



Competence Center
Environment and Sustainability

Reporting 2014 to the ETH Board

Climate & Environmental Change



Sustainable Land Use



Food, Environment & Health



Natural Resources



Natural Hazards & Risks



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1 Short summary of main activities

Mid-term evaluation of the second phase 2012 to 2016

On February 27, 2014, CCES was evaluated once more by the CCES Advisory Board composed of nine renowned international scientists with recognized expertise in one or more of the CCES' focal topics. The main goal of the review was to obtain suggestions on how the individual projects as well as CCES as a whole should further shape their profile in order to ensure a smooth transition into the post-CCES era. The very positive feedback and the valuable recommendations by the Advisory Board form the basis for a successful completion of the second phase of CCES ending in December 2016, for the development of new research initiatives, and for the longer-term integration of important education and stakeholder dialog activities emerging from CCES into the structures of the CCES partner institutions.

Research projects and research platform SwissEx on track

All seven research projects of the second period (2012 to 2016) as well as the research platform Swiss Experiment (OSPER) are well on track both concerning the time schedule and the use of financial means. The five synthesis projects initiated at the beginning of the second phase have all been successfully completed. The currently running projects will be officially terminated between the beginning of 2015 and September 2016. A new project EnviDat (see below) has been initiated.

EnviDat – monitoring and long-term data repositories

The goal of EnviDat is to provide a platform for environmental information and management systems for collecting, analyzing, using, and comparing data from numerous environmentally relevant processes. With the employment of a software engineer funded by CESS the project EnviDat has entered an important phase during the last months of 2014. Since then, the prototype of the EnviDat data portal has been established, and two major elements of the system building blocks, identification and metadata, have been implemented. Metadata play a key role in data portals and render datasets identifiable, explainable and searchable. The third major element of the prototype is to provide access to a variety of remote data sources (e. g. relational databases with different schemas). Possible solutions to solve this problem are presently evaluated. Representatives from the Swiss Federal Statistical Office, the Federal Office for the Environment, the Swiss Federal Archives, and from Agroscope have been involved in this process.

CCES@School educational initiative

The dissemination of the teaching materials on river restoration developed in 2012/13 has been further promoted by using them within the scope of the study courses for the *teaching diploma for Swiss grammar schools* at ETH Zurich. More than fifty students received the materials for their own future teachings and were trained to use them. In addition, the students further developed the materials. As a consequence of the positive response by the students the materials will continue to be used as part of the advanced training for grammar school teachers at ETH Zurich.

In addition, the development of additional teaching materials on geothermal energy and landscape genetics has been initiated in 2014. The teaching unit of the latter topic, for instance, analyses the question of the spatial arrangement of new valuable landscape elements such as ponds to optimally promote genetic diversity of frogs.

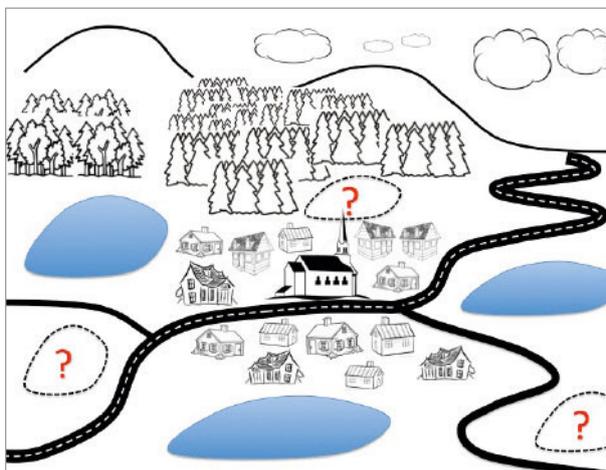


Illustration to trigger the discussion on the optimal positioning of new valuable landscape elements.

Illustration: MINT-Lernzentrum, ETH Zurich

CCES Conference 2014 ‘Research, Education, and Dialogue for Environment and Sustainability – Achievements and Challenges’

The CCES Conference ‘Research, Education, and Dialogue for Environment and Sustainability – Achievements and Challenges’ took place at ETH Zurich on February 26, 2014. The conference was part of the review process (see above) and provided an ideal platform for the presentation and discussion of CCES research highlights and dialog activities of the past three years. Close to 200 participants got an impressive overview on the status of current CCES activities and benefited from stimulating plenary discussions and individual exchange. The video streams and the slides of the presentations as well as the posters on dialog activities presented during the conference can be downloaded from the conference website www.cces.ethz.ch/conference2014/.

Fourth edition of the CCES Winter School ‘Science Meets Practice’

23 PhD candidates and postdocs from the ETH Domain institutions and universities in Austria, Germany, and the Netherlands participated in the CCES Winter School which took place in two blocks in January and February 2014. The theme of this winter school was the «World Food System». Supported by a dedicated team of lecturers and coaches, the participants intensively worked on the opportunities and potentials offered by science-practice interfaces to address challenges of sustainable development. Besides a series of input lectures and group work, the participants organized and hosted a workshop with stakeholders from civil society, communal offices, private industry, associations, and non-governmental organizations. They also organized a panel meeting with three high level stakeholders from the public administration, the private sector, and the media. As was the case for the previous CCES Winter Schools, the fourth edition obtained very positive feedback from both the very engaged participants as well as from the stakeholders.



*Group work of participants of the CCES Winter School 2014.
Photo: C. Zingerli, CCES*

Workshop «Dialog between Politics and Science – Reality or Fiction?»

Co-organized by the Swiss Academy of Sciences (SCNAT) and CCES, a workshop focusing on the science-policy interface took place at ETH Zurich on October 31, 2014. Invited were 35 distinct personalities from politics, public administration, business, science and from the science-policy-interface. The main goal of the workshop was to identify reasons responsible for the suboptimal role of science in supporting political decisions, and to propose an action plan for improving the situation.

There was a unanimous consent that science plays an important role in society but must also respect that politicians sometimes may decide against ‘better’ knowledge. In this context, options for an improved dialog between politics and science were discussed. The very lively discussions supplied useful indications for a fruitful cooperation. The discussion will be further pursued in a follow-up workshop taking place in fall 2015.



Workshop participants discussing the workshop outcomes. Photo: S. Häfliger, CCES

2 Performance information

Table 3: Performance information

1. Scientific publications (only published, not submitted/forthcoming)	2006 to 2013	2014	Total
1.1 No. of peer-reviewed ISI journal publications	906	66	972
1.2 No. of peer-reviewed non-ISI journal publications	161	11	172
1.3 No. of PhD theses	168	5	173
1.4 No. of master/diploma theses	385	9	394
1.5 No. of abstracts/proceedings/presentations/posters at scientific conferences/congresses/workshops	2,312	101	2413

2. Scientific events organized by the project/by project partners	2006 to 2013	2014	Total
2.1 No. of conferences/workshops etc. (open to an audience beyond project partners/participants)	230	9	239
2.2 No. of PhD courses/summer schools, etc.	84	1	85
2.3 No. of other events	99	1	100

3. Outreach	2006 to 2013	2014	Total
3.1 No. of publications for stakeholders outside the scientific community (e.g. public administration)	195	19	214
3.2 No. of press articles (newspapers, radio/TV broadcasts, etc.)	477	18	495
3.3 No. of courses/seminars/workshops for stakeholders outside the scientific community	207	12	219
3.4 No. of public information events for local/regional authorities/residents	137	2	139
3.5 No. of events/activities at schools (courses)	158	5	163
3.6 No. of other events	110	13	123
3.7 No. of patents	8	0	8