

AFRETEP Project

Newsletter of the 2nd May 2012

SOUTHERN AFRICA REGION AFRETEP PROJECT WORKSHOP

PARTICIPANTS



As the previous AFRETEP workshops which took place in Kampala (December 15th 2011 Newsletter) and in Ouagadougou (February 6th 2012 Newsletter), the professional level of the participants was very high and they perfectly represented the profile of expert and organization the AFRETEP project aims.

Participant's profile.

| | |
|--|---|
| Assistant of Director | 1 |
| Associate Professor | 2 |
| Company manager | 1 |
| Deputy Director, Collaboration and linkages unit | 1 |
| Development and Transfer of Technology Officer | 1 |
| Energy Project Manager | 5 |
| Energy specialist | 7 |
| Programme Team Leader | 1 |
| Safety Engineer | 1 |
| Teacher | 1 |
| University assistant | 1 |
| University lecturer and researcher | 6 |
| University researcher | 1 |

Organization's profile.

| |
|---|
| African Carbon Credit Exchange, Green Knowledge Institute, Lusaka, Zambia |
| Botswana Technology Centre, Gaborone, Botswana |

| |
|--|
| Chinhoyi University of Technology, School of Engineering Sciences and Technology, Department of Fuels and Energy, Chinhoyi, Zimbabwe |
| Federal Ministry of Science and Technology, National Biotechnology Development Agency (NABDA), Abuja, Nigeria |
| Ministry of Minerals, Energy and Water Resources, Department of Energy, Gaboron, Botswana |
| Ministry of Natural Resources and Energy, Mbabane, Swaziland |
| New Venture - ZettaJoule Sustainable solutions, Cape Town, South Africa |
| Pipeline Performance Technologies (Pty) Ltd, Johannesburg, South Africa |
| Practical Action, Harare, Zimbabwe |
| Private |
| Rural Electrification Agency of Madagascar (ADER), Antananarivo, Madagascar |
| Scientific and Industrial Research & Development Center (SIRDC), Energy Technology Institute (ETI), Harare, Zimbabwe |
| Scientific and Industrial Research & Development Center (SIRDC), Harare, Zimbabwe |
| Sokine University of Agriculture, Morogoro, Tanzania |
| SONELGAZ Béchar, Algeria |
| South African National Energy Development Institute, Johannesburg, South Africa |
| Tanzania Commission for Science and Technology (COSTECH), Dar es Salaam, Tanzania |
| Tanzania Electric Supply Company Ltd, Morogoro, Tanzania |
| University Dar es Salaam, College of Engineering and Technology, Dar es Salaam, Tanzania |
| University of Botswana, Gaborone, Botswana |
| University of Botswana, Office of Research and Development, Gaborone, Botswana |
| University of Dar es Salaam, Department of Mechanical and Industrial Engineering, Dar es Salaam, Tanzania |
| University of Johannesburg, Johannesburg, South Africa |
| University of Malawi-The Polytechnic, Blantyre, Malawi |

University of the Witwatersrand, School of Electrical and Information Engineering, Johannesburg, South Africa
University of Zimbabwe, Harare, Zimbabwe

Participants were also a qualified representation of 12 African countries.

| | | | | | |
|---|--------------|---|----|-----------|---|
| 1 | Algeria | 1 | 7 | Sudan | 1 |
| 2 | Botswana | 4 | 8 | Swaziland | 1 |
| 3 | Madagascar | 2 | 9 | Tanzania | 6 |
| 4 | Malawi | 2 | 10 | Uganda | 1 |
| 5 | Nigeria | 1 | 11 | Zambia | 1 |
| 6 | South Africa | 5 | 12 | Zimbabwe | 5 |

Unfortunately, a Tanzanian colleague could not attend.

Participants were welcomed by Mr R. van de Geer, Ambassador and Head of the Delegation of the European Union to the Republic of South Africa; by Dr K. Bennett, Director of Energy Research Centre, University of Cape Town; by Dr S. Szabo, RENAF project leader, and by Mr U. Tromboni, the AFRETEP project coordinator.



Left to right, Mr R. van de Geer, Dr S. Szabo



Left to right, Mr U. Tromboni, Dr K. Bennett

Participants were granted certificate in workshop successful attending. Dr K. Bennett and Mr U. Tromboni attended the ceremony. More pictures in AFRETEP WG.



Mr J. Hwani, Energy Technology Institute, Harare, Zimbabwe



Ms S. P. Ayengo, University of Dar es Salaam, Dar es Salaam, Tanzania



Left to right, Dr S. Szabo, Dr T. Huld



Left to right, Dr W. Zaaiman, Dr I. Pinedo Pascua

TRAINERS

Highly qualified was also the participation of the trainers: Dr S. Szabo, Dr T. HULD, W. Zaaiman and



Left to right, Dr G. Prasad, Dr P. A. Ndiaye

Dr I. Pinedo Pascua, officers of Joint Research Centre Italy; Dr. Denis Worrall, Chairman of Omega Investment Research (Pty) Ltd Cape Town South Africa; Dr. Papa Alioune Ndiaye, CIFRES expert Dakar Senegal and Dr. Gisela Prasad, ERC expert Cape Town South Africa.

All presentations are at member's disposal in the AFRETEP WG by clicking the CAPACITY BUILDING main menu.

AGENDA

20th February 2012

- Opening session
- GIS based assessment for distributed PV electricity. Lecturer: Dr. Thomas Huld. JRC expert.
- Economic comparison of distributed technologies and grid extension, potential financial scheme. Lecturer: Dr. Sándor Szabó. JRC expert.
- Micro finance schemes: South African experiences. Lecturer: Dr. Denis Worrall. Chairman of Omega Investment Research (Pty) Ltd.

21st February 2012

- PVGIS Lab. Lecturer: Dr. Thomas Huld. JRC expert.
- Energy planning decision making tools: the importance of geographical information. Lecturer: Dr. Irene Pinedo Pascua. JRC expert.
- AFRETEP website: how to make the most of it. Lecturer: Dr. Irene Pinedo Pascua. JRC expert.
- Appropriate financial schemes for RE in Africa panel discussion. Case studies. Chairman: Dr. Sándor Szabó.

22nd February 2012

Site visit:

- Soitec's Concentrating PV plant at Touws River.

- Township solar water heating project.

23rd February 2012

- Wind energy experiences in Africa. Lecturer: Dr. Papa Alioune Ndiaye. CIFRES expert.
- Good quality solar systems: adapted testing laboratories. Lecturer: Dr. Willem Zaaiman. JRC expert.
- Opportunities and barriers to RE in sub-Saharan Africa and a case study of PV electrification in rural South Africa. Lecturer: Dr. Gisela Prasad. ERC expert.

24th February 2012

- Off grid renewable energy for rural electrification and impact on poverty reduction panel discussion. Case studies. Chairman: Dr. Papa Alioune Ndiaye.
- CONCLUSIONS and EVALUATION. Time to compile questionnaires. Certificates.
- Closing session.

CASE STUDIES

Colleagues who attended the first workshop which took place in Kampala suggested giving trainees the opportunity to present personal experiences. So, as in Ouagadougou, we arranged two Panel Discussions focused on financial schemes and off-grid RE. Several participants presented national case studies; see below. All presentations are at member's disposal in the AFRETEP WG by clicking the CAPACITY BUILDING main menu.

SITE VISIT

We spent a day visiting two interesting solar energy applications.

Mr J. Coetzer, Resident Engineer of SOITEC (www.soitec.com), saw us to visit an 82kW_p Germany remote controlled concentrator photovoltaic pilot power plant SOITEC provided with its own concentrator technology. SOITEC also kindly welcomed participants at AQUILA private game reserve for the lunch.

The second application was the Kuyasa Clean Development Mechanism Pilot Project (<http://www.kuyasacdm.co.za/>) concerning the "retrofitting of solar water heater, insulated ceilings and energy efficient lighting in over 2300 low-cost homes."



ORGANISATION AND SERVICES

Workshops organization is a task of the AFRETEP project. AFRETEP is a part of a bigger project named RENAF.

Development and Cooperation-EUROPEAID (DEVCO) and Joint Research Centre (JRC), both Directorate General of the European Commission, are the RENAF project sponsors while the Renewable Energy Unit (REU) of the Institute for Energy and Transport (IET) of JRC is in charge of the project. IET/REU has contracted a private company CECOFORMA SA to arrange the logistics. IET/REU and CECOFORMA, through Ms M. Bouhadi the event-coordinator, have been well supported as co-organiser by the Energy Research Centre.

The whole workshop has been video-recorded by *Fred Barker Photography & Video cc*, Cape Town and technically supported by Mr D. Nel.

SPECIAL CREDITS

The workshops scientific organization was in charge of Dr S. SZABO, project leader and scientific officer at IET/REU in Ispra, Italy.

Dr Irene PINEDO PASCUA, scientific officer at IET/REU, supported the scientific organization and arranged the case study sessions; moreover she made updated the AFRETEP Working Group website with all documents and presentations.

WORKSHOP EVALUATION

Workshop content and Methodology

| | Strongly agree | Agree | Neutral | Disagree | Strongly disagree |
|--|----------------|-------|---------|----------|-------------------|
| My expectations were met* | 11 | 14 | | | |
| The objectives specified in the workshop program were met. | 12 | 13 | | | |
| This course was relevant to my work/career | 19 | 5 | 1 | | |
| The level of the course was appropriate | 9 | 15 | 1 | | |
| The workshop was paced appropriately. | 11 | 11 | 3 | | |
| The length of the course was appropriate. | 8 | 14 | 2 | | |
| The course offered sufficient examples/exercises. | 10 | 13 | | 2 | |

Trainer/ Facilitator

| | Strongly agree | Agree | Neutral | Disagree | Strongly disagree |
|---|----------------|-------|---------|----------|-------------------|
| The trainers have a good knowledge of the topic | 12 | 12 | 1 | | |
| The trainers were good communicators [^] | 13 | 11 | 1 | | |
| The trainers were attentive to the needs of the participants [^] | 19 | 5 | 1 | | |
| The trainers were well prepared ^o | 16 | 8 | 1 | | |
| The trainers had good language skills [^] | 12 | 10 | 3 | | |

Learning resources

| | Strongly agree | Agree | Neutral | Disagree | Strongly disagree |
|---|----------------|-------|---------|----------|-------------------|
| The course provided me with the sufficient additional resources [^] | 11 | 10 | 4 | | |
| There was a good balance between theory and practice [^] | 7 | 10 | 6 | 2 | |
| The workshop material was presented in a clear and organized manner [^] | 12 | 9 | 4 | | |
| The field visit was well organized and provided good example of the topics presented during the theory lessons [^] | 11 | 9 | 3 | 1 | |

Organization and Logistics

| | Strongly agree | Agree | Neutral | Disagree | Strongly disagree |
|--|----------------|-------|---------|----------|-------------------|
| The pre-workshop administration was efficient and informative. | 18 | 5 | 1 | 1 | |
| I am satisfied with the organization during the workshop | 13 | 8 | 4 | | |
| The workshop facilities were appropriate and satisfactory. | 14 | 8 | 3 | | |
| The equipment was appropriate | 13 | 10 | 2 | | |
| The catering arrangements were appropriate and satisfactory. | 8 | 10 | 3 | 3 | 1 |

General comments

| | Excellent | Very good | Good | Average | Poor | No comment |
|---|-----------|-----------|------|---------|------|------------|
| My overall evaluation of this training is | 9 | 13 | 3 | | | |

CASE STUDIES LIST

| | | | |
|--|--|--------------|---|
| Examples of Appropriate Financial Schemes for RE projects in sub-Saharan Africa (Uganda, Tanzania and Rwanda) | Mrs Elizabeth Kajjuka-Okwenje | Uganda | Makerere University |
| Assessing Wind Energy in South West Algeria | Dr. Youcef Himri | Algeria | SONELGAZ |
| Financing Clean Energy in Sub-Saharan Africa - Advantages for Increasing Energy Access | Mrs. Amanda Luxande | South Africa | REEEF |
| Off grid Electricity supply to a low cost shelter based on a Sustainability concept. The Current issues and the potential new generation | Mr Dewald Le Grange | South Africa | CEO of Software Development House |
| Successful approach to rural electrification in Tanzania | Dr Amini Kweka | Tanzania | Sokine University of Agriculture |
| Renewable energy in Botswana | Mr. James Jakoba Molenga | Botswana | Botswana Technology Centre |
| Off grid renewable energy for rural electrification, social issues and/or impact on poverty reduction | Mr. Niaina Tahiana Razafinome Mr. Tombo Elson Joelinet Vanomaro | Madagascar | Rural Electrification Agency of Madagascar (ADER) |
| Experience of PV application in Malawi | Mr. Lameck Kabambalika Nkhonjera | Malawi | University of Malawi-The Polytechnic |
| PeoplesHome Project - Solar Housing and Energy Project | Dr Sameer Hameer | Tanzania | University of Dar es Salaam |
| Installation of wind measuring mast in rural areas | Mr Samwel Lucas Kessy | Tanzania | Tanzania Electric Supply Company LTD |
| Status on the use of Renewable Energy Technologies and Training in Zimbabwe. | Mr Luxmore Madiye | Zimbabwe | University of Zimbabwe |
| The Zimbabwean experience in Rural Electrification Projects. | Mr Benson Zeyi | Zimbabwe | Scientific and Industrial Research and Development Centre (SIRDC) |
| Biofueling rural development-making a case for linking biogas production to rural development in Nigeria | Dr Bamikole Amigun | Nigeria | The Council for Scientific and Industrial Research (CSIR) |
| Experiences of setting up of Micro Hydro Power stations for off-grid energy supply to rural communities in Malawi, Zimbabwe and Mozambique | Mr Lasten Mika | Zimbabwe | Practical Action Southern Africa |



Mrs E. Kaijuka-Okwenje



Dr. Y. Himri



Mrs. A. Luxande



Mr D. Le Grange



Dr A. Kweka



Mr. J. J. Molenga



Mr. T. E. J. Vanomaro



Mr. L. K. Nkhonjera



Dr S. Hameer



Mr S. L. Kessy



Left to right, Mr. D. Musademba, Mr L. Madiye



Mr B. Zeyi



Dr B. Amigun



Mr L. Mika