



Special Report on Selected Side Events at COP 11 & Kyoto Protocol COP/MOP 1
published by the International Institute for Sustainable Development (IISD)
in cooperation with the UNFCCC Secretariat



Online at

<http://www.iisd.ca/climate/cop11/>

Volume 17, Issue #3 | UNFCCC COP 11 & Kyoto Protocol COP/MOP 1 | Montréal, Canada | Thursday, 1 December 2005

Events convened on Wednesday, 30 November 2005

SBSTA-IPCC joint event on SRCSS

Presented by WMO/UNEP Intergovernmental Panel on Climate Change



Ogunlade Davidson, IPCC, said the Carbon Dioxide Capture and Storage Report was approved eight weeks ago in Montreal and has been receiving a lot of attention ever since

More information:

<http://www.ipcc.ch/>
<http://www.iaea.org>
<http://www.energyinet.com>
<http://sequestration.mit.edu/>
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Abdullatif Benrageb, SBSTA, introduced the IPCC Special Report on Carbon Dioxide Capture and Storage (CCS), indicated that SBSTA created a working group to consider this special report and called for further CCS development.

Ogunlade Davidson, IPCC, said the Report was approved eight weeks ago and listed major sources of carbon dioxide. He stated that the IPCC would primarily examine geologic storage, noting that ocean storage is in the research phase. He outlined ways in which CCS could play a role in mitigating climate change including by reducing overall mitigating costs and increasing flexibility in achieving GHG emission reductions.

Holger Rogner, International Atomic Energy Agency, highlighted that in order for carbon dioxide sources to be suitable for capture they need to be: large and stationary; highly concentrated in carbon dioxide; under high pressure; and close to storage. He estimated the potential for global capture of carbon dioxide to be 2.6 to 4.9 Gt by 2020 and said future cost reductions depend on marketplace deployment and sustained research and development.

Malcolm Wilson, EnergyINet, addressed underground geologic storage, indicating it will mainly occur in oil and gas fields bearing high salinity. He noted its economic feasibility and that monitoring of subsurface movement of carbon dioxide is occurring successfully. He examined security of storage and monitoring technologies, saying that seismic surveys can monitor subsurface carbon dioxide.

Howard Hertzog, MIT, discussed the cost and economic potential of CCS by examining each component including capture, transport and storage, noting that capture represents 75-80% of total cost, and added that CCS would raise the cost of electricity 1-5 cents per kWh.

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The *Earth Negotiations Bulletin on the side* (ENBOTS) © <enb@iisd.org> is a special publication of the International Institute for Sustainable Development (IISD) in cooperation with the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat. This issue has been written by Asmita Bhardwaj, Alice Bisiaux, Robynne Boyd, Twig Johnson, Ph.D., and Peter Wood. The photographer is Leila Mead. The Digital Editor is Diego Noguera. The Editor is Lisa Schipper, Ph.D. <lisa@iisd.org>. The Director of IISD Reporting Services is Langston James "Kimo" Gore VI <kimo@iisd.org>. Funding for the publication of ENBOTS at UNFCCC COP 11 & Kyoto Protocol COP/MOP 1 is provided by the UNFCCC Secretariat. The opinions expressed in ENBOTS are those of the authors and do not necessarily reflect the views of IISD and funders. Excerpts from ENBOTS may be used in non-commercial publications only with appropriate academic citation. For permission to use this material in commercial publications, contact the Director of IISD Reporting Services at <kimo@iisd.org>. Electronic versions of issues of ENBOTS from UNFCCC COP 11 & Kyoto Protocol COP/MOP 1 can be found on the Linkages website at <http://www.iisd.ca/climate/cop11/>. The ENBOTS Team at COP 11 and COP/MOP 1 can be contacted at its office at the conference venue (room 342) or by e-mail at <alice@iisd.org>.

SBSTA-IPCC joint event on SRCSS

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Wolf Heidug, Shell International EP, discussed risks, legal issues and public perception of CCS. Underlining that capture does not raise novel risks, he stressed that if leakage occurs in geologic storage, surface carbon dioxide levels could increase, killing trees and plants, and if leached into groundwater, acidity would increase. Heidug indicated that appropriate management makes CCS risk equal to that of gas storage.

Discussion: participants addressed: remedial action for leakage; CCS's influence on the use of renewable energy; liability of storage in cost calculations; response to the external review of governments; and energy penalties.



Abdullatif Benrajeb, SBSTA, described carbon capture and storage as a high mitigation option and said it could become part of a portfolio of strategies to build a low carbon future

Article 6 (Joint Implementation)

Presented by UNFCCC

Kai-Uwe Barani Schmidt, UNFCCC, provided an overview of Joint Implementation (JI) under the UNFCCC.

Ivona Grozeva, Ministry of Environment, Bulgaria, noted that EU ETS is limiting the scope for JI, and expressed the hope that Bulgaria will be ready for track 1 by the end of 2006.

Jozsef Feiler, Ministry of Environment and Water, Hungary, highlighted criteria for project approval, including environmental, financial, and legal additionality, and said Hungary is moving towards green investment schemes.

Vladimir Maximov, Ministry of Economic Development and Commerce, said national procedures for JI are being considered by federal agencies to ensure the prompt start of JI projects under current Russian legislation.

Maurits Henkemans, Ministry of Economic Affairs, the Netherlands, suggested that the JI supervisory committee (SC) gives certainty to investors in JI and urged Annex I and non-Annex I countries to work together.

Hiroshi Yamagata, Ministry of Economy, Trade and Industry, Japan, highlighted the need for clarification of responsibilities of the JI SC, the Secretariat, Parties, independent entities, project participants and experts.

Gertraud Wollansky, Federal Ministry of Agriculture, Forestry, Environment and Water Management, Austria, addressed advantages and disadvantages of JI as compared to the CDM and highlighted the establishment of green investment schemes as a way to compensate for these disadvantages.

Sushma Gera, CDM Executive Board (EB), suggested the JI SC draw lessons from the CDM EB, including examining internal rules of procedure and ensuring adequate financial resources.



Kai-Uwe Barani Schmidt, UNFCCC, highlighted host countries' key role in track 1 of JI and JISC's and accredited independent entities main role in track 2

More information:

<http://unfccc.int>
http://www2.moew.government.bg/index_e.html
<http://www.economy.gov.ru/wps/portal>
<http://www.ez.nl>
<http://www.meti.go.jp/english/>
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Disaster risk reduction tools for climate adaptation

Presented by the UN International Strategy for Disaster Reduction

John Harding, UN International Strategy for Disaster Reduction (UN/ISDR), noted growing interest in bringing climate change and disaster risk reduction (DRR) together since the Kobe conference on disaster reduction and the Indian Ocean tsunami, and called for fostering this linkage.

Silvia Llosa, UN/ISDR, mentioned an upcoming publication of the Interagency Taskforce Working Group on Climate Change and Risk Reduction Activities on DRR tools useful for climate change adaptation, which she said include: risk identification and early warning; knowledge management and education; reduction of the underlying risk; and preparedness and response.

Madeleen Helmer, International Federation of Red Cross and Red Crescent Societies, presented two pilot projects on climate risk assessments in Viet Nam and Nicaragua, noting that self-organization of communities is key. She underscored the importance of adopting an integrated approach and concrete actions in addressing climate change risk.

Discussion: participants discussed possible ways for the UNFCCC and ISDR to further cooperate, with Harding calling for delegations' support to push the linkage between DRR and climate change adaptation on the COP's agenda.



Quoting Kofi Annan, Silvia Llosa, UN/ISDR, said more effective prevention strategies would not only save tens of billions of dollars, but tens of thousands of lives. Funds currently spent on intervention and relief could be devoted to enhancing equitable and sustainable development instead, which would further reduce the risk for war and disaster

More information:

<http://unisdr.org>
<http://www.eird.org>
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Adaptation Strategies: multidisciplinary approaches

Presented by Ouranos

Alain Bourque, Ouranos, Consortium on Regional Climatology and Adaptation to Climate Change, presented Ouranos' initiatives to link climate science with vulnerability assessments, impacts analysis and adaptation strategies relevant to user priorities. He noted that the programme analyzes amplitude of expected changes using regional climate models, evaluates risks and opportunities, and develops and validates adaptation solutions for end users.

Daniel Caya, Climate Simulations, outlined how climate models can be used for undertaking impact and adaptation studies at a regional scale. He explained that a climate scenario is chosen before obtaining information from the global climate model to prepare a climate forecast by the regional climate model (RCM). He indicated that the RCM can be applied to hydrological studies at the watershed scale.

Rene Roy, Water Resources Coordinator, Ouranos, provided the perspective of a hydroelectric company, an end user of the RCM developed by Ouranos for conducting impact analysis and formulating adaptation strategies.

Discussion: participants discussed the possibility of creating institutions similar to Ouranos and the availability of similar adaptation tools for other areas and regions.



Alain Bourque, Ouranos, noted the increased interest of users and municipalities in adaptation issues

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<http://www.ouranos.ca>

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Forests, Carbon and Biodiversity: building opportunities for conservation-based development

Presented by Birdlife International/ Royal Society for the Protection of Birds

Mara Kerry, Nature Canada, highlighted the role that boreal and tropical forests play in the carbon cycle and biodiversity protection, and how sound forest management can mitigate climate change impacts. She called for measures to protect primary forests under the CDM, and stressed that local people need to benefit from the resulting projects.

Ángel Parra, Guyra Paraguay, stressed that in the absence of economic alternatives provided under the CDM or otherwise, the remaining 7% of Paraguay's original forest cover and associated biodiversity will be lost to agriculture and cattle ranching.

Stewart Elgie, University of Ottawa, showed how forest management could either benefit or harm carbon sequestration efforts, and stressed the need for protected areas and decreased harvesting. He said Canada represents a globally significant test case of whether forest management can align incentives for carbon sequestration and biodiversity conservation, and that this may facilitate future payment for other ecological services.

Discussion: participants discussed the utility and ethics of commodifying natural functions and biodiversity, and considered whether carbon incentives may place additional pressures on forests.



Julie Gelfand, Nature Canada, opened the panel discussion by suggesting that as deforestation contributes 25% to global carbon emissions, it should receive concomitant attention under the Kyoto Protocol

More information:

<http://www.naturecanada.ca>

<http://www.guyra.org.py>

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The GEF Resource Allocation Framework in the context of the UNFCCC

Presented by GEF

Janos Pasztor, UNFCCC, indicated that the GEF Resource Allocation Framework (RAF) was presented at the SBI 23 meeting.

Richard Hosier, GEF, noted that the RAF will make resource allocation more predictable and transparent.

Ramesh Ramankutty, GEF, said the RAF links country grants in each focal area to the country's potential to generate global environmental benefits and their capacity to deliver them, which can be measured through a Benefits Index and a Performance Index, respectively.

Ravi Sharma, GEF, presented an overview of GEF's current capacity building efforts that aim to build country ownership of GEF projects and a stronger country program focus. He stated that capacity building would include support to: GEF focal points; preparation of national adaptation programs for action; and preparation of national capacity self-assessments.

Discussion: participants discussed the details of performance indicators, incremental costs in relation to RAF and how the RAF would respond to developing countries' expectations regarding funding of adaptation activities.



Ramesh Ramankutty, GEF, noted that the adoption of RAF will lead to more predictable and transparent resource allocations

More information:

http://www.gefweb.org/Operational_Policies/Resource_Allocation_Framework.html

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Canada's cleaner energy technology and best practices for today and tomorrow

Presented by Canada

Margaret Martin, Natural Resources Canada, stated that the biofuel industry is a particular focus within clean energy technology development.

Margaret McCuaig-Johnston, Natural Resources Canada, discussed partnerships that lead to "Energy Roadmaps" in areas such as bio-based feedstocks, electrical power, fuel cells, hydrogen, clean coal, carbon dioxide capture, geologic storage, and oil sands. She indicated that free user-friendly software has been developed in partnership with UNEP, the World Bank, and NASA which will enable pre-feasibility assessments.

Graham Campbell, Natural Resources Canada, presented on bilateral, continental, international, and technology specific energy technology partnerships.

David Layzell, BIOCAP Canada Foundation, described the current state of development of biofuel technology and suggested a way forward.

David Boulard, Ensyn Technologies Inc., stated that his company's pyrolysis-based biofuel process converts sawdust into a liquid which gives 75% of the output of oil.

Tim Haig, BIOX Corporation, described the process of taking a unique biodiesel production process to an industrial scale.

Rick Whittaker, Sustainable Development Technology, Canada, said their financing of consortia-based demonstration projects fills a gap between innovation and pre-commercialization.



Margaret McCuaig-Johnston, Natural Resources Canada, said process integration can produce a 35% energy saving at Smurfit-Stone Pulp and Paperboard Company in La Tuque, Quebec

More information:

<http://www.nrcan.gc.ca>
<http://strategis.ic.gc.ca/epic/internet/intrm-crt.nsf/en>
<http://www.retscreen.net>
<http://www.biocap.ca>
<http://www.ensyn.com>
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Solar water heating as a greenhouse gas reduction strategy

Presented by the Vitae Civilis Institute for Development, Environment and Peace, and Green-Markets International

Rubens Born, Vitae Civilis, Brazil, said solar water heating is a promising option due to its simplicity and cost-effectiveness.

Steven Kaufman, Green Markets International, underlined that water heating is a large part of household energy use, accounting for 25% in China and India.

Shirene Rosenberg, City of Cape Town, South Africa, discussed efforts to provide solar water heating in areas where water heating accounts for 40% of household energy.



Steve Thorne, Vitae Civilis, says electric showers represent 30% of home electricity bills in Brazil

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Solar water heating as a greenhouse gas reduction strategy

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Steve Thorne, SouthSouthNorth, indicated that his organization is working on CDM projects in six developing countries, including retrofitting low-income houses.

Mark Lutes, Vita Civilis, reviewed solar water heating promotion in Brazil where flow-through electric water heaters account for 18% of national electricity demand during peak hours. He described constraints such as high interest rates, non-supportive building codes, and failure to account for the social and environmental costs of current power generation.

Jan Kappen, UNEP, described the Mediterranean Renewable Energy Programme's Solar Water Heating Loan Facility in Tunisia where costs are financed with loan payments added to electricity bills.

Discussion: participants addressed issues such as: financing alternatives; data quality and availability; and meeting CDM criteria.

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