



ECREEE Regional Solar Workshop Adopts Road Map for Large-Scale Solar Energy Deployment

ECREEE organized the First Regional Workshop on the ECOWAS Solar Energy Initiative (ESEI) from 18 to 21 October 2010 in Dakar, Senegal. The Workshop was supported by

the ECOWAS Commission, the United Nations Industrial Development Organisation (UNIDO), the Austrian Development Agency (ADA) and the Spanish Agency for International Development (AECID).

The event followed the endorsement, by the 38th Summit of Heads of State and Government of ECOWAS, of the initiative by H.E Abdoulaye Wade, President of the Republic of Senegal, to harness the region's solar energy potentials as a complementary source for meeting West Africa's energy needs.

The Workshop brought together more than 150 experts of the Ministries of Energy and Environment of ECOWAS member states, government agencies, regional and international organizations, academia, business and industry, civil society and financial institutions in the field of renewable energy. Key solar experts from West Africa and Europe (e.g. Spain, Portugal, and Austria) were invited to speak on the application of PV (grid connected and solar home systems) and solar thermal technologies (e.g. warm water heating, process heat, cooling, solar drying and CSP) in the West African context.



A cross-section of the participants at the workshop

At the Opening Ceremony, Mr. Mahama Kappiah, Executive Director of ECREEE, cited the sequences and rationale for the establishment of ECREEE as a result of regional response to energy and climate change challenges. Mr. Pradeep Monga, Director of the UNIDO Energy and Climate Change Branch

reaffirmed the commitment of UNIDO in promoting the productive uses of solar energy particularly in the rural and peri-urban areas.

Mr. Marcus Marinho, the Charge d'Affaires at the Embassy of Brazil in Dakar, in his intervention, delivered a message of solidarity from H.E. President Lula da Silva. He stated that Africa is a priority for Brazil, and reaffirmed the commitment to assist ECREEE particularly in the area of bioenergy.

In his opening remarks, Mr. Johnson Boanuh, Director of Environment at the ECOWAS Commission, highlighted the relationship between energy and the environment, particularly the impact of the consumption of petroleum products for power generation and transport.



Dr. Vincent Dogo of Nigeria was elected as the Chairman of the Bureau; and Mr Nacho Nguessan Patcome from Cote d'Ivoire was elected together with Mr. Wisdom

Pradeep Monga, UNIDO Director of Energy and Climate Change Branch

Togobo from Ghana as the Rapporteurs.

Finally, the Workshop discussed and adopted a Solar Energy Road-map for West Africa which will be executed under the leadership of ECREEE and its National Focal Institutions (NFIs). The Road-map takes advantage of the full menu of feasible solar energy technology options. This includes centralized and decentralized systems for electricity generation, heating and cooling services. The potential of large-scale applications to meet the rapidly growing energy demand of urban areas as well as small-scale installations to support productive uses in rural and peri-urban areas will be considered. The key issues addressed by the Road-map include: policies and standards, solar resource assessment, appropriate solar technology solutions, capacity building and education, innovative financing mechanisms and solar energy stakeholders and networks. The activities of the Road-map were included into the 2011 Work Plan of ECREEE. It is seen as the starting point for the implementation of a comprehensive Solar Energy Programme of ECREEE.

All documents of the workshop are available at:

<http://esei-forum.ecreee.org>

Africa-EU Energy Partnership
First High Level Meeting Vienna Hofburg, Austria
 14/15 September 2010

A delegation of ECREEE participated in the first High Level Meeting of the Africa-EU Energy Partnership (AEEP) which took place from 14 to 15 September 2010 in Vienna, Austria. It was the first of its kind, and brought together leading political and decision-makers from Africa and Europe.

The AEEP is supported on the European side by the Co-Chairs Austria and Germany, represented by the Austrian Federal Ministry for European and International Affairs and the German Federal Ministry for Economic Cooperation and Development. On the African side, the African Union Commission and Mauritius, represented by the Ministry of Energy and Public Utilities, co-chair the partnership. At the Conference, a Road-map as well as concrete targets for the AEEP's future work were endorsed.

The event launched also the Africa-EU Renewable Energy Cooperation Programme (RECP) that will open new linkages in the energy sector for industrial trade and business cooperation between Africa and Europe. It was agreed that both partners will take joint action to increase both Energy Efficiency and the use of Renewable Energy in Africa by:

- building **10.000 MW of new hydropower facilities** (considering social and environmental standards);
- building **at least 5.000 MW of wind power capacity;**
- building **500 MW of solar energy capacity;**
- **tripling the capacity of other renewables**, such as geothermal, and modern biomass; and
- **improving energy efficiency in Africa in all sectors**, starting with the electricity sector, in support of Africa's continental, regional and sectoral targets.

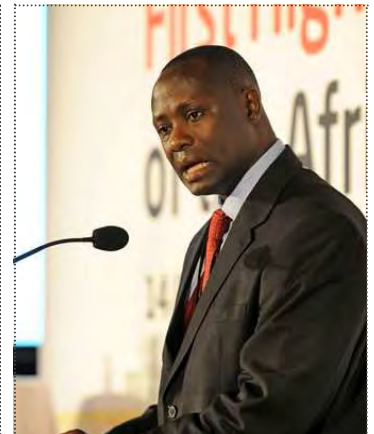
Mr. Mahama Kappiah, Executive Director of ECREEE, was invited to speak in one of the sessions on the possible contribution of Renewable Energy to Achieve Universal Energy Access. The Delegation was also invited to participate in the closed 5th Joint Experts Group Meeting of the AEEP.

At the margins of the Conference, the ECREEE Delegation discussed the possible support from the RECP for the elaboration of the ECOWAS Regional Renewable Energy Policy. Moreover, the project proposal for the establishment of the ECOWAS Renewable Energy Facility was discussed with various financiers. During the Conference, several African speakers called for a similar green fund to assist African countries in the development and execution of Renewable Energy and Energy Efficiency projects.

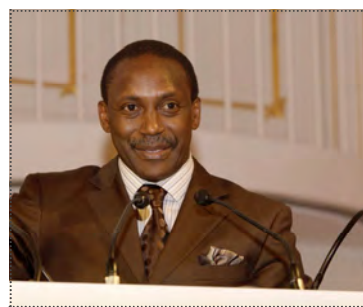
Further information on the conference is available at: <http://www.aEEP-conference.org>.



The AEEP co-chairs with Ministers from Africa and the European Union.



From Left, Mahama Kappiah, Executive Director of ECREEE, Emmanuel Buah, Deputy Minister of Energy, Ghana



From Left, Kandeh K. Yumkella, Director-General, UNIDO, Irene Freudenschuss-Reichl, Director-General for Development Cooperation, Federal Ministry for European and International Affairs, Austria.



From Left, Elham M.A. Ibrahim, Commissioner for Infrastructure and Energy, African Union Commission, Günther Oettinger, Commissioner for Energy, European Commission.



Vienna Week: ECREEE meets key partners in the renewable energy sector

Back to back to the AEEP meeting in Vienna, the ECREEE delegation, consisting of the Executive Director, Mr. Mahama Kappiah, and the seconded UNIDO expert, Mr. Martin Lugmayr, took the opportunity to meet key partners and participated in field visits to Austrian technology and knowledge providers.

Partnership Meetings with UNIDO, ADA, AEA and REEEP

ECREEE discussed the 2010 work plan with Ms. Brigitte Öppinger-Walchshofer, Managing Director of the Austrian Development Agency (ADA), a core-partner of ECREEE. She stressed the importance of private sector involvement in the RE sector and suggested to create synergies between the investment related ECREEE activities and the private sector instruments of ADA, the Austrian Development Bank or Austrian Export Credit Agency.

The cooperation concerning the planning and execution of GEF projects was discussed with Mr. Pradeep Monga, Director of the UNIDO Energy and Climate Change Branch and Mr. Alois Mhlanga, responsible UNIDO manager of the ECREEE project. In pursuance to the meeting, a common proposal for the promotion of RE&EE coherence and knowledge management was submitted to the GEF for approval. The project foresees the creation of an ECOWAS RE&EE observatory.

ECREEE also visited Ms. Marianne Ostercorn, Director General of the Renewable Energy and Energy Efficiency Partnership (REEEP) at the Vienna International Centre. A MoU was signed and it was agreed that ECREEE acts as the REEEP focal point in West Africa.

With the Austrian Energy Agency (AEA) the cooperation regarding the project "Supporting Energy Efficiency for Access in West Africa (SEEA-WA)" to be co-funded by the ACP-EU Energy Facility was discussed. AEA has long-standing expertise in public consulting in the area of energy efficiency in transformation countries. ECREEE will work closely with AEA and the French Agence de l'environnement et de la maîtrise de l'énergie (ADEME).

Visit to the ECO Renewable Energy Cluster in Graz/Gleisdorf

ECREEE visited pioneering competence centers and companies in the solar-thermal, bioenergy and small-hydropower sectors in the region of Graz/Gleisdorf. Mr. Werner Weiss, Managing Director of the Institute for Sustainable Technologies (AEE-Intec) organized field visits to solar thermal warm water and district heating as well as cooling projects. Solar thermal warm water heating, cooling and process heat projects are commercial and technically feasible options which can lower the urban peak load particularly in countries with hot climate.

Mr. Harald Blazek and Mr. Christian Holter from the solar company SOLID gave an introduction into their activities regarding large-scale solar cooling applications worldwide. The environmental expert, Mr. Emil Benesch from the World Wildlife Fund Austria (WWF) gave an overview on the energy activities of the organization.

Visit to the energy self-sufficient region of Güssing

Mr. Kappiah discussed the possible application of the "rural renewable energy model of Güssing" in the West African context with experts of the European Centre for Renewable Energy. The Austrian city of Güssing reached self-sufficiency from fossil fuels through the introduction of various RE technology options for heating, cooling, electricity generation as well as biofuel production.

Güssing is a district-capital of a region with approx. 27,000 inhabitants and was one of the poorest districts in Austria in 1988. There was no significant industry or trade business - jobs were scarce, and a high rate of migration to other regions was the consequence. High energy costs (for oil, electricity, gas) meant a substantial capital outflow from the region, but existing resources like the 45% of forest remained largely unused.

To boost regional development, the local authorities initiated a radical shift of the energy system in favour of locally available RE resources. The introduced model included EE improvements, the installation of one biodiesel plant, two biomass combined heat and power plants as well as PV and solar thermal applications. Today, Güssing annually produces more energy from RE than actually can be consumed.

The benefit to the whole region is an added economic value of more than 13 million Euro per year.



From Left, Mahama Kappiah, Executive Director of ECREEE, Ms. Brigitte Öppinger-Walchshofer, Managing Director of the Austrian Development Agency (ADA), core donor partner of ECREEE.



From Left, Werner Weiss, Director of AEE-Intec, Rudolf Hüpfel, Energy Adviser to the Austrian Development Cooperation, Mahama Kappiah, ECREEE Director, Martin Lugmayr, ECREEE Expert seconded by UNIDO

ECREEE partner at glance – this edition Austria

The promotion of RE has been an important aspect of Austria's energy policy for a long time. RE cover already today around 63% of Austria's electricity consumption (mainly from hydro, wind and bioenergy) and 29% of its heating demand (mostly from bioenergy and solar thermal). The implementation of energy efficiency (EE) measures in industry and the building sector has led to a low rate of energy intensity. In accordance with the RE Directive of the European Union, Austria has set the ambitious target to increase its RE share of total energy consumption from 23% in 2005 to 34% in 2020. 70% of public spending for research and development in the energy sector are devoted to RE and EE. Austria applies financial and legal incentive mechanisms such as feed-in tariffs, investment subsidies and obligatory building codes. Austrian companies are leaders particularly in hydropower, all forms of bioenergy, solar thermal systems, heat pumps and efficient buildings. The Austrian Development Cooperation is supporting RE and EE projects in developing countries since many years. Vienna hosts various international organisations and initiatives with energy mandates: OPEC, OPEC-Fund, UNIDO, IAEA, OSCE, IIASA, REEEP, the Energy Community for South Eastern Europe, the Global Forum on Sustainable Energy (GFSE) and the Liaison Office of the International Agency for Renewable Energy (IRENA).

THE THIRD ECOWAS BUSINESS FORUM CALLS FOR MINIMUM RENEWABLE ENERGY TARGETS IN THE ECOWAS REGION

The Action Plan of the 3rd ECOWAS Business Forum, held in Abidjan, Cote d'Ivoire on 1st October 2010, calls the ECOWAS Commission to declare the decade of energy sufficiency to enable governments in the sub region to prioritize their development strategies accordingly.

The action plan called on the West African Power Pool (WAPP) to move swiftly with the implementation of its regional priority power projects and grid interconnections. To improve the energy security of the ECOWAS region the action plan also called for a more diversified energy mix at country and regional levels. ECOWAS countries should make use of all locally available resources. The development and implementation of minimum renewable energy targets on national and regional level would be an important measure to facilitate this process. It was also recommended that ECOWAS should strengthen the capacity of ECREEE.



Mahama Kappiah, Executive Director of ECREEE, at the Forum.

In this context ECREEE has launched a stock-taking exercise of existing renewable energy targets, policies, legal and regulatory frameworks in the ECOWAS region. In addition, ECREEE will initiate the development of an ECOWAS Regional Renewable Energy Policy and Implementation Strategy which will propose feasible regional short-term and long-term RE targets for urban and rural areas in the ECOWAS region. This will also lead to the implementation of a portfolio of policy measures, laws, regulations and incentives to be implemented on national and regional ECOWAS levels in a short-term and long-term view. In this regard, a cooperation with the Africa-EU Renewable Energy Cooperation Programme, launched at the 1st High Level Meeting of the Africa-EU Energy Partnership in Vienna, Austria, is envisaged.

ECREEE Video Documentary

A documentary video on the establishment, mission and vision of ECREEE is now available on the web. Click [here](#) to view or visit our website at www.ecreee.org. You can watch the video also directly on YouTube.



DELHI INTERNATIONAL RENEWABLE ENERGY CONFERENCE (DIREC2010)

From the 27th to the 29th of October 2010, ECREEE participated in the Delhi International Renewable Energy Conference (DIREC 2010) hosted by the Government of India and supported by REN21. The theme of the conference was "Up-scaling and Mainstreaming Renewables for Energy Security, Climate Change and Economic Development".

DIREC 2010 was the fourth in the series of global Ministerial-level Conferences on Renewable Energy, which followed from the initiative taken at the 2002 World Summit on Sustainable Development in Johannesburg, acknowledging the significance of renewable energy for sustainable development.



Group Photo at the Conference

During the conference ECREEE took part at the main sessions as well as in different Official Side Events and Parallel Events on Thematic & Cross Cutting Issues. ECREEE took part at the Steering Committee of REN21 and seized the opportunity to explain the activities ECREEE is conducting in the region as well as networks with different stakeholders. ECREEE also made its particular Voluntary Pledge to Advance on Renewables Deployment Program.

ECREEE AND ITC SEEK COOPERATION

ECREEE participated at the "Seminário sobre o Sistema de Energia em Cabo Verde", held in Praia (Cape Verde) on the 26th of November 2010 during which ECREEE made a presentation on "Promoting Renewable Energy and Energy Efficiency Solutions in the ECOWAS Region: the Role of ECREEE".

The event was organized by the Instituto Tecnológico de Canarias (ITC) and the General Directorate of Energy of the Ministry responsible for Energy, Cape Verde with the funding of the Canary Cooperation. Back to back to this seminar, a meeting between ECREEE and ITC was held to strengthen relations and seek for synergies for the deployment of renewable energies in the ECOWAS region.

CAPE VERDE — WITH SOLAR & WIND TOWARDS 50% RENEWABLE ENERGY PENETRATION

The **largest solar Photovoltaic Plant** in Africa was commissioned on the 2nd of November 2010 in Praia, Cape Verde. This is in line with the National Plan which strives to have fifty percent of the country living on renewable energy by 2020. The Cape Verdean government awarded a contract to Martifer Solar on January 7th, 2010 for the installation of two solar photovoltaic (PV) plants in Cape Verde.

The first Solar PV project, which is located in the island of Sal, northeast of the Country, was commissioned on the 1st of October 2010. It occupies an area of 9.75 hectares and supplies 2.5 MW of peak power with a capacity of expansion up to 5MWp. The second and biggest of the two projects in Praia, island of Santiago which occupies an area of 13 hectares and has 5 MW peak power was inaugurated on the 2nd of November 2010. These projects, so far, are the biggest solar PV plants in the Sub-Saharan African.



Dr. José Maria Neves, Prime Minister of Cape Verde

The projects were inaugurated by the Prime Minister of Cape Verde, Dr. José Maria Neves, who said in his speech: "It is one big workmanship that will go a long way to make Cape Verde more competitive in terms of modern infrastructural development". These two parks will allow a reduction of 13 thousand tons of carbon gas (CO2) emission per year, creating a positive impact in the environment. This will also save the country millions in importation of at least 2.6 thousand tons of oil and allow the exportation of its CO2-emission permits to other countries, thus, a boost to the economy.

The Executive Director of ECREEE, Mr. Mahama Kappiah was also present at the inauguration. In an interview with the press, he said "these two pioneering projects represent a bench mark for all other African countries to follow in terms of renewable energy, and it also shows how viable these

alternatives can be taking into account technical and economical aspects which has constituted some of the barriers in its implementation in West Africa".

On 14 December 2010 another **remarkable wind power deal was sealed**. The African Development Bank (AfDB) and the European Investment Bank (EIB) closed the financing agreement to provide € 45 million to construct and operate onshore wind farms on four islands in the Cape Verde archipelago. The projects have an installed electric capacity of 28 MW and will make Cape Verde to the per capita, leader in wind power penetration in



Mr. Mahama Kappiah in a press interview at the Inauguration

Africa. It is also the first renewable energy public private partnership in Sub Sahara Africa.

The project was developed by InfraCo in a public-private partnership between the Government of Cape Verde and the local power utility Electra. The loan agreement was signed in Washington D.C. last month by Plutarchos Sakellaris, European Investment Bank Vice President responsible for Africa, Cape Verde Finance Minister Cristina Duarte and representatives of the African Development Bank. The EIB highlighted European support for climate action in small island states at the UNFCCC Cancun conference. The EIB provides € 30 million and the AfDB € 15 million for the € 65 million project—which forms part of European Union's 2008–2013 Cape Verde country strategy. The project developer, InfraCo is funded by the Private Infrastructure Development Group (PIDG) with support from donors including DFID, IrishAid and the World Bank, and development agencies in the Netherlands, the Austrian Development Agency, Sweden and Switzerland.

AREA STEERING COMMITTEE WORKSHOP

18th November 2010 Johannesburg, South Africa

The first African Renewable Energy Alliance (AREA) Steering Committee workshop took place on November 18th in Johannesburg, South Africa. The agenda of the workshop was to discuss and adopt the organizational structure and development of AREA, the coordination and funding of AREA and the development of the AREA roadmap. Mr. Mahama Kappiah, Director of ECREEE, who is a member of the Steering Committee, stated the possibility of supporting AREA through the ECOWAS Centre.

From left to right:

Aminu Isa, Energy Planning & Analysis/ Energy Commission of Nigeria; Tony Colman, former MP, World Future Council, Africa Practice, UK; Dr. Ruth Rabinowitz, former MP, The Democracy Foundation/ MamaEarth, South Africa; Anthony Ighodaro, Director, KXN Nigeria, AREA Steering Committee Chairperson; Themban Bukula, National Energy Regulator of South Africa (NERSA); Ansgar Kiene, Director, World Future Council Africa/ AREA Coordinator, Ethiopia; Zohra Abib, Director, en'AFRIQUE, Morocco; Mahama Kappiah, Director, ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE), Cape Verde; Adeola Eleri, Renewable Energy Department/ Energy Commission of Nigeria.



Success Stories: ECREEE Projects awarded by the ACP-EU Energy Facility and the Global Environmental Facility (GEF)

In cooperation with other partners, ECREEE proposed several project proposals to the 2nd call of the EU-ACP Energy Facility. Two projects were recommended for co-funding by the Evaluation Committee of the Facility. The project “Supporting Energy Efficiency for Access in West Africa (SEEA-WA)” will co-fund part of the regional energy efficiency program of ECREEE. It will be implemented by ECREEE in collaboration with the Agence de l’environnement et de la maîtrise de l’énergie (ADEME), the Austrian Energy Agency (AEA) and others. Another project focused on the dissemination of efficient cooking solutions in West Africa to be implemented under the leadership of GTZ and in partnership with ECREEE was recommended for co-funding. The projects are awarded with an overall facility grant of 4 million EUR.

The project concept “Promoting Regional Coordination, Coherence, Integration and Knowledge Management under the Energy Component of the SPWA” to mitigate coordination and knowledge barriers for RE&EE deployment in ECOWAS was elaborated by UNIDO and ECREEE. The project was approved by the GEF CEO in the beginning of 2011. The project provides co-funding for the establishment of a Steering Committee regarding the co-ordination of the energy component of the West African GEF envelope. Moreover, it will provide co-funding for technical and high-level meetings and the establishment of a renewable energy and energy efficiency Observatory for West Africa. The project has an overall volume of 1,1 million EUR and is co-funded by REEEP and the Austrian Development Cooperation.

UNIDO-ECREEE GEF Project in Cape Verde



Based on the policy objectives of the Cape Verdean Government, UNIDO, ECREEE and the Ministry of Energy in Cape Verde are developing a project to be co-funded by the Global Environmental Facility (GEF).

It aims at the promotion of viable, market based small to medium-scale renewable energy systems in the country.

The initiative refers to the ambitious plan of the Cape Verdean Government to reduce the country's dependence on imported fossil fuels and reduce the GHG emissions, through increased energy production from renewable resources. Through private-sector investment and government-supported projects, Cape Verde intends to generate at least 25% of electricity from renewable sources by the year 2011 and 50% by the year 2020. Moreover, it is the intention to produce 100% of the electricity on the island of Brava from renewable sources.

The specific objective of the GEF project is to develop a market environment that will promote investments in small to medium renewable energy systems to make the country less dependent on imported fossil fuels.

The project consists of three components :

- technical feasibility and commercial viability of small to medium scale renewable energy systems is demonstrated;
- The policy and regulatory framework for the development and usage of renewable energy is strengthened;
- capacity of key market players and market enablers is increased and awareness of the benefits of renewable energy technologies is raised.
- The project expects to receive co-financing from the government of Cape Verde, local banks, multilateral agencies and private investors.

In 2010 several missions to different islands to hold stakeholder meetings and to identify possible demonstration projects were undertaken by ECREEE and UNIDO experts.

Several demonstration projects were identified on different islands. The following types of projects were considered for further implementation on the islands of Brava, Santo Antão, São Vicente, São Nicolau and Fogo:

- wind power for desalination;
- solar-diesel-wind hybrids for water pumping, ice production and electrification of isolated communities;
- PV systems for telecommunication towers;
- solar thermal warm water heating for hotels.

The demonstration projects have a good potential for replication in West Africa.

The project proposal is currently in the stage of finalization and will be validated in a workshop. The approval of the project is planned to take place in May 2011. The project is expected to be co-funded by GEF with a 1,72 million USD grant and will mobilize further co-funding from other involved partners.



Telecommunication tower powered by PV in remote areas on the island São Nicolau



GEF projects substitutes expensive diesel generation on the island Brava



GEF project meeting with the local authorities of the island of Brava

INTERVIEW WITH THE EXECUTIVE DIRECTOR OF ECREEE



Mr. Mahama Kappiah

A month after the installation of ECREEE in Praia, how do you describe, at this moment, the state of operation of the center?

The official inauguration of ECREEE and the first meeting of the Executive Board on July 6, 2010, marked the end of the Preparatory Phase and the commencement of its first operational Phase. The event paved the way for the implementation of programme and project activities of the Centre, some of which are already underway. The

Centre is now in full operation with programmes and activities that need to be completed before the end of 2010, in accordance with the Work plan for July – December 2010. The 2011 work plan will be adopted in the upcoming Executive Board Meeting in January 2011.

2. Is ECREEE receiving a lot of proposals? If so, which kind of proposals? (Are they from state or private corporations and from which country? Are there also public-private joint-ventures interested?)

Indeed, ECREEE continues to receive proposals on all forms of renewable energy (wind energy, solar thermal and photovoltaic, and bioenergy) and energy efficiency that cover almost all aspects of our operation. The proposals come from within member states, Europe, China, India and the USA. These are multi-lateral and bilateral institutions, public and private concerns, some of which are seeking partnerships and cooperation to work with ECREEE. We have entered into various agreements with some of these partners, REEEP and GEF who will provide some support, either in kind or in funds to support our operations while discussions are still on-going with others (USAID, Brazil EU-Africa Energy Partnership etc).

3 Does ECREEE have its own Funds to finance projects? If so, how can state and private sector institutions access this Fund?

Fund raising for RE&EE programmes and projects is a key function of the Centre. In the last months we succeeded in sustaining the financial base for our initial activities. However, these resources are far from sufficient to stimulate RE&EE market creation in West Africa. Apart from the initial contributions of the Austrian Development Agency (ADA) and UNIDO the Spanish Government has committed significant support for ECREEE operations between 2010 and 2015. In collaboration with other partners, ECREEE developed several regional program proposals and presented to bilateral agencies and international finance institutions for further support. These include two proposals to the EU-ACP Energy Facility, the proposed ECOWAS-Brazil Renewable Energy Partnership (EBREP) adopted at the ECOWAS-Brazil Summit in June 2010 in Sal, and the EU-ECOWAS Renewable Energy Facility (EEREF). These proposals seek to make available grants for various financing windows to accommodate proposals from the public and private sector for RE projects.

4. Which sources of energy works better in the ECOWAS region?

The renewable energy resource that will work better in the ECOWAS region depends on the local resources available.

These include: solar, wind, biomass and hydro. The region possesses significant RE potentials.

5. Among the 15 member-states of ECOWAS, which one presents the best conditions to receive renewable energy?

The ECOWAS region is endowed with a lot of renewable energy resources. However, the potential for different types of RE technologies vary from country to country. For example, prospects for wind energy are higher in Cape Verde, Senegal and the Gambia than in other countries in the region. On the other hand, prospects for solar thermal technologies are higher in Niger, Burkina Faso and Mali while prospects for mini hydro and bio-energy technologies are higher in the other coastal countries of the region. The ability to exploit these technologies largely depends on the policy and regulatory frameworks in these countries. Until now, most ECOWAS countries do not have the requisite regulatory frameworks for the large scale exploitation of these resources. Some countries, however, including Cape Verde, Ghana, Senegal and Nigeria are making commendable effort to develop the necessary policy and regulatory frameworks for the widespread deployment of RE technologies.

6. Besides its potential, Africa still doesn't have many investments in renewable energy. How does ECREEE intend to reverse this scenario and attract investments for alternative energy in our region?

You are right in that Africa and indeed the ECOWAS region is yet to attract any appreciable volume of investments in the renewable energy and energy efficiency markets. ECREEE has already identified some barriers that need to be overcome in order to reverse this trend. Unless these barriers are overcome, it may be quite difficult to attract the level of investment we are all anticipating. These barriers include: the absence/lack of the requisite policy and regulatory frameworks, inadequate capacity, weak qualitative and quantitative resource assessment and low investment mobilization (innovative approaches). ECREEE programmes are therefore directed toward the mitigation of these barriers.

Can you give concrete example how ECREEE will facilitate investments?

Yes, of course. We are already working on concrete initiatives that seek funding from international partners. Based on the action plan of the ECOWAS/UEMOA White Paper on Energy Access ECREEE prepared a proposal for the establishment of a ECOWAS Renewable Energy Facility for West Africa. The Innovative fund will be managed by the ECREEE Secretariat in cooperation with its National Focal Institutions (NFIs) and aims at the creation of a favorable business and investment environment for the deployment of small and medium scale RE technologies and services for peri-urban and rural areas.

Based on a competitive call-for proposals, the Facility will mitigate financial barriers by providing risk capital for project development through the co-funding of (pre-) feasibility studies and other pre-investment related activities (e.g. potential assessment, measurements). Moreover, the facility will support business development activities (e.g. preparation of business plans), capacity building for local RE&EE technology and service companies and facilitate north-south and south-south economic partnerships. The ECREEE Secretariat will undertake regular demand-driven competitive call for proposals open to all ECOWAS countries. Eligible applicants will be public companies, municipalities, and private companies, NGOs and cooperatives. The participation of local project partners will be obligatory.

7 Solar panels and small wind generators are considered to be too expensive for average citizens. So, in a poor region like ours buying this kind of equipment it is more difficult. How does ECREEE intend to fill in this gap?

You are right that the solar panels and small wind generators are too expensive for average citizens. As a result, it is difficult for the ordinary citizen to purchase these equipment. ECREEE has therefore initiated a process of securing projects for the rural areas and is currently exploring various financing options. This could be loan or grant financing.

It is therefore crucial that the beneficiaries in the rural areas also participate in financial aspects in all projects so that they take ownership. Depending on the nature of funding, it could be provided to the people at very reasonable terms and conditions so that they could be able to have access to energy services.

Through the regional policy and regulatory frameworks that ECREEE will propose to the Member States in the coming years, we will also seek to eliminate all forms of taxes and duties on these items to make them readily affordable. Furthermore, ECREEE will strive to promote the local manufacture of some of these products in order to lower the cost of production and make them affordable.

8. Because of the fact that Cape Verde is an archipelago country, it is different from the rest of the other members of CEDEAO. This fact obligates a special attention from ECREEE?

The situation of Cape Verde as an archipelago country already attracted special attention from the ECOWAS Commission in the past. With the establishment of ECREEE in Cape Verde, the attention would be intensified, especially the fact that the CV Government has demonstrated significant interest in the development of renewable energy markets with targets for penetration.

Presently, the Country's electricity supply is based solely on isolated diesel power generation for the various islands. Given this scenario, there is wide consensus that RE technologies could present more attractive options for Cape Verde. It is against this background that ECREEE, in collaboration with the EU, is developing a special programme for Cape Verde based solely on RE technologies.

9. The government intends to install 25% of renewable energy until the end of 2011 and 50% until 2020. Is this goal achievable?

Yes, although this goal is very challenging, it is achievable if the government remains focused and determined. Cape Verde has a very high RE potential, particularly in wind and solar technologies. As RE technologies are a more attractive option than the diesel plants deployed all over the country, it makes economic sense for the government to make the bold move towards these technologies.

10. This objective defined by the Cape Verdean government (25% until 2011 and 50% until 2020) will put Cape Verde on what level, compared with others countries of CEDEAO?

Given the current energy security concerns, clean and sustainable energy sources represent a logical solution for the long term. The current drive, by the government, towards RE is therefore important for the sustainable development and global

competitiveness of Cape Verde. This objective places Cape Verde ahead of other counties in the region as regards targets for renewable energy penetration, which is really commendable. If achieved Cape Verde will be the leading country in region in RE technologies.

11. Considering the fragile Cape Verdean economy, investing in alternative energy is considered very important for the sustainability of the country. Do you believe that someday Cape Verde will have 100% renewable energy?

Although RE technologies are more attractive than other conventional sources, it is an extremely challenging task to develop the entire energy system based on renewable. This is because RE resources are not available 100% of the time. Moreover, the variable nature of these resources creates other challenges for network operation. Cape Verde could supply 100% RE to one or two of its small islands with enough storage facilities. However, it may be extremely challenging for Cape Verde to go all the way to 100% with RE for the whole country. Promising seems to be in this regard the concentrated solar thermal technology which allows storage of energy and therefore electricity generation throughout the night.

12. The Legislation of Energy is different from country to country. How does ECREEE intend to manage and control the projects at the level of ECOWAS?

ECREEE has identified policy (including legal and regulatory frameworks) as one of the barriers to the development of renewable energy and energy efficiency markets in the region. Part of the activities of ECREEE therefore is to evaluate the policy situation in each member state and encourage its development that would be harmonized and streamlined with a regional policy to be developed .

13. Cape Verde doesn't have yet its own legislation on Renewable energy and its injection into the public electricity system. How will ECREEE work with that?

CV does not have legislation on RE yet. However, according to information from government sources, they are working on one which will be ready in the beginning of 2011. Although this legislation is not yet in place, there are already some laws which allow for the deployment of these technologies which the government is using to ensure the deployment of these technologies while the comprehensive policy document is being prepared. The policy document being prepared by Cape Verde could be the first of its kind in the region and serve as the basis of a regional policy framework for RE.

14. Will the goals defined for ECREEE for the first operational phase of four years be achieved?

Yes, the goals defined for ECREEE for the first operational phase are achievable in four years with the support of the ECOWAS member states, our partners and other relevant stakeholders. The objective of the Centre for this period is to facilitate the provision of energy services in a sustainable manner, particularly in the rural areas, through the development of renewable energy markets. It may interest you to know that ECREEE operates in collaboration with established National Focal Institutions in each member state who will take ownership and responsibility for the implementation of activities at the national level.

ECREEE BECOMES A MEMBER OF THE GLOBAL BIOENERGY PARTNERSHIP (GBEP)

ECREEE has become a member of the GBEP since the middle of 2010. The motivation of ECREEE to apply for membership of GBEP is to create synergies between the objectives and activities of the two institutions in the area of bioenergy. Under the 2011 work plan ECREEE will launch the execution of a major bioenergy program which is particularly related to the sustainable utilization of these sources.

The area of sustainable bioenergy and particularly biofuels will be a main field of cooperation with the Federal Republic of Brazil. ECREEE and Brazil are currently negotiating a MoU



in this regard. Together with Brazil ECREEE has the intention to host the First ECOWAS Bioenergy Forum in 2011. Under the lead of the German Technical Cooperation (GTZ) the Centre will launch a regional applied science program regarding the local production and marketing of efficient biomass cooking stoves. The project will be co-funded by the ACP-EU Energy Facility.

In the ECOWAS region, as it is the case in most African countries, traditional biomass consumption accounts for over 80% of the total energy consumption in almost all the countries. Moreover, families spend a major part of their income to satisfy their cooking energy requirements. However, the utilization of bioenergy is in the most cases not sustainable and is negatively impacting the environment. Globally, the use of inefficient biomass stoves and the related indoor air pollution become a killer in the kitchen for more than 1,6 million women and children annually. The inefficient production of charcoal to satisfy the energy needs of urban settlements in West Africa contribute considerably to the land degradation what is additionally worsened by the negative impacts of climate change (temperature rise and reduced rainfall). The deployment of more efficient use of biomass is therefore an important measure of improvement - apart from the large-scale promotion of LPG.

The GBEP is currently discussing sustainability indicators concerning the production and utilization of bioenergy. It is agreed that ECREEE will facilitate the understanding and application of the criteria in the ECOWAS region. In some countries in there is considerable potential for the production of biofuels. GBEP provides a comprehensive checklist which can be used to appraise the sustainability of biofuel projects. ECREEE will also integrate the checklist in its quality and appraisal framework.

More information on GBEP can be found at www.globalbioenergy.org

BONN SYMPOSIUM 2010

The Bonn Symposium 2010 "New Energy Sources - New conflicts?" which was held from 1st to 2nd of December 2010. It was organized by the Development and Peace Foundation (SEF) in cooperation with German Technical Cooperation (GTZ) and supported by the "Stiftung Haus der Geschichte der Bundesrepublik Deutschland" and "Deutsche Welle". The objective of the symposium was to address the question of rules and strategies for a fair and sustainable energy supply. It provided a forum for detailed analysis of development policy and conflict issues. It also brought together high level officials from the International community comprising of policy makers, representatives of national and regional bodies, international organizations, business and research institutions, civil society groups etc.

ECREEE was represented at the symposium by Mr. Hyacinth Elayo. He contributed to the two discussion panels "New Sources of Energy – New Conflicts"? and "towards a 21st Century Global Energy Regime". Mr. Elayo highlighted the fact that although there is the general consensus that renewable energies are more environmentally friendly than conventional fossil base energy, they could also pose significant potential for conflicts.



From left: Symposium Moderator, Ms. Conny Czymoch, Mr. Hyacinth Elayo, Energy Policy Analyst, ECREEE, and Prof. Xuewu Gu, Director, Centre for Global Studies (CGS), Bonn.

The obvious being the conflicts between food security and uncontrolled bio-fuel development; the harnessing of new renewable energies using materials, such as rare earth, that often come from a handful of sources; the impact of some renewable system technologies on landscapes and ecosystems, as well as on water and soil quality. He also focused on the inadequacy of the current global energy regime to provide energy access for the over 3 billion people with no access to modern energy services. An equitable 21st Century Global Energy Regime therefore, is one that effectively assists developing countries to access the financial and technological capacities required to bridge the energy gap, while ensuring the transition from fossil fuel based energy sources to cleaner and sustainable sources.

Outlook on the 2011 Work Plan

From 27th to 28th January 2011 the ECREEE Secretariat will hold the next Technical Committee and Executive Board Meetings. The invited partners will review and approve the ECREEE progress report and the elaborated 2011 work plan and indicative budget. 2011 marks a year of intensive program and project implementation. Most of the programs and projects developed in 2010 passed the stage of formulation and approval. The launch of the following flag-ship programs is envisaged:

- Execution of the road map of the ECOWAS Solar Energy Initiative (ESEI).
- The ECOWAS Renewable Energy Facility for investment and business promotion in rural and peri-urban areas.
- Small Hydropower Program.
- Bioenergy Program.
- Wind Energy Program.
- Regional Rural Energy Access Programme.

In 2011, some demonstration and pilot projects with potential for regional scaling-up will be initiated, or, at least, identified. Those projects will be part of the following sectors:

1. In the solar sector:

- feasibility studies for one or two CSP power plants will be conducted and the required measurements will be carried out;
- feasibility study for a grid-connected PV power plant;
- feasibility study for a solar thermal cooling system in a public building in ECOWAS;
- the ECOWAS Headquarters building will be equipped with a solar system for illumination;
- at the ECREEE Headquarters, a solar PV system will be installed;
- ten renewable energy demonstration projects for productive uses will be installed in Cape Verde under a GEF National project and the One UN Programme;

2. *Some micro-grids projects for the rural areas will be identified.*

3. *Under the bioenergy program, some demonstration projects for regional scaling up will be identified.*

4. *The Jigawa State in Nigeria will be assessed by ECREEE for a Jatropha Project and other renewable energy projects.*

5. *Five SHP projects will be identified and developed.*

6. *Two wind power plants will be identified and submitted.*

7. *ECREEE will lead the substitution of 2 million incandescent lamps with Compact Fluorescent Lamps (CFLs) in Nigeria under ECOWAS-Cuban Partnership on Energy Efficiency.*

8. *A call for proposals under the ECOWAS Renewable Energy Facility will be launched; the facility will provide co-funding for innovative RE&EE projects in peri-urban and rural areas.*

ECREEE will also commence the implementation of projects which were awarded by the ACP-EU Energy Facility and the Global Environmental Facility (GEF). These include:

1. From the 2nd call for proposals for the EU Energy Facility, two projects were awarded: Energy Efficiency for Access in West Africa (SEEA-WA) and Energie de Cuisson Economique pour l'Afrique de l'Ouest;
2. The Africa-EU Renewable Energy Cooperation Programme supports the elaboration of the ECOWAS Regional Policy on Renewable Energy and Implementation Strategy;
3. UNIDO, ECREEE, in collaboration with the Ministry of Energy in Cape Verde, will undertake a GEF National project to promote small and medium-sized RE solutions in Cape Verde;
4. UNIDO, ECREEE will start the implementation of the regional GEF project to boost RE&EE coherence and knowledge management in West Africa. The establishment of a regional RE&EE Observatory will be launched.

At university level, programs will be elaborated jointly with ECOWAS universities and Spanish (PCI program), Austrian universities and universities from other countries. Internships and thesis will be included under these programs.

ECREEE Partnership

ECREEE will strengthen its work and partnerships with: the International Renewable Energy Agency (IRENA), the Global Bioenergy Partnership (GBEP), the African Renewable Energy Technology Platform (AFRETEP), the Renewable Energy Policy Network for the 21st Century (REN-21), the African Renewable Energy Alliance (AREA), the Alliance for Rural Electrification (ARE), WAPP and ERERA.

There are some new partnerships that ECREEE foresees to establish with the International Institute for Applied Systems Analysis (IIASA), the Global Forum on Sustainable Energy (GFSE), Coordinated Low Emissions Assistance Network (CLEAN), and the Global Alliance for Clean Cookstoves.

Happy new year
Bonne année
Feliz ano novo

2011

At the dawn of this
New Year
The ECOWAS Regional
Center for
Renewable Energy and
Energy Efficiency
(ECREEE)
presents you the best
wishes
for the year 2011

À l'aube de cette
nouvelle année,
Le Centre Régional
pour les
Énergies Renouvelables
et l'Efficacité Énergétique
de la CEDEAO (ECREEE)
vous présente ses
meilleurs Vœux pour
l'année 2011

No alvorecer deste
Novo Ano
O Centro Regional para
Energias Renováveis e
Eficiência Energética da
CEDEAO (ECREEE)
Deseja-lhe melhores
Votos
para o Ano 2011

best wishes
meilleurs Vœux
melhores Votos



Regional Centre for Renewable Energy and Energy Efficiency
Centre Régional pour les Énergies Renouvelables et l'Efficacité Énergétique
Centro Regional para Energias Renováveis e Eficiência Energética



PROCUREMENT AND EMPLOYMENT NOTICES

Interested RE&EE experts, consultants and supplier companies should check the service section of the ECREEE website for the latest procurements and recruitments regularly: www.ecreee.org

Ongoing:

1. ECREEE/UNIDO project: Design and installation of a solar lightning project to boost the tourism development efforts of the municipality of Ribeira Grande on Santiago island in Cape Verde; 21 January 2011;
2. Green ECOWAS Headquarters Project: The tender includes an energy audit of the ECOWAS Headquarters in Abuja (Nigeria) and technical assistance for the design of an external solar lightning system; deadline 17 January 2011.

Upcoming soon:

1. Installation of an ECREEE server system and integration of an enterprise content management system.
2. Revision and restructuring of the ECREEE website.
3. Finalization of the ESEI solar road map.
4. Feasibility studies for CSP projects.
5. Technical Assistance for the Small Hydro Power Programme.
6. Call for proposals under the ECOWAS Renewable Energy Facility will be launched soon.
7. Recruitment of an ECREEE Communication, Knowledge Management and Capacity Development Expert.

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**Creating a viable regional market
for renewable energy and energy efficient
technologies and services**



ECREEE operations

TECHNICAL ASSISTANCE ACTIVITIES • capacity-building and partner support • promotion of successful technologies and sound business opportunities • demonstration projects on renewable energy/energy efficiency

INFORMATION AND KNOWLEDGE HUB • advisory services for policy frameworks and quality standards • information and knowledge sharing • advocacy and networking

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