Climate Change Adaptation and Transformations towards Sustainability

Lecturer: Professor Karen O’Brien
Department of Sociology and Human Geography
Future Earth Norway
University of Oslo, Norway

Main disciplines: Social Sciences, Human Geography

Dates: 1 – 5 August
Course Credits: 10 pts (ECTS)
Limitation: 25 participants

NOTE: The course is co-organized with the Future Earth Norway Secretariat. The Future Earth Norway is a platform for global environmental change and sustainability research in Norway, under the auspices of Future Earth.

Objectives
This PhD course explores the relationship between adaptation and transformation, two concepts that are key to understanding societal responses to climate change. The objective of the course is to engage students with the latest theories, frameworks, approaches and methods for addressing two critical questions in solutions-oriented global change research: What does it mean to successfully adapt to climate change? How can deliberate transformations to sustainability be carried out rapidly, yet in ways that are ethical and equitable?

Climate change introduces unprecedented challenges to society, not only in terms of impacts, but also in relation to the scale, scope, and magnitude of the responses that are needed to reduce risk and vulnerability. There have been discussions about mainstreaming adaptation into all sectors of society, including overseas development aid, and climate change adaptation is now considered a necessary part of many planning processes. Yet as the observed and projected impacts of climate change become more visible and better understood, it is increasingly recognized that small adjustments are in some cases insufficient and that “transformational adaptations” that involve novel, large-scale actions will be required.

However, there are also more progressive interpretations of adaptation that do not involve merely complying with or adjusting to impacts that are already occurring or expected to occur, but using it as a potential catalyst for transformational change that shifts the balance of political or cultural power in society. Although both adaptation and transformation are important responses to climate change, their relationship is not...
clear. The course will explore this relationship and consider how the two concepts can contribute to an empowering discourse that supports political agency and collaborative action to address complex global challenges.

**Course format**
Each session will consist of a 45-minute lecture to introduce the students to the topic. Students are then invited to participate in a conversation about the readings and share their insights and reflections on the topic. The lectures will present different perspectives and frameworks for research on transformations, and consider different methods and approaches relevant to research for transformation, discussing the distinction and implications for integrated science.

**COURSE OUTLINE**

**Session 1 (Day 1, Morning): Climate Change - The science**
This introduction will present anthropogenic climate change and the wider context for the course, highlighting the latest findings in climate change research. Focusing on the IPCC Fifth Assessment Synthesis Report and recent articles describing risks and vulnerabilities associated with climate extremes, sea level rise, and loss of biodiversity, the lecture will consider scenarios for the future and their implications for human security, contextualizing the need for transformations to sustainability.

Readings:


**Session 2 (Day 1, Afternoon): Responses to climate change: Adaptation, mitigation and transformation**
This lecture will focus on potential responses to climate change. It will look at scenarios for mitigating greenhouse gas emissions and the need for adapting to impacts. It will then consider how “transformation” relates to these two responses within IPCC and UNFCCC discourses.

Readings:

Session 3 (Day 2, Morning):
The meaning of adaptation
This lecture focuses on the meaning of adaptation from three perspectives, within the context of climate change, from an evolutionary perspective, and in general usage. It will consider how and why adaptation has become such an important theme within climate change research policy and consider how successful adaptation is defined and assessed. What are the limits to adaptation?

Readings:

**Session 4** (Day 2, Afternoon)

**The politics of adaptation**

This lecture considers what adaptation means from a wider social and political context. What happens when one group’s adaptation contributes to the vulnerability of others? In what cases is adaptation considered problematic? Why has it been considered such a positive, apolitical process?

Readings:


**Session 5** (Day 3, Morning):

**The adaptive challenge of climate change**

This lecture discusses adaptation to climate change from a broader and deeper perspective. A distinction is made between technical problems and adaptive challenges. The former can be addressed with greater expertise and innovation, while the later also draws attention to mindsets. The characteristics of adaptive challenges are discussed, along with their implications for climate change responses.

Readings:


Session 6 (Day 3, Afternoon):

Adaptive challenges: the personal and political dimensions

This lectures describes why adaptive challenges are both personal and political, drawing attention to the role of beliefs, values and worldviews in approaches to adaptation and the implications for transformations. The role of role of personal transformation in change processes, and what the limits are as a means to systemic change will also be discussed. It will draws attention to the role of different practices in creating change, and what an emerging spiritual worldview implies for sustainability.

Readings:

Session 7 (Day 4, Morning):
Transformation in theory and practice
This lecture discusses transformation, including how it has been defined and interpreted what it looks like in practice, and why it means different things to different people.

Readings:

**Session 8** (Day 4, Afternoon):

**Social change and systems change**

This lecture focuses on theories of social change, including understandings of causality and the role of individuals in change processes. The most powerful leverage point for systems change, namely paradigms, will be discussed. What is a paradigm and how do they change? Examples drawn from an emerging literature on quantum social theory and new materialism will be discussed.

Readings:


**Session 9** (Day 5, Morning):

**Studying Change: Methodological perspectives on adaptation and transformation**

This lecture considers methods for doing research on adaptation and transformation processes, and the tensions between subjective and objective research. Action research, action logics and Q methodology are presented as examples of methods that account for researchers in the research process.

Readings:

**Session 10 (Day 5, Afternoon)**

**Making change happen**

The course will conclude by considering adaptation and transformation as closely related social processes and focuses on how they come about. This lecture discusses the concepts of transformative agency, political agency and the roles of individuals, groups, and social movements in transformation processes. Notions of power and empowerment will be discussed, including the role of collaborative power as a means to build coalitions for change. Case studies from historical and contemporary transformations will be discussed, as will the role of narratives and stories.

Readings:

Full reading list:


The lecturer

Karen O’Brien is a professor in the Department of sociology and human geography at the University of Oslo, Norway. She works on issues related to global environmental change, globalization, vulnerability, climate change adaptation, and human security. She is particularly interested in how societies both create and respond to change. Her research explores the ways that processes such as climate change, biodiversity loss and other large-scale environmental transformations interact with other global processes to exacerbate inequity, increase vulnerability and undermine sustainability.

Moreover, she is interested in how integral theory and integral approaches can contribute to a better understanding of both the problems and solutions linked to climate change. Karen O’Brien leads the PLAN project on Responding to Climate Change: The Potentials of and Limits to Adaptation in Norway, and was also a Lead Author on the adaptation chapter for the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report. Her interests in the project include the use of an integral approach for the investigation and implementation of socio-technical transitions, as well as the role of culture, values and worldviews for the ways in which such transitions are understood and carried out.

She has participated in the IPCC Fourth and Fifth Assessments, as well as the Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX). She has written and co-edited numerous books about global environmental change, including “A Changing Environment for Human Security” (Earthscan 2013) and “Climate Change Adaptation and Development: Transforming Paradigms and Practices” (Routledge, 2015). She is on the Science Committee for Future Earth, the 10-year global change research initiative. She is also the co-founder of cCHANGE.no, a website that provides news and perspectives on transformation in a changing climate.