

10 January 2007

## SIXTH MEETING OF THE GFSE

# ”Africa is energizing itself”

**29 November - 1 December 2006**

**Vienna, Austria**

[www.gfse.at](http://www.gfse.at)

The Sixth Meeting of the Global Forum on Sustainable Energy (GFSE-6) took place from 29 November through 1 December 2006 in Vienna, Austria. In response to the many initiatives, originating both from within the African continent and from the donor community, the 6<sup>th</sup> Meeting of the GFSE focused solely on Africa. It brought together some 180 participants – representatives from African and European governments, agencies, UN bodies and international organizations, academia, business and industry, civil society and financing institutions. GFSE-6 provided a vibrant picture of regional and thematic initiatives on energy for sustainable development across the African continent. It also endeavoured to identify ways and means of supporting African aspirations at the forthcoming 15<sup>th</sup> Session of the Commission on Sustainable Development (CSD) in May 2007 in New York.

GFSE-6 was co-sponsored by the Federal Ministry for Foreign Affairs, the Federal Ministry for Agriculture, Forestry, Environment and Water Management, Austria, and the Austrian Development Agency, ADA, and organized in collaboration with the Austrian Energy Agency.

GFSE-6 was opened by welcoming addresses of the GFSE-Convenor, Irene Freudenschuss-Reichl, Director General for Development Cooperation in the Austrian Ministry for Foreign Affairs; the Director of the Diplomatic Academy (where the meeting was held), Jiri Grusa; and the Managing Director of the Austrian Development Agency, Michael Linhart. Key-note addresses were then delivered by the Secretary-General in the Ministry of Agriculture, Forestry, Environment and Water Management, Werner Wutscher; the Secretary-General in the Ministry for Foreign Affairs, Johannes Kyrle; and the Minister of Energy and Mineral Development of, Uganda, Daudi Migereko.

**Werner Wutscher** highlighted five reasons why sustainable energy use is an important component of the political agenda, namely: increasing energy demand and lack of energy access in the developing world; the linkage between climate change and energy policy; the lack of technology transfer, financial and human capacity in developing countries; and the need to increase dialogue between the public and private sectors to encourage capital investment.

**Johannes Kyrle** stressed the importance of renewable energy within the current energy agenda, underscoring increasing concern for energy access, sustainability

and security due to the reliance on fossil fuels. He highlighted the steps taken in Africa to increase the use of modern energy, to improve energy access and heighten energy security. He recommended that specific issues be forwarded to CSD-15, since there are already many generic proposals on the CSD agenda.

**Daudi Migereko**, who is currently also Chair of the Forum for Energy Ministers of Africa (FEMA), presented FEMA as a platform for political leadership and advocacy for sustainable energy in Africa and outlined FEMA's work plan, including establishing an energy emergency fund. He identified drought, increased fuel prices, the poor state of transmission systems, and limited financial resources as challenges to energy security within Africa. Migereko urged action by African governments, including enhancing cross-boundary cooperation, diversifying energy sources and using innovative products to attract financing.

Participants at GFSE-6 then met in **nine plenary sessions** to hear presentations and engage in discussions on a variety of topics, including: the "African regional landscape on energy"; a regional focus on western, southern, eastern and central Africa; biofuels and hydropower; CDM opportunities in Africa; how GFSE can contribute to CSD-15; financial engineering for energy in Africa and a concluding session on the way forward, during which the current initiative, anchored at IIASA, for a Global Energy Assessment was presented.

CSD-15 Vice-Chair for Africa, Alain Edouard Traoré (Burkina Faso) emphasized that CSD-15 provides an opportunity to support African aspirations. He announced that a synthesis paper on proposed actions in Africa will be prepared by African countries prior to CSD-15.

Participants attending GFSE-6 also had the opportunity to attend side events on monitoring and evaluation for energy and development, biofuels in sub-Saharan Africa, and capacity development for expanding energy access in Africa. In addition participants visited a biodiesel plant in Vienna and a hydropower plant in Freudenu.

The agenda of the meeting is annexed to the present summary.

A detailed summary of the proceedings of GFSE-6 was commissioned from IISD and can be found at [www.iisd.ca/ymb/gfse6/](http://www.iisd.ca/ymb/gfse6/) . The different power-point presentations as well as background papers prepared for the meeting are posted at the GFSE-website, at [www.gfse.at](http://www.gfse.at) .

### **Selected issues highlighted at GFSE-6**

*By its very nature of an informal platform for multi-stake-holder dialogues on energy for sustainable development, GFSE is not meant to adopt decisions. Yet, in the course of the meeting a number of proposals and recommendations were put forward and issues were highlighted by various participants that – in the view of the Convenor - warrant further scrutiny. Policy-makers in Africa and in donor countries as well as negotiators at the forthcoming CSD-15 might wish to take them up.*

*The following list, surely incomplete, is presented upon the sole responsibility of the Convenor with a view to animate debate and foster consensus-building in the appropriate fora.*

Africa's current acute energy crisis – a result of wide-spread droughts that have disabled hydro-power generation schemes – comes on top of the structural weakness of the African energy sectors. The short-time crisis (which currently deprives the African economy of up to 4 % of annual GDP growth through power cuts and unreliable electricity) needs to be addressed while mid- and long-term solutions are elaborated.

It was underscored that the African continent offers a **vast and diverse energy potential** which was largely unexploited, with great potential for electricity generation, interconnection and trade, large potential for energy efficiency improvements along the whole energy chain and – given that Africa has the lowest CO2 emissions in the world – a large potential market for carbon credits. Opportunities for technology leapfrogging are considerable and investment opportunities seen to be significant

Notwithstanding the importance of integrating energy in national poverty reduction strategies, there was a general sense that endeavors to up-grade the energy situation in general and to foster energy security in Africa might be most successfully carried forward at the regional level, including enhancing generation capacity to power the grids (where suitable hydro-power projects were seen to be most promising). Solidarity instruments, such as the African Petroleum Fund created by the AU in January 2006 to help mitigate rising oil prices; the proposed creation of Centres of Excellence for Sustainable Energy (CESE) or the regionalization of some of WEC's pertinent global activities; the creation of pan-African information systems, such as AFREC's Africa Energy Information System; or the creation of regional agencies, such as the Regional Agency for Energy Access foreseen in the ECOWAS White Paper, could support **regional energy integration**. RECs should be supported through the strengthening of human and institutional capacities as they seek to advance regional energy integration within their mandates.

There was also a strong sense that as new oil and gas reserves are being discovered in several African countries, such as Uganda, Zambia and Tanzania or in the Gulf of Guinea, Africa should develop its own refining capacity in order to increase petroleum products from indigenous resources. In this context, it might be desirable to harmonize Production Sharing Agreements between African governments and the oil companies, and to pay particular attention in general to the **governance of the energy sector** in order to ensure that maximum benefits accrue to the African population. Gas flaring should also be addressed.

There was a sense that **domestic resource mobilization** for energy interventions needs to be mainstreamed by African governments and that there is continued scope for private-public partnerships given the limitations that most African governments will experience for some time to come in terms of mobilizing adequate public resources to invest in the development and extension of modern energy services. A variety of innovative financing tools and methods of **financial engineering** were presented to the meeting.

Participants expressed a general sense of **impatience with the pace** of project appraisal, decision-making and finally implementation of energy projects. There was also a sense that enough time had been devoted to simply build capacity in the African energy sector and that it was appropriate now to become more operational.

Repeatedly the view was expressed that **synergies** need to be found between the major, cross-boundary **infrastructure projects** envisioned by the EU-Africa-Infrastructure Initiative or the Infrastructure Consortium on the one hand and **small-scale access for energy projects**. It was proposed that work on access to energy should be scaled up according to three overarching goals:

- Electricity for growth: by increasing coverage for enterprises and households;
- Powering the MDGs: by connecting public facilities – clinics, community centers, schools – using least cost mix of grid extensions and decentralized solutions;
- Meeting basic needs: by equipping households with affordable, modern lighting; boosting the use of improved stoves; increasing access to cleaner fuels and making bio-mass fuel supply sustainable.

It was highlighted that even in the implementation of projects to enhance access to energy for immediate human needs, care should be taken to allow for **productive uses of energy** (micro- and mini-enterprises; agro-processing; small scale industries) to enable the local population to earn additional income and to pay for energy services as used.

Since **biofuels** are present in various forms in African countries, it was felt that biofuels, if properly harnessed to avoid conflicts over land use for “food, fuel and feed”, can play a significant role in meeting the growing energy needs in Africa. They can directly contribute to energy supply and rural electrification, and generate local employment, thereby combating poverty and promoting development.

**Traditional biomass** use in general was seen in great need of modernization, in particular through accelerated dissemination of clean and high efficiency stoves for cooking, accelerated penetration and reduced cost of LPG resources and equipment in rural areas and through modernizing the charcoal industry. *(At its 5<sup>th</sup> Meeting in 2005, GFSE focused on biomass; see the Executive Summary for a list of recommendations, at [www.gfse.at](http://www.gfse.at) ).*

Great expectations were put into the **development of hydro-power in Africa**. Currently only 7 % of Africa’s hydro-power potential is actually developed. Large hydro-power potential is present in many African regions (e.g. DRC, Guinea, Ethiopia, Mozambique, Uganda, Zambia) and lends itself to regional projects. Hydro-power is seen as a good way to increase the percentage of renewables in the overall African energy mix, provided projects are formulated in a bankable form and the social and environmental implications of larger projects are suitably addressed. In the latter area, UNEP’s Dams and Development Project had made significant progress on principles and concepts so that the way seemed open to move to more practical applications. Small hydro power schemes were seen as useful for enabling access to electricity for communities not easily connected to the main grid.

Only very few registered **CDM projects** are currently located in Africa. Participants highlighted challenges (which were by and large the same as those facing foreign direct investment), such as the high cost of equipment; lack of data and statistics; lack of local capacity and awareness on CDM; low private sector participation; low carbon intensity of projects, high transaction costs due to small scale of most projects; risk aversion and a conservative approach when financing in Africa. The potential of energy efficiency and conservation in Africa – energy saved from efficiency programmes can be seen as one of the most economical sources of energy – was highlighted. Participants were of the view that endeavors should continue to increase the number of African CDM projects.

**Coordination and cooperation** between all (international and continental) partners should be promoted and FEMA should be supported as a wholistic, high-level political body dealing with all aspects of energy in Africa.

Contact:

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ANNEX: Final Program

## CONFERENCE PROGRAMME, (FINAL VERSION, 27 NOVEMBER 2006)

WEDNESDAY, 29 NOVEMBER 2006

### WELCOME AND KEYNOTE ADDRESSES

08.00	<b>Registration of Participants</b>
09.00	<b>Welcome and Keynote Addresses</b> Mr. Michael Linhart, Austrian Development Agency, Austrian Development Cooperation, Managing Director Ms. Irene Freudenschuss-Reichl, Austrian Ministry for Foreign Affairs, ADC, Director General Mr. Jiří Gruša, Diplomatic Academy of Vienna, Director Ms. Ursula Plassnik, Minister for Foreign Affairs, Austrian Ministry for Foreign Affairs Mr. Josef Pröll, Minister of Agriculture, Forestry, Environment and Water Management, Austria Mr. Daudi Migereko, Minister of Energy and Mineral Development, Chair of the Forum for Energy Ministers of Africa (FEMA), Uganda
10.00	Coffee Break

### PLENARY I: THE AFRICAN REGIONAL LANDSCAPE ON ENERGY IN THE LIGHT OF THE FORTHCOMING CSD-15

10.30	<b>Energy options in different regions of Africa</b> Mr. Jacques Moulot, UNECA, Sustainable Development Division <b>Tackling the obstacles for energy sustainability for Africa</b> Mr. Latsoucabé Fall, World Energy Council, Regional Coordinator for Africa <b>The role of the Infrastructure Consortium for Africa (ICA)</b> Mr. Alex Rugamba, Infrastructure Consortium for Africa, AfDB, Coordinator of the Secretariat <b>The initial Phase of the EU-African Partnership on Infrastructure and Networks</b> Mr. Antonio García Frago, European Commission, DG DEV, Head of Division Infrastructure <b>Energy for Africa</b> Mr. Philippe Benoit, World Bank, Africa Region, Lead Energy Specialist Discussion chaired by Mr. Georg Lennkh, Austrian Ministry for Foreign Affairs, GFSE-President
12.45	Lunch Break

### PLENARY II: REGIONAL FOCUS ON WESTERN AND SOUTHERN AFRICA

14.00	<b>Energy in the Economic Community of West African States</b> Mr. Sola Afolabi, ECOWAS, Deputy Executive Secretary Mr. Mahama Kappiah, ECOWAS, Head of Energy Department <b>Energy in the Southern African Development Community</b> Mr. Remmy Makumbe, SADC, Director of Infrastructure and Services Mr. Freddie O. Motlathedi, SADC, Senior Manager of the Energy Programme <b>EU Energy Initiative PDF – Support to Africa’s Regional Economic Communities</b> Mr. Ray Holland, Manager of the EU Energy Initiative (EUEI) Partnership Dialogue Facility <b>Energy for Development</b> Mr. Peter Davies, DFID, Senior Energy Adviser <b>Monitoring and Evaluation: Demonstrating Success and Learning from Failures</b> Mr. Edgar Blaustein, French Ministry of Foreign Affairs, Consultant on Energy
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	Discussion chaired by Mr. Stanford Mwakasonda, Energy Research Centre, University of Cape Town
16.00	Coffee Break

### PLENARY III: REGIONAL FOCUS ON EASTERN AND CENTRAL AFRICA

16.30	<p><b>The Regional Power Trade Project of the Nile Basin Initiative</b> Mr. Kamu Karekaho, Nile Basin Initiative, Regional Power Trade Project, Project Manager</p> <p><b>Energy in East Africa</b> Mr. Ogunlade Davidson, University of Sierra Leone, Faculty of Engineering</p> <p><b>Energy in the East African Community</b> Mr. Calleb Nyamajeje Weggoro, EAC, Sectoral Economist</p> <p><b>Africa's specific opportunities and barriers for implementing energy projects</b> Mr. Andreas Ranet, Pöyry Energy GmbH, Head of Business Area Management Consulting</p> <p><b>Mobilizing Finance for Infrastructure Development in Africa</b> Mr. Nick Rouse, Private Infrastructure Development Group, Emerging Africa Infrastructure Fund, Manager</p> <p><b>Capacity development for expanding energy access in Africa</b> Mr. Luis Gomez-Echeverri, UNDP, Bureau for Development Policy, Deputy Director</p> <p>Discussion chaired by Mr. Ogunlade Davidson (<i>finished at latest: 18.15</i>)</p> <p><b>Evening Reception: "Heuriger Schreiberhaus" – bus transport will be provided after the conference</b></p>
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## THURSDAY, 30 NOVEMBER 2006

### PLENARY IV: BIOFUELS IN AFRICA

09.00	<p><b>Biofuels and energy security in Africa</b> Mr. Heinz Leuenberger, UNIDO Energy and Cleaner Production, Director</p> <p><b>The Global Bioenergy Partnership (GBEP)</b> Ms. Jennifer Nyberg, FAO, Commodities and Trade Division</p> <p><b>Bio-ethanol from sugarcane and sweet sorghum in Zambia: Opportunities and Challenges</b> Mr. Emmanuel Matsika, CEEZ (Zambia) and Cane Resources Network for Southern Africa (CARENSA)</p> <p><b>The geography of 2nd generation biofuel potentials in Africa</b> Mr. Michael Obersteiner and Mr. Sylvain Leduc, International Institute for Applied Systems Analysis (IIASA)</p> <p><b>Case Study: opportunities for biofuels in Tanzania</b> Mr. Rainer Janssen, WIP – Renewable Energies</p> <p>Discussion chaired by Mr. Francis X. Johnson, CARENSA, Stockholm Environment Institute</p>
10.30	Coffee Break

### PLENARY V: HYDROPOWER ON THE AFRICAN CONTINENT

11.00	<p><b>Hydropower development in Africa</b> Mr. Richard Taylor, International Hydropower Association, Executive Director</p> <p><b>Towards the vision of the African Ministerial Conference on Hydropower</b> Mr. Mark Howells, International Atomic Energy Agency (IAEA)</p>
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	<b>Environmental aspects of hydropower development in Africa</b> Mr. Thomas Chiramba, UNEP - Dams and Development Project (DDP), Senior Project Officer
	<b>Hydropower projects in Africa: Case studies from Sudan and Egypt</b> Mr. Harald Schmid and Mr. Bernd Hindelang, Andritz VA TECH HYDRO
	<b>Small hydropower in Africa</b> Mr. Teodoro Sanchez, Practical Action, Energy Technology and Policy Adviser
	Discussion chaired by Mr. Johannes Schmid, Austrian Energy Agency
12.45	Lunch Break

#### PLENARY VI: CDM-OPPORTUNITIES IN AFRICA

14.00	<b>The CDM process in Africa</b> Mr. Daniele Violetti, UNFCCC Secretariat
	<b>CDM in Africa: Challenges and Opportunities</b> Mr. Binu Parthan, REEEP, International Secretariat, Deputy Director
	<b>The potential of energy efficiency and conservation in Africa</b> Mr. Paul Kirai, GEF-KAM Industrial Energy Efficiency Project, National Project Manager, Kenya
	<b>Financing CDM: opportunities and obstacles</b> Ms. Alexandra Amerstorfer, Austrian JI/CDM Programme, Kommunalkredit Public Consulting GmbH
	<b>CDM in Africa: experiences, barriers and the way forward</b> Mr. Stanford Mwakasonda, Energy Research Centre, University of Cape Town
	<b>Making CDM work for Africa</b> Mr. Mike Bess and Mr. Manfred Stockmayer, Camco International
	Discussion chaired by Ms. Gertraud Wollansky, Federal Ministry of Agriculture, Forestry, Environment and Water Management
16.00	Coffee Break

#### PLENARY VII: HOW CAN THE GFSE COMMUNITY SUPPORT AFRICAN ASPIRATIONS AT THE FORTHCOMING CSD-15?

16.30	<b>Interactive Dialogue</b>
	Ms. Irene Freudenschuss-Reichl, Federal Ministry for Foreign Affairs, Austrian Development Cooperation, DG
	Mr. Alain Edouard Traore, Permanent Secretary of the National Council for Environment and Sustainable Development, Burkina Faso, CSD-15 Bureau
	Mr. René Karottki, European Commission, DG DEV
	Representative of the African Group
	Representatives of the Finnish and upcoming German EU Presidency
	Interactive dialogue chaired by Ms. Elfriede-Anna More, Ministry of Agriculture, Forestry, Environment and Water Management, International Environmental Affairs, Austria ( <i>finished at latest: 18.00</i> )
	<b>Evening Reception: "Spanish Riding School Vienna", bus transport will be provided</b>

**FRIDAY, 01 DECEMBER 2006**

**PLENARY VIII: STATE OF THE PLAY OF FINANCIAL ENGINEERING FOR ENERGY IN AFRICA**

09.00	<b>The UN Foundation on energy in Africa</b> Ms. Melinda L. Kimble, UN Foundation, Senior Vice President for Programmes
	<b>Update on EUEI instruments, including COOPENER and the Energy Facility</b> Mr. René Karottki, European Commission, DG DEV
	<b>The new Global Energy Efficiency and Renewable Energy Fund for developing countries (excl. EC)</b> Mr. Bas Rekveld, Triodos International Fund Management, Fund Manager
	<b>Clean Energy SMEs: E+Co's path to scale via the AREED/UNEP Programme</b> Mr. Paul van Aalst, E+Co Energy Through Enterprise
	<b>GVEP: building and financing energy supply chains</b> Ms. Sarah Adams, Global Village Energy Partnership, Programme Coordinator
	Discussion chaired by Mr. Philippe Benoit, World Bank, Africa Region, Lead Energy Specialist
10.30	Coffee Break

**CONCLUDING PLENARY: THE WAY FORWARD**

11.00	Ms. Irene Freudenschuss-Reichl, Federal Ministry for Foreign Affairs, Austrian Development Cooperation, Director General
	Ms. Elfriede-Anna More, Ministry of Agriculture, Forestry, Environment and Water Management, International Environmental Affairs, Austria
	Mr. Thomas Johansson, IIEEE, Lund University, Sweden
	Mr. Nebojsa Nakicenovic, International Institute for Applied Systems Analysis and Vienna University of Technology
	Discussion chaired by Ms. Irene Freudenschuss-Reichl ( <i>finished at latest: 12.15</i> )
	<b>Excursion by bus to <u>BioDiesel Vienna</u> and <u>Hydropowerplant Freudenau</u>, bus service to airport</b>

**ANNOUNCED SIDE MEETINGS:**

**Wednesday, 29 November 2006, 16.30-17.30, room "Musikzimmer"**

**M&EED (Monitoring and Evaluation for Energy and Development): Demonstrating Success and Learning from Failures**

by the M&EED Group (Monitoring and Evaluation for Energy and Development), <http://deafrica.net/>

**Thursday, 30 November 2006, 11:00-13:00, room: "Gruppenraum - Hörsaal"**

**Biofuels for Industrial Development and Climate Mitigation: Challenges and Opportunities for Sub-Saharan Africa**  
by UNIDO and the Stockholm Environment Institute

**Friday, 01 December 2006, room "Gruppenraum - Hörsaal", (side meeting is not confirmed yet)**

**Capacity development for expanding energy access in Africa**  
by UNDP