



Mistra-SWECIA Deliverable/Milestone report

D.0.14.2 Mistra-SWECIA Science seminars 2009

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Project: 0

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Final

Dissemination Level		
I	Internal (not made externally available)	
S	Science	X
U	User	X

Science seminars are an important activity in the Mistra-SWECIA programme. They are one of the means for promoting integration within the programme, of disciplines and groups, in addition to providing an opportunity to both discuss the research being done within Mistra-SWECIA and relevant examples from other research environments (viz. invited speakers).

The 2009 Science seminars were the following:

- 09.02.06 Mistra-SWECIA Science seminar “Decadal climate prediction”
- 09.03.13 Mistra-SWECIA Science seminar “Climate impacts”
- 09.04.03 Mistra-SWECIA Science seminar “Urban hydrology”
- 09.06.05 Mistra-SWECIA Science seminar “Climate adaptation”
- 09.10.02 Mistra-SWECIA Science seminar “Aerosols and climate”
- 09.11.06 Mistra-SWECIA Science seminar ”Forestry case study start-up seminar”

All the Mistra-SWECIA science seminars during 2009 have been open for external participants.

Mistra-SWECIA Science seminar #1 *Decadal climate prediction*

6 February, at the Rossby Centre, SMHI

The seminar focused on the emerging topic of decadal climate prediction. SMHI staff outlined the basic differences between standard climate scenarios and climate prediction, as well as outlined the problems inherent in estimating near-term (1-40 years into the future) climate change.

Invited speakers from three the leading centres engaged in climate prediction presented recent activities at their respective institutes, giving a thorough overview of the scientific and observational challenges inherent in climate prediction, along with the potential benefits accruing with respect to short-term climate prediction.

Programme

10.00-10.10: Welcome and introduction to the seminar – Colin Jones, Rossby Centre, SMHI; Markku Rummukainen, SMHI

10.10-10.30: The difference between climate scenarios and climate predictions – Colin Jones, SMHI

10.30-10.50: Problems in estimating short term climate change over Europe from standard climate scenarios – Erik Kjellström, SMHI

Coffee

11.15-12.00: Ocean Assimilation and Initialization: Lessons from Seasonal Prediction pertinent to decadal prediction – Magdalena Balmaseda, ECMWF

12.00-12.45: The UK Met Office Decadal Prediction System: Background and recent results – Doug Smith, UK Met Office

Lunch

13.45-14.30: Decadal Prediction at the Max Planck Institute: The importance of slow timescale variability in the Atlantic Meridional Overturning circulation – Wolfgang Müller, MPI-MET

14.30-15.15: Discussion

15.15-15.30: Reflections on presentations and relevance to Mistra-SWECIA – Markku Rummukainen SMHI

15.30: Close

Invited Speakers: Magdalena Balmaseda: European Centre for Medium Range Weather Forecasts (ECMWF); Doug Smith: UK Met Office; Wolfgang Mueller: Max Planck Institute for Meteorology in Hamburg

Mistra-SWECIA Science seminar #2 *Climate impacts*

13 March, at the IIES, Stockholm University

The seminar focused on impacts of weather and climate on mortality in developing countries and on land use.

Programme

10.00-10.05: Welcome and introduction to the seminar – Torsten Persson, IIES

10.05-11.15: Weather Shocks, Mortality and Adaptations: Implications for Climate Change in India – Robin Burgess, London School of Economics

Coffee

11.30-12.30: Weather and Infant Mortality in Africa – Masa Kudamatsu and Torsten Persson, IIES

Lunch

13.30-14.40: Modelling climate impacts on forests and forest management – Ben Smith

14.40-15.00: Discussion

15.00: Close

Invited Speaker: Robin Burgess, London School of Economics

Mistra-SWECIA Science seminar #3 *Urban hydrology*

3April, at the Swedish Meteorological and Hydrological Institute (SMHI), Norrköping

The seminar focused on different aspects of urban hydrological climate change impacts: advanced storm runoff modelling, evaluation of clouds and precipitation and input data preparation.

Programme

Coffee and sandwich

10.15-10.20: Welcome and introduction to the seminar – Markku Rummukainen, SMHI

10.20-11.15: Tokyo Storm Runoff model – Akira Kawamura and Hideo Amaguchi, Tokyo Metropolitan University

11.15-11.30: Evaluation of clouds and precipitation in the Regional climate model, RCA – Ulrika Willén, SMHI

11.30-11.45: Process-based downscaling of Regional Climate Model data – Jonas Olsson, SMHI

11.45-12.00: Reflection; linking modelling efforts and user needs – Oskar Wallgren, SEI

12.00-12.25: Discussion

12.25-12.30: Reflections on presentations and relevance to Mistra-SWECIA – Markku Rummukainen, SMHI

12.30: Close

Invited Speakers: Akira Kawamura and Hideo Amaguchi, Tokyo Metropolitan University

Mistra-SWECIA Science seminar #4 *Climate adaptation*

5 June, at SEI, Stockholm

The final seminar before the summer had a spectacular line-up of guest speakers, presenting research conducted in PLAN, the Norwegian sister-project of Mistra-SWECIA. Building on earlier adaptation research in Norway, PLAN (Potential of and Limits to Adaptation in Norway) has a strong social-science component, aimed at better understanding stakeholders' values and perceptions, and their role in informing policy.

Programme

10:00-10:15 Welcome and introduction to the seminar – Richard Klein, Markku Rummukainen

10:15-10:50 Why values matter in climate change adaptation: Insights from the PLAN project in Norway – Karen O'Brien, University of Oslo

10:50-11:05 Discussion

11:05-11:40 Governance theory and adaptation in urban planning processes – Inger-Lise Saglie, University of Life Sciences and Norwegian Institute of Urban and Regional Research

11:40-11:55 Discussion

Coffee, tea

12:10-12:45 Measuring values linked to adaptation: a Q-methodology approach – Johanna Wolf, Tyndall Centre and University of Oslo

12:45-13:00 Discussion

Lunch

14:00-14:35 Regional practitioners' perceptions of risk and limits to adaptation: findings from Stockholm – Louise Simonsson

14:35-14:50 Discussion

14:50-15:00 Reflection on the presentations and their relevance to Mistra-SWECIA – Markku Rummukainen

Close

Invited Speakers: Karen O'Brien: Chair, Global Environmental Change and Human Security Project, Department of Sociology and Human Geography, University of Oslo; Inger-Lise Saglie: Department of Landscape Architecture and Spatial Planning, University of Life Sciences and Norwegian Institute of Urban and Regional Research; Johanna Wolf: Tyndall Centre, University of East Anglia and Global Environmental Change and Human Security Project, Department of Sociology and Human Geography, University of Oslo

Mistra-SWECIA Science seminar #5 *Aerosols and climate*

2 October, at the Department of Meteorology at Stockholm University

The focus was on health and climate impacts of absorbing aerosols (soot) and how future reductions in these aerosol emissions may, or may not, reduce the warming due to enhanced greenhouse gases.

Programme

10:00-10:15 Welcome and introduction to the seminar – Annica Ekman, Markku Rummukainen

10:15-10:50 Aerosols and their role in the climate system – why are aerosol climate effects effect so uncertain? – Annica Ekman, MISU

10:50-11:05 Discussion

11:05-11:40 The Atmospheric Brown Cloud (ABC) project – Henning Rodhe, MISU

11:40-11:55 Discussion

Coffee/Tea

12:10-12:45 Can abatement of soot and ozone compensate climate warming by CO₂? – Kevin Noone, ITM, SU

12:45-13:00 Discussion

Lunch

14:00-14:35 Anthropogenic aerosols and their influence on large-scale circulation – Anna Lewinschal, MISU

14:34-14:50 Discussion

14:50-15:00 Reflection on the presentations and their relevance to Mistra-SWECIA – Markku Rummukainen

Close

Invited speakers: Henning Rodhe and Kevin Noone, Stockholm University

Mistra-SWECIA Science seminar #6 *Forestry case study start-up seminar*

6 November, at the Physical Geography and Ecosystems Analysis at Lund University

The seminar gave a wide overview of science related to climate impacts, planning and adaptation for the forestry sector in Sweden.

Programme

Lunch and registration

12:40-13:00 Climate change and the forestry sector – Mistra-Swecia's contribution – Oskar Wallgren, SEI

13:00-13:40 How is Danish forestry (best) prepared for the 21st century? – Bo Larsen, University of Copenhagen

13:40-13:50 Discussion

13:50-14:10 Modelling spruce bark beetle and wind damage in southern Sweden – Anna Maria Jönsson, Lund University

Coffee break

14:25-15:05 Modelling forest growth - presentation of the Heureka programme – Peder Wikström (replaced by Ola Sallnäs), Forest Resource Management, Swedish University of Agricultural Sciences

15:05-15:15 Discussion

15:15-15_50 Carbon sequestration capacity of forests in Scandinavia – Anders Lindroth, Lund University

15:50-16:00 Discussion

16:00 Concluding remarks by the Mistra-SWECIA programme director – Markku Rummukainen

Invited speakers: Professor Bo Larsen, Forest and Landscape, University of Copenhagen; Peder Wikström, Forest Resource Management, Swedish University of Agricultural Sciences; Professor Anders Lindroth, Physical Geography and Ecosystems Analysis, Lund University.