

## ENV-3A40: The Human Geography of Climate Change

Semester 2, 2012/2013

Convenor: Professor Mike Hulme

Other contributors: guests

### Summary

The risks and opportunities associated with climate change are perceived very differently within and between different societies and cultures. This module explores some of the reasons for these differences in perception and engagement, including forms of knowledge, cultural cognition of risk, ethics and scientific controversy and criticism. The module also considers how climate change is represented in the media through language, metaphor and image, practices which shape public and policy discourse around climate change. In recent years, the creative arts have represented the idea of climate change through the imagination – in film, fiction and visual form. Some of this work will be introduced and analysed in terms of communication, human values and the imagination. The module therefore **adopts sociological, philosophical, psychological and cultural approaches to understanding climate change in society**: what can be called ‘the human geography of climate change’.

### Aims

On completion of this module, and drawing on theory and evidence from the natural sciences, social sciences and humanities, students should be able to:

- understand the reasons why different people and different cultures perceive and evaluate the risks of climate change in different ways;
- identify and evaluate the roles played by language, metaphor and image in framing public discourses of climate change;
- explain the main reasons for disagreements about (i) the status of scientific claims about climate change; and (ii) about appropriate climate change ‘actions’;
- discriminate between the different reasons people have for being sceptical of claims made about climate change.

### Scheduled Lectures

The Module will be taught through approximately 20 scheduled 50-minute lectures, two seminars, plus a number of student-led debates. **Lecture slides (and any other relevant materials) will be posted on Blackboard no less than three days before the lecture concerned.** A number of guest lectures/seminars will also be part of the syllabus, for example:

- Martin Mahony (UEA) on expert knowledge and the IPCC (Week 2)
- Dr Adam Corner (Cardiff) on the politics of communicating climate change (Week 6; lunchtime seminar)
- Rob Bellamy (UEA) on public appraisals of geoengineering (Week 6)
- Dr Anna Wesselink (Leeds) on boundary organisations for governing climate change (Week 10: lunchtime seminar)

### Seminars

There will be two seminars led by Professor Mike Hulme in Weeks 2 and 4. Students will be divided into two groups (A and B) for these seminar attendances. Attendance is compulsory.

### Glossary of some key social science concepts and terms

This handout is available on Blackboard and offers some short definitions of key social science concepts of relevance to the Module, together with further reading on each. A good text book on background theory and methods is Hanningan's (2006) text *Environmental Sociology* (see below) and on environmental media and communication Hansen,A. (2010) *Environment, Media and Communication* Routledge, 235pp.

### Reading

**You will not pass this Module if you do not read** some of the texts which are provided in each lecture/seminar as compulsory, recommended or suggested reading. UEA has adopted an expectation that 1 credit represents the equivalent of 10 notional learning hours, therefore a 20-credit Module such as this carries the expectation that you will study for 200 hours for this Module over the 12 week Semester. This is about 16½ hours per week. Given that scheduled lectures and seminars comprise at most 5 hours per week, **you should be aiming to spend an additional 10 hours per week in study, reading, assignment preparation and revision.**

Lecture slides, handouts and other module resources are made available on Blackboard. There are numerous books and journals in the University Library covering the material taught in this module, many of which are available electronically. Some of the more important books and journals which cover the Module content are listed below (additional reading lists are supplied for individual lectures and seminars):

#### ***Key Books [these books engage with material across the entire module]***

*Authors which are prefaced with "e-" exist as e-books in the UEA Library.*

e-Doyle,J. (2011) *Mediating climate change* Ashgate Press, 188pp.

An ex-Greenpeace campaigner, Julie Doyle explores how the practices of mediation and visualisation shape how we think about, address and act upon climate change. She draws upon science, media, politics and culture to identify the problems of representation that climate change poses for public and political debate.

e-Hannigan, J. (2006) *Environmental sociology* (2<sup>nd</sup> edn) Routledge, London, 194pp.

Sociologist John Hannigan offers a very accessible introduction to the sub-field of environmental sociology. It introduces you to many of the concepts and ideas which I will be using in the Module: discourse, power relations, media, communication, risk, social construction, the nature of scientific evidence, etc.

Hulme, M. (2009) *Why we disagree about climate change: understanding controversy, inaction and opportunity* Cambridge University Press, Cambridge, 392pp.

Hulme examines the various dimensions of climate change – economics, religion, science, risk, communication, governance, development – and shows how the different worldviews, beliefs and values held by human beings leads to different interpretations of the causes, consequences and solutions of climate change.

e-Malone, E.L. (2009) *Debating climate change: pathways through argument to agreement* Earthscan, London, 176pp.

Sociologist Liz Malone explores the reasons why different people argue differently about climate change and suggests ways of analyzing these disagreements to open up options for more constructive engagement. It is largely an empirical book, rooted in a discourse and social network analysis.

### **Other Recommended Books [with most relevant Week]**

Authors which are prefaced with “e-“ exist as e-books through UEA Library

e-Arnold, D. (ed.) (2011) *The ethics of global climate change* Cambridge University Press, Cambridge [Wk 6]

Barnett, J. and Campbell, J. (2010) *Climate change and small island states: power, knowledge and the South Pacific* Earthscan, London, 218pp. [Wk 2]

e-Boykoff, M. (2011) *Who speaks for the climate? Making sense of mass media reporting on climate change* Cambridge University Press, Cambridge, 228pp. [Wk 10]

Butler, R., Margolies, E., Smith, J. and Tyszczuk, R. (eds.) (2011) *Culture and climate change; recordings* Shed, Cambridge, 112pp. [Wk 1 & Various]

e-Douglas, M. and Wildasky, A. (1982) *Risk and culture; an essay on the selection of technological and environmental dangers* University of California Press, Berkeley CA, 221pp. [Wk 4]

Dryzek, J.S., Schlossberg, D. and Norgaard, R.B. (eds.) (2011) *Oxford handbook of climate change and society* Oxford University Press, Oxford, 736pp. [Various]

- Fleming, J.R. (2010) *Fixing the sky: the checkered history of weather and climate control* Columbia University Press, NY, 352pp. [Wk 6]
- e-Gardiner, S., Caney, S., Jamieson, D., and Shue, H. (eds.) (2010) *Climate ethics: essential readings* New York, Oxford University Press, 448pp. [Various]
- Hamilton, C. (2010) *Requiem for a species: why we resist the truth about climate change* Earthscan, London, 240pp. [Wk 4]
- e-Hansen, A. (2010) *Environment, media and communication* Routledge, Abingdon, 232pp. [Wk 10]
- Hastrup, K. and Skrydstrup, M. (eds.) (2013) *The social life of climate change models: anticipating nature* Routledge, Abingdon, UK/New York NY, 240pp. [Wk 3]
- Kohn, M. (2010) *Turned out nice: how the British Isles will change as the world heats up* Faber & Faber, London, 368pp. [Wk 3]
- e-Larson, B. (2010) *Metaphors for environmental sustainability: redefining our relationship with nature* Yale University Press, 288pp. [Wk 7]
- Leduc, T.B. (2010) *Climate, culture, change: Inuit and western dialogues with a warming north* University of Ottawa Press, 256pp. [Wk 2]
- Lever-Tracy, C. (ed.) (2010) *Routledge handbook of climate change and society* Routledge, London, 482pp. [Various]
- McEwan, I. (2010) *Solar* Jonathan Cape, London, 304pp. [Wk 8]
- Montford, A.W. (2010) *The hockey-stick illusion, climategate and the corruption of science* Stacey International, 482pp. [Wk 11]
- Norgaard, K.M. (2011) *Living in denial: climate change, emotions and everyday life* MIT Press, Cambridge MA, 279pp. [Wk 9]
- Oreskes, N. and Conway, E. (2010) *Merchants of doubt: how a handful of scientists obscured the truth on issues from tobacco smoke to global warming* Bloomsbury Publishing, London, 368pp. [Wk 11]
- Pearce, F. (2010) *The climate files: the battle for the truth about global warming* Guardian Books, London, 266pp. [Wk 11]
- Preston, C. J. (ed.) (2012) *Engineering the climate: The ethics of solar radiation management* Lexington Books, Lanham MD, 260pp. [Wk 6]
- Sheppard, S. (2011) *Visualising climate change: a guide to visual communication of climate change and developing local solutions* Earthscan, London, 320pp. [Wk 3]
- e-Skrimshire, S. (ed.) (2010) *Future ethics: climate change and apocalyptic imagination* Continuum, London, 320pp. [Seminar Wk 4]
- Urry, J. (2011) *Climate change and society* Polity Press, Cambridge, 217pp. [Various]
- e-Whitmarsh, L., O'Neill, S.J. and Lorenzoni, I. (eds.) (2010) *Engaging the public with climate change: behaviour change and communication* Earthscan, London, 288pp. [Wk 9]
- e-Wilkinson, K.K. (2012) *Between God and green: how evangelicals are cultivating a middle ground on climate change* Oxford University Press, New York, 256pp. [Wk 9]

## **Recommended Journals**

The single most important and relevant journal for the Module will be *Wiley Interdisciplinary Reviews: Climate Change* – available at <http://wires.wiley.com/WileyCDA/WiresJournal/wisld-WCC.html>. Other important journals to look and use are: *Global Environmental Change*; *Climatic Change*; *Environmental Research Letters*; *Futures*; *Public Understanding of Science*; *Progress in Human Geography*.

## **Module Assessment**

### *Student-led Debates*

Attendance is compulsory for all seminars and debates – i.e., the debates are a formative part of the Module assessment. You owe it to yourself and to your colleagues to attend their debates. A register will be taken.

Each debate will be between two groups of three students on pre-determined motions (see the list below). Each debating topic will therefore be addressed by six students, working in groups of three with each group choosing either to defend or defeat the motion. You will be able to choose your debating partners and select your topic early in the Semester (end of Week 2). I will supply a reading list for each debate. Each group will have 15 minutes to present their case in turn using appropriate illustrations. All six students must contribute to these presentations. There will then be a period of questions and challenges from the class. Each debating session will last around 45 minutes. A class vote will be taken on the motion before the debate begins, and again at the end. Your aim is to win the debate and change the opinion of your peers. Each group will submit their presentation slides to me and receive written feedback on their content within a week.

I have used this format with students before and they have found to be a very effective learning method. The significance of the debates is that the coursework essay titles are linked directly to these debating topics (although you are free to choose whichever essay title you wish).

Debating topics:

*A (Week 6) - "The IPCC Assessments should be replaced by an open Wikipedia to which all citizens can contribute knowledge about climate change"*

*B (Week 6) - "Descriptions of future climate change are better understood as imaginative stories rather than as scientific predictions"*

*C (Week 7) - "Researching solar radiation management technologies is a moral hazard and should be banned"*

*D (Week 7) - "Ideology and worldviews will always trump evidence in the formation of people's beliefs about climate change"*

*E (Week 8) - "Rather than being presented as an environmental problem, climate change should be re-framed as a public health issue"*

*F (Week 9) - "The polar bear should be banned from all forms of climate change communication"*

*G (Week 9) - "The metaphor of 'tipping points' is an effective way of communicating the risks of climate change"*

### *Coursework Essay*

You will be required to complete a 4,000 word essay (this count **excludes** appendixes and the bibliography/reference list) to be submitted at the **Elizabeth Fry Hub on the Tuesday of Week 11 (19<sup>th</sup> March)**. This will be worth 100% of the Module assessment and will be double-marked. The seven essay titles are directly related to the topics of the student-led debates, but you are free to choose whichever essay title from this list that you wish (i.e., not necessarily the one on which you gave your debate).

List of essay titles:

A Who is qualified to be enrolled as an IPCC expert? Who should be qualified? Why does this matter?

B Describe one example for each mode of representation - (i) narrative; (ii) imagery; (iii) numbers - of how scenarios of future climate change can be communicated . What are the advantages and limitations of each of these three modes of representation?

C Evaluate the ethical arguments for and against engineering the planet's future climate using solar radiation management technologies.

D In what ways is Cultural Theory helpful and unhelpful for understanding differences in people's beliefs about climate change and support for climate policies?

E Explain how framing effects work in the communication of climate change. Discuss the extent to which it is ethical for science communicators to deliberately manipulate frames in order to reach different audiences?

F Why is the idea of climate change so difficult to represent in art, photography, film, literature and on stage?

G When designing climate change communication strategies and campaigns, how convincing is the evidence behind the claim that 'Fear won't do it' (O'Neill and Nicholson-Cole, 2009)? Support your answer using specific examples of dystopic and apocalyptic imagery and language in the representation of climate change.

**Schedule – Semester 2, 2012/2013**

Unless stated otherwise, Mike Hulme is the lecturer

<b>Week</b>	<b>Date</b>	<b>Time and Venue</b>	<b>Session</b>	<b>Primary Discipline</b>
<b>Week 1 Introduction</b>	Tue 8 <sup>th</sup> Jan	12.00 pm TPSC 1.3	L-1 : <i>Introduction and refresher from ENV2-A09</i>	Human Geography
	Tue 8 <sup>th</sup> Jan	2.10 pm CD Annex 1.23	L-2 : <i>Climate change and human geography</i>	
<b>Week 2 Climate Knowledge</b>	Tue 15 <sup>th</sup> Jan	12.00 pm C Hall 01.20	L-3 : <i>Worldviews, knowledge and climate change'</i>	Anthropology  Science and Technology Studies (STS)
	Tue 15 <sup>th</sup> Jan	2.10 pm CD Annex 1.23	Seminar Group A - 'Worldviews, beliefs and climate change'	
	Tue 15 <sup>th</sup> Jan	3.40 pm CD Annex 1.23	Seminar Group B – 'Worldviews, beliefs and climate change'	
	Thu 17 <sup>th</sup> Jan	6.00 pm E Fry 01.10	L-4 : <i>Who is a climate expert?</i>	
	Fri 18 <sup>th</sup> Jan Martin Mahony	11.00 am TPSC 0.1	L-5 : <i>Expert knowledge and the IPCC</i>	
<b>Week 3 Scenarios</b>	Tue 22 <sup>nd</sup> Jan	12.00 pm C Hall 01.20	L-6 : <i>Qualitative climate scenarios</i>	Futures Studies
	Fri 25 <sup>th</sup> Jan	11.00 am TPSC 0.1	L-7 : <i>Quantitative climate scenarios</i>	
<b>Week 4 Risk Cultures</b>	Tue 29 <sup>th</sup> Jan	12.00 am C Hall 01.20	L-8 : <i>Cultural Theory</i>	Risk Studies
	Tue 29 <sup>th</sup> Jan	2.10pm CD Annex 1.23	Seminar Group A – 'Beyond the Tipping Point' (DVD)	
	Tue 29 <sup>th</sup> Jan	3.40pm CD Annex 1.23	Seminar Group B – 'Beyond the Tipping Point' (DVD)	
	Fri 1 <sup>st</sup> Feb	11.00 am TPSC 0.1	L-9 : <i>Cultural cognition of climate risk</i>	
<b>Week 5 : Reading Week</b>				
<b>Week 6 The Ethics of Engineering the Climate</b>	Tue 12 <sup>th</sup> Feb	12.00 am C Hall 01.20	L-10 : <i>Ethics and climate engineering research</i>	Ethics
	Tue 12 <sup>th</sup> Feb	2.10pm CD Annex 1.23	Student debates (A & B)	
	Fri 15 <sup>th</sup> Feb Rob Bellamy	11.00 am TPSC 0.1	L-11 : <i>Public appraisals of climate engineering</i>	

<b>Week 7 Frames and Metaphors</b>	Tue 19 <sup>th</sup> Feb	12.00 am C Hall 01.20	L-12 : <i>Framing climate change</i>	Linguistics
	Tue 19 <sup>th</sup> Feb	2.10 pm CD Annex 1.23	Student debates (C & D)	
	Fri 22 <sup>nd</sup> Feb	11.00 am TPSC 0.1	L-13 : <i>Metaphors and language</i>	
<b>Week 8 Visualising and Performing Climate Change</b>	Tue 26 <sup>th</sup> Feb	12.00 am C Hall 01.20	L-14 : <i>Visualising climate change</i>	Visual and Creative Arts
	Tue 26 <sup>th</sup> Feb	2.10 pm CD Annex 1.23	Student debate (E)	
	Fri 1 <sup>st</sup> Mar	11.00 am TPSC 0.1	L-15 : <i>Literature, film and performance</i>	
<b>Week 9 Climate Change and Publics</b>	Tue 5 <sup>th</sup> Mar	12.00 am C Hall 01.20	L-16 : <i>Public perceptions</i>	Social Psychology
	Tue 5 <sup>th</sup> Mar	2.10 pm CD Annex 1.23	Student debate (F & G)	
	Fri 8 <sup>th</sup> Mar	11.00 am TPSC 0.1	L-17 : <i>'Fear won't do it'</i>	
<b>Week 10 Communication and Media</b>	Tue 12 <sup>th</sup> Mar	12.00 am C Hall 01.20	L-18 : <i>Reporting climate change</i>	Media Studies
	Thu 14 <sup>nd</sup> Mar	6.00pm E Fry 01.10	L-19 : <i>Trends in media coverage</i>	
<b>Weeks 10 &amp; 11 Controversies and Scepticism</b>	Fri 15 <sup>th</sup> Mar	11.00 am TPSC 0.1	L-20 : <i>Shades of climate scepticism</i>	Science and Technology Studies
	<b>Tues 19<sup>th</sup> March : Submit coursework essay</b>			
	Fri 22 <sup>nd</sup> Mar	11.00 am TPSC 0.1	L-21 : <i>'Climategate' and its legacy</i>	
<b>Easter Vacation</b>				
<b>Week 12 (Unallocated)</b>	Tues 16 <sup>th</sup> Apr	2.10 pm CD Annex 1.23	Hand back marked essays	