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Global Forum on Sustainable Energy Bulletin

A summary report of the Sixth Meeting of the Global Forum on Sustainable Energy (GFSE-6)

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SIXTH MEETING OF THE GLOBAL FORUM ON SUSTAINABLE ENERGY: “AFRICA IS ENERGIZING ITSELF.” 29 NOVEMBER – 1 DECEMBER 2006

The Sixth Meeting of the Global Forum on Sustainable Energy (GFSE-6) was held from 29 November - 1 December 2006 at the Diplomatic Academy of Vienna, Austria. The meeting convened under the theme “Africa is energizing itself” and focused on sustainable energy in the African continent, with particular attention to sub-regional issues, biofuels, hydropower, the Clean Development Mechanism (CDM), and financing.

GFSE-6 was organized by the Global Forum on Sustainable Energy in collaboration with the Austrian Development Cooperation at the Federal Ministry for Foreign Affairs, the Austrian Energy Agency and the Austrian Ministry of Agriculture, Forestry, Environment and Water Management.

The meeting brought together 181 representatives from African and European governments, agencies, UN bodies and international organizations, academia, business and industry, civil society and financing institutions to identify ways and means of supporting African aspirations at the 15th session of the UN Commission on Sustainable Development (CSD-15) to be held in New York in May 2007, and to exchange views on key topics in this area.

Participants at GFSE-6 met in nine plenary sessions to hear presentations and engage in discussions on a variety of relevant 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 the way forward.

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 Freudenau.

A BRIEF HISTORY OF THE GFSE AND SUSTAINABLE ENERGY

The Global Forum on Sustainable Energy (GFSE) was launched by Austria’s Foreign Minister in 1999. It stems from outreach efforts of the World Energy Assessment, which was organized by the United Nations Development Programme

(UNDP), the United Nations Department of Economic and Social Affairs and the World Energy Council. The GFSE provides a platform for multi-stakeholder dialogue aimed at facilitating decision-making on energy policy issues in relevant fora. It also seeks to foster public-private partnerships.

GFSE-1: The first GFSE meeting convened from 11-13 December 2000 in Laxenburg, Austria. GFSE-1 addressed the theme “Rural Energy – Priorities for Action,” and contributed to preparations for the ninth session of the Commission on Sustainable Development (CSD-9), which took up various energy-related issues. Participants at GFSE-1 considered the linkages between rural energy and sustainable development, enabling frameworks for attracting investment for rural energy, lessons learned, financing issues, the challenges and opportunities of regulatory reform, and innovation.

GFSE-2: The second GFSE meeting convened from 28-30 November 2001 in Laxenburg, Austria, and addressed the issue of “Energy Technologies – Cooperation for Rural Development”. Participants heard presentations and engaged in discussions on: stocktaking of the international energy discourse; facilitating the transfer of energy technologies suitable for rural development; case studies on successful modalities for transfer of energy technologies; and enabling

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policy environments and creating conditions for private sector involvement in the transfer of energy technologies for rural needs. Participants met in two regional working group sessions on rural electrification and clean fuels for rural needs in Africa, and in Asia and Latin America. Participants also considered the desired outcomes of and proposals for the upcoming World Summit on Sustainable Development (WSSD).

WSSD: Energy for sustainable development was not specifically dealt with at the UN Conference on Environment and Development (UNCED) held in Rio in 1992. However, as Agenda 21 and the Rio Conventions were being implemented in the 1990s, energy emerged as a significant issue. The five-year follow-up meeting to UNCED in 1997 decided that CSD-9 in 2001 would address energy, transport and atmosphere. CSD-9 was preceded by comprehensive preparations on energy issues, including meetings of the *Ad Hoc* Open-Ended Intersessional Group of Experts on Energy and Sustainable Development, and through regional intersessional meetings. CSD-9 recognized, *inter alia*, that the Millennium Development Goals (MDGs - which developed out of the UN Millennium Declaration in September 2000 and include the target of halving the proportion of people subsisting on one dollar a day or less by the year 2015) would not be met without increased access to modern energy services.

Energy was one of the key areas addressed at the World Summit on Sustainable Development (WSSD) proposed by UN Secretary-General Kofi Annan. In the Johannesburg Plan of Implementation (JPOI) agreed at the WSSD, governments made a commitment to improve access to reliable and affordable energy services, promote sustainable use of biomass, and support the transition to cleaner use of fossil fuels. Energy issues were also addressed in the JPOI chapters pertaining to Small Island Developing States, Africa, regional initiatives, and health and sustainable development. The WSSD also encouraged the development of new "Type II" initiatives – voluntary public-private partnerships aimed at advancing implementation on the ground. Several of these Type II initiatives were launched in the area of energy for sustainable development.

GFSE-3: The third GFSE meeting convened from 27-29 November 2002 in Graz, Austria, and addressed public-private partnerships for rural energy development. It considered the relevant outcomes of the WSSD and sought to support the further development of initiatives to promote WSSD implementation, including the EU initiative on Energy for Poverty Eradication and Sustainable Development. Plenary sessions held during GFSE-3 covered topics such as innovative financial instruments for private sector involvement in rural energy development; implementation of the energy outcomes of the WSSD; how to make the WSSD work in Africa and Asia; and the role of operational international organizations and funding agencies for rural energy development.

CSD-11: The Commission on Sustainable Development was created in December 1992 to ensure effective follow-up of UNCED in monitoring and reporting on the implementation of the Earth Summit Agreements at the local, national, regional and international levels. CSD-11 took place at UN headquarters in New York from 28 April to 10 May 2003. Following-up on recommendations made at the WSSD for the Commission to have an enhanced role in promoting sustainable development, delegates

discussed the future work of the Commission, adopting a new work programme for the period 2004-2017. CSD-11 agreed that future sessions would consider a limited number of topics, or "thematic clusters." These clusters were to be examined over two-year "implementation cycles." Energy issues were included in the thematic cluster for the 2006-2007 cycle.

GFSE REGIONAL SEMINAR: From 27-28 November 2003, GFSE held a regional seminar in Vienna, Austria that focused on district heating in South Eastern Europe. This seminar underlined the importance of district heating for the social and economic wellbeing of large parts of the population in the countries of South Eastern Europe and emphasized the important contribution that district heating and combined heat and power generation could make to sustainable development.

GFSE-4: This meeting, entitled "Energy for Sustainable Development: Reconsidering the Role of Incentive Measures," was held from 18-20 February 2004 in Vienna, Austria. GFSE-4 focused on renewable energy issues in order to provide input to the International Conference for Renewable Energies held in Bonn, Germany, in June 2004. GFSE-4 also brought together various energy-related partnerships announced at the WSSD in order to discuss their progress, and sought to contribute to ongoing work on the use of incentive measures for sustainable energy.

GFSE REGIONAL WORKSHOP: This GFSE regional workshop for countries that are members of the International Centre for Integrated Mountain Development was held from 24-26 November 2004, in Paro, Bhutan. The meeting considered the theme of "Access to Rural Energy for Sustainable Development and Policies for Rural Areas." The workshop emphasized increasing awareness among the countries of the Himalaya-Hindukush Region (Afghanistan, Bangladesh, Bhutan, China (Tibet), India, Myanmar, Nepal, and Pakistan) and donor countries on rural energy supply for sustainable development as part of the MDGs.

GFSE-5: The fifth GFSE was held from 11-13 May 2005 in Vienna, Austria, under the theme "Enhancing International Cooperation on Biomass." GFSE-5 focused on biomass, with special emphasis on strengthening the institutional capacity to promote South-South cooperation. Participants also addressed a variety of relevant topics, including: potentials and challenges for increasing biomass use; synergies and risks between food and biofuel crops; the example of Africa; and biofuels for sustainable transport and biomass for electricity production and household heating.

CSD-14: The fourteenth Session of the Commission on Sustainable Development (CSD-14) met from 1-12 May 2006 at UN Headquarters in New York. CSD-14 was tasked with reviewing progress in the areas of energy for sustainable development, industrial development, air pollution/atmosphere, and climate change. CSD-14 included thematic discussions, expert panels, a multi-stakeholder dialogue, and a high-level segment. The meeting was dominated by the energy agenda, with discussions focusing on energy security, the impact of oil and gas prices, and the respective roles of renewable energy technologies, fossil fuels, nuclear power and the climate change regime post-2012.



REPORT OF GFSE-6

WELCOME AND KEYNOTE ADDRESSES

Welcoming participants to Vienna, Irene Freudenschuss-Reichl, GFSE Convenor and Director General for Development Cooperation in the Austrian Ministry for Foreign Affairs, opened GFSE-6 on Wednesday morning, 29 November.

Jiří Gruša, Director of the Diplomatic Academy of Vienna, expressed concerns regarding the increasing use and depletion of fossil fuels, noting that shifting to sustainable energy requires changing “fossil” policies. Highlighting energy security as crucial for achieving sustainable development, he called for use of sustainable and renewable energies.

Michael Linhart, Managing Director of the Austrian Development Agency (ADA), highlighted that energy issues have moved to the forefront of the sustainable development agenda. Noting that GFSE-6 was devoted solely to Africa, he underscored the importance of participation of all stakeholders, in particular the scientific community and civil society, in addressing energy challenges in Africa. Linhart noted that outcomes of this meeting would provide inputs to CSD-15.

Werner Wutscher, Secretary General in the Ministry of Agriculture, Forestry, Environment and Water Management, Austria, 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, Secretary General for Foreign Affairs, Austria, 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, energy access and security. He said specific issues need to be forwarded to CSD-15, as there are already many generic proposals for CSD-15.

Daudi Migereko, Minister of Energy and Mineral Development, Uganda, and Chair of the Forum for Energy Ministers of Africa (FEMA) highlighted 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.

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

Jacques Moulot, UN Economic Commission for Africa (UNECA), identified strategic options for addressing Africa’s energy-related challenges, including: prioritizing efficient policy and institutional frameworks; increasing financial flows;

and promoting regional energy integration as a catalyst for development. He noted that UNECA activities on energy focus on capacity building and rural energy development.

Latsoucabé Fall, World Energy Council, identified the low levels of energy access, dependence on biomass for energy, low *per capita* consumption, and lack of energy infrastructure as the main energy challenges faced by Africa. He highlighted steps needed to overcome these obstacles, including technological development, social measures such as improving access, private-public partnerships and energy market reform that includes effective regulation.

Alex Rugamba, Infrastructure Consortium for Africa (ICA), explained that ICA is not a financing agency and does not set priorities, and stressed ICA’s role in advocacy, coordination of donor support, and capacity building. Rugamba also elaborated on the short-term action plan on energy of the New Partnership for Africa’s Development (NEPAD) and underscored the role of regional power pools for integrated electricity markets as the building blocks for an African electricity infrastructure.

Antonio García Frago, European Commission, spoke on the EU-African partnership on infrastructure. Emphasizing that the partnership is the European response to the African Union/NEPAD infrastructure plan, he highlighted its primary focus on regional and continental infrastructure and interconnectivity and on supporting national and regional indicative plans. He stated that the partnership offers an innovative financial mechanism for infrastructure development, called the EU-Africa Trust Fund, which could provide up to €5.6 billion from the 10th European Development Fund for the period 2007-2013 and was also set up to attract funds from EU member states.

Philippe Benoit, World Bank, stressed three underlying themes for increasing energy access in sub-Saharan Africa: country-led efforts, regional projects and strengthened partnerships. He emphasized that the overarching goals of projects should be electricity growth, powering the Millennium Development Goals (MDGs), and meeting basic needs. In order to achieve these goals, he said there should be higher levels of commitment from donors and improved institutional performance within the region. He stated that although challenges still remain, the attention being paid to energy in Africa highlights its importance, and the positive steps being taken show the willingness of the community to solve these problems.

In the ensuing discussion, participants brought up a number of issues, including: the importance of generation capacity and not only interconnection; recognizing the significance of the private sector as a matter of pragmatism, not ideology, and the need to ensure that private companies do not take advantage of local communities; ensuring that donor money goes to actual project development and not to consultants; partnerships among academic institutions for capacity building; diversification of energy sources in Africa to those other than hydropower; addressing corruption, particularly in light of the large investments required in the energy sector; the relationship between the EU-African Partnership and the ICA; and direct use of renewable energy sources, particularly solar energy. Discussions also focused on project scale, with participants noting different deployment times,



politicians' preference for large-scale projects, the need to ensure that large-scale projects make economic sense, the potential of large hydro and its sustainability, and how large projects translate into improved service access.

PLENARY II: REGIONAL FOCUS ON WESTERN AND SOUTHERN AFRICA

Sola Afolabi, Economic Community of West African States (ECOWAS), outlined ECOWAS' energy initiatives, including the West African Power Pool and the West African Gas Pipeline, noting that these initiatives, in addition to providing energy, generate benefits such as regional added-value for natural resources and job creation. He explained that ECOWAS countries had launched the Regional Energy Access Policy, which aims at mobilizing investment in energy access and developing the institutional framework for a multi-sectoral energy policy.

Ray Holland, EU Energy Initiative Partnership Dialogue Facility, underscored the importance of regional organizations for increasing access within Africa by developing regional markets, mobilizing funding and synchronizing policies and strategies. He explained that increased dialogue between organizations would enable others to learn from previous experiences, and noted that support and capacity building within these organizations was important for this to be successful. He also highlighted the significance of community participation within projects undertaken by organizations.

Peter Davies, UK Department for International Development, said industrialized countries are concerned about their own energy security and climate change, and that developing countries are a threat to both these issues. Noting a lack of energy access targets in the MDGs, he said economic growth is essential for development and energy drives economic growth, adding that Africa is no exception. Davies stressed the need to ensure that infrastructure investments result in the provision of energy services, noted renewables' potential for Africa, emphasized that hydropower must be a part of regional water resources management, and called for engaging utilities.

Edgar Blaustein, Ministry of Foreign Affairs, France, spoke on the linkages between energy and development, emphasizing that energy alone does not result in development. Noting the importance of learning from failures and demonstrating success, he highlighted health, education and economic benefits brought by a project on improved stoves in Tanzania as a successful case of implementing energy projects. Blaustein also stressed the importance of monitoring and evaluating projects.

In the ensuing discussion, participants raised issues such as: the commitment needed to ensure the long-term success of policies and projects; the need for local acceptance of projects to ensure success; public-private partnerships to finance energy projects; strengthening existing partnerships; ensuring that public funds are used in partnerships most likely to be successful; consideration of other forms of private funding; modernizing the use of biomass; the environmental impacts of traditional and modern biomass and biofuels; energy efficiency to mitigate investment in generation capacity; and the development path of Africa, with some noting that it should be different to that which is currently being promoted by developed countries. Stating that

500 small-scale, US\$10,000-projects within local communities would be preferable to one large-scale US\$5 million project, as they were easily quantifiable and could make a noticeable impact on these communities, Sola Afolabi underscored the need for official development assistance (ODA) to support such small-scale projects. Edgar Blaustein noted that efficiency should be approached from the system perspective as opposed to a component-by-component basis.

PLENARY III: REGIONAL FOCUS ON EASTERN AND CENTRAL AFRICA

Ogunlade Davidson, University of Sierra Leone, underscored, *inter alia*: the energy and environmental implications of mass migration from conflicts in Central and Eastern Africa; that solar photovoltaic electricity is "romantic" but too expensive; Africa's challenge to build its energy system when the world has become conscious about environmental impacts; the need to ensure private sector involvement; that substantial amounts of energy are needed for Africa to develop; and that the African region must change the way it does business.

Kamu Karekaho, Nile Basin Initiative, presented a regional partnership project aimed at creating an enabling environment for regional cooperation and action on the ground, to realize the shared vision of Nile Basin riparian countries within an agreed basin-wide framework. Outlining the Initiative's Regional Power Trade Project, he identified promoting regional cooperation and building institutional and human capacity as the main objectives of the project.

Nyamajeje Calleb Weggro, East African Community, gave an overview of EAC's strategy regarding energy for poverty reduction, with targets that include enabling the use of modern energy for 50% of the biomass-using population, increasing access to reliable modern energy services for urban/peri-urban areas and providing electricity to schools and clinics. These targets are set for 2015 and are to be achieved using high-impact, low-cost and scaleable approaches.

Andreas Ranet, Pöyry Energy GmbH, illustrated the private sector point of view and business experience of ODA with two case studies on management contracts and small hydropower CDM in Ethiopia, noting the importance of continued support during project development. He highlighted energy as a key driver for development and the influence of globalization.

Nick Rouse, Private Infrastructure Development Group, highlighted the Group's Emerging Africa Infrastructure Fund as a new financing approach based on a public-private partnership aimed at alleviating poverty and promoting infrastructure development in sub-Saharan Africa. He cited the example of telecommunications, with high market penetration in Africa in the last five years, and said people are ready to pay for electricity. Rouse emphasized an initiative that supports private sector participation in infrastructure financing and identified political interference in tariff setting, oligopolies, and affordability/subsidy availability as difficulties for infrastructure financing.

Luis Gomez-Echeverri, UNDP, highlighted UNDP's experiences in helping countries to achieve the MDGs. He emphasized the importance of capacity development to achieve



increased energy access and noted that, although finance is a challenge, it can be overcome. He also stressed the importance of prioritizing energy access in national strategies.

In the ensuing discussion, participants focused on issues such as quantification and development of tools to monitor successes and capacity building, coordination among energy actors, financing of energy projects and the need to reduce the perceived business risk in Africa.

PLENARY IV: BIOFUELS IN AFRICA

Heinz Leuenberger, United Nations Industrial Development Organization (UNIDO), highlighted biofuel usage for providing energy security in Africa. Emphasizing the availability of feedstock for biofuels in various forms in African countries, he stressed that, if properly harnessed, biofuels can play a significant role in meeting the growing energy needs in Africa and can directly contribute to energy supply and rural electrification. He said biofuels can be a direct tool to combat poverty and promote development.

Jennifer Nyberg, UN Food and Agriculture Organization (FAO), highlighted that the benefits of biofuel use in Africa can outweigh the risks, which include poor land use and crop choice, price pressures for the medium term, and uneven distribution of benefits. Nyberg outlined opportunities, including: increased rural employment; a dedicated market outlet for farmers; income generation; increased selling price for crops; and opportunities for carbon trading.

Emmanuel Matsika, Centre for Energy, Environment and Engineering Zambia, highlighted bio-ethanol production opportunities in Zambia, emphasizing the climate suitability, high sugar yields and water resources. He underscored sorghum's advantages, such as its drought-resistance, short growing cycle, low upfront investment and contribution to poverty reduction. Matsika outlined the institutional framework for bio-ethanol production in Zambia and identified key challenges such as the lack of mandatory blending in fuels, lack of standards and tribal ownership of land.

Michael Obersteiner and Sylvain Leduc, International Institute for Applied Systems Analysis (IIASA), outlined the potential in Africa to use "second-generation" biofuels (certain biofuels that are expected to be introduced and to have a lower carbon footprint, but are still under development).

Illustrating the global energy portfolio and future energy supply scenarios, Leduc said hydrogen production would be the dominant energy use of biomass in the future and emphasized Africa's large potential to energize rural areas by developing second-generation biofuels, and to leverage sustainable rural development.

Rainer Janssen, WIP – Renewable Energies, discussed policy outcomes from assessing opportunities for biofuels in Tanzania. He underscored the significant opportunities for biofuel production in Tanzania but identified barriers to production, including a lack of suitable policies and strategies, land availability and the competition between "food, fuel and feed". He also highlighted that production of biofuels may stimulate the market for farmers and contribute to local revenue generation.

In the ensuing discussion, participants addressed a range of issues, including: integration of energy and agriculture policies; the state of maturity of the biofuel industry; the interaction between biofuels and food production; business risk and a risk mitigation strategy by the donor community; and the preparedness of African countries to deal with the complexities of bioenergy. Jennifer Nyberg stressed that investment in biofuels is happening in Africa, in conjunction with the EU sugar reform and the EU Directive on biofuels, but the question is who will get the returns on that investment. Heinz Leuenberger said the priority should not be big business but ensuring the distribution of benefits from bioenergy and providing energy access for the poor, and highlighted capacity building as a key issue.

PLENARY V: HYDROPOWER ON THE AFRICAN CONTINENT

Richard Taylor, International Hydropower Association, underscored that developed hydropower in Africa is only at 7% of its realistic potential, and that both large- and small-scale hydropower development can contribute to addressing Africa's energy challenges. He said the International Hydropower Association has adopted sustainability guidelines and assessment protocols aimed at promoting greater consideration of environmental, social and economic sustainability in the assessment of new hydro projects and in the management of existing hydropower facilities.

Mark Howells, International Atomic Energy Agency, formerly with University of Cape Town, highlighted the commitments made at the African Ministerial Conference on Hydropower and Sustainable Development, which took place in March 2006, including, *inter alia*: consideration of gender issues; sound environmental management; proper social impact assessments; and further capacity building. He also highlighted a consensus to promote hydropower on the continent, the dissemination of experiences and taking advantage of available financing mechanisms within Africa.

Thomas Chiramba, UNEP Dams and Development Project, reported that the project objectives include promoting improved decision-making on dams and their alternatives, sustaining a multi-stakeholder dialogue on relevant issues, and producing non-prescriptive, practical tools on building sustainable dams. Summarizing the outcomes of the recent meeting of the Dams and Development Forum, he underscored the need to move from discussions on principles and concepts to practical tools.

Harald Schmid, Andritz VA Tech Hydro, explained the engineering features of a 30MW modular hydropower plant in Sudan, noting that installation times for a modular system are about one third that of conventional hydropower. Bernd Hindelang, Andritz VA Tech Hydro, described a project to retrofit a "low-head" hydropower plant in the Nile, noting that low-head power stations generally have the lowest environmental and social impacts, and that the rehabilitation of existing dams provides an opportunity for additional clean and renewable energy.

Teodoro Sanchez, Practical Action, identified the main barriers to promoting small hydropower, including the lack of access to technology, financial mechanisms, local capacity and the



appropriate legal frameworks. Sanchez also highlighted how effective community management schemes can increase the probability of success. He emphasized the advantages of small hydropower schemes for enabling access to electricity for those communities not easily connected to the main grid.

In the ensuing discussion, participants underscored: the need for local entrepreneurs and experienced project developers; the relationship among social and productive uses of energy and infrastructure; the risk of disconnect between community development and economic development; coordination and exchange of African experiences; African governments' commitment to provide enabling environments; and coordination between water and energy ministries.

PLENARY VI: CDM OPPORTUNITIES IN AFRICA

Daniele Violetti, UNFCCC Secretariat, summarized Clean Development Mechanism (CDM) project activities, noting the small number of registered CDM projects in Africa compared to other regions, and the uneven distribution of CDM projects within Africa. He highlighted the need to continue the Designated National Authorities forum to broaden participation in the CDM and to encourage South-South cooperation.

Binu Parthan, Renewable Energy and Energy Efficiency Partnership (REEEP), highlighted challenges for CDM in Africa, including: the high cost of equipment; lack of data and statistics; lack of local capacity and awareness on CDM; and low private sector participation. He emphasized that, despite these barriers, opportunities still remained for South-South cooperation, flexible financing and targeted capacity building to ensure that more CDM projects take place.

Mike Bess, Camco International, elaborated on the ways and means to make the CDM work in Africa. Stressing the small number of CDM projects in Africa, he highlighted the need to engage the private sector and build capacity. He called for support to make the CDM work in and for Africa and advocated setting a target to develop 100 African CDM projects by the end of 2007.

Alexandra Amerstorfer, Kommunalkredit Public Consulting GmbH, outlined the problems that CDM projects in Africa face when attempting to obtain financing, including: risk aversion and the conservative approach when investing in Africa; low carbon intensity of projects; and high transaction costs due to the small scale of most projects. She pointed out that financing was readily available and opportunities existed for projects focusing on landfill gas, biomass waste, renewable energy, and energy efficiency.

Stanford Mwakasonda, University of Cape Town, described a project for capacity building on CDM and provided a statistical review of CDM projects, methodologies and scales in Africa. He identified barriers to CDM, such as the lack of involvement of local business in capacity-building programmes. Mwakasonda stated that CDM deployment was following the same trends that foreign direct investment (FDI) followed in the 1990s, facing the same barriers and country preferences.

The subsequent discussion focused on various topics, including: whether small or large-scale CDM projects were preferable; effectiveness and funding of CDM capacity building in Africa and funding for the projects themselves; investors'

preference for an "even distribution over the whole portfolio;" and the preference of UNFCCC Annex I Parties that have targets to meet for large-scale projects, whereas projects owned by developing countries tend to include sustainable development targets. Acknowledging the lack of indicators to assess how effective CDM capacity building has been, Mwakasonda said that success could be inferred from the number of CDM projects rejected by the UNFCCC methodology panel.

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

CSD-15 Vice-Chair Alain Edouard Traoré, Burkina Faso, emphasized that CSD-15 provides an opportunity to support African aspirations, highlighting CSD-15's focus on energy for sustainable development, air pollution and climate change. He said that a synthesis paper on proposed actions in Africa will be prepared by African countries prior to CSD-15, and called for international partners and donors to help Africa in providing access to modern energy, financing technology transfer and developing carbon markets.

Hannu Eerola, Ministry of Foreign Affairs, Finland, speaking for the EU, outlined the EU priorities for CSD-15, including: supporting reliable and affordable access to energy services; reducing dependency on fossil fuels by promoting renewable energy, energy efficiency and savings; setting energy efficiency targets; and reducing the impacts associated with energy use.

René Karotki, European Commission, reflected on action by Europe, including: the development of technologies; reducing pollution; setting targets on energy efficiency and renewable energy; and new initiatives to boost cooperation with developing countries. He noted that the MDGs correspond very closely to the Poverty Reduction Strategy Papers (PRSPs) at the national level, and underscored the need to address energy issues. Karotki proposed a global conference and a global partnership on energy efficiency.

Irene Freudenschuss-Reichl highlighted the importance of identifying the needs and opportunities for addressing energy issues in Africa and developing specific recommendations that focus on concrete results and take into account regional specificities. She highlighted the issues of hydropower and biofuels as deserving particular attention. Noting the EU's readiness to support African aspirations, she urged participants to maintain the momentum of the work that has already been done.

In the ensuing discussion, participants raised a number of points to ensure that positive outcomes for Africa occur at CSD-15. Proposed outcomes included: support for regional integration in Africa, including power pool agreements and financial support; identification of, and support for, interventions in rural areas that have the greatest impact, taking advantage of comparative advantages; identification of methods to increase the penetration of modern energy; information gathering and dissemination; financing infrastructure to encourage private investment; prioritization of initiatives, particularly regional initiatives; and the need for specific targets and actions at CSD-15. Participants also raised issues relating to the need for efficient resource utilization and for mitigating perceived



investment risks. Traoré stressed that Africa needs to bring its priorities to CSD-15 and try to integrate them into the global agenda.

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

Melinda Kimble, United Nations Foundation, underscored climate change impacts on the fragile ecosystems of the African region and stressed the importance of managing biomass strategically. Noting the need to develop innovative financing tools, adopt new policies that drive changes in the energy paradigm, and consolidate efforts, she highlighted the UN Biofuels Initiative as an approach that responds to these needs while also promoting sustainable production of biofuels under conditions that attract foreign and domestic investment.

René Karotki defined the EU Energy Initiative for Poverty Eradication and Sustainable Development as a framework for political dialogue, with specific instruments such as the African, Caribbean, Pacific (ACP)-EC facility, the Partnership Dialogue Facility and “COOPENER” energy projects focused on developing countries. Karotki said energy has become a priority in the development agenda.

Paul van Aalst, E+Co Energy Through Enterprise, explained how providing seed capital to small and medium enterprises in Africa can provide benefits to both communities and investors. He noted that, although returns are relatively low compared with those normally desired for developing countries, the non-financial returns were significant, as local entrepreneurs were able to increase credibility and generate a proven track record. Van Aalst also emphasized that the projects generally have positive cash flows.

Bas Rekveld, Triodos International Fund Management, described the Global Energy Efficiency and Renewable Energy Fund – the EC’s financing mechanism to promote energy efficiency, renewable energy and clean technology in developing countries. He noted that the Fund is a risk capital fund for small and medium-sized project developers and entrepreneurs, and provides an innovative funding model to mobilize private investment. He reported that the EC intends to provide a core investment of €80 million into Fund, becoming available from June 2007.

Sarah Adams, Global Village Energy Partnership International, stressed that large infrastructure projects to provide energy access to the poor often take time, and that more funding is needed for “grass roots” work that provides immediate access to modern energy for peri-urban and rural areas. She highlighted that her organization has established regional bodies in order to reach more underserved communities and provide financial and business development support.

In the ensuing discussion, participants underscored various issues, including the risks of missing out on benefiting from past experiences, differences between the European and African private sectors, and the high demand for resources. Adams explained that the assigning of projects to Francophone countries was intended to ensure an equitable distribution of funds. Van Aalst noted that US\$0.30 of every US\$1 invested is spent on costs including overheads, managing loans and capacity building.

Karotki clarified issues of private and public participation in activities funded by the Global Energy Efficiency and Renewable Energy Fund. Kimble underscored the impacts of climate change on Africa’s hydropower potential, saying that African countries should be concerned about sustaining this hydropower potential.

CONCLUDING PLENARY: THE WAY FORWARD

In the closing plenary on Friday morning, 1 December, Nebojsa Nakicenovic, Vienna University of Technology and IASA, briefed participants on the need for, and the preparation of, a new Global Energy Assessment (GEA). He emphasized that the motivation for conducting the GEA was driven by the magnitude of the challenge faced in promoting sustainable energy, in particular because access to modern energy and the security and reliability of energy supplies are a prerequisite for achieving the MDGs. Noting that knowledge on energy and sustainability has improved since the World Energy Assessment, Nakicenovic said the new assessment would ensure the participation of all stakeholders and regions and that the final report was expected to be ready in late 2009.

In the subsequent discussion, participants addressed issues such as information dissemination, support for African energy issues, and ways to take these issues forward. Ogunlade Davidson stressed that the proceedings of GFSE-6 should be presented to the African Energy Commission, as they are an important component of the policy-making process within Africa. Davidson also noted that the AU wishes to showcase energy at upcoming meetings and that the proceedings from GFSE-6 should be forwarded to AU. Alain Edouard Traoré said a like-minded action group should advocate African aspirations at the upcoming CSD-15. Elfriede-Anna More, Ministry of Agriculture, Forestry, Environment and Water Management, Austria, stressed that all the issues addressed should be put forward at CSD-15 and, more generally, at the UN and international levels.

Irene Freudenschuss-Reichl informed participants that the full report of GFSE-6 as well as the various PowerPoint presentations would be posted on GFSE’s website (<http://www.gfse.at>) and that an executive summary containing recommendations from the meeting, would be developed by the GFSE Convenor. Welcoming comments, she said the GFSE-6 executive summary would be forwarded to all participants and presented to CSD-15. She thanked participants and organizers and declared the meeting closed at 12:03 pm.

UPCOMING MEETINGS

MEETING ON FINANCING ELECTRICITY GROWTH IN AFRICA: This meeting will take place on 12 December 2006 in Tunis, Tunisia. Organized by the Infrastructure Consortium for Africa (ICA), the event will bring together key decision makers from global energy companies, law firms, investment banks, and ministerial and senior-level representatives from African countries, and will provide a platform to enable focused business discussion on electricity projects from across Africa. For more information, contact: Donia Ben Saâd, ICA Secretariat, c/o African Development Bank, BP 323 – 1002 Tunis Belvedere,



Tunisia; e-mail: d.bensaad@afdb.org; internet: <http://www.icafrica.org/en/news-events/article/view/financing-electricity-for-growth-in-africa-tunis-12-december>

THIRD FUTURE ENVIRONMENTAL TRENDS CONFERENCE: ENERGY, ENVIRONMENT, AND DEVELOPMENT - ANALYZING OPPORTUNITIES FOR REDUCING POVERTY: This meeting will take place from 14-16 December 2006 in Bangalore, India. It is organized by the Institute Veolia Environnement, The Energy and Resources Institute (TERI), and the Institute for Sustainable Development and International Relations. For more information, contact: Ulka Kelkar, TERI India; e-mail: eed@teri.res.in; internet: http://www.teriin.org/events_inside.php_id_17298

DELHI SUSTAINABLE DEVELOPMENT SUMMIT 2007 (DSDS 2007): This meeting, organized by The Energy and Resources Institute (TERI), will take place from 22-24 January 2007, in New Delhi, India. DSDS 2007 will focus on assessing the achievements, failures, and lessons from seven years of action towards the attainment of the MDGs and the natural resource dimensions of sustainable development. For more information, contact: the Summit Secretariat, TERI; tel: +91-11-2468-2100; fax: +91-11-2468-2144; e-mail: dsds@teri.res.in; internet: <http://static.teriin.org/dsds/2007/about.htm>

INTERNATIONAL DIALOGUE ON SCIENCE AND PRACTICE IN SUSTAINABLE DEVELOPMENT: LINKING KNOWLEDGE WITH ACTION: This meeting, organized by Sustainable Europe Research Institute (SERI), will take place from 23-27 January 2007 in Chiang Mai, Thailand. This dialogue is expected to bring scientists and practitioners involved in global, regional and sub-regional sustainable development activities to discuss the quantity and effectiveness of collaborations on sustainable development pursued around the world. For more information, contact: Jill Jäger, SERI, Austria; tel: +43-1-263-2104; fax: +43-1-263-2104; e-mail: jill.jaeger@seri.at; internet: <http://www.scidev.net/events/index.cfm?fuseaction=readevents&itemid=672&language=1>

INTERNATIONAL CONFERENCE FOR REDUCTION OF VULNERABILITY TO CLIMATE CHANGE OF NATURAL, ECONOMIC AND SOCIAL SYSTEMS IN WEST AFRICA: This conference, organized by the UN Economic Commission for Africa, will take place from 24-27 January 2007 in Ouagadougou, Burkina Faso. For more information, contact: Romain Tiendrebéogo, tel: +226-7660-0310, or Halidou Savadogo tel: +226-7029-1216; e-mail: climconf@uneca.org; internet: http://www.uneca.org/eca_programmes/srdc/wa/default.htm

THIRD AUSTRIAN JI/CDM WORKSHOP: This meeting, organized by Kommunalkredit Austria, AG will take place from 25-26, January 2007 in Vienna, Austria. This workshop, the third of its kind, will seek to bring together carbon market project developers, investors, validators and government authorities to discuss recent developments and future perspectives following the latest high-level climate negotiations in Nairobi in November 2006. For more information, contact: Peter Koegler, e-mail: p.koegler@kommunalkredit.at, or Sabine Schoeller: e-mail: s.schoeller@kommunalkredit.at; internet: <http://www.ieta.org/ieta/www/pages/index.php?IdSiteTree=1275>

2007 EUROPEAN RENEWABLE ENERGY POLICY CONFERENCE: This meeting will take place from 29-31 January 2007 in Brussels, Belgium. Jointly organized by the German Government and the European Renewable Energy Council (EREC), the conference is expected to bring together EU institutions, national governments and local administrations, energy regulators and power companies, renewable energy industries, utilities and Transmission System Operators (TSOs), research and academic institutes, and the civil society. For more information, contact: EREC Secretariat; tel: +32-2-546-1933; fax: +32-2-546-1934; e-mail: erec@erec-renewables.org; internet: <http://www.erec-renewables.org/events/2007PolicyConference/default.htm>

24TH SESSION OF THE UNEP GOVERNING COUNCIL/GLOBAL MINISTERIAL ENVIRONMENT FORUM: This meeting will take place from 5-9 February 2007, in Nairobi, Kenya. For more information, contact: Secretary for UNEP Governing Council; tel: +254-20-762-1234; fax: +254-20-762-4489/90; e-mail: beverly.miller@unep.org; internet: <http://www.unep.org>

CSD INTERGOVERNMENTAL PREPARATORY MEETING: CSD-15 will be preceded by an Intergovernmental Preparatory Meeting, which will take place from 26 February - 2 March 2007, at UN headquarters in New York. This is the second, or policy year, of the implementation cycle during which the Commission will continue its focus on the areas of energy for sustainable development, industrial development, air pollution/atmosphere and climate change. For more information, contact: UN Division for Sustainable Development; tel: +1-212-963-8102; fax: +1-212-963-4260; e-mail: dsd@un.org; internet: http://www.un.org/esa/sustdev/csd/csd15/csd15_ipm.htm

CARBON MARKET INSIGHTS 2007: Point Carbon's annual event on the carbon market is taking place in Copenhagen, Denmark, from 13-15 March 2007. This event will focus on, among other issues, the opening up of the EU emissions trading scheme to the global carbon markets. For more information, contact: Point Carbon; tel: +47-2240-5340; fax: +47-2240-5341; e-mail: conference@pointcarbon.com; internet: <http://www.pointcarbon.com>

IPCC MEETINGS: The 26th meeting of the Intergovernmental Panel on Climate Change (IPCC) will take place in Bangkok, Thailand, on 4 May 2007, immediately following the 9th session of Working Group III, to be held from 30 April - 3 May 2007. Prior to this, the tenth session of Working Group I will be held in France from 29 January - 1 February 2007, and the eighth session of Working Group II will be held in Brussels, Belgium, from 2-5 April 2007. For more information, contact: Rudie Bourgeois, IPCC Secretariat; tel: +41-22-730-8208; fax: +41-22-7 30-8025; e-mail: IPCC-Sec@wmo.int; internet: <http://www.ipcc.ch/>

FIFTEENTH SESSION OF THE UN COMMISSION ON SUSTAINABLE DEVELOPMENT (CSD-15): CSD-15 will be held from 30 April - 11 May 2007, at UN headquarters in New York. For more information, contact: UN Division for Sustainable Development; tel: +1-212-963-8102; fax: +1-212-963-4260; e-mail: dsd@un.org; internet: <http://www.un.org/esa/sustdev/csd/policy.htm>