



**Management Board meeting 28/8/2014**  
**ARC, C.F. Møllers Allé 8, 1110-418**

**Attendees:** Tage Dalsgaard (TDA), Ellen Margrethe Basse (EMB), Lise Lotte Sørensen (LLS), Cécile Pelaudeix (CP; substitute for RW), Anne Marie Pahuus (AMP), Christina Levisen (CL), Anders Mosbech (AM)

**Apologies:** Søren Rysgaard (SR), Eva Bonefeld-Jørgensen (EBJ), Rane Willerslev (RW)

Minutes: Christina Levisen

## **MINUTES**

### **1. Progress report from the 4 faculties**

#### **1.1 ST**

The field season in Greenland is ongoing; projects in Young Sound started in April and will finish in October. Projects have also been run in Mestersvig (lead mine).

A joint field campaign (HE/ST) is currently conducted in Tasiilaq.

The planning of next year's field work at St. Nord has begun, and Egon Frandsen (logistics) is en route to St. Nord to take a look at the area/facilities. Uncertainty as to who determines costs at St. Nord.

No news on the possibility of joining the Amundsen in Baffin Bay in 2015 – AM will talk to SR.

#### **1.2 Health**

No news as EBJ is away on field work (Tasiilaq).

#### **1.3 BSS**

The coordination of ARC-BSS activities are headed by Anders Frederiksen (AU Herning) and EMB.

The summer school (*Legal, Economic and Political Governance of Resource Exploitation in the Arctic: Focus on Oil, Gas and Mining Industries*, jointly coordinated by EMB and Sandra Cassotta) was successful, counting a total of 32 students. Sandra Cassotta will assume full responsibility for the coordination of the course next year.

Edward Canuel (West Point) has been appointed honorary professor at the Dept. of Law, and he will give an opening seminar 24 Oct on *Governance*. EMB will forward info as soon as possible.

Dato: 28 august 2014

Side 1/7



#### 1.4 Arts

EMB and CP will submit an application to the AU Interdisciplinary Network Grant Scheme 2014 which includes partners from all four faculties (*Interdisciplinary Network initiative on Sustainable Arctic Governance, INSAG*). Perhaps an idea to involve Mikael Skou Andersen at Foulum??

AMP has meeting scheduled with Tine Sommer re. collaboration with University of Greenland (UoG) on *governance*, and all ARC-AR researchers have established connections with relevant researchers at other institutions.

The ARC seminar series will be resumed in September; seminars can be preceded by *Magic circle* meetings (purpose to be introduced at the first seminar).

Michael Böss is planning a conference on security in the Arctic region, but there is still uncertainty about the budget.

### 2. Joint initiatives

#### 2.1 Agenda for annual meeting (December)

TDA/SR will come up with a draft; should be done as soon as possible (ie. prior to TDA leaving for Daneborg) because we need to get confirmation from participants. The meeting should have an interdisciplinary focus (project reports could include future interdisciplinary perspectives), eg. based on thematic sessions, posters and a discussion on values (follow-up on the Kaløvig meeting in June); it is important to also have scientific discussions, and the meeting could also include a *Mini magic circle*.

### 3. Joint positions

### 4. Education

#### 4.1 Plans for F2014 (LLS)

See summary by LLS below.

EMB will forward a film which was made based on collaboration with high school teachers in Denmark, in which different people talk about climate change and governance etc.

Klaus Georg was going to be involved in the teaching collaboration but left UoG; LLS will instead contact Maria Ackrén (CP is already collaborating with her). EMB is also interested in contributing.

LLS wants to establish an ARC education forum with representatives from the four faculties.



The meeting at Hindsgavl (Sep) will include a discussion of the new Master's degree between KU-AU. EMB is trying to get an overview of what already exists; LLS provided an overview of AU course (available at: <http://arctic.au.dk/students/courses/>), but there is no overview of KU courses. Good to talk about how to build up master's degree.

#### 4.2 Planes for S2015 (LLS)

See summary by LLS below

LLS is writing a proposal to UArctic (they have 4m DKK to support UArctic projects - up to 1/2 million per project), requesting funding for the development of new courses; chances are good as it is an advantage to collaborate with other UArctic institutions.

The proposed courses are to be run in Nuuk, and the aim is to offer a package of 30 ETCS, ie. a full semester. AM suggested merging courses instead of developing new ones; a course on resource management might appeal to government employees? EMB would like to see more of a focus on governance and user rights. As course descriptions are due in 3 weeks, merging is not feasible this time around. It would be a good idea to involve CP and Pelle Tejsner in Climate & Society; CP will send course description to LLS in the next couple of weeks.

Courses can include e-learning, and teachers won't necessarily have to stay for more than a week at a time. LLS will apply for travel funding from UArctic for students from AU/DTU (limit: 12 students).

There needs to be an agreement between AU departments about student FTEs (1 ETCS = 1 week of work)

### 5. Economy

#### 6. Misc.

##### 6.1 Terms of reference

Those who have not yet indicated their agreement, please do so, or forward forward further comments to CL.

##### 6.2 Polar research collaboration with India

The National Centre for Antarctic and Ocean Research (NCAOR) in Goa has expressed an interest to the Danish Embassy in India in collaborating with Danish universities on Arctic matters. As a result, a workshop will be held in week 46 with participants from DTU, KU, DMI, AAU and AU. TDA will go – is anyone else interested?



CP is part of a network focusing on the role of Asian actors in the Arctic. AMP suggested contacting Uwe Skoda (Dept. of Culture and Society - Indology).

#### 6.3 Measurement of dissemination (popular science and press)

TDA talked to Signe Høgslund who will make an analysis in October (in time for the midterm evaluation) through Meltwater News (media monitoring platform); AU used to have a contract with Meltwater, but it has now been put out to tender.

#### 6.4 Newsletter

Input for the first newsletter: announce seminars + Knud Rasmussen lecture 29 Oct.

#### 6.5 Other

Relocation of ARC has been postponed until after Christmas (hopefully a relocation will result in more office space). CP and Pelle Tejsner (ARTS) would like to move to ARC – CP and CL will talk about the practicalities.

### **SUMMARY: Education activities Fall 2014 (by LLS)**

- 1) A new ARC course (Climate forcing and feedback mechanisms in the Arctic) is starting in **November 2014** with a minimum of 9 students. The aim of the course is to give the students knowledge of formation, transformation and emissions of greenhouse gases (GHG) in ecosystems in the high Arctic and to understand the main climate (temperature) induced feedback processes. (teachers: terrestrial carbon cycle, climate change effects and feedbacks: Magnus Lund, Torben Christensen; marine carbon cycle, climate change effects and feedbacks: Mikael/Tage, Lotte; ice and snow: Nicolas/Søren, Lotte.
- 2) ARC (S&T), GINR and Helsinki University have obtained funding (15 890 EUR, for travels board and lodging) from NordPlus to collaborate on teaching activities in Nuuk (here we will also include Manitoba, so it becomes ASP plus Helsinki). The goal of the project is to enhance the skills of the people in Greenland. This involves strengthening learning networks leading to development of local competences in information and communication technology, especially e-learning; strengthening the Arctic youth's interest in higher education through deepening of their basic education and strengthening the Arctic youth's understanding of the challenges and opportunities posed by globalisation and climate change. Within the project we will develop 3 teachers' workshops including local high school teachers, researchers from Greenland

Climate Research Centre and teachers from Helsinki University and Aarhus University (e-learning, earth systems and climate, society and climate) and a row of courses for high school students from Greenland (terrestrial ecosystems, marine ecosystems, atmosphere-biosphere exchange, earth system and climate, climate and society). We will have a kick-off meeting and a teachers' workshop about Earth system and climate in Nuuk, in **Nuuk in September 2014** (participants from ARC: Lotte and Rane) and one week of five lectures to high school students in fall 2014.

- 3) A group of Nordic universities (Helsinki, Aarhus, Copenhagen, Lund, Stockholm and Tartu) has a collaboration program on student exchange and teaching development. The main subject of this collaboration is biosphere-atmosphere-studies (ABS) and ABS have obtained funding (xxx) to expand the collaboration to include relevant social science and also to include Greenland University and Iceland University. The ABS steering group, which Lotte is a member of, has planned to visit **Iceland University and Greenland University in September** (participants: Lotte and Rane) to discuss collaboration and possibilities for exchange of students. We have contacted Mark Nutall and Klaus Georg as the Greenland University representative.
- 4) We have developed a course plan within ARC involving Eva Bonefeldt (Health), Christian Sonne and Henrik Skov (both SciTech). According to the plan we will develop 3 courses all related to pollution and health in the Arctic. The courses will be offered at GINR in 2015 or 2016. However we need to coordinate this with Greenland health (sundheds) Center (GSC), thus Lotte (plus ASP education coordinators: Dorte and John) have a meeting with the **GSC dep. head in September**. Furthermore we need to develop a resource plan.

#### **SUMMARY: Education activities 2015 (by LLS)**

We will propose a new UArctic project to be funded by the Danish UArctic. The project is a package of Arctic courses which will be offered by University of Aarhus, DTU, University of Greenland and University of Manitoba in spring 2015 in Nuuk, hosted by University of Greenland and Greenland institute of Natural Resources (GINR). The course package is aimed at students with a background in natural sciences/engineering in the area of environmental science, biology and/or chemistry.

This package will include 5 courses (35 ECTS) at candidate level, three of which will be worth 5 ECTS and two of which will count 10 ECTS. These courses will be developed in collaboration between AU, DTU, GINR,



University of Greenland and University of Manitoba and will include lecturers from all five institutions. In addition to the courses in this suggested project, University of Greenland maybe offers a course of 7.5 ECTS: Management of Natural Resources in Greenland (they did in spring 2014).

The courses will be offered in spring because one course relies on the presence of sea ice, and another involves field work which will benefit from the Sanna cruise in May. The courses in planning are listed below:

- **Climate forcing, effects and adaptation** (10 ECTS, graduate level course. Course responsible: Lise Lotte Sørensen (AU), Carl Egede Bøggild (DTU). This course will be a joined DTU/AU course). The aim of the course is to give the student knowledge of formation, transformation and emissions of greenhouse forcers (Greenhouse gases and aerosols) in the Arctic as well as an understanding of the main climate effects and adaptation options/opportunities in the Arctic. This course will be a development/extension of the existing AU course: Climate forcing and feedback in the Arctic (5 ECTS, Graduate level, course responsible: Lise Lotte Sørensen, AU) and will involve field work.
- **Arctic marine ecosystems** (10 ECTS, Graduate level, course responsible: Tage Dalsgaard, Mikael Sejr, Peter Grønkjær, AU, Dorte Søgaard, GINR. The aim of the course is to give the student broad theoretical and practical skills in Arctic marine ecosystems with special emphasis on Greenland waters. Furthermore, to understand the influence of environmental parameters on the different communities of the Arctic marine ecosystems. During the course, the student will obtain hand-on experience with a number of classical as well as new techniques for evaluating the Arctic marine ecosystem. The student will be given a unique opportunity to investigate the Arctic marine ecosystem during a cruise with the research vessel Sanna in Godthåbsfjord in SW Greenland. The course is in the process of being developed but it still needs to be approved by Bioscience education board.
- **Biogeochemistry in Sea Ice** (5 ECTS, Graduate level, course responsible: John Iacozza, UoM). The course will involve field work and still needs to be developed and approved. This will be a UoM course. This course will run in March while there is still sea ice.
- **Climate and society** (5 ECTS?, course responsible ???, University of Greenland). Mark is not able to lead this, but Lotte will ASAP contact Klaus Georg, who os the department head.

- **Arctic mineral resources - Environmental impacts and prevention:** (5 ECTS): Course responsible: Janne Fritt-Rasmussen, Susse Wegeberg, AU/Pernille Erland Jensen, DTU. General course objective: to be able to estimate environmental effects of natural resources winning and suggest relevant technologies to prevent environmental effects with special focus on Arctic circumstances. This course will take place at DTU-Lyngby in fall 2014 but will be developed for e-learning, and can be taken as e-course in Nuuk in spring 2015 by the students who attend the other courses. It needs to be approved as an AU course.  
Alternative courses in case one of the courses described above will not be a part of the project:
- **Arctic ecology and climate change** (5 ECTS, Graduate level, course responsible: Toke Høye, AU). The course still needs to be developed but is based on the former Bioscience course by Mads Forchhammer.
- **Transport of pollutants in the Arctic environment** (5 ECTS, Graduate level, course responsible: Henrik Skov, AU) needs to be developed, and if ENVS does not have a “Studieordning” in the next 6 month, the course needs to be based at Bioscience or alternatively, Dep. Chemistry.

---

---

If we get support from UArctic and we are successful in attracting students, the self-government will support the activities from 2016 when the new teaching facilities are in place.

---