electricity from sustainable sources by 2013 – way ahead of the 40 GWH that Amatola is now supplying.

Amatola forecasts demand will rise to at least 100 GWH by 2006, rising to 200 GWH in 2007, and plans to meet that demand by signing up supply deals with small-scale generating schemes including mini hydroelectric plants and generators fired with methane from agricultural waste and landfill refuse sites. <http://www.engineeringnews.co.za/eng/news/today/?show=66027>.

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