



**EXPERT GROUP MEETING ON INDUSTRIAL
ENERGY EFFICIENCY AND CARBON
FINANCING:
30-31 OCTOBER 2003**

The Expert Group Meeting on Industrial Energy Efficiency and Carbon Financing took place from 30-31 October 2003 at the Vienna International Center, Austria. The UN Industrial Development Organization (UNIDO) and Austria's Ministry of Agriculture, Forestry, Environment and Water Management (MAFE) organized the meeting, which was attended by 105 representatives of governments, intergovernmental organizations, non-governmental organizations (NGOs), business and industry groups, and academic institutions.

The aim of the meeting was to identify how carbon financing can accelerate the uptake of energy efficient technologies and systems in the industrial sector using the Kyoto Protocol's Clean Development Mechanism (CDM), and Joint Implementation (JI). During the two-day meeting, participants convened in five panel sessions to discuss a variety of relevant issues. On Thursday, 30 October, three panel sessions were held to consider: the use of energy efficiency in the industrial sector as a key option for productivity increases and greenhouse gas (GHG) emissions mitigation; the national delivery mechanisms required to increase energy efficiency in industry through the CDM and JI; and barriers and opportunities for JI in Eastern Europe. On Friday, 31 October, participants convened in two panel sessions to examine the evolution of the carbon market and carbon financing, and gauge progress in the intergovernmental climate change negotiations, and with the CDM and JI.

**A BRIEF HISTORY OF THE CLIMATE CHANGE
NEGOTIATIONS, INDUSTRIAL ENERGY
EFFICIENCY, AND CARBON FINANCING**

Climate change is considered one of the most serious threats to the world's environment, with negative impacts expected on human health, food security, economic activity, water and other natural resources, and physical infrastructure. Global climate varies naturally, but scientists agree that rising concentrations of anthropogenic greenhouse gas (GHG) emissions in the Earth's atmosphere are leading to changes in the climate. According to the Intergovernmental Panel on Climate Change, the effects of climate change have already been observed. Despite some lingering uncertainties, the majority of climate scientists believe that prompt and precautionary action is necessary.

The international political response to climate change began with the UNFCCC. Adopted in 1992, the UNFCCC sets out a framework for action aimed at stabilizing atmospheric concentrations of GHGs in order to avoid "dangerous anthropogenic interference" with the

climate system. The greenhouse gases to be limited include methane, nitrous oxide, and, in particular, carbon dioxide. The UNFCCC entered into force on 21 March 1994. It currently has 188 Parties.

THE KYOTO PROTOCOL: In 1995, the first meeting of the Conference of the Parties (COP-1) established the *Ad Hoc* Group on the Berlin Mandate, and charged it with reaching agreement on strengthening efforts to combat climate change. Following intense negotiations culminating at COP-3 in Kyoto, Japan, in December 1997, delegates agreed to a Protocol to the UNFCCC that commits developed countries and countries with economies in transition to a market economy (EITs) to achieve quantified emissions reduction targets. These countries, known under the UNFCCC as Annex I Parties, agreed to reduce their overall emissions of six GHGs by at least five percent below 1990 levels between 2008 and 2012 (the first commitment period), with specific targets varying from country to country. The Kyoto Protocol also established three mechanisms to assist Annex I Parties in meeting their national targets cost-effectively: an emissions trading system; joint implementation (JI) of emissions-reduction projects between Annex I Parties; and a Clean Development Mechanism (CDM) that encourages projects in non-Annex I Parties.

After 1997, Parties spent several years negotiating the rules and operational details determining how countries will cut emissions and measure and assess emissions reductions under the Protocol. By COP-7, convened in Marrakesh, Morocco, from 29 October to 9 November 2001, delegates had agreed on most of the rules relating to the Protocol. At COP-8, held in New Delhi, India, from 23 October to 1 November 2002, delegates adopted the *Delhi Declaration on Climate Change and Sustainable Development*. The Declaration reaffirms development and poverty eradication as overriding priorities in developing countries, and underscores Parties' common but differentiated responsibilities and national development priorities and circumstances in implementing their UNFCCC commitments. Parties at COP-8 also considered institutional and procedural issues under the Protocol and adopted several decisions, including on the rules and procedures for the CDM.

With the details and rules governing the Protocol established, many observers expect the treaty to enter into force in the near future. To do so, however, the Kyoto Protocol must first be ratified by 55 Parties to the UNFCCC, that represent at least 55% of the Annex I Parties' total carbon dioxide emissions for 1990. As of 31 October 2003, the Protocol had been ratified by 119 Parties, including 32 Annex I Parties representing 44.2% of their carbon dioxide emissions for 1990.

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With approximately 43% of global carbon dioxide emissions from energy use arising from industrial energy consumption, a range of organizations, including UNIDO and the Climate Technology Initiative (CTI), and various governments, are exploring ways in which the Kyoto mechanisms can assist the sector in becoming more energy efficient. Implementation of mitigation projects in the industrial sector is usually associated with increased productivity and greater access to global markets. UNIDO therefore aims to identify energy efficiency projects that are widely applicable across sectors and that contribute to activities that will facilitate the sound delivery of CDM and JI projects on energy efficiency in the industrial sector.

REPORT OF THE MEETING

Abal Rwendeire, Managing Director of UNIDO's Programme Development and Technical Cooperation Division, welcomed participants and highlighted that the focus of the meeting would be the target regions of Central and Eastern Europe and Central Asia.

Noting the relationship between energy consumption and economic growth, he drew attention to the opportunities to broaden energy efficiency markets in these regions. He reported that, to date, few JI and CDM project portfolios address energy efficiency, and expressed the hope that this would change in the future.

He explained that this meeting would discuss: how carbon financing through the Kyoto Protocol's JI and CDM can accelerate the uptake of energy efficient technologies and systems in the industrial sector; how the transaction cost for developing JI projects in installations not covered by the EU Emissions Trading Scheme (EU ETS) could be reduced; how the sectors that are covered by the EU ETS, but that cannot generate carbon credits or allowances, can fulfill requirements to reduce carbon dioxide emissions; what role CDM and JI can play in the uptake of energy efficiency projects; and what national delivery systems are needed to implement these projects.

Helmut Hojesky, Director of MAFE's Air, Soil and Climate Change Division, welcomed participants to the meeting, and drew attention to recent and upcoming climate change meetings, including the World Climate Conference and UNFCCC COP-9. He noted that the EU Emissions Trading Directive had entered into force on 26 October 2003, and stressed the need to prevent conflict between the EU ETS and JI projects. He emphasized that this meeting provided a good opportunity to develop stakeholder cooperation and collaboration, highlighting that countries jointly face the challenges of fulfilling the provisions of the Kyoto Protocol and reducing greenhouse gas (GHG) emissions.

He then reviewed Austria's JI and CDM programmes, noting that project priorities include support for renewable energy, fuel switching, combined heat and power schemes, waste management measures, and energy efficiency.

Shigetaka Seki, Executive Committee Chair, Climate Technology Initiative (CTI), briefed participants on the CTI's history and explained that the CTI undertakes technology needs assessments and facilitates interaction between academia, government, and the private sector. He pointed to the CTI's close collaboration with the UNFCCC Secretariat, the Expert Group on Technology Transfer (EGTT), UNIDO, and the European Bank for Reconstruction and Development (EBRD). He stressed the urgency of finalizing rules for project procedure given that the first commitment period starts in 2008, and highlighted the importance of dialogue with industry and the use of market incentives.

PANEL SESSION ONE: ENERGY EFFICIENCY IN THE INDUSTRIAL SECTOR AS A KEY OPTION FOR PRODUCTIVITY INCREASE AND EMISSIONS MITIGATION

This panel was moderated by Deborah Cornland, Director of Cornland International, Sweden. Participants heard five presentations before engaging in a discussion on the issue.

PRESENTATIONS: Aimee McKane, Programme Manager of the Environmental Energy Technologies Division, Lawrence Berkeley National Laboratory, US, spoke on behalf of Wayne Perry, Technical Director, Kaeser Compressors Incorporated. McKane outlined a systems approach for promoting energy efficiency in the industrial sector, and noted that energy saving opportunities from systems are greater than from individual components. She summarized some audit findings of common problems relating to compressed air systems, including excessive pressure for the application, air leaks, poor selection of compressor controls, and inappropriate use.

Aimee McKane also noted that energy systems may be incorporated into CDM and JI projects, observing that they should focus on building capacity and enhancing technology transfer. She suggested that governments could create a universal training curriculum for industrial systems optimization. On successful CDM and JI programmes, McKane recommended that host countries should have, *inter alia*, a substantial and growing industrial sector, the appropriate level of human capacity, a stable political climate, and government support.

Jaroslav Maroušek, Energy Efficiency Center, Czech Republic, outlined his organization's energy efficiency activities, including elaborating legislation and energy policies, developing energy master plans and carrying out energy audits. He observed that, according to the Czech Energy Efficiency Act, energy audits will be mandatory for all government facilities and large private companies by the end of 2004. Maroušek noted that profitable energy savings can range from 4–35%, depending on the type of industry. He said low-cost, low-energy construction work is a profitable area because it requires little investment and can realize energy savings of up to 40%. Maroušek underscored the need to raise private sector awareness of the benefits of promoting energy efficiency investments.

Andreas Kolleger, ALLPLAN GmbH, Austria, outlined ALLPLAN's programme on energy efficiency, which involves acquisition and analysis of companies' measurement data, calculations of saving potentials and cost of energy saving measures, and presentations of optimum technical and economic solutions. He observed that the programme concentrates on the production processes of a range of industries in eastern and western Europe. Underscoring that solutions should be tailored to fit the specific circumstances of each case, he summarized some of the more common solutions identified by ALLPLAN, including: using heat and boiler waste; changing the control systems; avoiding radiation losses; optimizing pipe diameters; isolating pipes; and promoting long-term energy management.

George Abulashvili, Energy Efficiency Center, Georgia, spoke about the barriers to the development of energy efficiency projects in Georgia. He argued that south Caucasian countries should cooperate to find joint solutions for overcoming common barriers to energy efficiency. He said that Georgia considers energy efficiency to be a major tool for improving socioeconomic conditions in the country, and that it has incorporated energy efficiency into its Poverty Reduction and Economic Growth Programme, National Action Plan for Environmental Protection, and National Energy Strategy. Abulashvili also drew attention to some of the financial and legal barriers to achieving energy efficiency, including corruption, lack of local commercial financing, low levels of energy bill collection, subsidies, inadequate regulations and enforcements, and lack of relevant managerial skills.

DISCUSSION: In the ensuing discussion, McKane stressed the importance of completing and quantifying industrial systems improvements, adopting globally recognized protocols, and integrating these protocols into the process of the International Organization for Standardization. Maroušek noted that energy audits in the Czech Republic are paid for by the client, but subsidized by the government, and that all auditors have to be certified by the Ministry of Industry and Trade. Noting his reservations to mandatory energy audits, Maroušek highlighted the difficulty of encouraging energy audits in the absence of strict legislative measures.

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Responding to a question from Maroušek about providing incentives for energy efficiency when easier methods of generating financial resources are available, Abulashvili underscored the importance of clearly demonstrating the financial benefits of energy efficiency, and of presenting it as a “fashionable” way of successfully managing businesses. Maroušek noted that while energy efficiency is important in itself, Czech companies are unlikely to achieve it in the absence of a favorable economic environment. Abulashvili noted the possibility of introducing low- and no-cost measures as a first step to raising managers’ awareness of the profitability of energy efficiency.

Commenting on the wider impact of energy efficiency projects, Kolleger expressed the hope that CDM and JI will help stabilize the socioeconomic situation in the target regions. Participants and panelists also addressed the role of additionality in promoting energy efficiency. Moderator Cornland stressed the need to scale up from small-scale energy efficiency projects to larger-scale activities, highlighting UNIDO’s role in this regard. She noted the need for experts who are able to contribute to capturing revenue streams from the Kyoto Protocol’s mechanisms. She also asked about the options for promoting industrial energy efficiency by involving new individuals without creating additional levels of bureaucracy and transaction costs. Panelist McKane stressed the benefits of using existing mechanisms, such as the International Performance Measurement and Verification Protocol (IPMVP).

One participant called for a more expeditious procedure for approving project proposals, noting that many business opportunities are “sabotaged” by the lengthy process that currently exists. Another stressed that a lack of financial know-how and capacity represent major barriers to achieving energy efficiency.

PANEL SESSION TWO: NATIONAL DELIVERY MECHANISMS REQUIRED TO INCREASE ENERGY EFFICIENCY IN INDUSTRY THROUGH THE CDM AND JI

This panel was moderated by Ingo Puhl, Managing Director of 500ppm GmbH, a German company. Five panelists delivered presentations on the subject of national delivery mechanisms, before engaging in a discussion with participants.

PRESENTATIONS: In his presentation, Richard Kennedy, Senior Industrial Development Officer, UNIDO, said that energy efficiency service projects that aim only at technical assistance face the challenge of ensuring that such services continue to be provided following the projects’ completion. To ensure sustainability, he observed that such projects should increase reliance on the private sector, further develop and maintain energy efficiency service markets, identify actual and potential energy efficiency service providers, and establish appropriate incentives for the private sector.

Highlighting the need to respect national and regional circumstances, Vladimir Litvak, Deputy Chairman of the Management Board Carbon Energy Fund, Russian Federation, noted the potential for energy efficiency investments in the Russian Federation. He reported that the Russian Government had established a partnership with the largest emitters of GHGs in the country, including the energy, steel, transport and chemical industries, and noted that the partnership seeks to facilitate the development of carbon markets.

Martin Cmiral, Managing Director of the Biomass Technology Group, Czech Republic, outlined a JI portfolio in the Czech Republic that involves a partnership with the Dutch Government to implement approximately 10 to 20 biomass municipal district heating projects. He noted that such projects are expected to provide approximately 500,000 Emission Reduction Units (ERUs). Cmiral summarized key factors that need to be addressed when developing JI projects, including: information on the prices of ERUs and Certified Emission Reductions (CERs); identifying who will pay for the development; securing specific host-country support; defining the payment structure and timing; establishing delivery guarantees; and reducing transaction costs.

David Ungar, Evolution Markets, US, explained that Assigned Amount Units (AAUs) carry substantially less risk than project-based emission reductions, and that revenues from the sale of AAUs can be invested in emission reduction projects or used to support policies and measures that may lead to a “neutral allocation” of AAUs. Ungar outlined a case study on “project-backed AAUs” in Hungary, noting that generated revenue can be used to finance emission reductions and create new surplus AAUs. He outlined two scenarios for managing surplus AAUs, and indicated that many countries in Central and Eastern Europe will have surplus AAUs. He observed that governments could sell AAUs and use the funds to finance emission reduction projects directly, or to support capacity-building efforts prior to 2008. He identified various barriers to AAU-backed projects, including the uncertainty of the Russian Federation’s ratification, the unwillingness of countries to buy “hot air,” and insufficient capacity to develop and accept green AAUs.

Paolo Bertoldi, Directorate General Joint Research Centre, European Commission, noted that some European countries are considerably more advanced in the creation of European Energy Service Companies (ESCOs) markets than others, and said that typical ESCO services include energy audits, engineering studies, equipment supply, construction, measurement, and verification. He said that sample technologies of ESCO projects include boilers, lighting, pumps, water conservation, motor systems, and refrigeration systems. Stressing that ESCOs are service companies and not banks, Bertoldi noted that some ESCOs are unable to invest their working capital to develop and implement energy efficiency projects. He outlined two types of saving structures, namely guaranteed and shared savings. He stressed that an audit should serve as a financial investment guide on the improvement of an organization’s physical assets, and noted that project reliability and financing depend on accepted measurements and verification of savings. Bertoldi observed that concerted efforts to build the capacity of bankers and financiers must become a priority in order to foster energy efficiency. He also discussed the IPMVP, which provides savings measurements, a verification framework, standardized terminology, risk management, and transparent and verifiable contract terms.

DISCUSSION: Responding to a participant’s question about ESCOs, Bertoldi explained that a number of factors affect the development of ESCO markets, and that the absence of a market does not imply lack of investment into energy efficiency. He noted that in Austria, the comparatively large ESCO market is attributable to information disseminated on ESCOs by national and regional energy agencies.

In response to a question from another participant, Cmiral explained that the methodology used to determine the baseline for the JI project in the Czech Republic is replicable, but that the Biomass Technology Group has since improved this methodology. He noted that baseline approval requires validation by an independent body.

One participant commended the implementation of AAU-backed projects. Ungar expressed regret at the resistance of buyers and vendors to using AAUs, which he attributed to a lack of understanding. Cmiral added that projects that are given project-based AAUs should automatically produce ERUs. One participant recommended exercising caution in involving governments as market operators of AAUs, while Ungar noted that governments can empower business communities by generating AAUs.

PANEL SESSION THREE: BARRIERS AND OPPORTUNITIES FOR JI IN EASTERN EUROPE

The panel on barriers and opportunities for Joint Implementation (JI) in Eastern Europe was moderated by Manfred Stockmayer, Managing Director of KWI Consultants and Engineers, Austria. Participants heard six presentations, followed by a group discussion.

PRESENTATIONS: Charlotte Streck, Legal Adviser to the World Bank’s Prototype Carbon Fund (PCF), said that the Bank was a pioneer in the carbon market through the PCF, which was established in 1999

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with a fund of US\$180 million and involved 17 private companies and six governments. She noted that the PCF has subsequently expanded and has so far covered 49 approved projects representing an investment of US\$270 million. Noting that the main barriers in host countries are a lack of knowledge, capacity and awareness, she said that all PCF projects include a capacity-building component. Streck noted that PCF projects have been dominated by renewable energy sources and waste management. Underscoring that the least developed countries are struggling to attract CDM projects, she observed that their greatest potential lies in the agricultural sector. Streck summarized the challenges faced by JI host countries, including the setting up of registries, submitting inventories, accounting for AAUs, and establishing adequate institutions.

Erik Saat, Project Officer of Carboncredits, the Netherlands, highlighted eight projects that are expected to result in a reduction of approximately 8.5 million tons of carbon dioxide emissions. Saat observed that such projects involve district heating, hydro power, energy efficiency for the cement industry, biomass boilers, landfill gas and wind power in a number of host countries, including Hungary, Bulgaria, Romania, Poland and the Czech Republic. He outlined some impacts of the EU ETS on JI projects, including increased political certainty for market players and a limited number of JI projects until 2004.

Gertraud Wollansky, Deputy Director, MAFE, Austria, said that the draft EU linking directive establishes how the EU ETS will be connected to carbon markets under the Kyoto Protocol. She noted that this draft directive will allow CERs and ERUs from CDM and JI projects to be converted into EU trading allowances by operators, and observed that these allowances could be used to fulfill EU countries' obligations to limit GHG emissions. Wollansky indicated that nuclear and sinks projects are excluded from the EU ETS because it targets the industry and energy sectors that should focus on technology transfer and energy efficiency. She reported that the draft EU linking directive is expected to enter into force in 2004.

Ingrida Apene, Senior Desk Officer, Environment Protection Department, Latvia's Ministry of Environment, outlined the country's experience with JI projects. She stressed that JI should not only be attractive and beneficial to investors, but also for recipient countries. Noting that 27 small-scale JI projects have been implemented in her country, she explained that they dealt with replacing fossil fuels with renewable energy resources, constructing co-generation plants, and conserving heat energy in buildings. She stated that legislation had been passed to address the issue of JI projects, stressing that the goal of the National JI Strategy is to promote climate change mitigation by attracting investors. She said the strategy aims to conform with JI Track I requirements, develop the necessary legal measures, and create the necessary institutional structures. Apene also outlined the strategy's expected outcomes, including the creation of technical, financial and administrative management systems of JI projects, and the compilation of a project portfolio. She explained the tasks and mechanisms of various institutions involved in JI project implementation, and identified the main barriers to JI, including lack of financing to strengthen institutional and governmental capacity, limited private sector involvement, an undeveloped industrial sector, and an incomplete legislative basis for implementing CDM and JI projects.

Tomas Chmelik, Head of the JI Unit, Ministry of Environment, Czech Republic, informed participants that the Czech Republic is a JI host country and that he expects that it will have to engage in GHG emission reductions for the second commitment period. He explained that the Czech Republic's JI phase started in January 2002, and that its objectives include capacity building, attracting interest from investors, and cooperating with the PCF. He outlined the methodological guidelines developed for addressing JI, and emphasized the need to define responsibilities clearly, implement more projects, and reduce adminis-

trative costs. He stressed that the Czech Republic faces significant challenges in addressing climate change, and questioned the usefulness of the draft EU linking directive.

Alexandra Amerstorfer, Holder of Procurement of the Department Trust Fund, Kommunalkredit Public Consulting, Austria, stated that Austria's JI and CDM programme gives priority to projects dealing with combined heat and power installations, fuel switching to renewable energy sources or less carbon intensive fuels, renewable energy production plants, energy efficiency and waste management. She outlined the procedure adopted by the Austrian Government to carry out such projects, including the development of the project idea note and project design document, validation, registration, purchase agreement, monitoring, verification, certification, transfer, and payment.

DISCUSSION: In the subsequent discussion, participants considered the impact of the draft EU linking directive on JI projects and the possibility of converting ERUs into credits under the EU ETS. One participant asked about the impact of over-allocation of allowances by the EU. In response, Wollansky answered that allocation will be based, among other things, on the historical emissions of each country, and that this should help avoid such over-allocation.

PANEL SESSION FOUR: THE EVOLUTION OF THE CARBON MARKET AND CARBON FINANCING

This panel session, which focused on the evolution of the carbon market and carbon financing, was held on Friday, 31 October. Moderated by Frank Joshua, Director of the Climate Investment Partnership, Switzerland, the session consisted of four panel presentations and a discussion among participants and panelists.

PRESENTATIONS: Susanne Kunitz, Deputy Manager, International Export and Trade Finance, Bank Austria Creditanstalt (BACA), explained that the BACA acts as the center of competence of the German HypoVereinsbank Group in its dealings with Central and Eastern Europe. She drew attention to BACA's in-house legal expertise for addressing JI and CDM projects, its position as a market leader in international export finance, and its contacts with national export promotion agencies and international financial institutions. She explained that those involved in the process of financing CDM and JI projects include the BACA itself, as well as a buyer, exporter, programme manager, and export credit agency. She noted that the programme manager concludes a purchase contract for certificates with the buyer, who instructs the programme manager to issue credits to an escrow account. She said that the buyer then transfers certificates to the programme manager who transfers them from the escrow account to BACA, which uses them for credit repayment.

Andrei Marcu, Executive Director, International Emissions Trading Association (IETA), explained that IETA is dedicated to the objectives of the UNFCCC and to establishing effective market-based trading systems for GHG emissions. He pointed out the complexity of existing trading systems, and outlined the evolution of the carbon market. He suggested that in its initial phase, the carbon market was fragmented and characterized by Dutch and Canadian dominance, low transatlantic trade, small numbers of price setters, and low interest among most corporations in participating. Reviewing today's carbon market, he commented that it continues to be fragmented, and that it is characterized by, *inter alia*, interest in compliance instruments, value for Verified Emissions Reductions (VERs) in the US, insufficient liquidity, decreased activity by Canadian and Japanese companies, and large price differentials between JI and CDM and compliance instruments. He noted that buyer markets are located in the EU, Canada and Japan, and that seller markets are found in the EU, candidate EU countries, the Russian Federation, the Ukraine, and Central Asia. He emphasized the importance of the draft EU linking directive for providing market liquidity.

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Martin Collins, Natsource-Tullet, said that in order to mobilize the private sector, there is a need to focus on the EU ETS and on funding institutions from the traditional banking sector. He noted the importance of quantifying the value attached to carbon credits in order to engage the private sector. Collins highlighted the need to establish a strong compliance system under the Kyoto Protocol to reduce risks relating to the value of carbon credits. He observed that the EU focuses on managing risks, constructing and verifying carbon dioxide and GHG emission baselines, developing target scenarios, and assessing market acceptance. Noting that carbon markets are being developed in various countries, Collins supported increased private sector involvement.

Jan-Willem van de Ven, Energy Business Group, EBRD, explained that EBRD works on sustainable development and environmentally-sound projects, and outlined EBRD's activities relating to the carbon market. He stressed that energy efficiency projects are the top priority for EBRD, as they are sound indicators of market reform.

DISCUSSION: Commenting on what is meant by the term "carbon finance," Moderator Joshua explained that it can relate to a contract of future payment on the delivery of GHG reductions, or to the ability to generate equity, insurance and other financial elements to create resources for implementing projects. He noted the need to build the capacity of banking institutions to evaluate carbon risks and accept carbon purchase agreements for issuing loans. Joshua also observed that developing countries need up-front financing to deliver carbon credits.

One participant said that carbon finance could focus on energy efficiency projects, which are less demanding for funding than the building of new energy capacities. Joshua said that investments for building capacity are a high priority for many developing countries. Stating that carbon finance has "a thousand faces," another participant said EITs need to focus on energy efficiency, while developing countries should work on creating new energy capacity.

PANEL SESSION FIVE: PROGRESS WITH THE CLIMATE CHANGE NEGOTIATIONS, CDM AND JI

This panel was moderated by Marina Shvangiradze, Head of the National Policy Division, National Agency on Climate Change, Ministry of Environment and Natural Resource Protection, Georgia. Participants heard five presentations and engaged in a discussion with panelists.

PRESENTATIONS: Oleg Pluzhnikov, Chief of the Russian Federation's Environment Department in the Ministry of Fuel and Energy, identified the reasons given by some Russian experts for the Russian Federation not yet ratifying the Kyoto Protocol. These include: lack of economic incentives following the US withdrawal; the inefficiency of the Kyoto Protocol's measures to reduce GHG emissions; and the Kyoto Protocol's potential to harm the Russian Federation's economy. Noting that the Protocol is not a major issue for the Russian Federation at present, Pluzhnikov said that it might be approved by the parliament following upcoming parliamentary elections. He underscored that Russia has to build capacity and prepare its institutions for CDM and JI projects.

Christine Zumkeller, UNFCCC Secretariat, noted that the CDM is an innovative, unique system for North-South collaboration based on a "learning-by-doing" approach, and that it mobilizes private sector resources for promoting sustainable development. She stressed the fast growth of public and private interest in CDM projects, observed the steep learning curve on CDM issues, and highlighted that funds are being established. She said the CDM Executive Board had approved six baseline and monitoring methodologies and is considering 29 proposals for approval. She noted that accreditation of first operational entities is expected in the first quarter of 2004, and pointed to the Board's decision to facilitate applications from companies in non-Annex I Parties by providing financial support. She stressed the need to consolidate methodologies, safeguard the integrity, credibility and quality of the CDM project procedure, and ensure the CDM's viability, responsiveness and

economic and environmental sustainability. Zumkeller highlighted the need to strike a balance between taking prompt action and ensuring quality, and supported building capacity in developing and developed country governments, as well as in the private sector.

Kristian Tangen, PointCarbon, Norway, emphasized that the carbon market is growing for both CDM and JI projects. He observed that the main factors likely to affect the future of carbon markets include: decisions of the CDM Executive Board; the standardization of methodologies to reduce transaction costs; the Russian Federation's ratification; the creation of one Kyoto market with only one carbon price; and the first issuing of CERs in 2005 or 2006. Tangen noted that the Marrakesh Accords define two tracks for JI. In track one (JI Track 1), host countries need to comply with more onerous reporting requirements than in track two (JI Track 2). He observed that the ERUs derived from JI projects complying with CDM methodologies will have a higher price than those not complying with such methodologies.

Matthias Krey, CDM and JI expert, Hamburg Institute of International Economics, explained that the incentive for host countries to ensure additionality in JI Track 1 projects is to avoid "freely" granting AAUs to investors, while in JI Track 2 projects it is to ensure environmental integrity. He said that the disadvantages of ensuring additionality in JI Track 1 include short-term high transaction costs, and noted that only project-specific baseline methods will be approved by the CDM Executive Board. He observed that multi-project baselines for JI are based on multi-project figures and assumptions for all key parameters, and are determined up-front by the host country with the project developer's assistance. Krey also stressed that direct bargaining under JI Track 1 involves lower transaction costs.

Stanislav Kolar, Center for Clean Air Policy, Czech Republic, said that the draft EU linking directive will allow six per cent of the EU allowances to be achieved by JI and CDM projects. He explained that the difference between a measure carried out under JI or under EU ETS will be the time during which emissions reductions can be monetized. Under JI, ERUs can be monetized from 2008 until the end of the project's lifetime; while under EU ETS, the period for monetization will be from 2005 until the termination of the allocation period.

DISCUSSION: In the ensuing discussion, one participant noted the need to build capacity in the Russian Federation. Another outlined the carbon cash flow of JI and CDM projects for companies. Panelist Zumkeller noted that the Marrakesh Accords established the need for JI projects to comply with the additionality requirement.

CLOSE OF THE MEETING

The closing session was co-chaired by Robert Williams, Energy and Cleaner Production Branch, UNIDO, and Marina Ploutakhina, Multilateral Environmental Agreements Branch, UNIDO. Robert Williams said he hoped that the meeting had provided participants with useful information on carbon markets and on the practicalities of JI and CDM projects, and that the dialogue between energy efficiency and carbon market experts had been of value.

OVERVIEW OF THE PANEL SESSIONS: Moderators of the five panels then presented their conclusions based on the panel discussions. Deborah Cornland suggested that the presentations and discussions in the first panel session had shown that the potential for energy efficiency in Central and Eastern Europe can be achieved by providing clear benefits to the host countries. She stressed the need for market reforms to ensure the economic viability of projects. She said that UNIDO can play a central role in contributing to standardizing the tools required for energy efficiency in order to increase effectiveness and replicability, and emphasized that tools should be tailored to suit the needs of each country.

David Ungar, speaking on behalf of Ingo Puhl, presented recommendations from Panel Session Two for developing successful carbon projects, including the importance of: investing in capacity building;

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expanding the categories of entrepreneurs interested in carbon opportunities; establishing accounting standards; understanding how to register transactions; and learning from the experiences of ESCOs.

Manfred Stockmayer summarized the conclusions of Panel Three, including the need to expand and replicate experiences gained through energy efficiency projects, the importance of private sector participation, and the difficulty of identifying appropriate projects due to lack of information and capacity in the banking sector. He expressed hope that the current draft EU linking directive would be modified to promote JI projects.

Noting the potential role of UNIDO in contributing to clarifying and understanding carbon finance, Frank Joshua, who had moderated the fourth Panel Session, highlighted the challenge of defining how carbon value can be used as collateral to enable upfront financing for projects. He suggested that UNIDO expose best practices in project design and implementation, and assist countries in lowering transaction costs. Joshua also proposed that efforts be made to improve understanding of the relationship between the draft EU linking directive and EITs, and that carbon finance terminology be clarified.

Marina Shvangiradze reported that Panel Five had identified the need to build capacity in Annex I and non-Annex I countries, NGOs, and in the banking and public sectors. She expressed regret at the lack of expert nominations from Central and Eastern Europe for the CDM Executive Board panels, and requested participants from the region to advertise the re-election of experts for the accreditation panel.

CLOSING DISCUSSION: One participant suggested drawing from the experiences of ESCOs in implementing energy efficiency projects, and another said that ESCOs do not cover all the issues that carbon projects have to address. Some participants observed that examining the experiences gained from both successful and unsuccessful projects can assist in the learning process of host countries. One delegate suggested consulting the UNFCCC web page to find information on countries' efforts in establishing CDM institutions.

In her concluding remarks, Marina Ploutakhina thanked all participants, UNIDO and conference staff, and declared the meeting closed at 3:27 pm.

THINGS TO LOOK FOR

WORKSHOP ON BASELINE STANDARDIZATION FOR JI AND CDM PROJECTS: This meeting will convene from 6-7 November 2003, in Groningen, the Netherlands. This expert meeting will discuss the research conclusions of the European Project on Procedures for Accounting and Baselines for Joint Implementation and the Clean Development Mechanism. For more information, contact: Wytze van der Gaast, Joint Implementation Network; tel: +31-50-309-6815; fax: +31-50-309-6815; e-mail: jiq@northsea.nl; Internet: <http://www.northsea.nl/jiq/workshop.htm>

FIFTEENTH MEETING OF THE PARTIES TO THE MONTREAL PROTOCOL: This meeting will be held from 10-14 November 2003, in Nairobi, Kenya. For more information, contact: Secretariat for the Vienna Convention and the Montreal Protocol; tel: +254-20-62-3850; fax: +254-20-62-3601; e-mail: Marco.Gonzalez@unep.org; Internet: <http://www.unep.org/ozone/meet2003.shtml>

CLIMATE CHANGE TECHNOLOGY BAZAAR AND CONFERENCE: Organized by the Indian Ministry of Environment and Forests in association with the UNFCCC Secretariat and UNEP, this meeting will convene from 10-13 November 2003, in New Delhi, India. It will include a meeting of the Expert Group on Technology Transfer, workshops on CDM and on adaptation, and a high-level roundtable on CDM. For more information, contact: Rajiv Makin, Ashok Services; tel: +91-11-2336-4415; fax: +91-11-2334-3167; e-mail: reservation@itdclimatechange.com; Internet: <http://www.itdclimatechange.com>

CONFERENCE ON CLIMATE CHANGE: WHAT NEEDS TO BE DONE IN NORTH AND SOUTH: This conference will convene from 17-20 November 2003, in Wilton Park, Sussex, UK. The conference will consider the actions needed in developed and developing countries to combat climate change. For more information, contact: Roger Williamson; tel: +44-1903-817-773; fax: +44-1903-814-445; e-mail: roger.williamson@wiltonpark.org.uk; Internet: <http://www.wiltonpark.org.uk/web/conferences/wrapper.asp?confref=WP730>

SECOND WORLD WIND ENERGY CONFERENCE - RENEWABLE ENERGY EXHIBITION 2003: This meeting will be held from 23-26 November 2003, in Cape Town, South Africa. It will address technological issues, policy and regulatory aspects, funding, return on investment and environmental impacts of wind energy. For more information, contact: The Registrar; tel: +27-21-914-2888; fax: +27-21-914-2890; e-mail: registrar@sbs.co.za; Internet: <http://www.sbs.co.za/wwec2003>

UNFCCC COP-9: This meeting will convene from 1-12 December 2003, in Milan, Italy. For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; Internet: <http://www.unfccc.int>

FOURTH GLOBAL FORUM ON SUSTAINABLE ENERGY: This meeting will be held from 18-20 February 2004, in Vienna, Austria. For more information, contact: Irene Freudenschuss-Reichl; tel: +1-212-963-6890; fax: +1-212-963-7904; e-mail: freudenschuss-reichl@un.org; Internet: <http://www.gfse.at>

FIFTEENTH ANNUAL EARTH TECHNOLOGIES FORUM: This forum will convene from 13-15 April 2004, in Washington DC. The conference is co-sponsored by a variety of governments and UN agencies, trade bodies, and other organizations, and will address global climate change and ozone protection policy and technology issues. For more information, contact: Conference Secretariat; tel: +1-703-807-4052; fax: +1-703-528-1734; e-mail: earthforum@alcalde-fay.com; Internet: <http://www.earthforum.com>

TWENTY-NINTH INTERNATIONAL TECHNICAL CONFERENCE ON COAL UTILIZATION AND FUEL SYSTEMS: This meeting will convene from 18-22 April 2004, in Clearwater, Florida, US. The theme of this event will be "Coal From Hydrogen Is Here." For more information, contact: Barbara Sakkestad, Coal Technology Association; tel: +1-301-294-6080; fax: +1-301-294-7480; Internet: <http://www.coaltechnologies.com/conferences.html>

INTERNATIONAL CONFERENCE FOR RENEWABLE ENERGIES: This conference will be held from 1-4 June 2004, in Bonn, Germany. Themes to be considered include financing and market development, enabling political framework conditions, and capacity building. For more information, contact: Secretariat of the International Conference for Renewable Energies 2004, Bonn, Postfach 5180, 65726; tel: +49-6196-794404; fax: +49-6196-794405; e-mail: info@renewables2004.de; Internet: <http://www.renewables2004.de>

SEVENTH INTERNATIONAL CONFERENCE ON GREENHOUSE GAS CONTROL TECHNOLOGIES: This conference will convene from 5-9 September 2004, in Vancouver, Canada. It is being organized by the University of Regina and Natural Resources Canada, in co-operation with the International Energy Agency. It will examine the latest advances in the field of greenhouse gas control technologies, including capture, storage and utilization of carbon dioxide. For more information, contact: Ted Morris, Conference Secretariat; tel: +1-306-337-2290; fax: +1-306-337-2301; e-mail: Ted.Morris@uregina.ca; Internet: <http://www.ghgt7.ca/main.html>

NINETEENTH WORLD ENERGY CONGRESS: This meeting will be held from 5-9 September 2004, in Sydney, Australia. For more information, contact: Nineteenth World Energy Congress Managers; tel: +612-9248-0800; fax: +612-9248-0894; e-mail: energy2004@tourhosts.com.au; Internet: <http://www.tourhosts.com.au/energy2004>