

NCoE Researcher Training Course: “Effect Studies and Adaptation to Climate Change”

May 7-11, 2012

Day 1. Monday, May 7. Climate Change Processes: Physical and Chemical.

- 1030 **Nils Chr. Stenseth** - Welcome
Jason D. Whittington - Course overview/logistics.
- 1040 - 1140 **Michael Goodsite**: from NORD-STAR: An overview of atmospheric processes and their global impact (45 min.).
- 1140 - 1240 **Ken Drinkwater**: An overview of marine processes and climate change.
- 1240 - 1330 Lunch
- 1330 - 1430 (**Rescheduled for Tuesday afternoon**) **Lauri Oksanen** from **TUNDRA**: An overview of terrestrial processes/ecology and climate change.
- 1330 - 1430 **Raino Malnes**: How to address the communication of uncertainty in science and in policy: a climate change perspective.
- 1430 - 1700 Afternoon Activity - Organizational Session
- 1900 Welcome Dinner for all participants

Day 2. Tuesday, May 8. Climate Change Impacts on Nordic marine ecosystems.

- 0800 - 0900 **Ken Drinkwater**: Characteristics of Nordic marine ecosystems.
- 0900 - 1000 **Joel Durant, Dag Hjermann, Leif Chr. Stige**: Climate effect on the ecosystem dynamics of the Barents Sea.
- 1000 - 1100 **Joel Durant, Dag Hjermann, Leif Chr. Stige**: Climate effect on the ecosystem dynamics of the Barents Sea.
- 1100 - 1200 **open**– to be updated or used as lecture overflow time.
- 1230 - 1330 Lunch
- 1330 - 1430 **Lauri Oksanen** from **TUNDRA**: An overview of terrestrial processes/ecology and climate change.
- 1430 - 1800 Afternoon Activity

Day 3. Climate Change Impacts on terrestrial ecosystems in the Nordic region.

- 0800 - 0900 **Lauri Oksanen**: Impact of grazing on the dynamics of rare arctic-alpine plants
- 0900 - 1000 **Pekka Niemelä**: Climate change and plant-herbivore interactions in arctic ecosystems
- 1000 - 1100 **Jouni Pulliainen**: Interaction between vegetation and climate
- 1100 - 1200 **open**– to be updated or used as lecture overflow time.
- 1230 - 1330 Lunch
- 1330 - 1800 Afternoon Activity.

Day 4. Climate Change Policy and Action.

- 0800 - 0900 **Sirkku Juhola**: Climate policy & International perspectives to adaptation
- 0900 - 1000 **Mette Termansen**: The economics of climate change
- 1000 - 1100 **Kristian Lindgren**: Climate change mitigation and policy analysis tools: the GetOnline tool
- 1100 - 1200 **Henrik Knudsen**: Green Growth & Green Business Strategies
- 1230 - 1330 Lunch
- 1330 - 1800 Afternoon Activity

Day 5 Student contributed lectures

Young researchers will be given a lecture topics chosen by the NCoE partners for which they will have to prepare a presentation in groups for the last day of the course. Lectures will be jointly presented for 40 minutes (~10 minutes per participant), followed by a 20 minute discussion.

0800 - 0900	Lecture 1
0900 - 1000	Lecture 2
1000 - 1100	Lecture 3
1100 - 1200	Lecture 4
1200 - 1300	Lunch
1300 - 1400	Summary Discussion

Student Lecture organization plan

Day 1 - young researchers will be grouped according to topic. Within their groups, they must present their lectures.

Days 2 and 3 - they will be required to merge their perspectives to form a more complete presentation of the topics.

Day 4 – The lectures are practiced within groups.

Day 5 – Groups of students present their lectures to all assembled researchers, each followed by a discussion or review from senior scientists.

Student Lecture Topics

Group 1: National and international responsibility

1. Should climate change adaptation policies focus on the expected effects of climate change manifested within national borders? or should society also develop policies relating to possible effects of climate change taking place abroad (a global increase in the number of climate refugees and the danger of increased food prices due to reduced global food security)? How should these two approaches be prioritized?
2. From a global perspective, the Nordic countries are small players in the arena of International relations, they represent less than 0.5% of the world's population, and contribute only marginally to CO2 emissions. Which actions should be undertaken to maximize Nordic impact on the international climate-change agenda?

Group 2: Priorities and challenges of climate change action

1. In determining how to anticipate, recognize, avoid, and manage disruptive global environmental change: assess the priorities and challenges for Nordic countries. Which are unique to the Nordic region and which are not?
2. What do we need to observe, at what scales, in coupled social environmental systems in order to respond to, adapt to, and influence global change?

Group 3: Integration of climate change strategies

1. If societal success requires the consideration of social (people), ecological (planet) and economic (profit) aspects, then how can these different considerations be effectively balanced in climate policy?
2. Will climate change policy be more successful if it relies primarily on top down policy measures, such as the introduction of a carbon tax, or on changing social norms in a society, such as the tendency to drive electric cars? Describe priorities relevant to each NCoE.
3. Should the sustainable development and climate change agendas be better integrated, and if so how?

Group 4: The role/importance of communication

1. Is climate science being communicated appropriately and sufficiently to the public and to policy makers? Are scientists sufficiently informed of the priorities for climate research? What is the role of science and communication in climate change adaptation/policy? How can communications be improved (among all sectors) and what are some practical steps for achieving this? Outline the implementation of a more coherent communication plan which could be implemented by the NCoE or any other scientific body focused on climate change issues.