

Report from the meeting of NOVA Network Soils and Society “SoilSoc” in Copenhagen 23.11.2007

In March 2006 Nordic teachers working in the field of soil sciences were invited to Helsinki by Kristina Lindström to discuss the need for tighter educational collaboration. During the meeting the NOVA Network Soils and Society “SoilSoc” was initiated and great number of ideas on possibilities to benefit from better communication and cooperation arise. Work continued at a meeting in Iceland in November 2006, where the focus and forms of SoilSoc collaboration were agreed on. Also SoilSoc Board with teacher and student representative from each Nordic country was appointed.

NOVA KUF approved of the plans by allocating SoilSoc network 11 000 € for year 2007, specifically to hire a part-time secretary for administrative assistance and to build SoilSoc website, and to have a SoilSoc Board meeting in Copenhagen. This report summarises the outcomes of SoilSoc year 2007, presented and discussed during the Board meeting. Our plans on developing the SoilSoc collaboration further in the form of "SoilSoc – programme of Nordic cooperation in graduate education" are also written out.

Programme and agenda of the meeting

The Board meeting started on Thursday evening with a welcome dinner at restaurant Kai close to the LIFE campus. All ten SoilSoc Board members, including a teacher and student representative from each relevant NOVA university, were able to arrive the day before the actual Board meeting day (see list of participants on Appendix 1). This was necessary to start in time, and get-together dinner was beneficial also for orientation and next day's conversations. We strongly think that when formulating the outlines of wider international programme, it is crucial for collaboration to have enough time also for more open conversations to learn about each other's standpoints and aims.

For Friday morning the hosts of the meeting, the Danish Board members prof. Ole K. Borggaard and PhD student Julie K. Jensen, had prepared a visit to the Copenhagen Recycling Centre. This facility located very close to Copenhagen is a forerunner in remediation of contaminated soils and receives hundreds of foreign guests annually. In addition to general overview we heard more specifically about Julie's PhD research at the Centre as well as had a sight-seeing tour.

The actual board meeting started at 11:30 at LIFE. The agenda of the meeting is in Appendix 2 and discussion and decisions on its points are summarised in the following chapters.

SoilSoc website and communication strategy

The meeting started with SoilSoc network secretary Anu Mikkonen (working 33% for six months) presenting the SoilSoc website. The website was launched in September 2007 and has since been the official place to store and share all SoilSoc information. For detailed information about the contents and aims of the SoilSoc website we refer to the plan attached to the Funding application (Appendix 3) and the actual site at address <http://www.helsinki.fi/soilsoc>.

The Board was altogether very happy with the new website, but some targets for development were pointed out and will be addressed before the end of the year. These include for example links to information and services not available yet, and adding a visitor calculator.

Much attention was given to the table of nodes and we also discussed thoroughly about the meaning of comprehensive node network. Photos of all discipline nodes (Board teacher members) will be added to the table. It was decided that the names of all nodes will be linked to their personal/group homepage, but their email addresses won't be put on the SoilSoc site. SoilSoc secretary will maintain an updated mailing list including all nodes, also linked nodes in partner institutions. This will be available for the use of anyone on the list to spread information on Nordic soil science courses, meetings and available positions (incl. training and thesis places). All nodes will receive the SoilSoc newsletters, which will be sent max. 4 times a year and include important information about SoilSoc news and courses. Node structure is important also for mapping Nordic expertise of soil specialists to easily find e.g. teachers for courses, training places and partners for research collaboration.

The SoilSoc Board teacher members were given several communication-related duties to complete preferably before Christmas. These include:

- § checking the member university information and sending corrections
- § checking and adding nodes (country representatives of different disciplines and linked nodes in partner institutions) and sending their e-mail addresses to SoilSoc secretary
- § updating and adding course information on the course database
- § adding research programmes to the research database

The information on research projects need not to be very detailed and just name and link to programme's homesite can be enough if that site is regularly updated. Mapping Nordic soil-related research groups/programmes/projects in one place is anyhow a valuable source of information to everyone and will also facilitate student mobility.

General practices regarding SoilSoc intensive MSc and PhD courses

As the first SoilSoc intensive MSc and PhD course will take place on year 2007, some general issues regarding SoilSoc course organising were discussed. SoilSoc website will be the place where all intensive course information will be collected and available for students. Course organisers send all information to SoilSoc secretary, who maintains and updates the site. Registration on all courses will also happen online with a specific electronic form that can be modified course by course to contain exactly the needed fields. Filled registration form is directed to the mailbox of course organiser/secretary, who will confirm that the application has arrived. If some NOVA universities require additional sign-up processes for foreign students (e.g. UMB), these will be taken care by the course organiser after students have been approved on the course.

Student selection and approval on courses will be done according to general NOVA guidelines. If more students apply than the course organisers can accept, NOVA and BOVA students will be prioritised. Otherwise students from any non-NOVA university will be on the same line and have to pay the same fee for NOVA and for accommodation. If any difficulties appear they will be discussed within SoilSoc Board case by case and resolved pragmatically.

Grading of students was also discussed and it was seen that evaluating students with different majors and backgrounds by one intensive course can be extremely difficult. Therefore most course organisers will likely use only scale accepted/failed, but if any SoilSoc course organiser wishes to give grades this is allowed. Students attending the intensive courses get a certificate, and registering course credits will be done at the student's home university.

Course evaluation by students was considered, as feedback procedures are extremely important in assuring quality and usefulness of the intensive courses. It was agreed that more answers are returned when the evaluation is done on paper form before students leave back home. It was anyway seen that the NOVA standard course evaluation form for PhD courses does not ask all the questions course organisers find relevant. More open fields for constructive criticism and suggestions are also needed. Formulating standard course evaluation forms for SoilSoc intensive MSc and PhD courses is a possibility that will be considered in the future.

SoilSoc Programme

Discussion on SoilSoc Programme started with Assoc. Prof. Bjarne W. Strobel introducing us the collaboration between four universities of "Euroleague for Life Sciences" that started in the form of Summer Schools and developed to Joint European M.Sc. in Environmental Science. He gave excellent advice on what should be considered when aiming to start joint international programmes, e.g. that the benefits and constraints should be considered very carefully, and that the collaboration should focus on something all the partners are presently missing. He also pointed out some structural and administrative differences that can occur and emphasised the need to involve administrative personnel to tackle with these.

It was decided already in spring 2007 that a joint Nordic MSc programme leading to a separate MSc degree is not in the scope of SoilSoc, since the administrative obstacles are still much too high. Some kind of structured SoilSoc Programme, leading to a certificate for the student, would anyway be beneficial and could encourage students to go for Nordic exchange. Added value of participating in the programme would be soil education of high Nordic quality and international experience, which many employers appreciate. The keywords of this programme are *Soil Sciences*, *Interdisciplinary questions* and *Nordic Dimension*.

All SoilSoc board members were asked to find out what structure for the SoilSoc programme does their degree structure allow, and what other constraints and possibilities they see. Possibilities at HU-AF are summarised and discussed in Appendix 4, and this document helped to start the conversation.

In the discussion it quickly became evident that only the Finnish universities have minor packages in their degree structure, so that alternative is excluded. On the other hand some kind of specialisation is possible in all universities.

The following common outlines of the SoilSoc Programme were decided:

- § Role: SoilSoc programme is a part of normal MSc degree and can be seen as a specialisation line. Student who fulfils the programme requirements will get a **separate certificate for completing/participating in the SoilSoc Programme** (granted by SoilSoc Network Leader of Board) and if possible a **mention in Diploma supplement** for "participating in cooperation programme of SoilSoc, Nordic NOVA Network on Soils and Society".

- § Requirements: Student wishing to complete SoilSoc Programme has to take **at least 15 ECTS credits of studies in some other Nordic country**. These studies must be related to soil sciences or tools (methods, statistics) needed in soil sciences. All students must participate on at least **one SoilSoc PhD course** (summer school), and this can be included in the 15 ECTS no matter where the course is organised.
- § Practical training: students are encouraged to do **practical training** or lab visit in some other Nordic country. Students can get ECTS credits for this and those can be included in the required 15 ECTS abroad.
- § Thesis: To fulfil the SoilSoc Programme student must do the **MSc thesis on a soil-related subject**, preferably in English.

Things that still need to be found out are: 1) Can participation on the SoilSoc programme be mentioned in the MSc Diploma supplement in all NOVA universities, and 2) Who will accept the SoilSoc study record. As soon as these are decided, the competition on who has the first SoilSoc graduate can be opened!

Work plan 2008-2010

Discussion on year 2008 started with the hosts of the two SoilSoc intensive courses presenting their plans. Ólafur Arnalds started with the PhD course *Soil degradation, erosion and restoration* that will take place in Iceland June 8-18. The programme and input of different teachers were talked through and some new ideas still rose. The course organising has proceeded well and students have found course information on the SoilSoc website. Online application is working well; already ten students have applied though the deadline is only on the 15th of March. Many students from non-NOVA universities (Nordic, Baltic and non-European) have also been interested, though the additional costs for them are clearly mentioned on the course info. The course will be further advertised with a course announcement formulated by Ólafur Arnalds and spread on the mailing list by SoilSoc secretary.

Kristina Lindström went through the plans on NIMC *Bioinformatics for environmental scientists* to be held in Helsinki August 11-15. The course had to unfortunately be postponed from the first to the second NOVA mobility window due to sick leave of the organiser, but this suited all teachers. Some preliminary registrations have already come, also from PhD students, and it was decided that the registration form should be opened already.

SoilSoc PhD courses to be hosted 2009-2010 were also discussed. Several board members emphasized the possibility to collaborate with other course organisers, e.g. research schools and other networks. The SoilSoc PhD course 2009 still needs to be thought through: Jan Mulder (UMB, present in SoilSoc meeting 2006 in Iceland) is hosting a course related to global change with some other network or graduate school late autumn, so organising a separate SoilSoc course on this topic at the same university in summer needs to be rethought. The UMB representatives will discuss this, but there should anyway be one Global change course in Norway summer/autumn 2009, available also for SoilSoc students.

Ole Nybroe (LIFE, present in SoilSoc meetings 2006 in Helsinki and Iceland) told about a summer school that is hosted in Denmark every other year, next time summer 2008. The general topic of the series of summer schools is Microbial activities in complex environments. If wished, a 3-day SoilSoc summer school could be combined to this course.

Sara Hallin's idea to host SoilSoc PhD course (Summer school) on Constructed soils was supported. The theme would include questions on recycling, bioremediation and soil quality as well as EU legislation. The timing of the course was left open, but if no NOVA funding is applied for the PhD course(s) in Norway 2009, the course on Constructed soils can be hosted already then. The host organisation would likely be SLU or LIFE.

Idea to host a SoilSoc PhD course in China in 2010 has been modified, and the country has changed to Ethiopia. Both Kristina Lindström and Åsa Frostegård (UMB, present in SoilSoc meeting 2006 in Iceland) have research collaboration there, and a joint course would provide excellent possibility to combine soil questions to developmental issues. Other topics could include biodiversity and sustainability, and possibility to collaborate with the NOVA Agroecology network will be examined, as Kristina Lindström anyway has active contact to the Finnish member Juha Helenius.

Other opportunities for teaching collaboration were also pondered. Ólafur Arnalds and Ole K. Borggaard thought about the possibility to join forces and student groups on pedology teaching, as the numbers of attendants on these courses are getting smaller and smaller in both countries. Markku Ylihalla (HU-AF, present in SoilSoc meeting 2006 in Helsinki) might also be interested in the collaboration. The joint graduate level course could be 15 ECTS (one block) and include e.g. pedology, soil classification and sampling. E-learning periods would be completed with an intensive course period in one of the countries full of field trips and hands on work. The respective professors will continue the discussions on this.

The next SoilSoc Board meeting will be hosted at SLU. The tradition to have the annual Board meeting in November will be continued, as this time suits well most Board members. November is also an excellent time to evaluate the outcome of and feedback from the first two SoilSoc intensive courses, which have taken place in the summer 2008. Also the interest in and proceeding of the SoilSoc Programme will be monitored. A funding application for Board meeting 2008 will be submitted to NOVA before the next KUF meeting. Also continuing the funding for administrative help (salary of part-time SoilSoc network secretary) will be applied, as the SoilSoc website needs to be updated and developed further. Leaving administrative issues to a secretary, who handles practicalities and ensures efficient communication, exempts the time of other SoilSoc members for the actual forms of collaboration visible for students in all NOVA universities.

Attachments:

1. List of participants
2. Agenda
3. SoilSoc Web Portal - contents and structure
4. SoilSoc Programme - possibilities and ideas at HU-AF

SOILSOC Meeting in Denmark November 22nd till 23rd - participants

Country	Institution	Name	e-mail	Position
Denmark	LIFE	Ole K. Borggaard	okb@life.ku.dk	Professor
	LIFE	Julie K. Jensen	jje@life.ku.dk	Ph.D.student
Finland	HU-AF	Kristina Lindström	kristina.lindstrom@helsinki.fi	Docent, Univ. lecturer
	HU-AF	Anu Mikkonen	anu.s.mikkonen@helsinki.fi	M.Sc. student
Norway	UMB	Trond Børresen	trond.borresen@umb.no	Professor
	UMB	Linda Bergaust	linda.bergaust@umb.no	Ph.D.student
Sweden	SLU	Sara Hallin	sara.hallin@mikrob.slu.se	Associate Professor
	SLU	Karin Enwall	Karin.Enwall@mikrob.slu.se	Ph.D.student
Iceland	LBHI	Ólafur Arnalds	oa@lbhi.is	Professor
	LBHI	Rannveig Guicharnaud	rannveig@lbhi.is	Ph.D.student

NOVA SoilSoc Board meeting 23rd of November 2007

Agenda

1. SoilSoc website and communication strategy

- § Introduction of the SoilSoc homesite, discussion
- § Keeping course database updated
- § Information on research groups/projects
- § Linked nodes, their role and involvement
- § How to spread information about SoilSoc intensive courses
- => How to communicate efficiently to promote Nordic student mobility and research collaboration

2. General practises regarding SoilSoc intensive MSc and PhD courses

- § Course registration online, information
- § Partner requirements
- § General outlines of student selection, if there are more applicants than we can accept on the course
- § Course feedback online
- => Agreement on general SoilSoc course practises

3. SoilSoc Programme

- § Discussing about the prerequisites and requirements of minor packages / specialisations in different NOVA universities (*find these out for your own university before the meeting!*)
- § How many ECTS, what should the programme include
- § How to promote mobility and practical training exchange
- => How to proceed with the SoilSoc Programme, what can it be and what do we want it to include

4. Work Plan 2008

- § Intensive PhD course *Soil degradation, erosion and restoration* in Iceland June 2008 - presentation of the plans
- § Intensive MSc course *Bioinformatics for environmental scientists* in Helsinki August 2008 - presentation of the plans
- § Discuss on SoilSoc Board work, next meetings
- § Funding application to KUF March 2008
- § Funding application to NordPlus February 2008
- => Agreement on time frame, milestones and resources required, reporting and responsibilities of SoilSoc collaboration

SoilSoc Web Portal – contents and structure

Comprehensive web portal

- to benchmark soil science studies – attract both Nordic and other international undergraduates for soil science graduate education
- to collect and maintain information on Nordic soil science expertise
- to ease Nordic graduate mobility by serving as a collective up-to-date bulletin board for soil science courses and research programs within the Nordic countries
- to provide both students and teachers with relevant information on mobility possibilities, including sources of funding

Contents and services

SoilSoc Network

- Description, aims and activities of the SoilSoc network
- SoilSoc member universities and their areas of specialisation within soil sciences
- Board composition and contact information, network nodes
- Linked nodes in partner institutions (institutes and contact persons with contact information)

SoilSoc Programme

- Description of the SoilSoc - Programme of Nordic cooperation in graduate education. How and why to go for it
- National (and possibly major-specific) SoilSoc package requirements, national contact person information
- Contact information of the SoilSoc network secretary

Course catalogue

- up-to-date list on all Nordic courses in the field of soil sciences, that are provided by SoilSoc members or external nodes and can be included in the SoilSoc package
 - defined format with sufficiently detailed information
- search engine for the course catalogue

Funding possibilities

- description, deadlines and links to different funding possibilities for the organisers of international M.Sc. and Ph.D. courses
- description, deadlines and links to different funding possibilities for the students attending the SoilSoc programme or just one course abroad

FAQs on Nordic mobility

- term structures of NOVA universities and other general information regarding Nordic student mobility

Bulletin board

- Topical activities and news (conferences, meetings, courses outside the Nordic countries, scientific breakthroughs, open positions)

Research programme database

- List of soil related research programmes in Nordic countries (SoilSoc member institutions and partner institutions)
 - Possibilities for practical training, thesis projects, research collaboration

- Mapping of expertise

Interactive forms

- Course participation form
- Course evaluation form

Forum

- Students - sharing experiences on courses etc.
- Teachers - sharing best practises

SoilSoc programme - possibilities and ideas at HU-AF

- § The SoilSoc Programme could be both a minor of 25 ECTS and a specialisation within the Master's degree.
- § The aim of the SoilSoc Programme is to build SOIL knowledge, to strengthen INTERDISCIPLINARY point of view, and to bring an international, especially NORDIC dimension to the studies.

SoilSoc MINOR

- The size of a minor package is 25 ECTS (can be more, but students must be able to construct a package that fits into 25)
- SoilSoc minor could consist of courses that students choose from a pool of suitable courses. The courses are decided in a personal study plan, which the professor responsible for SoilSoc minor approves of
- The minor can not include courses that are fixed to some other entity (to major studies or other minor)
- The minor can also include courses that the student has taken in some other university, if the professor just accepts these as a part of the package (very flexible system)
- SoilSoc minor could be an official minor, suitable for the MSc (or even BSc) degree of students from many departments and majors (e.g. Environmental soil science, Microbiology, Forest ecology, Biotechnology). We could also provide it to other interested students at the University of Helsinki, e.g. ecologists or geologists (students are allowed to study courses and minors in any of the faculties)
- It can be mentioned in the Diploma Supplement of the MSc Diploma, that the SoilSoc minor is a part of Joint Nordic SoilSoc Programme.
- Any new minor is first accepted by the respective department board(s) [March-April] and then approved at the faculty level [May]. Creating and providing one flexible SoilSoc minor to all interested students of the Faculty of Agriculture and Forestry should be possible and face no major administrative obstacles.
- The professor responsible for the SoilSoc minor will see that the course combination fills the aims of the SoilSoc. The minor package should maybe include at least one SoilSoc intensive course (MSc or PhD) and preferably other courses abroad. The courses should be related to soil sciences, or for example method studies or statistics, if we decide so.
- The minor can consist of different courses depending on what the student's major is
- We should decide about the general requirements of the SoilSoc Programme, for example how many international courses (in English or abroad) are required
- An additional practical training and a written report of the training (one compulsory training is already included in the major studies) can also be included in the SoilSoc minor, and students can get credits out of this.

SoilSoc SPECIALISATION / PROGRAMME

- At HU-AF the names of the majors can be quite general, but within some majors students can specialise in certain subjects (e.g. if your major is Forest ecology you can specialise for example in Forest Soil Science, Forest Tree Ecology, Peatland Ecology and Forestry, Tropical Silviculture etc.). Specialisation is indicated in the MSc diploma.
- SoilSoc could have its own specialisation, but perhaps with a less formal status (different name) than the official specialisations (students can not have two specialisations, and creating an official specialisation line would be more bureaucratic).
- The SoilSoc specialisation or programme could consist for example of SoilSoc minor and an MSc thesis done on relevant subject (preferably in English?).
- SoilSoc specialisation or programme would not be mentioned in the MSc Diploma but in the Diploma Supplement (e.g. something like "Student has completed The Joint Nordic SoilSoc Programme, which consists of SoilSoc minor, practical training/study visit to another Nordic laboratory and an MSc thesis on applicable topic.")