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GLOBAL CARBON PROJECT AND IIASA
VULNERABILITY AND OPPORTUNITY OF METHANE HYDRATES WORKSHOP

13-14 MARCH 2008, GVISHIANI ROOM, IIASA, LAXENBURG, AUSTRIA

Draft Meeting Agenda (as of 29 Jan 2008)

Day One

Opening / Welcome Statements

9:00–9:30 Introductory Address: Nebojsa Nakicenovic, Pep Canadell, Volker Krey – *Background and goals of the workshop*

9:30–10:15 **Session 1**: Methane Hydrates (Geochemistry and Occurrences)
Kick-off Presentations (10 – 15 min)
- Miriam Kastner - *Distribution of occurrences [tbc]*
- Ray Boswell - *Distribution of gas hydrate volumes by reservoir type* or *Description of the R&D path and remaining obstacles for gas hydrate production, and an assessment of the status of national programs [tbc]*
- Michael Riedel - *Recent advances in our understanding of marine gas hydrate provinces*

10:15-10:30 **Coffee Break**

10:30-12:00 *General discussion with invited contributions from (Chair: [tba])*
- Harald Andruleit, Bruce Buffett, Nicholas Langhorne, William S. Reeburgh, Karl K. Turekian

12:00–14:00 **Lunch at the Restaurant Gallo Rosso** (hosted by the organizers)

14:00-15:30 **Session 2a**: Hydrates and Linkage to Climate Change and Carbon Cycle
Kick-off Presentations (10 – 15 min)
- Gerald R. Dickens - *Methane hydrates, the global carbon cycle, and geological time*
- David Archer - *Models of the global distribution of methane in the ocean and its response to climate warming.*
- Jean-Francois Lamarque - *Methane clathrates in the past and future*
- Neil T. Hamilton - *Methane hydrates and arctic climate change: What if the worst scenarios are true?*

General discussion with invited contributions from (Chair: [tba])
- Mark Maslin, Euan Nisbet

15:30-15:45 **Coffee Break**

15:45-17:30 **Session 2a**: Hydrates and Linkage to Climate Change and Carbon Cycle
General discussion continued

19:00 **Social Event at the Restaurant Rathauskeller** (hosted by the organizers)

Day Two

9:00-10:30 **Session 2b**: Methane Fluxes, the Carbon Cycle and Climate Change

Kick-off Presentations (10 – 15 min)

- Walter Oechel - *Continuous measurements of methane fluxes by eddy covariance in the arctic: Results of a large scale manipulation of water status at Barrow Alaska*
- Brian O'Neill - *Treatment of carbon cycle/climate change uncertainties [tbc]*

General discussion (Chair: [tba])

10:30-10:45 **Coffee Break**

10:45-12:00 **Session 3:** Possible Implications for Energy Systems and Climate Mitigation

Kick-off Presentations (10 – 15 min)

- Arnulf Gruebler/Nebojsa Nakicenovic - *Implications of methane hydrates availability for future energy transitions*
- Arthur Johnson - *Geological occurrences, scenarios for development, and risks of methane release from natural gas hydrate deposits*
- Vladimir Yakushev - *Current view of upstream gas industry on gas hydrate studies*

General discussion with invited contributions from (Chair: [tba])

- Yuichi Abe, Ray Boswell, Hans-Holger Rogner, Hao Wen, Pacelli Zitha

12:00-14:00 **Lunch at the Restaurant Gallo Rosso** (hosted by the organizers)

14:00-15:15 **Session 3**: Possible Implications for Energy Systems and Climate Mitigation

General discussion (continued)

- Yuichi Abe, Ray Boswell, Arnulf Gruebler, Arthur Johnson, Nebojsa Nakicenovic, Hans-Holger Rogner, Hao Wen, Vladimir Yakushev, Pacelli Zitha

15:15-15:30 **Coffee Break**

15:30-17:30 **Session 4**: Concluding Session / Panel Discussion and Paper Outline

- *Review of major issues and research topics surrounding methane hydrates*
- *Discuss possibility of putting together a "Special Issue"*
- *Explore writing a short paper for Science or Nature*

***[tbc]** – title to be confirmed*
[tba] – chair person to be announced
***[with invited contributions from]** - participants are welcome to introduce additional information during the discussion sessions, including showing 1-3 ppt slides.*
***[Session Discussions]** - the aim is to identify major gaps and opportunities on methane hydrate research with particular attention to those liking the energy and climate agendas.*