



The Precautionary Principle: Governance of innovation and innovations in governance

Summer Course Description

CEU Summer University 2016

Budapest, June 26 to July 2, 2016

A Summer School co-organised by Central European University, MEDIAN and the European Environment Agency – A project of the EEAcademy

Application deadline: 24 April 2016

More information and applications: <http://www.summer.ceu.hu/precautionary-2016>

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THE SUMMER COURSE IN BRIEF

SUMMER COURSE TITLE	The Precautionary Principle: Governance of innovation and innovations in governance
ACADEMIC DISCIPLINE(S)	Environmental Sciences, Environmental Governance, Science and Technology Studies, Transition studies.
DATES	June 26 to July 2, 2016
TARGET AUDIENCE	Researchers (advanced PhD students, postdocs) and practitioners from policy-making institutions, NGOs, business and international organizations.
LEVEL OF THE COURSE	Postgraduate
TYPE OF COURSE	Strategic knowledge and experience sharing course
COURSE DIRECTORS	Sybille van den Hove ¹ , Ruben Mnatsakanian ² , Anton Shkaruba ^{2,3} , Jock Martin ⁴
CONVENING INSTITUTIONS	¹ Median, Barcelona, Spain ² Central European University, Budapest, Hungary ³ Erda RTE, Rijswijk, The Netherlands ⁴ European Environment Agency, Copenhagen, Denmark
CONTACT INFORMATION	E-MAIL anton@mespom.eu / Sybille@median-web.eu
COURSE SUMMARY	<p>The Precautionary Principle: governance of innovation and innovations in governance</p> <p>The purpose of this Course is to explore challenges and possible ways forward for the effective and appropriate application of the precautionary principle in sustainability governance. It will bring together a solid and diverse group of scholars and practitioners with expertise on the precautionary principle, risk assessment and management, environment and health research, science and technology studies, the governance of innovation, environmental governance, and long term transitions to sustainability.</p> <p>The School is designed as a strategic knowledge and experience sharing course at the intersection between a research-oriented course and a professional development course, dedicated to collaborative exploration and learning. It will provide intensive research training, but also allow for policy discussions in a variety of sector and contexts and, through a knowledge co-creation approach, help to identify and find solutions to course-related issues in the participants' research, policy or business application fields.</p>

FACULTY

The teaching team includes high level experts on the precautionary principle, environmental and risk governance, and the issues addressed in the case studies. The faculty is made of highly skilled scholars and practitioners with broad experience in interdisciplinary research and integrative policy-making. The team includes the Executive Director of the European Environment Agency, the former Senior Advisor of EEA who was the 'Late Lessons' project leader, the Chair of the Scientific Committee of EEA, as well as professors from renowned Universities and Business Schools, including CEU academic staff.

Dr. Hans Bruyninckx	Executive Director, European Environment Agency (EEA), Copenhagen, Denmark.
Prof. Ruben Mnatsakanian	Professor, Environmental Sciences & Policy Dept. Central European University, Budapest, Hungary.
Prof. Philippe Grandjean	Professor, University of Southern Denmark, Odense, Denmark & Adjunct Professor of Environmental Health, Harvard University, Boston, USA.
Mr. David Gee	Former Senior Advisor 'Science, Policy, Emerging Issues' & Late Lessons from Early Warnings project leader, European Environment Agency, Copenhagen, Denmark.
Dr. Sybille van den Hove	Director, Median, Barcelona, Spain & Visiting Professor, Institute of Environmental Sciences and Technologies (ICTA) - Universtitat Autònoma de Barcelona, Spain.
Prof. Steffen Foss Hansen	Associate Professor, Technical University of Denmark, Kongens Lyngby, Denmark.
Dr. Owen McIntyre	Senior Lecturer, Faculty of Law, University College Cork, Ireland.
Mr. Jock Martin	Head of Programme - Integrated Environmental Assessments European Environment Agency, Copenhagen, Denmark.
Dr. David Stanners	Head of International Cooperation, European Environment Agency, Copenhagen, Denmark.
Dr. Anton Shkaruba	Research affiliate, visiting lecturer, Environmental Sciences & Policy Dept. Central European University, Budapest, Hungary; Director, Erda RTE, Rijswijk, The Netherlands.
Mr Pierre Mottet	Chairman of the Board, Ion Beam Applications SA, Belgium.

COURSE RATIONALE

The precautionary principle is a key principle of environmental governance. It features prominently in many international environmental policy processes, texts and treaties and in national strategies and laws of many countries.

It is one of the four environment principles in the Treaty of the European Union, in which article 191,§2 states that Union policy on the environment *"shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay."* Together these 4 principles –precaution, prevention, polluter-pays and rectification of damage at source– are central to managing risk to the environment, human health and well-being. The most problematic of these principles is without doubt the precautionary principle.

The precautionary principle poses challenges to environmental science, environmental governance and praxis because it applies to *'situations of scientific complexity, uncertainty and ignorance, where there may be a need to act in order to avoid, or reduce, potentially serious or irreversible threats to health and/or the environment, using an appropriate strength of scientific evidence, and taking into account the pros and cons of action and inaction and their distribution'* (see the working definition of the precautionary principle proposed by the European Environment Agency – EEA 2013, p. 681). As a tool to manage risks, uncertainties and ignorance in complex social ecological systems, it is a core element of governance for a transition towards sustainability.

The principle is subject to a variety of interpretations, at the heart of major controversies and the target of serious attacks, sometimes because of misinterpretations, sometimes because of the vested interests it may be thought to disturb.

As shown by the seminal work of the European Environment Agency in the two *'Late Lessons from Early Warnings'* reports (EEA 2001, 2013) there are still many open and pressing questions around the precautionary principle and its application, ways of doing research, science-policy-society interfaces, the governance of innovations and risk governance in the framework of sustainability transitions. Moreover, in the current political context, notably in the European Union, there is a need for intellectual rigour around the concept, both from a research and a praxis point of view.

PURPOSE & OBJECTIVES

The purpose of this School is to explore challenges and possible ways forward for the effective and appropriate application of the precautionary principle in sustainability governance. It will bring together a solid and diverse group of scholars and practitioners with expertise on the precautionary principle, risk assessment and management, environment and health research, science and technology studies, the governance of innovation, environmental governance, and long term transitions to sustainability.

The School is designed as a strategic knowledge and experience sharing course. It will provide intensive research training, but also allow for policy discussions in a variety of sector and contexts, and help to identify and find solutions to course-related issues in the participants' research or policy application fields.

The three core objectives of the course are:

- (1) to facilitate co-construction and transfer of knowledge on an important research area and cross-cutting issues of environmental science and praxis;
- (2) to build capacity for high quality environmental research that is adequate, efficient and oriented towards the international research community; building on interdisciplinary approaches and concepts, most recent findings, and state-of-art research and praxis;

(3) to build capacity in both the research and the praxis community on issues related to the precautionary principle.

This course is the second of its kind, following a very successful edition in 2015, which reinforced the organiser's conviction of its timeliness given the current intensity of political, policy and scientific discussion around the precautionary principle, in particular in Europe.

The course will promote the values of open society and self-reflective critical thinking through developing capacity for the creation of new knowledge in transdisciplinary environmental research and sustainability governance, and through the search for better ways to convert scientific knowledge to useful practical knowledge, and policy questions to research questions.

PARTICIPANTS

Group composition:

We aim to achieve a mix of participants and faculty from a variety of backgrounds (including both researchers and practitioners from public bodies, NGOs and business) and research interests related to the Course. The purpose is that during group work and discussions the participants will share their knowledge and experience and benefit from the diversity.

Pre-requisites for the course

Participants to be selected to the school shall meet the following criteria:

- hold positions at a universities, research institutions, consultancies, business, relevant public bodies and administrations (including European Institutions), international organisations or a research-oriented NGO;
- have MSc or PhD degree or equivalent and at least two years of research or professional experience or/and teaching at graduate level;
- be fluent in English;
- have demonstrable achievements in research or in praxis;
- demonstrate good communication skills;
- demonstrate originality and motivation in their application letter.

COURSE STRUCTURE

Themes and case studies

The school will centrally focus around cross-cutting issues and a subset of case studies from the *'Late Lessons from early warning reports'*, as well as additional case studies such as Nuclear energy and its legacy or Precaution in the former USSR. Participants will have to complete course pre-reading (see section on background readings below).

The course will address:

Cross-cutting issues

- The precautionary principle: origin, concepts, lessons learned, current stakes;
- Social-ecological systems, transformative capacity and long-term transitions to sustainability;
- Knowledge for sustainability governance;
- Governance of science and innovation, risk assessment and risk management;
- Precaution: roles and responsibilities of societal actors.

Case studies

- Asbestos

- How to anticipate the future for PFASs and endocrine disruptors
- Mercury and other chemical brain-drainers
- Nanotechnologies
- Nuclear energy and its legacy in Belarus and Japan
- Precaution in the former USSR and its legacy
- Seed-dressing systemic insecticides and honeybees
- Oil industry strategies and tactics in the case of climate change

The course schedule will alternate between lectures, group work, discussions and individual work around theoretical issues and case studies. From Monday to Friday, the participants will have access to scheduled one hour tutoring sessions with at least three school faculty members available at each session for consultations.

Pre-course assignments

As part of their application, participants are asked to propose a specific research or praxis question in relation to the theme of the Course, which they intend to explore in more depth during the School.

Upon confirmation of their participation, participants will be asked to do some background reading on their question and write a short first essay explaining their approach to their question, their "*problématique*" (rationale and research question).

A differentiated approach to various target groups of participants will be applied (e.g. by expecting outputs of a more academic nature from participants from the research community and of a more practical nature from practitioners; tailoring of pre-course work to the needs of specific target groups).

Participants' contributions during the course

Participants will also work in groups through the week on jointly chosen themes, building on their essays, interests and learning, and share their progress and findings with other groups and members of faculty, notably during the tutoring sessions. Group works will be presented to the whole group on the last day of the school.

For each lecture and case study session offered on the School, volunteer rapporteurs will be selected amongst participants on the first day. They will be tasked with extracting key highlights and findings and preparing a short synthesis of the session, which will be included in the School report.

Case studies will be presented and worked on during the whole Course. They will serve to illustrate the lectures and provide practical material for the group works, discussions and essay writings. In addition, all other case studies in the two '*Late Lessons*' volumes are relevant and can serve as illustration and knowledge sources.

A lot of the learning will take place through discussions and group work. Participation in these discussions will require some prior knowledge of the issues raised in presentations. To secure this, the course participants will get their background reading requirements six weeks before the course starts.

The further networking of course participants will be supported by a designated LinkedIn or Facebook group to be set up on the stage of distant learning.

Background readings

EEA (2001). *Late lessons from early warnings: the precautionary principle 1896–2000*. European Environment Agency Environmental issue report No.22, Office for Official Publications of the European Communities, Luxembourg.

EEA (2013). *Late Lessons from Early Warnings: Science, Precaution, Innovation*. EEA Report N°1/13.

The course builds directly on the two landmark reports on the precautionary principle produced by the European Environment Agency (EEA) in 2001 and 2013. These reports contain a collection of chapters on and around the precautionary principle. Some chapters are case studies covering a broad range of issues, across time and space; others are more synthetic or theoretical reflections on the issues. The two volumes have been prepared by EEA in collaboration with a broad range of external authors and peer reviewers. Many of the course Faculty are contributing authors in these reports.

Together, the bibliographic references of the two volumes constitute an academic gold mine of references on the precautionary principle, in particular the references of chapters 27 and 28 of volume 2.

As the two 'Late Lessons' volumes are extensive and dense (almost 1000 pages in total), participants will be directed to a series of specific chapters which will constitute mandatory background reading and will be asked to select a number of additional chapters, depending on their interest.

Both volumes can be downloaded for free at:

- http://www.eea.europa.eu/publications/environmental_issue_report_2001_22
- <http://www.eea.europa.eu/publications/late-lessons-2>

Some faculty members may require additional pre-reading, this will be communicated to participants in due time.

Participants will also be expected to familiarise themselves with the profiles of other course participants and faculty. Before the beginning of the course participants will be asked to send their biosketches and their research question after approval by the Course directors; they will be put together in a directory and circulated to the school faculty and the class.

Course schedule

The Course will comprise a total of 45 one hour sessions. This includes tutoring sessions between faculty members and individual or small groups of participants and group work.

Annex 1 provides a detailed course schedule. The schedule may still change slightly in the coming months, depending on contingencies of faculty. The 4 cross-cutting topics, framing sessions, case studies sessions, etc are highlighted in different colours.

INTEREST AND EXPECTED OUTCOMES FOR PARTICIPANTS

Practitioners: elements for development of solid and well justified policy praxis, risk assessment and management strategies, including use of the precautionary principle as appropriate.

Researchers: tools to contribute to address the many open and pressing research questions around the precautionary principle, the governance of innovations and risk governance in the framework of sustainability transitions.

Expected outcomes:

- increased theoretical and practical expertise on issues surrounding the precautionary principle;
- training in inter- and transdisciplinary research and integrative policy praxis;
- a strong networking effect between participants and faculty.

ASSESSMENT OF PARTICIPANTS` PERFORMANCE IN THE COURSE AND EXPECTED OUTCOMES

By the end of the course the participants will prepare and present their group work developed during the course. These will be commented by the class and the faculty, discussed and evaluated.

ANNEX 1: COURSE SCHEDULE

Course <i>The Precautionary Principle: governance of innovation and innovations in governance</i> Classroom <i>Nador 9 building, TBD</i> Seminar room <i>Nador 9 building, TBD</i> Date <i>June 26-July 2, 2016</i>							
	June 26, Sunday	June 27, Monday	June 28, Tuesday	June 29, Wednesday	June 30, Thursday	July 1, Friday	July 2, Saturday
9:00-10:00	9.30: Pre-meeting for faculty and resource persons	Knowledge for sustainability governance (Jock Martin & Sybille van den Hove)	Applications of the precautionary principle: authoritarian societies vs democratic ones (R. Mnatsakanian; A. Shkaruba)	Emerging risk management from a business perspective (TBC)	Long-term transitions to sustainability (Hans Bruyninckx)	The role of policy: : implementing the four environmental principles of the EU Treaty (Hans Bruyninckx)	Group work presentations and discussions
10:00-11:00	Course opening: Presentation of CEU & EEA. Course concept and objectives. The Late Lessons Approach (Jock Martin, Ruben Mnatsakanian, Sybille van den Hove, Anton Shkaruba)	Case study: Seed-dressing systemic insecticides and honeybees (David Gee)	Business for or against precaution? (Sybille van den Hove)	The precautionary principle from the perspective of a business entrepreneur (Pierre Mottet)	Precautionary principle consequences for research planning and reporting (Philippe Grandjean)	The Precautionary Principle: Its Legal Implications (Owen McIntyre)	Group work presentations and discussions
11:00-11:20	Break	Break	Break	Break	Break	Break	Break
11:20-12:20	Introduction of participants - Intentions for the weeks & presenting one's research/praxis question	False positives and false negatives (Steffen Foss-Hansen)	Chemicals and precaution (TBD)	Fostering cooperation between business, governments, civil society and citizens (D. Gee)	Case study: how to anticipate the future for PFASs and endocrine disruptors (Philippe Grandjean)	Case study: Mercury and other chemical brain drainers (Philippe Grandjean)	Wrap up session
12:20-13:30	Lunch Break	Lunch Break	Lunch Break CEU Recruitment Info Location: Octagon	Lunch Break	Lunch Break	Lunch Break	12:40: End of Summer School
13:30-14:30	The precautionary principle (David Gee)	Risk analysis and decision-making under conditions of complexity and uncertainty: improving the quality and value of risk assessments (Steffen Foss Hansen)	Case-Study: Oil industry strategies and tactics (TBD)	Integration / Group Work	Case study: Asbestos (David Gee & Owen McIntyre)	Case study: Nuclear energy and its legacy : Chernobyl and Fukushima contaminated areas (Workshop moderated by Anton Shkaruba & Sybille van den Hove)	Wrap up session
14:30-15:30	Late lessons from early warnings: learning from the past (David Gee)	Case study: Nanotechnologies (Steffen Foss-Hansen)	Case study: Precaution in the former USSR and its legacy (Ruben Mnatsakanian)	Integration / Group Work	Trying somebody else's shoes: a perspectivist approach to the pp - Workshop (Sybille van den Hove)	The governance of innovation and innovation in governance : Stock taking session (Sybille van den Hove)	
15:30-15:50	Break	Break	Break	Break	Break	Break	
15:50-16:50	Group work: identifying key questions, themes and case studies for the week	Group work	Group work	Integration / Group Work	Group work	Group work	
16:50-17:50	Group work: identifying key questions, themes and case studies for the week	Tutoring & Group work	Tutoring & Group work	Integration / Group Work	Tutoring & Group work	Tutoring & Group work	
Evening		18:30 - SUN Opening in Kerepesi Residence Center					

Cross-cutting topics

The precautionary principle: origin, concepts, lessons learned, current stakes
 Social-ecological systems, transformative capacity and long-term transitions to sustainable
 Governance of Science and Innovation, risk assessment and risk management
 Precaution: roles and responsibilities of societal actors

Other

Introduction, Conclusion, Organisation

Case studies

Group Work

Skills training, tutoring and presentations