

ENVIRONMENTAL INEQUALITIES

CROSS-CUTTING THEMES FOR THE ESRC/NERC TRANSDISCIPLINARY SEMINAR SERIES ON ENVIRONMENTAL INEQUALITIES 2006-8

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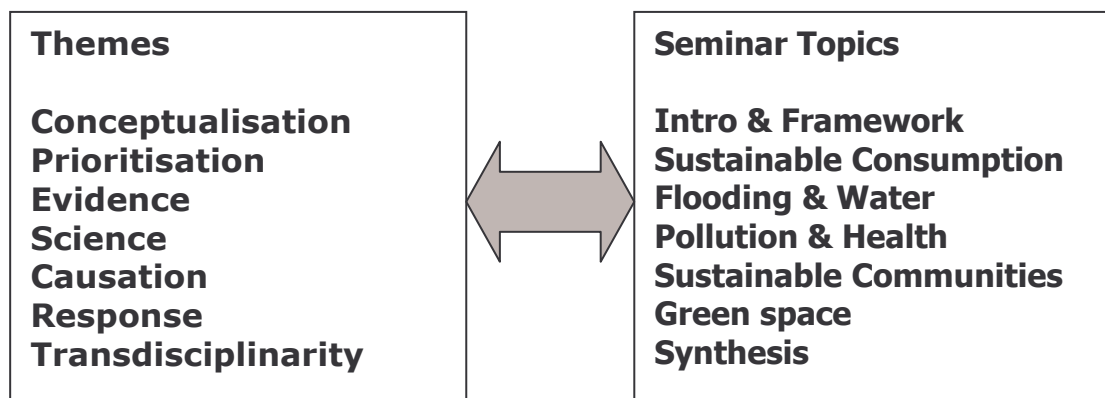


Introduction

This discussion paper works through a series of seven interconnected analytical themes that are intended, as a whole, to provide a framework for discussion and reflection during the seminar series on environmental inequalities. The seven seminars to be held during 2006-8 each focus on particular environmental topics and policy contexts in which questions of environmental inequality and justice can be explored and interrogated (see diagram below). However, to help the series add up to more than the sum of the parts and to build from session to session, we have identified a series of themes and questions that cut across topics, policy contexts and disciplinary boundaries, connecting to areas of research of interest to both the social and natural sciences.

We will, at times, use this framework to structure discussion within the seminars and to assist those presenting to make connections between the particularities of their own research and the bigger pictures of ideas, theory, concepts and approaches that we are interested in developing. The paper does not attempt to provide a review of what is becoming a substantial literature, but does signpost various pieces of work which have helped to inform the discussion. For a useful accompanying review of evidence of environmental inequality in the UK, readers can turn to the SDRN rapid research and evidence review (Lucas et al 2004). Whilst the seminar series will tend to focus on the UK context, the presentations and discussions are intended to range freely across other environmental, political and social contexts.

The framework has evolved from its original formulation in the seminar funding proposal, through the preparations for the first seminar held at Lancaster University in April 2006, through the discussion and reflection that went on during the seminar and into the writing of this fuller paper. Its contents, whilst primarily reflecting our own thinking and definition of interesting research and policy questions, also therefore draw on the excellent set of presentations and inputs made at the Lancaster seminar (see <http://www.sd-research.org.uk/events/Seminar1.php>).



Each of the thematic discussions ends with a list of questions which we consider to be inadequately addressed at present. As the seminar programme unfolds answers to some of these questions may emerge and additional questions will be identified. The evolution of thinking and understanding that takes place will be drawn together in the final seminar and used to inform the end of project report and the edited collections that we are planning to produce from across the seminar presentations.

Theme 1. Conceptualisation

How can we understand and conceptualise environmental inequality and injustice?

Terminology is rarely unproblematic and that is certainly the case when ideas of inequality, equity and justice are at stake. There is a long and enduring intellectual debate around theories of justice and many centuries of attempts to operationalise both high principles and gut instincts as to what is fair and reasonable in social and institutional life. The seminar series title uses the term environmental inequality rather than environmental justice in part to encourage an explicit distinction between the two concepts and to problematise their too easy conflation.

Inequality is, in principle, simply a descriptive term, describing a condition of difference or unevenness of something (such as income, health), between different groups of people (old/young, rich/poor, north/south, this generation/future generation etc..). Inequality can often be measured and described using data gathered at a scale appropriate to the research or policy interest - although such description will never be an entirely neutral or unconstructed exercise, given choices about what, how and who to measure (see themes 3 and 4). Environmental inequalities we see as covering a wide range of questions of difference or unevenness, including:

- Who has good quality and safe environment to live in, who experiences pollution, hazards and risks and who is distanced or protected from such impacts?
- Who accesses and consumes environmental resources and who is unable to do so, or limited in their degree of access and consumption?
- Who is able to shape environmental decision-making and who is not? Who is included who is excluded?

Whilst in some research and policy domains the use of the term inequality or equality also carries normative qualities (inequality as something always negative and to be removed; equality as something to be sought after), we would argue that it is helpful to resist such presumptions. What is unequal and even will not be considered always and everywhere undesirable, bad, unfair or unjust. Some form of judgement or claim needs to be made about the severity, consequences, morality of the inequality and the need for it to be reduced or removed – and such judgements or claims will be and often are open to contest and challenge by those with alternative perspectives. This separation of description and prescription, between ‘is’ and ‘ought’ (Proctor 2001) is an important distinction in much moral philosophy and necessary if we are to pursue an analytical approach.

There have been various attempts to apply different forms of justice theory to environment questions, to conceptualise what makes an inequality or unevenness unjust – with distinctions made between justice in and justice to the environment (Low and Gleeson 1998)¹, between classic concepts of distributional and procedural justice (Dobson 1998) and between

¹ In this seminar series we are restricting ourselves to questions of inequality and justice to people *in* the environment, leaving debates over ecological justice and the rights of non-human nature to other occasions (although recognising the problematic social-natural division this requires)

deontological (process) and consequentialist (outcome) modes of reasoning (Ikeme, 2004). Recent writing has argued the need to recognise the plurality of environmental justice concepts to include not only questions of *distribution* but also those of *participation* and *recognition* and that different forms of justice may be relevant to different types of environmental good and bad at issue in different socio-political contexts at different scales (from local to global). Schlosberg (2004), for example, argues that “*justice is a concept with multiple integrated meanings*”, that there are overlapping circles of concern and complex equalities involving interconnected forms of reasoning and judgement. And as Harvey (1996) emphasises that justice concepts as politically and strategically deployed in environmental justice contests will not be absolute and universal given that “*Different groups resort to different conceptions of justice to bolster their position*” (ibid; 398), leading Holifield (2001) to argue that “*the pursuit of stable, consensual definitions of terms such as environmental justiceis misguided*”.

The body of existing work specifically concerned with conceptualizing environmental justice, has tended to be shaped and focused by the use of the term within the US EJ movement, and its much critiqued translation into policy (Pellow and Brulle 2005, Block and Whitehead 1999). Whilst there has been some attempt to take on board the approaches of campaigning groups and policy bodies in other parts of the world (Ageyman et al 2003, Walker and Bulkeley 2006) and to consider what environmental justice might mean at a global scale (Scholsberg 2004, Newell 2005, Bell 2006), there are still many opportunities to link together and develop different theoretical perspectives on ‘the normative’ and to apply theory in the context of a wider breadth of socio-environmental concerns at different scales of interest (including, for example, questions of what constitutes ‘under’ and ‘over’ consumption of environmental resources to be explored in seminar 2). We suspect that much could also be learnt by considering how inequalities and injustice are made sense of within other discourses - such as health inequalities, social exclusion, civil rights and gender equality – each of which also struggle in their own ways with questions of conceptualisation and definition.

- How much does terminology and definition matter? Is the *process* of discussion and debate about meaning and conceptualisation helpful and constructive, even if the outcome cannot be definitive or consensual?
- Can we usefully distinguish between inequality and justice in the ways we have suggested? And how does equity, the term widely used within the sustainable development literature, factor in?
- Can environmental justice principles be universal? Or are they particular to environmental contexts and concerns and the social, political and cultural settings in which they are addressed?
- What do concepts of rights, needs, opportunities, responsibilities, capabilities, entitlements and discrimination of various forms mean for how we think about environmental inequality and justice in different contexts?
- Does the environment *just* read across to other long standing concerns with social justice, empowerment, marginalisation and exclusion - or does it have distinctive qualities that sets it apart?

- How can we better make connections with where inequalities are already implicitly or explicitly part of sustainability debates; and embedded within discourses of rights, vulnerability and entitlement?

Theme 2: Prioritisation

What cases and forms of environmental inequality and injustice become important and why?

By prioritisation we mean the processes through which certain cases and forms of environmental inequality and certain claims of injustice receive attention and become articulated and significant, for example, within grassroots activism, political and policy discourses. This encompasses both the broad framing or boundary setting around what is meant by the environment and what is included within an environmental justice agenda; and the more particular circumstances in which justice arguments are strategically deployed or downplayed and resisted within specific decision and policy settings.

Prioritisation, in this sense, is particularly necessary and relevant given that a concern for environmental inequality and injustice potentially captures:

- a wide range of environmental concerns from the impacts of bads (risk, pollution etc..) to the consumption of and access to goods (greenspace, energy, food etc..), from the local doorstep to the global environment;
- a wide range of social concerns including race, ethnicity, poverty, deprivation, gender, age, religion, disability etc..;
- and inequalities which may exist at many different and potentially shifting spatial scales and within and between generations.

Combining these different dimensions provides a substantial matrix of environmental inequalities *potentially* at issue. How certain types of inequality are, or should be prioritised and given attention, becomes a necessary question of both politics and policy, and of the ways in which discourses emerge and evolve at different places, times and scales. There is much to be understood here. First, about political processes of campaigning, claim making, resistance and contestation and the ways in which justice arguments both form the rationale for and are strategically enrolled into environmental disputes and the work of social movements (Kurtz 2003, Dodds and Hopwood 2006). Second, about institutional processes of policy development, agenda setting and resource allocation, which may follow, lead or resist wider political dynamics around social and environmental justice and frame and interpret these concerns in particular ways (Holifield 2004, Chalmers and Colvin 2005). Third, about how academic research agendas are developed and pursued alongside and in interaction with these other processes.

It is superficially evident that there are significant differences in the scope and trajectory of environmental justice as it has undergone a fast conceptual transfer (Debbane and Keil 2004) from its origins in the US to other parts of the world. Marked contrasts have for example, been identified between the framing, vocabulary and discourse of environmental justice in the UK and the US (Ageyman and Evans 2003, Bickerstaff 2006), and a distinctive and wide

ranging profile of activism and policy response has emerged in Scotland (Dunion 2003, McClaren 2006). As the term is applied in an ever wider diversity of spaces and contexts, including countries of the Global South, involved questions are raised about its utility and the applicability of 'northern' frames of reference and assumptions (Walker and Bulkeley 2006).

- How can we understand differences in framings and priorities in different places and times; and what significance do these have including for the construction of transnational coalition building?
- What are the implications of different processes through which priorities and framings are constructed and how are these interconnected?
- How fair, open and inclusive are processes of prioritisation? (who is able to represent future generations?)
- Is there a distinctive public and institutional politics around environmental justice concerns?
- How and why does using the terminology of environmental inequality and justice do useful political work?
- How broadly should the net of environmental justice be cast? Where are the theoretical or pragmatic boundaries with the social justice agenda?

Theme 3: Evidence

What evidence is needed and being used in order to substantiate claims of environmental inequality and injustice?

Both for those starting from institutional policy and from the perspective of grassroots action, the question of how claims of inequality or injustice can be substantiated through evidence of various forms is important - and itself clearly a prioritising device (theme 2) that relates to how inequality and injustice are being conceptualised (theme 1).

The body of evidence on environmental inequalities is nothing like as developed, long standing or substantial as for other forms of inequality such as income or health. It is striking how many past studies of environmental impact, trends of change in environmental quality, consumption of resources and participation in decision-making have failed to ask distributional questions, to consider who in demographic, social or cultural terms is involved. Data sets have rarely been collected or reported to reveal social disaggregations - people have been standardised or space socially homogenised.

The SDRN rapid research and evidence review examining the state of the evidence base in the UK concluded that *"if policy is to be informed by evidence, then more needs to be known about many of the environmental issues considered under this review, both about patterns and distribution of impacts and processes of causation underpinning environmental inequality"* (Lucas et al 2004, p9). While in the US there is a deeper research base (but for a narrower breadth of topics) and for international concerns, such as global warming, there has been an established need and motivation to differentiate responsibilities and impacts across nation

states (including through techniques such as ecological footprints and environmental space; McClaren 2006), in general the evidence base on environmental inequalities is not substantial.

This raises the question as to what evidence is needed. There are a number of observations to make here. First, evidence is needed not just of unevenness of distributional patterns (of impact, contributions to environmental problems, participation and treatment in decision making etc..) but also of the connected *consequences* of that inequality. For example, that deprived communities are more at risk of flooding than others in the UK as well as more vulnerable to the impacts of flooding (Walker et al 2006); that those who will suffer most seriously from the consequences of the disproportionately high carbon emissions of the globally wealthy, are also the weakest most marginalised populations in some of the poorest countries in the world; that populations who are not able to have access to or influence on decision-making are most likely to have their interests downplayed in decision-making processes.

Second, whilst much of the current environmental justice research has centred around socio-spatial analysis using GIS, there are many other forms of evidence that are also relevant including much that is not overtly spatial in form. The concerns of environmental justice in this sense extend far beyond where different types of people live in relation to different features of environmental quality. Many forms of qualitative evidence are also important, for example, of the daily experience of living with poor environmental inequality, of the hidden subtleties of how power is exercised and utilised in decision-making, of the ways in which lack of recognition of marginalised groups is perpetuated, and of potentially significant psycho-social impacts on health.

Third, where evidence *is* spatially organised there are many thorny questions around how a sound methodological process is to be designed and constructed (Liu 2001, Walker and Mitchell 2006). Questions of the scale of analysis are particularly problematic as results of socio-environmental distributional associations become unstable as the scale of study is shifted. As Most et al 2004 (p584) comment “*to obtain useful, valid results, extreme care must be exercised not only in the selection of the tools and strategies of the research design, but also in the interpretation of the outcomes. This is particularly the case where the use of sophisticated GIS software powerful computers and elegant statistical analyses will lend an aura of authority and authenticity to the investigation*”.

Fourth, it is important not to see evidence gathering as a simply technical exercise which can ‘provide the facts’. The ways in which studies are constructed and evidence is collated, the framing of the questions, the methodological decisions that are made and the analysis that is performed are all part of the social construction and discourse of environmental inequalities. In this respect it is necessary to be aware of the ways that power and influence is exercised within research processes and evidence gathering and of the need to open up access to these processes. Indeed one form of environmental inequality is itself the unequal access to resources for undertaking research.

- Where are the most significant and important gaps in the current profile of evidence of environmental inequality and its consequences and implications?
- How and to what extent can methodological problems of socio-spatial studies be addressed?

- How can the scale and spatial dependencies of measures of inequality be best handled?
- How can quantitative and qualitative evidence be integrated effectively?
- How can evidence and evidence production be accessible to all those with interests in EJ issues?
- What challenges are raised by the diversity of possible sources of evidence and their evaluation in decision-making processes?

Theme 4: Science

What challenges are presented for the environmental and health sciences by the need to assess and evaluate evidence of environmental inequalities?

In addition to general questions around evidence (theme 3), there are specific issues for the use and basis of scientific evidence when applied to questions of environmental inequality. Despite many challenges, scientific evidence still has enduring authority and legitimacy, particularly in policy, regulatory and legal settings. Scientific practices and forms of evidence do consequently need to be interrogated as to how they address questions of distribution, and how they can be better utilised to investigate inequality and justice concerns.

In terms of interrogation it is necessary to ask if there are ways in which science currently fails to recognise social differences; if there are ways in which tools and techniques are being used which homogenise rather than bring significant differences between people and social groups to the fore; and if there are ‘failings’ or gaps in science which particularly relate to environmental justice concerns. This is largely uncharted territory, although Kuehn (1997) has developed a challenging line of argument around the ways in which the practice of quantitative risk assessment fails to recognise the greater vulnerabilities of various ‘sub populations’ arguing that *“quantitative risk assessment may prove to be more harmful to minority and low income populations than to other subpopulations and may result in even greater disparity of treatment”*.

There are also problems with standard approaches to environmental epidemiology investigating, for example, the health impacts of pollution, in which social class is treated as a confounder rather than a focus of study in its own right.. Here issues of differential susceptibility, which may mean those that are poor are also more susceptible to pollution impacts, are beginning to be more substantially investigated, although there are substantial methodological difficulties involved. Buzzeli (forthcoming) argues that there is scope within new approaches to health and air pollution epidemiology, to reformulate environmental justice research in ways which tie more closely to current work on health inequalities.

Accumulative and synergistic impacts are also particularly highlighted when there are already vulnerable, marginalized communities living in areas experiencing multiple environmental impacts and/or deficits. Methods of cumulative impact assessment are currently undeveloped and often reliant on simplistic models of what may be intensely complex processes and interactions (Stephens et al 2006).

- To what extent do standardised scientific practices and techniques such as quantitative risk assessment, epidemiology and environmental modelling take account of social differences of exposure, uptake and susceptibility?
- How should such practices and techniques be reformed to take better account of social differences and how these may influence health and quality of life outcomes?
- What methodologies can be used to account for and adequately represent accumulative and synergistic impacts? It is possible to conceive of a human equivalent to 'carrying capacity' or to use other approaches and concepts from the ecological sciences?
- What methodological questions are raised by the use of existing environmental databases in studies of inequality and distribution, and how can these be addressed through changes in data collection, analysis and reporting?
- As with evidence in general who has access to scientific resources and capabilities and influence over what is researched, measured and analysed and what isn't? How can access be equalised and enabled for more marginal groups?

Theme 5: Causation

What processes and policies create and contribute to the existence and sustenance of environmental inequalities?

Whilst gathering evidence of inequality is important we also need to understand how inequalities become, how they are produced and sustained such that some social groups (often but not always those who are already marginalised or vulnerable in other ways) experience environmental quality, access to environmental resources and influence over management processes to a lesser degree than others. Indeed for some concepts of and approaches to justice it is the fairness of the processes through which inequalities are created which matter, rather than the severity or pattern of the inequality itself (see theme 1).

Here questions of political economy, power and structure worked out within alternative theoretical framings can be drawn on to provide both historic and contemporary explanation as to why environmental inequalities exist and persist – at local/urban, regional and international levels. Insufficient attention has been given to such questions within the environmental justice literature, beyond something of an obsession in the US literature and movement with establishing discriminatory intent in siting and environmental policy. Heynen et al (2004) argue that whilst much of the environmental justice literature is sensitive to how power relations shape uneven socio-ecological conditions *'it often fails to grasp how these relationships are integral to the functioning of a capitalist political-economic system'* (p9) They make the case for applying an urban political ecology framework for understanding the ways in which the uneven distribution of power shapes socio-environmental conditions *"attention has to be paid to the political processes through which particular socio-environmental urban conditions are made and remade. From a progressive or emancipatory position, then, urban political ecology asks questions about who produces what kind of socio-ecological configurations for whom"* (Heynen et al 2004).

There are also particular questions to be asked about the ways in which the policies and practices of environmental management, planning and regulation may be contributing to

inequality. Research examining appraisal tools such as EIA and SEA used within decision-making processes has suggested that there is a social blindness in their methodologies and structures which means that regressive effects fail to be identified or taken into account (Walker et al 2004). Some techniques of economic intervention, such as green taxes, charging regimes and subsidies of various forms (carbon taxes, water metering) have significant distributive problems (Boardman et al 1999). Planning presumptions have historically been structured to protect areas of high environmental quality, whilst concentrating environmental bads together and is biased against poorly resource protest groups (McClaren 2006). The opening up of decision making to participatory processes may too easily result in interest capture, rather than inclusivity in the voices that come to the table and have influence (O'Neill 2001, Bickerstaff and Walker 2006). There may even be some instances in which charges of institutionalised discrimination could be levelled at environmental bodies, as they have in other areas of public life.

- What theories and frameworks can be used to understand how and why environmental inequalities and injustices are produced and sustained?
- To what extent do these theories and frameworks need to be distinct from others concerned with inequality and injustice?
- How can we reveal and understand the socio-environmental and historical processes through which particular cases of inequality have been produced?
- In what ways is policy (approaches, principles, tools, cultures) knowingly or unknowingly contributing to patterns of inequality and injustice?

Theme 6: Response

How can the non-governmental and governmental community respond to and address environmental inequalities/injustices?

Responses to environmental injustice are not solely a matter of policy and formal politics. Grassroots protest has been fundamental to the emergence of the environmental justice movement in the US and to the appearance of environmental justice as a principle of environmental government in the mid 1990s (Foreman 1998). Claims of inequality and injustice have continued to be powerful within strategies of resistance in other parts of the world. There are research questions to be examined here around the resources that are available and can be effectively deployed in campaigning work, including access to information and access to the courts and legal forms of redress (Macroy and Woods 2003) and the rights that need to be protected, particularly for marginalised groups. In Europe the impact of the Aarhus convention provides an under-researched focus for these issues. In terms of environmental citizenship there are debates over the extent to which justice forms a key driver of activism (Hayward 2006, Dobson 2006) and the ways in which low income, minority or culturally marginalised groups can become more involved in sustainability initiatives.

When considering policy responses these may be categorised in different ways. For example in terms of their objectives (Ikeme 2004) - preventative (preventing future inequalities), compensatory (providing benefits for those that take a disproportionate burden), corrective (addressing current inequalities) or retributive (punishing those who impose burdens on the

vulnerable). Or in terms of the approaches and tools that are used - legislative, regulatory, fiscal, participatory, area based etc.. Or in terms of the principles under which resource consumption allocations and rights should be allocated and policy constructed, particularly at an international level (fair shares, proximity principles etc..).

We currently know little about which objectives, approaches and principles are appropriate for or become deployed in different contexts and their relative strengths and weaknesses, but these are important for policy makers to take into account in making choices and developing policy strategies. Whilst adaptation of current tools might be possible, innovating to build inequality and justice into policy in new ways (Witney 2006), including through policy appraisal (Connelly and Richardson 2005) and participatory/deliberative approaches, should be an aim for future work.

- Which policy objectives, approaches and principles are appropriate for which issues and contexts?
- What tools can be utilised or developed to better take account of and respond inequality and justice concerns and where is innovation needed?
- How can joined up responses be achieved across government which can also work effectively with local groups?
- What conflicts and dilemmas are created for existing policy approaches and institutionalised practices?
- How can sustainability and environmental citizenship initiatives become more inclusive of all parts of society?

Theme 7: Transdisciplinarity

What are the disciplinary implications of seeking to understand and address environmental inequalities?

It is clear that environmental inequalities are not the preserve of any one academic or policy discipline, extending in academic terms across the social sciences (geography, sociology, philosophy, economics, politics, health) and into the natural and environmental sciences for evidence and understanding of human-environment interactions. Our first seminar in Lancaster had representatives of each of these disciplines as well as different parts of the policy community. This poses challenges for effective multidisciplinary and interdisciplinary working which are paralleled across policy institutions and actors that need to connect together and work in joined up ways to provide effective integrated interventions.

Transdisciplinarity, which is a particular tag for our seminar series we take as meaning researchers from different disciplines working together with others outside academia to solve problems. Environmental inequalities provides an appropriate focus for transdisciplinary research and interaction but also particular challenges around how those who experience environmental inequalities and injustices should become involved. Here participatory/action research methods in which communities are engaged through the research process – defining the problem, collecting data and finding/testing solutions – are attractive but rarely applied

(Deleemos 2006). Ethical issues and responsibilities to those becoming involved in research processes also need to be carefully thought through.

- How can the challenges of transdisciplinarity be best approached, what principles and practices can be followed?
- How can barriers associated with disciplinary and institutional silos, with the use of language, framing and concepts and with funding and evaluation processes be addressed?
- How can inclusive working, which is shaped by rather than distanced from the concerns and priorities of the people who live with inequality on an everyday basis, be achieved?
- How can a concern for transdisciplinarity be imbedded within each the discussion themes in this paper?

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