

SCHOOL OF GEOGRAPHY AND THE ENVIRONMENT



**MSc NATURE, SOCIETY AND  
ENVIRONMENTAL POLICY  
ANNEX TO COURSE HANDBOOK  
2011/12**







## Outline of Core Modules

### 1. Policy and Governance Strand

#### Module Title: GOVERNANCE, POLICY and POLITICS

#### Michaelmas Term

#### Module leader: Dr Paul Jepson

Teaching staff: Dr Paul Jepson (PJ), Dr Andrew Barry, Prof David Banister, Dr Connie Mc Dermott

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#### Module rationale

Environmental governance is changing. The most salient feature of this change is the declining importance of the state as the primary actor determining environmental outcomes and also the rise of so-called new policy instruments and multi-actor governance networks operating across (and constructing) multiple scales. As a result, the processes and politics of policy making in the environment sector are becoming ever more complex and obscure.

This module will employ a range of analytics that help us think about forms of political power beyond the state. Through examining the range of actors and agencies involved in governance the course will draw attention to the transnational, local, corporate and NGO actors involved in contemporary environmental governance and the spaces and techniques through which they leverage influence.

This course will provide a conceptual grounding to the policy workshop and policy dialogue seminars.

#### Teaching approach

This module will be taught in 8 x 1 or 2-hour sessions. The module will draw on case study examples of policy and governance in practice to illustrate key themes and ways of understanding environmental governance. Students are expected to read the three or four core readings prior to each session. There will be four DPhil reading groups to support session numbers 2, 6 & 8.

#### Introductory readings

Agrawal, A. 2005 *Environmentality. Technologies of Government and the Making of Subjects.* Duke University Press

Durrant, R.F, Fiorino, D.J and R. O. Leary (2004) *Environmental Governance Reconsidered. Challenges, choices and opportunities.* The MIT Press.

Kooiman, J. 2003. *Governing as Governance.* Sage: London

Lemos, M, and Agrawal, A (2006) *Environmental Governance.* *Rev. Environ. Resource.* 2006. 31:3.1–3.29

Vig, N.J & Axelrod, R.S. *The Global Environment. Institutions, Law & Policy* CQ Press, Washington, D.C.



## **Week 1: Scoping environmental governance: meanings, dimensions and themes**

### **Dr Paul Jepson**

The first part of this session will provide an introduction to the key dimensions of environmental governance, the spaces and scales of global environmental governance and the key perspectives in the literature. In the second part, we will consider some emerging conceptual and operational challenges relating to environmental governance that research groups in the School of Geography and the Environment are bringing into focus.

## **Week 2: Government, Governmentality, Governance**

### **Dr Andrew Barry**

It is widely acknowledged that the power of nation-states and national governments has either declined or has been supplemented by other forces and agencies. In this session, we discuss how we might both conceptualise the development of forms of political power 'beyond the state' and analyse the implications of this for environmental politics. We also clarify a number of key terms including *governance* and *governmentality*, and the distinction between technologies and rationalities of government. We discuss the strengths and weaknesses of accounts of governmentality for the analysis of neo-liberal governance.

## **Week 3: Technological Zones**

### **Dr Andrew Barry**

Accounts of science and technology tend to focus on fundamental areas of scientific research (such as genetics or astrophysics) or 'cutting-edge' technology. These preoccupations might be criticized on three grounds. First, it may lead to a lack of attention to the ways in which citizens and non-experts use and understand science and technology and, in some cases, contest the views of scientists and technologists (this issue is addressed in the Science and Politics module). Secondly, it fails to address the critical and increasing importance of science and technology in the government of economic and political life. In this session we consider this latter issue, and examine the importance of technical devices and instruments in forging new spaces of government, or 'technological zones'. We focus on three examples: the harmonization of environmental and health and safety standards in the European Union, the regulation of organic and 'fair-trade' agricultural production, and the constitution of carbon markets.

## **Week 4: Institutions**

### **Dr Paul Jepson**

Institutions of various forms structure, interpret and guide governance approaches. This session will review key concepts in new institutionalism and extend understandings of the concept of institutions by examining the interplay of western forest resource management institutions with local institutions of clientelism and *quanxi* in Asia.



## **Week 5: Network Governance**

### **Dr Paul Jepson**

Rhodes remarked that governance is enacted with and through networks. In this session we will examine the role and politics of networks in policy formulation and analysis. We will review different typologies or conceptions of networks in the literature and, drawing on case studies, examine their role in framing aspect of the environment as governable domains and in the process of creating and delivering environmental policy. Finally we will ask does network governance challenge traditional conceptions of democratic accountability

## **Week 6: Legitimizing non-state actors in environmental governance: Focus on ENGOs, Dr Paul Jepson**

Environmental NGOs are central to conduct of contemporary environmental governance. This session will employ the concept of legitimacy within organisation theory to examine how NGOs have developed their power and influence in this arena. We will take as our entry point a review of how the enthusiasm for ENGOs in the 1990s is now being tempered with criticisms concerning their agendas, effectiveness, and accountability. Drawing on concepts of legitimacy we will examine how ENGOs leverage different forms of legitimacy to gain access and influence and ask whether such practices should be regulated and if so by whom.

## **Week 7: Certification: Globalization, forest certification and the paradox of trust Dr Connie McDermott**

The roots of the word “certification” are “to make certain”. However, in an era of globalization with increasingly complex and distant (and hence uncertain) transactions among diverse actors, certification is arguably more about “trust” than certainty, i.e. trust in labels or certification “systems”. Meanwhile, distrust of “global corporations” has fuelled civil society support for local community or indigenous models of production. These dynamics have contributed to a “paradox of trust” whereby distrust of corporate actors leads to formalization of standards and procedures and increased social distance—ironically favouring those distrusted actors over small-scale or community-based producers. This class will examine the implications of conflicting trust dynamics, from a global to local scale, and how they influence the design of rules and processes and the distribution of power and benefit.

## **Week 8: Public consent: making transport policy politically and publicly acceptable Prof David Banister**

Ultimately effective environmental governance requires the consent of politicians and those targeted by policy instruments. In the area of transport discourse on the need to change is well understood, but is challenged on grounds of legitimacy and fairness. This session will explore approaches to overcome this, specifically extending stakeholder involvement, empowerment and responsibility given to all stakeholders, supplemented by clear political leadership.



## **Module Title: INTERNATIONAL ENVIRONMENTAL FRAMEWORKS AND POLICY**

### **Michaelmas Term**

### **Module leader: Marta Lang**

Integrated Module: All MScs

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### **Module rationale**

The IEF module aims to:

- (1) introduce structures, processes, mechanisms and actors in international environmental frameworks;
- (2) canvas key international environmental law frameworks, how obligations are differentiated, and mechanisms to support compliance;
- (3) focus on important obligations in four issue areas: terrestrial species conservation, ocean depletion, pollutants, and global warming;
- (4) encourage critical thinking about underpinning concepts and principles;
- (5) use case studies to bring issues alive;
- (6) elicit perspectives on the value and limits of using international agreements as a tool to move environmental agendas forward.

### **Teaching approach**

These classes will be taught in the lecture theatre. You are expected to complete 2–3 hours of readings prior to each lecture. Reading list and chapter extracts for lectures will be posted two weeks ahead of the class. Questions from the module will appear in compulsory examinations.

### **Introductory readings**

Brand, U. and Gorg, C. (2003) The state and the regulation of biodiversity: International biopolitics and the case of Mexico. *Geoforum* 34: 221–233.

Chukwuka, E. (2007) The Bamako Convention on the Ban on the Import into Africa and the Control of the Transboundary Movement and Management of Hazardous Wastes Within Africa: a milestone in environmental protection? *African Journal of International and Comparative Law* 15(2): 208–229.



Cullet, P. (2003) *Differential Treatment in International Environmental Law*. London: Ashgate.  
Chapter 1: *International Environmental Law, Sustainable Development and Differential Treatment: An Introduction*, pp1–20. RSL, L2: K 3585 CUL or law library: Internat 610 C967a.

Oberthür, S and Lefeber, R. (2010) Holding countries to account: The Kyoto Protocol's compliance system revisited after four years of experience. *Climate Law*. 1(1): 133–158.

Scovazzi, T. (2004) Marine Protected Areas on the High Seas: Some Legal and Policy Considerations. *International Journal of Marine and Coastal Law* 19: 1–17.

## Module outline

### **Week 3: Treaty making**

The state, the commons and international multilateral treaty frameworks. How international law is made: national positioning, actors, state consent, and the function of the conference of the parties (COP). Case study on the Convention on Biological Diversity Nagoya COP outcomes.

### **Week 4: Terrestrial species loss**

Approaches applied to stem species loss, and regulate the appropriation of biodiversity. The biodiversity, migratory species and trade in endangered species conventions. Case studies on access and benefit sharing in Mexico and South Asia.

### **Week 5: Marine depletion**

Treaties governing fisheries management and marine conservation, with a focus on exclusive economic zones and the high seas. The implementing agreement for straddling and highly migratory fish stocks. Case studies on Australian fisheries legislation, bottom trawling, and Bluefin tuna.

### **Week 6: Pollution**

the toxic waste, persistent organic pollutants, marine dumping and ship pollution conventions. How international obligations can be brought to bear in domestic court cases. Case study on toxic waste dumping in Africa.

### **Week 7: Global warming**

How the climate change regime has evolved. Common but differentiated responsibility. The Kyoto Protocol, Clean Development Mechanism and recent developments. The place of science, experts and ad hoc working groups.

### **Week 8: Compliance, concepts and challenges**

Mechanisms that encourage national implementation and a case study on the Kyoto Protocol compliance regime. Drawing together overarching concepts across issue areas. Key challenges in the use of international agreements as a tool to move environmental agendas forward.



## **Module Title: CORPORATE ENVIRONMENTAL MANAGEMENT**

### **Hilary Term**

### **Module leader: Professor Gordon Clark**

Teaching staff: Professor Gordon Clark

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### **Module rationale**

Managing the environment has traditionally been seen as the responsibility of the state, controlling the activities of individuals and organisations through legal frameworks and the action of government bodies. Simply put, business was in the business of making money; government existed to ensure that they didn't unreasonably damage the environment in the process.

This approach is outmoded and unworkable in today's global economy. Multinational corporations act across many legal jurisdictions, and the largest of them have the economic and political weight of a small nation. In 2003 only 30 of the world's 231 countries had a GDP that exceeded Wal-Mart's global sales; of the 100 largest economies, 51 were firms and 49 were countries. Furthermore, many firms see managing the environment as a potential source of profits if focused upon the reduction of costs and the minimisation of risk. In this course we look at the role of the corporation in managing the environment, and at the corporation's risks and benefits of environmental management.

We begin by understanding the firm, presenting the ideas of ownership and agency in describing the stakeholders of the firm, their power and their motivation. The influence of the stock market and the impact of environmental risk on share price are discussed. Having established a model of the firm we then consider the impact of national legal frameworks, particularly in attributing a value to environmental risk and to future environmental risk. By looking at how legal liability has developed in Europe and the US we consider the impact of changing expectations of liability in the future on a company's strategies today and debate the potential impact of differing national legal frameworks within the firm. The responsibility of corporate officers and shareholders for the actions of the firm is considered in a discussion of corporate governance. In particular we look at the impact of recent alterations and exceptions to the traditional view of the corporation as a separate legal entity.

We then look at the interlocking systems and processes within the firm that impact its environmental strategies and performance: performance management, risk management, and integrated process or technical management. We look at the role of audit in ensuring compliance with both internal policies and legal standards and at the complexity of creating real change in large organisations.

The intention is that the course informs students wishing to act as internal or external agents of change in corporate environmental performance, as well as those wishing to understand the operation of the modern corporation for research purposes. The course is supported by a selection of practical and academic readings and by class discussion of relevant case studies to illustrate the points of each lecture.

In general, we draw argument, examples and case studies from the developed economies—principally Europe, the UK and the USA. There are, of course, significant differences between jurisdictions in relation to environmental management as well as basic questions about globalisation in relation to corporate governance and management.

## Teaching approach

In this class, we will use a combination of lectures, cases and readings, and a guest presentation to develop our understanding of the relevant issues about environmental management and the modern corporation.

We will rely in part upon case studies (available in the OULS/SoGE library) to illustrate our arguments and broaden understanding of the significance of our story. For those who are not experienced with case teaching, there are a variety of sources for a better appreciation of the practice and expectations about case teaching. These are listed immediately below. Vital to the success of such a teaching system is prior preparation: case material must be read prior to each class. We will assume that all members of the class are prepared.

## Introductory readings

Reading on case teaching should include at least one of the below:

Case Method. University of Virginia. UVA-PHA-0032 (1995)

Learning by the Case Method. KSG (Harvard University). N15-86-1136.0

Teaching Ethics by the Case Method. KSG (Harvard University). N18-95-1304.0

Barnes, L.B., C. R. Christensen and A. J Hansen. 1994. Teaching and the Case Method. 3rd ed. Boston, MA: Harvard Business School Press. SoGE

Mauffette-Leenders, L.A., J.A. Erskine and M.R. Leenders. 2001. Learning with Cases. 2nd ed. London, Ontario: University of Western Ontario, Ivey BS. SoGE



## Module outline

### **Week 1: Agency and ownership**

This session will introduce the issue of corporate agency and ownership, focusing upon models of corporate management and the consequences for firms' management of their environmental responsibilities.

### **Week 2: Corporate environmental liability**

This session focuses on corporate environmental legal liabilities, which are illustrated through reference to two US legal cases.

### **Week 3: Managing to measure**

In this session, we examine how firms measure performance and success and how environmental performance is reported and measured. We illustrate this lecture through a case study on the balanced scorecard

### **Week 4: Responsibility and audit**

This session examines the environmental audit process, illustrating the significance of corporate responsibility, the liability of corporate officers, and the principles and practice of risk audits related to corporate environmental concerns.

### **Week 5: Integrated management systems**

This session examines recent research on integrated management systems relevant to corporate environmental management.

### **Week 6: Risk management**

Following on from the previous session, this session presents a comprehensive framework for understanding risk-management within the modern corporation. The principles and practice of total risk-management are developed.

### **Week 7: Change management**

This lecture looks at the challenge of creating a sustainable future change in behaviour in the modern organisation by introducing the principles and practice of change management.

### **Week 8: Management and the environment**

This session seeks to crystallise the importance of corporate governance, environmental liability, and change management to the internal processes within a firm. Lessons learned from the previous lectures are applied to a case and implications are drawn concerning environmental responsibilities of corporate managers.

## **Module Title: POLICY DIALOGUE SEMINARS**

**Michaelmas/Hilary Terms**

**Module leader: Dr Paul Jepson**

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### **Series rationale**

This bi-weekly series provides an opportunity for in-depth discussions with varying professionals occupying different roles within the policy process. e.g. as a consultant, politician, committee chair and advocate. We will explore their perspectives on how policy is formulated, how policy initiatives take hold and some of the politics involved. These seminars will help ground theory and contrast academic and practitioner perspectives on environmental policy. At the same time they will provide an insight into different career routes within the environmental policy sector. The line-up of speakers may change depending on their schedule and availability.

### **Teaching approach**

These are informal 'conversations' with guest policy professionals. The normal approach will be to ask our guests to talk for 20-30 minutes about how they came to be doing what they are doing and about a particular policy initiative which exemplifies their work and the opportunities, challenges, issues in their particular area of policy. Then we will move into a chaired discussion. These seminars often continue socially afterwards outside of the classroom.

**The seminar list will be circulated at the beginning of term.**

## **Module Title: POLICY WORKSHOPS AND STUDY DAYS**

**Module convenor: Dr Paul Jepson**

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### **Module rationale**

This elective module brings together academics, policy professionals and students in a series of workshops to examine and discuss a range of issues in contemporary policy. The choice of workshop topics is designed to a) address policy-related themes and debates not addressed in the core teaching modules, b) engage students with the research of policy-related research centres in the OUCE and elsewhere in Oxford, and c) through interactions with policy practitioners, academics and fellow students generate insights and ideas for further research and enquiry.

### **Teaching approach**

These will generally be full-day workshops held bi-weekly on Fridays. For all but two workshops (see below) numbers will be capped at 30. The workshops are open to students on all four MSc courses and every student will be allocated a place on at least two of the limited number workshops. Workshops will normally start with an overview seminar on the issues and involve some preparatory work on the part of participants. Most workshops will require students to conduct a group study exercise beforehand. Changes to these workshops may be necessary depending on the schedules of external speakers.

### **Module outline**

NB: Dates may change to align with schedules of external contributors.

### **Michaelmas Term**

#### **Week 2: Science and evidence-based Policy**

**John Holmes, Kathryn Monk (UK Environment Agency) & Dr Paul Jepson**

Evidence based policy is encouraged in all areas of public policy, including the environment. It is premised on a more analytical and reflective approach to governance and reflects (to an extent) the assumption that a linear relation between research evidence and policy exists. In this session we will examine the science-policy interface in regulatory bodies operating in the European Union, and in particular the actors and pathways through which science enters the policy process and who it is mediated along the way.



#### **Week 4: Study day to Waddesdon Manor and Stowe Landscape Gardens (supports the Nature & Society Module)**

##### **Dr Paul Jepson & Dr Derek McCormack**

The beautifully restored gardens at Stowe and the Rothschild's Mansion at Waddesdon both reflect and shaped elite perceptions of nature and naturalness during the 18th & 19th centuries. These perceptions had a profound impact on Western culture through the 'trickle down' effect of elite values and tastes and have motivated the conservation of different versions of nature in natural parks, wildlife sanctuaries, nature reserves and parks. During this field trip we will explore the role of entrepreneurs, writers and scientists in 'bringing nature to the human mind' and framing it in ways that aligned with high culture and progressive political and social visions

#### **Week 5: Oxford Environment & Development Innovation Forum**

##### **Dr Paul Jepson (Chair) OPEN**

The purpose of this annual event is to strengthen links between the international graduate student body of the OUCE and Oxford-based organisations at the cutting edge of environmental policy and practice. The afternoon will profile the innovative work going on in Oxford and will provide an opportunity for students and presenters to meet and discuss current policy initiatives and ideas for future dissertation research.

#### **Week 7: Ocean's Policy Symposium**

##### **Dr Tom Thornton (Chair) OPEN**

The ocean's epitomise the problems of common pool resources, a problem that is exacerbated by the fact that the impacts of pollution and destructive resource extraction practices have until recently been invisible for all but the specialists. This symposium will hear from academics and practitioners at the cutting-edge of initiatives to create meaningful governance approaches in the marine environment.



## Hilary Term

### **Week 2: Science and the Media: representing climate change science**

#### **Paddy Coulter, Dr Paul Jepson & James Painter**

This workshop will examine how science (specifically climate change science) is reported in the media and how cultural politics shape the media terrain. Specifically, we will discuss the pros and cons, rights and wrongs of hyping, sensationalising and/or over-stating the findings of scientific research and examine the everyday interactions that drive decisions on how science is reported.

### **Week 4: London Study Day**

#### **Dr Paul Jepson and Dr Darius Wójcik**

The aim of this day is to gain a sense of London as an emerging world centre of the ethical and environmental governance of markets and businesses. We visit three different organisations (normally an investment house, development bank and consultancy) to hear the views of practitioners on the emerging trends and issues in their field.

### **Week 7: Participation and policy complexity: Transforming Oxford's transport strategy**

#### **Karen Lucas and Lara Scott, Transport Studies Unit**

This workshop will examine the complex interplay of the different factors that work to shape the development and implementation of transport policy. These include the physical and attitudinal constraints of place, past policy, government directives, the views of different stakeholder voices and policy vagues. Through engagement with Oxfordshire case studies presented by local authority planners and policy makers, participants will develop a real-world understanding of the difference between desirable and feasible policy and the role of participation, consultation, and knowledge transfer. During the workshop, participants will work up a set of desirable transport projects for Oxford. These will be compared with actual proposed projects and evaluated through role-play consultations. Ultimately the workshop will ask if changes in transport policy must always be incremental or whether radical change is possible.



## **2. Theory and Analysis Strand**

Assessment: This strand will be assessed in the Assessment will take the form of a three-hour exam during which students will be required to answer three essay style questions. Further examination advice will be provided during the course, including a revision sessions to be held in Trinity term.

## Nature and Society Module

**Module convenor: Professor Sarah Whatmore**

**Teachers: Dr Derek McCormack, Dr Jamie Lorimer and Dr Anna Lora-Wainwright**

### Module rationale

The terms in which current environmental debates are cast rely heavily on unexamined understandings of the historically changing and geographically varied concepts of nature and society. The idea of a natural world separate from and/or prior to human society is one of the most powerful and persistent in human thought, finding expression in religious beliefs, cultural artefacts and scientific practices. Understanding the contested ways in which nature-society relations are articulated in different times and places, and with what consequences for environmental change, is crucial to developing a critical grasp on environmental politics today. This course will introduce key theoretical approaches with which to make sense of such debates—from environmentalist alarms about ‘the end of nature’ and corporate claims to be ‘working with nature’, to governmental efforts to ‘put a value on nature’ through the calculus of eco-system services. Against the backdrop of an academic discipline—namely Geography—distinguished by its claims to combine the study of the natural and social world, this course will examine various articulations of nature-society relations:— (i) the influence of Enlightenment and Romanticism on Western thinking; (ii) political ecology and theories of environmental justice, and (iii) the status of the body as a cultural, political and scientific site which brings questions of human/nature into focus.

### Teaching Approach

The course will be taught through eight weekly classes of one hour duration. Classes will consist typically of an introductory lecture given by one of the instructors, followed by a class discussion. Key readings, and a secondary list, are detailed in advance for each class (see below). Students will be assumed to have read at least the key readings ahead of class. In addition, each pair of classes will be supported by a Reading Group (led by a doctoral student working in the field) to work through a key reading from each of the paired classes in more detail.

### Introductory readings

- Anderson K. and B. Braun (eds) (2008) *Environment: critical essays in human geography*. London, Ashgate
- Hinchliffe, S. (2007) *Geographies of Nature: Societies, environments, ecologies*. London: Sage
- Latour, B. (2004) *Politics of nature: how to bring the sciences into democracy*, Cambridge, Mass: Harvard University Press
- Whatmore, S. (2002) *Hybrid Geographies* London: Sage.



## **Week 1: Introducing nature and society**

### **Dr Derek McCormack**

This session provides a broad introduction to two of the key terms around which the NSEP programme is organised – ‘Nature’ and ‘Society’. We will begin by considering how, in much of the contemporary western world, nature and society are understood to be distinct (if also related) spheres of reality and activity. We will then explore how such divisions inform the way in which the social sciences generate knowledge about the world, illustrating this via discussion of a specific disciplinary context–Geography. While Geography does not have a monopoly over debates about the natural and the social, its distinctive disciplinary history provides a useful vehicle through which to begin thinking about these debates, and to map out the thematic trajectories of the course. In concluding we will reflect upon how such debates open onto a range of trans disciplinary themes and questions pursued in the lectures that follow.

## **Week 2: Enlightenment, Romanticism and Landscape**

### **Dr Derek McCormack**

Building upon week one, this session considers the influence of a wider set of philosophical and artistic developments upon understandings and experiences of nature and society. We will explore the on-going influence of ideas organized loosely under the headings of “Enlightenment” and “Romanticism”. The Enlightenment was characterised by the imperative to understand nature as a machine through the development of rational systems of knowledge. Emerging in the 18th and 19th centuries, Romanticism marked both a critique and a development of Enlightenment attitudes to nature. In its various manifestations, Romanticism can be understood as an attempt to counter some of the negative consequences of Enlightenment thinking (urbanisation, industrialisation, social and moral decline, etc.). In particular, many romantic thinkers rejected a mechanistic model of nature in favour of a more vital conception of natural forces. Such forces could provoke feelings of what Edmund Burke and later Immanuel Kant called the ‘Sublime’, and could be found in wilder, less domesticated spaces, such as mountains. The on-going influence of these ideas will be illustrated in relation to changing attitudes to and experience of landscapes. In the process, we will consider the extent to which, and with what consequences, a romantic sensibility continues to inform our understandings of environmental issues.

## **Week 3: The production of nature: Geographies of carbon offsetting**

### **Dr Jamie Lorimer**

This lecture introduces past and on-going work by political ecologists and eco-Marxists on the social production of nature. Here analysis traces the production of diverse second natures from first nature through the dialectical interaction of nature and society during the labour process. It illustrates the critical potential of this approach through examples of carbon trading/offsetting as modes of environmental governance. This lecture provides an overview of recent critical work on neo-liberalism and the rise of ‘free-market environmentalism’.

## **Week 4: The construction of nature: Geographies of wilderness**

### **Dr Jamie Lorimer**

This lecture introduces post-structuralist approaches to the social construction of nature. Here we are more interested in the meanings attached to the category 'nature' than its material production. Drawing on ideas from semiology, cultural studies, Foucault and science studies, this approach argues that understandings of nature are 'framed' within different discursive regimes and their associated material practices. There is always a slippage between reality and its representation. It examines the critical potential of this approach through an investigation of the problematic place and status of wilderness in nature conservation. Drawing on a number of case studies of conservation practice, it highlights the colonial roots of much wilderness thinking and practice. This lecture outlines the cultural politics of nature and identifies the possibility of multiple and contested understandings of Nature and the Natural.

## **Week 5: Political ecology: Deconstructing 'nature' and politics**

### **Dr Anna Lora-Wainwright**

When it first emerged as a distinct field in the early 1970s, political ecology was rooted in the neo-Marxism of world system theory. It attacked its predecessor, cultural ecology, for its naïve empiricism, for following the Darwinist logic of human adaptation to nature, for its reliance on rational agent theory and for its focus on marginalized and powerless rural communities, seen to be out of step with a globalizing world. More recently, a second-generation of political ecology has emerged which retains the Marxist interest in capitalism as a global structure but which is also heavily influenced by post-structuralism, feminism, practice theory, and cultural studies. In this guise, political ecology presents a reflexive and political turn in the study of 'nature', a questioning of how 'nature' is constituted, by whom and for what purposes. It aims to move beyond binary thinking (nature vs. culture or human intervention) and focus instead on the interchanges between nature and culture, the symbolic and the material, and the local and the global. But does accepting that all claims about 'nature' are political necessarily deny nature's extra-discursive existence? This class will explore possible ways of talking about nature critically but at the same time avoiding the excesses of paralysing relativism and deconstructionism.

## **Week 6: The politics of protecting nature in China**

### **Dr Anna Lora-Wainwright**

China's rapid emergence as an economic power over the past quarter century has been accompanied by growing understanding of its environmental impacts, particularly in terms of pollution. There have been reports of large-scale pollution accidents and also of widespread, persistent and routine pollution through industrial waste in water and through air pollution from industry and transport. After years characterised by the ideology of humans' domination over nature and development at any cost, more recently China has turned to a rhetoric of 'sustainable' and 'scientific development' harboured within a 'harmonious society'. Yet, despite the development of a relatively impressive body of environmental protection policies and legislation since the late 1970s, it is widely agreed that there is a serious 'implementation gap' so that central government policies

and national laws are often not well enforced in the localities. This session will ask why this implementation gap exists, its particular cultural and social underpinnings, how it may be perpetuated (rather than undermined) by local communities, and the role of activism in its potential demise. Through the case of China, we will examine how 'nature' and the local and central state are produced in debates over environment and its protection.

## **Week 7: Bodily Natures**

### **Anna Lora-Wainwright**

Much of western philosophy and culture has been shaped by certain binary dualisms. These include mind/body, reason/emotion, culture/nature, and male/female. Such dualisms are not innocent – indeed they set strong limits on how we think about the worlds we inhabit, and the relations between the entities of which these worlds are composed. At the same time, various 'minor' strands of thought have sought to question some of these dualisms. The intensity and vigour of this questioning is the result of a number of influences: first, a reaffirmation of the role of the body in relation to thinking; second, a recognition, via feminist theory, of the question of corporeal difference; and third, an engagement with the ethics and politics of the relations between human and 'more-than-human' entities such as technologies and animals. By drawing upon this work, in this session we will consider how some of the traditional epistemological and ontological reference points for bodily natures are being reworked by social scientists. We explore the ways in which bodies are constituted as 'natural' through the examples of organ transplants, medical tests, female physiology and illness more broadly.

## **Week 8: Questions of health: scientific evidence & environmental justice**

### **Dr Anna Lora-Wainwright**

What is the value of life and who decides upon it? What is the role of scientific knowledge in defining it? This session carries the focus on bodily natures into the highly political domain of environmental health. We will take as our starting point the concept of "biological citizenship" (Petryna, 2002), to unpack the ways in which illness may serve as a way to gain citizenship. We will examine how "science, nation building and market developments are interdependent, and [... how] the biology of citizens becomes a contested part of political process and a tool of government" (Petryna, 2002: 21). Any struggles against environmental injustice are closely tied to the problematic question of scientific evidence and citizens' supposed ignorance of environmental hazards. „Toxic culture“ here does not only refer to pollution but also to the social relations and power assemblages which excuse environmental deterioration. Advocacy around health, conversely, may serve to unite labour and green movements and to reconfigure the green movement not as a threat to job security, but as potentially striving for better places to live and work.



## MSc Core Module, Hilary 2012

### Module title: SCIENCE and POLITICS (incorporating the Mapping Controversies Group Exercise)

Module leader: Dr Richard Powell

Teaching staff: Dr Richard Powell, Professor Sarah Whatmore, Dr Andrew Barry

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### Module rationale

Science and politics are frequently regarded as distinct forms of activity. Scientists are expected to give disinterested advice to policy makers and to stay outside of the world of politics. In this course we explore the complexity of the relation between science, politics and environmental policy. The course examines the conduct of scientific controversies, the relations between experts and non-experts, inter-disciplinarily, and the role of scientific knowledge in political disputes. At the same time the course introduces key theoretical issues including the relation between scientific and public politics, the role of science and technology in the constitution of new forms of political space and public engagement.

### Teaching approach

The course consists of three interlinked elements: six 1-hour lectures; four 1-hour reading groups on a series of key topics; and a practical exercise, known as Mapping Controversies, which runs from Michaelmas Term through to Trinity Term. Mapping Controversies involves ten hours of seminars (1hr), group work (two of 1hr each), lab practical (two of 2hr each) and group presentations (3hr).

### Introductory Readings

Powell, RC (2007) Geographies of science: histories, localities, practices, futures *Progress in Human Geography*, 31: 309-329

Whatmore, SJ (2009) Mapping knowledge controversies: science, democracy and the redistribution of expertise *Progress in Human Geography*, 33: 587-598

Barry, A. (2001) *Political Machines: Governing a Technological Society*, London and New York: Athlone

### Module Outline

#### Week 1: Introduction to Science and Politics

Dr Richard Powell

This lecture will introduce the key themes of the course by providing an introduction to studies of scientific controversies by sociologists, historians, anthropologists and geographers of science. We will discuss why an analysis of the relations between science and politics is of critical importance to



those concerned with environmental policy. The second hour of this session will be a one hour class on Mapping Controversies, where you will be allocated into small groups and begin to develop possible topics.

## **Week 2: Knowledge Controversies**

### **Prof Sarah Whatmore**

The study of controversies is critical to any analysis of the relations between science and politics. This session will consider how and why some scientific knowledge claims and/or new technologies become the subject of public scrutiny and political dispute. Using examples of environmental knowledge controversies, this session examines how specific controversies take political hold and their consequences for the practices of environmental science and management. The second hour of this session will be a group discussion on key readings from the first two weeks.

## **Week 3: Mapping Controversies–Practical Class 1**

### **tbc**

This will be a two hour practical class for the Mapping Controversies group exercise. You will begin to develop your projects in small groups by refining your topic and discussing possible approaches.

## **Week 4: Experts and Non-Experts**

### **Prof Sarah Whatmore**

What constitutes expert knowledge and how is it produced? This session will consider the disputed correlation of 'expertise' with scientific knowledge practices in environmental policy-making and its consequences for the so-called 'public understanding of science'. Using the example of food, it examines the different forms of expertise (reliable knowledge) at work in the diversification and contestation of food production and consumption practices. The second hour of this session will be a group discussion on key readings from week four of the course.

## **Week 5: 'Western Science' and Traditional Ecological Knowledges**

### **Dr Richard Powell**

In this lecture, we will discuss the political debates around Traditional Ecological Knowledges. In some parts of the world, scientists have had to engage seriously with different knowledge traditions, often in order to be able gain access to field sites to conduct research into questions of global importance. The second hour of the session will be a group discussion on key readings from Week 5 of the course.

## **Week 6: Mapping Controversies: Practical Class 2**

### **tbc**

This will be a two hour practical class in preparation for the Mapping Controversies projects, where various methods will be introduced.



## **Week 7: Controversies in the Geographical Sciences**

### **Dr Richard Powell**

In this lecture, we consider some controversies in the geographical sciences. We will focus on different arguments about the future of the Arctic, involving issues such as the development of natural resources and indigenous self-determination. The second hour of this session will be a one hour class on Mapping Controversies, where you will begin to plan your presentations for the beginning of Trinity Term.

## **Week 8: Controversies in the Climate Sciences**

### **Dr Richard Powell**

In this lecture, we will consider controversies in the climate sciences, such as those around the demonstration of the veracity of environmental change and on practices of data sharing. The second hour of this session will be a group discussion on key readings from the final two weeks.

### **Notes on the MAPPING CONTROVERSIES exercise**

This course element is developed from an EU project MACOSPOL (Mapping controversies in science and technology for politics) and a seminar first organised by Bruno Latour at the École des Mines in Paris. Mapping Controversies is now taught by a consortium of Universities, including Sciences Po, MIT, Oxford, Manchester, as well as the École des Mines.

In the course, groups of students engage in a collective research project on a controversial issue, where the term 'controversy' implies the existence of a "debate surrounding a technology or scientific fact that has not yet been determined". Examples of such controversies include the debate about the safety and regulation of GMOs (genetically-modified organisms), the controversy over whether world oil production has 'peaked' or not, or whether the construction of a dam will or will not have a positive economic and environmental impact.

The exercise is designed to integrate the theoretical, policy and research themes of NSEP. On the one hand, the process of researching, mapping and analysing a controversy generates insights on the role of knowledge, scientific expertise and politics in environmental policy. Environmental policies often have to be developed and implemented in circumstances where there is no consensus between different experts either about the problem that the policy is expected to address, or the solution that should be adopted. This exercise enables students to analyse how the relation between scientific controversies and environmental policy is played out in practice.

Through this exercise you will be confronted with claims to knowledge that are either contested and/or acknowledged to be uncertain, and situations where the development of scientific knowledge or technical expertise may generate new objects and sites of political or ethical disagreement. Specifically, the exercise focuses attention on the ways in which the credibility of scientific and technical knowledge becomes established or challenged, and addresses the role of different actors, including publics, NGOs and the media, as well as scientists, in scientific controversies concerning issues of public interest. An online version of the course has been developed jointly by Sciences Po, MIT and the École des Mines. <http://www.demoscience.org/>.



## **Module title: Economy and Development**

### **Hilary Term**

**Lecturers: Dr Dariusz Wójcik and Dr Craig Jeffrey**

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### **Module rationale**

This course provides an interdisciplinary perspective on economy and development, contrasting mainstream 'economic' and 'political' standpoints with economic and political geography, stressing the significance of studying economic development with its environmental factors and outcomes on the ground, and in specific contexts. The first part of the course introduces a geographical approach to the economy, and focuses on three major macro-economic drivers of development and globalisation: trade, finance, and innovation. The tensions between the global and the local factors of economic development are analysed with examples from both developed and developing economies, and with references to the development of carbon markets and clean technologies. The second part examines the politics of environment and development, with emphasis on three key environmental resources: sugar, water, and forests. Case studies focused on India are used to develop a culturally sensitive political economy approach to the study of environment and development.

### **Teaching approach**

The course consists of eight two-hour teaching sessions. The normal pattern will be a short introductory lecture during the first hour of the class. The second hour will provide an opportunity for students to work through the main readings and concepts in a reading group format.

### **Introductory readings**

There is no set text for this course, but the following texts will be particularly useful:

- Baviksar, A. 1995. *In the Belly of the River: Tribal Conflicts over Development in the Narmada Valley*. Delhi: Oxford University Press.
- Clark, G, M Feldman and M Gertler (eds) 2000. *The Oxford Handbook of Economic Geography*, Oxford: Oxford University Press.
- Coe, N.M., Kelly, P.F., and Yeung, H.W.C. 2007. *Economic Geography: A Contemporary Introduction*, Oxford: Blackwell.
- Jeffrey, C., Jeffery, P. and Jeffery, R. 2008. *Degrees Without Freedom? Education, Masculinities and Unemployment in North India*. Stanford, CA: Stanford University Press.
- Robbins, P. 2004, *Political Ecology: A Critical Introduction*. Blackwell: Oxford.
- Sivaramakrishnan, K. and Agarwal, A. 2000. *Agrarian Environments: Resources, Representations and Rule in India*. Durham, NC: Duke University Press.



## Module Outline

### **Week 1: A Geographical Approach to the Economy**

#### **Dr Dariusz Wójcik**

This session examines the distinctive contribution of economic geography to the study of globalisation and considers how economic geographers have understood the relation between economy, society, and environment.

### **Week 2: Trade**

#### **Dr Dariusz Wójcik**

Trade is assumed to be a major driver of international development, while it remains a politically charged and contested issue. The session interrogates theories explaining the impact of trade on development and concentration of economic activity and wealth. It also considers the role of institutions such as the WTO, OECD, as well as trade blocks such as the EU, NAFTA, and ASEAN.

### **Week 3: Finance**

#### **Dr Dariusz Wójcik**

This session focuses on the nature and the on-going debates on the globalisation of finance, its positive and negative effects, and its future. It also discusses the role of international financial institutions (World Bank, the IMF, and the EBRD) in global economic governance, as well as the development of carbon markets.

### **Week 4: Innovation**

#### **Dr Dariusz Wójcik**

The session will focus on the tendency of innovation to cluster in time and space, through the investigation of such concepts as waves of innovation, learning regions, national and regional innovation systems, and creative cities. Clean technologies will be discussed as a potential new wave of innovation transforming the world economy.

### **Week 5: Development and failed transition**

#### **Dr Craig Jeffrey**

Running through international development theorizing, from modernization theory right up to recent World Development Reports, is the notion that a transition is likely to occur in Asia, Africa and Latin America from agricultural to industry, country to city and peasant to entrepreneurial farmer or wage worker. This grand narrative of development persists in spite of gathering evidence from around the world of the failure of structural and societal transformation. Market-based economic policies have pushed people out of agriculture – sometimes. Unlike in Europe in the nineteenth century, these dispossessed people usually lack opportunities to enter secure manufacturing work and subsist instead in an enormous unorganized and informal economy—in urban, peri-urban and rural areas.



Tania Li (2009) has argued that this marginalized population does not constitute a “reserve army of labour” in the Marxist sense in that they do not play a key functional role in the capitalist economy. Rather, they constitute a vast “surplus population” durably excluded from dominant capitalism (see also Harris forthcoming). At the same time, changing processes of national and global governmental power often denigrate these populations, officially casting them as somehow “superfluous” (Mbembe 2004) or “lumpen elements”(Davis 2006). This lecture examines the scale and geography of “failed transition” and the rise of “surplus populations”.

## **Week 6: Youth and Failed Development**

### **Dr Craig Jeffrey**

Failed transition has often had especially negative implications for young people, who find it impossible to move into socially ascribed visions of successful adulthood: they remain unemployed, unmarried, poor and dependant on others (Comaroff & Comaroff 2005). Many of these young people are educated and have high aspirations, but the schooling they have received does not provide the skills required to fulfil their goals. As a result, they often internalized the sense of being “useless” and “surplus”, and they feel detached from their rural and urban environments. Youth provides a lens through which to understand subaltern suffering and shifts in human/environment relations in the context of failed transition. Consideration of youth allows us to examine relationships between structural transition and personal transitions through the life course (Jeffrey 2010)

## **Week 7: The Politics of Surplus Populations**

### **Dr Craig Jeffrey**

How have surplus populations, including youth, responded politically to their predicament? Many scholars have argued that the poor, including unemployed and underemployed youth, lack the education and organizational skills to create effective civil society organizations. Partha Chatterjee (2008) argues that the poor in the global South occupy a space of “political society” rather than civil society. Political society refers to the zone in which marginalised people periodically bargain with the state to obtain some minimal government largesse—food, shelter, protection, for example. But these efforts are only temporary and the political formations they develop highly unstable. Moreover, the poor’s mobilization in political society actually has the perverse effect of deepening their reliance on local “brokers” and drawing them into networks of corruption.

## **Week 8: Subaltern civil society, policy and change**

### **Dr Craig Jeffrey**

This lecture offers a critique of Chatterjee’s pessimism about the capacity of the poor to engage in effective civil society organising. “Surplus populations” do sometimes participate in durable, institutionalized forms of social, environmental and political mobilization, often by making links with allies within the middle classes. In certain cases this mobilization is altering the social, physical and policy environment in the global south. We use a focus on unemployed and underemployed youth to make wider points about subaltern civil society in the contemporary global south, highlighting the potential for situations of “limbo” to generate novel political and policy experiments.

### 3. Research Design Strand

The aim of this strand is to develop key research and transferable skills in order for students to be able to execute high quality independent and original research. It comprises a module on Research Design in Michaelmas Term and a module on Research Methods. This will mostly be touched on during Hilary term, but there will also be classes in Michaelmas and Trinity terms to support the scheduling of particular study requirements. The Research Design module will be supported by a reading group led by DPhil students and the Research Methods teaching will involve practical exercises linked to the Mapping Controversies group exercise (See the Science & Politics module).

Assessment for this strand of the course will take the form of a three-hour final examination in which students will be required to answer three essay style questions. Further advice on this will be given during the course, and in a revision session during Trinity Term. Students are expected to deploy insights and ideas from Research Skills in the design and execution of their research dissertation.



## **Module title: Research Design for NSEP**

### **Module leaders: Dr. Derek McCormack**

Teaching staff: Dr. Derek McCormack (DM), Dr Paul Jepson (PJ) and Dr Darek Wójcik (DW)

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### **Module Rationale**

This module relates questions in the philosophy of science (about the nature of asking questions; the practice of generating 'data'; and the role of 'writing' in the research process) to specific methodological techniques and analytical strategies through examples relevant to the substantive themes of Nature, Society and Environmental Policy. The emphasis here is on research as a process involving conceptually informed investigation through rigorous yet flexible methodological techniques. To this end students are encouraged to reflect upon theoretical and practical issues of research design as a prelude to developing expertise in specific methods as part of the Research

### **Teaching Approach**

The course will be taught over eight sessions, four in Michaelmas 2011 and four in Hilary 2012. Sessions will typically involve an introductory lecture followed by class discussion. It includes a study day to Waddesdon Manor & Stowe Landscape Gardens (See Workshops & Study Days section)

### **Assessment**

Assessment will take the form of 1 three-hour exam during which students will be required to answer three essay style questions. Further advice about this exam will be given during the course, and in a revision session held in Trinity Term.

### **Course Reading**

Cook, I and M. Crang (eds.) (2006) *Doing Ethnographies*. Second edition. London: Sage.

Clifford, N. and Valentine, G. (eds.) (2003) *Key methods in human geography* London: Sage

Hammersley, M. (1995) *The politics of social research* London: Sage.

Hay, Iain (2005) *Qualitative research methods in human geography* Oxford: Oxford University Press.

Latour, B. (2002) Pandora's Hope, Chapter on 'Circulating reference', Cambridge, MA: Harvard University Press.

Law, J. (2004) *After method: mess in social scientific research*. London: Routledge

Pryke, M., G. Rose and S. Whatmore (eds.) (2003) *Using Social Theory: Thinking Through Research*. London: Sage

## Module outline

### Michaelmas Term

#### **Week 5: Thinking through research: asking questions (DM)**

This session we will introduce the key themes of the course and consider some of the key elements of effective research design. Particular emphasis will be placed on the process of generating research questions.

#### **Week 6: Thinking through Reading (DM)**

This session will explore the relationship between reading and the practice of research. The focus will be on how we might read, and engage productively with, theory as part of thinking through research.

#### **Week 7: Fieldwork and the generation of qualitative research materials (DM)**

This session will consider the question of what constitutes fieldwork, and asks how we might understand the matter and meaning of the field. Particular emphasis will be placed on how we translate our research questions into practical encounters with the world at a range of different sites. This will be illustrated with particular reference to qualitative fieldwork.

#### **Week 8: Writing and Presenting Research (DM)**

This session considers the question of how one should write up the results of research. We will explore how different writing and presentational styles might be used to achieve different ends and to address different audiences

### Hilary Term

#### **Week 1: Case Studies (DM & PJ)**

This session explores the value of case studies to research. Emphasis will be on considering some of the strengths and weaknesses of a case-study approach.

#### **Week 2: Using Secondary Data (DW & PJ)**

In this session we will explore the data available from governmental and other data portals and its role in economic and environmental research. Through case examples we will demonstrate the role and place of such data in the research process, the challenges and opportunities associated with deploying secondary data, integrating heterogeneous data sets, and forms of analysis and



representation. We will end with a forward looking view on the role of open-source and priority databases in geographic research, environmental governance and citizen science engagement.

### **Week 3: Web-based Methods (tbc)**

This session will introduce a set of applications that have been built for the purpose of controversy analysis- such as IssueCrawler, and GoogleScraper. It will show how these tools of network and textual analysis can be used to identify actors and locations of particular controversies.

### **Week 4: Research Ethics (DM)**

This session explores what it means to conduct research ethically. We will pay particular attention to how the practice of research might require us to understand ethics as a series of practices as much as a set of universal codes.



## **Module Title: RESEARCH METHODS AND SKILLS**

### **Michaelmas/Hilary Term/Trinity Term**

#### **Module leaders: Shonil Bhagwat**

Teaching staff: Dr Rob Hope, Dr Paul Jepson, Dr Derek McCormack, Dr Craig Jeffrey and others.

Integrated Module: All MScs

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### **Module rationale**

This module will focus on a suite of common research practices and methods in the social sciences and policy studies. Subject to timetable constraints students may also attend other methods classes on offer in the IGS such as GIS. Students who have not already had training in basic statistical methods will be expected to attend the relevant course in Trinity Term.

### **Teaching approach**

Several of the sessions will be delivered in larger classes involving students from the other MSc. courses. The timing of several classes is designed to support the research dissertation processes. The full list of classes is outline below and those that are required for BCM are indicated.

### **Michaelmas Term**

#### **Week 0: Introduction to the University library and e-resources**

##### **Sue Bird**

This lecture will introduce you to libraries and e-resources at Oxford:

- (1) Borrowing & photocopying / scanning in libraries;
- (2) Training courses available SOLO, OLIS & OXLIP (e-journals & e-books); Web of Science, Scopus, & Google Scholar

#### **Week 0: Introduction to research in the School of Geography**

##### **Prof David Thomas**

In this lecture, the Head of the School of Geography and the Environment will provide an overview of geographical research at the school itself.

#### **Week 2: Bibliographic skills**

##### **Sue Bird**

This session will cover (1) Plagiarism v. Referencing; (2) Organizing your research and managing your database of references; (3) using Refworks or EndNote (3) Reference works (4) Brief introduction to Databases covering various databases & platforms & saying why Google is no use at this level of research.



### **Weeks 3–4: Statistics (Basic)**

#### **Dr Richard Bailey**

The first lecture will provide an introduction to data collection, data reduction, and statistical confidence /uncertainty.

The second lecture on statistics is an introduction to hypothesis testing methods, with time set aside for general Q&A.

### **Week 3: Introduction to qualitative techniques 1: Research Design and Interviews**

#### **Dr Craig Jeffrey**

The session will begin with a brief introduction to qualitative research design and the role and importance of interviews for geographical research. In particular we will address questions of Why? Who? What? and How? with respect to interviews. The session will also include discussion in smaller groups.

### **Week 4: Introduction to qualitative techniques II: ethnography and participant observation**

#### **Dr Richard Powell**

This session will introduce ethnography and participant observation within the context of other qualitative techniques. The session will involve the interpretation and analysis of some observational field notes and will consider the relative merits of qualitative methods.

### **Weeks 6–7: Policy Analysis**

#### **Prof Diana Liverman**

The first session will discuss methods and frameworks for analysing environmental policies using techniques that include critical analysis of the media, texts, web pages, government reports and statistics and that do not necessarily involve fieldwork.

The second session will discuss methods of understanding how to evaluate the success and failures of environmental policy at the local level including approaches to research design, case studies, fieldwork and combining natural and social science analysis using examples from projects on climate and development

### **Weeks 5–8: Bibliographic skills**

#### **Sue Bird**

#### **ECM (week 5); WSPM (week 6); BCM (week 7); NSEP (week 8)**

This session will cover advanced bibliographic skills with examples relevant to each MSc and include (1) Searching techniques: wild cards, truncation, Boolean operators, exact phrases, synonyms, etc.; (2) Saving & rerunning searches to keep up to date.

### **Week 8: Science writing**

#### **Prof Rob Whittaker**

Preparing papers for submission to scientific journals & insights into the peer review process



## Hilary Term (Schedule TBC)

### **Week 1: Making presentations**

#### **Prof David Thomas**

In this lecture, the Head of School will provide advice on communicating your research to an audience

### **Week 1: Writing Research Proposals**

#### **Dr Paul Jepson and Dr Derek McCormack**

Writing skills for developing funding and grant applications

### **Weeks 2–4: Geographic Information Systems and Remote Sensing (Basic)**

#### **Dr Richard Grenyer and Mike Athanson**

(1) What is a GIS? What isn't a GIS? Representing the real world via a computer. Georeferencing. Working with map projections. Outputs: map-making, map-using.

(2) Finding, importing, georeferencing and working with imagery data - aerial photographs, remote sensing data and topography. DEMs and TINs. Raster calculus.

(3) Finding, importing, georeferencing and working with vector data - vector organisation and theory. Topological and georelational vector data. Geomanipulation and buffering.

### **Weeks 5–7: Geographic Information Systems and Remote Sensing (Advanced)**

#### **Dr Richard Grenyer and Mike Athanson**

(1) How to do line-of-sight, watersheds and overlay analyses.

(2) Getting started with transport and hydrographic networks in GIS. Linking in external models.

(3) Geostatistical output. Geolocation studies. Decision support.

### **Week 3: Questionnaire design**

#### **Dr Paul Jepson**

This session will aim to build proficiency in designing and conducting robust questionnaire-based surveys. We will cover the use and agency of questionnaire-based research in environmental policy, the principles of question design and sampling frames and the practicalities of survey administration.

### **Week 4: Questionnaire Analysis**

#### **Dr Rob Hope**

This session will cover how to analyse survey data in SPSS. Data cleaning and transformation, exploratory data analysis and some statistical methods will be introduced.



## **Week 5–6: Statistical Software for Social Scientists, SPSS Course**

### **OUCS (Oxford University Computing Services)**

This session will provide a supervised practical session for using SPSS statistical package for those who have not used it previously. This session will introduce students to creating SPSS data sets, transforming data in SPSS, producing simple statistical and graphical analyses and annotating data so that results are immediately usable.

## **Week 7: Risk Assessment and Fieldwork Safety**

### **Area Safety Officer**

This lecture will be presented by the Area Safety Officer and will introduce all students to the University of Oxford's protocol for risk assessment before you begin fieldwork for your dissertation projects.

## **Week 8: Social Science Writing**

### **Prof Gordon Clark**

This is will give guidance for social science-oriented research and development of writing skills.

## **Trinity Term (Schedule TBC)**

## **Week 1: Key Informant Interviews Surgery**

### **Dr Paul Jepson**

Key informant interviews are the most popular method chosen for dissertation research. This workshop-style session will complement the session in Hilary Term and extend the discussion to consider the practicalities of securing and conducting interviews. It also deals with the transcription and analysis of interview data.

## **Week 2: Focus Groups Surgery**

### **Dr Rob Hope**

This session will introduce the rationale, design and practice of Focus Group Discussions. Sampling, participation and analysis issues will be discussed. Merits and constraints of FGDs as a research tool will also be explored.

## **Week 3: Ethnography Surgery**

### **Dr Tom Thornton**

This session introduces basic ethnographic methods, such as participant observation, used to investigate and analyse socio-cultural aspects of environmental issues. The session further examines the utility of an anthropological stance in interpreting data, even when conventional ethnographic methods are not employed.

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## MSc NATURE, SOCIETY AND ENVIRONMENTAL POLICY

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